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T H E

CANADA MEDICAL RECORD:

A Monthly Journal of Medicine, Surgery and Pharmacy.

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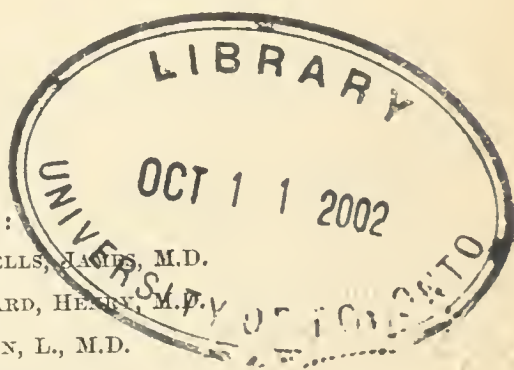
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Original Communications.

REPORT ON SANITARY SCIENCE.

By DR. BOTSFORD, of St. John, N.B. Read before the Canada Medical Association at its Meeting in Ottawa, September 1st, 1880.

In accordance with the request of the Association at its last meeting, I have the honor to submit a few remarks upon the subject of Sanitary Science, and in doing this will confine myself to the relationship of State legislation to hygiene, adducing a few facts to shew the result of wise interference.

Hygiene, as its derivation denotes, touches upon the health and soundness of the body, and it embraces in its consideration all the rules and conditions which tend to the well-being of men, whether these relate to the individual, to communities, or to a nation at large.

Hygiene refers rather to the physical conditions, and though these may be much influenced by the moral surroundings, and act and re-act upon them, yet the moral phase comes more under the consideration of another department, that of Social Science.

It is somewhat remarkable that man should have devoted so much energy to fathom the unseen and the spiritual, and yet only of late has directed his attention to the physical laws which minister to his health and happiness, or which undermine his

vitality and usefulness. With a strange fascination he endeavors to soar into the regions of the mysterious and leave unconsidered the tangible, which has so much to do with his daily life.

Many of us can remember how much time was devoted to the languages, ancient and modern, how much to mathematics, to natural philosophy, and how the relation of the body to what was touching it on every side formed no part of education: and even now our educational systems and institutions of learning are greatly deficient in teaching the hygienic conditions which envelope us.*

Subject of Question.	Attention paid.	No attention.	Doubtful or no response.	Per Centages of	
				pay attention.	Do which do not, or do not respond.
Public Hygiene	11	35	16	17.74	82.21
State Preventive Medicine.	4	39	19	6.45	93.55
Private Hygiene.....	23	25	14	37.09	62.91
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Centennial, Bowditch, p. 285.
23 Medical Colleges.

Public Hygiene	9	10	4	39	60
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* Results from 62 Colleges exclusive of Medical Colleges.

The cultivation of the laws of personal hygiene may well be left to the individual ; they will force themselves upon the notice of men as the progress of civilization gives clearer views of the requirements of life, and as a rule the individual will conform to the demands of what is expedient though this is often too woefully neglected. But whilst with the individual the general education may suffice to produce good results, it is otherwise with communities. We enter, in their case, upon a more complicated state. We have superinduced upon the personal rights the rights of property, and the rights and liberties of our fellow citizens. These must be consulted, and to accomplish an interference with private rights we must send for aid from the powers which make the laws for the general good.

Our first knowledge of what may be beneficial or what may be injurious will largely depend upon personal experience, and this gradually accumulating will form the basis of commercial action. But to enable a community to act and to avail itself of knowledge thus accumulated there must be power derived from and delegated by the general government.*

This delegated or compulsory power which is to be sought from the Legislature of a country will be granted in proportion to the hygienic knowledge attained by the members composing the body which makes our laws. And as we cannot expect a stream to rise above its source, so if among our legislators there is an ignorance of the conditions conducive to wealth, just in that proportion will they fail in their duty to their country. Looking at our law-makers we at once recognize them as persons who in their education were not thrown into contact with hygienic teaching. It did not form a part of the general education of their times, and however well informed in other respects, and however some few may and do keep abreast of the times in general matters, yet in the direction of hygiene there is much ignorance which shuts out a due consideration of its demands.

It is being too wise to be so far ahead of the times as to attempt to prematurely force upon a people things which under certain conditions may be right if not expedient. It is, however, far from

* But after a state has been formed it would seem to be one of its first duties, as the sovereign guardian of the lives and health of the people, to look into all the influences, good and bad bearing upon health.—Bowditch, Centennial Address, p. 641.

being wise to lag behind in the progress of civilization, and to allow communities and nations to endure loss of life, loss of property and loss of morality by ignoring the plain demands of duty.

It is not necessary to enter into numerous details to show the importance of the results involved in the adoption of sanitary legislation, but I will content myself with a few prominent facts in connection with it.

The following are taken from the 37th Report of the Registrar General of England, and are the results of accurate observation extending through a number of years, and cannot be looked upon as the guess-work of theorists.* The observations

* Thirteen districts of England and Wales, shewing some improvement in the annual rate of mortality in the three decades 1841-50, 1851-60, and 1861-70.

Number of District.	Name of District.	Registration County.	Population.		Average Annual Mortality.			
			1861.	1871.	Deaths to 1,000 living.			
					1841-50.	1851-60.	1861-70.	1871-74.
182	North Wichford .	Cambridge	14,791	15,585	27	21	20	17
183	Whittlesey	do	6,966	7,002	27	23	21	19
184	Wisbeck	do	33,309	34,209	25	22	20	19
189	Orsett	Essex	11,595	13,172	24	21	18	17
254	Salisbury	Wilts	9,039	9,212	28	24	20	21
279	Stoke Damerel	Devon	50,440	49,449	26	23	21	21
372	Wolverhampton	Stafford	126,902	136,053	27	28	24	24
393	Coventry	Warwick	41,647	40,113	27	25	21	21
446	Macclesfield	Chester	61,543	59,339	26	25	23	23
520	Hull	York	56,888	68,316	31	25	26	25
582	Newport	Monmouth	51,412	61,252	24	22	21	21
585	Merthyr Tydfil	Glamorgan	93,008	104,239	28	29	25	27
605	Creekhovel	Brecknock	22,457	20,147	27	25	23	23

* Much good may be derived from a study of the statis-

embrace 13 districts in different counties of England and Wales, extend over three decades from 1840-1871, and concern about 600,000 people. They show the improvement in the annual rate of mortality during the thirty years. The first decade, 1841-50, the rate per 1000 averaged 26.54. The second decade, 1851-60, it fell to 24.75, and in the third it fell to 21.76, or nearly 5 per 1000 less, or an annual saving of 3000 lives.

The report says: "The district of North Witchford (Cambridge) affords a striking instance of the important results that can be attained through health administration. The average annual mortality fell from 27 per thousand in 1841-50 to 21 in 1851-60, and to 20 in 1861-70. In the four years 1871-4 the results are still more remarkable, the mortality being reduced to 17 per thousand"—a saving of 150 lives each year in a population of 15,000.

"In Whittlesey (same county) a steady improvement in the mortality is also discernible, from 25 per thousand in 1841-50, to 19 per thousand for 4 years, 1871-4."

"In Wisbeck (Cambridge), in 1866, the town was supplied with pure water, and extensive sewerage works are now completed. The annual death-rate of this district has been reduced from 25 per thousand to 19 per 1000 in 1871-4. The great land drainage works have had great influence in improving the health of the inhabitants of the city." In the death rate from phthisis the average annual mortality per thousand in the decade 1851-60 being 2, whereas in the ten years 1861-70 it was reduced to 1.6, nearly 25 per cent.

upon the causes of the difference, whether it comes from race, climate, food, clothing or social habits.

Richardson quotes statistics taken from a work titled "Effective Population of the World :

"Of 10,000 children born in Norway 7,415 live to be 20 years of age. In England, 6,627. In United States boys have nearly as good a chance as in England, girls have not. In France 5,022. In Ireland 4,855, or less than one out of two attain that age." Out of the same 10,000 in Norway more than 1 out of 3 reach 70. In England 1 out of 4. In France 1 out of 8½. In Ireland 1 out of 11½.

"In Norway a larger proportion of infants survive than in any other country, and when grown up display the greatest power of endurance."

A 1000 years spent in the growing period produce 63 per cent. more of working life among the Norwegians than among the Irish, and 13 per cent. more than among American men.

—Richardson, Ministry of Health.

"In Orsetts (Essex) the remarkable reduction in the death-rate during the thirty years' 1841-70 is partly due to sanitary improvements, but mainly to the drainage of the land and consequent effects of different nations, and when these statistics differ an examination of the different conditions might throw light dryness of the soil. * In the 4 years 1871-4 the mortality was only 17 per thousand, and phthisis decreased from 2.8 to 1.9 in 1861-70.

"In the district of Salisbury (Wilts) before any improvements were made the annual death-rate in 1841-50 was 28 per thousand. In 1855 an excellent system of drainage was in operation, and the district supplied with pure water, so the annual rate was reduced in 1851-60 to 24 per thousand, and in the following decade to 20 per 1000.

"In Wolverhampton the annual mortality has fallen from 28 in the ten years 1851-60 to 24 in the four years 1871-4. In 1865 the town was entirely reseeded, and a more wholesome water-supply obtained, but much remains to be done to put Wolverhampton in a good hygienic state.

"Kingston-upon-Hull presents another example of the good effect of sanitary measures. The annual rate of mortality in the ten years 1841-50 was 81 per 1000."

An investigation shewed that the drainage was bad, and the water, derived from the river Hull, received the sewage of such places as Driffild and Beverly.

The local board incorporated in 1851 began sanitary improvements. From 1851-60 the mortality was reduced to 25. In 1864 the river water was abandoned and water from the springs of the Chalk-wolds introduced. The mortality from 1871-74 was 25 per thousand.

In the parish of Merthyr Tydfil, in South Wales, the results of sanitary works are thus recorded by Mr. Dyke :

1st. Before the works were	33
begun, eleven years, 1845-	per
55.	1000

* Drainage, Moisture and Phthisis.

Three-quarters of all these (his own) patients have resided where dampness of the soil is a prominent characteristic. Somewhat less than one-quarter have resided in dry places. Cent. p. 458.

Moisture of the soil is the only known characteristic which, as far as our investigations have gone, is connected with the consumptive breeding districts, p. 460.

The same conclusion was arrived at by Dr. Buchanan in England, who suggested that dampness of soil is an important cause of phthisis to the population living upon the soil.

2nd. During paving inspection and nuisance removal, 1856-61.	28
3rd. After the addition of water supply and during main drainage, 1862-65.	per 1000
4th. While drainage of houses was being effected, 7 years, 1866-72.	26
	per 1000
	25
	per 1000

Owing to epidemics of small-pox in '72, enteric fever '73, and contagious fevers '74, it rose to 27 per thousand.

It must be observed that, though these epidemics prevailed, the death rate was 6 per thousand less under such unfavorable circumstances, being a saving of 600 people annually in a population of 100,000.

The report further shews what under favorable conditions was the death-rate of two districts, Glendale and Rothbury, in which for 30 years, from 1840-71, the annual mortality was at the low average of 15 per thousand. In Rothbury a third of the population is employed in healthy occupations connected with agriculture. The district of Rothbury contains several large parishes. That of Alvington, with a population of 1,200, had a death-rate of 7.5 per thousand, and in 1874 only six deaths were registered, or a rate of only 5 per 1,000. In 1871, the birth-rate was 32.4, and only two deaths under one year occurred. True, these are very exceptional cases, and it may not be within the bounds of possibility to effect the same results, generally; they, however, demonstrate that these are disturbing elements which should be more or less eliminated by wise regulations.

We will bring to your notice one more fact, and that connected with Montreal, the largest city in our Dominion. According to the returns made in his excellent report by Dr. Larocque, the death-rate of that city during 7 years, 1872-8, averaged 34 per one thousand. And if there is no reason why Montreal should necessarily have a death-rate so much above other cities, then we must conclude that 1300 lives are annually sacrificed to ignorance and indifference on the part of some one.*

* The number of deaths in Montreal has been and still is large, and commented upon by Dr. Larocque, whose experience is similar to that quoted from Bowditch.

"A former physician of Boston used to say that Boston could be kept free from small-pox, if it were not for Maine immigrants. This assertion, though not strictly true, illustrates the utter inability of a State to defend itself in case one adjacent to it fails of its duty in regard to vaccination.

It is not necessary to accumulate facts for the information of this Association. Its members are sufficiently acquainted with the details of this subject. It is sufficient to say that the number of deaths which arise from imperfect knowledge of hygiene or a violation of its teachings, and which might be prevented by the introduction of wise and suitable laws, cannot be less than 10,000 annually, and I consider this to be a low estimate.

This undue mortality does not arise in our cities only, where people are crowded, and the causes of disease intensified, but will be found to exist in the country districts. Any one conversant with the habits and mode of life of our rural population, and the disregard of the conditions of health, will readily acknowledge this.

We would consider a drain of 10,000, from our country to swell the productive forces of another people as something to be deplored, something to be strongly commented upon by our guardians of the press or in politics, and yet there is little heed given to the fact that this number annually die in our midst unnecessarily, and to our public detriment; nor is this all: we must add to the loss from diminished numbers that which arises from a large amount of disease which should not exist, were it not for the depressing agencies at work.

The study of hygiene is not and should not be confined to one profession, though we are supposed to be, *par excellence*, the guardians of the public health, but should form a part of the general education of the people; and, as the regulations necessary to ensure hygienic conditions must proceed from the body politic, ignorance there will defeat any attempt to introduce compulsory rules, and we must first educate our law-makers to secure a thorough foundation for the general good.

When we take into consideration the subjects discussed in our Legislatures, the time devoted to maintain the rights of citizens in the smallest matters; when we calculate the relative cost and value of such debates (and we do not condemn

I see no remedy for this, save a National Act for compulsory vaccination." Cent. Add. p. 73.

"Of small-pox, which in the commencement of the centennial period (1776) spread like wildfire, carrying panic intolerable with it, we may say that only the folly of individual men, and utter neglect on the part of the State, or, as in Canada at the present time, the frenzy of bigotry and of base ignorance alone prevent us from extirpating the disgusting disease from the face of our portion of the earth."—Centennial Address, p. 93.

nor despise the watchful care of our representatives in such minor points.) ; when, I say, we consider the importance attached to these, or it may be, the time annually spent on the onslaught of the outbreaks upon the ins, the defence of the respective parties in every Legislature throughout the Dominion,—it is truly marvellous that hygiene should receive so little consideration. And, moreover, when we look at what has been, and is now, doing in the old country, it is strange, it is passing strange, that in this new country we should shut our eyes to the necessities of the times, and ignore, nay, reject, the experience of the Old World.

In accordance with a recommendation of the Association, a committee drew up a scheme for the registration of health.

1st. Shewing the information which it was proposed to obtain. 2nd. The method by which it was to be obtained. 3rd. How it might be utilized. 4th. The benefits which would be derived from it. 5th. And that the cost would not exceed \$5000. I wrote to a Senator requesting his support to this scheme if it should be brought before the Legislature. His reply was most favorable as far as he was personally concerned, but stated that, though the subject was "of great importance" "some of its members think there is too much legislation."

Why, Mr. President and Gentlemen, the State of Michigan puts to shame the apathy of our Dominion. In that State, with a population of 1,200,000 in 1870 they are carrying out a system of returns which will enable them to solve many of the questions connected with the vital problems of the country. Not merely is the profession engaged in it, but hygiene has become a State movement, and I hold in my hand a report, the seventh issued by the "State Board of Health."* And yet in our Dominion, with a population of 4,000,000, there, has been no general action taken.

It is true that Quarantine has been recognized. Even in the Province of New Brunswick, ninety years ago, laws respecting infectious diseases were enacted, boards of health were provided to enforce quarantine. Houses could be entered, and people removed to hospitals, vessels placed in quarantine and funds provided when necessary. All this was done in the case of infectious diseases, which, being

palpable and visible in their results, made men anxious to stamp them out. They acted up to their knowledge. And yet there are the unseen agencies at work which are destroying yearly, nay monthly, more of our people than any open plague wasting at noon-day, and it is because men are unconscious of the pestilence that walketh in darkness that no efforts are made to combat with the insidious enemy.

In New Brunswick we have a residence for our Governors, built at a cost of about \$100,000, and with annual expenses of from \$5000 to \$8000. Last year one Governor died unexpectedly, and other members of his family suffered from sickness. This year our present Governor barely escaped with his life. The cause was very evident: the building was foul with sewage-gas, and, though there were drains originally, they were choked and never had been protected by traps against the return of gas.

As a profession we have clearly and frequently brought this subject of vital statistics before the country, and no blame can attach to us if efforts are not being made to do away with the annual loss of 10,000 lives. Yet as citizens we have to blush for our Dominion, which either from ignorance or wilfulness neglects to grapple with this momentous question.

A system of vital statistics is necessary to enable us to ascertain the death-rate of a people.* It enables us to ascertain the localities where it is in excess, it enables us to ascertain the causes which lead to that excess, and it enables us to apply such remedies as will do away with noxious elements. Such a system involves no violation of private rights but such as the individual should cheerfully surrender. It trenches upon none of any section of society but which should yield to the public good. It does not interfere with the moral, the spiritual or ecclesiastical regulations of any body of men. It asks for data respecting marriages, births, deaths and the causes of death, and left undone throws the responsibility of the unnecessary sacrifice of 10,000 lives upon those who oppose and those who refuse the necessary legislation.

I repeat that as a profession our garments are clear, but as members of a general self-governing

*The State Board of Health "shall from time to time recommend standard works on the subject of hygiene for the use of schools of the State," by Act of 1873. Mich.—State Board of health. P. 5 and 6

* "Until accurate registration of vital statistics is thoroughly carried out, it obviously will be impossible to have an efficient system of State preventive medicine."—Centennial Address, p. 67.

people the blood of 10,000 human beings lies at our door.

In conclusion, I would direct the attention of the younger members of the profession to the splendid field which is now open to some one of them. I know of no other in which a man may attain a similar prominence. The subject of preventive medicine, inasmuch as it strikes at the very roots of disease, must in the future be associated (in this Dominion at least) with any man who brings to a successful issue the principles involved in it. To a general culture he must add large professional attainments, and then be content with a life of hard work, little remuneration and much obloquy. But if he has the strong will to sacrifice self and present prospects he may attain to prominence among his fellows. Most certainly will his memory be associated with his work after generations have passed away, and he will be remembered by his country when there will be none so interested as to brush the dust from the inscriptions which record the birth and death of the most prominent among us.

THE AFTER-TREATMENT OF OPERATIONS, AS REGARDS THE APPLICATION OF CARBOLIC ACID TO THE WOUND.

By DR. C. E. NELSON of New York.

I believe it is generally conceded that when any new *modus operandi* is floated in the medical world, members of the profession are permitted to relate their experience of and views concerning it in the journals that are set apart for the use of the profession. Being a private practitioner, I have not the field to investigate in that is afforded in a hospital, still, having seen and practised surgery more or less for seventeen years, I would like to offer my quota (such as it is) on the use of carbolized applications to surgical wounds.

Before starting out on this paper, I would like to premise (especially for the younger readers), that when a new treatment has been supposed (or even shown) to be generally successful—the idea is no other treatment can possibly succeed in the same class of cases—such is the opinion of a large number of medical men; and this has never been so much exemplified (in all medical history) as in this present instance of the use of carbolic acid.

That thousands of wounds have done well, and healed quickly without the use of carbolized

applications nobody will deny; this has been attested down through all the ages, as any person can see for himself if he consult the celebrated authors of those times. In our own time, and in all countries, surgical practitioners can recall many (dozens) of their own cases that have healed quickly and done well (no pyæmia, or other complications occurring) *without* the use of carbolic acid.

The “points” of carbolic acid, according to those who favor its use, are (I) that one can almost surely count upon terribly bad wounds getting rapidly well, in almost the same time as simple wounds under ordinary and previous treatments; (II) that wounds and compound fractures which might frighten a surgeon, in regard to prognosis, are simplified and rendered easy of treatment by the above-mentioned agency. As a deduction from this latter, or rendered in a sub-paragraph, (III) that there is little or no danger of pyo-hæmia being apprehended then. (IV) That then there would be no danger of other patients’ wounds in the same ward being infected. (V) That this is a short, easy and royal road to preventing and putting a stop to erysipelas, erythema, and other cognate blood diseases; and that lastly (VI) the time of healing surgical wounds is thereby materially, if not vastly, shortened.

I think I have placed these “reasons” in the order of their importance to the surgeon and the patient. Let us now dispassionately view the field, and see how many of our forces (our six regiments I may say) we can count upon.

(I)

This first section treats of a very wide field, almost appalling in its vastness—and what young fledged beginners shall say, that *he* knows, not, as much, but more, than the celebrated men who have gone before, and who are even his contemporaries?

Instead of wearying the reader’s patience with writing pages on this section, I will proceed to the

(II)

The ideas and facts comprised in this section, also comprise a large intellectual field; here, I am sorry to say, I shall be obliged to dwell a little.

Take, first of all, the compound fractures, which fifty years since would have been adjudicated upon as proper subjects of amputation [let me admit, please, in the premises, that carbolized appliances answer as well as anything hitherto has, or, perhaps, even better]; supposing there were no

carbolic acid what would we do. After putting up the limb, secundum artem, extracting foreign bodies if we thought the arterial circulation were not too far damaged, we might follow one of two practices : (A) seal up the wound, from the outside air, or adopt certain devices, to keep the wound in (what wedoctors call) a "healthy condition."

A

Sealing up the wound.—This manner has been known and practised from time immemorial ; there are very many ways of doing it ; by pouring in balsamic preparations ; preparations of white of egg ; washing with wine, etc. This is old-fashioned, but recently, a Scotch doctor made up a compound, poured it into his compound-comminuted fractures, and declared it acted marvelously ; Richardson, of London, says he can do as much with his styptic colloid (this controversy occupied the London journals for a long time). Many of us know that collodion, poured upon a wound, as well as a cut, will ensure, in many instances, a complete cure ; a rag or piece of lint dipped in blood often acts in a very satisfactory manner ; and to this end all the old-time compress and bandage treatment.

(B)

Other means, practised formerly in hospitals, as well as in private.—A very important point is what is termed cleanliness," *i. e.*, not allowing pus and other secretions to collect to too great an extent on a wound ; to this effect were devised frequent changing of wraps, frequent wetting with water, or medicated lotions ; changing often the rags ; substituting French charpie for English lint ; using tow to absorb the pus ; irrigating the wound from a height by a wet strip of rag, from a pitcher, as I have seen, etc.—Thus, have many brilliant cases been secured, without the use of carbolic acid.

(III)

As regards pyœmia, this might be regarded as a corollary from the preceding paragraph ; but, in my opinion, "pyœmia" depends very much on the surgeon who conducts the case.

(IV)

Danger of infection.—If carbolic acid acts as a useful disinfectant it certainly should be used.

(V)

Cuts short all blood-infecting diseases.—This remains to be seen ; a good deal can be done in this way, by *isolating* the cases ; but still, in a

hospital, where time and trouble are important factors, it would be well to try it—although I think that a good, smart doctor might steer his patients through, without any blood complications.

(VI)

Time of healing.—This, I certainly and most emphatically deny. I could cite (like many others) any number of cases that have been healed in as short (or shorter) time than was ever seen under carbolic acid.

I don't like speaking about myself, but, by way of illustration, to-day I removed the wraps (dressings) for the first time, of a case of cancer mammae, which was removed *six days* ago : at time of excision no ligatures of vessels, no sutures, and no sponging were employed ; to-day, when I turned back the wraps, not a sign of redness of flaps, or surrounding parts ; no ecchymosis ; there had not been a drop of secondary hemorrhage, or even venous oozing ; and, on pressing point of finger, centripetally, from three inches from incision towards incision itself, *not one drop of pus* could be made to exude : all this in six days ; and the line of incision seemed (by the "pulling" test that I employ) to be perfectly healed ; however, for the surety, the plaster-strips, compress and bandage (no water or carbolic acid) were left on for two or three days longer, when I expect a complete cure by agglutination, without any external devices. [I might diverge here into (1) the employment of sutures, (2) sponging, etc., but refrain.]

I may, parenthetically, remark, that no drainage tubes, horsehairs, syringing daily with carbolic acid solutions, counter-openings, were made use of.

A SURGICAL CASE, OF SEVERITY, TREATED WITHOUT THE INTERVENTION OF CARBOLIC ACID.

By C. E. NELSON, New York, Oct. 3, 1880.

I timidly venture to send the following case to the journals, interesting to a certain extent, in two ways, (1) showing the recuperative power in a patient's own self (or in other words "conservative surgery"—another phrase for letting things alone), and (2) that a severe surgical case, where death was expected in a few days, *can* be cured without the intervention of carbolic acid.

Miss George, a rather portly lady, 75 years old,

while closing an outside shutter (blind) one windy night, had it catch her on the back of her hand. Thinking it a small matter, she applied simple things, but, in a fortnight's time, the hand was in such a serious condition that a doctor (namely, myself) was sent for; the condition was as follows (July, 1880): erysipelas (intensely deep red color) of hand and forearm, almost up to elbow; swelling of hand, semi-œdematous, more on the back than in the palm; had had shivering, previously; now a slight fever, great weakness; mind tranquil, but evidently averse to any exertion that was not strictly necessary; a good deal of pain, but, as she bore pain well, bystanders did not think she suffered as much as was really the case.

The case was one evidently of phlegmonous erysipelas; I told her I thought the only thing to be done was to make good incisions. The night (10 p.m.) of that same day, I took up my old friend Dr. Sheppard (of thirty years' large practice, both surgical and medical), who gave chloroform, while I made one incision on dorsum which, according to him would empty out the whole thing; but my opinion was that three or four incisions would be necessary. We left her, he telling me that she would not live more than four days; it certainly looked bad.

In about three days as that incision had done no good, no pus having come out, I took him there again, patient anæsthetized a second time, and I effected four good (*i. e.* very deep and long) incisions over the metacarpals, merely on the dorsum; then applied a common poultice (although I do not like poulticing as a general rule), telling her at the

time her life was hanging by a thread; after this, pus exuded in abundance, but did not seem to relieve her condition; some nights she was flighty. I then intimated to her that, although she might get well, the chances were against her, and that I should consequently advise amputation of forearm (as I did not wish to get blamed, although I had a little inkling in my own mind that she might possibly pull through): to this she would not consent, preferring death unmaimed; I answered "very well, you will have to die." Now for the treatment and the anatomical condition of the hand. In about ten days or so, I left off poulticing (as I am not in favor of that mode of treatment if one can possibly do without), and kept hand wet with double rag, dipped in dilute nitric acid lotion (hospital strength, of old fashioned times—20 years ago) every hour, as it was intensely hot weather, and the wraps soon dried—temperature of circum-

ambient air was between 90° and 100°. The poulticing had the effect of causing the whole top (dorsum) of the hand to slough off, nothing to be seen but the tendons (of the extensors). For the first few days, dorsal veins of hand (venous arch) were still discernible; they then shrivelled, and finally sloughed away, like the other tissues. Now, here was a practical question: if she got well, what use could she expect of her hand; and, another, where was the skin to come from with which to cover the same?

I was then taken sick myself, and did not see her for some weeks afterwards, when I found that the natural skin had stretched (or relaxed) over back of hand, and in centre was a longish red cross (cicatricial tissue) which will very likely soften, and get paler, inside of a year.

Her arm and her life were saved; and I should suppose if there ever were a case where carbolic acid would be tried, this would be one of them.

The motions of her fingers are still limited, but will doubtless improve in time. During my attendance, the smell from the hand was perfectly terrible—yet even so, I did *without* the carbolic acid.

Correspondence.

To the Editor of CANADA MEDICAL RECORD.

SIR,—In reading the *Star* the other evening, I noticed a paragraph describing an operation performed by a surgeon of this city. The operation was so described, and the description given of the tumour so minute, that, were it not for the *well known* aversion of the operator in question to public puffing, one would have supposed he had given the details to the reporter.

This, following so shortly after a similar puff of an operation performed in one of our hotels, makes one think that the practice is in quite accordance with the rules of Medical etiquette.

Perhaps these rules are meant only to be applied when the older men are giving wise lectures to the younger fry in what they should or should not do; much in the same way that some parsons tell their parishioners, "don't do as I do, but do as I tell you." In a good many instances, this appears to have been the custom in this city.

If a younger practitioner should be guilty of allowing his name to appear in connection with

an operation, he would be condemned as unprofessional, but those who should set the example appear to enjoy an immunity from blame.

It would be well, and at the same time it would avert suspicion, if any surgeon, under the same circumstances, would caution his friends and admirers, that such puffing is excessively annoying, and partakes of quackery. Not only does it give a bad example to younger men, but the public also have a vague suspicion that self-advertising lurks somewhere beneath the surface.

Yours truly,

CRITIC.

ANTISEPTIC SURGERY *vs.* LISTERISM.

To the Editor of the CANADA MEDICAL RECORD.

DEAR SIR,—In your excellent report of the discussion which followed the reading of Dr. Hingston's paper on the "Treatment of Surgical Wounds," at the meeting of the Canada Medical Association, I am reported as saying, that I "had confidence in antiseptic surgery." This is quite true; but to the casual reader it might be regarded as endorsing Listerism. Nothing could be more opposite to my conviction and belief, in fact, my knowledge. On this point, as on almost every other, Dr. Hingston in his most admirable essay exactly expresses my views. To carry out Dr. Hingston's principles is to practice antiseptic surgery on correct physiological grounds, and not on visionary theories of germ putrefaction. In fact I have little patience with those who, availing themselves of the teaching of Hilton, Poget, and I may add of Gamgre and others, and by securing the requirements, by a *hocus pocus* proceeding necessary to allow nature to do his work of healing and restoration of tissue, endeavor to make it appear that it is by the use of germicides and the exclusion of germs that success is secured. Listerism disports itself in the robes of antisepticism; but the latter is founded on physiological and pathological grounds, while the former is a passing fashion in the practice of our profession, meanwhile beneficial to the inventor and retailers, but only ephemeral, like all fashions.

In respect to the organization of a blood clot which it is claimed Listerism will secure, I remarked that when a clot did become organized, it was not blood but fibrin colored by haematin. This I have often seen take place under the

antiseptic treatment of *rest, ventilation and cleanliness.*

Yours very truly,

WM. CANNIFF, M.D., M.R.C.S.

TORONTO, Oct., 1880.

Progress of Medical Science.

TREATMENT OF GONORRHOEA.

Dr. Law, of Greeley, Colorado, recently recommends the following:

R Tannici acidi..... 1 ounce.

Aquæ puræ..... 6 ounces.

Mix. Sig. Inject as specified.

Introduce a number six or seven catheter beyond the point of soreness in the urethra, having had the patient urinate first, for the purpose of washing out the accumulated matter; direct him to make firm pressure on the tract of the urethra beyond the point of the instrument. Now take a common rubber bulb syringe, and by means of a bit of elastic rubber tubing, connect the catheter and syringe, and wash out the urethra with cold water, in a thorough manner. Press the syringe bulb with force, so that the return current of water will flow out at the meatus, around the catheter, with considerable force. Finally inject the tannin solution in the same way. Repeat twice a day, gradually weakening the solution of tannin.

With this plan faithfully carried out, the doctor claims that the disease rarely, if ever, passes beyond the original site of the fossa navicularis—may sometimes be actually cured in three days. Stricture in the membranous portion of the urethra is thus avoided, because the disease is not allowed to invade it. If the urine is acid and irritating, he orders alkalies, as bicarbonate potassium, etc.—*Philadelphia Medical Reporter.*

EFFECT AT A DISTANCE.

A correspondent writes to the *British Medical Journal*, relating the case of a female patient who "was never troubled with after-pains." When asked how she prevented their occurrence, she said that, in accordance with the advice of a "woman from America," she had, during her last two labors, put some steel, in the shape of carpenter's tools, under her bed, and had had no after-pains, though formerly she had suffered very much. The correspondent relates a parallel case, that of an old lady subject to cramps in the extremities at night, which she prevents by having a piece of rock-sulphur placed in her bed. If this is removed, even unknown to her, she is sure to suffer. "So much is now written about metallo-therapy," says the correspondent, "that if any of your readers can give an explanation of the above cases they will oblige."

THE PROPHYLACTIC WASHING OUT OF THE UTERUS WITH CARBOLIC LOTION AFTER DELIVERY.

Professor Stadfeldt, of Copenhagen, contributes a paper on this subject to No. 7 of the *Centralblatt für Gynakologie*, 1880. He states that the previous communication in No. 5 of the *Centralblatt* (reported by us in the *Medical News and Abstract* for May, 1880, p. 302) led him to communicate some observations on the application of an antiseptic treatment modified to suit lying-in women. The author has employed this method since 1870 with ever-increasing energy, and communicated a paper on "Maternities, their Organization and Administration," to the Brussels Congress, in which he publishes his experiences. In that communication the author was able to state, that in the quinquennium 1870-74 the mortality in the Copenhagen University lying-in institution had been reduced to 1 in 87, whilst the majority during the three previous quinquennia varied from 1 in 37 to 1 in 14, and had at no single quinquennium during the long existence of the institution been nearly so low. The relation is still more favorable in the last quinquennium 1875-79, since of 5098 lying-in women only 44 died of puerperal fever, i. e. 1 in 116. This result the author considers more favorable than can be presented by any similar lying-in institution which receives patients from all the hospital quarters of a town, as well as from the workhouses, in which primiparæ are decidedly in the majority. The author contends, that not only the mortality but the morbidity of the patients is diminished by the antiseptic precautions. The method adopted by the author is methodical washing out of the vagina before delivery, the application of carbolic vapor spray during the delivery, and intra-uterine injections with carbolic lotion after delivery. The author expresses his astonishment that the application of carbolic spray has found so little acceptance in lying-in institutions, stating that in the Copenhagen Maternity it has been four years in use for every labor, without having caused any injurious results to mother or child. He states, also, that its application causes so little trouble that he cannot see why a method so reasonable for a lying-in institution should be summarily pushed aside. The spray must be commenced from the moment when the parts of the child begin to show themselves at the vulva until any tears which may have occurred during the delivery in the vulva are united by suture, and the genital opening is covered with a layer of prepared jute. The intra-uterine washings after delivery have been found specially beneficial under certain conditions, although he has only used three p. c. solution, but in large quantity. He has never observed any evil results from these injections in hundreds of cases. He does not recommend

such injections in every case, however, but only when the hand or instruments have been introduced into the passages, or when remains of membranes have been retained in the uterus. A brief account of twelve cases is given in support of the advantage derivable from the use of intra-uterine injections.—*Edinburgh Med. Journal*, June, 1880.

QUINIA IN OBSTETRICS.

A correspondent of the *Louisville Medical News* says that, in his experience, puerperal fever, abscess of the breast, phlegmasia dolens, and the like, may be prevented with almost absolute certainty by the administration of quinia prior and subsequently to childbirth. Iron is often a valuable ally of quinia, and should be used freely.

ON THE CEREBRAL SYMPTOMS PRODUCED BY IMPACTED CERUMEN.

By WILLIAM A. HAMMOND, M.D., Professor of Diseases of the Mind and Nervous System in the University of the City of New York. (Read before the New York Neurological Society, November 4th, 1878.)

There is nothing new in the fact that impacted cerumen in one or both ears is capable of giving rise to notable disturbances of cerebral and nervous action, but the circumstance does not seem to have attracted the attention it deserves, except perhaps so far only as the sense of hearing is concerned. Kramer* does not even mention the existence of any brain symptoms in connection with the disorder in question, though specially detailing those exhibited as the result of noises in the ear.

Toynbee†, however, is more explicit—he says:

The symptoms of a collection of cerumen in the meatus vary according to the nature and position of the mass. Sometimes the whole of the meatus is distended by cerumen, the inner end of which lies in contact with the outer surface of the membrana tympani of which it forms a cast. In these cases there is often giddiness, from the pressure on the chain of ossicles. The symptoms of pressure on the brain are familiar to most surgeons, but it is not generally known that pressure on the contents of the labyrinth produces somewhat analogous symptoms. A mass of cerumen may force inwards the membrana tympani and the chain of bones until the base of the stapes is pressed against the contents of the vestibule. In some cases of this

* The Aural Surgery of the Present Day; New Sydenham Society Publication, 1863.

† The Diseases of the Ear, their Nature, Diagnosis and Treatment. American Edition, 1860, p. 80.

nature, constant attacks of giddiness occur; in others there is a confusion of ideas and an inability to walk straight, and in a third class there is a feeling of weight and pressure on the head. These symptoms are often combatted by the use of counter irritants and depletion; but the only proper remedy is the removal of the accumulation.

The author then cites several cases in which cerumen had accumulated in one or both ears, in only two of which, however, were there any cerebral symptoms.

Roosa* states the prominent symptoms of inspissated cerumen in the ears to be sudden impairment of hearing, tinnitus aurium, vertigo and pain in the ear, subsequently he says on the authority of Prof. Mayer, that mental hallucinations have in rare instances been relieved by the removal of inspissated cerumen, and then makes the following interesting statement: "I once saw a lady who, though not regarded as a person of unsound mind, seemed to be such, and who complained greatly of tinnitus aurium in all its varieties. I found the ears full of impacted cerumen; but she utterly refused to allow me to remove it and I never saw her but once. It would have been very interesting to show the effect of the relief of the tinnitus upon the mental hallucinations of which she seemed to be a victim."

With this very brief reference to aural authorities, I pass to the consideration of several cases in which notable cerebral symptoms were the immediate result of impacted cerumen.

Case I.—Miss C., age twenty-seven, consulted me Sept. 11th, 1866. I found her suffering from vertigo, pain in the posterior region of the head, insomnia, profound melancholy, and hallucinations of hearing. These latter were of a marked character and were scarcely ever absent during the time she was awake. They consisted of voices which whispered to her words of an exceedingly terrible import, such as "You have lost your soul. You have committed the unpardonable sin. You are too vile to live. Go and kill yourself," etc., etc. Sometimes the sentences were much longer, and occasionally long speeches were apparently made to her. More frequently, however, there was for hours the repetition of some one assertion of her total depravity or an order to destroy herself.

Though at first recognizing the hallucinatory character of these words, the idea of their reality was gradually forced upon her, and they therefore became true delusions. She began accordingly to conceive it to be her duty to act in accordance with the advice she believed herself to be constantly receiving, and hence she made a determined effort at suicide by plunging a pair of scissors into her neck. Fortu-

nately no serious organ was injured, and vigilant watching prevented a repetition of the attempt.

Previous to her coming under my notice she had been subjected to vigorous medical treatment, consisting in the main of cupping and leeching, blistering, purging and the administration of bromide of potassium in large doses. None of these measures were of any avail. Under the idea that there was uterine trouble, and that the cerebral symptoms were of reflex character, she was sent to an eminent gynaecologist, who, however, declared her generative system to be in good condition.

My attention was at once attracted to the ears by the statement made by her mother, that at first there had been some difficulty in hearing, though after a little while this had disappeared. I therefore, began my examination of the ears, and at once found that both meati were obstructed by large plugs of inspissated cerumen. These I softened by the introduction of a few drops of a solution of bicarbonate of soda in glycerine, and the next day by injections removed from the ears masses of cerumen as large each as a marble. The patient was then kept quiet for the remainder of the day, and at bedtime the sixth of a grain of morphine was administered hypodermically so as to insure a good night's rest. On awakening the next morning she announced an entire freedom from dizziness, and that the voices whispering to her were at a greater distance than they had been. The delusions, as to their reality still, however, continued. During the day the pain in the head disappeared, as did also the voices. Little by little the force of the false beliefs was lessened, and after a few days there were no further abnormal, mental or physical symptoms.

Case II.—I. K., a young man, twenty-two years of age, came under my observation January 20th 1870, suffering from severe vertigo, noises in the ears, deafness, and intense mental depression. These symptoms had come on suddenly six days before, shortly after a cold bath in which the water had entered the ears. His expression was one of great anxiety; there was an apprehension of impending evil, and he walked the floor of my consulting room with a staggering gait, his hands pressed to his head, and tears running down his face.

On examining his ears, which I was induced to do mainly from the facts that there were pain, tinnitus, and vocal resonance in addition to the special cerebral symptoms, I discovered that both auditory canals were obstructed with cerumen. A few syringes of warm water removed this, and the symptoms almost immediately disappeared.

Mr. X, a lawyer of Brooklyn, consulted me about three years since for hallucinations of hearing, together with vertigo, pain in the head, confusion of ideas, insomnia, and frequent

* A Practical Treatise on the Diseases of the Ear, etc. New York, 1873, p. 147.

flushings of the face from which he had suffered for several weeks. On his way to my house he heard voices apparently saying to him "What is the use of your going to a physician? You are of no use in the world. Go and jump into the river. Jump off the ferryboat; jump, jump, now; at this very instant," and so on. He stated that it was impossible for him to follow his profession, for that the voices interfered to the extent of preventing his clearly distinguishing what was being said in his presence. Even as he was talking to me the hallucinations of hearing were present in full force.

These voices did not actually impose upon his intellect, but he stated that he was conscious of a gradually increasing inability to resist accepting them as realities.

Although there were many of the symptoms of cerebral hyperæmia present, I was induced from the fact that the disorder had come on immediately after bathing in the ocean, during which water had entered the ears, to examine these organs in the very beginning of my interview. Both ears were found full of inspissated cerumen. This was thoroughly softened by the solution of soda in glycerine, and removed by syringing with warm water. On the instant the voices ceased and the patient left, feeling as he said entire relief from his annoying symptoms.

I heard no more of this patient till about two months afterwards, I read in the newspapers of the day that he had been violently abusive in court of the judge on the bench, and had been punished by fine and imprisonment for contempt, and soon afterward his wife called to tell me of the trouble into which her husband had gotten. As she explained it to me he had imagined that the judge was calling him names and cursing him, and had replied in like manner. I had no doubt that there was an accumulation of cerumen, and that the hallucinations of hearing had returned in so aggravated a form as to convince the intellect of their reality. A letter from me to the judge secured his release, and on his visiting me I found my suspicions confirmed. The impacted cerumen was removed, and so far as I know there has been no recurrence of the disorder.

These are only a part of the instances in which impacted cerumen has caused cerebral symptoms that have fallen under my notice, but they are typical, and nothing would be gained by detailing the others.

As regards the cause of noises in the ears I have no information to offer except to state that it is not the mere stoppage of the external meatus by impacted cerumen, for such closure does not give rise to any subjective sensation. It is true that if the canal be stopped by the finger a sound is heard, but this is derived entirely from the body, and is probably from the action of the heart, the circulation of the blood through

the tissues, muscular contraction, etc. A cork or other substance put into the ear so as to close the canal and left there without being held by the hand does not give rise to any sound. If, however, the fingers hold it in place, it transmits the sound from them as would any other solid substance.—*N. Y. Hosp. Gazette.*

LONDON LETTER.

Perhaps the most interesting communication made to any of our societies lately is that of Dr. Matthews Duncan to the Medical Society, on *Antiseptic Midwifery*. So important was it, and listened to with every attention by a distinguished audience, that an abstract of it may be acceptable to your readers. Being a great personal friend of Prof. Lister's, having left the northern metropolis at nearly the exact time Prof. Lister turned his steps southward, it might *a priori* be surmised that Dr. Duncan would be an advocate of the antiseptic plan of treatment. Consequently a large number of practitioners came to hear, and also to learn how antiseptics are applied to every-day midwifery. Dr. Duncan commenced by saying that there is no subject which excites more professional interest or more interest among the general public than that of puerperal deaths. A wife, the mistress of a household, the solace of her husband, the proud mother of a number of happy children, is suddenly snatched away after an auspicious event. There is something so sad about such deaths that all would welcome with heartfelt joy any plan which promises to lessen such disastrous events. Puerperal deaths own various causes, but by far the most frequent and prevalent causes are septicæmia and pyæmia. Both these diseases involve or imply inflammatory processes, and both are essentially septic. It is against them that antiseptic midwifery wages war, and in which, he said, it had already achieved great success. The object of the paper was to spread and diffuse further knowledge on this important matter, and to stimulate further inquiry into it, with a view to the more general adoption of the beneficent antiseptic methods. Already, said Dr. Duncan, more pain is prevented, more life saved by antiseptic methods than by all the recent improvements of modern midwifery combined; and there is no prospect half so bright and encouraging as that held out by the general adoption of the antiseptic treatment of the parturient condition. And, it is certain, all fervently wish that these high hopes may be realized. He would not, he said, proceed to discuss that division of the subject, the treatment of the blood by which the fermentation or sepsis is carried throughout the organism, as by the use of hyposulphites, introduced by Polli, of Milan. He would

confine himself to the consideration of the local use of antiseptics. He pointed out that the healthy lochial discharge of some women approached in smell and odor putrefactive discharges, so that it was not always possible to discriminate them; but in all doubtful cases it was well to treat them as if putrefactive. The putrefying lochial discharge may find its way directly into the blood by the uterine sinuses, or be taken up by the lymphatics: in either case a state of blood-poisoning, or septicæmia, is set up. The removal of all putrefying material is essential to the arrest of this blood-condition. The antiseptic measures to be adopted consist of the removal of the offending material by the obstetrician's finger, or a pair of forceps, previously covered with an antiseptic. In some cases it becomes necessary to introduce the hand, which should previously be carbolized, by being smeared with the ordinary carbolic acid and oil mixture. By such treatment of the hand preparatory to its introduction into the female passages, two ends are attained. If there be no great amount of putrefaction present, the hand thus treated carries with it no danger of leaving putrefying matters, or germs, on the bared surface; while on the other hand it is a means of applying an antiseptic to a surface on which a putrefactive process may be actively progressing. Then as to injections into the uterus, he advocated carbolized water and the gentlest possible force sufficient to throw the fluid into the uterine cavity. Neglect of these precautions might lead to the introduction of air or fluid into the uterine sinuses, and produce baneful results. To secure gentleness of pressure, it was of the first importance to have free and sufficient exit for the fluid injected, and often it became necessary to use a double canula. The running out should be carefully watched, and the moment the outflow ceases the injection should be stopped. He did not agree with those who advocated the leaving of the intra-uterine tube *in utero* to act as a drainage-tube. If antiseptically plugged, it no longer acted as a drainage-tube, and not so plugged it was a source of danger in itself. To secure gentle pressure it was well to have a long tube, so that the fluid could be held above the patient; but it should not be raised to an undue height. A warm carbolic lotion of the strength of one in fifty was useful. About half a pint or a pint should be injected at once, and the uterine cavity should be washed until the fluid returns clean. It is not desirable to have too frequent daily injections. Such irrigation might be desirable in some cases even when no putrefaction was present. I am not now engaged in midwifery practice, and never lost a patient in the parturient or post-parturient state, but I can remember a number of cases where the lochia became offensive, where such irrigation would

probably have given much comfort to the patient and those in attendance upon her. There was a certain risk of the carbolic acid producing poisoning of its own in certain cases, but Dr. Duncan said that the production of dark-colored urine merely was quite unimportant. At times more serious symptoms were produced, as shivering, cyanosis, and a weak and fast pulse. So far as he knew, no fatal case had yet occurred.

The great modern improvement in antiseptic midwifery was the prophylaxis of puerperal septicæmia or pyæmia. This subject could be divided into the prevention of danger from within and of danger from without. In addition to the most scrupulous carefulness as to perfect cleanliness about the parturient woman, in different Continental schools, they had adopted the plan of using carbolized ointment for smearing the finger previous to its introduction into the vagina, and systematic carbolized irrigation of the uterus after parturition, with most excellent results. As to the use of the spray in labor, at the moment of the birth of the child, it had been attempted, but was found to be very troublesome. The spray had been tried in the performance of Cæsarean section, as it had in the operation of ovariectomy, with good results. It certainly seemed very desirable that the spray should be used for the treatment of the abdominal as well as the uterine incision; but the drawback here was that, in spite of all care on the part of the operator, septic material might find its way into the uterus through the natural passages. Returning to the subject of antiseptic midwifery, he said that now it was comparatively easy for physicians and nurses to keep themselves medically clean, and that the danger of puerperal septicæmia being carried by the medical man, and nurse, from one patient to another was much diminished,—an expression of opinion which elicited some adverse comment from Professor Playfair, who advocated the old plan of refraining from midwifery for a time, when it was found that one case of puerperal fever followed after another. Dr. Duncan pointed out that if this principle was carried out to its logical conclusion the general practitioner would have to abandon all his other practice if he, by any oversight, saw a case of scarlatina.

If a piece of membrane or placenta was retained in the uterus, it was well to use a three per cent. solution of carbolic acid for at least twelve days after the accouchement, as prophylaxis against danger arising from within. Others advocated a solution of the subsulphate of iron with glycerin under these circumstances. But poisoning from within was not so common a cause of septicæmia as poisoning from without; and care on the part of the obstetrician would be found the great means of obviating puerperal septicæmia. It was by avoidance

that puerperal mortality was to be reduced in amount. When septicæmia had once been started, then the treatment was no longer that of prevention, but that of cure. Dr. Duncan, as he announced at the commencement of his lecture, did not go into the treatment of the blood in puerperal septicæmia, but perhaps your readers will not feel aggrieved if his remarks are supplemented by some others on the management of the general condition. When symptoms of septicæmia set in, not only should the irrigation of the uterus several times a day be assiduously carried out, but antiseptics should be administered internally. Chlorate of potash and the sulphites and hyposulphite of soda, together or singly, should be given freely by the mouth. In one case in my by-past general practice, a delicate woman was confined of a dead putrid child: on vaginal examination the head felt like a leather bag with a lot of pieces of broken pot in it, the cranial bones being all loose and out of place, and the foetus discolored and far advanced in putrefaction. In this case the lochia became very putrid and stink, and there were evidences of blood poisoning on the part of the mother. By means of vaginal injections of a solution of the sulphites and the internal administration of chlorate of potash and sulphite of soda, the ominous symptoms passed away, and the woman made an excellent recovery. Such was a successful case treated antiseptically, but in a very primitive way. Now the management of the case would be considerably more advanced and scientific. In addition to the injections and the internal administration of the various antiseptics, it would be well to influence the air respired by the patient, and to place in the sick-room some disinfectant; the drawback to this being the objectionable smell of most of these potent agents. Sanitas is odorless, and solutions of thymol are not offensive certainly, if they do not form a very agreeable scent, and such should be used freely, being sprinkled over the floor, and, better still, being well sprayed about the room at frequent intervals. This should be continued as long as any signs or symptoms of septicæmia remain. That such should be the line of treatment to be pursued in all cases, either of established septicæmia or where it is threatening, there can be no doubt remaining. The question then arises, "Shall antiseptic precautions be taken in all cases of parturition?" As regards my personal opinion, it is affirmative of this proposition. Antiseptic precautions, in the first place, are not expensive. They would form a species of cheap insurance. In the next place, they are free from danger if used carefully. Dr. Duncan pointed out that careless irrigation of the uterus might lead to serious consequences, air or fluid might be forced into the uterine sinuses; but against this may be set the presumption that the man who

is careful enough to adopt antiseptic obstetric precautions would be careful enough to see the antiseptic method carried out properly in the one single source of possible danger, the irrigation of the uterus. As to the argument which might be raised that this involves unnecessary fuss and trouble, the answer must be returned that after certain unpleasant incidents it is commonly found that a very little care and foresight would have prevented the disasters. All preventive medicine has this for its *raison-d'être*, and many, if not most, practitioners will probably soon adopt antiseptic midwifery; and as to those who do not, it is probable that when they do have cases of puerperal septicæmia they will find their conduct and management of their cases sharply criticised. The obstetrician would carry with him, as part of his armamentarium, a bottle of carbolized oil with which to anoint the finger at each vaginal examination and to anoint the dorsal surface of the hand and arm in turning. Also the instrument might be smeared with this antiseptic before being applied, in the cases which require them. This would involve their being thoroughly cleaned; and then it is to be hoped we will hear no more of such sad cases as that reported in a recent number of the "Confessional" commenced in the *British Medical Journal* quite lately, where a medical man owned that after delivering a woman with his forceps he forgot to clean them, and the next woman delivered with the forceps died of septicæmia. This matter cropped up in the discussion on Dr. Duncan's paper, and Dr. John Brunton pointed out how the wood of the handles of midwifery forceps often shrank from the metal, thus leaving a crevice in which putrefactive material might lodge. He exhibited his own forceps which he had had for years in constant use; they consisted entirely of metal, nickel-plated, and their condition was admirable. In addition to the above, a little carbolic acid might be carried, in case it turned out that the child was dead, and it might be well to irrigate the uterus in a few hours, so as to prevent any putrefactive change with its consequent dangers. An irrigation of the uterus once a day, in all cases, with carbolized water, would be a cleanly practice, as well as a sanitary precaution, in midwifery practice, and might be adopted generally with advantage.

How far the use of carbolized oil on the obstetrician's finger would tend to prevent that sad accident, syphilitic poisoning, it is difficult to say. An answer only could be given after a considerable experience by many and numerous individuals. But antiseptic midwifery must not be looked at from the point of view of the safety of the accoucheur, but from that of the safety of the patient. Where operative measures are anticipated, I venture to think that antiseptic precautions will always be

taken, after the evidence we have already before us.

And, lastly, comes the cause of all this, the thing born,—the infant itself. Dr. Duncan said that young organisms are readily poisoned septicæmically. It appears that ulceration of the stump of the umbilical cord has been followed by blood-poisoning in some cases, and that pus has found its way into the umbilical vessels. It is well then to dress the stump antiseptically, by enclosing it in a piece of lint treated previously to an application of carbolic acid and oil. An animated discussion followed Dr. Duncan's paper.

A case of *opium-poisoning* treated successfully by the subcutaneous injection of atropine has just occurred in the practice of an ex-house-surgeon of the West London Hospital. On the 14th of February, 1878, I had one grain of sulphate of atropia injected subcutaneously into a woman dying of opium-poisoning. On the 13th of February, 1879, a case was admitted into the Leeds Infirmary. In the absence of the house-physician, the house-surgeon took charge of the patient. He has forwarded me the following notes: A man aged 35 was admitted at 9 P. M., who was said to have taken 3 vi of laudanum one hour previously. He was able to answer questions, his pupils were contracted, he was irritable and somewhat excited, saying he wished he had taken twice as much. He refused to have the stomach-pump applied. A scruple of sulphate of zinc was given. At 9.40 there was no vomiting, and the patient was getting worse; the stomach pump was resorted to, and about twelve ounces of brownish-colored fluid, smelling of opium, was withdrawn, and a pint of strong coffee injected. At 11.20 the patient was worse, and could be roused only with great difficulty. Pulse 120; respirations 15 per minute. The pupils were reduced to a pin's point; the patient had been walked about continuously. One-tenth of a grain of atropia was then administered subcutaneously; condition slightly improved till 12.20 A. M., when he became utterly unconscious and incapable of being roused by the most violent means, including faradism, etc., etc.; pupils firmly contracted; pulse feeble and rapid; respiration down to 12. A quarter of a grain of atropia was then injected subcutaneously. At 12.40 A. M. the patient was somewhat better; respiration 18; pulse firmer and 120 per minute. The pupils were dilated; there was no return of consciousness, the extremities were cold, but the sleep was more natural. At 1.10 A. M. the respirations suddenly sank to 12, but rose again to 20 after artificial respiration had been carried on for ten minutes; pulse good; the patient continued to sleep till 8 A. M. when he awoke, was able to answer questions and to take food, and to the present time (16th, 6 P. M.) has con-

tinued to improve. This case illustrates the toxic effect of opium upon the respiratory centres, and also how the paralysis so induced can be met and antagonized by the use of atropine. The only criticism I have to make is that if a quarter of a grain of atropia had been injected at the very first, the serious symptoms which appeared might have been kept off. The case is very encouraging as to the future treatment of opium-poisoning by the subcutaneous injection of atropine. *Philadel. Med. Times.*

J. MILNER FOTHERGILL.

THE TREATMENT OF CONSTIPATION.

Dr. Robert Smith recommends that in cases of constipation the individual should daily at the same hour make powerful defæcatory efforts. Should these efforts be unsuccessful, he must still be urged to persevere. This daily repetition of the attempt to defæcate usually ends by a daily need for the relief of the bowel at that hour. During the treatment it is sometimes necessary to procure an evacuation. An enema of tepid water, followed by one of cold, will generally be sufficient for this purpose; a suppository of belladonna, or one of ordinary yellow soap, or of honey hardened by heat, is equally efficient. Purgatives are not to be used except under the greatest necessity, and then a pill of colocynth with hyoseyamus is sufficient. Mineral waters are frequently of great service, particularly those of Carlsbad and Cheltenham, a tumblerful taken warm before breakfast being often found to act effectually in keeping the bowels in healthy action. Belladonna in a single dose of one-sixth to one-fourth of a grain of the extract taken fasting by preference in the early morning has also been used with success. Excellent results have also been obtained from the use of sulphate of zinc and strychnia. Much of the success of the treatment will, however, depend upon the directions as to habit and diet. The tablespoonful of cold water at night, the cold bath and cold compresses to the abdomen in the morning, the taking of large quantities of fruit, the use of oatmeal porridge and of bran bread, the cigar after breakfast, the daily walk, have all their influence in bringing about the desired end. For infants, the use of oatmeal boiled in milk, an occasional soap suppository, abdominal friction with the warm hand, combined with small doses internally of codliver oil, have never been found to fail. In all cases of constipation, however, it is absolutely necessary to obtain the confidence of the patients.—*The Lancet.*

THE CAUSE OF DEATH AT THE SEVERAL EPOCHS.

In infancy, diseases of the brain and nervous system—notably convulsions—rank first among the causes of death; diseases of the lungs have the second place, and diarrheal diseases the third.

From the end of the first year of life to the end of the fifth—that is to say, in early childhood—the infectious diseases, especially scarlet fever and hooping-cough, give rise to the greatest mortality; then, as in infancy, next in order of mortality at this period of life come lung-diseases; and third, the diarrheal diseases.

In childhood and early youth (five to fifteen years) the infectious diseases are the chief causes of mortality, principally scarlet fever and continued fevers.

From youth to manhood (fifteen to twenty-five years) phthisis is the most important cause of death, and the infectious diseases sink to the second place.

In early manhood (twenty-five to thirty-five years) phthisis still maintains the first rank among the causes of death; but a marked increase of mortality is now observed from other diseases of the lungs. The infectious diseases continue to hold the second rank among the causes of death at this period of life.

In manhood and maturity (thirty-five to fifty-five years) phthisis maintains its predominance among the causes of death, but now the mortality from other diseases of the lungs becomes largely augmented. The second place in the order of causes of death at this period of life is taken by diseases of local origin, especially local affections of the brain and nervous system, of the heart and blood-vessels, and of the digestive organs. Cancer now becomes an important source of mortality, but the infectious diseases sink to a comparatively low place among the causes of death.

In the decline of life (fifty-five to seventy-five years) the diseases of local origin, including diseases of the lungs, are the chief causes of death; phthisis, the infectious diseases, and general diseases, as a rule, except cancer, becoming relatively less predominant. At this period of life, indeed, the causes of death foreshadow the more general decay of old age (seventy-five and upward), where death, if it does not arise from the natural inability of the several organs, in the progress of decay, to continue their functions, unaffected by exterior circumstances, is mainly brought about by local accidents of the brain and nervous system, the heart and blood-vessels, irredeemably damaged in the course of the decay.

The progress of fatal disease through the several periods of life has, in fact, characteristic relations with the natural conditions of the body at the different periods. The fatal diseases of infancy are significant of the immaturity and

mobility of the infants' organs and functions. The fatal diseases of childhood relate, not so much to states of the system then in fullest vigor of vital re-action (to inherent conditions of the body, so to speak), and to the influence of the media in which we live, as to the accidental liability of exposure to morbid agencies current among populations, such as the contagions of the catching diseases; as, for example, scarlet fever, small-pox, measles, typhus, etc. With the completion of manhood, diseases indicative of local degenerations of tissue begin to be predominant, and with each successive stage of life this predominance becomes more marked. In old age the degenerative changes, which at earlier periods of life are regarded as the signs of disease, now appear as the natural consequences of decay; and death becomes a physiological not a pathological fact—as the determination of a natural life, not as the premature close of a life cut short by disease.—*Ext. from Health Primer—Premature Death.*

TO MASK THE ODOR OF IODOFORM.

Tannin, which was recommended by Moleschott as a means of hiding the unpleasant smell of iodoform, has not been wholly successful; ether, which conceals the odor, on account of its great volatility is only useful for a short time; while oil of peppermint has not answered to its expectations. Dr. Lindemann, of Munster, contributes to the *Allg. Med. Central Zeitung* an account of experiments which he has made with several preparations in regard to this subject. The conclusion at which he has arrived is that the balsam of Peru completely masks the smell of iodoform, and renders it imperceptible to the most delicately organized. He mixes two parts of the balsam with one part of iodoform, and recommends vaselin as being the best medium for an anguent; it may also be employed in an aqueous solution. The following useful formulæ are subjoined:

- | | |
|--------------------------------------|-----------|
| R Iodoform,..... | 1 gram; |
| Bals. peruv.,..... | 2 grams; |
| Vaselin, | 8 grams; |
| M. f. ungt. | |
| R Iodoform,..... | 1 gram; |
| Bals. peruv.,..... | 3 grams; |
| Spir. vin. rectific. or glycerin, .. | 12 grams. |

In regard to the preparation of these prescriptions, the author recommends that the iodoform should first be mixed with the balsam, and that the vehicle should afterward be added.

THE TREATMENT OF CHRONIC ECZEMA.

Avoid the use of soap, as this is irritating. Twice a day, bathe the part in an aqueous solution

of borax, one ounce to the pint. Dry without friction, and freely apply the benzoatic oxide of zinc ointment, then bandage the part firmly with old dry muslin which has been previously wet with a saturated aqueous solution of borax. Over this apply a bandage of oiled silk, in such a manner as to exclude the air perfectly. Let the bowels be kept regular. In the majority of cases eczema may be promptly cured by the simple exclusion of the air. Eczema of the fingers will generally yield in a few days if the air be excluded by the ordinary rubber cot.—*Med. Review.*

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VOL. IX.

With this number we commence our ninth volume. Very few of our subscribers have seen fit to discontinue, and these few are compensated for by more than double the number of new names. The fact is, few men in practice now-a-days can afford to be without a medical journal, so as to keep abreast of the times, and this one is furnished at so cheap a rate as to be within the reach of all. That the RECORD is appreciated, letters from readers attest, and not the least portion acceptable is the selected matter which has been found of considerable value by many. Every physician should keep himself informed of matters relating to the profession especially in his own country, and this we endeavor to render available by acquiring information from every possible source. Subscriptions are acknowledged in the usual manner by the date placed on the label after the address, which indicates the year up to which the RECORD has been paid for. Those in arrears will please consult the same for the amount due

us, and if they will kindly take the hint and remit, we certainly will not feel very much hurt. A word to the wise is sufficient, and therefore we expect the remittances to roll in.

INDEX OF VOL. VIII.

Owing to the absence of the editor in chief, who managed the details of the RECORD, we had the misfortune to overlook the index for vol. viii., which should have accompanied the last number. It will be sent with this, and therefore the omission will be remedied.

WOMAN'S HOSPITAL.

It was announced some time ago in these columns that the Woman's Hospital had been removed to the large and commodious building known as the Western Hospital. Formerly the Hospital was almost entirely conducted as a Lying-in, and was managed solely by its Medical Board. Since its removal, however, advantage has been taken of the provisions of the charter so as to include a Board of lay gentlemen as Governors, and this has been followed by the very best of results. It is seldom that any institution acquires such an energetic Committee of Management; all its members have worked with a will to place the Hospital in effective working order. The results are shown in the funds collected and the donations in kind received, a fact which also shows that the objects of the Hospital are generally appreciated by the public, and that it was really required. Though much has been done, yet it is not as fully equipped as desired, but this will only be a matter of time. In the meantime the departments are fully organized: one flat being devoted to obstetric cases, having twelve beds; another flat to special diseases of women, having eight beds. There are also eight private wards and an out-door service. Medical attendance on the public wards is provided for by a staff of attending physicians. The Committee of Management by a wise liberality permit any properly qualified physician to attend their patients in the private wards, being the only public Institution which allows of this privilege with the exception of the New Hospital of Notre Dame, which, as we are informed, has lately extended the same to all practitioners. Fears were at first entertained that this Institution would be found too far away from the centre of the city, but experience proves the

contrary. Already a large number of patients have been admitted, and many more apply but cannot be received owing to the Committee having for the present set a limit to the number of available beds. The prospects are, however, that by another year double the number will be accommodated. The out-door department, which at first fell off in the number of patients attending, is now gradually on the increase. Altogether those who have been instrumental in accomplishing the extension and increased usefulness of the Woman's Hospital have every reason to congratulate themselves on the result.

We have been surprised to learn that a report has been circulated, that the Hospital is badly drained, and its sanitary condition defective. We can speak with certainty that its hygienic condition could not be bettered, and that there is not a particle of infection which could endanger the life of any parturient woman. Indeed all antiseptic precautions are observed, and the result is shown in the rapid recovery after child-birth. Cases of auto-infection will occur in any institution no matter how well conducted, and such have occurred, but we are happy to state that there have been none such for some time. At present the Hospital is in an exceptionally healthy condition, and the authorities invite inspection from any medical practitioner who may wish to visit the Institution, and if there are any that think the sanitary arrangements defective, we are sure that a personal visit will soon remove that idea from their minds.

PRACTICAL PHYSIOLOGY.

Five years ago the Medical Faculty of Bishop's College, through the energy of one of its Professors, opened a Laboratory of Practical Physiology. This year a second one has been established in this city, but this time in connection with the University of McGill. This latter was opened on the second instant, for the inspection of those present who came to listen to the introductory lecture of the Medical Session of 1880. The lecture was delivered by the Professor of Physiology, Dr. Osler, and, as would be expected from the well-known ability of the lecturer, was not only an able but also an interesting discourse, the advances in Physiology being fully dwelt upon. Unfortunately unavoidable circumstances prevented us

from attending, but we are informed that the laboratory is fitted up with nearly all the modern requirements of Physiological research. The apparatus is of the most improved make, and we are sure that, under the able management of Professor Osler, it will be a good acquisition to the teaching facilities of McGill. It certainly speaks well of Montreal, as a centre of Medical Education, that it should contain two such thoroughly equipped Physiological Laboratories that of Bishop's as well as the one now opened in McGill, these being the only two in Canada which can justly be so styled. Having frequently witnessed many interesting and instructive Physiological demonstrations at Bishop's we feel convinced that an immense advantage is to be derived from this sort of practical training, and it is surprising that such demonstrations are not more universally attempted. The establishment of such a course will well repay any school that may adopt it.

The cost of fitting up a Laboratory equal to either of these just mentioned would, so we are told, be about two thousand dollars, and an extra yearly outlay of from one hundred and fifty to two hundred dollars would be required for the purpose of providing the necessary material, improvements, repairs to apparatus, &c.

There can be no doubt that a more lasting impression will be made on the minds of students by demonstrations such as reflex action, as seen in the frog, on the calling into play the functions of various important nerves as shown in numerous experiments on animals, and the process by which food is digested as exhibited in test tubes. These appeal directly to the senses of the most careless student, and from being much more quickly and easily understood give more information than can be acquired through the diligent study of the same matters presented in a less interesting manner.

A NEW GOLD MEDAL.

It is with pleasure that we announce the acquisition of a second gold medal by the Medical Faculty of Bishop's College. Many will remember the late Dr. Robt. Nelson, who was distinguished as a surgeon, having made for himself a name in this city prior to 1837. Unfortunately, from taking part in the troubled politics of that period, circumstances compelled him to leave Canada for the United States, where he resided for the balance of

his life, continuing to attain fame as a surgeon and realizing a considerable fortune.

In order to perpetuate his name in this his native city, his son, Dr. C. E. Nelson, of New York, has founded a gold medal of the annual value of fifty dollars, to be competed for by the medical classes of Bishop's College. The subjects for competition are not yet fully decided on, but it is expected will soon be finally arranged. In our next issue we trust to be able to give more particulars.

MEDICAL SCHOOLS.

The medical schools in Montreal are now in full operation, and there appears to be an increase in the number of students entering upon the study of medicine. At the last matriculation examination held in Quebec, nearly one half of the candidates were rejected, which either implies that the examinations are unnecessarily severe, or that something is wrong in the education which young men obtain in this Province. Probably a little of both. The introductory lecture at McGill was delivered by Prof. Osler on the evening of the 2nd, after which there was an exhibition of new Physiological apparatus.

In Bishop's, Prof. Armstrong welcomed the students on the 4th at three in the afternoon, giving the class some good practical advice in regard to their studies and future calling.

Laval inaugurated her Third Medical Session on Tuesday evening, the 5th inst., the Rev. Mr. Beaudet, the vice rector, addressing the meeting, His Lordship the R. C. Bishop of Montreal, the professors in the different Faculties and several distinguished visitors being also present.

The opening address in the French School of Medicine in connection with the University of Victoria was delivered by Prof. Durocher, on Friday, 1st October, at 3 p. m.

PARIS GREEN.

When we wrote last month on the danger attending the indiscriminate sale of Paris green, and the necessity for putting in force existing legislation regulating its sale, we scarcely expected that two more cases of poisoning by this substance would occur in this city before the article itself had reached our readers. One case was fatal, and the particulars have appeared in the daily press. The other was in our own practice. Vomiting having

set in prior to our arrival, the woman's life was happily saved.

We should like to know whether the Paris green taken in these cases was purchased from a licensed pharmacist, and if so whether the sales were registered in the poison book according to law? Surely there is some official whose duty it is to see that the law regulating the sale of deadly poisons is properly carried out.

Let us suppose that a person wishes to poison himself. He is very unlikely to use a poison which is comparatively unknown to the general public. In nine cases out of every ten either arsenic, Paris green, prussic acid, morphine or strychnine is employed. Having decided in his own mind which poison he will use, the would-be suicide sets forth to obtain it, and in order to do this he must apply to a licensed vendor of poison, who, under the Act, cannot sell it unless he knows the person applying for it personally, or receives an introduction to him from some one known to both. This difficulty of obtaining deadly poison is a wise provision, as it is evident that any respectable pharmacist, in order to prevent his establishment from being mixed up in a poisoning case, will take every precaution as to whom he sells such things as laudanum, arsenic or Paris green, and it is quite possible that many embryo murderers and suicides would be altogether deterred from accomplishing their design by the very salutary regulations laid down in the Pharmacy Act, *were they more generally enforced.*

The Druggists' poison register might and has frequently been a source of valuable information to detectives in cases where cattle, as well as human beings, have been destroyed. By all means, gentlemen of the Council of the Pharmaceutical Association, let us have the law rigidly enforced, especially the registration of all sales of Paris green.

We have received the first number of the Rocky Mountain *Medical Review*, a monthly journal of Scientific Medicine and General Science, published at Colorado Springs, Colorado, at a subscription price of \$5.00 per annum. This journal promises to be a valuable addition to the many able Medical journals of the United States. Its Editors, six in number, are among the leading physicians of Denver and the Springs, and if they will only work up the material at their command their venture must be successful. Much can be said of the benefit derived by a residence in Colorado of persons

suffering from lung disorders, and if facts are eliminated, deductions may be drawn which will afford physicians a guide as to the proper cases to send and likely to be benefited. We will gladly exchange with our new contemporary.

PERSONAL.

The friends of Dr. Wolfred Nelson will be interested to hear of him. From information he appears to have ranged over quite an extensive territory as a special correspondent. Nothing being said about his physical condition, the inference may be drawn that he is much better than when he left Montreal in search of an El Dorado. His perigrinations have led him from the sunny isles of the South across the continent to the Golden Gate. Vancouver's Island, British Columbia, Washington Territory, and Oregon have each furnished material for his pen, and he was last heard of as sitting on a fallen monarch among the big trees of California. He has been well received as a journalist, and we wish him a continuance of pleasant voyages.

Dr. G. F. Slack, formerly of this city, has removed to West Farnham, P.Q.

Dr. Robt. Costigan (Bishop's, 1874), late of Indianapolis, is now practicing in Los Lunas, New Mexico, and for the short time he has been there has met with considerable success.

Dr. F. W. Campbell writes us that he has had a very enjoyable and profitable trip, having visited nearly all the continental cities. He expects to sail for Canada on the 28th of this month, so that his return may be looked for about the eighth of November next.

PAMPHLETS, &c., RECEIVED.

The Vinum Nutrio Phosphaticum. Orthozoic Chemical Association, 1200 Broadway, New York.

Lacerations of the Neck of the Uterus. By A. Reeves Jackson, A.M., M.D. Read before the Tippecanoe County Medical Society at Lafayette, Ind., May 6, 1880. Reprinted from the "American Practitioner."

Diagnosis of Malignant Tumors of the Upper Jaw in Youth, by L. McLane Tiffany, M.D., Reprint from Transactions of the Medical Faculty of Maryland, 1880.

Annual Calendar of the University of Laval,

An Historical Sketch of the Redwood Library and Athenæum in Newport, Rhode Island. By D. King, M.D.

Anæsthesia by Ethyl Bromide. By H. A. Wilson, M.D. Reprinted from the "Medical and Surgical Reporter." August 7th, 1880.

Seventeenth Annual Report of the New York Society for the Relief of the Ruptured and Crippled. May, 1880.

The Rise of American Dermatology. By Louis A. Duering, M.D. Being the President's address, American Dermatological Association, 1879.

BOOKS HELD OVER FOR REVIEW.

Index Catalogues of the Library of the Surgeon General's office, Washington, 1880. Vol. 1.

The Art of Prolonging Life. By Erasmus Wilson, M.D. Transactions of the American Medical Association. Vol. 30, 1879.

American Newspaper Directory, 1880.

A Practical Treatise on Nasal Catarrh. By Beverley Robinson, M.D.

Practice of Medicine. By Dr. Bartholow.

REVIEWS.

Transactions of the American Gynæcological Society. Vol. 4 for the year 1879. Boston, HOUGHTON, MIFFLIN & Co., 1880. Montreal, Dawson Bros.

The printing, binding, etc., of this volume is in keeping with the excellent character of its predecessors, and forms a large work of over 500 pages. To give a thorough review of this work would take a much larger space than is at our command, therefore the mere mention of some of the papers will be given. The President in his address deplored the need of "proper reviewing of books;" that "rose-colored book notices" too often replace "honest criticism." This may be true, and some of our readers may think that here we are guilty, but we trust that such will believe in our "sincerity," and, if not, let them get the work for themselves and prove our recommendation. The Gynæcological Society only admits to its fellowship men who have already attained a name, and are therefore experienced in the subjects discussed, so that it is no wonder that this volume and its preceding companions should occupy a place in gynæcological literature amongst the ablest

productions. Therefore we deem the library of the gynæcologist especially, and that of the general practitioner, incomplete without them. Papers, ably and carefully prepared, discussed freely by those who possess extensive practical knowledge of their subjects, brought together in this form, must necessarily be of great value. Systematic works treat of the diseases of women generally, but in this we have complete essays on special conditions, followed by a better criticism than we can pretend to give. Organized but five years ago the Society has attained the highest rank, and its publications partake of the same character, and this volume records the transactions of the fourth annual meeting held at Baltimore last year.

The table of contents. List of Fellows, 49 in number, and minutes of proceedings occupy the first 25 pages. The papers next follow: first the annual address by the President, Dr. Thomas, who briefly reviews the history of Gynæcology, deplors the dogmatism of some of its followers in this comparatively new field of knowledge, and cautions the unwary not to be misled into following a popular fashion in treatment which prescribes for the time one remedy for all conceivable disorders. Sponge tents, cervical section, trachelorrhaphy with its stitch as a relief to all a woman's ills, were each in turn held up to view, and to this list might have been added the use of strong caustics for the same. In deploring just reviews a standing committee is suggested whose duty it would be to "pronounce judgment upon the current literature" of gynæcology as a guidance to the practitioner in the purchase of books. Such a committee would have to be, like Cæsar's wife, above suspicion, and authors would necessarily be excluded from appointment. As everybody now is aiming at becoming eminent gynæcologists we fear there would be none to act, and, like the jurors in our law courts, the intelligent reviewer would be debarred, otherwise he would be suspected or even accused of being prejudiced. The future of gynæcology was next dwelt upon at some length in a very interesting manner.

The papers then follow in order. Dr. White and Dr. Battey's on Intra-Uterine Medication. A long discussion on both followed, speakers not fully endorsing such treatment. Intra-Uterine Injections in Puerperal Septicæmia; Dr. Jenks Sporadic Septicæmia in Gynæcological Practice by James R. Chadwick, M.D.; A Contribution to

the Pathology of the Cicatrices of Pregnancy, by Samuel C. Busey, M.D.; Prolapse of the Ovaries, by Paul E. Mundé, M.D.; Case of Removal of both Ovaries for Dysmenorrhœa, by T. Spencer Wells, F.R.C.S.; Kolpo-Cystotomy by Galvano Cautery, by John Byrne, M.D.; Measurements of the Uterine Cavity in Childbed, by A. D. Sinclair, M.D.; The Early Application of the Forceps in the First Stage of Natural Labor, by Isaac E. Taylor, M.D.; Elongations of the Cervix Uteri, by William Goodell, M.D.; Mismanaged Labor, the cause of much of the Gynæcological Practice of the Present Day, by J. Taber Johnson, M.D.; A Case of Extra Uterine Pregnancy with Successful application of Electricity, by J. C. Reeve, M.D.; The Relation of Symptoms to Versions and Flexions of the Uterus, by Ely Van de Warker, M.D.; Chronic Inversion of the Uterus, by Wm. H. Byford, M.D.; The Justo-Minor Pelvis, by Wm. T. Lusk, M.D.; Kolpœcpetasis versus Partial Kolpokleisis, by Nathan Bozeman, M.D.; A new method of Performing Decapitation, by Wm. L. Richardson, M.D.; Atresia of the Vagina in the Pregnant or Non-Pregnant Female, by Isaac E. Taylor, M.D.; Premature Senile Obliteration of the Uterine Cervical Canal, by Henry F. Campbell.

A full report of discussions which took place follows each paper, and in these the great value of the book is shown.

In memoriam M. B. Wright, with portrait by Dr. Parvin. The volume closes with a complete index of Gynæcological literature of all countries for 1878, covering fifty-three pages.

A Treatise on Common Forms of Functional Nervous Disease. By L. PUTZEL, M.D. New York, WILLIAM WOOD & Co., 1880.

This is the eighth volume of the series of 1880 of Woods Library of Standard Medical Authors. It may be questioned whether the work can really be classed with those usually termed standard authorities, but, as it presents the latest scientific views of the subjects treated, and being well and ably written, it fully maintains its place and value among its companion volumes of the series. Chorea, epilepsy, the various forms of neuralgia and peripheral paralysis are the subjects upon which the author dwells. The last subject forms a large portion of the work, and by no means the least valuable part, but, as it includes para'lysis from acute and chronic neuritis and surgical injuries to nerves, the title of the work is not fully

carried out, especially as the subject of hysteria is omitted. The reason why hysteria is omitted is because the author considers that it has been sufficiently described in detail in other works, but this argument might also be applied to some of the other subjects written on in this. However, it is a work of merit and cannot fail to benefit the reader.

The Hygiene of Catarrh. By THOMAS F. RUMBOLD, M.D., Part I. pp. 178. St. Louis, Geo. O. Rumbold & Co., 1880.

The author states in his preface "That some may think I have been too prolix on some points." A statement that we fear will be endorsed by a very large ~~SOME~~ of those who may read the book. But this will depend upon the class of readers that the book is designed for. If for non-professional readers then the work may be of value as affording useful information, but if intended for professional men, the author must consider the average physician destitute of any hygienic knowledge. There is little but what will be found in any of the ordinary text-books, and that little would have shown better in a pamphlet form than spread over a large extent of what every student is supposed to be informed on before graduation.

REPORT OF THE SEMI-ANNUAL MEETING OF THE COLLEGE OF PHYSICIANS AND SURGEONS OF QUEBEC.

The semi-annual meeting of the Board was held at Laval University, Quebec, on September 29th. There were present the following Governors :—Dr. Howard, President ; Drs. Trudel and Lemieux, Vice-Presidents ; Dr. A. G. Belleau, Secretary ; Dr. L. LaRue, Registrar ; Dr. E. P. Lachapelle, Treasurer ; Drs. David, Hingston, Rodgers, Gibson, Robillard, T. LaRue (of Compton), Bonin, Lafontaine, Gervais, Austin, Perrault, Ladouceur, Rottot, Rousseau, Gingras, Lanctot, Simard, C. Rinfret, De St. Georges, Worthington, Parke, Laberge, Craig, Marsden, R. F. Rinfret, Hon. J. J. Ross and Jas. Sewell. Mr. C. E. Lamirande of Montreal was appointed by the Board to take legal proceedings against charlatans and unlicensed practitioners throughout the Province of Quebec. It was also moved that this officer be instructed to take legal proceedings against unregistered practitioners forthwith, and also that the Registrar be instructed to place the names of those members 12 months in arrears for their annual contribution in the

hands of the prosecuting officer. Dr. Donald A. Livingstone of St. Jean Chrysostome, County of Chateauguay, was granted the license of the College. The following graduates, on presentation of their respective diplomas and being duly sworn, obtained the license of the College :—Laval University, Quebec : C. Mayrand, M.D., Deschambault ; J. F. Landry, M.D., Beauport ; A. Paradis M.D., Quebec ; W. A. Verge, M.D., Quebec ; E. Bedard, M.L., Pembroke ; O. Clouthier, M.D., Quebec ; E. Prévost, M.D., Sorel. Laval University, Montreal : D. Carrier, M.D., Lacolle. McGill University : L. Mignault, M.D., C.M., Montreal. Victoria University : E. Lafarge, M.D., St. Theodore d'Acton ; E. Fournier, M.D., St. Jerome ; C. Laroque, M.D., Chambly ; Jos. M. Beauroleil, M.D., Montreal ; Hamilton Meikle, M.D., Montreal. Drs. David, Trudel and Lachapelle of Montreal, Drs. Marsden, J. A. Sewell and Gingras of Quebec, were appointed examiners for the examination of midwives. A new tariff for practitioners both in town and country was adopted, and will shortly be submitted to the Lieut-Governor in Council for his sanction. The following Examining Committee was appointed for the next semi-annual meeting :—Anatomy, Dr. Lemieux ; surgery, Dr. Hingston ; medical jurisprudence, Dr. Gervais ; physiology, Dr. Lachapelle ; practice of medicine, Dr. Austin ; materia medica, Dr. Rousseau ; midwifery, Dr. Trudel ; Botany and hygienics, Dr. Lanctot ; chemistry, Dr. Rogers. Votes of thanks were tendered to the officers of the College and also to Laval University for the gratuitous use of its rooms.

The preliminary examination of students for admission to the study of medicine took place on Thursday and Friday at Laval University, when the following gentlemen (21 out of 37 candidates) were admitted to study : Stanislas Caron, George Matte, James M. Foy, Arthur Delisle, Alfred Morrisette, Ls. Philippe Picard, of Quebec ; Hector Leduc, of Three Rivers ; Alfred Richard, of St. Paschal, County of Kamouraska ; Napoleon Blackburn, of Chateau Richer ; Albert De Villers, of Lotbinière ; Wilbrod Fournier, of Ottawa ; Théophile Paré, of Nicolet ; Roderique Mignault, of Acton Vale ; Hormisdas Gauthier, of St. Eustache ; Gaudiose Paradis, of Notre Dame de Levis ; Odilon Berthiaume, of St. Aimée ; Narcisse Valin, of St. Damase, County of St. Hyacinthe ; John Elder, of Huntingdon ; Seraphin LeBlanc, Epiphanie ; Hector Brosseau, Lacadie, County of St. John ; Arthur David, of Montreal. Ten

were rejected on certain branches, and six on all the branches.

At the above meeting the following business was transacted.

The assessor's report being read, on motion was adopted with the condition that the names of C. N. Barry, J. E. Bergeron, P. Gaulreau, Antoine Genereux, who have not completed their four years medical studies, be also inserted. Dr. McGowan's, of Stanstead, letter was read, asking to be reimbursed certain alleged expenses said to have been incurred the last session of Local Legislature in opposing Witcher's private bill to practice medicine in this Province—laid on table.

A letter was read from the President of the Michigan College of Medicine, enquiring whether the students of the said College who may desire to continue their studies in the Province of Quebec will be considered as having passed the matriculation examination required by the Province. On motion the letter was referred to a Committee composed of Dr. F. W. Campbell, Robt. Craik, J. P. Rottott, and E. H. Trudel, with instructions to report at next semi-annual meeting.

Dr. Prime, of Knowlton, applied by letter, asking if his son, who for special reasons was unable to present himself for the license at this meeting, may be permitted to assist him in visiting patients, stating that at the next May meeting in Montreal he would present himself for license and registration. The letter was laid on the table. Dr. F. D. Gilbert's claim against the College in Drs. Fenwick and Worthington's case was next brought forward. On motion the matter was left in the hands of the President and Ex-President, who were to act on legal advice, and if this and other claims were just had authority to settle. It was arranged that the prosecuting officer give a guarantee policy to the extent of \$1,000 to the Board to pay the premium. This officer to send monthly returns of moneys received to the Treasurer, and a list of those who have paid to the Registrar.

Dr. E. Longley's pretended claim against the College in a prosecution against a *quack* was read, and on motion it was resolved: That Dr. Longley be written to for the authorization he received from the President in the matter, and that in the event of his producing the said authorization, with promise on the part of the College to pay costs, that he shall send in an attested bill of costs to the Secretary of the College. It was resolved on

motion that a bonus of \$250 be voted to the Registrar for his services during the present year. Dr. Rottot, seconded by Dr. Robillard, gave notice of motion at the next meeting to amend the law so as to increase the Registrar's annual salary to \$400.

On motion of Dr. E. Laberge, M.P.P., seconded by Dr. L. D. Lafontaine, M.P.P., it was resolved that a copy of the resolution adopted at the last triennial meeting, and which was moved by Dr. Hingston, one of the members of the College, relative to proposed amendments to the Medical Act, be sent to the Provincial Attorney General so as to officially inform the Quebec Government of the contents of the said resolution.

The proposed Medical Tariff as adopted unanimously by the Governors of the College of Physicians and Surgeons of the Province of Quebec, representing the medical profession, respectfully submitted for the approbation and sanction of His Honor the Lieutenant Governor in Council:—

Visits from 8 a.m. to 9 p.m., not exceeding half a mile	\$ 2.00
Visits from 9 p.m. to 8 a.m., not exceeding half a mile. Not to exceed	4.00
Visits, each additional mile in day-time	50
Visits do do at night	1.00
Detention a whole day	20.00
do a whole night	25.00
Ordinary office consultation with prescription	2.00
do do do do at night	3.00
Consultation with special examination	5.00
do with a practitioner	5.00
do by letter between practitioners	10.00
Ordinary certificate of health	5.00
Special do attested with report	8.00
Certificate, with report on disease and death	5.00
Post-mortem examination external	5.00
do do with sectio cadaveris ..	10.00
Ordinary case of midwifery (subsequent attendance extra)	15.00
Turning, application of forceps, extraction of Placenta, (Subsequent attendance extra)	30 00
Miscarriage, premature confinement (subsequent attendance extra)	15.00
For attendance with a midwife in all cases the charge is the same as for delivery	
Catheterism, ordinary cases	3.00
do each subsequent operation	1.00
Vaccination, Bleeding, Extraction of teeth, Hypodermic Injection, etc., etc	1.00
Introduction of stomach pump	5.00
Application of cupping glasses, leeches, setons, moxa, plugging, etc., etc	5.00
Chloroformization or other anæsthetics	5.00
Setting fracture of the thigh	25.00
do do do leg or arm	20.00

Reducing dislocation of the thigh.....	50.00
do do do leg or arm.....	25.00
Amputation of the thigh.....	100.00
do do leg or arm.....	50.00
Operation for strangulated hernia.....	100.00
Reduction of the hernia by taxis.....	25.00
Lithotomy or lithotripsy.....	200.00
Ovariectomy.....	500.00
Tracheotomy.....	50.00
Operation for cataract.....	100.00
Extirpation of the breast.....	50.00
Do of a tonsil.....	10.00
Amputation of fingers or toes.....	10.00
Capital operations not already specified..	100.00
Minor do do do do.....	25.00

The above charges for surgical operations are for the operation only, subsequent attendance and services are extra.

FOR MEDICINES AND DRUGS.

Mixtures and draughts, up to two ounces.....	25
Do do do 4 do.....	50
Do do do 8 do.....	1.00
Powders from one to six (1 to 6).....	25
do do six to twelve (6 to 12).....	50
Pills per box of one dozen.....	50
Do for each additional dozen.....	25
Lotions, Injections, etc., etc., 4 to 16 ounces....	50 to \$1
Liniments, Embrocations, etc., 4 to 8 ounces....	50 to \$1
Blisters and Plasters, according to size.....	50 to \$1
Ointments per ounce box.....	25 to 50c.

When costly drugs or medicines are used the charge to be augmented according to value.

QUEBEC, 29th September, 1880.

CANADA MEDICAL ASSOCIATION.

REPORT OF THE COMMITTEE ON NECROLOGY.

GENTLEMEN :—With the annually recurring meeting and festivities of this association, it becomes our duty to pay our respects to the departed brethren in the profession, by an annual roll-call of the honored dead. Some of the members who joined us in our meeting in London last year have since been called to their fathers, and it may be that some who meet together to-day in such health and buoyancy of spirits meet for the last time on earth. These are solemn warnings which we do well occasionally to recall to mind. We are continually reminded that life is short, and the thread soon runs out. The span of our earthly existence at best is narrow, and we know not how soon it may be crossed. The destroying angel has been busy among our ranks since last we met together. Our list contains *thirty* names, but

there are no doubt many more whose names have not been handed in. Among those we have are to be found both *young* and *old*, but those of middle life are most numerous. A few have lived to a green old age, and, ripe in experience and full of honors, have gone down to the grave lamented. Some have been cut off ere they had yet entered the threshold of professional life, but by far the greater number have been taken away in the prime of life, in the vigor of manhood, and in the midst of active professional duties. The list is as follows :—

Dr. R. W. W. Carroll, Barkery, B.C.
 Dr. E. L. Hopkins, Hamilton.
 Dr. J. Garvey, Ottawa.
 Dr. W. A. Doupe, Zurich.
 Dr. O. Rupert, Maple.
 Dr. J. Clarke, Pugwash, N.S.
 Dr. James Bovell, Toronto.
 Dr. J. R. Ash, Centreville.
 Dr. A. Higinbotham, Belleville.
 Dr. R. N. Burnham, Port Hope.
 Dr. Chas. F. A. Locke, Hamilton.
 Dr. J. R. Philip, Galt.
 Dr. R. S. Campbell, Dartmouth, N.S.
 Dr. J. Demers, St. Jean, Que.
 Dr. C. B. Hall, Toronto.
 Dr. J. Struthers, Kentville, N.S.
 Dr. S. G. Rutherford, Newry, Ont.
 Dr. J. Cook, Sault St Marie.
 Dr. J. McGrath, Bothwell.
 Dr. J. Turquand, Woodstock, Ont.
 Dr. W. R. Rose, Newcastle.
 Dr. W. J. Gracey, Comber, Ont.
 Dr. Herriman, Port Hope, Ont.
 Dr. Thomas White, Hamilton.
 Dr. W. N. Campbell, Wellington, Ont.
 Dr. P. W. Smith, Digby, N.S.
 Dr. J. M. Fowler, Burford.
 Dr. Thos. P. Eckhardt, Unionville, Ont.
 Dr. H. W. Rath, Toronto.
 Dr. J. A. Wolfe, Ottawa.

Two of the above were cases of accidental poisoning, viz., Drs. Gracey and Clark, and one a sad case of drowning, Dr. Doupe, on the ill-fated Steamer Waubuno.

MARRIED.

On September 30th, at St. John the Evangelist' Church, Montreal, by Rev. E. Wood, H. E. Mitchell M.D., of Stanbridge Station, Que., to Miss Ellen Actor of Lichfield, Staffordshire, England.

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Original Communications.

VACCINATION IN CHRONIC SKIN DISEASES.

(Read before the Medico-Chirurgical Society of Montreal, Oct. 29th, 1880.)

MR. PRESIDENT AND GENTLEMEN:—In the number of the *British Medical Journal* for Sept. 4th, 1880, a letter appeared from Chas. D. Drury, M.D., Bucklersbury, Eng., giving his experience of the result of vaccination in three cases of chronic eczema, which was most gratifying.

This communication interested me very much at the time, inasmuch as it recalled to mind many cases in my experience as public vaccinator, in which I had seen skin eruptions of various kinds disappear at the time of vaccination, and apparently as the direct result of it.

I am aware that it is contrary to the preconceived notions of the profession to vaccinate any child having a skin eruption, and when in 1876 I was appointed one of the public vaccinators we were strictly prohibited from vaccinating any child, "with eruptions behind the ears or elsewhere on the skin." And we were particularly cautioned against collecting vaccine lymph from any child with "eruptions on the skin," notwithstanding that some of our prominent local medical authorities then held, and still hold, that no other virus or blood contamination can be communicated or conveyed with vaccine lymph.

Four years of experience (during which time I have vaccinated over 7,000 persons) has taught me many practical lessons on this subject, among others these: that, 1st. There is no danger incurred, and there need be no hesitation in vaccinating any child suffering from a cutaneous eruption.

2nd. That most skin eruptions disappear immediately after vaccination.

3rd. That there is very strong presumptive evidence of the communicability of various blood contaminations through the medium of vaccine lymph; and,

4th. That the absence of red blood corpuscles from lymph does not guarantee the absence of blood taints, simply because germs of disease float in the serum of the blood in the same way that blood corpuscles themselves do, and may find their way into the lymph poured out into a vaccine, as well as any other vesicle; and who shall say that blood corpuscles convey poisons, or that the liquor sanguinis is not the medium of their communication. Or, that a cancer, or a syphilitic cell, may not be present in the lymph exuding from an apparently healthy child's arm, although to the naked eye it may appear perfectly clear and transparent.

Our authorities moreover described pure lymph as "liquid, clear, limpid, translucent, sometimes slightly yellow and moderately viscid."

Now I take exception to the "sometimes slightly yellow" characteristic, and unhesitatingly say that

I believe if such lymph were examined under a microscope it would be found to contain *pus*. The lymph furnished by a vaccine vesicle of a scrofulous or strumous child is always yellow, because it always contains pus after the earliest stages, and such lymph will produce septicæmia.

Hence I would prefer not taking vaccine from children at all, except under the most favorable circumstances, and for the simple reason that communicable blood taints may lurk in the blood of persons, where no outward evidence is yet apparent, as, for example, in children of cancerous families. The sincerity of our faith in the non-communicability of blood taints by means of vaccine lymph may be easily discovered by asking the question, who is there among us who would be willing to allow himself to be vaccinated with lymph from the arm of a patient covered with a syphilitic eruption?

When the present system of district vaccination was first introduced the whole populace were in a state of excitement on the subject of vaccination, and the French portion of the community, led by the anti-vaccinationists were bitterly opposed to the practice, pointing to numerous cases of bad results following it. Under these circumstances, in order to conciliate and change the popular prejudice, it was necessary that the greatest care should be exercised in the whole mode of procedure:

1st. That the lymph used should be absolutely pure and perfectly reliable; and, 2nd. That no children unfit for the operation should be vaccinated.

The discovery of the Longue Pointe cases of spontaneous cow-pox afforded us the opportunity required to meet the first indication; and the instructions of the Board prohibiting the vaccination of any child having "an eruption behind the ears, or elsewhere on the body," and which was sedulously adhered to for some time, met the second.

However, during the season 1878-79, finding that a very large number of children having slight rashes were being passed over, and some of these in some cases, almost immediately afterward were attacked and died of small-pox, relying on the purity of the lymph, I determined to vaccinate all children with rashes not of a very severe character—omitting only the very worst, which I had not the temerity to undertake.

I soon found, to my great satisfaction, that this

class of children all did well, their arms giving no trouble, and the rashes in such as I was able to see afterwards, having disappeared altogether. Emboldened by my success in mild cases, I next began to extend the benefits of vaccination to cases of greater severity, as, for instance, general eczematous eruptions, scald head, children with scrofulous ophthalmia, &c., &c. And, although in some instances of slow recovery I doubted the prudence of incurring the risk, yet in the end all resulted satisfactorily, and the skin eruption was cured.

I have selected five cases as examples, which I will narrate to you as briefly as possible:

CASE I. Eczema Chronicum.—The child of a resident in St. Martin street, previously an anti-vaccinationist. The family consisted of seven children, six of whom I had, at the father's own request, vaccinated successfully—although he had refused over and over again, previous to this time, to have any of them vaccinated. This child, aged fifteen months, was at first passed over because of an eczematous eruption over the whole body, but chiefly on the head and upper extremities.

From an extreme opponent he became an extreme partisan by telling me that, if it would not make the child any worse, I might vaccinate it also. Feeling a little cornered, and as small-pox was across the street, I vaccinated the child, believing that there might be something after all in the theory of the "antagonism of poisons," and that, by setting up one disease, it might cure another. To my great satisfaction the vaccine did well, and the eruption began to decline as soon as the vesicles were developed, and soon disappeared entirely.

CASE II. Porrigio Capitis.—The infant child of a resident of St. Joseph street. At two months old an eruption on head appeared, which grew worse, and spread over face, arms, and chest. Every kind of treatment proved unsuccessful. When eighteen months old I vaccinated it, not for the purpose of curing it, but (as they were patients of my own) to determine whether vaccination in such a case would really aggravate the symptoms or not.

From the time that the vaccine disease had developed itself the eruption began to decline and, in about three weeks, had entirely disappeared.

CASE III. Secondary Syphilis.—During the winter of 1879 a young gentleman, calling himself a commercial traveller, called upon me to be vaccinated, stating that a gentleman had just been

taken to the Small-Pox Hospital from his boarding-house.

On stripping his arm I found an extensive secondary syphilitic eruption for which he told me he was then taking medicine.

I hesitated about vaccinating him, as I feared a possible syphilitic ulcer at the point of vaccination.

However, as his dread of small-pox was paramount to every other consideration, I yielded, and vaccinated him. He reported to me two or three times afterwards, when I found my vaccination successful. It ran the usual course, but was slow in healing, and desquamated a succession of scabs. As the vaccine began to decline an improvement in the appearance of the eruption was perceptible, and it gradually disappeared, whether from influence of an iodide or vaccine I am not prepared to say.

CASE IV. Eczema Simplex.—In a small street off St. Alexander I vaccinated three children, one aged about two years having an eczematous eruption on head, arms and body. It did well, and finally made a good recovery. After it had been vaccinated the father, feeling dissatisfied about it, consulted a senior practitioner, who very gravely denounced my procedure as very improper. However the result was satisfactory, and I blessed my stars for the old motto: "Nothing succeeds like success."

CASE V.—In Chaboillez street I vaccinated a child very recently having a general eczematous eruption of the body, with sores behind the ears: The vaccination was successful, and, when last seen, the eruption had entirely disappeared.

I can recall to mind several cases of chronic skin disease in which the eruption disappeared, after vaccination, but, until I read the letter of Dr. Drury in the *British Medical Journal*, I would not have had the courage to advise another to go and do likewise.

Dr. Drury's letter appeared in the *Journal* for September 4th, 1880, in which he narrates having vaccinated an eczematous child at the urgent solicitation of the parent, in which case the eruption began to decline on the fifth day of vaccination, and entirely disappeared. He then repeated the operation in a second and a third case with the same beneficial result.

This letter, called forth letters from others, and Dr. Murray writes, September 18th, 1880, that "It is or ought to be known to all obstetricians, that

vaccination is a cure for infantile eczema." Dr. Wilson also narrates cases of vaccination in eczema, followed by decline of the eruption, and Dr. Tyler writes in the same strain, narrating cases of eczema cured by vaccination.

But to Dr. Grant of Ottawa, seems to belong the credit of having first drawn attention to the alterative effects of vaccine lymph in cutaneous diseases. In the *Medical Times and Gazette* for March, 1863, appears an article from his pen from which I gather the following particulars pertinent to the subject under consideration.

CASE I.—Aged twenty-five, was one of psoriasis palmaris of five years duration; had tried various methods of treatment without success; finally as a *dernier resort* tried vaccination, "to observe the alterative effects of vaccine virus upon the system, under the conviction that vaccine introduced into the system is under certain circumstances one of the most powerful blood purifiers we possess." Had been previously vaccinated when a child; operation successful; case cured by 20th day.

CASE II.—Torica numularis on right forearm of boy, aged thirteen; re-vaccinated successfully; on seventeenth day disease disappeared.

CASE III.—Tubercula syphilitica; vaccinated on arm successfully. On fourteenth day the tubercles flattened down, and in four weeks only a slight desquamation remained in most spots.

CASE IV.—Psoriasis Lepraformis, æt. twenty-four, mother of four children; extending over whole body, even to roots of hair; tried alteratives without success. Six months after its appearance, tried vaccination. Disease disappeared in four weeks.

I have found a case (similar to last of Dr. Grant's) of Psoriasis Lepraformis of eighteen years standing, which I propose showing to the Society for the purpose of submitting this method of treating chronic cutaneous diseases to a *crucial* test. I propose to vaccinate her on both arms and both legs if she will allow me, and, after sufficient time has elapsed, ask her to come back and show what the results of the experiment has been.

This patient was presented to the Society and presented a well marked case of Chronic Psoriasis. On Nov. 1st she allowed herself to be vaccinated with animal vaccine on twelve places—three on each extremity. Nov. 10th, vaccine taken well; patient very feverish and ill from its effects. Nov. 17th—Eruption rapidly disappearing.

I need hardly add how pleased I have been to

find that others had made like observations with myself, and I will read you a note received from my colleague, Dr. Laberge, public vaccinator in Eastern District. In regard to vaccination in cases of skin diseases: From my experience as public vaccinator, I can state that I have vaccinated in various kinds of skin eruption without any bad effect. Moreover, I would have no hesitation in any kind of skin diseases, as I would expect no bad result to follow. I have remarked that in some cases the eruption is increased immediately after vaccination but again declines. As to the point raised whether cases are cured by vaccination, I have not followed up the cases vaccinated to be in a position to state the final effects.

In conversation with a lady patient a day or two ago, she narrated to me a circumstance bearing on this subject. A number of years ago she was residing temporarily at Berthier, P.Q., with a friend who had a child with a severe and obstinate eruption on the head. A Dr. Mull, a resident physician (an old Norwester), after trying various remedies, told the mother that he would try vaccination, and did so with the happiest results. The child recovered immediately. (I must apologise for introducing this tale here, but I have taken pains to verify it, and believe the above to be a narration of facts).

I am fully convinced from observation that the three following propositions embody the conclusions to be drawn from my own experience as public vaccinator.

1st Pure vaccine when introduced into the system of the human subject acts as an eliminator, and *drives out*, or causes to appear on the surface, any latent blood poisons that may have been lurking in the system. Hence practitioners are sometimes unjustly censured where an eruption has followed vaccination.

2nd. No harm can arise from the vaccination of children suffering from cutaneous eruptions.

3rd. Not only will no harm result, but because of an eliminative or alterative action of the vaccine virus on the human system, impurities in the blood may be got rid of, and many cutaneous diseases (not of parasitic origin, but depending upon the presence of some blood taint or poison in the system) may be radically cured by it.

4th. From all this it must be apparent to the most casual observer that the use of lymph taken from human subjects must always be attended with considerable risk.

Lastly. From what I have tried to bring before you, I think it must be apparent that in vaccine virus we have something of much greater importance to the profession than a mere prophylactic against small-pox; that in fact it is powerfully eliminative and depurative in its action, which will recall to mind the popular prejudice that the human system is always much more free from impurities after an attack of small-pox than before.

An interesting discussion then followed.

Dr. Kennedy said, with respect to the theory of the antagonism of blood poisons, advanced by Dr. Bessey, there appeared to be a possibility of such antagonism producing good results. He had recently a severe case of Psoriasis in a child, in which various remedies had been tried without success. Diphtheria ensued, and, on recovery from the latter, the skin affection entirely disappeared. With regard to vaccinating a child suffering from eczema, he thought it was improper, as the eruption was likely to be made worse, and thus bring discredit on vaccination. Some time ago had seen a child that Dr. Bessey had vaccinated a few days previously, this child was very scrofulous, and there existed an eczematous eruption and favus of the scalp. Since the vaccination the eczema was very much worse, and the favus had spread to the arm, which was severely inflamed from shoulder to elbow. The parents loudly condemned the vaccination, and could not be convinced but what the vaccine had poisoned the arm. Fortunately the disease yielded in a few weeks to the usual remedies. This case was an example of the impropriety of vaccinating under such circumstances, and therefore he would not favor the operation in skin diseases.

Dr. Reddy would like to ask Dr. Bessey how long a time usually elapsed after vaccination until a cure was effected.

Dr. Ross thought conclusions drawn in the paper too general. The number of cases reported were too few to enable the Society to form an opinion. A large number of cases would be required. As to how vaccine acts to produce this effect is pure speculation. The attempt to show that cases of secondary syphilitis and purely local chronic skin affections are amenable to treatment by this means was going too far, notwithstanding that Dr. Grant's cases were reported in substantiation of the theory. He thought the subject deserving of greater attention in future so as to define

the exact scope of the application of this agency in the treatment of skin affections. He thought it would be difficult to apply where patients had been previously vaccinated.

Dr. Larocque, health officer, had never given the subject any thought, but had never seen skin affections cured by vaccination. However, he was aware of the fact that eruptive blood poisons were eliminated by it.

Dr. Henry Howard considered much credit due to the reader of the paper for bringing the subject before the Society. More cases were required to form an opinion—all eruptive diseases are not *blood poisons* as, for example, *gouty eczema*, which is due to nerve irritation. Nervous irritable old people are liable to be eczematous. Impure blood, he considered to be blood laden with disease germs, and in many skin affections the blood was not impure. He hoped the observations would be continued, and more facts bearing on the subject elicited.

Dr. Roddick said it was an entirely new subject, and the observations made, and the boldness of the conception reflect credit on the reader of the paper. He would, however, not have feared any trouble arising from the vaccination of a person having a secondary syphilitic eruption as Dr. Bessey appears to have done. The cases which gave trouble were those in which syphilis had been conveyed or transmitted from a diseased to a healthy subject. The theory required to be supported by further evidence before it could be accepted by the profession. He would watch with interest the result of vaccination in the case of Psoriasis Lepraformis of eighteen years standing, presented before the Society to-night.

The President (Dr. Hingston) said the portion of the paper introductory to the subject proper referred to the "Instructions given to Public Vaccinators." Having been Chairman of the Board of Health at the time those instructions were issued, he considered himself personally responsible for them. They were compiled in the most careful manner from various codes of other countries, and to the careful manner in which the instructions were carried out by the public vaccinators the City was indebted for the remarkable freedom from accident which attended their work.

On former occasions, and before attention was directed to certain details which were formerly considered unimportant, accidents were of frequent occurrence, and of a nature to give a sort of ex-

cuse to the anti-vaccinators to continue their unfortunate attacks against the practice of vaccination. One of these instructions was not to vaccinate infants suffering from febrile disturbance or from cutaneous eruptions. He (Dr. Hingston) thought this a wise advice. As to chronic eczema he had nothing to say, not having seen vaccination practised for that disease. But in *acute* eczema the case was quite different. The latter is not a blood disease. Eczematous eruptions frequently occur about the period of teething, and the highest authority, West, for instance advises non-interference. It would be hardly fair to the little sufferer to add another irritant, such as that of vaccine, to one already producing so much disturbance. He hoped nothing in the paper just read would induce practitioners to vaccinate infants suffering from acute febrile or cutaneous disorders. If, however, vaccination were found to modify and cure *chronic* eczema, the Society would certainly be indebted to Dr. Bessey for having so earnestly drawn attention to the matter.

Dr. Bessey, said, in reply to Dr. Kennedy, he did not see case referred to after vaccination, as he understood the family physician had been called in, and he accordingly retired. However, judging from the time in which the cure was effected, he thought the case might be claimed for vaccination, which would at first greatly increase the eruption, and that would be followed immediately by decline and disappearance. In answer to Dr. Reddy, he said the time in which cures were effected in cases observed by him had been in about three weeks. Exceptional cases might be longer. In reply to Dr. Ross, he said he had not expected to establish a new departure in the treatment of skin diseases, but had merely wished to add his quota from the ample opportunity for observation which his position had afforded him. As to the difficulty about re-vaccination, Dr. Grant's cases were mostly re-vaccinated, and the result had been satisfactory, and no one would deny that Dr. Grant was a most creditable medical witness. Dr. Larocque had simply not paid any attention to the subject.

A day or two ago, while in conversation with a lady of this city on the subject of vaccination in skin diseases, she related a circumstance of a Dr. Mull, of Berthier, having vaccinated a child suffering from an inveterate eruption on head of what she termed Canadian Reef, for the express purpose of curing it, and with the happiest results.

Dr. Howard's objection was a valid one, but he did not propose to apply the remedy in any acute cases nor the skin affections of the aged, but thought its action specific in cases dependent upon a blood taint or germ in the system. Dr. Roddick's question might be answered by saying that he had feared an ulcer of a syphilitic character.

In reply to the President's remarks he stated that he merely referred to chronic cases of skin affections, and, notwithstanding the President's positive opinion against the possibility of contagion being conveyed by vaccine lymph, he would still believe it next to impossible to extract lymph, from a syphilitic patient, except in the earlier stages of the eruption and under the most favorable circumstances. Would not be as willing as the President to be vaccinated from a syphilitic person.

He trusted good results might flow from the discussion of the subject, and that it might prove beneficial to the course of vaccination generally.

ON THE LOCAL AFTER-TREATMENT OF OPERATIONS.

By Dr. C. E. NELSON, New York.

The writer begs to apologize to the readers of the Montreal RECORD for intruding his views once more upon their notice—especially on such a hackneyed subject as is indicated in the above title.

Lately, the attention of the surgical profession has been much attracted to, and even exercised by the treatment of wounds made in operations—the main cause of this has been the vaunted efficiency of applications, where carbolic acid entered, in various ways. We should be thankful to carbolic acid, or anything else, that would cause surgeons to look more closely into the result of their surgical practice. It is not my intention, this time, to discuss the merits or demerits of carbolic acid; nor is it my intention to weary the reader's patience with what surgeons have done, since the beginning of civilization, down to Lister; we all know the celebrated names, which are like household words. To the subject at once.

How should a wound (surgical, accidental, or caused by the bursting forth of matter) be *dressed*, and in what *way* should we endeavor to make it *heal*?

The Duke of Wellington was asked in Spain by one of the staff, in case of his death, if he had left papers, or a draught of a plan, which his surviv-

ing officers might follow closely? "Plan," he said, "I have *no* plan: my plan is to beat the French."

And there, I think, is the secret of our treating wounds, surgical or otherwise.

The great Russian General Suwarrow had a profound contempt for "councils of war," or, as doctors say amongst themselves, "consultations." After the junior officers had given their opinion severally, he would rise (with contempt marked upon his countenance), walk to the blackboard, draw two parallel chalk lines, saying, one was the Turks, the other the Russians; he would then wipe out one line, saying, to-morrow we beat the Turks—he then would walk away.

All this is to show that when we have got a thing to do, do your best, and let not your mind be disturbed by what this man and that man does.

Personally, I have *no plan* of treating wounds, or of operating either; before entering the room I have no idea of what I am going to do; after the operation has begun, or during its progress, I have not the slightest idea what I may be required to do next.

The after-treatment of wounds (surgical or otherwise) is universally divided into two sections, according to whether they be likely to heal (I) by the first or (II) second "intention"; the old surgical term being retained, which I suppose means "stretching," in allusion to the edges, or (as in case of amputation) the flaps.

But I do not know beforehand which way it is going to be; I may endeavor as much as I please to obtain union by the "first intention" (with or without that eternal carbolic acid), but my best endeavors may be frustrated just as likely as not.

Here I will note that I do not stick to one line of treatment either; I may keep continually changing, even twice in one day, if necessary.

If a *physician* were asked what were his plan for treating diarrhoea or headache, he would answer, "If I had six cases of each to-morrow, very possibly I might treat every one of them differently according to their causation." It should be the same with the surgeon in my humble opinion.

THE OPERATION. (INCISIONS, &c.)

Learned and lengthy treatises have been written (wasting people's time reading them) as to the different *kinds* of incision, and to the *way* of *making* them; as if it made any difference how you made them, if you had a tumour to get out. Special inculcations have been given, "how to hold the knife;" this can surely make very little

difference, although I hold it more by the blade than by the handle.

SPONGING AND LIGATURING.

For years I have been averse to this practice, mainly because, instead of stopping the blood, it generally causes it to flow more, thereby tantalizing the operator : in a small degree, it irritates the part, all and every irritation being best avoided by a careful operator. After the incision is made, *wait* half a minute and let the blood run down over the person's skin. If the officious assistants insist on stuffing the sponge down between the edges of your incision, there will almost certainly be an afflux of blood, which will most completely mask the incision, so that the operator does not know where he made his cut: the eyes of the bystanders are now on him, he gets impatient and perhaps nervous,—plunges ahead ; then there is much more blood, from his having severed many small vessels ; now, all is in hopeless confusion ; the bystanders press forward offering tenacula and ligature threads ; the operator draws himself up, stands aside, letting assistants pull out and ligate a great many more vessels than it is necessary to do: the operator now feels considerably relieved, and proceeds to the conclusion of the operation likely without any further contremeps.

I think the following a better method of proceeding [of course, I do not intend to apply the preceding or following remarks to hospital surgeons, but to young gentlemen who have seen but a limited private practice] : after having made the preliminary incision with a scalpel (I am not particular about its being very sharp), no sponge, then take a sharp bistouri, and cut *right down* to where you want to go, regardless of severed arteries ; as long as your knife fills up the cut, there will be little blood as yet come forth ; it is only on taking the knife out, and cutting round the tumour, e. g. in another part, that the blood begins and continues to come smartly ; if not an important loss, you may finish the operation there and then. If the blood is in largish jets (because the small jets soon stop of themselves) one of two things may be done: you may stop long enough to clap artery forceps (spring, or fitting close together) on each vessel, having several pairs at hand, lying on the patient ; or, assistant may press his different fingers on the vessels in severally, firmly, keeping them there till the cutting is finished,—this latter plan requires an

able and cool assistant—its disadvantage is that his fingers are in your way. When the tumour is excised, or an important artery ligatured (as the carotid), whatever the operation may be, next thing to do is to take a look and see how things are: if it is cancer, see that none is left behind ; if it is ligature of an important vessel take your time, and observe the chasm coolly ; if it all appears satisfactory, ligate the severed arteries, and close the wound, if it can be done.

Sometimes plasters (strips), sometimes not.

Sometimes sutures, sometimes not.

Uncovered, or lightly covered, compress and bandage, entirely excluding the air.

I think in the majority of cases it is best to put some kind of covering on, as the "aura" of atmosphere might possibly bring on tetanus.

ACUPRESSURE

I think is objectionable ; the needle may cause irritation, and is difficult to take away, let alone the possibility of tetanus accruing therefrom: formerly much in vogue, I believe very few now practice it, like many other passing inventions and methods.

TORSION.

Is, I think, bad, besides dangerous. There are different degrees of torsion, but with all of them a devitalized piece is left, which has to slough away afterwards, which is not exactly what a person wants when endeavouring to produce union by the first intention; the argument put forward in that case is that the little ends may be absorbed.

Leaving the chasm open, before finally closing.—This has been a disputed question. Perhaps it would be as well to wait a quarter of an hour, allowing surface to be "glazed over."

How to get rid of the blood after cutting.—May *rub it out* with one's fingers, wiping them as often as necessary on the patient's skin, which can be washed clean after the operation is over.

If the sponge is insisted on, dip a *small* one slowly, deeply, and firmly down, keep it there a little, then take it up vertically, and slowly, but no rubbing or scraping out, which irritates the vasa vasorum, and the nervous tendrils winding around and among the larger vessels.

Styptic cotton I have found of not the slightest use. *Hæmostatics* I suppose are only used by timid surgeons, who have not had very much experience: the same remark applies to Esmarch's bandage for "bloodless operations"; although many distinguished men have used it, for

the sake of experiment, it is now falling into disuetude.

Applications on wounds, with the view of excluding the air.—These may be tried, and found very serviceable; but the contemporary practice is rather to dress the wound, so as to be able to frequently examine it.

Stuffing charpie into the wound, a French practice, need only be mentioned to be condemned.

Leaving a piece of sponge in the wound is an exceedingly dangerous practice; the idea is that it will mechanically stop hemorrhage, it favours it, on the contrary.

Applying bandages requires a certain amount of discretion. In the first place, a bandage should never be applied so tightly as to cause extensive ecchymosis, or to impede the patient's breathing freely. A bandage need not be applied with the same amount of tightness *in all of its parts*, but modified according to circumstances. I should be inclined to put more faith in making a firm horizontal pressure than a vertical (or lateral) pressure there may be then less chance of abscess (suppuration) forming.

Drainage tubes, three horse hairs (or one only), leaving depending portion of incision open. I think all these expedients are faulty. I should suppose as much pus ran outside of the tube, as through it; in that case (like in the hollow style in fistula lachrymalis) it is of no use: it certainly must be a great inconvenience to the patient if he wants to turn in bed. *Horse hairs.*—As to these, Lister has already found that *one* is better than *three*; by-and-bye, he will find out that none at all is the best. *Leaving depending section of cut gaping open.*—I think this often tends to forming abscess, troublesome to treat afterwards, and sometimes dangerous.

Sutures.—For a while, those pretty *silver wire* sutures were all the rage. I dressed many cases for other surgeons, who had employed these. I was put to a great deal of trouble in vainly trying to get the dressings to lie down flat on their ends, people said they cause *in* suppuration, but it was not always true. *Catgut ligature* has sometimes the inconvenience of dissolving away. *Thread* is the best; *silk cuts* the flesh too much.

Deep and superficial sutures in the same operation.—I think it best to use the *deep* merely in cases of ovariectomy and laparotomy; to make up for not applying the deep sutures firm pressure can be made by one or more pads and bandages.

I think I have tired out my readers now, and may as well draw the line, hoping I have not offended anybody—if so it is unintentional.

FRACTURE OF THE CERVIX FEMORIS, EXTERNAL TO THE JOINT, IN A LADY 71 YEARS OLD, WEIGHING OVER 200 POUNDS: CURE, BY BONY UNION.

Dr. C. E. NELSON, New York.

Some of these cases, as related by doctors as cures, are thought by other doctors to be spurious, *i. e.*, that a mistake was made in the diagnosis; this seems to be a severe verdict upon the relators, although undoubtedly not, in some instances; however, in defense of the relators, these cases, in many instances, present more or less difficulty in their diagnosis—especially in very fleshy persons; then, again, a nervous doctor, who may not have been in the habit of examining such cases, may be more or less influenced by the patient crying out, if he causes the patient pain, and would thereby make a hurried examination, and, consequently, a very imperfect diagnosis.

I really believe that the facts of this case were as stated in the heading to this article.

Miss Canfield, of 471 Hudson street, New York, an unwieldy, heavy woman, 71 years old, tripped on the carpet, and fell solidly on her left hip, that is greater trochanter, of course,—the solid floor of the house being the counter-weight—the weight of her large body, the direct weight; between these two opposing forces (as every medical student knows) the neck of the thigh-bone gave in; she was unable to rise, and unable to raise or move that limb in any way whatsoever; the bystanders with difficulty placed her in bed. I was not sent for till next day: I took with me my friend, Dr. Schultze, sr., (who occupied a high rank in the army medical staff, in our late civil war, in the United States). This gentleman, on digging his fingers deep in, felt a break; on moving (rotating) the limb, he heard crepitus; I then felt the break myself (quite decided), but did not examine as to crepitus, not wishing to put the lady to any extra pain. According to Dr. Schultze's recommendation, we put her affected limb (after extension) on a plane, inclined upwards from the knee to the foot at an angle of about 30°,—adhesive plaster on each side of lower leg, and roller; to this was attached a loop of bandage, holding a kitchen iron (about five pounds weight), which was left hanging for weeks, by means of a string through an auger hole in the

foot-board of the bedstead. The patient was kept on her back, in bed, for almost three months, in intensely hot weather (summer of 1880). Once the nates felt irritable,—I had the skin of same washed with brandy, no further trouble occurred. For the first few days she was annoyed with startings (spasmodic drawings up) of the affected limb ; to day, perhaps four months after the accident, I saw her in company with Dr. Schultze, sr. : shortening, 5 inches ; walks on crutches, carefully ; gets off the bed, first one leg, then the other ; cannot stand without the crutches, putting on stockings ; bends sound limb, but cannot bend affected limb, owing in great part to swelling of knee, which latter has accompanied the fractured condition during most of the time. This knee swelling is very likely due to her having hit her knee also in falling. Is obliged to sit on a high chair. I must say that a few weeks ago I took Dr. Schultze, sr., there, for the purpose of “getting her up”. On examination, he dug his fingers in, and pronounced the bone perfectly united ; I did not examine myself, being content to take his word for it : we then proceeded to get her up, which was no small matter. After great difficulty, got her sitting up on edge of bed,—an easy chair was wheeled to edge of bed ; she then became bedewed with sweat, and fainted. When she was slightly come to we got her into the large chair, where she fainted again. After a while we got her up on the crutches ; in less than a moment she fainted, so we had to lay her down on the bed, with instructions to the people to get her up the best way they could. We at last got her into the chair once more, she again fainted dead ; after revival, we left. I must confess to the readers of the CANADA MEDICAL RECORD that I am not in the habit of seeing cases of fracture of the cervix femoris, so I asked Dr. Schultze if it was customary for them to faint the first day on getting up ; he answered he had often met with it. I have seen plenty of these cases when I was a student in the hospital ; but, compared to the chances of a hospital house-surgeon, a medical student has very little opportunity of making himself acquainted with the surgical treatment of fracture. A few words now to the younger readers of the RECORD : in my opinion, I think the usual way of measuring in fracture cases is erroneous and illusory. To ascertain the amount of shortening, it is recommended to put one end of the tape-measure on the anterior superior spinous process of the

ilium, taking it down to the sole of the foot of the corresponding side—repeating the like procedure on the other limb ; this cannot be accurate, for, when you place the end of the tape on the ilium process (above named) you cannot be sure whether it be placed half an inch too high, or half an inch too low,—and of course the measurement is faulty. I prefer taking the “natural measurement”, *i. e.*, bringing the knees and ankles together ; the difference is then (in case of shortening, in fracture) very obvious. To ascertain the exact difference in length of the two limbs, put one end of the tape against under surface of heel of shortened limb, then run the tape down to under surface of heel of sound limb ; the exact amount of shortening will thus be immediately obtained from $\frac{1}{2}$ to $2\frac{1}{2}$ inches, to do this nicely three little points require to be attended to : I. The patient's feet must be drawn up so as to be at right angles with the leg. II. A thin, hard-cover book must be placed beneath the feet so as the heels do not sink into the mattress. III. The tape must be held closely against the foot of the sound side. Some persons might object to this, that, if the patient does not “lie square” in the bed, this mode of natural measurement might be illusory ; however, a little care on the part of the medical attendant would obviate this.

Progress of Medical Science.

ON THE USE OF ARSENIC AS A BLOOD AND CARDIAC TONIC.

In a communication to the *British Medical Journal*, Dr. Lockie calls attention to the remarkable results obtained by him in the administration of arsenic in certain cases of anæmia, and those cases in which iron and good food had failed to produce any benefit. His attention was first directed to the power of arsenic in this respect by a paper published by Dr. Byron Bramwell, of Newcastle, in which he narrated several cases of essential or progressive pernicious anæmia where remarkable benefit accrued from the administration of this drug. Whether it really has the power of curing this disease—a disease which has hitherto baffled the resources of our art, and the good results apparently promised by phosphorus in the hands of Dr. Broadbent not having been obtained. to any extent at all events, by other observers—remains for the future to determine. Certain it is that in cases of anæmia approaching in gravity the so-called essential or pernicious anæmia, it is capable of producing great benefit. In support of this statement Dr. Lockie reports several striking cases.

CLINICAL LECTURE ON BURNS.

By R. J. LEVIE, M.D., Surgeon to the Pennsylvania Hospital and to the Jefferson College Hospital. Delivered at the Pennsylvania Hospital.

No injuries of ordinary occurrence produce such great and prolonged suffering as burns. Unfortunately, they are rapidly increasing in frequency and severity, due to the use of heat in mechanical occupations, to the universal presence of friction-matches, and, most seriously, to the extended application of highly-inflammable and even explosive fluids for the purpose of illumination. Petroleum is answerable for a great number of the most dreadful of these injuries that we admit to the wards, and the ignorant or careless use of it in attempting to kindle fires, or in filling lamps whilst the wick is still burning, causes some of the greatest human misery and frequent death.

Probably our hospital experience would show that no class of injuries, in proportion to the number, is so fatal. The majority of burns are of domestic occurrence, and women and children the most frequent sufferers. Our records give evidence of the great mortality of cases of burns among children, and of the termination of the sufferings of many, dying within a short period after their admission to the wards, without reaction from the primary shock of injury.

You have seen already, during this clinical term, how varied may be the character of injuries from the application of either dry or moist heat, from a mere erythematous redness of the skin produced by a momentary flash of burning gas or escaping steam to the total disorganization and destruction of a part. Burns vary in severity according to their extent of surface as well as to destructive depth. The complete incineration of a part, as a hand or a foot, might be a matter of less gravity than even a merely diffuse erythema affecting a large area of the skin. A man once walked into this hospital who had fallen into a vat or tank, and was immersed in water not hot enough to produce more than a superficial irritation of the derma, and without in any place blistering, yet he died within a very few hours. I have had cases in which part of a limb has been totally charred, through integuments, muscles, and even bone. One was that of a man who had been held for some time in the ruins of a fallen blast-furnace, whilst portions of his feet and hands were immersed in flowing molten metal until even the bones were charred; yet he recovered,—of course in a maimed condition. In another instance a man's leg was, by a curious accident, so held in a pot of molten iron that he could not extricate it, and the disorganization was total. So it is evident to you how the grades of such injury must vary.

Arbitrary classifications of burns are made by some surgical authorities, based on their depth,

but you need not be troubled about memorizing six or eight distinctions if you will merely bear in mind that the pathological significance, the prognosis, and the treatment of the injury will vary with its locality, the extent of surface involved, and the depth of penetration. If the application of heat be only momentary, a mere erythematous redness will follow, the cuticle will soon desquamate, and then complete restoration will ensue. A more prolonged application of heat will produce serous effusion, elevating the cuticle in the familiar blisters of bullæ. A deeper burn disorganizes the entire skin, so that effusion cannot take place; and I have spoken of still deeper destruction, even to the complete incineration, of a part.

A scald results from the application of moist heat, which, with water or steam, is not usually above a temperature of 212° , and the action is liable to be but momentary and superficial in effect. But the prolonged impression of moist heat may be as destructive—and in a pathological view the effect is the same—as that of dry heat, and I am inclined to use the word burn in a generic sense, to include the general action of heat, moist or dry, on the body.

Some of the cases of deeply destructive burning of parts I have seen among persons who were insensible at the time of receiving the injury, as in cases of epileptics who have fallen into open fires or against stoves, and the coma of drunkenness has frequently caused the same. One of the most extensive and deep burns I have ever seen in these wards was in the case of a man who was at the time intoxicated by the fumes of a lime-kiln by which he had lain to warm himself until his back was deeply roasted from the nape to the coccyx.

It is one of the curious traditions of surgery that the effect of exposure of the surface of the body to the rays of the sun, producing erythema of the skin, is in the text-books classed with burns. That effect is rather due to the intensity of solar light than to heat. I have seen the so-called sun-burn produced when the air was cold and the parts exposed necessarily colder than those which remained covered by clothing; and in the case of a boy whose neck and back were extensively vesicated from exposure to the sun whilst bathing, the skin had been continually wet with cold water, and actual burning was impossible.

When a severely burned patient is first brought into the wards, our intension is at once directed to two important and urgent demands of treatment,—the great pain that he is suffering, and the shock of injury. The immediate inhalation of an anæsthetic and a hypodermic injection of morphia are the speedy recourse, and these should be followed, if pain continues, by the internal administration of morphia, decisively, but yet with caution. When the injury is very severe and the prostration extreme, the patient

is sure soon to have well-marked rigors, with tremor, and the sensation of heat yields to a distressing chilliness. In the severest cases coma comes mercifully, and continues until death relieves the sufferer. When there is evidence of great general shock, it must be treated, as in ordinary traumatic injuries, by stimulants, quinine, nutrients, and warmth. If the clinical thermometer, placed beneath the tongue, indicates a temperature below the normal, it may not be enough to wrap the patient in blankets, which merely retard the escape of heat from the body, but warmth must be artificially imparted by contact with cans of hot water placed beneath the coverings.

The removal of the clothes of a badly-burned patient should be effected with the greatest care, cutting them off and removing them in portions, so as to avoid detaching the adherent cuticle. When blisters or bullæ exist, they should be merely punctured with the point of a needle, so as gradually to drain away the serum, always leaving the epidermis as the natural and unirritating protection for the burned surface.

After the first considerations of relieving pain and shock to the system, the local treatment of burned surfaces will require attention, and this must vary with the portion of the body injured, and also with the superficial extent and depth. Patients are always distressed by the vesicating influence of the air on even slightly-burned parts, and protection by dressings with lotions or unguents is essential. We are, in these wards, in the habit of applying, at first, mildly-astringent and antiseptic unguents for this purpose, such as the benzoated ointment of the oxide of zinc, or the carbolized ointment of the oxide, in the proportion of one part of carbolic acid to sixteen or twenty of the ointment. Such applications are soothing and disinfectant: and, if the surface is extensively blistered, with the epidermis broken, the comfort of the patient will be much increased by encasing the part in a layer of carded cotton, frequent disturbance of the dressing being carefully avoided.

In cases of extensive burn of the surface of the trunk and extremities, involving a very large area of skin, and where changes of the dressing would cause much suffering, I have directed that almost the entire body be simply wrapped in a linen sheet saturated with a slightly carbolized oil. For this purpose linseed oil, from its viscid character, is probably the best.

Most of the domestic remedies which are resorted to have some merit in at least protecting the parts from the air, but such popular applications as flour, molasses, starch, soap, and glue have the inconvenience of being dirty, and some of them incline to form crusty masses over the surface which are not easily removable. The familiar combination of linseed oil and lime-water—a soapy emulsion—has no real merit,

and has the disadvantage of becoming disgustingly offensive when combined with the discharges from burned surfaces. It is at all times exceedingly difficult to prevent fetid effluvia from the bodies of patients who are extensively burned; and such are the most offensive surgical cases we ever have in the wards. As ablutions and frequent changes of dressing are attended with suffering, the prevention of putridity is best effected by the use of carbolic acid, which has the property of being a local anæsthetic as well as an antiseptic.

The application of a paint of carbonate of lead and linseed oil, as practised by Professor Gross, is said to be very soothing, quickly relieving pain, and it has the merit of being readily attainable in places where severe burns are apt to occur. The originator of this treatment says that he has never seen evidence of its being followed by the specific toxical effects of lead, even where the dressing is extensively applied; but in individuals who are peculiarly susceptible to saturnine influence it might be dangerous. A recently-proposed remedy, which has remarkable virtues claimed for it, is the bicarbonate of sodium, in fine powder, dusted over the burned surface or applied as a saturated aqueous solution. It is said to relieve pain instantly, and that burns heal readily under the application. The watery solution of bicarbonate of sodium would have the serious objection of other wet dressings,—in chilling the patients when largely used,—and it must be remembered that during the existence of shock from burn, the temperature is often much below the normal, and that the restoration and maintenance of warmth should be a primary object. Dr. Ludlow, of this city, states that the application of the ordinary brown resin soap, spread on linen cloths, quickly relieves pain, and is a very satisfactory dressing.

When mortification of a part occurs from a deeply-penetrating burn it must be treated, as gangrene from other traumatic causes, with cataplasms and antiseptics, to facilitate separation of the dead from the living tissues, and to avoid fetor and septic infection of the patient's system.

There are some remarkable visceral complications of burns which you should watchfully and carefully anticipate, and, if possible, guard against. The statistics of death from burns show that associated intra-thoracic, intra-abdominal, and cerebral lesions are the causes of death in nearly one-half of the fatal cases. These affections are usually either congestion or inflammation, and are ordinarily associated with burns of the overlying integument. Generally tonic and stimulating treatment seems to be the most available in such complications.

There are other serious pathological associations of burns, to which I can at this moment make but passing reference. Intestinal ulcera-

tion is a frequent and curious attendant of extensive burns, particularly of the trunk, and causes many fatal terminations. This remarkable associated lesion, which affects the mucous membrane of the small intestines, particularly the duodenum, is not well explained, and cannot always be diagnosticated, but the persistence of uncontrollable diarrhœa and vomiting should incline you to direct your attention to the probability of the existence of such lesion.

There are some structural changes resulting from burn involving destruction of integument which result in cicatricial contraction, and often require the aid of reparative or plastic surgery for their relief. The contact of denuded surfaces is liable to result in their unnatural union: so they should, by position and by dressings, be kept apart, and in parts liable to be deformed by contraction the healing integument should be kept stretched until long after cicatrization is completed.—*Phila. Medical Times*.

A CASE OF INVETERATE EPILEPSY SUCCESSFULLY TREATED BY ERGOT AND BROMIDE OF SODIUM.

By J. K. BAUDRY, M.D., Professor of Nervous Diseases and Psychological Medicine in the Missouri Medical College.

In the treatment of such an implacable affection as epilepsy, specialists in the treatment of nervous diseases have few successes to signal in confirmed cases.

Therapeutic measures are ordinarily crowned with good results only under special circumstances, peculiarly favorable for their attainment.

When the malady originates in eccentric causes which can be removed, reflex irritations, which, whilst recognizable are susceptible of eradication, together with epileptic manifestations which are acute or strictly incipient in character, and certain dyscrasia from blood poisoning: all these conditions constitute the sole varieties of this morbid affection which furnish a reasonable hope of cure. Idiopathic cases are usually irremediable; such at least is the usual experience of the profession at large. The following case, therefore, is of no little interest, and its peculiarities will afford an ample apology for its publication.

Miss—, æt. 18, consulted me in 1874. Her mother gave the *history* of her case, which I will state as concisely as possible.

She had been subject to attacks of epileptic convulsions from the age of 2 years. The attacks were of the nature of *grand-mal*, and occurred monthly. They thus continued until about the period of puberty, when they became greatly aggravated in frequency and intensity. The etiology was very obscure, if not altogether wanting. There was a vague reference to an accident sustained in early childhood or infancy, occasioned by the nurse falling with all her weight

upon her, causing her to experience a severe blow upon the back of her head. Beyond the statement of the fall sustained, it was impossible to recall the subsequent development of symptoms which were directly or indirectly to be traced to such an injury. As stated before, when the catamenia were established, all the manifestations of the epileptic disease were intensified, on which occasions the periodical hemorrhage was ushered in with a violent convulsion. Five or six lighter attacks invariably followed during the course of the first day. On the second day two or three more seizures occurred. On the third day she usually escaped with one.

In order to convince the most skeptical, I may state *en-passant* that a most careful analysis of all the symptomatic developments most obviously corroborated the diagnosis of epilepsy. The profound loss of consciousness, the laceration of the tongue, the tonic followed by clonic convulsions, the great pallor of countenance at the commencement of the seizure succeeded by great lividity, the foaming at the mouth, the stupor or comatose condition which followed the convulsions, were all susceptible when viewed in one picture of but one possible interpretation.

The case could not properly be relegated to the nosology of hystero-epilepsy, because the characteristic *contortions* which are almost pathognomonic of that disease were entirely absent.

The most interesting collateral fact connected with the case was the frequent development of a singular and anomalous state of mental automatism.

Dr. Hughlings Jackson has offered to the literature of this subject some most interesting observations, the explanation of which has many features of the originality for which that distinguished observer is so justly celebrated. He states that "the condition after the paroxysm is duplex: (1) there is loss or defect of consciousness, and there is (2) mental automatism. In other words, there is (1) loss of control, *permitting* (2) increased automatic action."

Dr. Hammond, in commenting upon these views in the recent edition of his most excellent work on Diseases of the Nervous System, states that "whilst in the main agreeing with Dr. Jackson, I am scarcely prepared to deny that such unconscious attacks may not be substituted for the more fully-developed paroxysms instead of, as in his opinion, always following a seizure."

My experience, however, especially that which is illustrated by the remarkable case we are citing, concurs with Dr. Jackson's views, that such phenomena are post-epileptic, and not mere substitutions for the seizure proper. This young lady, who was an accomplished musician, would perform most difficult pieces upon the piano, and when subsequently complimented by visitors, who were then present, would not have the most remote recollection of ever having played

in their presence. She would, under these influences, knit marvelously and achieve prodigies of fancy work with her needle, and upon being interrogated by her mother would be entirely oblivious of such accomplishments during the prevalence of the automatic mental conditions described. Being a Catholic, she frequently went to confession and communion whilst subjected to these peculiar mental phases, and upon returning to her normal mental state, would most strenuously deny to her relatives any recollection of such actions, usually disavowing the possibility of their occurrence, without her full consciousness and remembrance thereof. Her general deportment, intelligence and coherence of conversation during the mental automatism were all that her most critical friends could desire; yet the oblivion of all actions, conversations and moods, whilst thus acting automatically was necessarily perfect and incontestable. Such were the developments which for years marked this young lady's life, and no one will consider them exaggerated who is at all familiar with the literature of the obscure, remarkable and protean manifestations of epileptic disease.

A case cited by Dr. Hammond, page 672, in his sixth edition, "Diseases of the Nervous System," occurring under his observation, and in which the mental automatism lasted eight days, will satisfy the doubts of the most incredulous upon this subject, as it is the most remarkable case on record and an undisputed fact. That Dr. Hammond is *facile princeps* the leading authority on this continent on all that is allied to Neurological Science, will be my apology for introducing it in this connection.

The patient, who was engaged in active business as a manufacturer, left his office at about 9 a. m., saying he was going to a florist's to purchase some bulbs. He remained absent eight days. He was tracked all over the city, but the detectives and friends were always an hour or more behind him. It was ascertained that he had been to theatres, to hotels where he slept, to shops where he had made purchases, and that he had made a journey of a hundred miles from New York, and, losing his ticket and not being able to give a satisfactory account of himself, was put off the train at a way-station. He had then returned to New York, passed the night at a hotel, and, on the eighth day, at about ten o'clock, made his appearance at his office.

He had no recollection of any event which had taken place after leaving his place of business, eight days previously, till he awoke on the morning after his return to the city, and found himself in a hotel at which he was a stranger. It was ascertained beyond question that in all this time his actions had been entirely correct to all appearance, that his speech was coherent, and that he had acted entirely in all respects as any man in the full possession of his mental faculties would have acted. He had drank

nothing but a glass of ale, which he took with some oysters at a restaurant.

I will not be accused of a digression in the clinical description of this case by the aforesaid references, as this history would not be complete without their citation. Then again, for those who (as regards its therapeutic management which is to follow) are incredulous concerning the *post hoc ergo propter hoc*, will at least be convinced that all the phenomena which had to be dealt with were purely of epileptic origin.

The patient had been treated most perseveringly by many eminent physicians, and was finally taken abroad in order that nothing would be left undone. She was there under distinguished professional care. In passing through this city, in October, 1874, her mother was induced to consult me by a mutual friend.

I must confess that I felt that, under the circumstances, it was almost useless to prescribe.

As a forlorn effort at simple palliation, I determined to utilize the recommendations of Dr. Kitchen, in a then recent article in the *American Journal of Insanity*. The article referred to is headed as follows: "Ergot in the treatment of Nervous Diseases," by Dan. H. Kitchen, M.D., Assistant Physician of the New York State Lunatic Asylum. He states, page 90, July Number, 1874:

"In epileptic headaches and in epilepsy we have used ergot largely."

"In *petit mal* there are muscular twitchings, congestions of the face, suffusion of the eyes, and a rush of blood to the head. We have in many of these cases been able to ward off the *grand-mal* by large doses of ergotine. We have often combined it with conium, and it seems in this combination to work even more satisfactorily than alone, which is chiefly due, we suppose, to the sedative effect of the conium."

We therefore placed the patient upon a formula almost identical with Dr. Brown Sequard's celebrated one for epilepsy, substituting the sodium for the potassium salt, in consequence of its less depressing effect and of its greater tolerance by the system, giving three times daily twenty grains of the former with a half drachm of Squibb's Fl. Ext. Ergot. She began the remedy in October, 1874, and took it *faithfully* for, a year and a half.

Her mother stated that at the four subsequent menstrual periods she had three severe epileptic seizures daily. They then disappeared entirely. Continued medicine, notwithstanding their cessation, for over eighteen months. The fits have never recurred since early in February, 1875, now three years and ten months.

Present condition—Her general health is excellent; she enjoys society, of which she is an ornament; her intelligence is far above the average; no vertigo; no nervous symptoms of any kind are present; no phenomena which might point to the presence of aborted epileptic par-

oxsysms. One month ago she was in my office in splendid mental and physical condition, presenting no traces of her old malady except numerous scars upon her tongue, vestiges of her direful experience in the past.—*St. Louis Courier of Medicine*.

VAGINITIS.

Extracts from Dr. J. MATTHEWS DUNCAN'S clinical lecture in *Medical Times and Gazette*.

Vaginitis is a disease greatly neglected in medical practice and literature. This arises from two circumstances; it is often chronic and slight; and it often forms a part of a more extensive disease, of which other parts are much more urgent, and attract the whole attention of the observer to themselves. The frequency of this disease gives it great importance.

Diphtheritic vaginitis is a rare disease. Erysipelatous vaginitis is a rare disease; and there is a peculiar form of it which is rarer—a diffuse inflammation of the external cellular coat, causing swelling which almost occludes the whole length of the passage; and when this ends in suppuration it sometimes so dissects out the tube of the vagina as to deserve the name para-vaginitis dissecans. Lately I have seen a case of vaginitis with similar inflammation of the cervix uteri, where the disease consists of rounded sloughing phagedenic ulcerations, of one or two lines broad, for whose origin no satisfactory syphilitic account could be given; the ulcers were on the laquear vaginae and on the cervix. Then an ulcerous vaginitis ending in adhesions is described; and I have seen a pustular vaginitis.

Besides these differing kinds there are varieties of vaginitis, as where the disease attacks only parts of the passage, as the laquear, in which case it is very frequently associated with inflammation of the cervix uteri. It also frequently attacks the lower part alone of the vagina, and in that case it is often associated with inflammation of the pudendum. Besides, the inflammation may be of small parts, so that when the vagina is looked at it has a mapped, or a marbled, or a mottled appearance. I have seen also a vagina spotted like a Dalmatian dog, as if the chronic inflammation were only around the openings of numerous little mucous follicles, regularly arranged. Again, as in a case which I showed you in "Martha" last Tuesday, the inflammation may so affect the ridges of the rugæ of the vagina that they alone appeared, the sulci being pale.

Vaginitis may be a local or a constitutional disease. The characteristic acute vaginitis, gonorrhea venerealis; or the same disease occurring after marriage, or the same disease occurring after the introduction or during the wearing of a pessary, are examples of local (purely local) disease. If the disease is severe it draws the constitution into sympathy with it, and you have a constitutional affection secondary to the local. But a large number—

indeed I think the majority of cases—are constitutional in their origin; they exhibit an order the reverse of that which I have mentioned as characteristic of local diseases; it is the constitutional that brings on the local affection secondary to the constitutional.

In this hospital it seems natural to speak at length on the constitutional origin and treatment of local disease, of which Abernethy made so much. There is an inflammatory diathesis which accounts for the occurrence of local diseases, and this is occasionally well exemplified in lying-in women. Such, while well and tenderly cared for and scrupulously nursed, and after the time of septicemia and pyemia are far past, may have a violent attack of pleuritis or pleuropneumonia, for which no explanation can be discovered, and which begins and ends as a simple inflammatory disease, but not a mere local disease; it springs from a constitutional origin, and this origin we call the inflammatory diathesis for want of a more definitely intelligent name. . . .

What are the constitutional conditions which give rise to vaginitis? Alcoholism is the most important; the next is old age; the next is lupus, or rather the constitution accompanying lupus; and the next diabetes, and in this case the vaginitis is generally accompanied by vulvitis.

The importance of this distinction of vaginitis into local and constitutional is seen in treatment. A local vaginitis is to be managed almost entirely by local treatment. A constitutional vaginitis will be very imperfectly and unsuccessfully treated if you pay attention only to the local treatment; whereas if you pay attention to the constitutional treatment and even omit local treatment, you will succeed. . . .

This inflammatory affection of the whole genito-urinary organs by alcoholism, and of which vaginitis is a part, is not a disease which stands alone. There is a well-described disease, for instance, which affects the same systems of organs, and them alone, in women, called genito-urinary tuberculosis, a good example of which in the post-mortem room is one of the most interesting sights I know. . . .

This form of vaginitis is often easily cured, but it is very liable to relapse; for I have classed it as of constitutional origin; and who will remove lupus from the constitution? . . .

Epoch or age here produces not different diseases of the vagina, but it produces vaginitis of different kinds. You have no vaginitis in childhood. I, at least, have never seen any except of the lower part adjoining the hymen. Then during mature life you have the characteristic acute vaginitis, the venereal gonorrhea, or a like disease, which may owe its origin to a perfectly pure sexual intercourse. An acute vaginitis is not to be so designated, unless it has the combination of characters necessary to entitle it to that name. You must have intense inflammation rapidly coming on after the cause has acted, coming to a climax in eight or nine days, and then rapidly fading and going away altogether or becoming chronic; and you must have during

the height of the disease a copious flow of laudable pus.

The vagina in this disease generally presents a red, raw-like surface, beneath which there is little edema, the rugæ not being obliterated. It is sometimes punctated, which probably arises from the injection of papillæ, and it is often granulated from the same cause.

The vaginitis of old age is generally subacute, and a similar disease is not rare during pregnancy and in the puerperal state. Rarely does the vagina, when inspected, present the same appearance as in the acute vaginitis of youth. It is oftener smooth, having a glazed appearance and feeling, the rugæ being obliterated and reappearing as the disease is cured; and sometimes you see areas over which the mucous surface seems to be destroyed, and these bleed readily, especially when touched. In many of these cases you are consulted not for vaginitis, but for so-called menorrhagia, which the woman supposes she is suffering from; and, as you know, this is an alarming symptom in old women.

This disease, especially in old women, leads to garrulitas vulvæ, not the garrulity of feeble-mindedness to which I have before referred. The vagina secretes air, and the woman may be extremely annoyed by passing it from the body. This is not the only explanation of passing air from the vagina, but it is the only one I at present mention; and I may remind you of the disease called vaginitis emphysematosa. In the subacute vaginitis of old women the bladder is very often simultaneously affected. The pus is generally thin and green. It is sometimes extremely copious. Although the disease may depend greatly upon the permanent constitutional influence of senescence, it is upon the whole amenable to simple treatment. . . .

Chronic vaginitis of youth occurs in various forms. There is a chronic vaginitis in which the vagina is hard and small, its rugæ well seen, seen but yet evidently swollen, edematous, and with either no secretion or with the rugæ painted over by an old gray-white accumulation of sordid epithelial detritus. This, which may be called dry vaginitis, has its analogue in a disease of the deep cavities of the nose, which I have suspected as producing peculiar headache and giddiness, and which is assuaged or cured by the same soothing remedies as act on the disease in the vagina.

The chronic vaginitis of old age, as I have already said, is generally accompanied by pruritus, and frequently causes alarm by bleeding.

I have mentioned many forms of vaginitis, and one important practical subject I must discuss briefly in connection with the forms of this disease. Is it, in any special case, venereal or not venereal? You will, in practice, often be asked this question, and I advise you never to answer it explicitly. You can not decide absolutely whether a case is venereal or not. At one time it was supposed that the discovery of trichomonads, or a leptothrix, or a vibrio, would decide whether it was venereal or

not. But this is now given up. I have seen gonorrhea which was certainly not venereal bear every character of the ordinary venereal disease. I do not say that there is no distinction, but only that the distinction can not be made out by the practitioner so as to justify him, from his own inquiries into a case, in giving a decided opinion on the subject. Meantime, the distinctions of venereal gonorrhea are simply marks of severity. It has been said that venereal gonorrhea is infectious, while simple gonorrhea is not; but I have seen every character that can be predicated of the one occur in the other, as I said before, including infection.

What are the characters that make you suspect that a vaginitis is of venereal origin? It begins within a few days (generally two or three) of the infection; it is very severe, and runs an acute course; the secretion of pus is copious, beginning about the third day of the inflammation, and remains copious for about a week or nine days. The vulva is generally affected, so that the woman has more or less difficulty in walking; and the vulva being affected, the inguinal glands are liable to be affected and you may even have bubo. The urethra is affected, and also the bladder; there is liability to ovaritis and to perio-ophoritis; and there is the almost certain infection, not only by sexual intercourse, but by the matter touching any mucous surface, such as that of the eye.

The treatment of this disease is so well described in every text-book that it would be waste of time to enter upon it. It must be based upon a careful diagnosis, including the diagnosis of the local or constitutional origin of the disease, the diagnosis of the simplicity of the affection, or of its complication or extension to other parts.

HEAT AND LIGHT IN THE SICKROOM.

A recent writer gives the following sensible suggestions on this subject:—

Each person in a room should be supplied with 3000 cubic feet of air per hour; and this should be done, where possible, without creating a perceptible draft, for the nervous irritation induced by drafts is liable to produce internal inflammations.

The temperature of the sick-room should be kept at a uniform height, the best average being from 65° to 70° F., except for infants or very old people, who require a temperature from 75° to 80° F.; and for these it is especially important to guard against changes, and keep it as uniform as possible. All cases of fever require a temperature lower than the average, as from 50° to 60° F., to assist in reducing the high temperature of the body; but, when the fever subsides, and there is much debility remaining, the temperature should be raised somewhat above the average. As a patient can bear a greater degree of cold when in bed than when out of it, convalescents from severe diseases, fevers especially, should have the temperature of their rooms higher than that maintained during

the height of the attack. Diseases of the air passages, as croup and diphtheria, require a high temperature (80° to 85° F.) and a moist atmosphere. The best method for heating the sick-room is by the open grate fire.

The sick-room should not be darkened by blinds, except where there is disease of the eyes, with photophobia, or where the patient is very restless and cannot sleep; then strong light must be excluded. Otherwise the sunlight should be allowed to enter and act chemically by decomposing the noxious gases, and thus purifying the air. Of course it is not advisable to place the patient under a strong, uncomfortable glare of sunlight, nor in summer to allow the sun's rays to shine into the room and raise the temperature too high. Artificial light has no useful effect, but does harm by burning up oxygen.

THE COLLODION BANDAGE IN THE TREATMENT OF UMBILICAL HERNIA.

Umbilical herniæ are very frequent in the first year of life.

They are of different forms, according to their chronicity and the age of the child: (1) A slight enlargement of the umbilical ring through which a small tumour projects. (2) A considerable enlargement of the umbilical ring, through which a tumour projects varying in size from a walnut to an apple. (3) A slight enlargement of the umbilical ring, with small or large projections, variously located about the ring, above which the principal mass of the tumour projects. (4) A considerable enlargement, and simultaneously a considerable projection of the ring. Under this latter form the largest umbilical herniæ occur. The first category heals without artificial aid, the 2nd, 3rd and 4th classes require treatment on account of their size, and continual increase.

In the Vienna general Polyclinic, the collodion of Rappa (of Naples) is used. It is applied in the following manner. The mother takes the child on her lap, the shoulder lying on the left, the hips on the right leg. The upper extremities of the child are held fast by the left hand of the mother, the lower extremities by the right hand.

The hernia and its vicinity are now penciled over with a broad layer of collodion. The hernia is now reduced, and a folded compress 4 centimeters wide and 3 centimeters long is placed over the ring, the side next to the hernia having been covered with collodion. This compress is held in place by an assistant, and a long strip of adhesive plaster, 3 centimeters broad, is placed over it. This strip must be long enough to pass around the body and cross upon the abdomen. During the application of the plaster the recti-muscles must be pressed together by an assistant. Finally, over this a linen bandage equally long and broad is applied, and the entire surface of the bandage over the abdomen is covered with collodion.

To protect from eczema Monti applies a mix-

ture of emplast. diachyli simp. and cerat. fuscum, instead of the adhesive plaster. The formula is, emplast. diachyl. simp., 30; cerat. fusci 10; ol. oliv. 9.5; ut liquifact, ft. emplast.—*Cent. Zeit. f. Kdrhlk.* 21, *Der. Prak. Arzt.*, 8, 1878.—*Cincinnati Lancet and Clinic.*

COUGH PRODUCED BY ACCUMULATIONS IN THE EAR.

The patient, a singularly robust young lady, consulted me in regard to a cough of some three years standing. The cough was loud, incessant and peculiarly hollow. It was dry, unaffected by times of day, seasons, or weather. It deprived her often of rest at night, and rendered her a source of annoyance and anxiety to her friends. She had consulted various medical men, and had taken almost every conceivable patent medicine, including some powerful sedatives, without obtaining even slight relief. The heart and lungs proved, as I had expected, to be healthy. The functions of the uterine, gastro-intestinal, and renal systems were stated to be strictly normal. There were no symptoms indicative of the presence of entozoa. The condition of the throat was natural; there was no relaxation of the uvula. I had come to the conclusion that the cough must be of a hysterical nature, when it occurred to me to examine the ears. The left membrana tympani was plainly visible and healthy. The state of the right one was hidden by a dark mass. On touching this mass with a probe, through the speculum, the patient's peculiar cough was immediately produced, and by keeping up a very slight, steady pressure on it, a fit of coughing, not unlike a violent paroxysm in whooping cough, resulted. By the aid of a large ear-syringe and a weak, hot alkaline solution, a piece of hard wax, *fons et origo mali*, was, with some difficulty, produced. It weighed over three grains. I followed up the syringing by the use of Politzer's apparatus. The cough ceased, and, though some weeks have now elapsed, it shows no sign of returning.—A. E. Bridger, M.B., in the *Lancet*, March 6, 1880.

LINIMENT FOR SORE NOSE.

Hager, who is strong in "learned" names, calls this *Licquor rhinohygranticus*. He recommends it for the soreness of the nose caused by the acrid secretions due to a cold in the head:

Corrosive sublimate.....	1 grain.
Benzoic acid.....	$\frac{3}{4}$ "
Rose water	2 drachms.
Diluted alcohol.....	$\frac{1}{2}$ drachm.
Glycerine.....	$\frac{1}{2}$ "
Tincture of opium.....	10 drops.

Apply three times a day with a camel hair brush.—*Pharm. C.H.*

FORMULA IN GONORRHŒA.

Dr. Herbert L. Snow publishes, in the *British Medical Journal*, April 17th, 1880, the following formula, which in his hands has proved of great service, and which is not particularly unpalatable:—

R. Ol. copaibæ,
 Ol. cubebæ, aa 3 ij
 Liquor potassæ, 5 iiss
 Tinct. aurantii, 3 ij
 Syrupi simplicis, 3 ij
 Aq. menth. pip., q.s. ad 5 viij. M.

SIG.—Two tablespoonfuls, three times daily.

As an injection, he regards the liquor potassæ permanganatis (3 iij ad aquæ 5 vj) as by far the best injection, and it has the great advantage of being serviceable all through the acute stage of gonorrhœa. It should be used very frequently; and subsequently, a little zinc sulphate may be added, with benefit.

EARACHE AND CHLOROFORM VAPOR.

Dr. Morgan states that he has often promptly relieved the distressing earache of children by filling the bowl of a common new clay pipe with cotton wool, upon which he dropped a few drops of chloroform, and inserted the stem carefully into the external canal, and adjusting his lips over the bowl, blew through the pipe, forcing the chloroform vapor upon the membrana tympani.—*National Medical Review*.

THE CANADA MEDICAL RECORD,

A Monthly Journal of Medicine and Pharmacy.

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MONTREAL, NOVEMBER, 1880.

LAVAL MEDICAL FACULTY.

No small degree of excitement and ill-feeling has arisen among our French confreres, in consequence of the Laval University of Quebec having opened a branch college in the city of Montreal, which they have done, they say, with the intent of affording a more efficient system for the higher education in this city of the French and other Roman Catholic Medical Students, which statement in itself would seem to imply that the Roman

Catholic Medical Students following the courses in the already well-established schools and universities of Montreal had not been able hitherto to secure a first-class education; which assertion, to say the least of it, was not only egotistical and bombastic, but decidedly discourteous to the Montreal Colleges, which have always ranked high as educating establishments all over the world.

There were already in this city McGill University, which was established somewhere about 1830; The Montreal School of Medicine and Surgery, opened in 1845, and affiliated with the University of Cobourg, Ontario, about 1866; and the Medical Faculty of the University of Bishop's College of Lennoxville, Province of Quebec, established in 1871. When the latter Faculty commenced operations by opening their doors to Medical students, there was a great outcry against multiplying the seminaries for higher education; for it was maintained that the two schools before existing were fully competent to afford all the facilities for acquiring a knowledge of medicine that could be required, inasmuch as the lectures were given in English in the one (McGill) and in the French language in the Montreal School of Medicine. Therefore, they contended, there was no necessity for the opening of another medical school in this city, and all that could be done was tried to prevent its success, but without avail; the very opposition of its rivals having perhaps assisted rather than injured it. The Laval University, however, appears to have entertained different views, since they have established a fourth school in our midst; but concerning this, more anon.

Shortly after the opening of Bishop's Medical School, there were certain reports circulated to the effect that the Jesuits were endeavoring to obtain University privileges, in fact that they were about to apply to the Provincial Parliament for a charter, and that should they obtain one it was their intention to adopt the Montreal School of Medicine and Surgery as their Medical Faculty. But notwithstanding the power of that august order they found their equals in the authorities of the Laval University, who had determined to oppose such a procedure by every available means, as it would injure their College at Quebec, and so the matter stood.

However, about this time Monseignor Conroy was sent out from Rome as a special envoy to endeavor to arrange amicably the disputes that had arisen between the ecclesiastical bodies of Laval,

St. Sulpice and the Jesuits concerning this and other matters spiritual as well as temporal, and he thought that he had fulfilled his mission in this particular instance most satisfactorily when he had obtained their consent to form an amalgamation between the bodies just named, and the French Montreal School of Medicine and Surgery was in this manner absorbed, as it were, by the Laval University, professors, buildings, hospitals and all, and was henceforward to be regarded and known as the Montreal branch of the Laval University. His Holiness the Pope shortly afterwards issued a bull, approving of this arrangement and confirming the appointments then made. The professors of the Montreal School of Medicine fell into the trap set for them most unsuspectingly, and this apparently satisfactory state of affairs lasted for about a couple of months; when the Faculty of the Montreal School of Medicine, now the Montreal branch of Laval, felt the necessity of making certain alterations in their staff of professors, and wishing to make a certain appointment, the party named was refused at Quebec, and they were coolly informed that in future they would be spared this trouble, and that all appointments would henceforward be made by the authorities of the Parent University at Quebec. This clipping of their wings opened their eyes, and a revolution followed, most of the professors preferring to remain as the Montreal School of Medicine, and to retain their rights as such as heretofore, rather than sell their birthright for a mess of pottage. Laval then endeavored to compel them, but the nuns of the Hotel Dieu, in consequence of an old arrangement, supported the Montreal School, and refused Laval the use of their valuable Hospital, which was indispensable to the latter. From that time the Montreal School has continued to carry on its lectures independently and under affiliation with Cobourg, as before.

Laval, however, having once obtained a footing (though only nominal) in this city, is determined to maintain her ground, and proceeded to fill up the vacancies in her medical staff, created by the secession of most of the old professors, a few only remaining with her, and opened her doors to medical students in this city the same year (1878), and as a hospital was indispensable, she opened a new one for the accommodation of her students, the Hospital of Notre Dame, in 1880.

As this step injured the Montreal School very

materially, the lectures being delivered in the French language only, in both of these institutions, they strenuously objected to it, and finally sent one of their members (Dr. d'Orsonnens) both to London and to Rome, to obtain a legal opinion upon the powers and privileges allowed by the Royal Charter of Laval, and also to lay the matter before His Holiness the Pope. The following was the opinion received from Sir Farrer Herschell, Solicitor-General of England, after a careful investigation of that charter:—

RE UNIVERSITY LAVAL AT QUEBEC.

"I am of opinion that the Laval University of Quebec is not entitled under its Charter to establish itself elsewhere than in Quebec, or to establish faculties of Theology, Law, Medicine and Arts, to exist at the same time at Quebec and Montreal. I think the Charter by which it is incorporated establishes it as a local University at Quebec, and that it acts in excess of the powers and privileges conferred upon it by the Charter when it establishes itself elsewhere. There are various considerations which point to this conclusion, amongst others, I may mention that the title is strictly local, that the visitor is the Archbishop of Quebec, that the Rector is the Superior of the Quebec Seminary, and that the Council consists principally of the Directors of that Institution. If it were in the power of the Laval University to do what is contended for, great inconvenience might arise: for all the senior professors who form part of the Council might at any particular time be professors of the branch at Montreal whilst the other *ex officio* members of the Council were all at Quebec. Further, it is to be observed that the express power is given to affiliate to and connect with the University Colleges, &c., anywhere within the province, and this I think is all that the Charter authorizes to be done outside Quebec. It is to be noted that the word '*connect*' on which I understand reliance is placed as justifying the action of the University Laval is joined to the word *affiliate* by the conjunctive '*and*'. The words are not '*affiliate or connect*'. It seems to me clear therefore that the Charter does not warrant a connection apart from an affiliation.

"It follows from what I have said that professors of the succursale at Montreal are not entitled to be styled professors of the University Laval.

"I think that professors of the succursale are not entitled as such to take part in the Council of the University Laval.

"For the reasons given I think faculties established by the University Laval at Montreal or elsewhere than at Quebec cannot form part of the University Laval.

"As I have already stated the University cannot in my opinion establish itself in different places or have branches there. And I see nothing in the articles of the Code referred to to modify my opinion.

"I am disposed to think that the University Laval when exceeding the powers conferred upon it by its Charter would fall within the scope of article 997 of the Code of Civil procedure of Lower Canada.

"The University Laval having derived its existence from Royal Charter, I think that the Pope can neither derogate from the rights conferred by the Charter, nor confer, so as to give them legal effect, any powers beyond those created by it. I ought to add that the Pope does not seem to have intended either to derogate from or extend the rights possessed under the Charter, but merely to have given directions *under a misapprehension as to what those rights really were*.....

"I may add to the above that I concur generally with the views expressed by Mr. Archambault in his *Etude Legale* on the various questions with which he deals.

(Signed) FARRER HERSCHELL.

"Temple, July 20th, 1880."

Having received an opinion so favorable to their views, the Montreal School Authorities have served the Laval University with a notarial protest, demanding the said University to abolish the Faculty, which it has formed, forthwith; and threatening that if they do not they will carry the matter before the Courts, as their action has been illegal and beyond the powers given them by their charter.

Laval still maintains that she has the power and right, and is perfectly willing to test the case in the Courts, and further report says that, should they lose their suit, they intend to apply to the proper authorities to have their charter amended so as to enable them to continue their operations in this city.

Before, however, taking extreme measures, the professors of the Montreal School have again sent a protest to the Holy See at Rome, requesting them to command Laval to discontinue teaching here, for they say, since it was through a misunderstanding of the powers of the charter that his Holiness the Pope authorized the opening of the said Laval branch, it is only right that the matter should be laid before the Holy See, that they should have the opportunity of rectifying the

mistake by countermanding the act; but in the event of their refusal, no other resource will be left them, they having done their duty first as Catholic Churchmen, but to bring the matter before the proper legal tribunals of the Dominion.

TROMMER'S EXTRACT OF MALT.

Let no physician allow the value of this great constructive medicine, this palatable and potent remedy in cachectic and asthenic conditions, to become obscured in his memory by the ocean of new remedies ever pouring in on the profession. No one who fairly tries it can fail to learn that it is a great boon to the race.

PERSONAL.

Dr. Fenwick, Professor of Surgery in McGill College, returned from a brief visit to Europe, early in October.

Dr. Francis W. Campbell, Professor of Practice of Medicine in Bishop's College, returned from Europe by the Allan Mail Steamship "Sardinian," arriving on the 7th of November.

Dr. Oakley, formerly apothecary to the Montreal General Hospital, and a graduate of McGill College, (1877) is at present attending the London Hospital, in London, Eng.

Dr. Hunt (McGill College, 1872) is one of the most rising physicians in Sheffield, Eng., where he has been in practice for the last seven years.

Dr. Tetreault, (M.D., Bishops College, 1880) has commenced practice in Orange, New Jersey, U. S.

Dr. Chandler (M.D., Bishop's College, and Gold Medalist, 1880) has obtained the House Surgery of one of the New York Hospitals, having taken the first position among a host of competitors.

Dr. Drake, of Montreal, has left the city for a brief period of travel. His numerous friends will join us in the wish that he may soon return fully restored to health.

OBITUARY.

SAMUEL B. SCHMIDT, M.D.

Dr. S. B. Schmidt, one of Montreal's oldest and best esteemed physicians, died on the 4th of November at his residence at the corner of Union Avenue and Burnside Place. Dr. Schmidt was born in

Montreal in 1826, and was consequently 54 years of age at the time of his death. He was of German extraction, his father having come from Germany to settle in Montreal at the beginning of the present century, engaging in commercial pursuits. The subject of this notice when very young commenced the study of medicine, and having previously graduated in Arts became an M. D. of McGill College at the early age of twenty-one. During the terrible ship (Typhus) fever in 1847 Dr. Schmidt was among the most active in attending to the disease-stricken immigrants. He was one of the well remembered "thirty" physicians from Montreal, Quebec, Three Rivers and elsewhere, who volunteered to go to the quarantine station at Grosse Isle, and attend the ships as they arrived. Of the entire thirty, two only returned alive, Dr. Schmidt being one, the other dying shortly after his return. He was active throughout life in all works of charity, was attendant surgeon of the St. Patrick's Orphans Asylum during the past thirty years, was surgeon to the Grey Nuns' Hospital for seventeen years, and physician to the Seminary for twenty-five years, all of which offices he held up to the time of his death.

An honorary life member of the Montreal German Society he was highly esteemed for his gratuitous work among the poor of the German population when such was needed. He was a fellow of McGill University, and was regarded as a ripe scholar. He was a member of the Medico-Chirurgical Society of Montreal, which Society at its meeting on the 12th of November passed suitable resolutions of condolence to his family. He had been ailing for the past four months, but his death was not expected till about three weeks ago, when he began to decline rapidly. His disease was cancer of the liver. The removal of Dr. Schmidt by death leaves a blank in medical and social circles in this city which will not readily be filled.

Dr. C. C. HAMILTON.

Dr. C. C. Hamilton, of Canard, Nova Scotia, died on the 23rd of Oct. last, aged 67 years. Dr. Hamilton was widely known throughout the Dominion, having taken a warm interest in the Canada Medical Association, of which, a few years ago, he was Vice-President for Nova Scotia. He sat in the Nova Scotia Legislature from 1863 to 1867, and took an active interest not only in the local politics of his Province, but in those of the Dominion. In all works for the advancement of the people he took

a personal interest—the temperance cause receiving his constant support. Dr Hamilton was a practical farmer of a thoroughly scientific type and, next to his profession, of which he was a devoted member, his farm occupied his thoughts.

ST. NICHOLAS FOR 1881.

5000 for England, 100,000 for America.

St. Nicholas, the charming magazine for boys and girls, edited by Mrs. Mary Mapes Dodge, has increased so much in size and number of pages during the year past that the publishers have been obliged to issue the yearly volume in two parts, instead of one as heretofore. As to its circulation, they report a gain of 10,000 in the average monthly editions of 1880 over 1879. The announcements for the coming year include a capital serial story for boys, full of exciting adventure, "In Nature's Wonderland," or, Adventures in the American Tropics; Stories of Art and Artists, by Mrs. Clara Erskine Clement, a faithful outline of the history of European Art, with many illustrations; "Phaeton Rogers," a delightful and humorous serial by Rossiter Johnson; "Mystery in a Mansion," a six months' serial; The Treasure-Box of Literature, directing and encouraging young people in the best reading; The Agassiz Association, fully explained in the November number; "Two English Queens," by Mrs. Oliphant; "The Land of Nod," a children's operetta, with music,—full of charming tableaux and effects; A series of beautifully illustrated Ballads for Young Folks, beginning with the Christmas number; A Special Budget of Fairy Stories by Frank R. Stockton—the first of which is in the November number; An Indian Story by "Bright Eyes," the Ponca Indian maiden; a splendid holiday story, "A Christmas with the Man in the Moon," by Washington Gladden. Open-air Papers, stories of sports, and games, will be continued, with all the popular departments.

Subscriptions beginning with the November issue will include "the wonderful Christmas number," of which the edition will be 5,000 in England and 100,000 in America. The price of this number, to be issued about November 30th, will be 30 cents.

Regular price \$3.00 a year; 25 cents a number. For sale, and subscriptions received, by all dealers, or the publishers, Scribner & Co., 743 Broadway, New York.

21 NUMBERS OF SCRIBNER'S FOR \$5.

The richly illustrated November number of *Scribner's Monthly*, the Decennial Issue, appears in a new cover, and begins the twenty-first volume. The increasing popularity of the magazine is strongly evidenced by recent sales. A year ago the monthly circulation was about 90,000 copies; during the past nine months it has averaged 115,000, while the first edition of the November issue is 225,000.

The first Part of the now famous serial by Eugene Schuyler, "The Life of Peter the Great," was finished in October. With November begins Part II., Peter the Great as Ruler and Reformer," which will be an advance, in point of popular interest and wealth of illustration, upon the part already published. To enable readers to secure Part I. the publishers make the following special offers to new subscribers after October 20th, who begin with the November number.

(1) New subscribers may obtain, for \$5.00, *Scribner's Monthly* for the coming year, and the previous nine numbers, February to October, 1880, which include Part I. of "Peter the Great," Mrs. Burnett's "Louisiana," etc. In accepting this offer, twenty-one numbers will be had for \$5.00.

(2) They may obtain the previous twelve numbers of *Scribner's*, elegantly bound in olive-green cloth (two volumes), containing Part I. of Peter the Great, all of Cable's novel, "The Grandissimes," with the numbers named above, and a year's subscription, for \$7.50. (Regular price, \$10.)

All book-sellers or news-dealers will take subscriptions and supply the numbers and volumes mentioned in the above special offers, without extra charge for postage or express; or the publishers, Scribner & Co., 743 Broadway, New-York, may be addressed direct. The regular price of *Scribner's* is \$4.00 a year, 35 cents a number.

PAMPHLETS RECEIVED.

Hernia in Children, by Dr. Edward Swasey, reprinted from the *American Journal of Obstetrics*, July 1880.

Some Practical Suggestions in the Treatment of Diphtheria, by Dr. R. J. Munn of Savannah, Ga.

Proceedings of the Medical Society of the County of King's, November, 1880.

Peptonized Milk as a Food for Infants and Invalids, by Dr. Munn.

Acts of the Legislature of Louisiana—Health Ordinances.

REVIEWS.

Geo. P. Rowell & Co, *American Newspaper Directory* for 1880.

This book contains an immense mass of information concerning the press of the United States and Canada, which is of service to advertisers. It is a most creditable production, and shows the energy of the great advertising house of George Rowell & Co., of New York.

Ophthalmic and Otic Memoranda. By D. B. ST. JOHN ROSA, M.D., Professor of Ophthalmology in the University of the City of New York, and Edward S. Ely, assistant to the Chair of Ophthalmology University of the City of New York. New York, William Wood & Co.; Montreal, Dawson Bros.

This is a small-sized volume of almost three hundred pages, and is worthy of attention. It contains a *complete digest of the whole subject.*

Cutaneous and Venereal Memoranda. By Henry G. Piffard, A.M., M.D., Professor of Dermatology University of New York, and George H. Fox, A.M., M.D., Lecturer on Skin Diseases, College of Physicians and Surgeons, New York. William Wood & Co., New York; Montreal, Dawson Bros.

This is a companion book to *Ophthalmic Memoranda*. It is especially valuable to students going over thoroughly, though briefly, the subjects upon which it treats.

Medical Heresies, historically considered: a series of critical essays on the origin and evolution of Sectarian Medicine, embracing a special sketch and review of Homœopathy past and present. By GONZALVO C. SMYTHE, A.M., M.D., Professor of Practice of Medicine in the College of Physicians and Surgeons, Indianapolis. Philadelphia, Presley Blakiston; Montreal, Dawson Bros.

This is a thoroughly interesting book of two hundred and twenty-eight pages. It begins with ages in medicine, then traces its origin and gradual evolution into Primeval Medicine. Egyptian Mythology is then considered, followed by the genealogy, writings and opinions of Hippocrates. The Dogmatic school and its prominent characters are well described, followed by brief mention of the Empiric and Methodic schools. The influence of Christianity upon medicine, and its gradual improvement down to the present day, form the sub-

ject of six chapters. The Homeopathic question is well put, and its adherents cannot say they have been unfairly dealt with. Altogether, the work is a very readable one, and will find not a few admirers.

Lindsay & Blakiston's Visiting List. Philadelphia, 1880; Montreal, Dawson Bros.

This is the thirtieth year of the publication of this visiting list, which, in spite of the keen competition of late years, still, in our opinion, maintains its place as the very best which is published. Good as it always has been, it is this year made even more valuable than heretofore by the addition of the Metric or French Decimal system of weights and measures, and of Posological tables, shewing the relations of our present system of Apothecaries' weights and measures to that of the Metric system. It gives the dose in both. We urge its use by our readers. We have for years found it invaluable.

Therapeutics of Gynecology and Obstetrics. By WM. B. ATKINSON, M.D. Philadelphia, D. G. Brinton; Montreal, Dawson Bros.

This work is a compilation of the methods of treatment recommended by writers and well known obstetricians and gynecologists of the present time, each chapter being prefaced with a "Synopsis of Diagnostic points." In no way can it replace any of our standard text books, but for the busy practitioner it will be found extremely useful, grouping as it does the various formulæ recommended.

The author has shown great diligence in collecting his material, and the result is to be commended.

Frequently it happens that some particular form of treatment or formula has attracted attention, and, when the necessity for its application arises, cannot be remembered: the book supplies this deficiency, so that as a work for ready reference it fills a want felt by many.

Lessons in Gynecology. By WM. GOODELL, A.M., M.D., Professor of Clinical Gynecology University Pennsylvania, &c. 92 Illustrations. 8vo, pp. 454. Philadelphia, D. G. Brinton; Montreal, Dawson Bros., 1880.

One year had not expired before a second edition was called for, and the author in preparing this volume has taken advantage of the opportunity to carefully revise, add new matter, and of a necessity enlarge upon his former work. Consisting of a series of lessons or lectures, it bears

the practical impress of the lecture room, of which it is the outcome. The author has not given us a systematic treatise on gynecology, although these lessons are almost as comprehensive. Many original suggestions, the result of a large experience, and the details of cases give them a clinical character which is instructive, while at the same time due credit is given to the latest teachings on the subject. The lessons are 33 in number, ranging over a wide extent, and specially valuable for the practical indications given for treating the diseases most commonly met with. In the enumeration of instruments wanted, modes of examination, &c., it is pleasing to note that the author does not parade his own inventions unduly as is the fashion with many authors, who consider their instruments to be essential, and without which gynecological practice would be in vain. The lessons on the hygienic and moral treatment in the prevention of uterine disease should be read by every physician, matters which are unfortunately too often neglected.

These lessons are valuable additions to the literature of gynecology, and every physician who obtains them will, we have no doubt, be satisfied that he has done so.

Diseases of the Bladder and Urethra in Women.

By ALEXANDER J. C. SKENE, M.D., Professor of the Diseases of Women, Long Island College Hospital, &c., &c. New York, Wm. Wood & Co.; Montreal, Dawson Bros.

The volume before us contains the substance of lectures delivered originally in the class room amplified and improved, and is the only systematic work published which treats specially of this class of disorders in women. A knowledge of the anatomy and functions of an organ is essential to a proper understanding of its diseases and treatment, and therefore at the outset these are given in detail. The formation of the bladder and urethra is described, resulting malformations due to arrest of development explained, and methods for treatment given. Functional derangements due to nervous and constitutional conditions, to inflammatory affections of neighboring organs, to displacements of uterus or malposition of bladder, are fully reviewed; organic disease, various forms of cystitis, morbid growths, are all described in a clear and concise manner. Urethral affections also receive due attention. The reputation that Dr. Skene has obtained in this particular department is a suffi-

cient guarantee that the work will be found a valuable addition to the library of the physician. In pelvic disorders the condition of the bladder is often entirely overlooked, and the uterus alone blamed for symptoms which have their origin in the bladder, so that it is not to be wondered at that many so-called uterine cases should be unsuccessfully treated. A study of this work will materially aid in preventing such mistakes to the great comfort and benefit of the unfortunate sufferers.

The Compend of Anatomy. By JOHN B. ROBERTS, A.M., M.D. Philadelphia, C. C. Roberts & Co.

This compend has been compiled "for use in the dissecting room, and in preparing for examinations." Anatomy is in this little work so boiled down as it were as to be almost a skeleton, for we have not yet met with its equal as a condensation. It consists in great part of names, there being the briefest of detail. We cannot recommend the work to students and others, for we believe that the student should *know* his anatomy before proceeding to examination, and not cram by such aids in the hope that the smattering thus obtained will carry him through. In the dissecting room it can never take the place of other well-known works which instruct and aid the student in acquiring a knowledge of the human body. In fact we think that to the mind of the ill-prepared neophyte any attempt to get posted by it would only make confusion worse confounded.

Eyesight, Good and Bad: a Treatise on the Exercise and Preservation of Vision. By ROBT. BRUDENELL CARTER, F.R.C.S., Eng. For sale by Dawson Bros., St. James St.

This is an excellent little book, which we have read with pleasure. It gives in a concise and clear manner an account of all matters relating to the use of the eyes, and preservation of the sight.

Asthenopia or weak sight is fully treated of under the heads of Myopia, Hypermetropia and Astigmatism.

The properties of lenses are described, and the New "Dioptric" system of expressing their number or power explained, and some practical hints given on spectacles and their use in defects of vision.

Mr. Carter calls particular attention to the necessity of caring for the eyes of infants and young children, as loss of sight in a considerable number of cases dates from the first few days or

weeks of life. And when the child begins to use the eyes for constant work, defects of vision first begin to show themselves, and should at once be treated.

The Transactions of the American Medical Association. Volume XXX. Philadelphia: printed for the Association, 1879.

The thirtieth annual meeting of the American Medical Association was held in the City of Atlanta, Georgia, on the 6th of May, 1879, and was as successful as any previous meeting. A large number of very interesting communications were read, and they now appear in this volume of the Transactions. The volume is therefore a valuable one. We, however, are of the opinion, that the suggestion of the late President, Dr. Sayre, to have an association journal, in which these communications could rapidly appear, is a most valuable one. No matter how interesting communications read before a society may be, much of their value is lost by being hid between the cover of a ponderous volume of transactions. The number who will read through the book now before us is comparatively small, and in this way much of the benefits likely to follow the preparation of the papers is limited. If they appeared weekly in the columns of an association or other journal, they would be read by thousands, to whom they are now all but absolutely dead. We hope therefore to see Dr. Sayre's suggestion carried out before very long.

MEDICO-CHIRURGICAL SOCIETY.

Oct. 15th, 1880.

The President, Dr. Hingston, on taking the chair thanked the members for the honor conferred upon him in electing him once more to the Presidential chair.

Dr. Osler presented to the Society a case of Progressive Muscular Atrophy, accompanied with a carefully-prepared chart of the family history for three generations. Dr. Osler said the point of interest in this case is the locality affected. The majority of cases reported begin in the upper extremities; in this case the left leg and thigh are most affected. The muscles generally over the body show peculiar vibrillar twitching. He has been suffering for over a year. There is no pain nor disturbance of sensibility, but there is impairment of motor power in the leg, in proportion to the degree of muscular atrophy. The point of greatest interest is the remarkable family history.

Probably there is no other disease in which heredity is shown to such an extent. The most noted instance of this disease was that of the Bessel family, in which it was seen in seven generations. In the family of the case presented thirteen members have been or are affected; only two were affected under thirty, the others were past forty. Dr. Osler remarked, in conclusion, that this was the disease that supplied the living skeletons exhibited at circuses, &c.

Dr. R. P. Howard said he had had a case under observation for thirty years, and he is still living. He had treated him by a course of electricity, but the result was negative. The original locality has extended: the extension and flexors of the upper extremities were first affected, now the lower limbs are involved.

Dr. Edwards then read a paper on "A Case of Obstruction in the Bowels," where, after various measures were used to excite the bowels to act, and had failed, the patient was left alone. After sixty-seven days obstruction the bowels acted naturally, but the patient being advanced in life, and much wasted, died three days after.

Dr. R. P. Howard said that, in addition to the means used, kneading the bowels might have been tried.

Dr. Osler stated that he had seen a case in one of the Chicago Journals where the patient had a motion once a year.

Dr. Gardner mentioned one case, where the direct current had excited peristaltic action. Dr. Hingston mentioned a case where the custom was for the patient to have an evacuation once in sixty days.

Dr. Alloway mentioned one case where no action had taken place for five weeks, and then, by assistance, the patient was delivered of a mass the size of a child's head.

Dr. Roddick then read a paper entitled "Remarks on Club Foot," presenting to the Society a little child on whom he had operated.

Dr. Roddick claims for his method originality only in connection with the application of plaster of Paris, soon after the division of the tendons. The plaster bandage is applied directly to the skin, so that the foot cannot move out of position so readily as it otherwise would. A child was exhibited on which he had operated.

In the remarks following this case, Dr. R. P. Howard asked how young a child had an operation been performed, and thought the plan adopted

by Dr. Roddick a most admirable one. Too often in these cases muscles are divided, where, if proper pressure was made, the operation would not be necessary. Dr. Smith quoted the practice of Dr. Broadhurst, which was to have the foot for five days after operating before putting it in its place, differing from that practiced by Dr. Roddick in putting the foot in position immediately after operating.

Dr. Hy. Howard asked Dr. Roddick if he would operate on a child at the age of eight.

The President remarked that this paper was eminently practical. It is a great drawback that we are obliged to send to surgical instrument makers for appliances in these cases, it being certain that no instrument devised can accomplish that which the human hand fails to do. The strip of plaster round the ankle will add to the success of this plan of treatment. The reader of this paper said that he considered one or two months the best time for operating; had he said, one or two hours he would have agreed with him. The two operations for club foot and hair lip should be done immediately after birth. In what cases should we operate? When we cannot bring the foot into proper position by the hand. In regard to the order of division of the tendons, in his early practice Dr. Hingston always divided the tendo achillis first; he did not do so now: this tendon should come last; divide the plantar fascia first.

He did not favor the plan of bringing the foot immediately into position.

In reply, Dr. Roddick said he had operated on a child of eighteen months of age.

As to delay after operation, Dr. Roddick had seen Broadhurst, Adams and Sayre operate, and was more impressed with the latter's mode after operation, which is to bring it into immediate position. He finds that, by so doing, the tendon is not weakened. He would not do the operation above four years of age; at the age of eight if anything was done, he would excise some of the ankle bones.

A vote of thanks to Dr. Roddick was moved and carried.

The Secretary, on behalf of Dr. Osler, announced that two members of the Society have given \$10 for an album, to place photographs of cases and specimens of disease.

The meeting then adjourned.

O. C. EDWARDS, M.D.,
Secretary.

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Original Communications.

THE QUESTION OF PROSTITUTION AND ITS RELATIONS TO THE PUBLIC HEALTH. BY

CASEY A. WOOD, C.M., M.D., Attending Physician to the Woman's Hospital, Professor of Chemistry in the Medical Faculty, University of Bishop's College.

Whatever action may be taken regarding them by the people at large, whatever influence may be subsequently exerted by public opinion, questions of Hygiene are primarily the property of the medical profession. For example, it is rarely that we have to thank the priest, with his time occupied with matters of another world, and caring little for things of earth; nor the statesman, with his attention taken up by affairs apparently more important; nor even the laity, who have ever exemplified the proverb, "what's everybody's business is nobody's business"—we have seldom been indebted to any of these for the inauguration of whatever progress has been made in a single department of sanitary science. No fact could add more to the dignity of our profession, because, in consequence, it must prove to all candid observers that, as a rule, medical men really hope and work for a permanent lessening of the diseases that infect the race.

The statement that the primary discussion of any measure to improve the health of communities and individuals has almost always been introduced by medical men might be supplemented by showing that the conclusions arrived at by them have always formed an important factor in determining action taken by the authorities to remedy the trouble under consideration. It is a fortunate circumstance, perhaps, that such is the case in the questions about to be ventilated in this article, for the same spirit of false modesty which prevents a proper discussion by the laity of many a vital question affecting the social economy has relegated the treatment of prostitution and its attendant evils to whomsoever cares to occupy himself with it. With this double warrant there can be no reason why the matter should not be freely and fully discussed in the pages of a medical journal, no reason why the medical scientist should not decide what measures will have the greatest influence in limiting the spread of prostitution and in neutralizing those moral and physical maladies it so uniformly gives rise to.

"*Fornicatio autem—nec nominetur in vobis sicut decet sanctos,*" wrote Paul to the little church at Ephesus, but probably he never imagined that in later times a whole people would arise who, while tacitly ignoring the spirit, would scrupulously insist upon its *literal* obedience! But only in these latter days, for, "in the good old days when George the Third was king," Fielding was

the popular novelist, and everyone read and openly discussed the questionable ways and doings of his heroes and heroines. Nobody then saw harm in reading Richardson (who, by the way, was a clergyman), nor is it probable that any great harm came of it because of that very fact. There were no "expurgated" editions of Shakespeare then, because it was held that to call a "spade" by any other than its proper name was quite unnecessary and likely to mislead. The author of "Vanity Fair" frequently draws one's attention to this change in public sentiment. For instance; "Ladies, I do not say that you are a society of vestals,—but the chronicle of a hundred years since contains such an amount of scandal that you may be thankful you did not live in such dangerous times. No, on my conscience I believe that men and women are both better; not only that the Susannahs are more numerous, but that the Elders are not nearly so wicked. Did you ever hear of such books as 'Clarissa,' 'Tom Jones,' 'Roderick Random;' paintings by contemporary artists of the men and women, the life and society of their day? Suppose we were to describe the doings of such a person as Mr. Lovelace, or my Lady Bellaston, or that wonderful 'Lady of Quality,' who lent her memoirs to the author of 'Peregrine Pickle.' How the pure and outraged nineteenth century would blush, scream, run out of the room, call away the young ladies, and order Mr. Mudie never to send one of that odious author's books again! You are fifty-eight years old, Madam, and it may be that you are too squeamish, that you cry out before you are hurt, and when nobody has any intention of offending your Ladyship. Also, it may be that the novelist's art is injured by the restraints put upon him, as many a harmless honest statue at St. Peters and the Vatican is spoiled by the tin draperies in which ecclesiastical old women have swaddled the fair limbs of the marble. But in your prudery there is reason. So there is in the state censorship of the Press. The pages may contain matter injurious to *bonos mores*. Out with your scissors, censor, and clip off the prurient paragraph!"*

While we may believe with Thackeray, that people now-a-days are "of a cleaner conversation," we cannot close our eyes to the fact that, if we do not hear of and see so much moral uncleanness it is, to some extent, because it is disguised

and hidden, and not because it has ceased to exist.

It is tolerated, but not recognized, or at least only recognized under certain conventional forms. Society is quite candid in this matter. One is not positively commanded not to eat of the forbidden fruit, but the meal must be taken *en règle* and respectably. Shakespeare's poems, the tales of Boccaccio, and the wonderful adventures of Gulliver "smell to heaven" and are altogether detestable—*cela va sans dire*—but, without giving offence, you may (if you judiciously avoid particulars) discuss the merits of Alexandre Dumas and Emile Zola. Or, if it happens that you have a taste for lighter literature, what popular novels will more quickly satisfy that literary appetite than the *entrées* and dessert served up by Rhoda Broughton and "Ouida?"

Nor need you pay much attention to the abuse they have received from the discontented few, for has not Madame Grundy taken these productions under her protection? Is not "socially authorized" stamped on each title-page? What right then have men like Goodell to call them "namby-pamby trash" and "printed erysipelas?"

This attitude of society towards *open* discussion of the evils that threaten to undermine the foundations of its structure, has a more practical bearing upon attempts to remedy the evils themselves than is apparent at first sight, because, while it very properly negatives gross and immodest conversation, it has always displayed an unfortunate lack of discrimination in including in the proscription agitations having for their object the eradication of the maladies.

And this absence of a becoming discernment is nowhere more marked than when the trade of the strumpet is under consideration. Here prudery might be forgiven if honest investigation were permitted. But it is not, and has not been, and we are consequently obliged to believe with Charlotte Brontë that "to such grievances as society cannot readily cure it usually forbids utterance on pain of its scorn; this scorn being only a sort of tinsel cloak to its deformed weakness."*

Starting out then with the premise that the endeavor to solve the problem of the social evil must not be hampered either by the opinions or prejudices of the classes for whom the work is undertaken, or by the neutrality of other classes whom we might have expected to have been

* Thackeray's "Virginians," chap. xli.

* "Shirley."

ardent workers with us, it is yet pardonable to say without the slightest feeling of bitterness, and almost without a sentiment of disappointment, that there is an additional reason why the profession should not shun this particular labor of mercy, for is it not one of its daily functions to minister to the despised, the wretched and the unclean in every shape? Bearing in mind the story related by a Physician who in his day had seen "pass by on the other side" the priest and the Levite, we need not wonder that the "cry of those who have wounds without cause" should still insult their sanctified ears; that it should still be left to less fastidious hands to pour in the wine and the oil—to less worthy brains to work out the poor enigmas of our lot! In the case of the man of Samaria we may comfort ourselves with the reflection that his charity probably did not seriously diminish *his* income, and that there was no contumely connected with *his* act of mercy!

Three queries, it appears to the writer, cover the whole ground included in the heading of this article. Side issues, important from other standpoints, force themselves on one's notice and, while it is impossible always to avoid or ignore them, because they are so intimately bound up with the causes and effects of every social disturbance, they can receive but a passing mention in the space so necessarily limited as the pages of a journal devoted to medical science. (1) Is it possible to repress *in toto* houses of ill-fame and assignation? (2) If it were possible to suppress *les maisons des dames*, would it be wise to make the attempt? (3) In the event of prohibition failing to accomplish its object, what measures are most likely to limit the evil of prostitution and to curtail the misery and disease it engenders?

It is difficult to separate the first two questions, and they may be answered together. The history of every nation that has reached a high state of civilization furnishes us with stories of endeavors made by the State to wipe out the immediate sources of prostitution, and these attempts are both interesting and instructive.

In the early history of the Greeks, we find that one of their laws, incorporated in the code of Draco, imposed the death penalty on adultery. If severity could have accomplished the desired end it ought to have done so in this instance, but so powerless did it prove that Solon, seeing the futility of the measure, established by law houses of prostitution at Athens, and filled them with slaves

bought by the public money. These *Dietera*, as they were called, being in a sense public servants, handed over their miserable earnings to the State, and naturally assisted in increasing its revenue. The Romans, wiser in their generation, and profiting, in all probability, by the experience of their Grecian neighbors, seem never to have attempted to wipe out the calling of the harlot. Tacitus tells us that long before his time the prostitute was obliged to register herself at the ædile's office, where she received a license—*stupri licentia*—in a similar manner and almost upon the same terms as those imposed by existing French laws regulating brothels and their inmates. It must be observed, also, that the Romans exacted in their code the penalty that modern society imposes by its unwritten law upon the unfortunate erring one; it closed every avenue to reform. "Once a prostitute, always a prostitute," is a Roman proverb.

Passing to more modern times an instructive lesson may be learned from early attempts to suppress prostitution in France. Sanger, in his admirable work on the subject, tells us that Louis IX. made the first serious endeavour to stem the rising tide of evil in his dominions.

"His edict, which dates from 1254, directed that all prostitutes, and persons making a living indirectly out of prostitution, such as brothel keepers and procurers, should be forthwith exiled out of the kingdom. It was partially put in force: a large number of unfortunate females were seized and imprisoned or sent across the frontier; severe punishments were inflicted on those who returned to the city of Paris after their expulsion. A panic seized the customers of brothels, and for a few months public decency was restored. But the inevitable consequences of the arbitrary decree of the King soon began to be felt.

"Though the officers of justice had forcibly confined in establishments resembling Magdalen hospitals a large proportion of the most notorious prostitutes, and exiled many more, others arose to take their places. *A clandestine traffic succeeded to the former open debauchery*, and in the dark the evils of the disease were necessarily aggravated. More than that, as has usually been the case when prostitution has been violently and suddenly suppressed, the number of virtuous women became less, and corruption invaded the family circle. Tradesmen complained that since the passage of the ordinance they found it impossible to guard the virtue of their wives and daughters against the en-

terprises of the military and the students. At last complaints of the evil effects of the ordinance became so general and so pressing that, after a lapse of two years, it was repealed. A new royal decree re-established prostitution under rules, which, though not particularly enlightened and humane, still placed it on a sounder footing than it had occupied before the royal attention had been directed to the subject." *

Charles IX., in 1560, published an edict prohibiting the opening or keeping of any house of reception for prostitutes in Paris. Here was an instance, it is said, of the actual suppression of the traffic in a large city, but the cure was infinitely worse than the disease, for secret debauchery and seduction took the place of open sin. Society became at last so corrupt that a prominent Huguenot clergyman named Cayet, *advocated the re-opening of the brothels in the interests of public morals*. Twenty-eight years afterwards Henry III. reaffirmed the ordinance established by Charles, and in 1635 the law was made still more rigorous, but it does not appear that the illicit commerce was ever seriously diminished or the interests of morality sensibly advanced.

These French prohibitory laws have a melancholy interest for us, because a wise, paternal government at home (in answer to an urgent request for female emigrants) was enabled, through their provisions, to present the colonists in Canada with wives fresh from the brothel-houses of Paris! The edge is taken off this reflection, however, when we consider that the officials who so considerately furnished the colonials with this class of helpmates were but little better off than their customers; since the adultery and seduction that followed the forced emigration affected in no slight degree the class it was expected to protect, and in many instances penetrated to the families of those who had been guilty of so vile an outrage on the virtue of the colony. So may wrong ever recoil upon the heads of its perpetrators!

In Spain the profligacy of public morals had at one time reached a height hitherto unprecedented, and this state of affairs has been ascribed almost altogether to legislation of the Draconian kind. The history of suppressive measures in Italy tells the same story. Our word *bagnio*, expressive of a house of ill-fame, originated in efforts to root out brothels and punish their inmates. When driven

from their usual haunts, loose women were obliged to frequent places of public resort, so that in a short time every keeper of a *bath* became also a brothel-master.

The laws of Hamburg passed through the several phases of suppression, toleration and regulation, until now they present a fair sample of the manner in which most European cities manage their rakes and harlots.

A local writer, arguing in favor of the laws now in force there, speaks thus of repressive measures, and his assertions undoubtedly apply to all other cities: "*Suppression is absolutely impracticable*, inasmuch as the evil is an unconquerable physical requirement. It would seem as if the zeal against public brothels implied that by their extinction a limitation of sexual intercourse, except in marriage, would be effected. This is erroneous, for reliable details prove that for every hundred brothel women there would be two hundred private prostitutes, and no human power could prevent this." *

The Puritan Fathers were in the habit of dealing directly and sharply with social shortcomings. Their laws against adultery and fornication were stern and unrelenting. Their policy of repression is well depicted in Nathaniel Hawthorne's "Scarlet Letter," and the plot of the novel rests upon an instance of its failure to keep in the straight path a shepherd of the people and one of his flock.

When the mythical deputy of the Duke of Vienna issued a proclamation, dooming all suburban houses of resort, the decree is made the subject of conversation between a clown (whom Shakspeare usually puts forward as a wise man in disguise) and a noted procuress, in this wise:

Bawd.—"Why here's a change indeed in the commonwealth! what shall become of me?"

Clown.—"Come; fear not you: good counsellors lack no clients: though you change your place you need not change your trade; I'll be your tapster still. Courage, there will be pity taken on you: you that worn your eyes almost out in the service, you will be considered."†

And this has been the result of all attempts to eradicate an innate social evil. So long as present conditions obtain among members of human communities, just as long will they give rise to their present results. Driven from the "suburbs," the harlot will ply her trade in the city, and if, after infinite

* Sanger on Prostitution, p. 197.

† "Measure for Measure," Act I, Scene 2.

* History of Prostitution, pp. 95, 96.

pains, she be banished altogether, we resurrect the twin demons of seduction and adultery to fill her place.

(3) *In the event of prohibition failing to accomplish its object, what measures are most likely to limit the evil of prostitution, and to curtail the misery and disease it engenders?*

Before attempting to furnish a direct answer to this important question it is necessary to deal with the arguments of those who condemn all regulative measures. The *laissez-faire* idea has a great many advocates, and in reference to them some terse sentences from Dr. Beardsley's article will not be out of place:—"The importation of cholera is intercepted, variola aborted, yellow fever vigilantly patrolled, pestilence of any form no longer stalks among us without being hotly chased, but a disease which lacks not a whit the type of a plague, and which, upas-like, infects nation after nation, contributing generously to their charnel-houses, nestles among us and travels on friction wheels. Hundreds are honest, ardent in their researches after some antidote to this virus, but never essay to stop or modify the evil. Prophylaxis against venereal suffering sounds to these but balderdash. To quarantine a syphilitic is passing strange. The experiment is ridiculed as if the evil was self-limited, or repudiated as contending against a dispensation from heaven, to meddle with which was to befriend a crime. The stench of this leprosy already fills our nostrils, but no mettle is sounded in our legislators to face the railings of those who hate truth, and are timid at every revolution. To qualify a wrong is not to endorse it. The health and longevity of the race are paramount to the defence of ethics or rude platitudes in morals. If life is jeopardized, sacrifices are imperative. Individual prejudices, dogmas however dear, the faith of ages, all must unloose their hold when the perpetuation of a perfect species is called in question. If the arm of the law is powerless to stay the gratification of our passions, if the admonitions and misfortunes of others do not dissuade us from the same snare, if the whore will ply her vocation, is it criminal to disarm her of her sting? Is it not conniving at the practice to suffer that foul doxy to parade her goods and pollute a neighborhood? The time is nigh when this vapid sentimentalism in religion—this morality which dubs every dissenter from creeds an anti-Christ, and translates the license of prostitution as free love, should be undone. The social evil cannot be remedied without some compromise.

It is a monster too huge to be smothered, and we must curry favor with it to lessen its depredations."*

Mr. Solly, whose reputation as a surgeon is not confined to his native country, at a meeting of the Royal Medico-Chirurgical Society some years ago, gave utterance to sentiments that, more than any other, have inspired the vehement opposition encountered by reformers in their efforts to meet this evil by legislation. Said he:—"Far from considering syphilis an evil I regard it, on the contrary, as a blessing, and believe that it was inflicted by the Almighty to act as a restraint upon the indulgence of evil passions. Could the disease be exterminated, as I hope it cannot, fornication would ride rampant through the land." It is quite within the limits of truth to say that this doctrine is responsible for the barbarous refusal to admit syphilitic patients into the public hospitals of London, not a great while ago, and prevented the erection of special hospitals for a still longer period. It is this same enunciation of the Creator's "intentions" that condemned the use of anæsthetics in midwifery, and like interpretations of God's "will," carried to their legitimate conclusions, have obstructed many a needed reform in social customs.

At one period in its history the Royal Free Hospital magnanimously devoted the whole of 26 (!) beds to diseased prostitutes, but, says the report, "the venereal wards have been for some time untenanted, owing to loss of funds occasioned by the outcry raised against this hospital in one of the medical journals." This issue is now almost a dead one, but, it might be asked, if we follow out Mr. Solly's argument, is not pneumonia a disease inflicted by the Deity upon the indulgence in thin slippers and low-necked dresses? Are not typhoid fever and diphtheria penalties imposed by God on civic uncleanness? Are we justified then, in view of the fact that it is hardly possible to do away with their causes, in trying to cure these serious troubles? Rejecting the theory that syphilis was imported from the newly discovered American continent by Columbus, we may suppose it first showed itself in Europe about the beginning of the fifteenth century. How then did the Lord punish licentious Europeans before that time? What penalty paid the worshippers at the shrine of Venus Muchea, or of that beastly old

* "Chartered Brothels." *New Orleans Med. and Surg. Journal* for Sept., 1880.

god Priapus? If Mr. Solly's followers declare their intention of going into mourning were a drug discovered capable of ensuring illicit intercourse without the dread consequences of syphilis, surely their grief would find some solace in the knowledge that it would no longer be possible to hand that awful disease down to the third and fourth generation; that innocent children could no longer be made to suffer for the wrong of a diseased father or mother.

Another fallacy contained in this so-called argument is that the fear of acquiring venereal disease acts as a check upon the wrongful indulgence in the amatory passion. That this is a grave error the experience of most physicians will prove. The man who commits any offence against his physical or moral nature is either careless of the consequences, or he hopes to be one of the fortunate few who escape contamination.

But in discussing this matter are we not introducing into a question purely scientific an element essentially religious? What has Hygiene to do with "a monstrous outrage on religion"? How does this "rupture of moral law" affect Sanitary Science? Theological dogmas and problems in science may run in parallel lines, but any attempt to make them intersect should be cried down. Without dismissing the subject, as some writers have done, with the assertion that in any conflict between Religion and Science the former must go to the wall, it might here be mentioned that a way out of the difficulty has been indicated by no less an authority than the Anglican Bishop of Carlisle. Writing in a late review his Lordship says: "It seems to me we want a new word to express the fact that all physical science, properly so-called, is compelled by its very nature to take no account of the being of God: as soon as it does this, it trenches upon theology, and ceases to be physical science. If I might coin a word, I should say that science is *atheous* and therefore could not be *atheistic*; that is to say, its investigations and reasonings are by agreement conversant simply with observed facts and conclusions drawn from them, and in this sense it is *atheous* or without recognition of God. And because it is so, it cannot trench upon *theism* or *theology*, and cannot be *atheistic*, or in the condition of denying the existence of God"*

The melancholy fact (following the foregoing line of thought) in Sanitary Science is that a widespread and terrible contagious disease is in our midst, and the conclusion we draw from a careful investigation of its nature is that it is possible by taking certain precautions, to prevent to a very considerable degree, the extension of the malady; consequently objections born of theological dogmas or religious creeds must not be allowed to have weight in determining either the amount, kind or extent of these prophylactic measures. Sanitary science, as such, is necessarily beyond the pale of religious faith, as such.

Living in a country where the policy of *laissez-faire* holds sway, one is forcibly reminded, in reading of the occasional descents by the police upon houses of ill-repute, of the story told of an old gentleman who endeavored to ward off diphtheria from his household, by disinfecting the sewer that ran past his residence. Every morning before proceeding down town he gravely carried a piece of chlorinated lime to the street ventilator, and holding his nose with the disengaged hand, dropped the germ-destroying morsel into the filthy waters beneath. This solemn duty performed, he felt himself and his family quite safe for the following twenty-four hours. No doubt a similar feeling animates the authorities when they make one of their periodical raids upon the inmates of brothels that are not subject to further regulation. With some slight and unimportant modifications Beardsley's description of the spasmodic repressive method in vogue within the limits of the city of New Orleans will apply to the action of the police in Montreal:—"There is no determined nor concentrated movement against brothels as against a nest of counterfeiters. Now and then a raid is made on some disorderly house after the neighbors have become exasperated, and demanded sternly an abatement of the nuisance. These descents are limited—four a month is about the average. In the interval the traffic flourishes and loses nothing by the interruption. As the time approaches for another sally, for they come with mathematical regularity, the proprietor with the girls, if cunning, prepares to vacate the premises only to return as soon as the official intruders have quit. If a few mopies are nabbed, one dollar and costs the next morning purchases a reprieve, and they at once steer straight for the same den to greet their comrades in arms. It is another commentary on our police system.

* "God and Nature," Nineteenth Century for March, 1880.

that these houses are not, after the arrest, shut up and the property confiscated. The business is tacitly recognized as contraband, else the storming of the place is not justifiable. The intent of the law seems gratified, however, if only the tenants are ousted. The building is not cleared, as it ought to be, of its appointments, and its character publicly arraigned—the owner is not fined nor imprisoned for his conniving at the business. No ordinance directs the rent to be forfeited—nor are bonds set to the landlord for the healthy use of the property thereafter. The machinery of the concern is not disabled, it is merely stopped for a few days.”* The high-level purist does not believe in either digging up or pruning the social Upas tree; he would occasionally pick off, here and there, a few green leaves, or at most restrain a too flourishing branch. This policy of indifference has been tried again and again, and each time it has been found wanting. Indeed it is based on the assumption that we are powerless to deal with the social evil, and consequently it would be idle to attempt it.

Turning from those who deny the right of governments to interfere with prostitution because such interference involves its “recognition;” from those who are governed by ignorant apathy, and from those who would institute a vigorous crusade without quarter against all kinds of brothels and brothel-keepers, we are led to enquire what means, if any, are likely to restrain prostitution and limit its attendant diseases.

When we recollect that most European cities, Paris, Vienna, Madrid, Hamburg, Berlin, Brussels, etc., have instituted systems of regulating the inmates of *les maisons des dames*, and that for certain military and naval towns of Great Britain an act was passed (The Contagious Diseases Act, 1866) with the same object, we have abundant legislation to choose from. The French laws (representing continental legislation) and the provisions of the Contagious Diseases Act may first be considered, their good and bad points referred to, and then an attempt will be made to show that, with some material modifications in the direction of allowing prostitutes greater freedom of action than is possible under the latter law, a bill might be framed applicable to Canadian cities, or, at all personals, more consonant with Canadian ideas of event liberty.

In Paris *le Bureau des Mœurs* has charge of all prostitutes within the city. This office employs a body of police which in 1870 comprised twenty-four inspectors and three superior officers. This service is altogether charged with searching for those connected with clandestine prostitution (*prostituées insoumises*). There is a sanitary department attached to the *bureau* which superintends the health of the women, and for this purpose employs ten superior and ten assistant surgeons, who examine all prostitutes subject to police surveillance. All women found diseased are at once sent to the St. Lazare Hospital, where they are detained until cured. They are then allowed to resume their occupation subject to certain regulations. All courtesans over sixteen years of age are registered at the *Bureau des Mœurs*, and are divided into two classes; 1st, *filles des maisons*, who live in houses of ill-fame and are subject to weekly examination at their residences; 2nd, *filles a carte* or *isolées*, who occupy furnished houses by themselves, and are obliged to present themselves at the Dispensary for medical inspection every fifteen days. Each of the latter class carries a *carte* or “bill of health,” dated and signed by the surgeon who examines her. On the back of the *carte* are printed certain regulations to which she is ordered to conform. These orders refer to her conduct in public, forbidding her to ply her trade in daytime or after 11 p.m. She must be simply dressed, walk quietly along, and she cannot approach within a radius of 25 yards any church, chapel, the Palais Royal, Jardin des Plantes, etc. It is needless to say that clandestine strumpets resort to all sorts of artifices to elude the police, and the registered prostitutes evade, by all means in their power, the regulations intended to control their conduct.

M. Parent-Duchatelet, speaking of the severity of the French laws against “those who abuse a girl not yet arrived at the age of discretion, and the severe punishment inflicted on those who promote this premature debauchery,” shows how this severity makes it difficult to bring home the crimes to their perpetrators on account of the secrecy employed, and hence he says “these young persons are the greatest destroyers of public morals and health.”* That is to say, the law does not recognize prostitutes under sixteen, so they are all the more sought after.

* *New Orleans Med. and Surg. Journal*, vol. viii, pp. 203, 204.

* *De la prostitution dans la ville de Paris*, 1857.

It will at once be seen that French laws are too tyrannical, too costly and too elaborate to introduce into Canada. Here, as long as she behaves herself decently, a prostitute has as good a right to walk during daylight on the public streets, to go to church, to attend the theatre, and dine at hotels as any other woman, and nothing would justify her forcible removal from any of these places on mere *suspicion* of her being there for the purpose of plying her trade. Again, to hunt up clandestine women involves an arbitrary search of private houses which public opinion would not tolerate. That there is something radically wrong in the system is proved by the acknowledged fact that out of the 30,000 loose women in Paris in 1870 only 4,000 were registered and subject to sanitary inspection, and this in spite of a strict application of the almost despotic powers possessed by the police. Notwithstanding this, hygienic measures have wonderfully reduced syphilis among the registered prostitutes, as may be seen by the following table,* in which is given the proportion of diseased to healthy women among both the registered class and the clandestines captured by the police.

Year.	Registered Prostitutes in brothels inside of the walls.	Ditto in the suburbs.	Ditto in private lodging	Unregistered prostitutes.
1845	1 in 142	1 in 59	1 in 261	1 in 6.40
1846	1 in 152	1 in 53	1 in 183	1 in 6.37
1847	1 in 154	1 in 52	1 in 351	1 in 6.46
1848	1 in 126	1 in 37	1 in 182	1 in 5.66
1849	1 in 128	1 in 44	1 in 201	1 in 5.76
1850	1 in 148	1 in 47	1 in 142	1 in 5.31
1851	1 in 199	1 in 60	1 in 180	1 in 5.47
1852	1 in 184	1 in 76	1 in 349	1 in 5.64
1853	1 in 183	1 in 123	1 in 402	1 in 5.12
1854	1 in 176	1 in 102	1 in 377	1 in 4.26

A similar proportionate reduction has likewise been effected in other continental cities, but, as will be seen by the above table, the dislike of forced imprisonment in St. Lazare has had the effect of making unregistered harlots hide their diseases more than ever, bringing about a frightful condition of things among that class. The proportion of syphilitic to healthy women increased from 1 in 6.40 in 1845 to 1 in 4.26 in 1854, and in 1866 it had risen to one in every four.

The Contagious Diseases Act in some points resembles the French laws. Of course it was

limited to certain naval and military stations with their suburbs.

One feature of these enactments provides that all prostitutes shall be registered and regularly inspected, and that when information is made on oath that a woman is a common prostitute a justice may issue a notice to such woman, through the superintendent of police, to appear for surgical examination. Certified Lock hospitals are provided for her if she is discovered to be ill. It imposes a heavy penalty on any brothel-keeper who harbors a prostitute knowing her to be diseased. Health tickets are issued to prostitutes; they are punished for evasion of the inspection, and the hospitals are supported by fines and taxes on the business. These provisions, after much opposition, were passed by Parliament, and many were in favor of extending them to the civil population.

Mr. Wm. Acton, in his exhaustive work,* writes that he considers it very desirable that the Diseases Act should be made general and a very high authority, Dr. Parkes says, "The Act at these large stations has done great good; but, a framed and administered, it is far too feebly drawn, and too partially carried out, to cope entirely with the evil. The prostitutes are not thoroughly under inspection; many are not inspected at all neighboring towns send in prostitutes; hospital accommodation is insufficient, it is clear that the evil is too great to be dealt with piecemeal; it is inevitable but that the Act must eventually be made compulsory over the whole country, and the entire system of prostitution dealt with carefully and completely once for all."†

The agitation for repeal of the Contagious Diseases Act has brought out all sorts of objections to it, some of which appear quite valid and still more of them absurd. Dr. Birkbeck Nevins, of Liverpool, has written one of the few pamphlets against the Act that are worth perusal.‡ Besides the evidence collected by Dr. Nevins and others, the editor of the *Westminster Review* has bravely laid aside those feelings of false delicacy which had hitherto prevented the Press from arousing and instructing the people concerning the extent and malign influence of the social evil; and in a num-

* Prostitution considered in its Moral, Social, and Sanitary Aspects. Third Edition.

† Manual of Practical Hygiene, page 503

‡ Statements of the Grounds upon which the Contagious Diseases Acts are Opposed, 1875.

* American edition of Westminster Review, vol. xciii, p. 77.

ber of articles and reviews furnishes his readers with unanswerable arguments against the extension of the Act of 1866, and its amendments in 1869.

Without attempting to particularize the evidence furnished by these writers the chief points may be briefly indicated as follows: (1) Such acts legislate for man, but treat woman as if she were only an instrument to satisfy his evil passions, and they subject her to a moral degradation below that of ordinary prostitutes not subject to the enactments. (2) The law compels women to commit themselves absolutely to a life of infamy, whereas before they had it in their power to turn back and reform. There is always a class (in some places a large class) of females who are driven to adopt prostitution temporarily as a means of gaining a livelihood or to support others dependent upon them. These unfortunates, if they wisely keep their own counsel, may resume their ordinary position in society; but never if they are forced to register themselves and become public prostitutes. (3) The enforced examination by a public officer wipes out any sense of modesty or delicacy they may have retained, and confirms them in a life of prostitution. (4) The whole system places serious obstacles in the way of attempts to reform the erring ones. When in hospital they naturally regard any advice or instruction as a part of the compulsory programme. They are bound to listen to it, and for that reason derive little benefit from it. (6) It is impossible to carry out the provisions of the acts in large cities, when conveniences for clandestine prostitution are so many and so varied. (7) It is asserted that "in towns where registration and forced examination are introduced the effect upon the morals of the rising generation is exceedingly injurious." *

How to avoid the evil effects of governmental regulation, and yet do something towards lessening the diseases arising from the social evil, is the question that must now be considered.

To begin with, the seduction by a man come to years of discretion of a girl under sixteen years of age, with or without her consent, should be made a crime and severely punished. There may be some excuse urged for the satisfaction of the sexual passion when the female is of age and already a prostitute—it may be that "prostitution in man is an irregular indulgence in a natural

impulse," as the Royal Commissioners have put it, but to take advantage of the ignorance and inexperience of a mere child is inexcusable, and the offender should be rigorously dealt with. Such a law would strike at the root of one of the most fruitful sources of subsequent prostitution.

Then "Homes" for the reception of women reclaimable by such an agency ought to be provided, and above all, *voluntary lock hospitals should be established*, where diseased females could be properly treated and cared for, and women should be encouraged to enter them without being *forced* to do so.

The absence of opportunities for adequate treatment has always been one of the reasons why unclean prostitutes persist in their career after becoming diseased. In hospitals of this kind the patient should be surrounded by all the moral, intellectual and sanitary influences that would tend to elevate her from her degraded position, and perhaps induce her to abandon her evil courses.

The wards should be graded, so as not to confine in the same room the hardened prostitute with the girl who is new in crime and comparatively redeemable. For other reasons this gradation is necessary. To quote Parent-Duchatelet [*op. cit.*]: "It is difficult to convey an idea of the contempt which, according to the class to which she belongs, each woman manifests for those of the other classes. Those women who associate with men of wealth or of high position look only with disdain upon women as are only sought after by men of merely ordinary fortune. Women of this class, again, condemn in like manner the unhappy creature who only appears in the rags of the most disgusting misery. This distinction which prostitutes establish among themselves is avowed by all, and is specially remarkable when circumstances cause them to meet each other at the same place; they avoid each other; they do not sit down on the same seat; they form isolated groups, and do not mix together in conversation. It may be said generally that these classes do not intermingle; that is to say, the girls do not pass imperceptibly from one class to another, and successively from the highest to the lowest; they remain till the end in that class in which they began their career, or out of which they have been unable to go; and thus it is that very beautiful girls may be seen to begin and end their life of prostitution in the most infamous places. Each of these localities

* Report of Royal Commission on Contagious Diseases Act.

being frequented by a particular class of men, the women there acquire a tone, habits and manners, the result of which is that the girl destined for the artisan, the laborer and the mason finds herself misplaced with the officer, and is devoid of the necessary attractions for the latter. The same is true with respect to the woman who has contracted the habit of living with the educated and elevated classes of society: she shrinks from associating with coarse, vulgar people, who themselves are unable to appreciate the qualities which distinguish her. This rule may be considered general. A girl who makes her *début* in one class would believe herself to be losing caste in leaving the class she occupies for one immediately below it. This is partly the reason why so many girls withdraw themselves from prostitution a short time after they have entered upon it."

As these hospitals are essentially charitable institutions there is no reason why the inmates should not pay a weekly sum, proportionate to the kind of accommodation received and the patient's ability to pay. It is extremely important that the nurses and medical officers should be especially respectful, kind and gentle. On this point the philosophic Duchatelet is very decided. "Experience," he says, "has proved the utility, indeed the necessity, that the medical officers should observe great gentleness, both in their speech and procedure; prostitutes overwhelmed with humiliation, treated with the utmost disdain, and feeling acutely their abjection, know how to appreciate a method of treatment less rude, and feel grateful for the kindly feeling it indicates. * * * * * This gentleness, far removed from familiarity, and which is not incompatible with the reserve, gravity, and dignity which indeed it is necessary to emphasize under the circumstances, enables the physicians to command the respect and deference which are due to them, and which the women are eager to render."

Such a hospital should be overlooked by a matron of tried skill, and she should have under her nurses upon whom the greatest reliance could be placed. These officials should have full charge of the sanitary and moral regulations of the institution.

The medical staff should have charge of the medical department; and should advise with a committee of management when required. From these remarks it will be seen that we contend for a hospital supported principally by public charity and certain

fees (the source of which will be hereafter referred to), because anything like governmental regulations of the internal economy of such an institution should be avoided, if possible.

The charitable contributions of the community to aid in the support of these hospitals will be all the more readily forthcoming when it is understood that the cure of disease and the alleviation of suffering are their main objects, and not the rendering of fallen women fit to co-habit with male prostitutes. Carried out in a proper spirit, such refuges for diseased females would effect a vast amount of good.

The work of social and moral regeneration might be carried on with an effect impossible in lock hospitals under the regulations that obtain under the Contagious Diseases Act. Dr. Nevins gives the following significant extract from the Metropolitan Police Report of 1874:—"Women come from unprotected districts, and insist on signing the voluntary submission form, in order that their names may be placed on the register, and that by this means they may gain admission into hospital." * How much more readily would diseased unfortunates seek a shelter where they would meet with sympathy, where they would not be looked upon with disdain, and where they would be assisted to recover their lost place in society, than if they had to incur the degradation and penal consequences of registration.

But there is another side to the story, which justice and the public health demand should receive attention. A diseased prostitute, whatever else she may be, is a local centre of contagion and a dangerous member of society; and means should be taken to prevent her from spreading the disorder from which she suffers should she persist in doing so. When a woman has a venereal disease, and in that condition knowingly gives it to others, it behooves the authorities to step in and, if possible, prevent the infection. The same arguments that justify removal to civic hospitals of cases of small-pox and cholera apply to syphilis and gonorrhoea.

In the interests of the public health such cases should be isolated. It has been suggested that physicians should have power to communicate to the chief of police the names of those prostitutes from whom any of their patients has contracted disease. The medical man should satisfy himself that the patient is in a position to state positively

* Capt. Haris's Report, see sect. 10, par. 7.

when where, and from whom, he caught the contagion and that the female is in the habit of distributing her favors promiscuously or for money. Where there is any doubt about the last two points the suspected woman should have the benefit of it, but in the majority of instances the police would be able to settle the question satisfactorily. Having satisfied himself on these points the Chief should have power to serve a notice on the woman to forward to him, within 24 hours, a certificate from a regular practitioner of her being in a healthy state, or else, if she be a common prostitute, to present herself at the hospital for treatment. In the case of those who are not "common" in the ordinary acceptation of the term, *i. e.*, who do not practice their trade openly, and do not live in brothels, it would be justifiable to accept a certificate from a regular practitioner that the woman is under treatment by him, and that he would use every means in his power to prevent her from co-habiting until she recovered. In this way (for all these proceedings would be kept secret, and neither the name of the male sufferer nor of the female patient would be divulged) scandal would be prevented in the case of occasional and otherwise "respectable" females.

For the other class, those who are generally recognized strumpets, neglect or refusal to furnish a proper certificate, or to undergo treatment if diseased, would justify their arrest and forcible detention in special wards of the hospital for a time discretionary with the officials in charge. Action of this kind would encourage the voluntary system and leave coercion as a *dernier resort*. It would incite women to apply for treatment at once, and not wait until they were compelled to quarantine themselves by the strong arm of the law. It would respect the respectable, but punish the guilty. Voluntary patients might be allowed to leave the hospital when they desired, but they should be warned that any attempt to return to their trade until fully cured would involve their semi-imprisonment in the "coercion" wards of the hospital, and cut them off from all the privileges of the voluntary side. Examinations should be made voluntary in a Dispensary attached to the hospital, and a small fee (in Hamburg, where the regulation system is in vogue, it is only a mark) should be charged. As soon as the intention of periodical examinations was known they would begin to be appreciated and, in time, the great majority of the prostitutes in the city would be likely to present themselves for medical inspec-

tion. A larger fee might be charged for attending the prostitutes at their houses. Certificates of good health might be issued if asked for by the women, but it must be understood that they are not considered necessary. It would, of course, be out of the question to admit students to any part of the hospital except to the coercion wards. This portion of the institution, being in some sense a city house of correction, would have a good claim for civic support, and in that case might be overlooked by a local inspector. In the event of a hardened sinner persisting in spreading venereal diseases instead of applying to hospital for relief, and necessitating repeated arrests, it would be justifiable to have her registered and examined by the medical officer not less frequently than once a week. This would be a greater punishment to her, in view of the treatment of her other sisters in vice, than imprisonment.

To complete these suggested regulations it ought to be made possible for an inmate of a house of ill-fame to abandon her life of infamy free of any claim for board, liquors, clothes, etc., the brothel-keeper may have upon her. It is, of course, to the interest of procurers and keepers to exert as great an influence upon their stock-in-trade as possible, and for this purpose many of them try to keep the girls in debt, so that they are compelled to continue in their old ways. It would be a good idea, also, to subject brothel-keepers to a heavy fine, if it be proved that they allow any of their women to remain in their houses after becoming diseased. The proceeds of such fines would go to defray the expenses of the hospital. The advantages of the measures above specified recommend themselves, because: (1) the legislation involved is not a one-sided treatment of woman as if she were made for man simply to gratify his lust upon; (2) they leave a way open to those erring ones who desire to reform; (3) women are not compelled, except as a last resort, to undergo a degrading periodical examination by public officers; (4) the system does not condemn to a life of hopeless infamy those who err temporarily, or who are seduced by designing men; (5) they provide for clandestine prostitution; (6) they are voluntary to a very great degree, and attempt to do by kindness what coercion has, over and over again, failed to accomplish; and, lastly, (7) they do not violate the sanctity of private houses, as the system of forced registration is sure to do.

An enumeration of the benefits to be derived from

Magdalen hospitals would not be complete without a reference to that noble band of religious women belonging to the order of *les Sœurs de la Compassion* who have charge of *l'hôpital de Lourcine* in Paris. These devoted women have caught the true significance of Christ's teaching when He stepped in between the woman taken in adultery and her accusers, the stern Scribes and Pharisees, and rebuked them for their self-righteousness:—"Woman, where are those thine accusers? Hath no man condemned thee? She said, No man, Lord. And Jesus said unto her, Neither do I condemn thee: go, and sin no more."* And these considerations bring us back to the old question, When shall we see prostitution itself abolished? and while the discouraging and too ready reply is, not while society exists in its present state, one is inclined to believe that a great deal of the difficulty arises from the unjust and despicable manner in which society treats women who lose their virtue from any cause. A man sins, and social custom either excuses or forgives the transgression. A woman goes astray, and every avenue of hope is at once closed against her. The escapades of the rake bear such social interpretations as "sowing his wild oats," "young men will be young men," and so on; but upon the temple of the harlot's shame, as over the portals of Dante's *Inferno* is carved the dread anaglyph:—"All ye abandon hope who enter here." If society expects to abolish prostitution it must first insist upon meting out the same measure of condemnation to both sexes for offences committed by either.

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INFLAMMATION: ITS CHEMICAL CAUSE, AND CURE.

BY

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I have just finished the perusal of Dr. Hingston's paper on the "Treatment of Surgical Wounds," and have been very much interested. I trust it will not be deemed either obtrusive or impertinent in offering a few remarks on it. He speaks of foreign bodies producing irritation; has it occurred to him *why* foreign bodies in the system produce irritation, inflammation, suppuration, and sometimes death. He quotes Richard, who states that "suppuration ever commences around a foreign

body." If you permit I will explain why they do so. As soon as any foreign body is in the system, —whether it is a thorn, or resulting from the use of the surgeon's knife when he divides the blood vessels, or from the germ, or any other source, that foreign matter becomes an impurity, and having heat and moisture in the system, it ferments. The result of all organic fermentation is of course acid, and this is the active principle of inflammation. I have not written this from a purely theoretical point. I can establish the fact to Dr. H.'s full satisfaction, can give him reliable data; in fact, Dr. H. in his practice can illustrate it every day of the year. Because that which neutralizes or absorbs the inflammation from a wound or surgical operation will produce the same effect in erysipelas, syphilis, ulcers, or any other form of inflammation. There can be but one inflammation chemically varying in degree, character and intensity.

In the history of medicine, nothing is more obscure than the cause of inflammation, and this is evidenced by the variety of remedies prescribed. But, as nearly all disease originates or terminates in inflammation, it becomes at once apparent that it is of the utmost importance to ascertain the cause, without which the disease cannot be philosophically or intelligently treated. I submit the following for the consideration of the profession: Inflammation arises in every case, from one common cause, viz., fermentation, the result of which is acid; this acid is the active principle of inflammation. How is disease reproduced? Whether the germ, or any other principle is adopted, it simply means that an impurity has entered into the circulation, and having heat and moisture in an eminent degree in the body, a principle of ferment is set up, which, in many cases, rapidly reproduces the particular specific disease. It will occur to the mind at once that if acid is the active principle of inflammation, the remedy must be very simple; it is so, the remedy in *all* cases of inflammation is an alkali. I do not wish you to understand by an alkali, an alkaline salt, but a pure *alkali*; the strong affinity existing between acids and alkalis, the one immediately acting on the other, neutralizes and absorbs. I would respectfully suggest the use of a solution of alkali, taking the gravity of liquor potassa as a standard, one part of liquor potassa to eight or ten parts water, say in syphilitic ulcers, or in fact for any kind of suppuration or ulceration, modifying the gravity of the alkali to suit circumstances. Within three days, the effect in every case

*John viii. 10, 11.

will be very marked. Of course in acute inflammation it may require the alkali to be of a much higher specific gravity than even the liquor potassa for wounds and surgical operations. The alkaline spray or bandage will be found of more service than any other in use (not excepting carbolic acid). Used judiciously and intelligently, suppuration becomes almost an impossibility. I would remark here that to be effective in every case, the alkali must produce a slight tingling sensation; on the other hand, if it feels hot after its application, it must be discontinued for the time being; and when next applied the solution must have been reduced.

I am fully aware the foregoing, from its novelty and innovation, may meet with hostile comments by many. It is, however, a simple matter to test, and can be illustrated, in every day practice. I will here observe a natural illustration of this subject, which corroborates my statements, and which can be vouched for, by any person who has visited the country named. If a person were to die on the plains of Colorado, the body, if left to the rays of the sun for months, would not be decomposed, in consequence, I believe, of the alkali contained in the soil preventing fermentation and, therefore, decomposition.

ON SEPTICÆMIA AND ITS EFFECTS.

Paper by DR. LITTEN, of Berlin,

Read at the 53rd Convention of German Naturalists and Physicians at Dantzic. Translated from Die. Allg. Wien. Med. Zeitung, by Owen C. Brown, M.D. (Acton Vale, Quebec).

The Doctor gave an exhaustive review of the results of his observations of thirty-five cases of septic disease, clinically, anatomically, and pathologically homogenous.

The aetiological principles though seemingly different, agreed in general, being apparently traumatic—followed by septic infection.

Of the thirty-five cases, thirty (36 per cent.) occurred in women; and of these, in twenty-three cases, the general disease arose from puerperal conditions.

The clinical form assumed by the disease was in some cases that of typhoid in its first stage—in others that of severe rheumatic arthritis, and in others an intermittent form.

The Doctor referred especially to the lesions of the eyes, the skin, the medulla of the bones and of the heart.

The eyes were affected generally, in twenty-eight cases (eighty per cent.), and shewed retinal hemorrhage, with or without a white centre, twenty-eight times; hemorrhage from the iris and choroid, once; bacteritic deposits in the choroid once; panophthalmitis eight times, five double and three one-sided; trigeminal neuralgia, with maceration and anæsthesia of the cornea, once; retinitis septica (according to Roth, white specks in the retina) three times.

One or more of the above were seen to occur in the same eyes, so that retinal hemorrhage and white specks could be seen on one eye at the same time as panophthalmitis on the other. Conjunctival hemorrhage was very frequently observed.

The eyes were unaffected only in seven cases, twenty per cent.

The affection of the posterior parts of the eyes was referred to with special significance by the lecturer as a means of diagnosing the septic from typhus processes, as had already been shewn by him in 1878, at the Ophthalmological Congress at Heidelberg.

The skin was affected in twenty-eight cases eighty per cent. intact in seven (twenty per cent.), and the lesions presented the following forms: as multiple hemorrhage, twenty-one times (sixty per cent.); as roseola-like exanthema four times,—this last had its seat principally upon the abdomen, and could not be distinguished from typhus; as a pemphigus-like affection, with maceration of the epidermis, three times; as an erythema-like scarlatina four times; and the Doctor shewed that, contrary to the views of Olhausen, there are cases of dermatitis of septic origin as well as those peculiar to puerpural scarlatina, which, nevertheless, may present the same appearances or form of disease.

Angina never occurred? Herpes hemorrhagica twice; an exantha-like measles, once; multiple phlegmon, twice (icterus, three times); erysipelas, once; miliaria as a complication occurred often. An affection of the skin of quite a peculiar nature was once observed, in this, that the skin of the whole body became rapidly covered with hemorrhages about the size of the hand, and which then became quickly confluent, and assumed a shading, passing from the clearest red to the darkest red, and even to a black color. These dermal hemorrhages had, like the retina, often white centres.

In the bone medulla were seen in many cases local lesions of a grayish-green color, surrounded

by a bloody halo. Some of these localities of disease presented the appearance of having been dissected out by suppuration. In some of them could be distinguished, next to the bloody halo, a well-defined puriform zone.

The lesions of the heart shewed—as endocarditis ulcerosa, sixteen times, in which the valves of the right heart were concerned four times ; as the warty form without ulceration, six times ; as pericarditis hemorrhage once ; chronic endocard occurred five times ; the cardiac valves were intact thirteen times.

In many cases were seen miliary abscesses of the cardiac muscular substance : besides the Doctor pointed out the frequent occurrence of pachymening hemorrhagica.

In regard to the pathological significance of the organic lesions above described, the lecturer observed a general analogy in the collective processes, in which, on the one hand, are the hemorrhages occurring with such regularity conjointly in the affected organs ; on the other hand, the suppurative processes which, likewise, were met with in almost all parts.

Both groups of this affection are considered by him as caused by embolic closure of the vessels. Thus, while the bleedings which were so common, and the endocard. verrucosa were caused simply, by Bacteritic emboli—whereby the hemorrhages could apparently be traced back to necrotic lesions of the walls of the vessels,—on the other hand the suppurative processes (Panophthalmitis endocarditis ulcerosa. dermatitis of a pemphigus like form) were referred to closure of the vessels from broken-down organic particles, arising from the irritating broken-down thrombi from the veins and lymphatic vessels.

Koester considers endocard. as caused by embolic infection, and accepts two forms of Bacterio-embolic substance, of which one causes the benign, the other the very severe ulcerative, form of endocarditis.

The Doctor shares these views in regard to the two processes arising from the same causal irritant, which, however, gradually differ and produce different effects. According as one or the other of these processes has affected the blood, do we see either the mild forms of the disease or that very severe form of endocard. ulcerosa, with its accompanying phenomena—hemorrhages or hemorrhages with suppuration.

Weigert's investigations agree with the above, for he shewed long ago that Bacteria sometimes

produced no ill effect, sometimes only degeneration, sometimes degeneration with suppuration. All these different conditions may be studied in the same organ : upon the eye, for instance may be seen hemorrhage or simple degeneration (appearing on ophthalmoscopic examination simply as white specks), or central degeneration with peripheral hemorrhage, or, finally, degeneration with suppuration, appearing under the form of panophthalmitis, and differing according to the seat of the embolic closure—embolism of the retinal vessels or of the vessels of the iris and choroid.

In the heart is observed simply valvular degeneration with or without hemorrhage, or degeneration with suppuration and ulceration.

Naturally, in these cases, the endocard. must be regarded as an accompanying phenomenon of the septic process, whilst panophthalmitis, in like manner, represents the retinal form of the disease. Hence it is incorrect to distinguish this diseased form as endocard. ulcerosa, as it is only a symptom of the general disease. A most important principle to be noted is the circumstance that the embolic material does not arise from the broken-down valves, but from bacteria floating in the blood or from the decayed thrombic contents of the lymph. and blood-vessels.

Progress of Medical Science.

INCONTINENCE OF URINE IN CHILDREN.

At the Harveian Society of London, recently, Dr. Farquharson read a paper on the subject. After some preliminary remarks on the bearings of incontinence of urine on surgery and obstetric medicine, he referred to the subject under three headings. In some cases this affection is found children of pale, weakly organization, depressed and languid, and feeling keenly their infirmity. Here there is, no doubt, some weakened condition of the sphincter vesicæ, or of the nervous centres in the lumbar cord ; and tonic remedies, and more especially small doses of wine, will usually act with excellent effect. Secondly, there were cases of much greater severity, usually dating from soon after birth ; and here it is necessary to make a distinction between the enuresis by day and that by night, for the latter is much more difficult of cure than the former, and frequently resists all medical treatment—departing, if it do so at all, spontaneously, about the period of puberty. The remedies which have been generally spoken of as most deserving of confidence or those which act on unstriated muscular tissue, and of these belladonna is the only one

which, in the experience of the author, has given good results. It is necessary to give full doses, and two ounces have been administered to a boy of seven before success, and even then only temporary success was attained. Ergot proved disappointing, and santalin has been entirely without influence under the morbid condition. Class three includes those cases which may support the belief that incontinence of urine is truly a neurosis; for here we find this symptom coinciding with, and even alternating with other nervine lesions. Thus, on two occasions it was observed concurrently with eczema, and once a very long standing case was attacked with chorea, during the continuance of which perfect control over the bladder was regained. Nervine tonics are of little use here; but the careful use of galvanism seems specially indicated, as well as blistering over the fifth lumbar vertebra, where modern experiment has shown the motor centre to be situated. The recently proposed plan of excluding meat from the dietary was not found to be of much service, no special acidity of urine being ever observed to require the counteracting agency of purely non-nitrogenous food.

NOTES OF THE CROTON-OIL TREATMENT OF RINGWORM.

I see in the *Journal* of May 20th, that *the artificial production of kerion* is advised as a cure for chronic ringworm. As I have been using croton-oil (in imitation of Nature's cure) for the last six years, and have already fully described my method of producing kerion in my paper on the Diagnosis and Treatment of Ringworm, published in the *Lancet* of January 10th, 24th, and 31st, I think it right to advise the profession to be very careful in selecting proper cases for this treatment. In the paper, I strongly recommend the production of an artificial kerion by croton-oil; i.e., "that swollen, raised inflamed and infiltrated state of the scalp which sometimes accidentally occurs during treatment, and which always results in a speedy cure of the disease." Kerion should be produced, if possible, in old chronic small patches of ringworm that have resisted all other treatment for many months, but not in those cases where the disease extends over a large extent of surface. The great aim of this treatment is to cause inflammatory swelling and effusion into the tissues around the follicles, so that the stumps, which otherwise would break off on attempted epilation, will now come out with the discharge, or can easily be extracted; in fact, very often in a short time an inveterate patch of ringworm, that has withstood every other treatment for years, can be transformed into a smooth slightly-raised place, utterly destitute of all hair and stumps, and practically well." "Even if the swollen condition of kerion cannot be produced, this treatment very rarely fails in loosening the stumps and curing the disease."

I republished these observations of mine, as I should be sorry for the profession to think that I

advocated the production of kerion *indiscriminately* in chronic ringworm, especially where a large extent of surface is involved. In fact, the chief cases for which I urge it are those I so constantly see, where, after ordinary treatment for a time, the hair has grown again on the patches, and then the child has been neglected for months, or even years, until some special reason brings it under treatment again. "Here the difficulty is not to find some parasiticide that will destroy the ringworm-fungus, but to bring the remedy into contact with it. In recent ringworm, conidia only penetrate a certain distance into the follicles, and therefore the disease is easily cured by almost any remedy; but after a time they penetrate to the very bottom of the follicles, which, it must be remembered, are even below the true skin." In such cases, it is impossible to reach the fungus by any of the usual remedies applied to the surface of the scalp. Ordinary chronic forms can generally be cured without producing kerion. Painting the place with croton-oil liniment is a good plan; but other remedies will often cause a moderate amount of inflammation, and even slight suppuration, and thus cure the disease. Citrine ointment with carbolic acid (as advised in my paper) will frequently produce this result, especially in young children.

The following, in my experience, are the most suitable cases in which the production of kerion may be attempted:

1. Inveterate cases that have resisted all other treatment for months or years, if not very extensive; especially those where the inveterate parts of the patches have been marked out and reduced in size by other treatment, as by oleate of mercury.
2. Any small patch of ringworm, not larger, say, than half a crown, where time is of the utmost importance, and a cure is desired as quickly as possible.
3. Such a case as where ringworm has been detected and properly treated for a time, until the new hair has made its appearance; after which it has been discontinued, although many diseased stumps remained. Months, or even years, have passed, and the child is perhaps rejected at some public examination. One or more patches are to be seen where the hair is growing freely and firmly, but, on close inspection with a lens, some scurfiness and broken hairs or stumps are observed, scattered among the long hairs on the patches.

Pustulation in minute spots should also be attempted, as probably the only cure for that variety of the disease I described as *disseminated ringworm*; "one rarely diagnosed, and the most chronic and difficult to cure. The hair is growing freely and firmly all over the head; there are no patches to be seen, although probably they have existed at an earlier stage of the disease; the skin appears generally healthy, and perhaps almost free from scurf, but numerous isolated stumps, or groups of stumps, are seen in every direction, often scattered all over the scalp. This variety is almost always overlooked, and can only be detected by very careful

examination. The stumps in these old chronic cases are very brittle, and almost always break on attempted epilation, showing, after soaking some little time in liquor potassæ, under the microscope a most extensive implication with fungus, even down to the root of the hair."

I have often succeeded in curing cases like this when they have resisted all other treatment for years, but they require great care and patience. The entire scalp must be subjected to a very close inspection with a lens, and an attempt made to pull out each stump as it comes into view, and then if it break off, which is most probable, a drop of oil should be applied at once to the follicle, with a very fine sable brush. At the next examination, the oil must again be put on any stumps that break off, as well as upon any fresh ones that appear.

A deep pustular rash alone will often cure chronic ringworm, but certainly not all inveterate cases. My knowledge of such is great, and I know full well, from painful experience, that croton-oil may be painted on time after time, and a pustular rash repeatedly set in, and yet diseased stumps will reappear.

I must remark that it is useless for medical men to attempt to cure very chronic ringworm, especially the disseminated variety, unless they thoroughly realize how intractable some forms of the disease are, possess a good lens and good eyesight, and have plenty of time and patience.

Ringworm must never be considered cured, although the hair has grown again on the patches, as long as a single stump remains affected with the fungus, or any black dots are seen. These black dots are the orifices of diseased follicles, in which the stumps have been broken off on a level with the surface of the scalp by friction, or are the apertures, filled with dirt, left by the retraction of the broken and shortened stump into the follicle after attempted epilation.

It is most difficult to certify that any case of ringworm is absolutely well. Time after time, stumps that were not visible at one examination will crop up again, breaking off when any attempt is made to extract them, and reappearing again and again for months after the case in other respects seems cured. Nor must it be forgotten that stumps are not removed when they only break off, and that no reliance for diagnosis or prognosis can be placed on the microscopical examination of short ordinary hairs taken from a patch, but only of the stumps.

In conclusion, I would warn medical men not to apply croton-oil without due consideration for ordinary cases of chronic ringworm. If they do, they will be sure to get into trouble, sooner or later. The oil often causes much inflammation, and parents get frightened, and imagine the doctor has made the disease ten times worse. Sometimes they will seek other advice, and are told that their former medical attendant has been overtreating the case, and has been using too strong remedies. Under soothing

applications, the little patient gets well, and the second attendant gets the credit of curing the ringworm, which was practically well when he first saw the case. I always explain to parents beforehand the reasons for adopting this treatment, and the results to be expected from it. It is also important to bear in mind that simple remedies will generally be efficacious in eradicating ringworm in young children, and that stronger ones in such cases should never be employed.—Alder Smith, M.B. Lond., F.R.C.S., in the *British Medical Journal*.

TREATMENT OF HOUSEMAID'S KNEE.

Dr. G. W. H. Kemper, of Muncie, Ind., writes as follows:

"In Braithwaite's Retrospect, part 62, page 151, Dr. C. R. Thompson contributes a summary of six cases of this affection cured by the plaster of ammoniacum and mercury. He says, 'I believe that the treatment of inflamed bursa patella by the plaster of ammoniacum and mercury is not so generally known and accepted as it deserves to be.' After reading this strong indorsement I determined to try the remedy at the first opportunity. About the 1st of April of the present year Mr. M., a miller by profession, came to me with a well-marked case of 'housemaid's knee.' The affection had existed for several weeks, and had arrested his attention by the enlargement and uneasiness. I directed the above-named plaster spread upon leather and worn over the patella. He attended to his usual duties, and his cure was effected before the month was ended."

TREATMENT OF NOCTURNAL INCONTINENCE OF URINE.

BY DR. KELP.

The author has treated successfully rebellious cases of the trouble by the hypodermic use of nitrate of strichnia. The injection is made in the neighborhood of the sacrum. A single dose stops the trouble for a little time. When the symptoms return the injections are renewed. The last observation was on a young woman of sixteen years, who, after an attack of scarlet fever, suffered several months from incontinence, in spite of every precaution. The first injection of strichnia procured a cessation of the incontinence for several nights. The treatment was repeated, and the cure was completed. The patient was a strong girl in good health and had never before suffered from incontinence.—*Gaz. Hebdomadaire.—Cincinnati Lancet and Clinic*.

OINTMENT FOR ITCH.

Balsam of Peru, 1 ounce; benzoic acid, 110 grains; oil of cloves, 40 drops; alcohol, 2½ drachms; simple cerate, 7 ounces. Dissolve the essential oil and the benzoic acid in the alcohol, and mix them with the cerate. Lastly, add the balsam of Peru. It is said to effect a cure in twenty-four hours.—*Drug. Circular*.

THE CANADA MEDICAL RECORD,

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TO OUR SUBSCRIBERS.

We desire to say to our Subscribers that it will oblige us if they will take a look at the date on their address label. Many, very many, are in arrears, some greatly so. Will these remember that the RECORD costs money, and remit the amount due us.

ON DIT.—It is reported the Ursulines are making overtures to the authorities of Laval University for the purchase of their buildings at Quebec, and that it is possible the whole University may be removed to the city. We give the report for what it is worth.

ANIMAL VACCINE, HOW IT IS PROPAGATED.

The following account is from the pen of the reporter of a secular paper (*Montreal Witness*), who visited and described what he saw at the vaccination stables of our confrère, Dr. Bessey of this city.

"We may echo the words of our contemporary, the *Canadian Medical and Surgical Journal*, in a recent issue, when it says: "Small-pox may be said to scarcely exist in Montreal at the present time, and the closing of the small-pox hospital is seriously contemplated. There can be no doubt that this very satisfactory state of things is largely due to the supply of pure lymph which has been at the disposal of our public vaccinators for the past three years."

"Through the courtesy of Dr. Bessey our reporter visited his vaccination stables, and was shown the vaccine disease in a well-developed stage on a handsome young heifer. None but the best animals are fit for the purpose. This animal, which had been vaccinated seven days previous on the in-

side of the buttocks, previously cleanly shaven for the purpose, was literally covered over the vaccinated region with well-defined genuine cow-pox pustules, singly and in groups of six to ten."

Fig. 1 gives the appearance presented on this heifer.



Fig. 1.

"Another choice heifer stood in a stall awaiting vaccination from this animal, one being vaccinated from the other consecutively. This had been kept up in uninterrupted succession from the original cases of spontaneous cow-pox found upon the Lenev farm, Longue Pointe, in November, 1877, of which Fig. 2 is a representation."

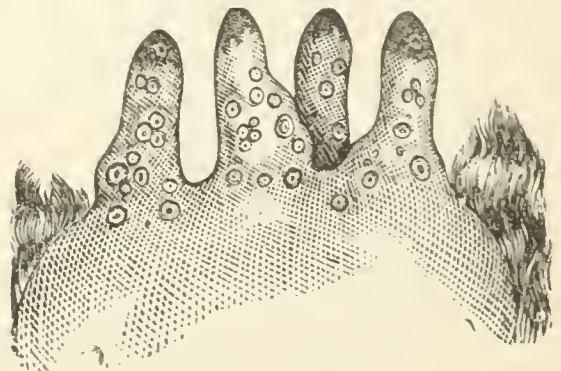


Fig. 2.

"There has already been furnished from this source lymph for the vaccination of over 50,000 persons, with uniformly mild and gratifying results. It is now used by the profession from Halifax to Winnipeg in Canada, and by a goodly number of the profession in the border States. Lymph has

een sent to members of the profession in England interested in vaccination and to Dr. Buchanan of the *National Vaccine Establishment, Whitehall, S.W.*, which has been duly acknowledged as follows:—

*National Vaccine Establishment,
Whitehall, S.W.,
10th Nov., 1880.*

DEAR SIR,

The animal lymph which you have so kindly sent, has been duly received, and Dr. Buchanan desires me to thank you for the same; he is, besides, much interested in your proceedings in the cultivation of animal lymph.

I am, Dear Sir,

Yours faithfully,

A. B. FARU,

Examiner of Vaccine Lymph to H. M. Government.

W. E. BESSEY, Esq., M.D.

"During last winter vaccine was furnished from this stable for the vaccination of the viceregal household of the Princess Louise at Ottawa, and used by Dr. Grant, physician to H. R. H. At that time a variolous epidemic prevailed in many parts of Canada, and to meet the increased demand several heifers were vaccinated at one time, but the number is diminished to one every eight days in ordinary times, which is absolutely necessary to keep up the succession and prevent delays. The city is furnished once a month at present with a fresh stock direct from the animal, and most of the city physicians obtain their supplies here, so that the absolute purity and the protective power against small-pox of true Jennerian vaccination is guaranteed. Dr. Bessey is full of hope that one day the Government may be able to spare sufficient money from their railway and other enterprises to establish a *national vaccine institute* where this mode of supply would be perpetuated to future generations."

HOW IT IS DONE.

"Two appliances for managing the animal stood in the stable—one, a strong wooden frame held together with iron bolts, supported a suspended sheet of canvas over two rollers. This is used for large animals, which are driven in and the head securely fastened, after which the sheet of canvas is adjusted under the belly, and by a turn or two of the rollers the animal is suspended a few inches from the ground, the feet being fastened to prevent kicking, while the shaving and vaccinating goes on. The other is a strong wooden frame supporting a

tumbling table. This being upright the animal is brought alongside and securely strapped thereto, as shown in Fig. 1. It is then upturned and the animal finds itself on its side and perfectly helpless, unable to make the slightest resistance to the operator, who proceeds either to vaccinate or collect the lymph as the case may be."

"Fig. 3 illustrates the plan of construction of this table, which is modeled on the plan of those in use by Prof. Depaul, France, and Dr. Martin, Boston, U.S., no originality being claimed for it."

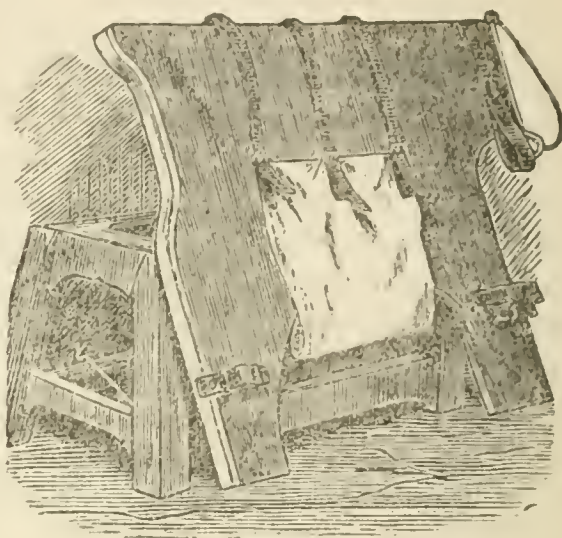


Fig. 3.

"The animal being thus perfectly secured, the vessels are pinched up and ruptured, when a clear watery-looking lymph exudes. This is collected upon ivory points (specially made for the purpose) and spread out on a shelf to dry. A number of the vesicles are usually left untouched to dry up and form scabs which are still preferred to points by many senior practitioners. The points are then carefully wrapped up in cotton wool, to prevent the absorption of moisture from the atmosphere, and next in blue paper to prevent the action of the sunlight, which rapidly destroys any virus exposed to it. They are then wrapped in tin foil to preserve an equal temperature, and finally enveloped in rubber tissue, hermetically sealed, to preserve them air-tight when transmitted to a distance. With each package sent out, bearing date and registration, is a printed sheet of directions and observations on the use and preservation of vaccine. Any package proving inert is also replaced with fresh active virus. By this means the public sentiment among the masses of the City of Montreal has been entirely changed in favor of vaccination. Small-pox is so far extinguished that the Board of Health have decided to abolish the Small-pox Hospital, and we hear no more of ulcerated arms from vitiated virus,

or small-pox following vaccination with degenerated lymph."

"In a fortnight all traces of the disease disappear from the animal, which is then disposed of, and fresh animals are provided to take their place, these not being again susceptible to the infection."

"The history of the Longue Pointe stock of vaccine may be given briefly as follows: On Nov. 6th, 1877, Dr. Bessey visited the farm of Mr. John Leney (since deceased), at Longue Pointe, opposite the Provincial Lunatic Asylum, and found there six animals affected with cow-pox in various stages of development. From these cows sufficient lymph was taken to make a beginning, and on Nov. 7th the first child in Montreal, (one Michael O'Mara) was vaccinated successfully with this stock of lymph. Animals at Logan's farm were also inoculated with it, and thus, from animal to animal, and child to child, the stock has been kept up ever since. Whenever it has been used, the results have been mild and satisfactory."

"We may now repeat, in Nov., 1880, with increased emphasis, the statement made by our contemporary the *Union Médicale*, in Nov., 1878, as it has now been much more extensively used:

"The lymph produced by Dr. Bessey was at first found on the cows of a milkman at Longue Pointe, near Montreal, a year ago, and, although this vaccine has been used on several thousand persons in Montreal and the other Canadian cities in the course of that year, no accident has been noticed, no undue irritation, no erysipelas, no infection of the blood—a thing which is easily understood, as this lymph is taken from the animal, and extracted from vesicles well developed."—*L'Union Médicale*, Nov., 1878.

Any members of our profession requiring a supply of pure vaccine could not do better than obtain it from this source. Animal lymph is becoming annually more popular, and is that variety used by the leading members of the profession everywhere, because of the safety it ensures.

TYPHOID FEVER AT BISHOP'S COLLEGE SCHOOL, LENNOXVILLE.

This school, regarded by a large number as the best boys' school in the Dominion, has been unfortunate this year, in the breaking out of typhoid fever upon two separate occasions, the last being early the present month. When the first outbreak

occurred, the school was broken up, and the sanitary condition examined; defects were found in the drainage, and these were remedied, and the whole system examined by competent engineer authority, and pronounced to be most complete in every respect. A second outbreak took place, as we have stated, early this month, and of course the school was closed. Six of the boys in attendance upon the school have become victims to the disease, and one of them has died. Such an occurrence taking place at such a well-known school has caused no end of talk; while reports the most outrageous have been circulated. Feeling the importance of the situation, and the duty which they owed to the public, the College authorities determined to act with vigor. On the 17th December, R. W. Heneker, Esq., the Chancellor of the University, came to Montreal, and at the Windsor Hotel had a conference with several friends of the institution. Dr. J. Baker Edwards, Dr. F. W. Campbell, Dr. Cameron, and Dr. Simpson of the Faculty of Medicine of Bishop's College were present, as also was Dr. Osler of the McGill Faculty of Medicine. The result of this conference was the appointment of a committee, consisting of Walter Shanly, C. E., Drs. Cameron, Osler and Simpson, to examine into the matter thoroughly. On the 18th they proceeded to Lennoxville and commenced their labors. As we go to press we learn they have returned, and that while we are as yet unable to say positively that the origin of the epidemic has been discovered, we believe that the general impression is that a line of investigation is being followed, which at this moment seems to promise most important results. We are strongly of the opinion that the result of the labors of this committee will be such as to restore, after a time, full confidence in the sanitary arrangements of the school.

At the regular meeting of the Medico-Chirurgical Society of Montreal, held on November 26th, Dr. Bessey produced the case of Psoriasis Lepraformis previously vaccinated, stating in course of his remarks thereon that he had vaccinated her on each arm and each leg, all of which twelve places had taken well. She was very ill and feverish for some days from the vaccination, and a secondary eruption had followed the operation. The original eruption had almost entirely disappeared (from

ome parts more than others) ; the secondary rash still remained more distinct.

Many of the members expressed surprise at the great change which had already taken place in twenty-six days, the scales had fallen off, the itching of the skin had disappeared. The eruption had every Spring declined of itself, but never to the same extent and not at this season.

Dr. Ross said the experiment was a most interesting one, but he had no faith in the curative action, and held that the fever excited by vaccination might account for the change.

Dr. Roddick facetiously remarked that more soap and water than usual might have been used.

Dr. Bessey, in reply, stated that the disappearance of the eruption had been very gradual up to date, that no other means had been used in her case, and that no *special* applications of soap and water had been resorted to. He regarded the case as yet in a state of *transition*, and might again avail himself of an opportunity at a future meeting to exhibit the final results. No one could deny that the improvement in the condition of the patient had been already very marked, amounting almost to a perfect cure. He had his own view of the cause of cure which differed from that of Dr. Ross. He had been desirous of establishing two points in practice, in which he thought he had succeeded, viz. : First. That there need be no hesitation in vaccinating any child or individual with a skin eruption, notwithstanding the old dogma on this point, which was obsolete. Second. That the action of vaccine in such a case would tend to ameliorate, if it did not entirely cure, the patient's condition, although in every case a temporary increase or secondary eruption would be likely to follow vaccination.

Dr. Edwards stated that, since the reading of Dr. Bessey's paper, he had vaccinated a child covered with eczema and that the eruption had entirely disappeared, with the exception of a small spot on left arm, and he supposed that if he had vaccinated on both arms that would have disappeared also by this time.

In the October number of the MEDICAL RECORD we stated that Dr. C. Eugene Nelson, of New York, had decided to perpetuate the name of his father—the late Dr. Robert Nelson, who many years ago was a prominent Surgeon in Montreal—by founding in the Medical Faculty Bishop's College

a gold medal—to be known as the “The Robert Nelson Gold Medal.” The details, we are pleased to say, are now fully completed, Dr. Nelson having placed in the hands of the University the sum of one thousand dollars, the interest upon which will yearly pay for the medal. At Dr. Nelson's desire the medal will be awarded for the best special examination in surgery—oral, written and practical. Believing that many would desire to know something of the man in whose memory the medal has been founded, we copy a memoriam of him, published in New York at the time of his death.

DR. ROBERT NELSON.

[IN MEMORIAM.]

Dr. Nelson was born in Pot-au-Beurre, near Sorel, Province of Quebec, Canada, August, 1794. His father, William Nelson, came from Yorkshire, England, before the Revolutionary War, and settled with his wife in Catskill, N. Y. Being a royalist he was obliged to leave this place, and settle in Three Rivers, Canada. He moved sometime later to Montreal, and finally to Sorel, where he lived and taught school for many years. Over seventy years ago he built the Manor House, where the descendants at present reside, his son Robert assisting in the manual labor. His mother Jane (Dyce) Nelson was English, of Dutch extraction.

His youth was passed at Sorel under the tuition of his father, and at Pot-au-Beurre, where he worked very hard. It must have been at this period of his life that he acquired the thorough knowledge of agriculture which was portrayed in the minutest detail during his life at Giffard's, Staten Island. At an early age he left home on account of the severity of his father, and went to Montreal ; this, however, did not influence him in regard to his parents in after life, as, when a member of Parliament for Montreal, he would stop at Sorel on his way to Quebec—make a hurried visit, and leave them some funds. In Montreal, he was apprenticed to Dr. Ryan, and subsequently to Dr. Arnoldi ; at the age of 16, he was gazetted assistant army surgeon in charge of the auxiliary force known as the Indian department ; he remained encamped with the Indians five years, during which period the war of 1812 occurred. After the expiration of his term of service, he lived in Montreal under the superintendence of Dr. Arnoldi, assisting him in his practice ; he soon began practice on his own account, subsequently building on Gabriel street,

where he remained till the rebellion of 1837. During his life in Montreal he was elected member of Parliament for the Eastern District, health commissioner during the cholera invasion of 1832-34, President of the Medical Board for the District of Montreal, Physician in charge of the Lunatic Asylum, Gaol, several of the convents, and the Hotel Dieu Hospital. He rapidly acquired fame and fortune, especially from his success in Lithotomy, operating 81 times with only two deaths. In 1835 he visited Europe, where he became acquainted with Astley Cooper, Hodgkin, Roux, Baron Boyer and Dupuytren. It was during this period that he married Miss Emily de Bathe, born at Oakley, near Cirencester, England. In 1836, Dr. Nelson returned to Montreal with his wife; about this time things began to wear a threatening aspect, and he espoused the revolutionary cause, more because his brother, Dr. Wolfred Nelson, had done so, than from his own desire. He was chosen leader of the revolutionary party in Lower Canada. In the winter of 1837 he was obliged to fly to the United States; in 1838 he made an incursion into Canada, which failed of its object. Dr. Nelson then resided as an exile in different towns in Vermont, where he pursued the practice of medicine. He was afterwards appointed to the chairs of Anatomy and Surgery at Castleton, Vt., and Pittsfield, Mass., having for colleagues Dr. Willard Parker and Dr. Horace Green. He then removed to New York, where he practiced medicine till 1849. During his residence in this city he delivered a course of lectures on Physiology, based on original researches. In 1849, he went to California, where he practiced a number of years, and distinguished himself especially in his operations for ovarian tumors; during this period he visited Europe several times, making the acquaintance of Queckett, Luke, South, Baker Brown, Milne Edwards, Bois du Noel, and others. While in California he spent much of his time in researches in the natural kingdoms for the purpose of illustrating physiological truths. He subsequently practiced in New York for a term of years. He has written on his "Fracture Bedstead for the Thigh;" "Lithotomy in the Female," his own operation; "Gastrotomy," a pamphlet describing his operations on different kinds of abdominal tumors; and a "Treatise on Asiatic Cholera." His wife died at Richmond, England, in 1859, during one of his visits. He died at Giffard's, Staten Island, N. Y., March 1st, 1873, in the 79th year of his age. His remains were taken

to Greenwood, where a white marble monument, representing grief, marks his burial place.

COLLEGE OF PHYSICIANS AND SURGEONS,

PROVINCE OF QUEBEC.

Our readers in the Province of Quebec will perhaps be interested in knowing that Mr. Lamirande, who was appointed by the College, at its last Semi-Annual meeting, prosecuting officer, has been making things quite lively among those who have neglected to comply with the new law. We understand that many feel annoyed at having to pay the fine imposed by the Act. They can, however, only blame themselves, for ample and sufficient notice was given of the requirements of the law. When Mr. Lamirande has brought the regular profession into line, we hope he will pursue the irregulars with unabated zeal. At last the Profession is commencing to realize that the College of Physicians and Surgeons of Quebec is a live institution.

AN OMISSION.

The paper on vaccination in chronic skin diseases, published in our last issue, was from the pen of Dr. Bessey of Montreal. By a strange omission his name did not appear as its author.

REVIEWS.

How persons afflicted with Bright's Disease ought to live. By JOSEPH F. EDWARDS, M.D. Philadelphia: Presley Blakiston.

The title of this little book does not at all fully convey its character, for it does more than tell those who have Bright's Disease how they ought to live. It describes briefly, but clearly, the functions of the kidneys, and their derangements; a chapter is given on Bright's Disease—What is it? The remaining chapter indicates the mode of life most likely to be followed with benefit by those who suffer from it. Bright's Disease is one which, within the last two or three years, has received much attention from the profession, and there is no doubt now that, with judicious medical treatment, avoidance of great mental exertion and pure country air (of a nearly regular temperature all the year) many cases which were formerly

looked upon as hopeless are now able to pass a long period in comparative comfort. Dr. Edwards puts some stress upon what he terms "moral medicine," believing it to be a powerful agent in all, but especially so in this disease. By *moral medicine* he means a belief in the existence of an All-wise Creator who ordains everything for the best. A firm faith in this doctrine tranquillizes the mind, and thus favors convalescence. We do not generally believe in patients having in their possession works treating upon the disease they may be suffering from. It does not, as a rule, promote recovery. This little work is, however, an exception, and may with safety, yes, with profit, be placed in the hands of all patients with Albumen Urea. It will calm many of the fears, and give them faith, which will do much to prolong life.

A Treatise on Diphtheria. By A. JACOBI, M.D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons of New York. William Wood & Co., New York; Montreal, Dawson Brothers.

For twenty years Dr. Jacobi has been a contributor to the literature of Diphtheria and an acknowledged authority upon the subject. His various monographs have always been well received, and we predict the same for his latest effort in the volume before us. We have gone through most of it, and find that not only does Dr. Jacobi ventilate a theory, of his own slashing at the Bacteric School with a will, but that he is particularly profuse in the therapeutical portion. This section of the book is really admirable, and will commend itself to all who read it. We consider it a valuable contribution to the literature of Diphtheria.

The Practitioner's Reference Book. By RICHARD J. DUNGLISON, A.M., M.D. Philadelphia, Lindsay & Blakiston; Montreal, Dawson Bros.

Upon a previous occasion, when the first edition appeared, we expressed a very favorable opinion of this work, and a constant use of it has only served to confirm our first impression. The present volume has largely outgrown the previous one, being almost double its size, and yet we do not see anything that could have been omitted. A use of the first edition showed many wants, most of which seem supplied in the present one. Several entirely new chapters have been introduced, among them the following: 1st.

How to write metric prescriptions. 2nd. How to use the hypodermic syringe. 3rd. The galvanic battery in medicine and surgery. 4th. How to use the clinical thermometer. We believe the work to be the most *universally* useful book that has appeared for a long time.

The Druggist's Hand Book of Private Formulas.

By JOHN H. NELSON, seventh edition. Cleveland, Ohio, 1881. Price \$3.

This is a volume which contains an immense number of receipts, and it cannot but be exceedingly useful to druggists. The formulas are varied, and embrace many which cannot be found anywhere else. We regret, however, to notice in it recipes for curing Gonorrhœa. They are out of place in such a book, for the practice of medicine is no portion of a druggist's business.

The Microscopist: a Manual of Microscopy and Compendium of the Microscopic Sciences: Micro-Mineralogy, Micro-Chemistry, Biology, Histology, and Practical Medicine. Fourth Edition, greatly enlarged, with two hundred and fifty-two illustrations. By J. H. WYTHE, A.M., M.D., Professor of Microscopy and Histology in the Medical College of the Pacific, San Francisco, California. Philadelphia, Lindsay & Blakiston; Montreal, Dawson Brothers.

This book aims to be a compendium of the microscopic sciences; whether it is all that it claims we are unable to say, but that portion devoted to Practical Medicine is most complete, and we should therefore judge favorably of the other portions. The illustrations are very fine, and many of them are colored to the life. No one at all pretending to a scientific knowledge of the medical profession can afford not to be a microscopist, be his ability in that direction great or small. This volume is one that commends itself, therefore, to all in the profession who use the microscope. Price \$5.00.

"The Trials of Raissa," a Russian Love Story. BY HENRY GREVILLE. T. B. Peterson & Bros., Philadelphia.

This is a story full of fascination and power, the more felicitous and interesting because out of the common track. Henry Greville has written many stories, but none more absorbing and natural than this. The scene is laid in Russia, where Henry Greville is most at home, and the action takes place in St. Petersburg, the country, and Siberia. The descriptions are admirable, and the reader is given

a number of exceedingly picturesque pen-sketches of winter and winter scenery in the dominions of the Czar. Raissa is one of Henry Greville's best-drawn characters, and no one can fail to be touched by her sorrows, her trials and her loftiness of purpose. Indeed, as a picture of pure and upright womanhood, Raissa is an example worthy of emulation. The task of translation has been excellently performed by Mary Neal Sherwood. It is published in a large square duodecimo volume, paper cover, price 75 cents, and will be found for sale by all Booksellers and News Agents. Copies of it will be sent to any one, on their remitting 75 cents to the Publishers, T. B. Peterson & Brothers, Philadelphia, Pa.

A Manual of Minor Surgery and Bandaging.

By CHRISTOPHER HEATH, F.R.C.S. Sixth Edition. Philadelphia: Lindsay & Blakiston; Montreal: Dawson Bros.

This little work fully sustains the reputation of the author. It is complete in almost every respect, and goes beyond the usual limits of works of this class. It should be indispensable to a dresser in the surgical wards of a hospital; in fact, older men would find it of benefit in refreshing their memories.

A Treatise on the Practice of Medicine for the use of Students and Practitioners. By ROBERT BARTHOLOW, M.D., LL.D., Professor of Therapeutics in the Jefferson Medical College of Philadelphia. New York: D. Appleton & Co.; Montreal: Dawson Bros.

Dr. Bartholow has for a number of years ranked among the closest observers in our profession in the United States. His pen has not been idle, and more than one volume, and many papers, have enriched the Medical literature of his country, this being, we believe, his second systematic work. We congratulate him upon the result, for although the volume before us does not pretend to be a full and thorough exposition of the entire subject, it presents in concise language the main and important points of all the principal diseases to which the human family is heir. The clinical material he has drawn from his own observations at the bed-side, and that it has been abundant and closely observed is evident in the very complete manner in which the symptoms are detailed. We are pleased to notice that Dr. Bartholow repudiates any sympathy with the therapeutic Nihilism of the day. On the contrary, he is emphatic in his conviction that remedies

are an important factor in determining the course of disease. He therefore gives the treatment with a certain amount of dogmatism—which is quite excusable, considering the experience which he has had. In this respect, the work differs, and we believe differs beneficially, from some other works on the same subject, where prominent Medical writers seem opposed to the value of medicine in the treatment of disease. We believe that it will prove a very valuable addition to Medical literature; and, from the fact that it utters no uncertain sound as to the value of treatment, it will do much to restore confidence among those weak in the faith.

The January number of *Scribner's* will contain an account of the aims and methods of the new Horological and Thermometrical Bureau, recently established by the Winchester Observatory of Yale College, from careful personal inspection on the spot. This is the first bureau of the kind established in this country, and cannot fail to raise the standard of excellence in both clocks, watches, and thermometers. The curious machinery used to correct watches to the tenth of a second, together with some singular facts in the behavior and habits of thermometers, make the article of more than usual interest to the reader. The same number also contains some account of Mr. John La Farge's and Mr. Louis C. Tiffany's recent work in stained glass.

"Most perfect of juvenile Magazines," is what the *Detroit Free Press* calls St. NICHOLAS. Its growth in England is keeping pace with its success in this country, and the English papers are as unanimous in praise of its beauties as the American press. The "wonderful Christmas number," just issued, the first edition of which is 105,000, is a grandly illustrated Holiday book of one hundred pages, containing, besides its capital Christmas and fairy stories, and original pictures by the best American artists, the first chapters of two splendid serials—one a story of the adventures, in the American tropics, of a party engaged in the capture of wild animals for a menagerie, and a humorous serial by Rossiter Johnson.

A year's subscription to St. NICHOLAS is a holiday gift the influence and the joy of which is felt twelve times a year. *The North American* recently declared, "It would puzzle any one to say in what respect St. NICHOLAS could be improved." Sub-

scriptions beginning with the beautiful Christmas (December) number will commence the two serials mentioned. Price, \$3.00 a year. The Christmas number is for sale everywhere for 30 cents. Published by Scribner & Co., 743 Broadway, New York.

MEETING OF MEDICO-CHIRURGICAL SOCIETY.

Oct 29th—Regular meeting of the Society was held this evening, the President, Dr. Hingston, in the chair.

Dr. Smith exhibited a child which had suffered from tenia tonsurans. When first seen the disease was in a very active condition, with pustules about the roots of the hair. Poultices were used to remove the crusts, afterwards dilute acid nitrate of mercury ointment was used with perfect success. A mistake had been made at one time in using the strong preparation, which excited a pustular eruption, but, on returning to the use of the diluted ointment, a complete cure was effected.

Dr. Bessey exhibited a patient covered with psoriasis lepraformis, on whom he proposed to vaccinate for the relief of the disease, and promised to bring the case before the Society at another meeting, to show the results. Dr. Bessey then read a paper on vaccination in skin Diseases (This paper, and the discussion which followed, was published in the last number of THE RECORD).

Dr. A. L. Smith read a paper on Dilatation of the Stomach. This was a report of a case recently under treatment and resulted in recovery—will be reported.

Dr. Henry Howard thought there must have been partial paralysis of the coats of the stomach.

Dr. Osler said he had seen two cases. This condition of the stomach is known to occur sometimes as an acute disease, rapidly proving fatal in a few days. Fagg reports two cases where the condition developed suddenly after a hearty meal. Post-mortem: no trouble of pyloric orifice was observed. Other forms are due to simple constriction from ulcer. Did not know if this could be called a simple case. If water is drawn freely, and the muscles of the abdomen made to move, a splashing noise could be produced. Possibly in the case cited the patient had a trick of producing the sound after drinking copiously of water. Dr. Smith had not given the outlines of the stomach so as to prove actual dila-

tation. Hysterical patients will drink freely, and there must be with it considerable distention, but such cases do not come under that condition known as dilatation of the stomach.

Dr. Ross thought the diagnosis could not be substantiated by the reader of the paper. He thought it was likely that the patient had been hypochondriacal regarding his digestive organs. The report stated that there was extensive dullness from the ensiform cartilage to pubes. If the stomach was dilated there should have been tympanitis above and dullness low down. In a tolerably dilated intestine we may have splashing.

Dr. Hingston agreed with the two last speakers, there was no vomiting, there was also the circumstance of rapid recovery. Dullness extended lower down than could be expected. Thought the colon had lost its arched condition, and had fallen down. The diagnosis is sometimes extremely difficult.

Dr. Ross read the notes of a case of Pseudo-cyesis which occurred in the Hospital.

Dr. Ross read the notes of a case occurring in the M. G. H.: a woman who to a remarkable degree simulated pregnancy—and, after the time was past, this passed away. Her history was as follows: no menses for three months after marriage, and then miscarried. Then had no menses for fourteen years, and then had a spontaneous return of the flow. At the next normal period no return, but had morning vomiting and unnatural desires, and at fifth month had signs of life; milk escaped at nipples. About end of ninth month had sharp shooting pains in back and bearing down. The Doctor was summoned, but the pains passed off. Breasts were large, and milk was drawn from them, then signs of child-life gradually grew less; abdomen became small. In March thought again she was to be delivered. On admission to Hospital there was great protuberance of the belly; there was large excess of superficial adipose tissue. On deep pressure nothing much could be made out. A sound was passed into the uterus which was of natural depth.

Dr. Reddy gave a case of Tetanus Neonatorum. History of a good natural labor; cord was very thick, and had to be tied twice over. On fifth day child had short fit: on eighth day, Dr. Reddy saw it. Slightest cause induced spasms. Mother fell about month before child was born. Dr. Reddy had seen a number of cases in Ireland, but in twenty-nine years this was the first case seen in Canada.

The meeting then adjourned.

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Original Communications.

TO THE READER.

In re-writing this paper for the press, I have not changed it in the slightest degree from the original which I read before the Medico-Chirurgical Society of Montreal, with the exception that I have made it more explicit, corrected some phrases without altering their meaning, and divided the paper into four parts, as each of these parts is in a great degree a separate subject. Part 1. Man's two natures. Part 2. The theory of man's creation by evolution. Part 3. Thinking, how produced. Part 4. Neurology and conclusion.

THE AUTHOR.

PART I.

MAN'S TWO NATURES.

By HENRY HOWARD, M.D., Visiting Physician to the Longue Pointe Asylum.

Mr. President and Gentlemen,

In THE CANADA MEDICAL AND SURGICAL JOURNAL for August, 1880, there is a piece of poetry taken from the *Western Lancet* bearing the title of "De Profundis," and dedicated, I presume without permission, to MR. TENNYSON. I hope when I have read my paper this said piece of poetry will not be applicable to me, or if so be that I should get a little into deep waters, you

will throw me a plank to enable me to reach the shore.

When we undertake to speak of man's animal nature, we can only do so in virtue of our knowledge of the sciences of anatomy, physiology, pathology, and biology, and if we do not truly describe this nature the error is due to our ignorance of these sciences, and not to the fact that it cannot be explained in virtue of these sciences.

When we undertake to speak of man's higher or human nature, we can only do so in virtue of our knowledge of the science of psychology, and here again, if we fail to describe this nature correctly, it is not the fault of the science but our ignorance of it.

Without these five sciences it is impossible for us to treat of man in the abstract, and in this day, when we are not only learning so much of these sciences, but also unlearning so much, it behoves us, when we advance any theory on such an important subject, to do so modestly, and avoid dogmatism.

It is in this spirit that I venture this evening to offer some remarks upon man's two natures, upon evolution, and upon mind.

In the papers I have from time to time, within the last five years, read before you, I have at all times maintained that mind and body are one, in other words, that mind is the product of our mental organization, which is matter, as much so as bile is the product of the liver, and when I say the

mental organization, I mean every fibre of the whole nervous system, the brain being its highest or intellectual portion.

If there were any doubt of the proposition that mind and body are one, and of the material order, that doubt should be set at rest in the mind of every reasoning man by Dr. Maudsley's last edition of the *Pathology of the Mind*, which in my idea is one of the best works that has ever been written on the subject, notwithstanding the howl that has been set up against it. Dr. Maudsley says, "It is a robust faith which enforces the certitude of a resurrection to life eternal of this mind, which is seen to dawn with the opening function of the senses, to grow gradually as the body grows, to become mature as it reaches maturity, to be warped as it is warped by faulty inheritance, to be sick with its sickness, to decay as it decays, and to expire as it expires."

Dr. Maudsley has in the above quotation spoken a great scientific truth; but if he so pleased he might have added that, as man's *soul* is not mind, there is no reason why a man by faith should not believe in its resurrection to everlasting life, or rather that the soul never dies. But Dr. Maudsley was not writing on religious faith, but on science, and wished to show how absurd and materialistic was the teaching that soul and mind were one, and that the logical inference of such a theory must be that the mind was to rise to everlasting life independently of the material body whence it proceeded.

The sciences of anatomy, physiology and pathology prove without a possible doubt that the mental organization is material, and that thought is one of the products of that material organization, and that the characteristics of thought depend upon what that organization may be either from heredity or its development after birth.

You are aware that to give an abstract definition of anything is under the most favorable circumstances a very difficult task, and it is more particularly so when we try to define man, there are so many different sorts of men. On this point Dr. Maudsley says: "To affirm that all men are born equal, as is sometimes heedlessly done, is to make as untrue a proposition as it is possible to make in so many words. There is as great a variety of minds as there observedly is of faces and of voices. As no two faces and no two voices are exactly alike, so are no two minds exact counterparts of

one another. Each person presents a certain individuality, characteristic marks of features and disposition which distinguish him from any other person who may resemble him ever so closely, and I hold it to be true that every special character which is displayed outwardly is represented inwardly in the nerve centre—that it is the outward and invisible constitution of nerve structure." It is easy then, he says, to perceive that we have, as original facts of nature, every kind of variation in the quality of the mind and in the degree of reasoning capacity; and that it is as gross a mistake to endow all persons with a certain fixed mental potentiality of uniform character as it would be to endow them with the potentiality of a certain fixed bodily standard. If a man's nature have a radical flaw in it he can no more get entirely rid of it by training than the idiot, whose want of parts is incontestable, can raise his intelligence to the average level by much study, or than a short man can, by taking thought, add one cubit to his stature. Acquired habits may do much to compensate for natural deficiencies, but the misfortune is that the deficiency often shows itself in a constitutional inability to acquire the habit."

From these stubborn scientific facts, so ably put forward by Dr. Maudsley, you will at once perceive how difficult a task I have undertaken—to define man in the abstract. I will assume that you all know the anatomy of man.

Man is an animal, and, in common with all other animals, possesses a mental organization, divisible into intellectual, moral and emotional faculties, none of which are altogether independent one of the other, no more than is any other part of his physical organization independent of all other parts. In virtue of this animal mental organization, man, in common with all other animals, is intelligent, moral and emotional, differing, however, in degree from his fellow, and from all other animals, because of the perfection or imperfection of his physical mental organization, as do all other animals differ from the same cause from one another, that is, animals of the same species. Dr. Maudsley says, and I perfectly agree with him, that man, in common with the whole of the animal and vegetable kingdoms, has a non-corporal entity but what that entity is he does not define; some of his critiques call it self—*ego*—but if such were the case *quoad* man we should have the *ego* also in all other animals, and not only in animals but in

all created things, including every tree and plant that grows upon the earth. I cannot conceive how that which is non-corporal, not incorporated in the body, could constitute self, or *ego*; I would call this non-corporal entity, God. Remember I am speaking of man simply as animal. Now, although a non-corporal entity, as its name implies, is not incorporated in the body, there is no reason why there should not exist a union between the body and its entity, and I believe there is. I believe there is a union between God and all created things, and this which unites God with all created things, of which he is the entity, I would say was life. But why life? First, because I cannot conceive of anything else that it can be; secondly, because God is life-giver, and that life emanates from him. I consider it an absurd expression to say God created the world, and all that therein is, out of nothing; something could not come from nothing, from negation. God created the world and all things from Himself, all and everything emanated from Him, and with everything life; and by this life is He, as entity of all things, united to the animal man, and also to all created things. But what is life in the abstract? I do not know, but it is certainly a something that is tangible and explicable, as exemplified in the animal. It is in, but not of, the blood, and the same can be said of the respiratory organs, although both are necessary for its continued sustenance in all animals. I say it is not of the blood because of the physiological fact that in suspended animation the blood ceases to circulate, yet life is not extinct; in like manner it is not of the respiratory organs, for respiration ceases in suspended animation and life is not extinct; and physiological experimentalists know that an animal will live for hours, sometimes as many as twelve, after the division of both the pneumogastric nerves. Again, both the circulatory and respiratory systems are for their action dependent upon the motor nerves, so that it is evident that these two systems are necessary for the continued sustenance of animal life, yet it is not of or from either of these two systems. In what part of our system, then, does it exist *per se*? Physiology proves that it is in the nervous system, as it is in this system is the motor power in man and in all other animals, and not only from this system comes our motor power, but our sense of hearing, seeing, smelling, tasting and feeling, &c. But the nervous system is matter. What is it that is in this system, this tangible something that we call life, the absence of

which causes death? The sciences of physiology and biology prove to us that it is an electric fluid circulating through the whole nervous system. I will have to recur to this subject again before closing my paper.

Man, in common with all other animals, has, in virtue of his physical organization, an animal nature, but, like all other animals, he has two natures, and, like all other animals, this second nature, not in virtue of his physical organization but a something given to him, in virtue of which he is a man, in fact, the animal man, I speak of his human nature, the highest nature possessed by any animal, and possessed by him alone; the term explains itself, human (*humanus*) from *homo*, a man and *natus*, born, to be born a man.

Now, my theory is that this human nature is man's *corporate entity*, whence he derived personality, self, *ego*, soul, free will, and a higher order of conscience than that which he possesses in virtue of his animal nature, consequently a higher order of conscience than that possessed by any other animal, and that it is this conscience which makes man a law unto himself, makes him know right from wrong in the abstract, and causes him to recognise a supernatural power. This human nature I hold to be supernatural of itself, and never to die, but not actually necessary to the life of the animal man. Query, are there animal men who never possessed a human nature? Judging some men by their brutal and inhuman acts, we might be led to the conclusion that there were.

We have such evidence of animal knowledge, and consequent animal conscience, that I need not occupy your time proving that fact, but this animal conscience that we find the best example of in the dog, what is it? It is simply a trained conscience, trained to fear punishment if it does that which it has been taught is wrong, and to look for reward if it does that which it has been taught to believe is right; and such is man's animal conscience, which would appear to be universally recognised, if we judge by the universal moral teaching which man has received and is receiving every day. Are we not taught that if we do good we shall be rewarded, if not in this world certainly in the world to come; and if we do evil, if we are not punished in this world certainly in the world to come. I do not say this is false teaching, but that it is an appeal to our animal nature, and not to our human, it is the same sort of appeal that is made to the lower order of animal, differing only in degree.

My idea is that the human conscience is of a much higher order than the animal conscience—a conscience which approves a man when he does right because it is right, and disapproves him when he does wrong because it is wrong. And here I would most respectfully ask, would it not be better if our moral teachers would appeal a little more frequently to our human nature? that we should hear a little more of humanity, uprightness, integrity, justice, benevolence, of the doing by others as we would that others do by us, a little encouragement to do right because it is right, and for the scientific reason that every good act a man does the act itself produces a good physical change in a man's mental organization, as by every evil act he does he produces an evil physical change in his mental organization,—the terms good and evil being understood to mean the fulfilling or breaking of a natural law of our being.

I said every man, in virtue of his human nature, had a free will—this requires no proof, every man knows of himself that his will is free, no power can bind a man's free will, but we must draw the distinction between a man's human free will and his animal desire, which he has in common with all other animals: human free will and animal desire are two very distinct things, a fact which, if generally known, is very frequently lost sight of by law-makers and judges, aye, and by teachers of the moral law, all of whom—law makers, judges and teachers—speak and act as if, because a man has a free will, he is necessarily a free agent, ignorant of the fact that a man by his free will cannot always control his animal desires, which are the outcome of his mental organization, leading to deeds.

He is a fortunate man whose animal organization is in accord with or in subjection to his human free will. He is a man of an extraordinary physical formation who can bring his animal desires into subjection to his human free will. We hear men talk very flippantly of will-power, and give examples of what men have done by force of will in overcoming animal desire; but perhaps if we knew all the particulars of these cases we would find that animal desire had ceased because of physical change in the animal organization, when indeed it would be very easy to submit to the will,—something like the lady of doubtful character who gave up the world when the world had given her up, or, like those very good old men who write doleful letters to the chums of their youth, regretting

their youthful follies, "although they were pleasant times," but who would not, if they could, return to them again. Of course they would not, but why? Simply because youthful animal desire has been subdued by the physical change in their emotional organization by time, so that they are not what they were. It would be rather a ludicrous affair to see an old man scrambling over a fence to rob an orchard, which perhaps was the strongest desire of his youth.

If we would prove will-power let us take cases where the animal desire and human will are in strong opposition, for example, that of the conscientious man, the man who knows right from wrong in the abstract, and has an honest abhorrence of what is wrong, but is the slave of strong animal sexual desire, or a strong animal desire for drink, either of which desires is his hereditarily. And look at the everlasting struggle between human free will and animal desire, a struggle that tears its victim to pieces, in some cases driving the victim to suicide, in others into a lunatic asylum. Never, indeed, is human free will victorious till a physical change takes place in the man's mental organization—for in all such cases the mental organization is either hereditarily abnormal or diseased from some cause. It is a fearful sight to see the human free will thus struggling with animal disease. Our own sweet poet, JOHN READE," well describes it in the following lines :

" 'Tis easy to cry Raca from within
 " Cold passionless morality's strong tower
 " To those who struggle fiercely hour by hour
 " 'Gainst grim Goliaths of unconquered sin."

and "SHAKSPEARE" seems to have well understood the importance of the subject when he put the following words into the mouth of the unhappy "HAMLET":

" And blest art those
 " Whose blood and judgment art so well co-mingled
 " That they are not a pipe for fortune's fingers
 " To sound what stop she pleases: Give me that man
 " That is not Passion's SLAVE, and I will wear him
 " In my heart's core, aye in my heart of heart,
 " As I do thee."

You see I differ entirely from Dr. Maudsley, who makes will and desire one and the same thing. I maintain that they are separate and distinct, and come from different sources, desire being derivable from our animal organization, and will from our human nature. If the matter be normal, the desires

are normal ; if abnormal, the desires are abnormal. A man in perfect health rarely suffers from thirst, and when he does his desire for cold water is easily assuaged, whereas a man suffering from fever is always calling for drink, and nothing will stop his craving for drink—this is the difference between the animal organization being in a normal and abnormal state. But the will is always normal. I maintain that there is no such thing as a diseased will ; it cannot be diseased, for it is not of the material order. Man to be what he should be, in virtue of his two natures, must have both natures in harmony, that is to say, the animal nature should be guided by the free will of the human ; but our animal natures are generally so bad by inheritance, in consequence of our progenitors having broken natural laws, and rendered worse by the wrong means used to develop our mental organization, that our animal desires are not normal but abnormal, stronger than our human will, so that we may well say man is what he is in virtue of his animal nature—too frequently not a free man but a slave to his passions, in other words, to his abnormal animal desires.

It is no uncommon thing to hear all our frailties attributed to our human nature. I consider such a statement degrading to our humanity : our faults and frailties are due to our animal nature and only to be corrected by a physical change in our mental organization. I don't mean here to enter into the question of all the means at our disposal for the accomplishment of this, of which medical treatment is not the least important. I would, however, remark with respect to that inexplicable and undefinable something which we call the grace of God, and in which I firmly believe as much, if not more, than many of those who are always talking about it, although I may differ with them to a very great degree as to the means of obtaining it ; I say this spiritual gift, when it makes a good out of a bad man, does so by producing a physical change in his mental organization, and in accordance with God's established natural laws, and not in the breach of them. God does not break His own laws, there is no occasion for Him to do so, He can do all things by these laws ; He created all things by means of them, and by them we live and move and be and die ; and living as we do in the breach of them, sometimes through ignorance, but very frequently through pride and presumption, is the chief cause of man's suffering, the chief cause of crime and insanity.

It is hardly necessary for me to defend my

statement, that man of all other animals is person, indeed of all created things, and has an *ego*, and that in virtue not of his animal but his human nature. In fact, to be what we are, personality is necessary. If we believe sacred history to be a history of events, when God created angels He did not endow them with personality ; they never were persons, whatever else they may be. Personality belongs to man only, and perhaps it is in this particular he resembles God, Creator. Recognising, as I do, that a man's human nature is born with him as well as is his animal nature, yet I maintain that the human nature comes direct from God, and cannot be tainted through heredity. Therefore, while I agree with Dr. Maudsley that no two men, physically speaking, (which includes the whole mental organization, intelligence, &c., &c.,) are born equal. I hold that, humanly speaking, all men are born equal, for to be a man there must be a human nature.

I said that man in virtue of his human nature possesses an immortal soul, that is to say, like self, *ego*, free will and a higher order of conscience ; it is one of the attributes of our human nature. But what is the soul? I don't know. I cannot conceive what it is. I cannot reason upon it. No science nor anything else can give me insight into what it is ; by *faith* I believe in it, as I do in much above my reason.

Before concluding this part of my subject you will permit me to summarise a little, that you may the better comprehend what I have said.

I said man was an animal in virtue of his physical organization, and consequently has an animal nature, and in virtue of his mental organization, which is physical, he is intelligent and moral to a greater or lesser degree, depending upon the high or low order of that organization ; that as an animal, in common with all other animals and the whole vegetable kingdom, he has a non-corporal entity which is God, and that the union between God and him is life. That man in common with all other animals has an animal conscience, and in common with all other animals two distinct natures ; that man's second nature is his human, in virtue of which he has a personality, self, *ego*, a free will, a higher order of conscience and an immortal soul. I said that his human nature, although born with him, was not, like his animal, subject to heredity, therefore, although mentally or physically speaking no two persons were born equal, humanly speaking all men were born equal. That

although man's will, which he had in virtue of his human or higher nature, was free, yet his will could, not under all circumstances control his animal nature, whence proceed his thoughts and deeds.

The logical conclusions of the foregoing propositions are, that man is intellectually and morally what he is in virtue of his animal or physical organization, and whatever the *modus-operandi* may be, whether moral or otherwise, or whether by the consent of the will or otherwise, if man's morals or intellect are to be improved, the improvement must be made by producing a physical change in his mental organization.

PART II.

MAN CREATED BY EVOLUTION.

Where so much has been written by men of the highest scientific standing upon the origin of man, I consider, in connection with the subject I have in hand, that I cannot pass over the theory of evolution without giving my views upon it, for of course I have my own particular views.

You are aware that the evolutionary or so-called Darwinian theory is, that man was evolved from a lower order of animals, and that it took millions of years before this animal became man; and again, that the vital organism in which the process of evolution began was of the earth, either in the form of dust or slime.

I need not enter into all the arguments brought forward by these great men in proof of their theory. Their opponents assume that the theory is in some way alike derogatory to God and man, and contrary to the teachings of "MOSES" as recorded in the book of "GENESIS."

For my part I cannot see that the evolution theory takes anything from the honor and glory of God as first cause and creator, nor yet can I see that it makes man anything more or less than what he is, an animal with a human nature, and to my reading of the 1st Chapter of the book of Genesis—the whole of it—is evolution. The historian says, upon certain occasions, in certain periods of time God did so and so, but he does not say how God did it, in other words he does not give us the *modus-operandi*; he simply says God made man out of the dust of the earth, or, as the Latin Vulgate has it, out of the *slime* of the earth. Now Biblical scholars have been forced by the science of geology to admit that day means a period of time, and what was the length of time in each of the different

periods, we cannot exactly say, but geology gives proof that each period must have contained millions of years. We then may read the passages thus, the evening and the morning was the first period, instead of the first day, and much of the trouble will be overcome towards establishing the theory of evolution to be a scientific fact.

According to Moses, in the fifth period God caused the waters to bring forth fish, creeping things and winged fowls,—if this is not evolution, what is it? From water is evolved fish, creeping things and winged fowls, what name shall we give to this mode of creation, if not evolution?

Then in the sixth period he caused the earth to bring forth the whole animal creation and, amongst the rest of the animals, man: evolution again, and if not, what is it? And when they were all created he did and said to man no more nor no less than he did or said to the creeping things, the fowls of the air, the fish of the sea, and all the animals on the face of the earth, he blessed them and commanded them to increase and multiply, and that all might fulfill this his natural law of procreation, according to the same historian, he caused both the water and earth to produce male and female.

Now, suppose that, in accordance with God's established natural laws, the grain of dust or slime from which man was evolved, and all other animals evolved—but I will only speak of man,—suppose then that this grain of dust was first evolved into an ovum whose seed was in itself, and that it took millions of years, in fact the whole of the 6th period of time, before it became a perfect animal, and then that God endowed this animal with a human nature by which it became man, there is nothing in such a supposition contrary to the teachings of Moses, yet it would be evolution. Then suppose this ovum while gestating in the womb of time for millions of years did undergo similar physical changes that the ovum in the uterus undergoes during nine months of gestation, before there is a perfect child, it would during that time present so many phases that it might be well said that man was evolved from a lower animal. Every student of embryology knows that the very last thing that the fœtus resembles during the process of gestation is a child; its first representation is more of a worm than anything else, its second a fish, its third a bird, its fourth a quadruped, and fifthly a child. Surely in procreation man is evolved from the very lowest microscopical organism, very little ovum; and if in obedience to

God's established natural laws this low animal organism is evolved through all these different animal stages, in nine months terminating in the animal child, and then that it takes years of physical change before it is developed into the animal man, and then that the animal man is always undergoing evolution, physical change, till in process of time, that very property, life, by which he *is*, shall wear out the animal machine, and the animal portion of man shall return to the earth from which it came—remembering all these facts, we will find nothing extraordinary in the theory that the ovum formed from the earth should, in accordance with the same natural laws evolved in a similar way throughout millions of years, terminate by developing into man, and that the disciples of Mr. Darwin would by this reasoning be justified in saying that man was evolved from a lower animal. I believe that all the works of the Creator show design, and that He designed the ovum from which man was evolved to terminate in man.

In this way do I recognise that the evolution theory of creation is more in accord with nature's laws as we now understand them, than that God called man and all other animals in perfect order in a moment of time out of the earth, and there does not appear to me to be anything in this theory of creation to justify those who call themselves anti-evolutionists in giving such a name to evolution as the "gospel of dirt." Before they make use of such an expression they should remember they themselves say man was created from earth, and they should remember what procreation is.

So much, gentlemen, for the theory of the creation of man by evolution, which to me is a reasonable one.

PART III.

THINKING—HOW PRODUCED.

What is the cause of thought, of our thinking? If I remember correctly it was "Carlyle" who said, "some men never think—they only think they think." When this close observer of men and things made the above remark he no doubt meant to imply that there are very many men who rarely make thinking a voluntary action or who ever provide their mental organization with wholesome food for it to think of.

Thought is involuntary, that is to say, we must think whether we will it or not, but each person with a normal mental organization can, to a very

great degree, direct much of this thinking by his free will; and he can provide food for thought by seeing, hearing, reading, etc. A man can make any thinkable subject a matter of voluntary thought, but the moment he ceases this voluntary thinking he will still go on thinking, perhaps of some subject as remote from what his voluntary thoughts had been as it is possible to conceive. Although thought is involuntary when not under the control of the will, yet our mental organization cannot think reasonably of nothing—it must have something to think about, and that something is supplied to it, either voluntary or involuntary, from objective cause or involuntary from subjective cause, and this by means of our organs of sense or our sensory nerves. Of course you all know that the ingoing nerves are the sensory nerves proper, and the outgoing the motor nerves proper, but you must bear in mind that all these nerves are anatomically integrated by ganglionic nerve structure into one nervous arc, and, according to Louis, sensory impulse and motor impulse are the polar aspects of one vital process.

Speaking of the objective we cannot think intelligibly of what we never saw, or felt, or smelt, or heard of. We may have a kind of foggy unintelligible thinking, dreaming in our waking moments as we do in our sleep, sometimes due to some abnormal state of our mental organization, either *sthenic* or *asthenic*; in one case removable by antiphlogistic treatment, in the other by tonics. That sort of thinking persons have who try to think of eternity as if it were a multiple of time, when it is the very contrary, having nothing whatever to do with time, being its negation, so that it is impossible for man to think of eternity, consequently, the effort to do so only weakens the mental organization and finally drives the victim into a lunatic asylum; so it is when we try to think of a time before the world was, which cannot be made a subject matter of thought, seeing there was no time, there was no past or future—a state incomprehensible—time only began with creation.

To think voluntarily and intelligibly there must be intelligible subject matter for thought supplied to the mental organization from either objective or subjective sources. And this is why we can so easily account for the difference there is between the thoughts of different people, and why they cannot think alike, because each man, either from accidental circumstances or by his free will, has his mental organization supplied

with a different subject matter of thought, therefore we have the difference between the thoughts of persons of different religions and of different nationalities, between the thoughts of a man who is well educated and the illiterate man, between clerical men and lay men, between a man who has travelled and seen much of the world, and the man who was never a mile from the place of his birth, the difference between the thoughts of a physician and lawyer, between the thoughts of a farmer and trader, a soldier and politician, an honest man and a dishonest man, an honorable man and a dishonorable man, of a moral philosopher and a mental scientist.

There is one thing, however, we all have in common, and that is thought which is the effect of subjective cause. We all think alike when we suffer pain, whether it be from hunger, thirst, disease, mechanical injury, jealousy, sorrow, etc. Our emotional organization produces similar thoughts in all, but not followed in all by similar effects,—I speak of love, joy, likes and dislikes, hopes and fears, many of which are the products of our sexual organization which are more or less marked at different periods of life as the animal nature develops or decays by physical change in our mental organization.

The next question in connection with thought is, how is it produced from this normal living matter? In answering this question we must take into consideration man's whole material organization, and we will find it to be a living animal machine, a perfect whole, all its parts more or less dependent upon one another; and this whole is always in motion, heart, lungs, stomach, intestines, etc., and the motor power for all is electric fluid circulating through the whole nervous system. This has been proven by numerous experiments. DU BOIS RAYMOND, has by his experiments, not only established this fact, but he has done more, he has established the fact that each nerve conducts electricity in both directions. To all these motions thus produced by the electric fluid he has given the term "ELECTROMOTION," and it is this nerve motion that produces all the normal physical changes that are constantly taking place in man's physical organization, causing each organ by its motor power to fulfil its own peculiar physiological functions,—the brain, the heart, the lungs, the liver, the stomach, the kidneys, the intestines, etc.,—so we can well understand that any thing that interrupts this motor power must be followed

by an abnormal change of some part of man's physical organization; and here arises the question, how does the human will so control this nerve force or power so as to change involuntary into voluntary thinking? What connection there is between man's human will and his mental organization I do not know, nor do I suppose any one ever will know, but, as I assumed that God was man's and the whole animal and vegetable kingdom's non-corporal entity, and that life was the union between them, so I might fairly assume that man's human nature was his corporal entity, and its free will the union between it and the animal man by means of life also. This is the only theory I have to offer on this very difficult subject; however, we have positive proof that the free will does, to a more or less degree, control the normal material thought, as it controls our organs of locomotion, which are material also; and as it controls the latter when in a normal state by means of the motor nerves, so I conclude it directs the former by means of motor nerves also, that is, when in a normal state; for the human free will, I maintain, has no more power over the mental organization when in an abnormal state than it has over our organs of locomotion when they are in an abnormal state, it being understood that I speak comparatively as to the different degrees of abnormality existing either in our mental organization or our organs of locomotion. There may possibly be a different set of nerves for voluntary and involuntary thinking, as there are a different set of nerves for voluntary and involuntary motor action in other parts of our animal organization, or they may be the same nerves rendered voluntary under certain circumstances, like many other of our involuntary nerves, as is best exemplified in our respiratory organs. I hold that thinking, whether voluntary or involuntary, is, as I have already explained, the result of nerve motion stimulating the mental organization, and the stronger and healthier is the mental organization and the stronger and healthier is the nerve force, the more healthy will be our thinking, and the more under the control of our wills. We must not expect to find healthy reasonable thinking in the idiot, the imbecile or insane, neither must we expect it from the *neurasthenic* no more than we would expect from him strong walking or swimming.

It is only as I have explained it can I conceive cause for thought, whether it be voluntary or involuntary; moreover, it has the advantage of

been intelligible, what Mr. Huxley would call a common-sense view of the subject, and consequently a scientific one.

PART IV.

NEUROLOGY—CONCLUSION.

Gentlemen, if you were to ask me the question, how much of the foregoing was original, the result of my own observation and reason, and how much of it contained the views of others, I could not answer the question. A man who has spent the best part of his life in the special study of mind in health and disease, is very likely unintentionally to mix up other men's views with his own. One thing I am certain of is, that the psychological and biological views I have advanced have been of gradual growth, and I could not before now put all the threads together so as to weave them into one web, and now I am surprised that it took me so long to find out such clear scientific truths.

The more important question is, if these views which I have put forward be true, what lessons have we to learn from them?

First.—If a man's growth and decay, his thoughts and consequent deeds in many instances, his emotions and impulsive actions, his sickness and health, be all dependent upon physical change, either normal or abnormal, in his mental organization, wherein does he become a responsible being? I don't speak of his responsibility to his Creator, that I leave to God, it is out of the domain of mental science—but his responsibility to his fellow man. It appears to me self-evident that every man who is not insane, and possesses ordinary intelligence, is, in virtue of his human free will, bound to use every lawful means to bring his animal nature into subjection to his human free will, that he may perform the moral and social duties he owes to society, and what all these several duties are, are summed up in a few words, doing by others as we would wish others to do by us, founded upon the natural law of justice and benevolence. I say every man should do his best, and when he has done this he can do no more.

If by a limited responsibility is meant that a man is partially but not entirely responsible for his act which he does, I do not believe in it, but if it is meant that for one act he is responsible and for another irresponsible, or that one time he may be responsible for an act and at another time irresponsible for a similar act, in this manner I could believe in a limited responsibility. But I believe

every man to be either responsible or irresponsible for each of his separate and distinct acts.

Secondly.—As there is such a thing as a criminal as well as an insane neurosis, for the possession of which a man is no more responsible than he is responsible for his parentage, is punishment the best remedy to improve such a neurosis, to improve a man possessing such a mental organization? I don't believe so. I cannot conceive how punishment, the infliction of suffering, can improve a diseased or deformed physical organization like the mind of man, no more than I can conceive punishment improving a diseased liver or lungs, which are no more nor no less material than is his mental organization.

Thirdly.—Is our mode or system of education the best possible means of developing the mental organization of youth, of developing a "mens sana in corpore sano," which was considered the greatest blessing by our Pagan forefathers? I gave an answer to this question five years ago in a paper entitled "A protest against the present high pressure system of education." I now repeat, no, a thousand times no; by our systems, not by education, we are making our youths criminals or lunatics, or sending them to a premature grave. Hear what that old conservative magazine, "BLACKWOOD" says on the subject:—

INSTRUCTION AND SUICIDE.

Professions do not predispose to suicide, but instruction does. No man kills himself because of his trade, but a good many men kill themselves because of their knowledge. Not only has the revival of suicide almost exactly coincided, in time, with the modern extension of schooling, but suicide is now most abundant in the very regions in which schooling is most expanded. The records establish this beyond all doubt. The inhabitants of countries in which every one can read are precisely those who kill themselves the most. Now this supplies another indication that people do not always make a good use of reading. We knew that fact already, it is true, but we scarcely expected that additional proof of it would be supplied in this strange form. That reading conduces to suicide is a new view of reading, but it is uncontestedly an exact one—within limits. We could, perhaps, have imagined, if we had thought about the matter at all, that certain occupations might possibly pave the way, under unfavorable circumstances of health, to thoughts of suicide. We

could have wildly guessed, for instance, that newly enlisted recruits, or lighthouse-keepers, or exiles, or public executioners, lead lives in which the self-killing tendency might receive a morbid development; but never, in our senses, should we suppose that village schooling is, indirectly, the most fertile of all the actual origins of suicide. And yet it seems to be so. And if it is not, what is? We have all of us heard so much of "the suppression of crime by education" that we have insensibly acquired the unreasoned belief that education is one natural cure for moral evils. So, perhaps, it ought to be. And—to repeat the question—if it is not, what can be? But evidently, as regards this particular evil, education appears to be a provocative rather than a remedy—at least in the form in which we have hitherto applied it. The books which are now being published about suicide on the continent are all deploring, with consternation, the simultaneity of the spread of the alphabet and of voluntary death, and are asking, anxiously, what can be the connection between them. They seem indeed to be almost expecting that, if we go on as we have begun, we shall soon see suicide officially recognized by Government as an inevitable result of study (like headaches and spectacles), and placed naturally, all over Europe, under the supervision of the inspectors of schools.

—*Blackwood's Magazine.*

Fourthly.—As mind and body are one, and as the mental organization takes in every fibre of the whole nervous system, and as all sensation is in and by and through the nervous system, have we not committed a great error by such a classification as making mental and physical suffering two distinct forms of suffering, and consequently establishing two distinct forms of treatment—when the truth is, mental and physical suffering are one and the same thing, no matter what the causes may be which produce the suffering, whether it be a gunshot wound, producing mechanical destructive lesions, or an unkind word producing irritative lesions: in either case the suffering is caused by the production of an abnormal change in the nerve centre, the shock produced by the unkind words being borne by means of the sense of hearing to the nerve centre, and the shock which is the result of the gunshot wound, being transmitted to the nerve centre by means of the sensory nerves,—and the suffering may be just as great in one case as in the other, and lead to as dire consequences, that is, to death or, what is

worse, to insanity. Although in one case where death is the result the pathologist may not be able to show us the lesion in the nerve-centre it is as surely there as if it were "*microscopic*," instead of being as it would be, "*asopic*."

Seeing that the nervous system or mental is the motor power by which we live and move and be, and that it is such in virtue of its vital force or motor power, by which force or power it governs every portion of our physical organization, every fibre of which it is integrated with, would I be going too far if I said that, as all suffering is mental suffering, so all diseases are mental diseases. I mean that as all diseases originate in nerve structure there is no doubt but that nerve structure suffers in all forms of disease; but the question is, does disease originate in any other of our bodily tissues, or is the first cause in nerve-structure. I know all the objections that can be raised against this theory; but are they not all capable of being answered? I am not at present prepared to go into that question; to do so would require a paper longer than the one I am about to conclude. I would, however, remark that I believe we can point out very few diseases, whether of the pyrexical class, or otherwise, that are not ushered in by asthenic symptoms, shewing that the nervous system is the first part affected. And in my opinion it were better if we treated all such cases when these symptoms present themselves, than to wait for some specific form of disease to be developed, which disease may be insanity, and by our early treatment prevent any specific disease being developed. He is a good physician who so treats his patient as to enable the physical organization to recover from a diseased state, but he is a better physician who prevents in the early stage the physical organization from running into a diseased state. In other words, prevention is better than cure.

For my part I believe there is a nerve centre for each and every of our thoughts and deeds, for each and every of all our different forms of suffering; for each and every of all the different forms of disease by which we are afflicted, and that each and all of these nerve centres can and will in time be localised by the experts in anatomy, physiology and pathology. The sciences of psychology and biology call upon these experts to find out these nerve centres, and, judging by the work done within the last few years there will be no disappointment. They have already pointed out to us the nerve centre for intelligence and emotions, for motion

and sensation, for respiration and digestion, for hearing, seeing, tasting and smelling, with the nerve centre for speech. They have shown us the nerve centre diseased producing different forms of paralysis, and now Dr Dyce Duckworth of St Bartholomew's Hospital, in his plea "for the neurotic theory of gout," gives us the nerve centre for the diabetis accompanying that disease. He says: "The medulla oblongata, the sympathetic and splenic nerves have been found chiefly affected, and the spinal cord likewise in some instances. The point for the diabetic puncture in the medulla oblongata is believed by physiologists to correspond to the vaso-motor centre in the same structure." With all these facts before us we have every reason to hope that the working men of science will gradually draw from nature all her grand secrets. Then will medical men be able to treat the inebriate and the man of abnormal sexual desires as they do the insane, on purely scientific principles. They will recognise that they have a diseased or abnormal mental organization to deal with, whether either of these states be the result of heredity or of habit, and they will treat the cases accordingly.

They will recognise that although one man by will-power may succeed in subduing his animal desire by producing a physical change in his mental organization, that such a case is the exception, not the rule. That, as a rule, they might just as well expect the paralysed man to walk because he willed it as the inebriate to abstain from drink because he willed it. They will recognise that all the Legislature can do for such cases is to provide an asylum for them, where they will receive proper medical treatment, and where they will be detained, even against their will or desire, till they have recovered, and where, if incurable, like an insane person, they must remain for life. In all these cases physical change must take place before the desire for drink ceases; and, if there be no other remedy, forced abstinence and time will produce that physical change in the majority of cases, but well-directed medical treatment should be the great consideration. Temperance societies are very good, and I have the highest respect for all those well-meaning persons who, seeing the evil results of drink, have been using what they consider the best means to abolish the evil. But the evil is where they cannot reach it, and the removal of it depends upon the medical scientist, and it is time that medical scientists should bend themselves to

work and find out the nerve centre for inebriety and find a remedy for the case; and those generous persons who for so many years have been working for the cause of temperance with, I regret to say, so little good results, should see to it that the medical men are provided with proper asylums, and all available remedies to carry out their work.

I don't think I have gone too far in attributing all our diseases, as well as all our sufferings, to our mental organization, certainly not further than Dr. Maudsley, and although EULENBURG, GUTMAN, DU BOIS RAYMOND, NOTHNAGEL, BUCKNILL and FERRIER have not said the same in so many words, all their writings tend to the same conclusions.

Gentlemen, I have, to the best of my ability, given you my views on man's two natures, on the theory of creation by evolution, and on mind, because these three subjects are so united in the one science of psychology that I could not treat of one without treating of the whole.

I have dwelt more particularly upon mind, at least in its normal state, because I wished to show how important is the knowledge of psychology in the treatment of disease; and I would have you to believe that you cannot study the mind in health without clinically studying it in disease, and more particularly as it develops itself in the different forms of insanity. It is only by comparison that we can learn the normal mind. I wish, however, that you perfectly understand that I maintain that no man can enter upon the science of psychology before he knows its kindred sciences—anatomy, physiology and pathology, and the better he knows these sciences and all other sciences the better will he be prepared to enter upon the science of psychology.

The general increase of knowledge in our profession will never prove an obstacle to experts in particular branches of it; and men will always be found who will devote themselves to some particular branch, and it will be always necessary they should do so. But it is necessary that all medical men should know something of all diseases, and I hope the time is approaching when every medical man will be able to answer in the affirmative when the "Shaksperian" question is propounded to him,

"Canst thou not minister to a mind diseased?"

ON THE TRUE POSITION

OF THE

BLADDER IN THE MALE,

AND A FEW THOUGHTS ON PASSING THE CATHETER, BOTH
AS REGARDS DRAWING OFF URINE, AND AS REGARDS
"SOUNDING" FOR STONE.

By C. E. NELSON, M.D., New York.

I must really apologize to my Montreal readers for obtruding my name so often in the pages of the RECORD; but, in my humble opinion, the subject of this article is one of importance, as is evinced in daily practice; and also, with the exception of those who have had an extensive experience in this branch, such as hospital men, many general practitioners are not so well versed in several little points as they themselves might desire,—their time being most busily engaged in general practice.

I also wish to lay before the medical public the idea that in all likelihood the wood-cuts in our anatomical text-books are erroneous; and if that is the case, causing serious errors in our practice, in passing the catheter—in sounding—and in the operations (*séances*) of lithotrity.

The position of the bladder in the pelvis, which is likely to be the true one.

Erasmus Wilson, in his "Anatomy," says, "the bladder, when *empty*, is *triangular* and flattened against the pubes." As a minor remark, I think the statement that it is *triangular* is open to doubt, the idea being that the urachus holds it up from the top; my ideas on this point will be elaborated further on, where the connection will be seen.

Flattened against the pubes. With all deference to this celebrated man, I think this statement is incorrect; I prefer the "explanation" that will be given lower down.

Apart from the explanation that will be read lower down, I think the chief argument against its being flattened against the pubes when empty, is the utter absurdity of it, when you come to reflect on the matter, likely for the first time.

As a preliminary observation, I will remark that professors, and medical men generally, are too apt to regard the relative position of viscera in the cadaver as being *precisely the same* as in the living subject; one may say, "well, there are the same folds of peritoneum, so-called ligaments, &c.," but the condition of things is very different; in the corpse, everything is collapsed—that is, when it is opened—from the pressure of atmos-

pheric air, fourteen pounds to the square inch; *before* the "body" is opened, another state of things obtains, a little different to that during life, *i.e.*, certain organs are more distended than during life; also, certain portions of the cadaver are swollen from various extravasations, ante-mortem or cadaveric.

As regards medical students examining closely the relative position of the pelvic (or other) organs, they rarely take the trouble; it being infrequent for a student to dissect the bladder and rectum (stuffed with tow, the anus sewn up); and then, as regards the bladder at least, they think a great deal more of cleaning the muscular coat off nicely, than of any relative position of the organs.

Another great obstacle to our arriving at the truth lies, I think, in the fact that we dissect the cadaver *lying down* (for convenience sake); this is very different to the position during life, as we sit or stand nearly all day. When the body is laid down (like in gynæcological examinations as usually conducted, but for which I always ask the patient to stand up), the pelvic and abdominal viscera *recede* from their usual relative position.

We will take Wilson's first wood-cut, where the man is represented lying down (the usual position, in hospitals, of passing the catheter—but I always ask the man to stand up): there is quite a longish space, which is not clearly accounted for, between prostate and pubes; now, if the bladder, when contracting, flattens against the pubes, as is stated, it would of course have to pull along, and over, with it, rectum, vesiculae seminales and prostate, across the pelvic cavity (4 inches!) to behind the pubes—a thing that is very unlikely to say nothing of the rectum being closely connected with sacrum, and held there by a meso-rectum. What about pulling the triangular ligament over to pubic arch, which is very unlikely; in that case the urethra inside the body would become distorted, which we know is not the case, by passing the catheter.

A few words more:—the terms that are made use of in designating certain portions of the bladder are, I think, apt to confuse, and thereby mislead; for instance, "body," "superior fundus," "inferior fundus," "base"; the student has got to stop and think whether you are sitting the man or laying him down; and even then the terms are very obscure.

THE TRUE EXPLANATION,

I think, is to be found in Dr R. Nelson's "Trea-

tise on Asiatic Cholera," wherein he states that (p. 104) "the bladder does *not* contract in *all* directions," as popularly supposed; but that "the base lies against floor of pelvis, between pubis and rectum, in the male, where it is *tied down* (anatomically) to this floor, and is *never removed thence*, however much the viscus may be distended with urine; here it forms a *flat, adherent disc*, about 2 or 2½ inches in diameter, from side to side and from before backwards, between pubis and rectum; in *the very centre of this disc* the urethra opens [I go on transcribing the whole paragraph as it is necessary to do). When the bladder EXPANDS by accumulation of urine, it is *the sides and summit* that expand, and a portion of the base also stretches to some extent, but *the base never leaves* its attachment *to the floor of the pelvis* (this is different to what our books say), to which it is affixed by pretty close cellular tissue. When bladder is EMPTY all contracts, summit and sides, as far as lateral limits of the 'base disc,' and in this state the summit forms *another disc*, of *equal dimensions* to the base (lower) one, and comes into immediate *flat contact* with the lower disc."

My comments will come afterwards, in speaking of the passage of instruments.

My father's remark, that the internal meatus urethræ opens in the *very centre* of the bladder disc, certainly staggers me, as we are led by our pictures to believe that it opens into what we call the "lower end" of the bladder; however, he examined post-mortem many cholera patients in Montreal.

PASSAGE OF INSTRUMENTS.

I have just measured the central portion of the pubis of my skeleton, and ascertained the following diameters: vertical, 1¾ in; transverse, 2½ in.; oblique, 2¼ inches; antero-posterior diameter, sacrum to back of pubis (symphysis), 4 inches, so that, if the rectum is empty, consequently easily flattened against sacrum, when bladder is greatly distended,—for the bladder to contract (according to Wilson and others) it would have to traverse the entire pelvic cavity, four inches across. From the anatomical relation of the parts in the *female* this question need not be discussed.

According to Dr. R. Nelson the diameter of the "bladder disc" is (say) 2½ inches every way, that is *more* than the vertical diameter of the symphysis pubis; it would therefore rise above upper border of pubis, so that it can hardly be

said to be flattened (vertically?) against the pubis.

A great deal of trepidation is manifested by operators puncturing bladder *supra pubem*, on account of possibly wounding the peritoneum, and, consequently, passing the trocar into that cavity; Mr. James Lane, a celebrated London surgeon, assured his class that when the bladder was distended this accident could not possibly take place, as the bladder *lifted* the peritoneum up before it, as it became distended.

Passing the Catheter.—I believe it was Baron Heurteloup who travelled over Europe, showing medical men the easy, deft, and marvellous way in which he passed the instrument, in the most difficult cases. Most beginners suppose it is very easy to do, but in reality it requires a great deal of skill—witness the false passages that are often made by the attendants. After warming and oiling, the general mistake is that they "turn" *too soon*, which brings the beak strong against upper wall of urethra; if the attendant through "mauvaise honte," *persists* in pushing, likely false passage and abscess may supervene.

EXPLORING BLADDER WITH SOUND OR LITHOTRITE.

The curve of a catheter being too large, we (through habit) explore all around, *top*, &c., although we know the calculus can only be on the bottom; this differing where the man lies down or stands, the beak soon gets arrested against the sides, as the transverse diameter (Wilson) is smaller than the vertical. If a doctor will take his catheter or sound, place end in a small bowl, and keep turning it round in different directions, he will see how utterly futile his efforts may be for some time, before he hits it again a pebble placed in the bowl; but we do a rather singular thing: after exploring all around we turn the beak *downwards* to make sure of *that* direction; according to some pictures, and according to Dr. R. Nelson's statement, there can be *no downwards*, unless by that you term pressing the beak on to the floor of bladder, which of course will *give* to a certain extent. When examining floor of bladder, I turn sound right round upside down, exploring with the beak; as the other way it is impossible to detect a calculus.

THE SUPPOSED TRIANGULAR OR PYRIFORM SHAPE OF THE BLADDER.

I should rather be inclined to state, or think, that the shape of the human bladder resembles that of a flat cake, or, more scientifically expressed

like the human placenta ; and also that the insertion of the two cords is analogous in both instances, in the centre of course, but a little depressed (or umbilicated). Persons may say, " why do we not see this in the cadaver ? " but, on reflection, a " body " is not opened in a dissecting-room until some little time after death ; in all likelihood the subject did not die of Asiatic cholera,—by this time, post mortem (cadaveric) changes have taken place ; but persons may again say, in ordinary autopsies, held a few hours after death, why do we not see that umbilicated depression ? (I) there may be urine in the viscus, in many cases ; (II) possibly it is only in cases of Asiatic cholera, where the observer may have the chance (as Dr. R. Nelson had) of seeing it—

from the " spasm " being on, which would remain after death ; perhaps, in one or two days after death, if an autopsy were practised on a person who had died of cholera, this appearance would no longer be seen, on account of cadaveric changes.

In the dissecting-room. On sauntering through we may come across a student " dissecting " the bladder ; but what is the observed relation of the organs, one to the other ? As it is very troublesome dissecting the bladder down below the pubes, we shall likely see the bladder (upper portion) turned out and over the pubes ; the bladder has possibly been inflated with air, through a blow-pipe, through an incision ; rectum, lower portion, in connection with lower portion of bladder, possibly stuffed with tow, then ligatured and cut off ; intestines have been previously taken away, or turned over to one side ; now, everything (especially in a cadaver of some weeks), here is very much distorted ; relation of the parts, perfectly strained and unnatural : if water were used ligaturing the neck of bladder below the pressure would be *equal* on all sides, and we would then get more likely the true shape.

Certain conditions where the bladder may, in all probability, be flattened against the pubes.—During the progress of *labor* in the female, when the child's head occupies the sacral concavity, before labour comes on, during the last few days, and especially hours, preceding actual confinement, when the woman urinates every few minutes, latterly, I think the bladder is still horizontal ; but, on account of being pressed on above, it has to be frequently emptied, simply because there is only room for a small quantity of urine ; if, when the head passes, the bladder contains a large

quantity of urine (comparatively speaking), it is almost sure to be torn ; of course this cannot take place unless on being flattened against the pubes.

Pelvic tumors, including large fibrous tumors of the uterus, which may have a " process " descending into concavity of sacrum,—the action of these would depend on their size, and situation within the pelvis. In these cases, most likely, as the bladder gets filled, it rises, and gets flattened against pubes,—or, in other words, gets jammed between pubes and the hard tumor.

Fracture of ossa pubis.—It would be interesting if those who had these cases to attend would report whether the fractured edge caused extra irritation of the bladder ; I do not remember having heard of it, and this therefore further makes me think that the bladder does not flatten behind the pubes in the emptied state ; if it were so the bladder would very likely get torn, as there is nothing whatever between, except iliac fascia.

But these are all unusual cases, and my endeavor now is to prove that the bladder is not triangular ; of course this view does not militate against the usual representation of the lower zone in our books.

Correspondence.

DR. C. E. NELSON'S FRACTURE CASE.

CORRECTIONS.

To the Editor of the CANADA MEDICAL RECORD.

SIR,—The article on " Operations " is all right. The second one, " Fracture Case," contains several inaccuracies of the printer ; an important one, as regards punctuation, about " putting on the stockings," and " not being able to stand without crutches ; " these mistakes cannot now be helped, however ; but one grave error I shall have to ask you to correct in your next number (December), that is, printer put five inches shortening (!) instead of two ; the older readers will of course see that is a mistake, but it will not so readily occur to the younger ones, who might think it strange, my sending a fracture case to the paper having *five inches* shortening.

C. EUGENE NELSON, M.D.,

New York.

Progress of Medical Science.

MIDWIFERY AND GYNÆCOLOGY.

THE PREVENTION AND TREATMENT OF POST-PARTUM HEMORRHAGE.

In a discussion on this important subject at the late meeting of the British Medical Association (*British Med. Journal*), Dr. THOMAS MORE MADDEN, of Dublin, discussed *seriatim* the causes of *post-partum* hemorrhage, and the treatment required by each of these. Having dwelt on the constitutional conditions predisposing to flooding, and the preventive measures by which this might be waded off, even in those who had been habitually subject to this accident on former occasions, he considered the causes of flooding and the management of labour, so as to prevent subsequent inertia or irregular contraction of the uterus. The ill effect, in this respect, of the premature application of the forceps before the full dilatation of the os uteri, and also the production of hemorrhage as the result of undue delay in the second stage, were next referred to. During labour, when there was any reason to anticipate flooding, the preventive measures recommended by the author were: the rupture of the membranes in the first stage; the use of stimulating enemata of a strong infusion of ergot, or the hypodermic injection of ergotine, in the second stage; and a firm unremitting manual pressure over the fundus uteri, from the time the child's head escaped from the vulva until the completion of the third stage, which should never be hastened by traction on the cord, and the permanent contraction of the uterus was secured. In nineteen cases of flooding, the solution of perchloride of iron was resorted to; in eighteen of these the hemorrhage was thus arrested, and in one instance it failed. Dr. Madden, however, considered that the ordinary mode of using this styptic—viz., by a syringe passed up to the fundus uteri—was a very hazardous proceeding, and exposed the patient to great and needless twofold danger of death from embolism or from peritonitis. He, therefore, recommended, instead, the direct application of the strong liquor ferri perchloridi to the bleeding vessels by a sponge soaked in this fluid, and carried up by the hand into the uterus, and retained there until a firm contraction was produced. Some cases were referred to in which hemorrhage, that had resisted all other treatment, was thus arrested; and Dr. Madden, therefore, regarded this as the most effectual method of treating flooding. At the same time, he admitted that it was not free from danger, or even to be adopted without grave necessity. Some of the other remedies employed in the treatment of *post-partum* hemorrhage, including the hypodermic use of ergotine, galvanism, and cold and hot injections, were referred to.

Dr. William Walter, of Manchester, said

that since the method of treating *post-partum* hemorrhage by the injection of hot water was brought under notice by Dr. Atthill early in 1878, he had treated in this way eleven cases in the Manchester and Salford Lying-in Hospital. The temperature of the water used ranged from 110° to 120° Fahr.; and the utmost care was taken that the tube (Hayes's) reached well up to the fundus; and that there was afterwards no impediment to the escape of the water from the uterus. The results in the eleven cases—particulars of which were given—led Dr. Walter to the conclusion that the hot-water treatment offered some advantages, in being generally accessible and not disagreeable to the patient; but that, as a means of contracting the uterus, it was, in his experience, not to be relied on. Nevertheless, he hoped to continue the method; and he advised that the temperature of the water should be ascertained by the thermometer in every case. The recent researches of Dr. Max Runge tended to show that, if success was to follow the hot-water treatment of *post-partum* hemorrhage, the temperature of the water must not be so high as it was in his (Dr. Walter's) cases. In all the cases but one, the injection was followed by relaxation and dilatation of the entire uterus; if contraction occurred, it was but temporary; but, when the temperature of the water did not exceed 104° F., the uterus contracted without being afterwards paralyzed. No appreciable effect was produced on the pulse and general condition of the system. After the failure of the injection, the application of the induced current was successful in several of the cases.

Dr. Atthill, of Dublin, confined his remarks to the use of the four principal agents used for the arrest of *post-partum* hemorrhage; namely, ergot, cold water, warm water, and the perchloride of iron. Ergot was most unreliable: it took time to act, and, though valuable if administered to anticipate hemorrhage, was nearly useless at the time, even if injected under the skin. Cold was perhaps the most efficient of all agents, if used in the proper cases and at the right time; that is, while the patient was warm, and reaction consequently followed. If its use were prolonged, or the patient were cold and exhausted, it was worse than useless. It was at this stage that hot water came in with advantage, not to supersede the use of cold. Dr. Walter recorded cases in which it failed, or did actual harm; but he used it too hot, namely, at 120° instead of 100°; and the experiments referred to at the conclusion of his paper showed that hot water was efficient in causing contraction of the uterine muscular tissue. If used at the proper temperature, hot water was far from being an absolutely efficient agent, but it was valuable; it would not replace the use of perchloride of iron, but it must sometimes render it unnecessary. Perchloride of iron was in some cases absolutely demanded, and was the most certain means of checking *post-partum* hemorrhage. It had, in Dr. Atthill's hands, saved several lives; but, like all other remedies, it was not absolutely

safe. He knew of one case in which it seemed to cause instantaneous death; but he had known death to follow in a few moments from the simple act of syringing the vagina; air entered the uterus and caused death. Might this not have also been the cause of death when the perchloride was used?

PILOCARPIN IN THE ŒDEMA OF PREGNANCY.

Dr. Bidder related (*St. Petersburg Med. Woch.*, Aug. 16) at the St. Petersburg Society of Physicians the following case, which he treated in the way described, having from previous experience assured himself that pilocarpin does not induce pains during labour: A primipara, aged twenty-five, was admitted into the lying-in hospital in her eighth month of pregnancy, suffering from considerable œdema of the face, extremities, and external genitals—the small labia forming shining tumours as large as a fist. The urine contained a considerable quantity of albumen. Various remedies having been tried in vain, and one of the labia threatening to become gangrenous, a Pravaz syringeful of a solution (20 per cent.) of pilocarpin was injected twice on the first of the month, salivation following shortly after, and somewhat later profuse sweating. The œdema had already become much less by the next day, and on the third another injection was employed. By the 12th all œdema had disappeared, and the albumen of the urine had greatly diminished. No uterine pains were induced during this treatment, and when her full time arrived the woman had an easy delivery of a large child.—*Medical Times and Gazette*.

MURIATE OF PILOCARPINE IN ECLAMPSIA.

Dr. Braun relates, in the *Berlin. Klin. Wochenschrift* for June 16th, a case of puerperal convulsions successfully treated by subcutaneous injections of pilocarpine. The patient was a robust, healthy young woman, who had been recently delivered of her first child. About an hour after the child's birth, violent convulsions set in, and were frequently repeated. When seen by the author, five hours after delivery, she presented all the symptoms of a severe attack of eclampsia. The convulsions followed each other rapidly, and during the intervals the patient was insensible. The bladder was empty; no urine had been passed since her delivery. Large doses of chloralhydrate were prescribed, and a subcutaneous injection of two centigrammes of morphia made; but without effect. During the next twenty-four hours the patient's state assumed almost a hopeless aspect; when it occurred to Dr. Braun that, as the eclampsia of puerperal women is caused by uræmic intoxication, a diaphoretic drug would diminish the tension in the arterial system and free the blood of toxic matter. He accordingly made a hypodermic injection of three centigrammes of muriate of pilocarpine. This was followed by very profuse perspiration and salivation. During the next half-hour, the muscles of the eye and the face twitched

a few times. No more eclamptic fits came on, and the patient recovered quickly.—*Brit. Med. Journ.*

AUSCULTATION IN UTERINE HEMORRHAGE.

Prof. DEPAUL, in clinical lecture (*Gaz. des Hôp.*, Aug. 26), observes that when hemorrhage occurs during labour, it will generally be found to arise from partial detachment of the placenta, the cord being too short. "I remember," he said, "the case of a young woman whose delivery had gone on very well, when, as the head was approaching the vulva, two or three spoonfuls of blood suddenly appeared between her thighs. I immediately practised auscultation, and found the foetal heart beating irregularly. It was evident that the infant was suffering, and that it was dangerous to await the natural termination of the labour, which might last two or three hours longer. Dilatation was complete; and easily persuading the mother of the necessity of terminating the labour rapidly, I applied the forceps. Immediately after the child was extracted there followed five or six enormous clots, weighing about a couple of pounds. The child was born respiring with difficulty, but soon quite recovered. Never forget, then, whenever you meet with a flow of blood, to assure yourself by auscultation as to the state of the infant, and when dilatation has taken place, hasten to interfere whenever life seems in danger."—*Med. Times and Gaz.*

ERGOT IN THE TREATMENT OF FIBROID TUMOURS OF THE UTERUS.

Dr. William H. Byford of Chicago, in a paper read at the late meeting of the British Medical Association (*British Med. Journal.*) laid down the following propositions, and offered arguments in support of them. 1. When properly administered, ergot frequently very greatly ameliorates some of the troublesome and even dangerous conditions of fibroid tumours of the uterus, *e. g.*, hemorrhage and copious leucorrhœa. 2. It often arrests their growth, and checks hemorrhage. 3. In many instances it causes the absorption of the tumour; occasionally without giving the patient any inconvenience; while, at other times, the removal of the tumour by absorption is attended by painful contractions and tenderness of the uterus. 4. By inducing uterine contraction, it causes the expulsion of the polypoid variety of the submucous tumour. 5. In the same way, it causes the disruption and discharge of the intramural tumour. He said that, in administering ergot in cases of fibrous tumour, the action of the drug would depend on the degree of development of the fibres of the uterus, and on the position of the tumour with reference to the serous or the mucous surfaces: the nearer the mucous surface, the better the effect. A good result might be expected under the following conditions: smoothness of contour of the tumour, denoting uniform development; hemorrhage; a lengthened uterine cavity; and elasticity of the tumour. He would expect large fibro-cystic tumours to resist the action of ergot; and a good

result was not to be expected in cases of uneven nodulated tumour, absence of hemorrhage, shortness of the uterine cavity, and hardness of the tumour. It was not essential to give ergot hypodermically, though this was a very efficacious method; it might be given by the mouth, in suppositories, etc. If the object were to cause painless absorption of the tumour, the dose should be moderate, and not too frequently repeated; if it were desired to have the tumour expelled, full and increasing doses should be given often, and continued till the object was attained. The preparation which he used was Squibb's fluid extract of ergot. He said, in conclusion, that he disclaimed any expectation that ergot would supplant all other modes of treatment.

EXTIRPATION OF A CANCEROUS UTERUS.

Dr. Von Massari relates a case of extirpation of the cancerous uterus followed by a fatal result. The patient was fifty-three years old, the mother of nine children. Menstruation had ceased at the age of forty-three. A vaginal discharge had existed for two years, for six months irregular hemorrhage had occurred, and the discharge had become offensive. There was no pain, and the general condition was good. The cancerous cervix was hollowed out into an ulcerated cavity which admitted the finger, bled readily on touching, and from which a scanty offensive discharge flowed. The uterus was quite freely movable, and no trace of the disease could be discovered in the pelvis.

The operation was performed on February 1, 1879, in a room disinfected by thymol spray, and the patient was placed with her head towards the window, the thighs flexed and abducted. A mixture of chloroform 100 parts, ether 30, and alcohol 20, was used for anæsthesia. The vagina was syringed with 5 per cent. solution of carbolic acid. An incision having been made from umbilicus to pubes, the author succeeded with difficulty in pressing the intestines and omentum up into the upper part of the abdomen by means of compresses dipped in warm thymol solution. The edges of the wound were then held apart by means of a kind of clamp invented by the author, so as to allow a free view into the pelvis.

The operator then placed himself between the patient's knees, and introducing the left hand into the vagina, introduced the lowest loop of the sutures for the broad ligament at each side in a manner similar to that adopted by Freund, the needle being inserted at a point 1 cm. from the lateral border of the lip of the cervix, and entering successively the anterior and posterior pouches of peritoneum at a point 1 cm. from the border of the uterus. The first loop at each side inclosed the lower third of the broad ligament, and two more loops secured its middle and upper thirds respectively, the uppermost loop being placed outside the ovary. In closing the wound the author adopted a different method from that of Freund.

Three sutures were passed from the vagina into the peritoneal cavity, between bladder and uterus, and a similar number of loops were passed from vagina into pouch of Douglas, intended to draw down the ends of the sutures after removal of the uterus, and so complete the loops, to be tied in the vagina, and so unite the anterior and posterior cut surfaces. Two of these loops, however, were cut in separating the uterus, and the two corresponding sutures had afterwards to be passed by a straight needle from above into the vagina. During the separation of the uterus, the fundus was drawn upwards, or to the side, by means of Luer's forceps. As soon as it was cut away, the pelvis filled rapidly with blood, and the uterine and some smaller arteries were found to be spirting, and to require ligature. The cut surfaces were then brought together by the sutures before mentioned, and intermediate gut-sutures were inserted, and tied on the peritoneal side. The peritoneal cavity was sponged out, and four drainage tubes inserted, antiseptic dressings being applied. The operation lasted an hour and a quarter, and, at the end of it, the patient's condition was good; pulse 96. In the evening the pulse had risen to 118; temperature 38.3 C., and vomiting had occurred once. On the second morning, temperature 38.6 C., pulse 120; evening, temperature 39.3 C., pulse 140. There was now frequent vomiting of watery fluid, and the features had become drawn. On the third evening, temperature had risen to 41 C., pulse could not be counted. Death occurred about midnight.

At the autopsy, the peritoneal cavity was found to contain about ten c. c. of semi-purulent fluid, and the peritoneum was coated thinly with lymph. The right ureter was found to have been cut across about three cm. above its opening into the bladder, and its upper portion was included in one of the ligatures. The pelvis, and calices of the right kidney, as well as the ureter, were slightly dilated. In the removed uterus the inner two-thirds of the wall of the cervical canal was found to be infiltrated with medullary carcinoma.

To avoid the risk of wounding the ureters, the author proposes, in future, to pass bougies into them, as a preliminary to the operation. He finds, however, that Simon's method of sounding the ureters is too difficult and uncertain, and therefore proposes to dilate the urethra, pass into the bladder Simon's urethral speculum, and by its aid to sound the ureters. In one trial, he has found this easy to accomplish with the aid of an ordinary lamp light and reflector.—*Centralblatt für Gynäk.*

Dr. F. J. Kochs, of Bonn in the *Archiv für Gynäkologie*, B. xiv. H. 2, relates a successful case of extirpation of the cancerous uterus. The patient was thirty-nine years old, the mother of two children. She was in good health, and menstruation was regular up to January, 1878. After the menstrual period of that month, a discharge

commenced. Occasional hemorrhage, but not to any considerable degree, had also taken place, and but little pain had been felt. When she came under the author's observation, at the beginning of the following April, the cervix was found to be hollowed out into a deep crater, and enlarged by malignant growth, which reached up to about one cm. from the vaginal insertion, but nowhere overpassed that boundary. The uterus was about as much enlarged as it would be in acute metritis, and was movable, although not quite freely so. Microscopic examination of a small portion of the growth showed it to be carcinoma. The tendency to hemorrhage was considerable.

Menstruation came on on April 19th, lasting seven days; and on April 28th the operation for extirpation was undertaken. The patient was placed with her head towards the window, and lower than the pelvis. The anæsthetic was chloroform, given by Junker's inhaler; and care had been taken to administer purgatives for several days previously. Carbolic spray of a strength of one per cent. was used at the operation. The incision was made from the mons veneris to about two finger-breadths above the umbilicus, and the edges of the wound were held apart by retractors. It was found possible to hold back the intestines in the upper part of the abdomen by means of a handkerchief dipped in carbolic solution.

The three loops of strong silk ligature were placed on the broad ligaments at each side, from above downwards, the last loop entering the vagina. Each loop was doubled, so that the innermost thread was close to the uterus, and the outer one about one cm. from it. The threads of the inner loops were cut short. A simple long, slightly curved needle was used in passing all the ligatures. The lowest loops became slack after division of the upper part of the broad ligaments, and had to be replaced. The lowest loop on the left side had again to be replaced after complete separation of the uterus from the right broad ligament, and from the bladder and rectum. In passing the loops, in order to avoid lesion of the bladder, the finger was passed into that viscus, after dilatation of the urethra. The ovaries were removed, the mes ovaria being tied with silk. A supplementary ovary was noticed on the left side, situated from one to two cm. within the left ovary. This was removed in like manner. The bladder was separated from the uterus by using the scalpel from above, guided by the finger within the bladder. The knife was also used to pierce the vagina from the pouch of Douglas, and the opening so made was enlarged to either side. The ends of the ligatures were drawn down into the vagina, after Freund's method, and the wound of the peritoneum was brought together in a transverse line by six fine sutures. The vagina was finally washed out with carbolic solution, but no tampon placed in it.

Some vomiting occurred the same evening, and it was necessary to use the catheter about ten o'clock, no incontinence of urine having followed

the dilatation of the urethra. Temperature 38.2°C .; pulse 120. On the second day, temperature was 37° ; pulse 140. The same evening the pulse rose to 160, but after this improvement took place, although vomiting was frequent for several days. On the fifth day the pulse had fallen to 96; temperature 37.8°C . From this day the vagina was washed out with carbolic solution by means of a speculum. On the eighth day, on the removal of one of the sutures, a small collection of pus was evacuated from the neighborhood of the puncture. Convalescence went on undisturbed till May 24th, the twenty-seventh day, when rigours came on, followed by febrile symptoms. On the 26th, a considerable discharge of pus took place by the vagina. Recovery was steady from this time. At the last examination reported, which was made on June 6th, a funnel-shaped depression remained at the summit of the vagina, with some small protuberances; but these did not show, microscopically, any sign of cancer. There had been no recurrence of menstrual molimen.

To simplify the operation, and avoid the difficult process of placing the lowest loops of the sutures which are to secure the uterine arteries, the author proposes, in future, before placing these loops, to separate the uterus from the bladder and the pouch of Douglas, which will not, he thinks, cause much bleeding. The loops of suture can then be easily carried by a long, strongly curved needle, like an aneurism-needle, from the pouch of Douglas into the vagina, and thence into the anterior pouch of peritoneum through the opening so made.—*Obstetrical Journal of Great Britain*, Sept, 1879.

ON VARIOUS FORMS OF FUNCTIONAL CARDIAC DISTURBANCES.

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GENTLEMEN:—Functional or nervous conditions of the heart differ essentially from those which are organic or inflammatory in their nature. In the one case we have no evident lesions when the heart is examined post-mortem, and in the others we have usually, if not always, some obvious change in valves, or orifices, or heart-walls. During life they differ also, with structural diseases. Their symptoms are more variable, more painful and distressing frequently, and they are continually forcing themselves upon the patient's attention. About their importance no one can doubt, since they are frequently confounded with permanent lesions, and yet are themselves amenable to wise, careful, judicious treatment. Functional trouble of the heart may be temporary and passing, or it may be permanent in character. It may be part of a general nervous temperament, or it may be dominated by some purely accidental circumstance. It may be primary and essential and then, so far

as our knowledge to-day extends, seated in the cardiac ganglia. It may be of reflex origin, or dependent upon some remote disease of the genito-urinary system, especially in women. Such are those cases which are found with a prolapsed or displaced womb, or with an ovary the seat of chronic inflammatory change. Further, functional trouble of the heart may be closely allied, or connected with, all those different pathological changes as they effect the blood, the central nervous system, and the stomach. Finally, we have "irritable hearts"—hearts which are weary and worn, owing to the cares and anxieties of life, to long night-vigils, to overwork, both mental and physical. In this latter category we shall have to consider the hearts which have become irritable in men of the best type—in those who strive and struggle for their own and others' rights or happiness, and who are the prey, as it were, of their personal self-abnegation and sacrifice: such an one, at times, is the overworked and too conscientious family practitioner. Functional disturbance of the heart is marked by cardiac palpitations. These palpitations may be violent and accompanied with strong, rapid pulsations, or they may be moderate and conjoined with weak and slow beats of the radials. Almost always with an attack of cardiac palpitations, we have a lack of regularity or proper rhythmic succession in the cardiac sounds. Palpitations may be brought on by more or less physical exertion, as the fact of going upstairs, or lifting a weight of some magnitude. Again, they may be brought on by an incident of an emotional character, which has disturbed greatly the nerves which govern the heart's normal movements. Too often they come on without assignable cause and at times when one might least expect them. In the middle of the night a patient is frequently awakened from a peaceful sleep and is suddenly tormented with most distressing palpitations, and at the same time very gloomy forebodings. This condition is encountered particularly, however, with persons passed middle life, who have somewhat enlarged hearts and atheromatous arteries. They have, when they awake, an attack of true cardiac asthma. In searching for the proximate cause, we shall be able at times to affirm that it lies in a dyspeptic condition. The stomach is at fault, and when its deranged digestion is quiet and better ordered, the attacks of cardiac asthma are cured. You all know of the disease described by Graves and Basedow—of the three principal classes of symptoms: first, those which pertain to the prominent eyes; second, those belonging to the enlarged thyroid gland; third, those which are annexed to the overacting heart. In such patients there is no counting the pulse accurately with the fingers at times, so fast does it go. Well, this disease is by some located in the sympathetic system, and it is this location, doubtless, which explains the rapid cardiac contractions. Of course, all heart trouble in this disease is not purely functional, for we find in its advanced stages that the

heart becomes enlarged—how much owing to continued overaction, I am not wholly prepared to say. In an analogous category with Graves's disease come those murmurs at the apex, and rapid, irregular beats of the heart which are met with in chorea. We can but attribute these symptoms to the want of synchronism about contraction of the intrinsic cardiac fibres, and particularly of the muscoli papillares. And now I wish to draw special attention to the condition known as "irritable heart." This name was first given to it in our late civil war, by Prof. Da Costa, of Philadelphia, and to those who wish an interesting and highly scientific consideration of an important subject, I refer them with strong emphasis to his writings in the United States Sanitary Commission Reports, 1867, in the *Am. Jour. Med. Sciences*, 1871, and in the Toner Lectures for 1874.

Such reading will be very profitable, for it will be noted and acquired that what was a frequent form of disease in the army, owing to overmarching, to diarrhoea, to fevers, is also becoming frequent in civil life, owing to tobacco, tea-drinking, sexual excesses, and inordinate physical exercise in the way of dancing, rowing, and baseball. Under this name is included what Fothergill has described as "hyperæsthesia" and sub-paralysis" of the heart. This affection is marked by irregularity of the cardiac rhythm, overaction of its movement, pain in the precordial region, and a feeling of faintness. In the milder forms rest will, in a brief period, greatly ameliorate this condition. In aggravated cases it renders the patient unfit for the routine duties of business or professional life, and remedies affect it favorably only by very slow degrees. Upon more than one occasion hypertrophy of the cardiac walls was evident both before and after death. Never thus far, however, have either the muscular or nervous fibres been found degenerated. During life the heart beats very rapidly, the impulse is more diffuse, though not perhaps increased always in force, and there is a moderate blowing murmur covering the first normal sound, and heard with greatest intensity at the apex. This is not invariably true, however, as the first sound is at times only more abrupt than usual, but is wholly free from the presence of a murmur.

The second sound is clear, but, according to Fothergill, not as markedly so as in a dilated heart. There is almost invariably a feeling of oppression around the precordia, and the brain is apt to be attacked with vertiginous sensations. The patients are taken occasionally with sudden and painful palpitations, and it is no unusual thing for this to occur in the middle of the night. Sleep is at times much disturbed, and these patients are unusually restless. They cannot lie on the left side on account of the increased pain caused by this decubitus. There is evidence of cardiac debility in the very frequent and depressible pulse. Often upon the slightest exertion, this, from relatively quiet and tranquil, will become agitated and extremely

rapid, and it is not remarkable to see it mount to 120 or 130 beats per minute.

The extremities perspire easily, and have a cold, clammy feeling, which is an additional proof of general nervous prostration. These patients are at times affected with severe dyspnoea; and yet, when we count the number of respirations, we do not find them increased so as to be above the normal. It is a remarkable circumstance that this affection has been many times confounded with pulmonary phthisis. I can understand many reasons why, even after careful research, one might properly hesitate between it and hypertrophous dilation—the more too, as irritable heart is often accompanied with or followed by this form of organic change. But it appears to me somewhat far-fetched, with the signs above given, that any one should be in quest of consumptive evidences. All physical signs, moreover, of lung disease are absent; and the irritative cough present, with the slight and interrupted spitting of small pellets of blood-stained mucus, are not sufficient properly to withdraw one's attention from the heart.

The prognosis of irritable heart is favorable if the whole disease consist of temporary exhaustion of the sympathetic; but if, in consequence of repeated over-exertion, the heart becomes organically affected, then we have to do with an affection which is almost always prolonged and sometimes serious. Such cases are reported as having followed an affection of the uterus, and also the inveterate use of tobacco. Usually the signs of the resultant lesion are similar, viz: there is extended impulse and increase of precordial dullness on percussion—both of which point to the existence of an enlarged heart. An analogous form of heart affection may be caused in individuals who have undergone very intense exertion without having previously been in training for it. Such an example is that of Clifford Allbutt, who has given a full account of his own experience in an article upon "The Effects of Overwork and Strain on the Heart, etc.," in *St. Geo. Hosp. Reports*, vol. v., p. 23. Dr. A. had made a pretty lofty ascent, and was about to go still farther and higher when he was taken suddenly with a stifling sensation and painful cardiac pulsations in the epigastric region. Unable to proceed, owing to the distressing sensations from which he suffered, he lay flat on his back for a while, and then, feeling better, attempted once more to continue his ascent on foot. The same painful feelings returned almost immediately, so that he was compelled to delay his onward march some time and send his companion in advance to secure lodgings for them during the night. Finally he was able to go on. When he again reached level ground his normal feelings returned, and that same evening he was able to eat his supper with appetite and go, without discomfort, to bed.

During the night, after several hours of sound sleep, he awakened with similar painful sensations to those he had experienced during his afternoon walk. In this instance there had evidently been

over-distention and temporary debility of the muscular walls of the right ventricle, which had been brought on by an acute strain upon the heart strength. Over-exertion, without preliminary training, here occasioned but passing dread, with intense oppression, while there can scarcely be a doubt that, under like circumstances, rapid death has been the frequent and sad result. We should bear in mind an example like this whilst remembering that heart disease can ordinarily be traced to the pre-existence of rheumatic fever, of scarlatina, typhoid, typhus, etc. Still, mechanical causes are at times equally injurious, and affections of the orifices or cardiac walls may thus be occasioned. It is a singular fact that but little emphasis is laid upon these causes by the majority of English and foreign authorities. Even so accurate and complete an analyzer as Hope barely alludes to them, and such men as Jenner write, as late as 1869, only to deny their influence. Doubtless, as remarked by Allbutt, the practice of this distinguished clinician did not lead him in the way of encountering many such cases. In the view of Clifford Allbutt it is regrettable that, although so much has been published in regard to cardiac pathology, the character and mechanism of bruits, the therapeutical bearings of numerous cases, this equally important subject has been almost completely overlooked. And yet certain occupations do undoubtedly give rise to organic cardiac disturbances. Heart disease among soldiers has been fully described by Myers in 1870. Peacock mentions it in a special manner as existing among those who work in tin and copper mines, and Da Costa among those who make excessive expiratory efforts, as glass-blowers and cornet-players. Most of you saw the lad I presented at this clinic only a few weeks since, who had already acquired considerable hypertrophy of heart, with obstinate recurrent attacks of hæmoptysis, due to nothing else than the continuous fatigue and strain in his trade. The gist of this matter has evidently been ascertained by Da Costa with that clearness and correctness of insight which stamp his observations. He shows conclusively, in his monograph on this subject, that it is not so much *interrupted* exercise which does damage to the heart, even if it be of violent nature, as it is the professions in which the circulation is constantly impeded or hurried. Of course it is not affirmed that violent games will not produce both functional disturbance and occasional organic difficulty—notably hypertrophous dilatation, for examples of the contrary are shown. Thus, among what are ordinary amusements with young people, such as dancing, rowing, base-ball, we find instances of functional trouble which finally pass into organic heart disease.

Still when these latter could be vouched for, they have occurred first in those persons who were predisposed to have irritable heart, and second, among persons who had no let-up in their active amusements. With base-ball players Da Costa cites two cases of hypertrophous dilatation. But

here again the injurious results followed almost continuous play, and not play that was interrupted during several days or weeks at a time.

In volume xviii. of "Ziemssen's Cyclopædia," Dr. A. Brayton Ball, of this city, has contributed an excellent article on "Physical Exercise," and under the division of "Results of Over-exertion" shows that, so long as muscular exertion conforms to the law of rhythmic action, it develops the muscles and augments their strength; but, if the exertion become continuous, then it decreases their power, and finally leads to atrophy, or, worse still, to degeneration. Applying this to the heart, it is not difficult to appreciate that through over-exertion we shall inevitably diminish the duration of cardiac repose by encroaching upon diastole through increased rapidity of action. Thus we approximate to a condition of almost continuous work for this organ, which must occasion the same detriment to it as it does ultimately to any one of the purely voluntary muscles which is being constantly called upon after an analogous manner. Doubtless the heart is sooner and more injuriously affected among those who are poorly fed, breathe an impure atmosphere, and are victims of alcohol, than among those who suffer from no such pernicious circumstances.

Dr. Ball makes a few forcible remarks against the senseless habit of long-distance walking which is so intensely the fashion of the moment. In it he finds a useless expenditure of reserve force, which can only be made with the certainty of causing future permanent injury to the contestants. According to this author, the best way probably to prevent bad consequences to health resulting from active physical exercise is to appoint a competent medical man in each one of our large institutions of learning, where there are many students, and, therefore, many who engage in outdoor sports, whose duty it shall be to examine each young man with respect to his physical condition. After this examination has been thoroughly made, only those of vigorous build, and who at the same time enjoy good health, shall be permitted to engage in games or contests for which just these attributes are essential, so that harm may not result from indulgence.

In regard to the treatment of all such cases of irritable heart, or of those in which debility has already shown itself by some dilatation, special importance must be attached to rest on the back; and with "heart-weary" people it is a great point gained to have them avoid just those professions which are calculated to increase their disease. Above all, let the thorough-going, typical, too rapid American be perfectly assured, as Da Costa remarks, that constant running to catch a boat or a train, or "bolting" all meals, is bound to injure his heart as much and more than the coats of his stomach. Sexual excesses are also a frequent cause of irritable heart, and functional disturbance thus caused is not the price paid only by men or women of profligate habits. Moral men—men whose duty to the state is properly shown by a vigorous and increasing family—are sufferers, and

have become so by an apparent ignorance of the fact that because indulgence is not socially censurable it is individually of possible injury to health. Such individuals (clergymen, farmers, lawyers, etc.) often owe their general lack of energy and bodily activity to irritable hearts thus occasioned. We all know many of the disastrous consequences which are the immediate outcome of drinking to excess. Among these none are more frequent than the weakened heart and soft, weak, rapid pulse of the steady drinker, or of one who frequently "makes a night of it." To some persons tobacco is relatively innocuous; to others it is a poison, even in mild and minute doses. To many, mild cigars are not injurious, but strong tobacco completely unnerves them. How many young men suffer cardiac palpitation which are attributable to no other cause? The close student is often just the one who is thus affected. After the excitement of examination is passed, then it commences to tell, and he can scarcely walk a block at a rapid pace without feeling his heart leap into his mouth. At night he hears his arteries throb, his heart beats in a very irregular manner, and sleep is prevented for several hours. To remedy this, whatever else be done, tobacco must be put aside for several months.

The green-tea drinkers of our mothers' and grandmothers' days were certainly more numerous than they are in our own day, and, I judge, must have had very irritable hearts. For even now, and when English breakfast tea is pre-eminently a lady's drink, still attacks of painful palpitations are common among them, and to remedy them we must adopt Fothergill's plan of prescribing *cocoa* as a beverage, with a doubting faith, however, lest they soon again relapse into their former pernicious habit of excessive tea-drinking. To show the influence of the mind over the action of the heart, Fothergill cites the case of a medical student who, when asked a question, the answer to which required thought, had immediately a changed cardiac rhythm and intermissions of the pulse-beat. Whenever the answer was given without thought, the action of the heart remained undisturbed. We are all of us aware how much our heart-action is influenced by emotions or temporary excitement, but we are not all aware how much control of the cardiac centre may be acquired by an effort of will. The accomplished statesman is, however, able to control every utterance which indicates emotion, and this is, perhaps, as great a proof of regularising heart-action as the others familiarly cited of the finished coquette or the winner at Creedmoor.

In his usual brilliant way, Fothergill touches the keynote of this matter in saying there are "stout-hearted" and "faint-hearted" people—those who can be relied upon in an emergency and those who cannot—those, in other words, who can control their hearts under circumstances of great excitement or impending danger, and those who then become powerless and useless.

There are many other causes of cardiac palpi-

tations that we have not as yet alluded to. Among the frequently encountered are plethora, anæmia, dyspepsia, and gout. We have already seen that an overtaxed heart becomes irritable. So in a certain way do we find the heart of an individual whose blood is in excess. The muscular fibre of the heart is unduly excited, the origins of the pneumogastric trunks receive too much blood, and there are frequent and violent palpitations as a result of the preceding conditions. These symptoms are apt to occur among individuals who, for one reason or another, have abandoned active and abstemious habits of life for those of ease and self-indulgence. There is no more prolific source of functional heart trouble than an anæmic state. We are constantly encountering it in city practice. Numerous causes may be assigned for the presence of anæmia, but once present it will often become the source not only of cardiac palpitations, but also of many secondary phenomena, which indeed appear to be very similar to those we find in connection with organic heart disease. The prognosis and treatment being so very different in these two conditions, it should make us very cautious in affirming our diagnosis. Usually, functional heart disorder, due to anæmia, is accompanied by numerous other symptoms which fully establish its etiology. Such are headache, intercostal neuralgia, cold extremities, leucorrhœa, etc. Palpitations are often aggravated, if not directly occasioned, by the presence of atonic dyspepsia. Wind accumulates in the over-distended stomach after a meal, and soon the heart is pushed aside and its circulation is directly interfered with and becomes markedly laborious. This same mechanism will account for cardialgia which is so apt to show itself in hysterical women during a paroxysm. In both cases the immediate exhibition of a carminative, such as the compound tincture of lavender, aromatic spirits of ammonia, or melissa water, will, by bringing up the wind from the stomach or causing it to be belched, give almost instantaneous relief. In speaking to you at a previous lecture of the effects of gout upon the capillary system, I pointed out to you how sudden palpitations might be produced in a wholly unexpected manner, owing to spasm of the arterioles. Formerly this effect upon the rhythmic beats of the heart was presumably due to an accumulation of lithic acid in the blood, and even in the last edition of the work of your eminent Professor of Practice it is thus described. But within a few years, thanks to the distinguished researches of Sutton and Sir William Gull, but more especially of George Johnson, of King's College, London, it is now accurately determined that there is hypertrophy of the muscular fibres in some cases, of the fibrous tissue of the walls of the arterioles in more numerous instances, and of a combination of both changes in a very limited number of examples, which accounts for gout palpitations. Doubtless uric acid is still to be found in excess in the blood, but it does not seem to be the proximate factor in

causing spasm throughout the capillary system. This once again is due to an evident, determined pathological lesion. Why it is that gouty palpitations come on during the night particularly I am not prepared to say. After all, in the consideration of cardiac palpitations, we must not lose sight of the fact that cardiac excitability varies very much with different individuals: some there are whose heart palpitates from even the slightest emotions; others bear with the greatest stoicism, or rather most perfectly calm, quiet circulation, all sorts of sudden shocks or dreadful occurrences. All the causes which affect merely the rapidity and force of the cardiac action, influence it through the sympathetic system; those which act through the pneumogastric alter the rhythm of cardiac movements. This is distinctly shown by the results of the experiments of sectioning these nerves.

While we can separate in our experiments the control which belongs to each system of nerves, this is not always possible with certain morbid agencies. The symptoms present often show conclusively that they have acted through both systems. While the nervous trunks no doubt usually carry the impressions and modifying stimulus to the heart, it is often true that the nerve-centres themselves are primarily disturbed.

Apart from the symptoms which can be localized, and, therefore, attributed to the heart directly without much reason for uncertainty, there are many general symptoms which manifestly must differ according to the different cause or pathological relations of the cardiac disturbance.

(To be continued.)

DIABETES INSIPIDUS TREATED WITH ERGOT.

In the *British Med. Journal*, Dec. 25, 1875, is recorded the case of a man who suffered from diabetes insipidus, and was successfully treated with ergot, after the failure of jaborandi and other remedies. Half a drachm of the liquid extract of ergot, every three hours, reduced the urine in twenty-four days from twenty pints to a pint and a half, increased its specific gravity from 1,002 to 1,017, and removed the excessive thirst and other distressing symptoms from which he had suffered for two years. A few days ago the reporter of the case, Dr. Murrell, accidentally met the patient and was told that he had never had a day's illness since he left the hospital, four and a half years ago. His urine was normal in quantity and he did not suffer from thirst. He was strong and well in every way, and able to do a good day's work. The ergot cured him completely, and Dr. Murrell adds that it is to be regretted that this mode of treatment is not more commonly employed in these cases.—*The Brit. Med. Journ.*, May 8, 1880.

SURGICAL TREATMENT OF EPISTAXIS.

Dr. Edward Hamilton, in a communication to the *British Medical Journal* (vol. i., 1880, p. 691), denounces the ordinary Bellocq's canula as a frequently useless and sometimes pernicious instrument. He himself takes a strip of linen material three feet long, with a width in proportion to the fineness of the texture, perhaps an inch on the average. This may be soaked in some domestic astringent at hand,—tea, alum-water, saturnine solutions; oil may be used, but it should be sparingly, for, although it greatly facilitates the introduction of the material, yet it interferes with the imbibition of moisture, and thus prevents the subsequent expansion of the plug, which is useful in checking the escape of blood by its compressing effect. The best of all fluids, if at hand, is a saturated solution of gallic acid in glycerine, which may be kept for the purpose. This has the advantage of combining astringency and styptic quality with lubrication. This strip of linen should be regarded as consisting of three parts, each intended for its own special position in the nostril. The end of the first portion should be grasped in the blades of a dressing-forceps, and conveyed along the floor of the nostril to the posterior termination of that cavity; the remainder, about one foot, should be rapidly "paid" by the finger and thumb into the cavity of the nostril. The solid mass thus formed should be forced along the floor of the nose, first with the little finger and then with the dressing-forceps or a pencil, until it is found to occupy the posterior nostril, and distinctly felt in it by *the finger, hooked round the soft palate*. This is far the most important part of the entire proceeding, being as it were, the basis of operations. The second portion should now be paid into the nostril in the same way, and pressed by the finger and forceps into its position,—the roof of the nose. The third and last portion should be pushed into the nostril so as to occupy a position in front of and below the other two, and, being caught within the edge of the alar cartilage, will usually retain its position without trouble. Dr. Hamilton thinks it desirable that the material should not be cut, but retained as one continuous piece for facility of subsequent removal; but too much care cannot be taken in disposing of the first portion. The nostril being thus perfectly and thoroughly packed, every portion of the lining membrane is steadily and firmly compressed, and the escape of blood is rendered physically impossible. In the course of about forty-eight hours the plug begins to loosen, the end falling from the nostril. Directions should be given to the nurse or attendant on no account to pull it, but simply to cut the projecting part on a level with the nostril according as it drops, until the entire plug comes away. There is little fear of the plug remaining too long as, when the natural secretion is restored, it becomes quickly loosened and unpacked, and falls away through the anterior nostril.

LONDON CORRESPONDENCE.

The age of miracles is not yet over it appears. A gang of thieves was brought up at one of our chief police courts in the metropolis a short time since, charged with breaking into a house and ill-using the only inmate, a lad of seventeen, who had been dumb from birth, but who was so frightened at their treatment that he, I was going to say recovered, but at all events he found his speech! and I believe, on good authority, that there is no doubt about the fact.

A case was tried at the Marylebone County Court the other day of considerable interest to the medical profession. The defendant, apparently a member of the Hebrew persuasion, was sued by his medical attendant for a sum of money for various visits to his wife after her confinement. The defendant contended, first, that the plaintiff had agreed to attend his wife in her accouchement, and for a month! after, for the sum of four guineas; and, secondly, that the after-illness was caused by the doctor's neglect and want of skill, in not having ascertained that the patient had passed no water for four days, which for several days after necessitated the use of the catheter twice daily. The judge promptly sat upon the attempt to disparage the plaintiff's professional skill, and gave him a verdict on the ground that the after-attendance was, as he observed, *outside* the original contract, and that no man in his senses would undertake to attend a woman in her accouchement for a month for four guineas. (Of course the plaintiff utterly denied this part of the compact.) But it rather appears to me as though this case is another illustration of "if you want a thing done well, do it yourself," in other words never trust too implicitly to the statements of the nurse. Talking of nursing, the lamentable state of affairs still continues at Guy's Hospital, and has culminated in the resignation of the senior Physician and Surgeon, and one of our oldest and most useful institutions in this huge overgrown city is rendered well-nigh incapable of carrying out the benevolent intentions of its founder. More than one inquest lately has demonstrated the impotency and incapability of the present system. The affair seems to me to lie in a nutshell, are the nurses to obey the doctors or not? In private practice, a nurse who chooses to disobey orders would very promptly be sent to the—well, home to her mother.

The fact that the revenue in this country derives more than two hundred thousand pounds per annum from the stamps for the sale of patent medicines deserves more than a passing mention, and more than a passing thought. England is the best quacked country in the world, and the colossal fortunes that have been and are being amassed by the vendors of pills, and ointments, and blood mixtures, surpass all belief. When men can afford to spend many thousands per annum in advertising alone, their profits must be immense indeed. The endowment of hospitals, &c., &c., in latter life from some of the huge sums made carries one back in thought to the times of and prior to the middle ages, when the robber barons of those days, after during nearly their whole existence leading a life of robbery, murder, violation, and of committing every vile thing they could do on the face of this beautiful earth, would on their deathbeds think to make their peace with Heaven by building a church! or endowing a monastery. Verily "History repeats itself, and there is nothing new under the sun." English Physicians and Surgeons are, it is universally admitted, second to none; the examinations they have to pass are as, if not more, stringent than any under the sun. The expense of acquiring their diplomas is very great, and when they have obtained them, what does a munificent state and a beneficent country do for them? Mulcts them in a fee of five guineas for a registration sham, sneers and jeers and ridicules them (even the Poet Laureate has no better taste than to have a fling, and state what a moment's consideration must have shown him to be a monstrous untruth), allows any fool who can scrape a few coppers together to flood the country with advertisements of his wretched nostrums, which when they do any good are, as in one notable instance, filched from a physician's prescription. The munificent state also allows any booby (either with or without a bogus diploma), who can get a qualified man (and I am sorry to say there are many unscrupulous enough to do so) to "cover" him, to drench the unfortunate gulls, and trust to luck to carry them through. Within a few yards of where I am writing, there are two of these so-called Dispensaries doing a flourishing business. London is full of quacks and impostors, who openly and unblushingly carry on their nefarious trades. The public suffer equally or more so than regularly qualified and registered practitioners, and the law

seems powerless to protect either the one or the other. Truly they "manage these things better in France." There neither nostrum nor quack, nor unqualified practitioner is allowed to flourish.

We are as far off as ever apparently from finding a specific for the cure of cancer. The much-vaunted chian turpentine, which was introduced with such a flourish of trumpets, appears to have most ignominiously failed, after having been given a fair and lengthened trial in several cases. I am sorry to confess that in my practice it has completely failed to do what it was asserted so confidently it would do—cure cancer.

LONDON, 8th December, 1880.

THE MIDWINTER (FEBRUARY) *Scribner* has always been a special number, as rich as the choicest literary matter and the most beautiful wood engravings can make it. Of last year's midwinter number the London *Times* said: "It is a really magnificent triumph of American pictorial art and literary genius." The English publisher of *Scribner* has telegraphed for 17,000 copies of the present number,—an advance of 6,000 upon his orders last year, and the largest edition of an American magazine ever sent to England:—in fact, it is said to be larger than the monthly sales of *any English Magazine*. The American edition of *Scribner* has grown during 1880 about 20,000 copies.

Since 1878 the sales of Wyeth's Beef, Iron and Wine have quite doubled in amount, owing to the appreciation by Physicians of its claim that the preparation really deserves the preference on account of the Purity of the Wine, the Fresh Beef used, together with the fact that the Iron is held in solution, in condition to insure ready assimilation. If Physicians will test it by simple taste, they will find an entire freedom from the mawkishness that must characterize it if made from Extract of Beef, resulting in a disagreement with the delicate and sensitive stomachs of the class of patients for whom this combination is specially indicated.

We have no hesitation in stating that, as a Tonic, Stimulant and Roborant, Beef, Iron and Wine, properly prepared, has proven more uniformly beneficial than any combination.

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Progress of Medical Science.

EXPLOSIVE COMBINATIONS IN PHARMACY.

We select the following items from an interesting article on dispensing in the London *Chemist's and Druggist's Almanac* for 1880:

Chloride or iodide of nitrogen is formed by the addition of chlorine or a chloride, or iodine or an iodide, to ammonia; and this compound is liable to violent explosion on coming in contact with phosphorus, iodine, arsenic, olive or cod-liver oil, turpentine, etc.

Tincture of iodine and ammonia are often prescribed together, and iodide of nitrogen is necessarily produced. The rarity of accidents is due to the fact that the iodide is not free from water.

Mr. Rice, in *New Remedies*, mentions an explosion resulting from the preparation of the following prescription, iodide of nitrogen being evidently the cause:

℞ Iodinii, gr. xv;
Lin. camph. co.,
Lin. saponis co., a a gr. lx.

A concentrated solution of iodine and iodide of potassium was filtered through paper. The next day the filter was touched to be removed, when the paper and funnel broke into atoms with a loud explosion.

Concentrated solutions of permanganate of potash in alcohol are liable to explosion, and bichromate of potash in alcohol may ignite the latter. Aqua regia will also often cause an explosion with alcoholates or essences.

Chlorate of potash mixed dry with tannin is

dangerous, and an explosion has resulted from its mixture with muriate of morphia. The following prescription was presented at a pharmacy in New York: it cannot be prepared without an explosion:

℞ Lactis sulphuris, gr. iij;
Antimon. sulph. aurant., gr. iij;
Zinci valerian., gr. i;
Potass. chlorat., gr. ij.

The addition of nitrate of silver to essence of bitter almonds to remove the hydrocyanic acid has been followed by ignition.

The following compounds have at different times caused more or less serious accidents:

℞ Calcis hypophosphitis, gr. viij;
Potassæ chloratis, gr. xij;
Ferri lactatis, gr. v.

The trituration of hypophosphite of lime alone has sometimes resulted in an explosion. A man was killed at Erfurt while drying one kilogramme of the salt in a sand-bath. It is said to be most dangerous if quite pure.

℞ Glycerini, f 3 ij;
Acidi chromici, 3 i.

This mixture can be made by adding the acid to the glycerin by very slow degrees.

A mixture containing chlorate of potash, tincture of perchloride of iron, and glycerin once burst in the pocket of a patient.

Pills containing oxide of silver are liable to inflame if they become warm. They have taken fire in the pocket of a customer, causing severe burns.

Other compounds liable to inflame during or after preparation are permanganate of potash and extract of milfoil, permanganate of potash and reduced iron in pills, golden sulphuret of antimony and chlorate of soda in pills.

It is always dangerous to associate glycerin or,

in general, any deoxidizer with easily-reducible compounds, such as the permanganates, chromic acid, the chlorates, and some organic acids.—*Boston Journal of Chemistry.*

ON VARIOUS FORMS OF FUNCTIONAL CARDIAC DISTURBANCES.

BY BEVERLEY ROBINSON, M.D., Lecturer upon Clinical Medicine at the Bellevue Hospital Medical College, New York.

(Continued from our last number.)

Physical investigation discovers clearly two facts: 1st, that there is no evidence of structural lesion. 2d, the presence of signs which enable us to affirm that the heart's walls and orifices are sound. If we bring percussion to our help, we find the heart has its usual size. Whenever functional trouble is conjoined with organic trouble, ordinarily the heart is, without question, more or less enlarged. Palpation of a heart functionally disturbed finds the apex at its normal seat; does not recognize such increased power as one would expect to find if the organ were hypertrophied, and seldom has a sensation approximating that of a "thrill." If auscultation be employed, there are usually no murmurs, and the heart-sounds, barring what is due to excitability, are healthy. If murmurs exist they indicate the accompanying blood condition, and this is indicated more by their seat and time of greatest intensity than by anything in the actual tone of the murmurs themselves. We have had great reason to believe, during the last few years, that many cardiac murmurs, once assumed to be evidence of organic trouble at the orifices, are only due after all to what should be considered functional trouble. And in the same line of reasoning I would now hold that, even with very pronounced disorder of cardiac action, it is not correct to infer the existence of either dilatation or fatty degeneration of cardiac fibre. The causer mentioned above are usually the origin of all the symptoms, and once they are effectually removed, the heart will come right of itself. The first sound of the heart affected with functional disturbance is sometimes accompanied with a clearly distinct metallic tinnitus, which is due, oftentimes, not as Hope affirms, to the noise of the cardiac impulse against the sixth rib, but simply to a stomach inflated with the gases of imperfect and prolonged digestion. I have seen this symptom persist for many weeks, and then quietly subside under the influence of a well-systematized treatment directed against the dyspepsia. In the diagnosis of functional trouble of the heart, the first and most important matter is to determine that no organic heart affection exists. Afterward we must endeavor to determine to what extent the signs present are occasioned by complicating symptoms of functional nature. This we are unable accurately to affirm in a certain number of cases, after a single examination, no matter how carefully and accurately made. Upon weighing fairly all symptoms

present, the age and circumstances of the patient, his preceding history, his hereditary tendencies, the nature of his employment, etc., we are still obliged to apply the touchstone of treatment in order to reach the exact truth. Even physical examination, so sure at times in the results afforded, will occasionally leave the mind uncertain as to the correct interpretation of the signs it makes known. The normal sounds of the heart are so much obscured by rapidity and irregularity of action, and so many general phenomena are present which may, at first, be attributable to organic disease, that we are forced to suspend judgment for a time. True it is that the varying degree of painful symptoms, their lack of permanency particularly, and the absence of grave disturbance, such as dropsy, hemorrhage, paralysis, etc., all point more directly to functional disorder than to structural disease.

But how many examples of the latter kind remain for a long period ignored, owing to the simple, though not always recognized fact, that they are covered up, or concealed from view, as it were, by the presence of a complicating neurosis, only those who practice frequent auscultation can be aware. Now it is just this very troublesome element of disease, the nervous one, which it is important to eliminate by judicious treatment, and to do this quickly and effectually we must rely, to a certain extent, upon the proper use of well-selected therapeutical means, but we should also rely greatly upon more power. If the physician consulted be thoroughly conversant with the complex nature of the affection he is called upon to treat, and yet feels confidence in his own resources, he will take positive ground by affirming in the beginning that many, if not all of the distressing symptoms experienced by the patient are the sequelæ of a deranged nervous system. He is abundantly justified in so doing, first, because in the majority of instances the future will prove the truth of his statements, and in the few instances in which he may, perhaps, be partly in error, the immense moral weight obtained from the start is of incalculable advantage to the patient. And even supposing, what is only rarely true, that there is in reality present an advanced stage of organic cardiac disease, we know well, by daily contact with hospital patients, that freedom from emotional excitement, perfect rest and tranquility, good food, hæmatinics, and the moderate use of digitalis, strychnine, and carbonate of ammonia, will work wonderful results. Make such a patient despair by telling him he has incurable or real cardiac disease, and soon the onward and downward tendency of his disease will be so marked, in spite of all our efforts, that we shall have to deplore rapidly fatal cases in which, by a justifiable deceit, there was the possibility of several years of life. Of course such a line of conduct as I have traced would not be permissible where sudden death might be anticipated or major interests of great moment are at stake. And look for a moment at

a sad, though usual example, of daily occurrence : Take a young fellow, like one among yourselves, who is simply run down temporarily in bodily vigor by too great sedentary occupation, combined with mental strain, and, perhaps, abuse of tobacco and coffee. He commences to be troubled with disagreeable, or even painful cardiac sensations. He cannot sleep comfortably at night, and after a half-dozen whiffs of a cigar, or a rapid walk of short duration, his heart seems suddenly to stop, or to beat forcibly and rapidly for a few moments, and then give intermittent and irregular shocks, which make him believe that all his internal machinery is out of gear. Under these circumstances he consults some experienced physician, who informs him solemnly that he has heart disease. What is—what can be the result—but gloomy forebodings, and a restless, irritable feeling which forbids all steady, honest work, and makes him for months and years the victim of groundless fears? Better far that the examination had never been made, or the medical man consulted, for after a time, with improved hygienic surroundings, and more sleep and leisure, such cases might often come out all right. If not, abandonment for a time of tea, coffee, and tobacco, and the use of moderate doses of henbane, chloral, or aconite, with the local application of a belladonna plaster in the precordial region, will get the heart soon in good working order. During a painful attack of cardiac palpitations it may be advisable to give an opiate or an antispasmodic remedy. Tincture of lavender, aromatic spirits of ammonia, chloric ether, elixir of valerianate of ammonia, etc., are all good, and may be severally employed with advantage to the patient in relieving his distress. For several years past it has been my habit to combine the three first in equal quantities with an amount of syrup equal to the three in bulk. Of this mixture I give a teaspoonful in a little water every hour, until the painful feelings are notably relieved. Alcoholic stimulants are not debarred by this method of treatment, especially if the patient be weak and complain of fainting sensations.

There are numerous examples, however, in which the functional trouble accompanies a moderate degree of organic cardiac trouble, and so soon as the former is relieved, the latter remains innocuous with a little judicious care for a long series of years. The functional trouble may be dependent upon the condition of the blood, the stomach, or the gouty diathesis, or what is still tolerably frequent—a combination of different pathological conditions. Manifestly, in all such cases, while carminatives, small doses of digitalis, or the remedies already indicated, may be usefully employed to relieve occasional disturbance, paroxysmal in character, permanent relief can only be obtained by remedies directed against the causal agencies at work. If a plethoric state be present, use mild depletory measures, such as small, repeated doses of the neutral salts; if anæmia be the underlying difficulty, iron, generous diet, and life in the open

air, are mainly to be relied upon; for relief of dyspeptic trouble, regular meals, riding on horse-back, and rationally formulated stomachics, varied according to prominent indications, should be persistently insisted upon; as for gout, potash and lithia salts are our sheet anchors, and soon an improvement of the cardiac condition will follow their exhibition. If the indications be complex, our formulæ should be made, so far as possible, to meet the requirements of the individual cases.—*N. Y. Medical Record.*

TETANUS: STUDY OF FOUR HUNDRED AND FIFTEEN CASES.

Dr. D. W. Yandell (*The Brain*) reports his study of four hundred and fifteen cases of tetanus. This study points to the following conclusions: (1) Traumatic tetanus is most fatal during the first decade of life. (2) It usually supervenes between four and nine days after the injury. (3) The largest number of recoveries are found in cases in which the disease occurred after the lapse of nine days from the injury. (4) Where tetanus continues fourteen days, recovery is the rule and death the exception, apparently independent of the treatment. (5) Tetanus arising during the puerperal state is the most fatal form of the disease. (6) Chloroform has, up to this time, yielded the largest percentage of cures in acute tetanus. (7) The true test of a remedy for tetanus is its influence on the history of disease. (a) Does it cure cases in which the disease occurred prior to the ninth day after the injury? (b) Does it fail in cases whose duration exceeds fourteen days? (8) Tried by these tests no agent has yet established its claims as a true remedy for tetanus.

SUBERINE IN EXCORIATED NIPPLES.

(*Lyon Medical.*)

The treatment advised by Dr. Brochard for sore and excoriated nipples is so simple that it deserves publicity:

“As soon as an excoriation or a crack, no matter how small, appears upon the breast of a nursing woman, the nipple and areola should be washed with *pure water*, and, after drying, powdered with *suberine*, or impalpable powder of cork. Suberine, which I always use for infants, is far preferable to lycopodium, which is an inert powder, because it contains tannin, and is exceedingly cheap, an important consideration with many mothers. After applying the powder, the nipple is covered with a piece of gold-beater's skin, cut star-shaped, and pierced in the centre with several holes made with a very fine needle.

“Whenever the child is to be put to the breast, the suberine should be washed off with water, and the gold-beater's skin placed over the nipple, thus allowing the babe to suck without causing pain to the nurse. After the infant has finished its meal, the nipple is again washed, powdered and covered.”

ACHING KIDNEY.

By J. MATTHEWS DUNCAN, M.D., LL.D., in *Medical Times and Gazette*.

This disease is sometimes, both in men and women, very easily recognized. There are achings in cases of what is called floating kidney. The patient can put her hand on the lump, and say, "Here is the pain," and there is no difficulty in recognizing the disease. But there are some cases in which the disease is very difficult to identify. In pregnancy, for instance, right or left hypochondriac pain is very frequent. In many cases I have been able to be quite sure, from the history before and after pregnancy, that the disease was not to be classified in the vague way that is implied in giving it the name of hypochondriac pain, but that it was really a case of aching kidney. In pregnancy you have the very opposite conditions to those in floating kidney. If pregnancy is advanced, you can not get at the kidney to feel it and identify its position. Here I may remark that, while the disease often occurs in pregnancy, yet some women who are liable to it do not suffer while in that condition.

The disease in women is not a rare one, and its characters are the following: One or other kidney is the seat of pain. It is not a neuralgic pain; it is a heavy, wearing pain deep in the side. It is in the region of the kidney; and in many cases, as I shall presently tell you, you can easily identify it as being in the kidney itself. It is not generally that kidney-pain which is a familiar symptom of calculus. In such cases the pain is the pain of the pelvis of the kidney. You have in the region of the small ribs a boring or a nail-like pain. Patients with aching kidney generally point to the hypochondriac region, not to the back, as they often do in cases of calculus in the kidney. This pain is frequently accompanied by pain in the corresponding lower limb, referred most frequently to the course of the sciatic nerve, sometimes to the course of the anterior crural. The pain is often accompanied (and you will find this of importance throughout all the subjects of this lecture) by irritability—I do not say disease—of the bladder; and it is frequently accompanied by pain in the region of the ureter corresponding to the kidney affected. This pain is not rarely present only during the monthly periods. When it is present only during the monthly periods it may be classed with that disease, which is very ill-defined, called dysmenorrhea. It should never be placed there unless you wish to use the word dysmenorrhea in a very wide sense. If we use the word as including aching kidney, we might as well use it as including headache—a use which would be in accordance with what is extensively done by writers. This disease, however, often eludes the examination of the physician, because it occurs in many cases only during the monthly periods. In all cases it is then aggravated. I do not think I have ever seen a case in which the patient did not

volunteer the statement that the pain was worse at the monthly time.

It is not usual to find both kidneys aching; and I guess—I can use no stronger word—that the left kidney is much more frequently the seat of disease than the right one. You are not left in your diagnosis in all cases merely to identification of the seat of the pain, although that may be sufficient. Frequently in the region of the pain you can find distinct fulness; that is a very important condition that I have not time to explain to you. It can scarcely be made out in a fat woman; but in many cases this condition of fulness over the affected kidney is easily recognized. In addition, swelling of the kidney or of the suet, or of both, is not rarely to be made out. The physical examination of the kidney is too much neglected. It is not in floating kidney only that you can feel the organ. In many women who are not nervous, yielding themselves freely to examination, and who are not fat, you can feel the kidney with distinctness; and in cases of this kind you can frequently make out, as I have said, that there is a swelling of the kidney or of the suet, or of both. There is also generally tenderness, sometimes great tenderness.

The treatment is to be conducted on the general principles applicable to the therapeutics of neuralgia or slight hyperæmia; and these two conditions are not so very remote from one another as may at first sight appear. A neuralgia sounds as if it were something quite different from a hyperæmic condition; but that has to be proved. The remedies I have found of most service in simple cases of this kind are tonic regimen and tonic medicines, especially iron in the form of the tincture of the perchloride combined with mild diuretics in small quantity, and especially the common sweet spirits of niter.

THE PROBABLE VALUE OF CHLORIDE OF BARIUM IN INTERNAL ANEURISM.

I wish to draw the attention of the profession to the action of the soluble salts of baryta on the heart and blood-vessels, and to their probable efficacy in the treatment of some varieties of internal aneurism.

In the middle of February, 1878, it fell to my lot to deal with an abdominal aneurism.

The patient was an elderly married lady, aged 65; she was not robust, on the contrary, fragile, but of such active habits in social and philanthropic work, that she perpetually overtaxed her strength; with the exception, however, of an attack of pleurisy, and an occasionally very troublesome cough, she had enjoyed very fair health; she was the mother of three children, and had had several miscarriages; she had been always temperate in every sense of the word, and during the greater number of her years had been a total abstainer from every kind of alcoholic drink; she manifested symptoms of inherited gout, and a near

relation gives indications of having divided the inheritance with her.

She confessed that she had often felt throbbing in the body, and pain there, and also in the back on the left side, but she had made no complaint about the matter to her medical attendant, and fulfilled her usual social and domestic duties until she was, one day in February, 1878, attacked with severe shivering, and a sense of severe malaise. On the following morning I found her temperature $102^{\circ}4$, and on searching for the cause of the pyrexia I discovered a pulsating tumor, painful, situated behind, above, and to the left side of the umbilicus; there was a loud systolic bruit heard over the tumor, and in the course of the common iliacs; the bruit was heard with the stethoscope in common use, and also very distinctly with Spencer's differential stethoscope, which can be used without any pressure; there was also a bruit heard close to the vertebral column on the left side; pressure on both external iliacs greatly increased the pulsation, and so distressed the patient that I received a decided impression that it would not be advisable to repeat the experiment; the throbbing was also greatly increased by any exertion, and by any excitement or emotion; the transverse colon could be felt crossing the tumor, and when distended with flatus it gave rise to very distressing increase of throbbing. The pulse varied from 72 to 100, usually about 84; at the wrist it was full, compressible, but with a considerable degree of tension, and it had the same character in the carotids and iliacs. There was a moderate degree of anæmia, and a worn, distressed appearance of the countenance. No vomiting, appetite very small, digestion weak, bowels relieved by enemata; sleep very much disturbed and scanty.

The case was seen by several professional gentlemen, and independently by Mr. J. W. Teale of this town; they all agree that the case was one of abdominal aneurism.

The patient was put upon Tufnell's diet, and kept perfectly at rest in the horizontal position. During this treatment, and at the commencement of it, the urine was examined several times; specific gravity usually about 1026—at first no albumen, in about one month just a trace of albumen, and after that no albumen at any examination; at the end of two or three months of Tufnell's treatment the daily average of urine was about one pint three ounces. The temperature soon fell to normal, and there was no other cause discoverable to account for its rise; during the progress of the case the temperature only very occasionally rose to 101° , as from any emotional excitement, and also during a distressing toothache from a necrosed tooth.

At the end of five months of this treatment, which was carried out by the patient and attendant most conscientiously and rigidly, there was no improvement in any way; the tension of the pulse remained the same, and the throbbing of the

tumor had rather increased, so that under any excitement, as, for instance, during a thunderstorm, it quite shook the bed; the sensations of the patient and my own observations began to prepare me to expect the worst.

There were reasons for abstaining from the use of large doses of iodide of potassium, so I did not try it. After careful consideration I selected chloride of barium as a probably useful remedy, and began to give it in doses of one-fifth of a grain three times a day; after three or four weeks I increased the dose to two-fifths of a grain, and, with the exception of a very short trial of three-quarters of a grain, I kept to two-fifths of a grain during the remainder of its administration. Within a fortnight of the use of the chloride there was a very marked diminution of throbbing both to the sensation of the patient, and by my own observation; after five weeks use of it the patient was able to bear the removal of a necrosed molar tooth (which had for a few days given rise to neuralgia in the head and to distressing face-ache) without an anæsthetic; the tooth was, of course, not firmly fixed, but I should not have dared to allow its extraction previous to the administration of the chloride; and after nearly five months continued use of the same remedy the tumor was so reduced that it could scarcely be felt, and only a faint systolic murmur could be heard. At the present time, four or five months since the discontinuance of the chloride of barium, there is still a slight systolic murmur, but no throbbing; the pulse is about 72, and has entirely lost its unnatural tension.

Mr. J. W. Teale has recently seen the case again, and he expressed himself highly gratified with the change in the patient's state. So that testimony can be borne by an independent trustworthy practitioner to the accuracy of the diagnosis in the first place, and to the reliability of the improvement.

It will now be interesting to examine into the *modus operandi* of the drug. According to the experiments of Boehm (Ziemssen vol. xvii. p. 377) it would appear that the salts of baryta in overwhelming doses paralyse the heart and blood-vessels; but that in more moderated doses they stimulate or irritate the heart and blood-vessels, so that the pulse is made more rapid, and the blood-pressure very greatly increased. What are the doses which will produce the opposite results is not very certain. A poisonous dose of the chloride is half a grain; Ringer puts the dose at from half a grain to a quarter of a grain, but in the edition I have he does not state for what purpose. Hammond gives doses of three-quarters of a grain three times a day in multiple spinal sclerosis—as a nervine stimulant I suppose. I have myself taken about one grain three times a day for several weeks with a very marked stimulant effect. So that I should expect the stimulant dose to be somewhere near one grain, and the paralyzing dose nearer two drachms. The dose I

selected was under that which I suppose could produce a decided stimulating effect ; and, as a most essential improvement occurred at the beginning of the use of the salt, when I was giving one-fifth of a grain, I should not be surprised to learn that I should have done as well, if not better, by keeping to that quantity. There was no marked decrease in the rapidity of the pulse, and no sudden diminution of the impulse ; the throbbing gradually subsided, and the general improvement went on *pari passu* with it. There was not any sign of a paralyzing influence of the drug on the heart. I regret that I had not in my possession a sphygmograph, and that I cannot, therefore, give any sphygmographic tracings.

The drug appears to have a decided affinity to the muscular coat of the arterial system ; and I imagine that it restored tone to the diseased portion of the arterial coat, and thus gave rise to consolidation of the weakened arterial wall. In my case the aneurism appeared to be fusiform rather than sacculated, and therefore deposition of fibrin could not very readily take place.

It may be said that since the chloride of barium causes an increase in the blood pressure it is not reasonable to expect that it should do anything but harm in a case of aneurism ; no one, however, who has witnessed the beneficial effects of ipecacuanha in dyspeptic vomiting, or of arsenic in gastro-enteritis, or of cantharides in some cases of nephritis (*Vide* Ringer's Therapeutics), will be deterred by the facts mentioned above from giving the chloride of barium in aneurism in an appropriate dose. Of course it may be asserted that the improvement in my case arose from the prolonged rest and rigid diet, and was only coincident with the administration of the chloride ; this is quite possible, but the progress of the case did not make it appear to me at all probable.

The question of the value of the drug in aneurism can only be decided by repeated trial ; and I report my case as fully as I have done, that it may be tried by others in suitable cases.

In my opinion preference should be given to the chloride of barium in fusiform aneurisms which have hitherto not been very amenable to treatment also in the aneurisms of advanced age ; and it might also be tried in any case in which iodide of potassium is inadmissible, or does not promise to be useful.

Of course perfect rest is essential to any medical treatment ; and it would be well to try Tufnell's diet alone at first, and to adhere to it as far as possible during the use of the drug. By F. Flint, M.D.—*The Practitioner*.

TREATMENT OF EPILEPSY.

Extracts from a clinical lecture of Prof E. C. Seguin, M.D., in the *Phila. Med. Times*.

Brown-Séguard has shown that counter-irritation at the seat of the aura is often of the greatest

benefit in addition to them. This serves to transmit to the seat of disease in the encephalon a sensation which may counteract the one proceeding from the latter. Blisters, setons, and the tourniquet or other species of ligature are the forms of counter-irritation employed. The aura acts as a flag or signal to show us the location of the trouble in the brain, and it often enables us to designate this with considerable exactness. It is supposed by the public (and by a large number of the profession) to be the starting-point of the epileptic seizure ; the truth is the irritation starts in the brain, at the seat of the lesion present, and travels along some sensory tract to the point where the fibres constituting the latter terminate in the periphery. I therefore prescribe frequent blistering of the groin. The blisters employed should be small (say as large as the end of the finger), and should be repeated every second or third day.

In the general treatment of epilepsy I use only one formula in order that I may keep an exact record of the quantity of the bromides that is taken in each case. This gives a standard for all, and enables me to compare readily the quantity taken by different patients. My first solution is : \mathcal{R} Ammonii bromidi, \mathfrak{z} ss ; potassi bromidi, \mathfrak{z} j ; aquæ, fl. \mathfrak{z} vij. M. My experience shows that simple water is best for bromide solutions. I never employ elixirs or syrups, for patients soon tire of them, and, as a rule, prefer the saltish taste to salt mixed with sweet. In my second solution I substitute bromide of sodium for bromide of potassium, as it seems to suit some patients better than the latter. In my third solution, which I have used during the past two years only, I substitute chloral of bromide of ammonium in the above, and this prescription I find is excellent for a certain class of cases. Allowing seven teaspoonfuls to the ounce, it is seen that in the first mixture one teaspoonful contains ten grains of bromide of potassium and five grains of bromide of ammonium ; in the second, ten grains of bromide of sodium and five grains of bromide of ammonium ; and in the third, ten grains of bromide of potassium or sodium and five grains of chloral ; that is, in every instance, one teaspoonful of the mixture contains fifteen grains of the "anti-epileptic." It is generally necessary to produce mild bromism ; but severe bromism is very injurious. It is always a delicate matter to steer between the two extremes of too little and too much bromide, and it ordinarily takes me from one to three months to fix upon the proper dose in any given case. Hence I invariably refuse to treat out-of-town patients for epilepsy unless they consent to remain in New York for at least a month after the treatment is commenced. You will find marked difference in individuals as to the toleration of the bromides. Thus in a lady thirty grains a day produced a most profound effect ; on the other hand, I have known a baby a few months old take seventy grains a day and exhibit no signs of bromism. At present there is a gentleman under my care who is taking

one hundred and sixty grains of bromides in the twenty-four hours without the slightest inconvenience. In order to determine the effect of the bromides we must observe: (1) whether the intellectual faculties show a tendency to become sluggish and dull, and (2) whether the muscles have lost tone, which produces a change in the physiognomy. A delicate test of bromism is that discovered by Voisin, viz., the irritation of the fauces and soft palate with a spatula or brush, as the disappearance of this reflex is a very constant sign of bromism. It should never be omitted. Voisin claimed that when this point was reached we need go no farther; and this is a good general rule, though it has its exceptions. In some cases the attacks return from time to time, notwithstanding this evidence of bromism.

The eruption of acne is looked upon by the patient and friends as a very important sign of bromism, but not by the physician. It is really due to some peculiarity of the individual when it occurs, and varies very greatly in severity and in location in different patients. The shoulders, neck, and face are most apt to be affected. In some cases the acne becomes troublesome long before doses sufficiently large to control the epilepsy are reached; but the gentleman who is taking one hundred and sixty grains of bromides a day scarcely suffers at all from it. More serious effects of bromism are those such as paresis and impairment of intellect; but it is never necessary to push the remedies to this excess. It is very seldom that morbid bromism is produced if proper caution is observed.

The time necessary to continue the drugs is still under discussion. Some authorities are content with one year. I hold that the patient should not give up their use until he has been three years without any epileptiform manifestation, however slight. Brown-Séquard and Voisin place the limit at three to five years. I have seen patients who had left off the medicine at the end of two years, and then had a return of the trouble. You will often be importuned by the patient and his friends to allow him to give up, but you must be firm in insisting upon the continuance of the treatment. It is seldom, however, that we can prevail upon patients to keep it up three years after the attacks have entirely ceased.

The time in the day for the administration of the bromides is an important factor in success in treatment. For a time I followed Brown-Séquard in his practice of giving the greater part of the necessary quantity at bedtime, because in the immense majority of instances the attacks occurred between bedtime and 8 or 9 A.M. My plan is now to give the greatest amount just before the time that the attacks are wont to occur. In the case now before us we can go upon Brown-Séquard's old rule, and I propose, indeed, to order only one dose of the bromide mixture in the twenty-four hours, for the reason that the patient never has any fits now except early in the morning. At first he

should take two teaspoonfuls at bedtime, and the dose should then be gradually increased until a small amount of bromism is produced. It is best to give it on an empty stomach, and I think we are much less likely to have acne produced if we use alkaline instead of simple water for our mixture. I employ Vichy with those who can afford it, and a solution of bicarbonate of sodium among the poor.

In conclusion I will mention the manner of giving the bromides in different cases, it being understood that the patient in each instance is an adult:

1. When the attacks occur at night or early in the morning we might give one teaspoonful of the mixture before each meal, and then at bedtime.

2. When the attacks vary as to time we might give two teaspoonfuls in the morning, one before supper, and two or three at bedtime.

3. When the attacks are more liable to occur in the daytime we might give three or four teaspoonfuls in the morning, one before supper, and two or three at bedtime.

4. In the nocturnal form we would give three or four teaspoonfuls, at one dose, either at bedtime or early in the evening. The gentleman who is using one hundred and sixty grains of bromides a day takes six teaspoonfuls in the morning and five at night.

AIDS TO DISEASES OF WOMEN.

By J. J. REYNOLDS, M.R.C.S. ENG.

LEUCORRHOEA,

commonly called the "Whites," signifies any whitish discharge from the vagina, and includes, in fact, all the non-hæmorrhagic vaginal discharges.

There are four varieties:—

1. Uterine. 2. Cervical. 3. Vaginal. 4. Vulvar.

Uterine Leucorrhœa occurs especially in middle and old age, and consists of whitish mucus and epithelial debris. It is alkaline in reaction, and is often attended with a certain degree of pain.

Cervical Leucorrhœa occurs more especially during the childbearing period, and consists of transparent, thick, tenacious mucus, resembling unboiled white of egg. This is also alkaline in reaction. Cervical leucorrhœa prevents pregnancy.

Vaginal Leucorrhœa is met with more commonly in young women, and is generally light-coloured and creamy, and consists almost entirely of epithelium and oil-globules. It is acid in reaction.

Vulvar Leucorrhœa is the form generally met with in children.

Causes.—They are—(a) General (b) Local.

The general causes are:—

1. Debility of the system, as from prolonged lactation, acute or chronic diseases (phthisis), &c.

2. Hæmorrhages, as menorrhagia or metrorrhagia, producing anæmia.

3. The strumous and syphilitic diathesis.
4. Anti-hygienic conditions, as bad air, scanty diet, unhealthy occupations, &c., producing a general state of ill-health.

5. Residence in hot countries, bringing on a feeble, relaxed state of health.

The local causes are:—

1. Inflammations of the vagina or vulva.
2. Morbid states of the uterus, as congestion, acute or chronic inflammation, new growths, &c.
3. Morbid conditions of the cervical canal.
4. Local irritation, as from a pessary or excessive coitus, and, in children (especially the strumous and ill-fed), from worms and want of cleanliness.

5. Urethral hæmorrhoids.

6. Masturbation.

It must be remembered that leucorrhœa is normally present at certain times. It precedes and follows menstruation, and it is often, if not always, present during pregnancy.

Treatment.—1. Improve the general health.

2. Remove any local condition causing the leucorrhœa.

3. Check the discharge with astringent lotions; alum, sulphate of zinc, and acetate of lead, are good astringents.

The treatment of the general health must depend upon the constitutional condition present. In struma, cod-liver oil, iron, and residence at the sea-side will be very beneficial.

DISEASES OF THE UTERUS.—DISPLACEMENTS OF THE UTERUS.

Inversion of the Uterus exists when the uterus is turned inside out. The inversion may occur in various degrees, but three are usually described.

1. Depression: the fundus falls inwards, producing a cup-shaped depression.

2. Introversion: Depression greater, and the inverted portion may project through the os in the form of a round ball, not unlike the body of the polypus.

3. Perversion: This is very rare. The whole of the cervix, as well as the body of the uterus, is completely inverted. Inversion may be acute or chronic.

Causes.—Acute version is generally the result of parturition, being caused either by traction on the cord to remove the placenta, or by improperly applied pressure over the fundus uteri. It sometimes occurs spontaneously. Partial and irregular contraction of an enlarged uterus is generally thought to be a cause, the upper part of the uterus probably being relaxed and the lower part contracted. Apart from child-birth, it is chiefly caused by a fibroid polypus, or a submucous fibroid; but inversion of the uterus under any condition is rare.

Symptoms.—In recent inversion they are generally well marked, but vary much with the degree of inversion. If the inversion is great there will be

severe nervous depression and generally free hæmorrhage. Occasionally severe abdominal pain and cramps are present. On vaginal examination, the uterus will be felt in the vagina, or may even be seen outside the vulva. In slight cases there may be no symptoms, and in cases of the first degree, the cup-shaped depression of the fundus may be felt through the abdominal walls. In chronic cases there is generally hæmorrhage and often leucorrhœa as well, which is caused by the inverted mucous membrane of the uterus getting irritated and inflamed. From the pressure of the displaced uterus, bladder and rectal irritation are often set up.

Prognosis.—It is very grave. Cross states that about one-third of all cases are fatal, either very soon or within a month. Death may be due to sloughing, or gangrene of the inverted portion, hæmorrhage, or gradual exhaustion. The shock alone is sometimes so great as to quickly cause death.

Diagnosis.—Inversion has to be distinguished from a polypus or fibroid tumor, and prolapse of the uterus and vagina. The following are the chief signs of distinguishing inversion from a polypus:—

1. The history of the case. In recent inversion this is very important. The sudden shock, and hæmorrhage following labor point to the nature of the disease.

2. By manipulation from the rectum, and through the abdominal wall, the fundus uteri will be found absent from its normal position in inversion, or a funnel-shaped depression may be felt. In polypus the fundus will be in situ.

3. On vaginal examination in inversion, a rounded tumor will be felt, soft or hard, very vascular, with a velvety surface, and bleeding on slight manipulation. It will be painful to the touch, and its size will vary from alternate contraction and dilatation. A polypus is not sensitive; it does not change its size, and is not so vascular.

The diagnosis from prolapse of the uterus and vagina can easily be made by means of the sound. Its admittance for a distance of two-and-a-half inches or more at once proves the existence of prolapsus.

Treatment.—An inverted uterus may cure itself in one of three ways:—

1. Spontaneous re-inversion may take place.
2. The uterus may separate by gangrene, and a cure take place.
3. Cases are related where the uterus has been torn away and recovery followed.

In recent cases the taxis is generally successful, the part last inverted being returned first.

In chronic inversion, taxis is dangerous,—then gradual, continuous, and long-sustained pressure on the tumour is required, either by means of an air pessary, or an elastic pressure. If these means fail, a repositor will be necessary, and, as a last resort, amputation of the inverted uterus may be required, but it must be remembered that, at times, inversions exist for years without injury to health.

OVARIAN DYSPEPSIA.

J. Milner Fothergill, M.D., (*American Journal of Obstetrics*) describes "a form of dyspepsia induced and kept up by irritation arising from the ovary." The irritation, of course, must be reflex. The condition of the ovary affects the stomach very much, as the impregnated uterus may be said to do. It was noticed that patients who presented themselves at the City of London Hospital for diseases of the chest, with the usual symptoms of phthisis, had a good family history. The patient also frequently had a good physique. Closer investigation showed that the two marked features in these cases were dyspepsia, with leucorrhœa and menorrhagia. These conditions unite a defective nutrition with excessive waste, and produce a condition exceedingly favorable to the of tubercle.

The condition of the ovary was found to be the prime cause of this mischief—a state of vascular excitement in one or both ovaries, usually the left.

This condition Barnes calls "cophoria." Patients suffer more or less pain in the iliac fossa much aggravated during the menstrual periods, at which time there is a more or less severe genito-crural neuralgia. Pressure over the affected ovary induces acute pain during the excitement of the menstrual flow, and, at other times, in a less degree, while the patient "feels queer," as if about to faint. We have, in this condition, an important though small organ morbidly excited, and capable of giving off from its nerve centres waves of nerve perturbation, which will be felt in distant organs. These waves may break at different points. In one case the stomach may be affected, in another intercostal neuralgia may be the prominent symptom. Uterine disturbance is excited—there is frequently menorrhagia present, and always leucorrhœa. Sometimes there is diminished menstrual flow, but then there will be more profuse leucorrhœa. A distressing orgasm, recurring oftenest during sleep, makes the patient still more uncomfortable. This recurrent orgasm affects the bladder through the nerve centres of that organ, and adds incontinence of urine to the already too complicated affection in a certain proportion of the cases. Then, also, the ovary, or ovaries as the case may be, keep the uterus in a constant state of erection, and high vascularity, so that it is not strange that such patients suffer from leucorrhœa and menorrhagia; or, if instead of menorrhagia, there is an increased leucorrhœa, then the starved, overtaxed organism may prove unequal to the periodic hemorrhage.

As for the stomach, which also contains sympathetic nerve fibers, isolated nerve ganglia, and some fibers of the pneumogastric, the case is different. As has been fully proved by M. Bernard, as well as by later experimenters, the effects of a stimulus applied to the sympathetic nerves of the stomach, is to cause a diminution, or even complete arrest, of secretion. As is well known, the action of the sympathetic nerve filaments is to contract the

arteries and arterioles, while the pneumo-gastric filaments dilate them. Hence, it is easy to understand the effect of a nerve current from the ovary, which, traversing the sympathetic nerve fibrils, arrests the flow of gastric juice, more or less thoroughly, and dyspepsia is the consequence.

The etiology of these cases is involved in doubt. Inquiries seem to elicit the facts that a miscarriage, in a few cases marriage; in others who were middle-aged women, nearing the end of their reproductive life—a confinement, were the beginnings of the trouble. A few were made thus miserable by the excessive excitement due to the changes at puberty, and quite a number of the patients attributed their trouble to the excitement set up by the working of the treadle sewing machines.

The treatment for this class of evils is, first, to unload the bowels with a saline, such as sulphate of magnesia; bromide of potassium to control the conductivity in the nerves, and a blister over the region of the ovary. If the stomach is too intolerant of food and medicines they may be given per enema. Also, astringent vaginal injections, hip baths, etc., are important.

The menorrhagia is treated during the flow by quietude, cooling drinks and unstimulating food. The irritable stomach should be supplied with small quantities of food at regular short intervals.

To treat the stomach as the offending organ does no good in these cases, therefore the author begins the treatment of dyspepsia by eliminating the ovarian factor in all females before treating the stomach.

TREATMENT OF STERILITY.

At the meeting of the St. Louis Medical Society, held March 13th, a very interesting paper, illustrated by drawings, upon the treatment of sterility dependent upon endocervicitis and endometritis was read by Dr. A. C. Bernays. The treatment which is advocated he attributed to Dr. G. Simon. The reader held that sterility, and the dysmenorrhœa depending upon it, belonged as much to the domain of surgery as stricture of the urethra or fissure of the anus; that the swollen condition of the mucous membrane of the cervix caused a stricture of the neck, and this stricture was the cause of dysmenorrhœa and sterility.

The operation by which he proposed to cure this stricture is as follows: The patient is placed in the lithotomy position; the neck is split by incisions similar to those made in Sims' bilateral incisions. Now, it has been found that this procedure temporarily cures the leucorrhœa, but that the cut surfaces reunite, and the condition of the patient becomes worse than it was before. In order to prevent this, another step is necessary, namely, a wedge-shaped piece is cut from the anterior and posterior vaginal surfaces of the neck, the cuts running at right angles to the long axis of the uterus, and the base of the wedge being

external; the surfaces of these wedge-like cuts are brought together by sutures, thus prying open the split cervix and exposing to view the internal os.

Dr. Bernays has performed the operation seventeen times. Up to December, 1879, he had treated fourteen cases in this way, and in regard to these was ready to give results: Five of the patients became pregnant, and three of them had been delivered. Of these five, two had been barren between six and seven years, one five years, and the other two between three and four years. The nine others, though they remain barren, have been relieved of their leucorrhœa.—*Boston Medical and Surgical Journal*, April 1.

SULPHIDE OF CALCIUM IN THE TREATMENT OF SUPPURATING BUBOES.

My attention was first called to the value of the sulphide of calcium in arresting processes of suppuration through an article in *The Lancet* of February 21, 1874, by Sydney Ringer, M.D. Dr. Ringer claimed that, when the product of suppuration in scrofulous sores was thin and ichorous, the administration of small doses of the sulphide of potassium or of calcium promptly changed the purulent fluid to one of a more healthy character, and that the healing of the sore was promoted. He also claimed that the formation of boils and abscesses was prevented by a timely administration of small doses of the sulphides, and that, when suppuration had already occurred in such cases, the suppurative process was quickly arrested through the influence of these remedies. Opportunity for a practical test of these claims soon occurred, and resulted in my own personal conviction of their entire correctness, and I have now for the last five years habitually prescribed the sulphide of calcium in cases of threatened suppuration in phlegmonous swelling from various causes, and, as a rule, with very gratifying results. The manner of its use was practically the same as advised by Dr. Ringer, viz: 1-12 grain of the sulphide of calcium every two hours, or 1-20 every hour, during the day and up to the time of retiring. Especially have I found small doses of the sulphide of calcium useful in arresting the progress of furuncular swellings and abscesses, and in preventing their occurrence when threatening. On the other hand, I have repeatedly tested the influence of this drug upon the suppurative processes in mucous membranes, as in gonorrhœa, gleet, leucorrhœa, etc., without being able to discover that it influenced or modified the suppurative process in such cases in the least degree.

Among the cases in my private practice where prompt arrest of suppuration was quickly followed by absorption of pus already formed and resolution of tumor, and apparently from the use of the sulphide of calcium, were several inguinal buboes associated with chancroid. The simple fact that resolution occurred in these cases was (in accord

ance with the popular teaching) accepted as proof that the buboes were of sympathetic and not of chancroidal origin.

Authorities have long taught that, once the virus from a chancroid has been carried along a lymphatic vessel and deposited in the adjacent lymphatic gland, inflammation is at once set up in the substance of the gland. This, it is claimed, goes steadily on in spite of all and any treatment until an abscess is formed. This must, sooner or later, through advance of the suppurative agency or by surgical interference, result in an open ulcer, the pus of which will possess the same vicious character as the chancroid from which it was derived. This variety of bubo is known as the virulent or chancroidal bubo. The suppuration of such buboes has been considered *inevitable*, and all buboes not pursuing this course have been set down as not of true chancroidal but of simple or sympathetic origin. Inflammatory lymphatic enlargements associated with chancroid are very naturally dreaded as most likely to prove by results to be of chancroidal origin, and usually, after a few feeble attempts at treatment with a view to their resolution, glands affected are encouraged to suppurate, and prompt incision and evacuation of pus are advised as soon as the slightest true fluctuation is recognized. If suppuration is indeed inevitable, undoubtedly it is wise to encourage it, to evacuate the virulent product at the earliest moment, and thus afford access for efficient treatment for the destruction of this new-formed chancroid. For this reason I had been an earnest advocate for early incision into suppurating buboes associated with chancroid. My experience in the few cases above alluded to, however, made me incline to the belief that a thorough and extended trial of the calcium sulphide in cases of inflammatory buboes associated with chancroid might give such results as to make its use imperative in every such case.

In order to gain further light on this important matter a systematic use of the calcium sulphide was made, in my service at Charity Hospital, in eighteen consecutive cases of inflammatory bubo occurring with, or as the immediate sequel of, well-pronounced chancroid. All the facts considered of importance were noted by myself and under my direction by Dr. Johnston, my House Surgeon, and are truly confirmatory.

Thus it will be seen that, out of eighteen cases of inflammatory bubo presenting the rational evidences of chancroidal origin, and treated systematically by the use of small doses of the sulphide of calcium, resolution occurred in fifteen, and that in only three cases was incision ultimately required.

If we apply to these cases the usual rule that chancroidal buboes always eventuate in chancroidal abscesses, always suppurate and require evacuation by natural means or surgical procedure, then we must hold that only three out of fifteen cases of inflammatory buboes associated with chancroid were the result of transference of the suppurative process from the chancroid to the adjacent lymphatic

phatic gland. It is just possible, however, that the influence of the sulphide of calcium may, in arresting suppuration, extend to the true chancroidal bubo. The apparent successful use of this drug in the series of cases herewith presented at least suggests and invites a trial of its efficacy in all instances of threatened glandular suppuration, whether associated with chancroid or of puryle sympathetic origin.—*Fessenden N. Otis, M.D., in New York Medical Record.*

MANAGEMENT OF DEEP ABSCESES.

J. T. Kent, M.D., in discussing the management of deep-seated chronic abscesses, says: Perfect evacuation and coaptation of the walls of the abscess cavity seem to be the points to be constantly held in view. * * * The surgeon is too apt to open the cavity in its most accessible locality, when the floor is the only possible place to secure perfect drainage. The floor of an abscess will be also changed as the patient changes his attitude from the walking to the recumbent position; therefore an abscess upon a patient walking about should be sometimes opened in a different locality from one in bed. * * By perfect evacuation we obtain perfect coaptation, which is imperative; rest is therefore the only means of cure, as it permits nature to do her work in her own good way.

Superficial abscesses are of little importance compared with the deep-seated cavities involving important structures; therefore, not so much knowledge and judgment are required in the management of them. Another important feature of deep abscess is the change that occurs in the anatomical relations of the part. No anatomist will pretend to be able to give the relations of arteries, veins, muscles and nerves in deep-seated abscess of any proportions, * * but might say, as I was once known to say, "plunge in the knife." This is not my practice now. To make an opening in a deep-seated abscess at its most depending part is at times a most difficult undertaking, hence it becomes necessary to perform the operation with as little risk as possible. * * I am in the habit, according to Hilton's method, of making an incision with my scalpel through the skin at the most depending point, then, with my groove-director, I force an opening to the supposed cavity. If I have entered an abscess a small drop of pus will appear in the groove of my director, then with my dressing forceps I follow the groove in the director to the cavity, and, by separating my fingers, I force an opening which may be enlarged at will, and with perfect safety.

These hints are not given to frighten the timid from making their usual free incision in superficial and ordinary abscesses, but to encourage precaution in the very rarely met with deep-seated formations of pus in dangerous localities, as sub-muscular abscess of the thigh, submammary, gluteal, cervical and post-pharyngeal abscesses. Injections in large

abscess cavities are, as a rule, of little use, and often dangerous. Perfect rest must be procured. If it cannot be obtained by the recumbent position, it must be had by strapping, bandaging or compressing. The means will readily suggest themselves to the competent anatomist of procuring rest and coaptation, which is the all-important issue to be uppermost in the mind of the surgeon after the evacuation has been completed.

Any treatment directed to a permanent cure must be conducted in accordance with the history and etiology of each respective case. Internal remedies are often demanded, so-called alteratives and tonics are commonly resorted to by nearly all surgeons. Then, with a thorough knowledge of the most potent of all remedies, *rest* will crown the surgeon's labor with a fair degree of success and satisfaction.

ON GLYCERIN IN FLATULENCE, ACIDITY AND PYROSIS.

SYDNEY RINGER, M.D., and WILLIAM MURREL, in the *Lancet*.

An old gentleman, who for many years suffered from distressing acidity, read in a daily paper that glycerin added to milk prevents its souring, and he reasoned thus: "If glycerin prevents milk turning sour, why should it not prevent me turning sour?" and he resolved to try the efficacy of glycerin for his acidity. The success of his experiment was complete, and whenever tormented by his old malady he cures himself by a recourse to glycerin. Indeed he can now take articles of food from which he was previously compelled to abstain, provided always that he takes a dram of glycerin immediately before, with or directly after his food.

He recommended this treatment to many of his friends (sufferers like himself), and one of these mentioned the above circumstances to us.

We have since largely employed glycerin, and find it not only very useful in acidity, but also in flatulence and pyrosis, and that it sometimes relieves pain. We meet with cases where flatulence, or acidity, or pyrosis is the only symptom, but more frequently these symptoms are combined. Some patients rift up huge quantities of wind without any other symptoms than depression of spirits; in others we get flatulence and acidity, one or other predominating; and we meet with others who suffer from acidity, flatulence, and also pyrosis. In all these various forms we find glycerin useful, and in the great majority of cases very useful. We do not mean to say that in all cases it is superior to other remedies for these complaints; indeed in several instances it has only partially succeeded, where other remedies at once cured. On the other hand, in some cases glycerin speedily and completely succeeded, where the commonly-used remedies for acidity and flatulence completely failed. We do not pretend to estimate its relative value.

to other remedies ; we are only anxious to draw attention to its virtues.

Gas is in some instances formed in the stomach, in others in the large intestine, in some patients in both. Our observations were made on stomach flatulence, and as glycerin is so readily absorbed we should hardly expect that it would influence the formation of wind in the colon, except given in large doses, and when it acts as a slight laxative, and so expels the putrefying mass which forms the wind.

In some cases it removes pain and vomiting, probably like charcoal, by preventing the formation of acrid acids, which irritate delicate and irritable stomachs.

We suggest that it acts by retarding or preventing some forms of fermentation and of putrefaction. J. Mekulics (*Archiv. f. Klin. Chir.*) shows that glycerin prevents putrefaction of nitrogenous substances, as of blood diluted with water, which speedily decomposes at the ordinary temperature of the air. Two per cent. of glycerin retarded decomposition for twenty-four hours ; ten per cent. for five days. If the fluid were placed in the hatching-oven, then two per cent. retarded decomposition for several hours, ten per cent. for forty-eight hours, and twenty per cent. altogether prevented putrefaction. He also proves that glycerin destroys bacteria and prevents the formation of septic poison, though it will dissolve and preserve the septic poison itself.

TREATMENT OF ACUTE RHEUMATISM.

Dr. Alfred Stillé, *Medical Record*, in referring to blisters and alkalies, in the treatment of acute articular rheumatism, remarks as follows : It may be difficult to see the connection between these two classes of remedies in their power to influence the course of acute articular rheumatism, and yet it is certain that they do so influence it, and in the same way, *i. e.*, by altering the condition of the blood from acid to alkaline. If you ask me to explain to you how blisters act in this way, I am obliged to confess my ignorance. To produce this effect, they must be applied over all the affected joints. Experience, if not science, has decided conclusively in their favor. They do produce a cessation of local symptoms, render the urine alkaline and diminish the fibrin in the blood.

This brings us to a consideration of the use of alkalies. Alkalies neutralize the acids, act as diuretics, and eliminate the *materies morbi*. Alone, and in small doses, they are unable to cure ; but when given in very large doses, their effects are marvelous ; the pulse falls, the urine is increased in quantity and becomes alkaline, and the inflammation subsides. The symptoms of the disease are moderated, the duration of the attack is shortened, and the cardiac complications are prevented.

The dose of the alkalies must be increased until

the acid secretions are neutralized. A very good combination of these remedies is the following :

R Sodæ bicarb. 3 iss
Potas. acetatis. 3 ss
Acid. cit. 3 ss
Aquæ 3 f. 3 ij

S.—This dose should be repeated every three or four hours until the urine becomes alkaline. On the subsidence of the active symptoms, two grains of quinia may be added, with advantage, to each dose. The alkalies must be gradually discontinued, but the quinia continued.

The diet should consist of beef-tea or broth, with bread and milk ; no solid food should be allowed. Woolen cloths, moistened with alkaline solutions, may with advantage be applied to the affected joints. To these laudanum may be added for its anodyne effect.

The patient must be sedulously protected from vicissitudes of temperature, and lie in bed between blankets. The alkaline treatment relieves the pain, abates the fever, and saves the heart by lessening the amount of fibrin in the blood.

A long time ago Dr. Owen Rees, of London, introduced the use of lemon-juice. This remedy was thought to convert uric acid into urea, and so to help elimination. Though the treatment is practically right, the theory of it is wrong. Lemon-juice does good in mild cases, but cannot be relied upon in severe attacks.

During the febrile stage of acute articular rheumatism the diet should consist mainly of farinaceous and mucilaginous preparations, with lemonade and carbonic acid water as a drink. The cloths applied to the joints should be changed when they become saturated with sweat, and in changing them the patient should be protected from the air.

The sweating may be controlled by small doses of atropia, from one-sixtieth to one-thirteenth of a grain. To prevent subsequent stiffness, the joints should be bathed with warm oil and chloroform, and wrapped in flannel cloths. In the proper season this condition is very well treated by sea-bathing. There is no specific plan of treatment in acute articular rheumatism. The treatment must vary according to the intensity of the inflammation, and the peculiarities of the patient.

TREATMENT IN CASES OF EXCESSIVE LOCHIAL DISCHARGES.

Dr. Hugh Miller, in a clinical lecture delivered at Glasgow, recommends the following prescription in cases in which there is an excessive discharge, accompanied by a relaxed condition of the uterus. He administers one drachm doses of liquid extract of ergot repeated every three or four hours, and

R Quiniæ sulph., 3 ss
Acidi hydrobrom., 3 vj
Aquam ad., 3 ij

Dose, one drachm in aq. ter. in die.

By this method large doses of quinia may be given without causing headache. In septic cases Dr. Miller advises the employment of sulpho-carbolate of potash, in the form of powders, in doses of ten to fifteen grains internally three times a day.

When the discharge is suspended, the treatment consists of turpentine stupes applied over the lower part of the abdomen, with the addition of warm moist cloths, or of sponges, pressed out of hot water, and applied to the external parts. In special cases, which require an antiseptic plan of treatment, Dr. Miller makes use of a solution of thymol, one part to five hundred parts of water, or, better, three grains of thymol to an ounce of eau de Cologne. This mixture, which has a pleasant and rather refreshing odor, is simply sprinkled over the napkins before they are used. In severe cases, with a putrid odor, a solution of permanganate of potash, injected with Higginson's syringe, provided with a vaginal portion, is made use of; the injection of the fluid is continued till it returns unaltered in color. In all cases where the discharge is excessive, tincture of arnica is employed; the tincture is used in the proportion of one teaspoonful to a cupful of water; it acts as a mild astringent and disinfectant.— *Practitioner*.

TREATMENT OF CHOREA.

Dr. Thomas B. Peacock, in the recently issued volume of St. Thomas's Hospital Reports, in the concluding portion of a report on cases of chorea, thus speaks of the treatment of the disease:

In a large proportion of cases of chorea there is evidence of disorder of the general health and of the digestive organs, the tongue being furred and the bowels confined. When this was the case a purgative was usually first prescribed, such as a calomel and rhubarb powder, or some blue pill and rhubarb, and this was combined with the stomachic mixture (a cold infusion of rhubarb and gentian with soda and ginger) and this treatment was continued till the symptoms of disorder of the digestive organs subsided. In some cases under this treatment, the choreic movements almost wholly disappeared. In others they were greatly relieved, and the patient was then put upon a tonic course of treatment, quinia and iron with cod-liver oil and a nutritious diet, and an allowance of wine. In others, when the tongue became clean, but the choreic movements still continued, nervine tonics were used; if the patient was pallid and anemic the chalybeate remedies were generally first employed, preference being given to the saccharine carbonate of iron, in doses of five, ten, or twenty grains, three times daily. In other cases citrate or sulphate of iron was given. If, after a fair trial of this, there was little or no obvious improvement in the state of the patient, sulphate of zinc was prescribed, in doses of one or two grains, three times daily, and the dose was increased by one or two grains twice a week, till sickness or nau-

sea was produced, or till the symptoms subsided.*

Not unfrequently the zinc was first given, and either remedy was replaced by the other, or by the liq. arsenicalis, if no satisfactory improvement was seen at the end of a week or fortnight. The amendment is often very gradual, and seems rather to accord with the improvement in the general health of the patient than to follow quickly after the use of the remedy. A very good test of the advantage of the treatment is afforded by the state of the pupil; generally, when the symptoms are very active, it is large, and shows little or no action under the stimulus of light, but, as the symptoms subside, it diminishes in size, and is much more readily affected by light.

The movements are occasionally so constant and severe that the patient gets little or no rest at night, and so becomes rapidly exhausted, and the back is apt to chafe and bed-sores to form, and indeed it is in this way that the cases generally prove fatal. It becomes, therefore, of great importance that the patient should be quieted, and anodynes are required for this purpose. I have generally preferred to give Dover's powder, frequently in combination with henbane, either at night or at intervals during the day. Sometimes morphia has been used in a similar way, and occasionally it has been employed hypodermically; and more recently chloral has not unfrequently been given at night.

The use of the shower bath, either cold or tepid; or, when the patient is timid, of ablution with tepid or cold water, is often of use in effecting a complete cure after the active symptoms have subsided; and when the patient becomes prostrated nutritious food and wine must be given; and I have sometimes seen great advantage from the use of nutritive enemata with wine, where the patient was becoming rapidly exhausted and could not take an adequate amount of food by the mouth. In one very severe case, in which the skin was excessively dry and harsh, great relief was obtained by the use of the warm bath, followed by the inunction of warm oil.

CASES OF ABNORMALLY HIGH TEMPERATURE.

A late number of the *British Medical Journal* contains a report by Dr. Donkin of eight cases of abnormally high temperature, all but one in females, and none proving fatal. Pain was a prominent symptom in all. An abbreviated statement is subjoined.

- No. 1, 111.6°; convalescing from enteric fever.
- No. 2, 108°; no organic lesions; ovarian pain.
- No. 3, 115.8°; great abdominal pain and excitement.
- No. 4, 111°; convalescing from enteric fever.
- No. 5, 113°; enteric fever and double pneumonia.
- No. 6, 112°; synovitis. This was the only male.
- No. 7, 112°; painful stump, with necrosis.
- No. 8, 117°; pyonephrosis.—*Buffalo Medical and Surgical Journal*.

* The zinc appears to be more efficacious when the dose is rapidly raised.

OFFICIAL ACCOUNT OF TYPHOID OUTBREAKS AT LENNOXVILLE.

The local Committee of Management of Bishop's College, Lennoxville, in publishing the following report of the Medical Commission, appointed to examine into the causes of the recent outbreak of typhoid fever, deem it right to give a short statement of the first and subsequent appearances of the disease, and the steps taken by them in the emergency.

Early in the spring term of 1880 two boys from the United States were taken down with pneumonia, the disease having shown itself almost immediately after their arrival at school. These boys were attended by Dr. Austin, the medical officer of the school, and by a physician from the United States. They recovered after a protracted and dangerous illness. No other cases of illness occurred in either college or school during the whole of the first term of 1880.

In the month of May a bad smell was noticed by Dr. Lobley, the Principal of the College, in the College building—which was found to emanate from the drain of the night water closet—and was caused by an inflow of water from outside of the building. An examination disclosed the fact that this drain discharged into the ground some few feet from the main barrel drain or sewer. Repairs were instantly made and disinfectants in large quantity applied, and the whole work, which took only a very few days to complete, was finished by the 22nd May.

It should be here stated that the rebuilding of the college after the fire, when the night water closet was constructed, was under the supervision of a competent architect, Mr. Nelson of Montreal, and that a clerk of works of good reputation, Mr. Richard Richards, was employed to oversee the work. Had Mr. Richards done his duty this gross neglect on the part of the contractor could not have occurred. At the end of May one of the boys in the school was taken ill during a time of intensely hot weather. Dr. Austin reported the case as one of sunstroke, not severe. When the boy was recovering he was called into Montreal by his father, and the medical man there discovered symptoms of typhoid fever about the case. The Committee was, however, not informed of it, and even if they had been, it would presumably not have created any anxiety in their minds as it was deemed a very mild case. On the 21st June Mr. Cook, a student in the College, exhibited feverish symptoms and went home, but in his correspondence with Dr. Lobley he made no allusion to typhoid fever. On the 24th June the college and school broke up for the holidays, and with the exception of the cases mentioned all, both students and boys, appeared to enjoy robust health. The usual games had gone on, and the severe mental strain of the examinations had passed off without any appearance of illness.

Somewhere about the 10th July news came of

the illness of Mr. Gibb, a student of the college, suffering from typhoid fever, and soon afterwards his death was announced. Almost simultaneously news of the illness of several school boys and one or two of the students reached the college. Alarm was felt at once, and the Committee was called together without delay. On the advice of Dr. Austin it was determined to reconstruct the whole drainage system, which on examination was found to be defective, and the advice and active assistance of Mr. Walter Shanly, C. E., was sought for and freely given. At the request of the corporation of the college, which was called together in the emergency, Dr. Godfrey, of Montreal, who happened to be in the neighborhood, made an inspection of the drainage system, and suggested some modifications, which were adopted. Dr. Godfrey was assisted in his investigation by Dr. Robertson, of Lennoxville, at the request of Principal Lobley. At the time of the reconstruction of the drains, the prevalent idea was that the trouble was due to the defective drain above mentioned, but the Committee found great difficulty in coming to any conclusion on the subject owing to a difference of opinion amongst medical men, some of whom declared that the disease might be dormant in the system during three or four weeks at a maximum, whilst others said that as many months might pass before it would be developed.

During the progress of the drainage work the Committee determined on the removal of the wood-sheds and latrines from the centre of the great college yard, where they had long been an eye-sore, and it was on this ground alone that they were removed. This involved the filling up of the cesspit, which was very thoroughly done, new earth and disinfectants being thrown into the space. About the same time the Chairman of Trustees urged that the well water should be sent to Montreal for analysis. This water was freely used by the whole institution.*

The following gives the result of the analysis by Dr. Baker Edwards:—

BEAVER HALL HILL, Montreal, Aug. 19, 1880.
ED. CHAPMAN, ESQ., M.A.,

Bishop's College University, Lennoxville.

SIR,—I hereby certify that I have analyzed the sample of water which you forwarded to me from the well supplying the college and school, and that I have very carefully examined the water, both chemically and microscopically, for any dele-

*In an article published in the January number of the *Canada Medical and Surgical Journal*, signed by Dr. Worthington, it is stated that he some years ago was one of a commission, consisting of Dr. Johnston, of Sherbrooke, Dr. Robertson, of Lennoxville, and himself, to examine the sanitary condition of the then school, and that he at that time condemned this well. The report of this Commission contains no allusion whatever either to this well or to any water supply.

In this respect, as in many others, the doctor has drawn on his imagination,

terious matter, and find it *perfectly pure and wholesome, and well adapted for drinking purposes*. The water contains *per Imperial gallon*:—8.4 grains of total solid matter; of which 7.7 grains are mineral; 0.7 grains are organic.

The mineral matter consists of carbonate of lime and magnesia, with a trace of iron and alumina and the usual saline chlorides of sodium and potassium.

The hardness of the water (as indicated by "Clarke's test") is 5°, which ranks the spring as a "*soft water*."

The organic matter present is of a simple vegetable character, and free *albuminous, nitrogen and nitrates*.

On the whole you may be satisfied that your water supply is not only pure but excellent.

I have the honour to be,
Your obedient servant,

J. BAKER EDWARDS, D.C.L., F.C.S.,
Professor Practical Chemistry and Public Analyst,
&c.

This analysis satisfied the Committee, who, not being scientific chemists, did not know then that strong doubts existed as to whether the origin of typhoid fever could be detected by analysis.* Under these circumstances with a new drainage system supposed to be perfect, and with the water in use pronounced by a scientific analyst to be "not only pure but excellent", the college and school re-opened in September.

In October, owing to the unprecedented drought, this well, which had never been known to fail, although used for over twenty-five years, ran dry. The water, however, soon came in again, on the setting in of the rains of autumn. In the beginning of November the pump at the well was frozen, and thenceforward the use of the water ceased.

During the whole of this time the health of the college and school seemed excellent, and the athletic games, principally foot-ball, were vigorously prosecuted. In the end of November several cases of typhoid fever made their appearance. The Committee were startled, and again sought advice. The water was again sent in for analysis, and this time not the well water only but that used for culinary purposes, obtained from a reservoir in the woods, as well as the water used by the cows at the farm houses whence the milk was obtained.

The following is the second analysis of Dr. Baker Edwards:

*After the completion of the work it came to the knowledge of the Principal that the results of Dr. Baker Edwards' analysis were called in question by Dr. Worthington, and that he had expressed an opinion that the well ought to be closed. But so much reliance did the Principal place upon the report of the Public Analyst that he took no action upon this.

(COPY.)

MONTREAL, 12th December, 1880.

R. WHITE, ESQ.

DEAR SIR,—I have carefully examined the three samples of water from Lennoxville as minutely as the limited quantity permitted, and can safely say that none of these are polluted by sewage or organic germs likely to cause sickness. No. 1 is the least pure and contains much suspended matter, and I should not consider it fit for drinking purposes, unless filtered. No. 2 is a good spring water, free from organic nitrogen, and containing 8.40 grains of solid mineral matter to the Imperial gallon, this corresponds with the water I analyzed in August last, and it is in every respect an excellent drinking water. Sample No. 3 is less pure, but is a perfectly wholesome water, and sample No. 4, town supply, shows more organic matter than either of the other samples. If the sample No. 1 is in use I should like to examine a larger quantity, say one gallon, as, from the presence of a rat's hair, possibly the bottle was not clean, this water is also turbid with suspended clay.

No. 1. Sample taken from tank in stable at Lunden's farm. No. 2. Sample taken from well in court yard. No. 3. Sample taken from tank in school from spring, brought in by gravitation. No. 4. Sample is the supply used in the city of Montreal from the Water Works.

I am, yours most truly,

(Signed,) J. BAKER EDWARDS, D.C.L.,
Public Analyst, Montreal.

Being completely puzzled at the cause of this second outbreak, the Chairman of Trustees visited Montreal, and called a meeting of gentlemen friendly to the college, amongst whom were the medical men who kindly accepted the duty of examining and reporting on the whole matter. The thanks of all who take an interest in Bishop's College and school are due to these gentlemen for their patient investigation of the case, and the Committee, while regretting that this investigation has failed in discovering the origin of the outbreak, have yet scrupulously followed the suggestions made from time to time by the Medical Commission, as well as the direction of the Sanitary and Drain Inspectors of Montreal, who also kindly lent their valuable assistance.

It is because these suggestions cannot be fully carried into effect until the summer that it has been found necessary to open the school temporarily at Magog, whilst the work of the college is going on as usual at the Village of Lennoxville in other buildings away from the college.

The annexed report of the Medical Commission is now published at the earliest possible date after its receipt. The delay in furnishing this report is attributable to the desire to leave no stone unturned in the investigation of this case.

In conclusion, the Committee of Manage-

ment believe that the sympathies of all right-minded men will be with them in this trying emergency. The Trust which they have undertaken—that of carrying on a College and School—at great personal sacrifice of time and money, with the sole desire of doing their duty to the country in which they live, and to the Church of which they are members, has been an arduous one, albeit a “labour of love,” and they cannot but express their deep regret that the editors of a Scientific Journal should have been led to form one-sided conclusions, when they at the same time acknowledge that they have had only an *ex-parte* statement before them.

J. A. LOBLEY, D.C.L., Principal,
A. C. SCARTH, M.A., Prof. Educ'l. History,
R. W. HENEKER, D.C.L., Chairman of Trustees,

ED. CHAPMAN, M.A., Bursar,

HENRY ROE, M.A., Professor of Divinity,

Members of the Committee of Management.

N.B.—The name of the Rector of the School is omitted on account of his necessary attendance at Magog.

To the Chancellor and Corporation of the University of Bishop's College, Lennoxville.

GENTLEMEN,—We the undersigned, having been appointed a commission to inquire into the origin and spread of an outbreak of typhoid fever which occurred during the summer and autumn of 1880 at Bishop's College and Grammar School in Lennoxville, beg to submit the following report:—

We personally inspected the Institution on the 19th and 20th December last, and at our request the College authorities invited Mr. Radford, the Health Inspector, and Mr. Lowe, the Drain Inspector, of the City of Montreal, to carefully examine the drainage and ventilation of the premises. These gentlemen have kindly complied with the request, and have submitted to us an elaborate statement of their investigations, together with a number of valuable suggestions, which we have embodied in this report.

For the sake of brevity and convenience, the subject will be considered in sections, as follows:

Situation.—The School and College buildings stand upon an eminence at the junction of the Massawippi and St. Francis Rivers, near the village of Lennoxville. The soil is generally light and gravelly, the situation open and airy, and admirably adapted for a large public institution.

Medical history of the Institution in reference to Typhoid Fever.—We are informed that ten or twelve years ago a boy contracted typhoid while at school, but no other cases occurred; from that time to the re-opening of the College and School after the Christmas vacation in January, 1880, we do not find anything in this connection calling for special comment, beyond the fact that in the summer vacation of 1875 one of the boys died of typhoid fever in Lennoxville, but the disease was evi-

dently contracted after leaving school, in the house where he was visiting. In February, 1880, shortly after the re-opening of the School, two cases of illness of a somewhat suspicious character occurred, in both instances the boys were ailing when they returned to school, and one of them continued ill for about two months; unfortunately, we have been unable to come to a positive conclusion with reference to the precise nature of these cases. On the 18th of May a drain in the quadrangle was open for repairs; one of the boys descended into it, and shortly afterwards he developed typhoid fever at his home in Montreal. In July, after the School and College had closed, reports began to come in of other cases. Altogether, we have been able to trace twelve cases in this epidemic—five from the College and seven from the School. During the months of August and September, the sanitary condition of the Institution was investigated, and found to be very unsatisfactory. A new system of drainage was substituted, new latrines built, and many improvements made under the directions of a competent engineer. The reasonable hope was entertained that no further trouble would occur. On September 22nd the School re-assembled. During October and the early part of November the health of the pupils was excellent, but towards the end of the month six boys and one resident student were taken ill with the fever. About the middle of December, a servant boy employed about the kitchen and dining-room was also attacked. Two other cases that developed the fever at their own homes have been reported, making in all 10 cases during the second epidemic. There was nothing in the distribution of the cases through the College and School which could favor the idea that the disease originated in any special quarter of the Institution.

Internal Economy and Commissariat.—The boys and students take their meals together in the dining-hall; in other respects the institutions are separate and distinct.

Milk Supply.—We visited and inspected the dairy farm, and while we found no reason to ascribe the outbreaks of typhoid to any contamination of the milk, we would draw attention to the dangerous proximity of the well, privy and stable and to the faulty position of the tank, which is at present below the level of the stable floor. These conditions, in the event of any cases of typhoid occurring at the farm-house, would prove a ready means of spreading the disease.

Water Supply.—The water supply of the Institution is derived from (1) a well in the quadrangle, 19 feet in depth, and, at the time of our visit, containing 2ft. 4in. of water. On account of its supposed purity, this water was used almost exclusively for drinking purposes. During the exceptional drought of last season this well ran dry, and was not available for general use until some time after the opening of the School. The well is situated at the lower part of the quadrangle, at a distance of 90 feet

from the old latrines, the soil between being of a light gravelly nature, and the dip being towards the well. (2) A spring in the Beaver Meadow, the water of which, after passing along in an open stream for some distance, is collected in a tank and conveyed thence through perforated logs to a large reservoir in the School building, whence it is distributed to the various parts of the establishment.

Analysis of Water.—The analysis of water was made by Professor Croft of Toronto; the following is a copy of his report:

Report on Three Waters from Lennoxville.

No. 1, water from cistern in school.

No. 2, water from well in quadrangle.

No. 3, water from Duffield's well.

It did not seem requisite or desirable to make an accurate quantitative analysis of each specimen, as the mineral constituents, unless present in abnormal quantities, could have little or no effect on their medicinal properties, and no chemical test can recognize typhoid germs. It appeared desirable to test the waters qualitatively as to their constitution, as to presence of ammonia or ammoniacal salts, chlorides, and organic matters, also for magnesia. By an accident from frost and other causes, the first analyses of No. 1 were untrustworthy, and had to be repeated.

Ammonia.—Each test was repeated two or three times so as to avoid error, and in cases of distillation, a quantity of pure water was first distilled to wash out all ammonia from the vessels, and in neither of the waters could ammonia be detected directly—*i.e.*, in the water as taken from the bottles. In first products of distillation—No. 1, faintest trace; No. 2, decided trace; No. 3, less decided trace. In no case very large; most so in No. 2.

Chlorine.—Probably as chloride of sodium—No. 1, scarcely perceptible trace; No. 2, decided, so much so as to induce rough determination, about 12 grains per gallon of chloride of sodium; No. 3, decided, but less than in No. 2.

Sodium.—Probably as chloride—No. 1, faint trace; No. 2, very decided; No. 3, decided.

Sulphuric Acid.—As probably sulphate of lime was present—No. 1, very faint trace; No. 2, decided, but not large; No. 3, about the same as No. 2.

Lime.—As for above.

Magnesia.—No. 1, scarcely perceptible; Nos. 2 and 3, rather more, about equal.

All waters gave a very slight precipitate on boiling, consisting of carbonates of lime and magnesia, with an infinitesimal trace of iron.

<i>Solid contents.</i>	5,000 grs.	70,000 grs.	1 gal.
No. 1, first experiment,	6.1	...	85.4
No. 2, "	6.2	...	86.8
No. 3, "	6.6	...	92.4

These experiments were repeated, and the numbers assigned represent the mean of several experiments. They (the residues) all became blackened very much on heating, Nos. 2 and 3 especially shewing presence of much organic matter. I have not been able to ascertain the exact quantities, but may say that 2 and 3 are very objectionable, from the presence of organic matter.

I have a letter from Dr. Baker Edwards, who analysed one of these waters and found only 8.4 grains in a gallon of 70,000 grains. That cannot have been one of the waters submitted to me, unless in the hurry of writing Dr. E. has placed the decimal point wrongly. The 8.4 corresponds closely with my 85.4. Can there be a mistake here?

I think the waters are all bad, as containing too much organic matter. I have had several cases of similar waters to examine in Yorkville and Toronto, in or from houses where sickness prevailed—one case bad typhoid. They all exhibited the same properties—chlorides in excess, magnesia, traces of ammonia, and organic matter. In one exceptional case I denounced the well water. There has been no illness to speak of in the School since the change.

Your obedient servant, HENRY H. CROFT.

P.S.—I have other confirmatory experiments going on, but send this as report on results obtained up to this time. The numbers obtained by analysis made in a hurry may not be absolutely correct; moreover, an error in 5,000 grains has to be multiplied or divided by 14 for 70,000.

H. H. C.

Suggestions with regard to the water supply:—

- 1.—That the well in the quadrangle be closed.
- 2.—That iron distributing pipes replace the wooden logs in the quadrangle.
- 3.—That, if possible, the large receiving tank be removed from its present position and located at the spring, and that the water be conveyed thence to the school reservoir through iron pipes.
- 4.—That the connection at present existing between the reservoir and the School drain (flush-pipe) be cut off, and that the reservoir be regularly cleaned and inspected.

Privies.—About the centre of the quadrangle the old latrine was situated; it was a square pit about 4 feet in depth, lined with unmortised planks, which permitted the liquid portion of the faecal matters to ooze freely into the surrounding soil. In August last the latrine was abolished, the contents were carted away, and the pit filled with earth and lime. A few feet from the latrine, between it and the well, we caused a pit to be dug a depth of six feet, and we found the loose gravelly soil to be impregnated at various depths with organic matter. To replace the latrine, closets were constructed behind the gymnasium, but not

upon a plan which could prove to be either effectual or satisfactory.

Suggestions with regard to the privies:—

- 1.—That the closets be removed from such close proximity to the gymnasium.
- 2.—As we are of opinion that for outside privies the earth system, if properly carried out, would be preferable to any other, we would suggest that every precaution be taken to secure its thorough and systematic application.

Drainage.—The old barrel drain which passed under the corner of the school and chapel was imperfect in construction, and ill-adapted for the purposes required; it was removed in August, and replaced by two 12-inch vitrified tile drains, one for the College and the other for the School. These drains united below the College building, and emptied into the Massawippi, well out in the stream. The river below this point is consequently contaminated with sewage. The ventilation provided for these drains is insufficient and unsuitable, and in addition to the recommendations contained in the report of Messrs. Lowe and Radford, we would suggest the construction of a proper ventilating shaft in the main drain, near the junction. We append the careful and minute report of these gentlemen, and concur in their recommendations.

Subsoil Drainage.—Owing to the faulty construction of the old barrel drain and the latrine, the soil of the quadrangle must have become contaminated with thier fluid contents. In order effectually to purify this quadrangle, we would recommend that a thorough system of subsoil drainage be adopted. The present well, which probably drains a considerable portion of the quadrangle, should be utilized by carrying a tile drain from the bottom.

It is a well-known scientific fact that the atmospheric air penetrates the soil, according to its character, to an indefinite depth, and circulates in every direction with a rapidity of motion dependent upon various surrounding conditions, one of the chief of which is variation of temperature. This air is known as ground air. The temperature of the cellars and basements, especially where furnaces are used, is considerably higher in cold weather than that of the outside soil, consequently the flow of ground air will then be directed towards these cellars and basements. If the soil be contaminated in any way, so will be, to a greater or less extent, the ground air contained in it. In this way it is very probable that polluted ground air from the quadrangle is drawn up through the imperfect floor of the basement and circulated throughout the building. In order to prevent, as far as possible, the entrance of this air, we would recommend a thorough covering of the cellar and basement floors with some suitable impervious material, such as concrete or asphalt. The

walls, as high as the level of the soil, should be protected in a similar manner.

It is now held by the best authorities that imperfect sanitary conditions cannot of themselves originate the typhoid poison, but when once the specific germ has gained access to a soil suitable for its development, it spreads and multiplies with great rapidity. The conditions most favorable for its development are chiefly those produced by defective drainage and ventilation. In this instance, whence the poison came, or by whom introduced, we have been unable definitely to ascertain; but, whatever may have been the precise origin of the disease, the condition of the drainage and water supply during the latter part of May was most favorable for the development and diffusion of the typhoid poison. The close proximity of the well to the latrines favored the contamination of the drinking water; and to the use of this water, more than to any other single cause, we attribute the spread of the disease. In this opinion we are strengthened by the result of Professor Croft's analysis.

From the foregoing it must be evident that, in order to eradicate the disease, it is absolutely necessary to secure for the institution thorough ventilation, perfect drainage, and a pure water supply.

We cannot conclude this report without bearing our testimony to the courtesy and willing assistance rendered us at all times by the School and College officials during the prosecution of our investigations, and to the evident desire on the part of the authorities to carry out all reasonable and necessary reforms.

We have the honor to remain,
Gentlemen,
Your obedient servants,

T. SIMPSON, M.D.

WM. OSLER, M.D.

J. C. CAMERON, M.D.

MONTREAL, 21ST January, 1881.

RULES FOR INJECTION IN GONORRHEA.

In acute gonorrhea before all things we must insist upon the patient wearing a suspensory in order to prevent traction on the testes. He should take no beer or champagne or any drink which contains much carbonic acid in the nascent state, as this gives rise to dysuria. Meat in the evening and late meals should be avoided, as favoring the occurrence of nocturnal pollutions, aggravating the patient's condition. The same may be said of the sitz-bath taken late in the evening. During the acute stage, if there still exist severe pain, especially after passing urine, and stabbing pains at the posterior part of the urethra—one of the earliest symptoms of gonorrhea—we may confidently begin the treatment by the injection of a

very weak solution of an astringent metallic salt. After the first effective injections the pains are considerably diminished, the urine is passed more easily, and the slight fever which is often present disappears. The relief of the pain may also be hastened by tepid sitz-baths. It is an interesting fact that the patient, who at the beginning of the gonorrhea can only pass urine amidst the severest pain, is able to empty the bladder while in the bath with the greatest ease and comfort. With regard to the injections they should at first be as weak as possible, so that they may never act as caustics, but only as astringents. The substance from which Prof. ZEISSL has derived the best results is the permanganate of potash, of which he prescribes two centigrammes in 200 grammes of distilled water, thrown in four times daily by means of a caoutchouc syringe, care being taken to prevent the entrance of air, the presence of even a small quantity of which in the urethra suffices to induce severe dysuria. If this occur, or pains arise in the testes, the injections must be suspended, and the symptoms suitably treated. As already stated, it often happens that after a few injections the pain diminishes, and all traces of the gonorrhœa frequently disappear after only a week's employment of the permanganate. If however, after using this very weak solution for a week, no essential improvement has taken place, it may be strengthened by a centigramme; but Prof. ZEISSL never goes beyond fifteen centigrammes in the 200 grammes of water. A rule to be observed is not to continue the same injection for too long a time, as the urethra becomes accustomed to the presence of the medical agent, the further employment of which is then useless, and a weak solution (thirty centigrammes to 200 grammes) of sulphate of zinc should be substituted, gradually increasing the strength to five decigrammes. If this does not succeed, Prof. ZEISSL then resorts to the employment of insoluble bodies, such as bismuth, kaolin, or the acetate of lead. Injections containing these suspended bodies must be well shaken, so as to cause a uniform distribution of the precipitate in the urethra. This powder may remain in the urethra for a long period—and at all events until the next discharge of the urine; and when it is forced into the glandular orifices of the prostate it often remains there for a fortnight longer. This circumstance explains the beneficial action of these suspended substances, as they remain in close and prolonged contact with the membranous and prostatic portions of the urethra and with the prostate itself—the parts in which the catarrh exhibits the greatest obstinacy.—*Weiner Med. Woch—Lea's Abstract.*

HINTS ON SEA-BATHING.

August is the month for sea-bathing, which, if properly managed, is one of the most healthful and invigorating of exercises, though its good effects are often neutralized through ignorance or

carelessness. The following extracts from Dr. J. H. Packard's *Sea-Air and Sea-Bathing* (one of the "American Health Primers") furnish a very good summary of rules for the guidance of the unprofessional reader in this matter:—

How Long to Bathe.—It is quite absurd to lay down positive rules as to the time people should remain in the water, since they do not carry watches in with them. And any day's experience on the beach in the season will show a great many bathers sporting in the water for half an hour or an hour, and even longer, without any perceptible ill effect. It is quite a common practice among the young to go in, take a bath, come out and lie on the sand, and go in again, perhaps a number of times. The powers of endurance vary greatly; and it is well known that swimmers have sometimes remained in the water for many consecutive hours without harm.

There can, however, be no question that for sanitary purposes, and as a matter of prudence, it is better to take the bath, and then to leave the water for the day.

What is wanted in ordinary sea bathing is to carry the chilling of the body only so far as to promote the subsequent reaction. The first sense of cold on entering the water is soon followed by the feeling of returning warmth; and this continues for some little time, to be again succeeded by a sense of chilliness. This second cooling is accompanied by a diminution in the activity of the circulation, shown especially by blueness of the lips or finger nails; and this should *invariably* be regarded as a signal for leaving the water *at once*. To wait until the teeth chatter, and the skin of the fingers becomes shriveled like those of a washerwoman, is in a very high degree imprudent.

For those who have young children or invalids under their charge, and who are able to observe and regulate the exact time of their stay in the bath, it may be said that this may be according to the condition of the skin, somewhere between two and fifteen minutes. It is always safe to err on the side of prudence, and to cut the bath needlessly short rather than to prolong it at any risk.

Perhaps it need hardly be said that the colder the water is the less time should be spent in it. When the air and the water are both cold, the duration of the bath should be correspondingly diminished. This condition of things increases the danger of shock and of insufficient reaction.

One should enter a sea bath comfortably warm, and exercise actively during the stay in the water. The temporary chilling of the surface will then give place quickly to a glow, which may be kept up or even increased by thorough rubbing.

How to Bathe.—There is very seldom opportunity for diving into the sea, and only a very small number of bathers are expert enough to do it. The best plan is to walk or run rapidly into the water, wading out at once far enough either to dip the whole person head and all, or to allow a wave to break over the bather. Some like to have a

bucket of sea water dashed over them before going in. Once in the water, and thoroughly wet, one need only keep moving, occasionally going under a wave, as long as the water is agreeable, and there is no sense of chilliness.

THE ORIGIN OF TETANUS.

The *Brain*, for January, 1880, contains an article by Surgeon Major J. J. L. Ratton, in which he enunciates the proposition that tetanus is a single disease; that it begins in persistent peripheral nerve irritation, and ends in organic molecular and functional disturbance of the medulla. The peripheral nerve irritation may or may not be traumatic, but is invariably the cause of the disease; so that the term idiopathic tetanus should be disused. The above conclusion is arrived at after exhaustive arguments have been adduced in proof of the five following points: 1. Peripheral nerve irritation is a cause of tetanus. 2. Peripheral nerve irritation is present in all cases of the disease. 3. It produces eventually the group of symptoms known as tetanus. 4. It explains the facts of the morbid anatomy of the disease. 5. It guides the treatment of the disease, and is proved by its success. The great bulk of cases of so-called idiopathic tetanus are either puerperal, menstrual, or the result of worms. That case of idiopathic tetanus in which peripheral nerve irritation could be excluded as the cause must be absolutely free from disease; the author cannot imagine that such a case ever existed. His view of the pathology of tetanus is that in the first stage of the disease (that of continued nerve irritation reacting upon the medulla and originating tonic spasms), up to a certain point there is no morbid change in the cord, and consequently there would be no evidence of disease. At this period division of the afferent nerve, by cutting off the source of irritation, arrests the symptoms. Afterward, continued irritation, exciting the reflex function to an inordinate degree, causes hyperæmia with molecular changes, and frequently inflammation. Here there may or may not be visible changes, but these will be hidden by molecular changes. Pathological facts fit in exactly with these views. Sometimes no changes are found, sometimes microscopical changes, and sometimes evidences of inflammation of the medulla and upper part of the cord. The treatment by amputation, or section of the afferent nerve is only efficient up to a certain point; when molecular changes have taken place in the medulla it is useless. Division of the nerve in the second stage may help, but does not cure the disease. Something more is wanted—some powerful wrench to the nervous system that will alter the morbid molecular arrangement of the parts, or act as a revulsive or counter-irritant. Stretching a large nerve trunk (*e.g.*, the sciatic), and making traction on the cord, have been tried and followed by marked success. The drugs used, and which

have justified their use in this disease, are just those which are known to diminish the reflex irritability of the cord. The ice bag to the spine, leeches, blisters, and plasters, to the same, all testify to the universal opinion acted upon, if not avowed. The tetanus is a disturbance disease of the reflex unctio nse of the cord.

BILIOUS HEADACHES.

When patients are very bilious, and a conjunctivæ yellow a good cholagogue purgative will excite the action of the liver, and drain away a copious quantity of bile. Form:

R. Hydr. subchlorid, gr. iiij
Pil. coloc. co., gr. vj
Ext. hyoscyami, gr. ij

Misce et divide in pilulas ij. To be taken at bed-time occasionally.

A mixture of soda and bismuth with sal volatile will be useful to relieve flatulency and acidity.

Form:

R. Sodæ bicarb.,
Bismuth subcarb.,
Pulv. acaciæ, āā 3 j
Spt. amm. arom., 3 ij
Syr. zingib., 3 iiij
Aquæ puræ, ad., 3 viij

Misce. Two tablespoonsful three times a day, half hour before food.

If the headache is accompanied with atonic dyspepsia, and there is a clean tongue with weight and oppression at the epigastrium, the nitro-muriatic acid will be found serviceable, before meals or three times a day. Form:

R. Tinc. nuc. vom., 3 j
Acid. nitr. dil., 3 j
Acid. hydrochl. dil., 3 ij
Tinc. aurant., 3 vj
Aquæ puræ, ad., 3 vj

Misce. A tablespoonful in a wineglassful of water three times a day.

If flatulence is very troublesome, bismuth with nux vomica, and, if there is constipation, a morning pill of aloes, nux vomica, and belladonna, or one consisting of aloes, capsicum, quinine, and ipecacuanha, are indicated. Forms:

R. Ext. aloes. barb., gr. ¼
Pulv. ipecac., gr. j
Pil. rhei comp., gr. iiij

Misce et fiat pilula. To be taken daily before dinner.

R. Quiniæ sulph.,
Ext. aloes aquos., āā gr. xij
Pulv. capsici,
Pulv. ipecac., āā gr. vj
Glycerini, q. s.

Ut fiant pilulæ xij. One to be taken daily before food at midday.

—Dr. Day on Headaches.

OXALATE OF CERIUM AS A COUGH REMEDY.

Dr. Andrew H. Smith, chairman of the Committee on Restoratives, New York The rapeutical Society, at the meeting held April 9th, 1880, reported cases illustrating the different degrees of success obtained in the use of the oxalate of cerium in the treatment of cough. The report was based upon eighty-four cases furnished by reliable observers.

Dr. Cheesman had used the remedy in hospital practice from July 1st to November 1st, 1879, allowing it to take the place of all sedatives, including opium, in the daily average of *phthisis* patients. It was uniformly administered in the form of dry powder, and notes were taken in 69 trials. In 39, marked relief followed; in 19, the cough was moderately relieved, and in 11 no relief whatsoever was afforded. The 11 cases where the remedy was inefficient, 9 were in the third stages of the disease, and in 8 the Philadelphia preparation was used. In all the cases where the cough was relieved Merck's oxalate of cerium was used. The drug was given, as a rule, two or three weeks, and often intermitted to test its efficacy. Five grains were given on waking in the morning and at bed time as the average dose; occasionally a dose of five grains in the middle of the day was given with marked benefit. Dr. George Bayles also reported his observations; in addition to the benefit derived in phthisical patients he had experienced benefit from its use in whooping-cough. It produced no bad effects on the stomach.

The conclusions reached by the committee were the following:

1. Oxalate of cerium could be safely administered in doses of 10 grains, three times a day, for many days in succession.

2. The only unpleasant symptom, when so used, was slight dryness of the mouth that appeared after several days.

3. It was probably the most efficient when administered dry on the tongue.

4. Its effects were not produced until two or three days after its use was begun, and lasted two or three days after the remedy was discontinued.

5. It was most efficacious in the treatment of chronic cough, and the initial dose should be 5 grains.

6. In the majority of cases it had not proved an efficient cough medicine for any considerable length of time, but could be regarded as a valuable agent to be employed in alternation with other remedies.

7. It did not disturb the stomach; on the contrary, it relieved nausea and improved digestion.

8. Different preparations upon the market were not equal in value; and when success was not obtained by one, another should be substituted.—*Medical Record*.

GASTRIC ULCER.

By HERBERT W. LITTLE, M.D., New York.

As ulcers of the stomach, which give definite symptoms during life, are not of common occurrence, with the exception of perforating ulcers, of which the termination is fatal, it will be interesting, perhaps, to read the case given below. This is presented for the following reasons, viz.: *first*, on account of the great obstinacy of the case; *second*, the controlling influence of ingluvin; *third*, the tolerance of rectal alimentation.

The obstinacy of the case will be perceptible farther on.

As far as the beneficial effect of ingluvin in this instance went, it certainly was, apparently, very satisfactory; but, whether or not the ulcer was cicatrizing at the time it was administered, and the improvement was a mere coincidence with its administration, or whether or not the improvement was due directly to the effect of the remedy, is hard to say. In either case, improvement promptly followed the use of the remedy.

The patient was supported exclusively by rectal alimentation for three consecutive months, proving the tolerance and absorption of enemata, the rectum acting as a second stomach. This would seem to show the fallacy of Dr. Tully's statement that, inasmuch as there are no lacteals in the colon and in the rectum, the idea of introducing nourishment into the system by means of *enemata nutritiva* is a perfect chimera. It seems, as Bodenhamer says, that the nutritious elements are taken up by the absorbents, and conveyed by them to the *receptaculum chyli* or *reservoir of Pecquet*, and thus soon find their way into the economy, and produce their assimilative and nutritive effect. Bodenhamer, in his excellent treatise on rectal medication, further states that there are lacteals both in the colon and rectum, and that the late and lamented Prof. Horner, of Philadelphia, stated, from minute researches, that the office of the follicles of Lieberkühn is that of absorption, and not secretion. Therefore, absorption takes place principally through the lacteals and follicles of Lieberkühn. In my position as house physician at the Presbyterian Hospital, I have had opportunity to test the tolerance and absorptive powers of the rectum and colon to a considerable extent, both for food and for medicine, and have great confidence as regards their efficacy; and, moreover, am safe in saying that in a number of instances I have seen life saved by resorting to rectal-colonic alimentation.

The patient, a female, aged 36, unmarried, and a seamstress by occupation, came under my observation October 1, 1879, with what was supposed to be gastric ulcer. She stated that she had always been stout and healthy, with the exception of a general peritonitis, which she had two years ago. Her weight when in health was about 160 lbs.

The present trouble began eight months ago with nausea and vomiting after eating; at times she

vomited a little blood. The vomiting had increased so much that for the last two months it had been almost continuous, being excited by the ingestion of food. She knew of no cause for her ailment. She had been from the first under medical care, but had derived no benefit. Almost all the remedies in the materia medica employed for that purpose had been used to check her vomiting, but without avail—ipecac, opium, pepsin, bismuth, soda, oxalate of cerium, hydrocyanic acid, eucalyptus, carbolic acid, calomel, salicylic acid, nitrate of silver, Carlsbad water, ice, etc. She was gradually getting worse, having lost twenty-five pounds since the inception of the trouble, and the vomiting still increasing.

When she came under observation she was emaciated and feeble; had not had her menses since July last; bowels constipated; vomited everything shortly after being ingested, not being able to retain either solid or fluid food, although coarse and solid food gave her more distress than fluid; threw up a little blood three or four times. Always felt relieved after emesis had taken place. Complained of tenderness, confined to the centre of the epigastric region, and a burning pain (coming on soon after eating) in the same location. At times she would complain of a dorsal pain or cardialgia. No tumor was felt through the abdominal walls. The diagnosis of gastric ulcer was founded on the following symptoms: great tenderness at a localized point in the epigastrium; a burning pain in the same location; vomiting of both solid and liquid food, and always experiencing relief after emesis. As the nausea and vomiting was more severe in an hour or so after eating, it seemed to point to the pyloric end of the stomach as the seat of the disease.

She was given a liquid diet consisting of milk with lime-water and beef-tea, occasionally chewing rare pieces of beef and swallowing the juice. To control the vomiting, powders of subnitrate of bismuth and morphia were administered. This plan of treatment was kept up for five days without any beneficial result, the milk being thrown off as well as the beef-tea. Various remedies were then tried, but still she vomited and retched until everything was thrown off her stomach—even bile, blood, and mucus being expelled. A whitish discharge which had been vomited occasionally was examined microscopically, and found to consist of squamous epithelium and blood-corpuscles, with mucus and extraneous matter. She was then put on enemata of milk, beef-tea, and defibrinated blood. Ice, soda, and subcarbonate of bismuth in twenty grain doses, with blistering over the stomach, were all employed to relieve the retching, but with no amelioration. In fact, all the symptoms were aggravated. The burning pain was getting more intense, the tenderness and vomiting increasing, and now insatiable thirst tormented her, but everything she took to relieve this only aggravated the emesis. As a last resort, ingluvin was employed, to be given three times a day. Within a week she felt better. The vomiting was greatly relieved, now occurring but twice a day,

whereas formerly it was almost continuous. The burning, gnawing pain was gradually eased. Improvement rapidly progressed; in ten days the vomiting had entirely disappeared, the tenderness and burning diminishing. The enemata were now discontinued (having been used three months). The patient got out of bed, and thereafter ate three meals a day without any inconvenience. She began immediately to gain flesh, and her menses again appeared. Shortly after she went home in excellent condition, with the ulcer probably cicatrized.

As mentioned above, this case is interesting, partly on account of the long-continued use of rectal injections, showing the value of them in prolonging and saving life. They are of service after operations on and in diseases of the tongue, pharynx, œsophagus, and stomach; after removal of cancer of the tongue, of tumors of the jaw, and in cases of diphtheria, tumors of the pharynx, stricture or obstruction in the œsophagus, tumors of the larynx, pressing upon the œsophagus, or in any disease interfering with deglutition; also in cancer or ulcer of the stomach, gastritis, and in marasmus of children. Of the latter, Dr. G. M. Smith, of this city, had a case, the subject of which was a little girl in a deplorable condition. She was supported entirely by rectal injections, until gradually she was restored to perfect health.

These injections may be used almost without limit, although there is a prejudice against them on the part of the patient. Dr. Austin Flint, in his "Practice of Medicine," mentions three cases which were supported by nutritious enemata. The first was sustained three weeks, the second one month, and the third and longest three months. —*New York Medical Record.*

WHY WE EAT OYSTERS RAW.—Dr. William Roberts, in his interesting lectures on the digestive ferments, states that our practice in regard to the oyster is quite exceptional, and furnishes a striking example of a general correctness of the popular judgment on dietetic questions. The oyster is almost the only animal substance which we eat habitually and by preference, in the raw or uncooked state; and it is interesting to know that there is a sound physiological reason at the bottom of this preference. The fawn-colored mass which constitutes the dainty of the oyster is its liver, and this is little else than a heap of glycogen. Associated with the glycogen, but withheld from actual contact with it during life, is its appropriate digestive ferment—the hepatic diastase. The mere crushing of the dainty between the teeth brings these two bodies together, and the glycogen is at once digested without other help by its own diastase. The oyster in the uncooked state, or merely warmed, is, in fact, self-digestive. But the advantage of this provision is wholly lost by cooking, for the heat employed immediately destroys the associated ferment, and a cooked oyster has to be digested, like any other food, by the eater's own digestive powers. —*London Medical Record.*

ICE TO THE ABDOMEN IN TYPHOID FEVER.

At a recent *séance* of the Société Médicale des Hôpitaux, M. Labbé called attention to the efficacy of ice applications to the abdomen in typhoid fever, complicated or not. He related the case of a young girl attacked with typhoid, whose temperature exceeded 104°, and who appeared at the last extremity, who, under the influence of this treatment, was perfectly cured. M. Labbé claims for this procedure a considerable lowering of the temperature and a notable amelioration of all the other symptoms.

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MONTREAL, FEBRUARY, 1881.

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At a late meeting of the Medico-Chirurgical Society, Dr. Hingston mentioned a case of very rare occurrence. In May, 1867, he had been called by the late Dr. Smallwood to see a French Canadian lady, then aged 63 years, the subject of a large ovarian tumour. He proposed ovariectomy, but the patient declined, but consented to emptying the cyst. This was first done on 13th May, 1867; the quantity removed was four gallons. From that date to the 10th March, 1876, the operation was repeated forty-three times, with an average of four gallons each time. From March, 1876, to August, 1880, she was not operated upon; on 13th August, 1880, 3½ gallons were removed, and on 25th January, 1881, the last time, six gallons were removed. She died from an attack of indigestion, after eating a very hearty supper, on 30th January, at the age of 81 years. The patient continued in perfect health until the day of her sudden death, and was able to walk several miles. The total number of operations was 46, and the quantity removed was 186 gallons.

Three smaller cysts, weighing in all about 20 pounds, and which had grown within the past three years, were not interfered with.

At the recent meeting of the Medico-Chirurgical Society of Montreal, Dr. Bessey presented for final inspection the case of Psoriasis Lepraformis of 18 years' standing, treated solely by bovine vaccination. The patient appeared to be perfectly cured, the disease having entirely disappeared, traces in the form of *skin marks* only remaining of what was at first a most inveterate and disagreeable looking case. The patient expressed herself well-pleased with the result.

By the result of this case Dr. Bessey has established the value of vaccination as a valuable agent in the treatment of chronic skin diseases.

LAWTON'S ABSORBENT COTTON.

Upon the first introduction, a year or two since, of absorbent cotton, the new article attracted much attention, and was eagerly received, especially by Surgeons and Gynæcologists. It was found to answer admirably many of the purposes for which patent lint was formerly employed, in the dressing of wounds, in applying medicated lotions, in soaking up discharges, etc., etc.

By soaking the absorbent cotton in medicated solutions, and subsequently drying it, we may obtain the effects of many local remedies. Thus we may, by using carbolic, boracic or salicylic acid, or Labarraque's solution, make it antiseptic. By saturating it with astringents, we may give it this property in any degree, even carrying it so far as to obtain a most powerful styptic. The article furnished by Wyeth of Philadelphia will be found very fine, on account of the facilities they possess for the manufacture, and the care taken at every step of the process.

"The Medical Faculty in Missouri are taking measures to rid the state of Quacks, with whom it is over-run."

"Three bills have been prepared for legislative action—one providing for the creation of a state board of health; another for regulating the practice of medicine, and the third for the registration of births, deaths and marriages."

"Owing to the enactment of stringent laws regulating medical practice in Illinois and Kansas, Missouri has been crushed with an immigration

"of irregulars, which she now finds it expedient
"to get rid of."

(*Frank Leslie's Illustrated Paper*, February
5th, 1881).

ADMINISTRATION OF ERGOT IN LABOR.

A writer in the *Dublin Journal of Medical Science* remarks that there is no doubt that the judicious administration of ergot will often save a woman from the necessity of a forceps delivery. If there is reason to fear postpartum hæmorrhage, ergot should be given always before the child is born. The fifteen to thirty minim range of the Pharmacopæial liquid extract is practically useless, but there is a limit to the dose which it is desirable to give. Two fluid drams may be cited as a maximum, but occasionally it is justifiable to repeat this quantity. Ergot should never be administered until the labor is so far advanced that it could, if necessary, be easily finished with forceps. In cases where tonic uterine contraction follows, threatening the life of the child, but not terminating the labor, recourse may then be had to the forceps. If the placenta should happen to be morbidly adherent, the danger of the complication may be greatly augmented by postpartum increased uterine contraction, due to the influence of the ergot administered.

Small-pox has broken out in the Fort Madison penitentiary, Iona, creating great excitement and panic.

Diphtheria and small-pox are said to be increasing in Chicago, and a case has been discovered in a tenement house there where six persons had the latter disease, and were without medical attendance for five days.

William Dewart, of Rochester, N.Y., has patented a device for ventilating houses, by using the well-known facts that plants give off ozone and oxygen, and absorb and use carbonic acid in their growth. His invention consists of a small conservatory, from which pipes issue to every room of the house, intended to convey the necessary oxygen.

Dr. McLaren, of Edinburgh, Scotland, states that the types of insanity have changed with modern times. For instance, acute delirious mania is now

comparatively rare, but mental enfeeblement, attended with paralysis, is becoming more and more common, and is the result of the over-work and worry of the struggle for existence at the present day.

Dr. Wilkins, Professor of Physiology and Pathology, University of Bishop's College, has been appointed examiner in these subjects at the University of Toronto.

We direct attention to the advertisements regarding the preliminary examination of the College of Physicians and Surgeons of Quebec, and the half-yearly meeting of the Governors.

OBITUARY.

We record with much regret this month the death of Dr. Robert F. Godfrey, of Montreal, son of our much respected confrere, Dr. Robert T. Godfrey. The deceased began his medical studies at McGill University, concluding them at the University of Bishop's College, from which University he graduated with honors in 1873. He commenced the practice of his profession and bid fair soon to have around him an extensive practice but failing health warned him to desist. He proceeded to Colorado, where he remained some time; returning he occupied a farm in a beautiful section of the Eastern Townships, devoting himself to agricultural pursuits. All was unavailing, the disease, phthisis, continued its onward progress, and he returned to the parental roof, where, surrounded by his friends, he passed to his rest at the early age of 30 years. Young Dr. Godfrey was a man of singularly amiable disposition, and among his college mates was a universal favorite. His abilities were of a high order, and had life and strength been spared to him he would have made his mark as a medical man. We extend to his parents our deep sympathy.

January 28th, 1881, at Richmond, Virginia, *Dr. Henry S. Jaynes, LL.D.*, aged 62 years, one of the most prominent physicians in Virginia, and a large contributor to professional literature.

Dr. Alva Curtis, of Cincinnati, aged 83, on 25th January, 1881.

DIED.

In Montreal, on the 24th February, Robert F. Godfrey, C.M., M.D., aged 30 years,

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Original Communications.

SOME REMARKS ON "HAECKEL ON THE EVOLUTION OF MAN," AND ON SO-CALLED BLOOD-POISONING.

By HENRY HOWARD, M.D., M.R.C.S. Eng.
Read before the Medico-Chirurgical Society of Montreal
January 21st, 1881.

MR. PRESIDENT AND GENTLEMEN,—A few weeks after I had read my paper on Man's Two Natures and Evolution, a friend loaned me the last edition of "Haeckel on the Evolution of Man." It is hardly necessary for me to say that I found it to be just such a profound and learned work as we would expect from such a naturalist.

The great object of the writer seems to have been to prove the truth of the Darwinian theory of evolution. I need not tell those who heard, or read, my previous lecture that, as to the simple question of the *modus operandi* by which God created man, I am entirely in accord with Mr. Haeckel, that is, that God, by his natural laws, evolved an ovum from the earth, from which ovum man was evolved, in virtue of the potentiality or latent power existing in all matter; (Mr. Haecke calls it an atom), and I based my theory upon the fact that, as the whole human race is evolved from ovums, so is it the most probable way by which God called into existence the first man.

I don't, however, consider because that I accept the theory as true of man being evolved from an ovum, that I am bound to accept Mr. Haeckel's conclusions, that the last act of evolution was for man to be evolved from an ape; not, as I have heretofore stated, that, if such were the case, do I consider it would take anything from God's honor and glory, or make man anything more or less than what he is, the highest order of animal, and rendered human because God endowed him with a human nature.

And most certainly I am in no way bound to accept Mr. Haeckel's conclusion that, because there are natural laws, God did not create them, or that they were not his established laws, by which he created all things. I see no proof, but the contrary, that anything happens by chance or accident, or that there can be effect without cause. What men call accident is simply natural laws. Fish cast their ovums upon the sea, but the male and female cells don't come together by chance, but by what *Mivart* calls an innate law modified by the subordinate action of natural selection, so that but few of the many female ovums are fertilized; and in this nature shows her wisdom, for naturalists tell us that, if all the fish ovums were fertilized, there would not be room in the sea for all the fish that would be propagated, notwithstanding the number of young fish that perish by becoming food for others.

And let us see how perfect is the law of nature

with regard to the procreation of man. Rarely is there more than one female ovum fertilized by the male sperm cell, and why is this? but simply for the protection of the mother, for in the woman the evolution from the fertilized ovum to the perfect child takes place in the uterus and within the abdominal cavity, and whenever there happens to be an exception to this rule, and there is a plurality of fertilized ova, nature, as it were to be revenged, either destroys the mother or part of the offspring. Here then again we observe the natural law of selection; one ovum is fertilized, the others perish.

It is different, however, with fowls whose offspring are evolved outside the uterus, and outside of the abdomen. Wild fowls, as a rule, only lay a certain number of ova for the purpose of procreation, and as their young all come out on or about the same time we have a right to suppose that all of the female ova are incubated by the male sperm cell at one and the same time. If this were not the case, the first laid egg would produce its young before the last laid egg, five or six days according to the number of eggs, which would be very inconvenient to the parent fowl, and in some degree dangerous to the life of her young.

We know that these fowls hatch their eggs for a certain number of days, but the commencement of the existence of the new creature is from the very moment that the cell of the female ovum is fertilized by the cell of the male sperm; therefore, if the different female ova were fertilized at different periods of time, we would naturally expect that there would be just that time between what we might call the birth of each of the young.

Let us suppose, then, a wild water fowl, say a duck, lays twelve eggs, one each day; if all these ova were not incubated at the same time, there should be a difference of twelve days between the appearance of the first and last duckling, so that the first duckling would starve before the last made its appearance, for while one remained in the shell the mother would not forsake her nest. This fertilization, or incubation, of many ova at the same time is the natural law where the young are reproduced outside of the abdominal cavity; for example, it is a well-known fact to naturalists that the queen bee leaves the hive six days after her birth for the act of copulation, when she is fecundated for her lifetime, which lasts about three years, and in the height of her season she will lay three thousand eggs in twenty-four hours, all of which reproduce. These naturalists who give us

this information add that, as soon as the drone or male bee fertilizes the queen, it immediately dies. We can understand this when we remember that the male or drone neither works nor makes honey like the working bee, and that he only exists for the one single purpose of procreation, and when he performs that act his usefulness is finished. For him to live would simply be to be a burthen to his community, so nature kills him off when his work is done. Does nature do the same with the placenta mammalia? Let us hope so, let us hope that none live longer than is necessary for the accomplishing of their work.

But, you may ask, why is it not with the domestic fowls as with the wild fowls, the chick, for example, that lays a greater number of eggs than she can possibly hatch? First, because that we have forced the hen to break natural laws to provide ourselves, with food. But, notwithstanding this, we find that after the hen has rejected a certain number of ova she determines to hatch her eggs and bring forth her young, and the careful guardian of the hen, from the notice she gives, will save up a certain number of her last eggs, and set them, and in doing so will be sure to be recompensed by a full clutch of healthy chicks; whereas the guardian who does not observe these natural laws, but purchases eggs in the market or elsewhere, and sets them under the sitting hen, with the impression that that is all he has to do to secure a clutch of chicks finds himself grievously disappointed and out in his calculation, so that we see one farmer having a hen with twelve chicks, another with a hen and two, or even one; so we can easily see who is the intelligent farmer, in the very number of his barn-door fowls. And I have learned lately from good authority that fowls that get their food too easily—those fowls that don't work for their food that their eggs when set don't bring forth chicks, consequently there is a custom now amongst those who keep fowls to throw the grain amongst straw, or sand to compel the fowls to scratch for and search for their food. I can only explain this seemingly extraordinary fact on the physiological supposition that the production of healthy semen in the male and ovulation in the female is dependent upon the spinal cord, and that this scratching labour of the fowls is, through the sensory nerves, a stimulus to the spinal cord, which reacts upon the male and female organs of generation, through their special nerves. You may say that art has found a means of hatching the eggs. Yes, but art or the hen herself will not

produce a chick from an egg that has not in it the male and female cell. There may be some excuse for Mr. Haeckel, but, for the sake of scientific truth, it is a great pity that he should have gone out of his way to attack religion. In so doing he has not only done an injury to science, but he has not done justice to himself as a man, in that he has shown his profound ignorance of the matter he wrote on.

In Vol. I, page 169, speaking of sudden variations in animals he says: "This is equally true of individual and phyletic evolution. This is also the explanation of a process of evolution which, above all others, is usually put under mystical veil as though it were a supernatural wonder, this is the process of fertilization or sexual generation. In all the higher plants and animals this constitutes the first act in which the evolution of the new individual begins. But it must be noted here that this important process is by no means as universally distributed throughout the animal and vegetable world as is commonly supposed; on the contrary, there are very many low organisms which always multiply asexually, the *aemeba*, etc. In these cases there is no form of impregnation, the multiplication of individuals and the preservation of species depend here simply on asexual generation under the form of fission, propagation by buds or by germ-cells; on the other hand, in the case of all higher plant and animal organisms, sexual propagation is the general law and asexual generation never, or but seldom, occurs; among vertebrates in particular, 'virginal generation' (Parthenogenesis) never occurs. This we must explicitly affirm in the face of the celebrated doctrine of the immaculate conception. Immaculate conception has never been observed either in man or any other vertebrate."

I have not read for you this quotation simply for the sake of explaining to you the dogma of the immaculate conception, but to show you that even so clever a naturalist as Mr. Haeckel, when he allows his reason and judgment to be clouded by prejudice and fanaticism, will write the most absurd and ridiculous folly. Mr. Haeckel, or any other man, if he so pleases, has a perfect right to protest against this dogma or any other religious dogma, but then he should know what he is writing about, and not leave it in the power of any school-boy to show he did not. Mr. Haeckel assumed that the dogma meant that the Blessed Virgin Mary had no father, but was procreated

assexually by her mother. Never was there such an absurdity. The dogma simply means that God exempted her from the stain of original sin that she might be an immaculate mother for Christ, who was to obtain, *through* her, His human nature. As I have already said, I have only drawn your attention to this absurd statement of Haeckel's to show you what a dangerous thing is prejudice, and how it will blind otherwise wise and well-meaning men, making them state the most unfounded falsehoods with unblushing effrontery. Such men never can learn from nature her great truths which she so willingly unfolds to those who humbly seek for truth for truth's sake.

Mr. Haeckel avows himself an atheist: if he be such, which I very much doubt, I am sorry for him; it is however his own affair, not mine. I am not afraid that God will hold me responsible for the religion or non-religion of Mr. Haeckel, and, seeing that I claim the right to my own religious opinions, why, I let Mr. Haeckel hold his. But, for the sake of science, I regret that he should consider it necessary to make such a declaration, for by so doing he has put a weapon into the hands of the bigots and fanatics, who try to impress, all who will listen to them, with the false idea that the Science of Evolution leads to infidelity and Atheism.

It is very possible that Mr. Haeckel is so constituted that he cannot believe, nay, cannot assent, to anything above his reason, but I deny he is an atheist in virtue of his science; but in spite of it, according to my idea, the more a man knows of natural science the nearer is he to the Supernatural Creator.

Mr. Haeckel shows us by his beautiful attested plates taken from nature that in the early period of gestation in the different species of placental mammalia, hog, calf, rabbit, man, it is impossible to see the slightest difference between the different embryo, and, as I said in my former paper, the first stage resembles more a small worm than anything else, then a fish, then a fowl, then a quadruped, and finally each embryo assumes its own peculiar shape, so that in the last stage of evolution we can distinguish, but not very distinctly, which is which. We distinguish the embryo of the woman, however, from all others, because that in the latter stage it loses its tail, an appendage which all the others retain even after birth.

I have been told that, after having read my

former paper, the question was asked of me, which I certainly did not hear, if that Adam had an umbilicus. If he was evolved I would say he had, because in all placental mammalia there must be a placental circulation before a breathing one; if he was not evolved, but made after the manner that the image maker makes images, primary creation, which I believe is the theory held by many, creation of substantial form, then an umbilicus would not be necessary, although he might have one. As I conceive he was evolved from an ovum, I believe that like unto his offspring he had an umbilicus; no man, however, knows positively, or perhaps ever will know, how God created the first man, that is, the *modus operandi* by which he was made, therefore it is a lawful subject for discussion. Evolution appears to me the more reasonable theory, because it is in accordance with existing natural laws; the question to me, however, is only interesting as bearing on the science of development, and fortunately we have not to go back to the first man for that, seeing that we who are procreated attain all our animal and vegetative organs by the process of evolution, and that this evolution is taking place in us all as long as we have a living existence. Indeed, evolution continues in our material bodies even after death, for that which once is may undergo change, but cannot be annihilated; it always remains in one form or another, always perpetual evolution. As Dr. Bucknill, in his criticism of Mickle on the General Paralysis of the Insane, says: "We may reflect, as Hamlet did, how that a man may eat of the fish, that had fed of that worm, that had eat of a king, to show that a king may go a progress through the guts of a beggar." Not a very choice but a very expressive expression, proving the indestructibility of matter, and continual evolution.

I shall now quote for you what I consider the most interesting passages of Mr. Haeckel's work, interesting because the most practical; before doing so, however, I will give you the meaning of the many terms he uses, for certainly there are very many of them by no means familiar terms, or household words:

- "*Phlyctic*," impregnation by the male.
- "*Parthenogenesis*," virginal generation.
- "*Ontogony*," germ history.
- "*Biogony*," evolution of organisms, life.
- "*Embryology*," germ science.
- "*Phylogony*," tribal history.
- "*Palengensis*," new birth inheritance.

"*Morphology*," science of forms.

"*Physiology*," science of the functions of forms.

"*Physiology*," } united, forms the science of
 "*Morphology*," } biology.

"*Biology*," the science of organisms, or science of life.

I confess to you on the first reading of Mr. Haeckel's book I was puzzled as to the meaning of terms, but when, I came to comprehend them, I was satisfied that each term represented a science, and, moreover, that the knowledge of each and all of these sciences was necessary to the perfect comprehension of the sciences of anatomy, physiology and pathology.

Mr. Haeckel, after giving a sketch of the life of Baer, says: "Baer especially perfected the fundamental theory of germ layers as a whole, as well as in detail, so clearly and completely that his idea of it yet forms the safest basis of our knowledge of ontogony.

"He showed that in man and the other animals, as in the chick—in short as in all vertebrates—first two, and then four, germ-layers are formed, always in the same manner, and that the modification of these into tubes gives rise to the first fundamental organs of the body. According to Baer the first rudiment of the body of the vertebrate, as it appears in the globular yolk of the fertilized egg, is an oblong disc, which first separates into two leaves or layers. From the upper or animal layer evolve all the organs which produce the phenomena of animal life; the functions of sensation, of motion and the covering of the body. From the lower or vegetative layer proceed all the organs which bring about the growth of the body: the vital functions of nutrition, digestion, blood-making, breathing, secretion, reproduction, and the like. Each of these two original germ layers separates again into two thinner layers, or lamellæ, one lying above the other. First the animal layer separates into two, which Baer calls the skin or dermal layer, and the flesh or muscular layer. From the uppermost of these two lamellæ, the skin layer, are formed the outer skin, the covering of the body, and the central nervous system, the spinal cords the brain, and the organs of sensation. From the lower, or flesh layer, the muscles, or fleshy parts, the internal or bony skeleton—in short, the organ, of motion—arise. Secondly, the lower, or vegetative, germ-layer, parts in the same way into two lamellæ, which Baer distinguishes as the vascular and mucous layer. From the outer of the two, the

vascular layer, proceed the heart and the blood-vessels, the spleen, and other so-called blood-vessel glands, the kidneys and the sexual glands. Finally, from the lowest and fourth, or mucous, layer, arises the inner alimentary membrane of the intestinal canal, with all its appendages, liver, lungs, salivary glands. Baer traced the transformation of these four secondary germ-layers into tube-shaped fundamental organs as ingeniously as he had successfully determined their import and their formation in pairs by the segmentation of the two primary germ-layers. He was the first to solve the difficult problem as to the process by which the entirely different body of the vertebrate develops from this flat, leaf-shaped, four-layered original germ, the process was the transformation of the layers into tubes. In accordance with certain laws of growth, the flat layers bend and become arched; the edges grow towards each other, so that the distance between them is continually decreased; finally, they unite at the point of contact. By this process the flat intestinal layer changes into a hollow intestinal tube; the flat spinal layer becomes a hollow spinal tube; the skin layer becomes a skin tube, etc."

Again, speaking of Baer, he says: "yet the ova of man and other mammals were not actually known till the year 1827, for the egg is exceedingly small, a spherical vesicle or bladder of only one-tenth of a line in diameter, which can be seen with the naked eye only under very favourable circumstances. This spherical vesicle, when in the ovary of the mother, is enclosed in a number of peculiar spherical vesicles of much larger size, called Graafian follicles, after their discoverer "Graff," and these were formerly universally regarded as the actual eggs. It was not until the year 1827, not fifty years ago, that Baer proved that these Graafian follicles are not the actual eggs, which are much smaller, and only imbedded in the Graafian follicles. Baer was also the first to observe the so-called germinal vesicle of mammals, that is, the little spherical bladder which is first developed from the impregnated and the thin wall of which consists of a single layer of uniform phyloginal cells."

"Another discovery of Baer's, of great importance in understanding the types of the lineage of the vertebrates and the characteristic organizations of this group of animals, in which man is included, was that of the chorda dorsalis. This is a long, thin, cylindrical, cartilagenous cord, which in all

vertebrates passes lengthwise through the whole body of the embryo. It is developed at a very early stage, and is the first formation of the spine, the firm axis of vertebrates." So much for Baer. I will now quote Mr Haeckel's own statements on the brain of the mammalia. He says "Though in general features of growth the brain of the mammals correspond with those of birds and reptiles, yet striking differences very soon appear between the two. In birds and reptiles the mid brain and the central part of the hind brain develop considerably. In mammals, on the other hand, these parts remain small, and, instead, the fore-brain begins to grow so rapidly that it covers the other bladders from in front and above. As it constantly grows further back, it eventually covers the whole of the rest of the brain above, and also encloses the central part from the sides. This process is of the greatest importance, because this fore-brain is the organ of the higher mental activities—because in it are accomplished those functions of the nerve cells, the sum of which is generally designated as the mind, or the 'spirit' in the narrower sense. The highest activity of the animal body, the wonderful manifestations of consciousness, the complex phenomena of the activities of thought, have their seat in the fore-brain. It is possible to remove the great hemispheres of a mammal, piece by piece, without killing the animal, thus proving that the higher mental activities, consciousness and thought, conscious volition and sensation, may be destroyed one by one, and finally entirely annihilated. If the animal thus treated is artificially fed, it may be kept alive for a long time, for the nourishment of the entire body, digestion, respiration, the circulation of the blood, secretion, in short, the vegetative functions, are in no way destroyed by this destruction of the most important mental organs.

Conscious sensation and voluntary motion, the capacity for thought and the combination of the various higher mental activities, have alone been lost.'....."The extremely complex and perfect active phenomena within the nerve cells, summed up the word 'mental life,' can no more exist without their organs in the vertebrate, including man, than can the circulation of the blood without a heart or blood. As, however, the central marrow of man has developed from the same medullary tube as in all other vertebrates, so also must the mental life of man have had the same origin. All this is, of course, true of the conductive marrow or the so-called 'peripheric nervous system.' This con-

sists of the *sensitive* nervous fibres which convey the impressions of sensation from the skin and the organs of the senses in a centripetal direction to the central marrow, in a centrifugal direction to the muscles. By far the greater part of these peripheric conductive nerves originates from the skin-fibrous layer, by peculiar local differentiation of the rows of cells into the respective organs.

"The membranous coverings and blood-vessels of the central marrow are identical in origin with the greater part of the conductive marrow; these membranous coverings are the inner membrane (*pia mater*), the central membrane (*meninx arachnoides*), and the outer membrane (*dura mater*). All these parts are developed from the skin-fibrous layer."

"Important as is the vascular system in the more highly developed and differentiated animal body, it is not, however, an apparatus as indispensable to animal life as is generally supposed. In the older theory of medicine the blood was regarded as the real source of life, and humoral pathology referred most diseases to corrupt blood-mixture. Similarly the blood plays the most important part in the prevailing obscure conception of heredity. Just as half-blood, pure blood, etc., are yet common phrases, so it is widely believed that the transmission by heredity of definite morphological and physiological characters from the parent to the child lies in the blood. That this customary notion is entirely false, is easily seen from the fact that neither in the act of procreation is the blood of the parents directly transmitted to the procreated germ, nor does the embryo acquire blood at an early period. As we have already seen, not only the separation of the four secondary germ-layers, but also the beginning of the most important organs, takes place in the embryos of all vertebrates before the rudiment of the vascular systems of the heart and blood is formed. In accordance with this ontogenetic fact, we must, from a phylogenetic point of view, regard the vascular system as the most recent, the intestinal system, on the contrary, as the oldest formation of the animal body. The origin of the vascular system is, at least, much later than that of the intestinal system. If the fundamental law of biogeny is rightly appreciated, it is possible, from the ontogenetic sequence in which the various organs of the animal body consecutively originate in the embryo, approximately to infer the phylogenetic sequence, in which these organs gradually develop-

ed one after the other in the ancestral order of animals."

The organ system may be arranged, according to age, in something like the following order: *First*, the skin system and intestinal system. *Second*, the nerve and muscular system. *Third*, the kidney system. *Fourth*, the vascular system. *Fifth*, the skeleton system. *Sixth*, the sexual system.

We have now, gentlemen, gone through Baer's germ history as set forth and approved of by Haeckel, and I can conceive nothing more clear and distinct. Every step in embryology is gradually and distinctly traced from the moment the female ovum is fertilized by the cell of the male sperm till the formation by evolution of the perfect animal child. I say animal because it is only as such Mr. Haeckel speaks of him pure and simple, differing from all other animals only in degree. He does not recognize, what I do, that man has a human nature, in virtue of which he differs also from all other animals in kind as well as in degree. You who have heard my first paper know that, while I accept the evolution theory as I have described it, I do not accept the monistic hypothesis as set forth, nor yet the dualistic hypothesis as it is generally understood.

From Mr. Haeckel's book we learn many very important facts, which not only explain to us many physical phenomena, but which must be of great practical utility in the treatment of disease. First, we learn that heredity is not through the blood but nervous system, hereditary syphilis, insanity, imbecility, phthisis, gout, cancer, intemperance, etc., and is it not of the greatest importance to know that in the treatment of these diseases it is not the blood we have to deal with, but with the nervous system—not with a reproductive fluid, but living organisms. You may say that Mr. Haeckel did not say heredity was through the nervous system, but that it was not through the blood. Very true, but have we not a right to conclude it is through the nervous system when it is not through the blood. Physiological heredity always exhibits itself in the nervous system, let it be good or bad, as in hereditary insanity or atrophy, as exhibited to us by Dr. Osler, in the case of the Farr family of Vermont.

Then what are the phenomena of animal life? Sensation, thought, perception, or consciousness, and motion. From whence come these phenomena? From the nervous system, that imparts animal life and with it all its phenomena to the male and female cells to the male sperm cell that fertilizes the cell in

the female ovum, from which is generated the little spherical bladder described by Baer as the first development from the impregnated egg. Of course, if these cells were not living germs they never could evolve into living animals, for life does not come from death but from life; moreover, if they were dead germs they would be a foreign body in the Graaffian follicles, and be rejected from them; or, remaining, would be a source of irritation and a cause of disease.

Again, according to ERB, it is a pretty well established physiological fact that the production of semen, and ovulation are dependent upon the spinal cord.

I therefore assume that not only is heredity but animal life transmitted from the parent to the offspring by means of the nervous system. From these facts are we not forced to raise the question: is there such a thing at all as blood-poison, as is generally understood by that term? Or, if poisoned, is it not only in common with the rest of our organization, and not as the medium through which a poison is conveyed. Why should we not recognize that all poisons are conveyed to and from the liv-

in centre by means of the centripetal and centrifugal sensory nerves that originate in the skin; and when we have a case of so called blood-poison, is it not the nervous system that first gives symptoms of poisoning, and is it not hard to understand why we have attributed delirium in certain diseases to blood-poisoning, when it is so much easier to account for it through the medium of the peripheral sensory nerves. I am not speaking of these cases when the blood has an increase or decrease of its chemical properties. I speak of when the system is poisoned from an animal, a vegetable, or mineral poison. Has any analyst, when called upon to say whether or not a person died from the effects of poison, given his attention more to the blood than to any other part of the animal economy, and, if so, has the blood shown from such an analysis that it contained a greater quantity of poison than any other part of the system. It is a mere assumption, and a most unjustifiable one, that the system is poisoned through the blood, or that the blood undergoes some chemical change which poisons the whole system. Our very treatment for what we classify as septic diseases is a contradiction to such a theory, for the drugs we administer are those that we know have a specific action upon the nervous system, such as quinine, salicylic acid, morphine, atropine. If a person is poisoned by opium we

administer atropine or give injections of strong infusion of tea, as recommended by Dr. Scwell, of Quebec; if poisoned by atropine we give opium; if by strychnine, tobacco,—recognizing by our treatment in all that it is the nervous system, not the reproductive fluid, that is poisoned.

It will not do to point out that in some cases of mechanical obstruction from embolism or thrombus, such as has been so frequently exhibited to the Society by Dr. Osler, that pus is found in the blood-vessels, nor to say that in cases of pyæmia pus is found in the blood, unless it can be shown that pus is found in no other organ or tissue, or that it can be shewn that the blood itself underwent a chemical change which converted it into pus, and that the pus was a cause, not the consequence, of a poison from which the whole system, as well as the blood, suffered. To my mind there has never been sufficient proof adduced that there was such a thing, properly speaking, as blood-poison, that is, that the blood from some cause underwent some chemical change by which it became a poison to the rest of the system, nor have I seen any proof that the blood was the medium through which the vital organs were poisoned.

Because in all cases of inflammation, whether in organs or tissues, we find congestion of the capillaries, we assume that the blood is the immediate cause of the inflammation, whereas it is only the secondary. The cause of the congestion is not due to the blood, but to the blood vessels, which lose their normal contracting and dilating powers or force, in virtue of some disordered state of the vaso-motor nerves,—a want of co-ordinate action between the vaso-contractor and its inhibitory nerve, the vaso-dilator, brought about by irritation of some nerve centre, acting upon the sympathetic nerve, which is the great vaso-motor of the body, controlling organic or vegetative life, as the cerebral and spinal nerves do animal life. I do not myself believe that there is any such thing as idiopathic inflammation. I believe all inflammations are traumatic, that is, that there is some injury (although we cannot always see it) to a nerve centre, from either objective or subjective cause, to produce the effect, inflammation, which in all cases is preceded by either venous or arterial congestion of the capillaries. Holding this to be the true theory of inflammation of a part, no matter whether of organs, membranes, or tissues, you will not be surprised when I tell you that, in my treatment of inflammations, I direct

my attention more particularly to restoring the vaso-motor nerves to their normal state; and the drugs I have found, as yet, most useful to this end have been the various preparations of ergot, belladonna, hyoscyamus, digitalis, aconite, bromide of potass, etc., all medicines known to have a specific action upon the vaso-motor nerves. Of course you must understand that I am speaking of inflammation, not of its consequences, neither am I speaking of inflammation, the result of specific poisons, such as syphilis, gonorrhœa, etc. Although I maintain that, even in these inflammations, they are directly due to the vaso-motor nerves, although indirectly to the irritation of a nerve centre from the specific poison. Of course if I know of anything that is acting traumatically in a nerve centre through the peripheral nerves, I use my best efforts to remove that cause of irritation.

Recognising, as I do, the success of Mr. Tindal's experiments in proof of atmospheric germ, bacteria, and believing that animal, vegetable, and mineral poisons are carried through the air from a thousand different sources, I am a firm believer in antiseptic surgery, of Lesterism as now well understood; but I don't believe that the danger from exposing a cut surface to the atmospheric air is due to the blood vessels, which, by the way, are usually tied up as quick as possible,—even veins, as Dr. Roddick has shown us, can be tied with as little impunity as arteries. I say the danger is not from exposing blood vessels, but the cut ends of the numerous peripheral nerves.

Mr. Haeckel has clearly demonstrated that there is no animal life without a nervous system, and he has equally demonstrated that there is animal life without a circulating or blood system. Therefore, according to his views, I was correct, when, in my previous paper, I said that the properties of animal life were in the nervous system. This is also evident from the fact that consciousness of the objective is the result of perception, and sensation is necessary to perception, sensation is even necessary to subjective consciousness; for although sensation can exist without self-consciousness (for as all matter has in it potentiality, so all matter has sensation but not consciousness), yet self-consciousness cannot exist without sensation, and Mr. Haeckel has clearly demonstrated that sensation is imparted to our consciousness through the sensory nerves, which take their origin from the skin that envelopes our bodies.

This physiology of the skin explains to us the

modus operandi of blisters, plasters, baths, counter-irritants, rubefacients, anæsthetics, hypnotism, electro-magnetism and metallotherapy, and suggests to us that perhaps much more could be done through the skin for the successful treatment of disease than has been hitherto done, in fact, as much as has been hitherto done through the mucous-membrane of our stomachs, which, after all, is only part of the skin that envelopes our bodies—a skin so closely allied to our brains and spinal cord as that we might properly define them to be one.

In the October number of *Brain* there is an article by Tschirieu which has a practical bearing on this question. It is a case of lesion of the spinal cord and skin of anæsthetic leprosy. After a microscopical examination of the spinal cord and skin, and finding the same disease in both parts, he thus concludes: "What relation there is between the degeneration of the cells in the grey matter and the connection between these and the phenomena of anæsthetic leprosy, are all questions which it will be for future research to decide definitively."

It appears to me that if Tschirieu had been aware of the intimate union that exists between the skin and spinal cord, he would have seen that the question is already settled. Nothangal found that irritation of the skin of children, even in remote parts of the body, caused fluxinary hyperemia, by first causing through the vaso-motor nerves sudden contraction of the arteries from irritation of the centripetal sensory nerves, which sudden contraction Eber says is always followed by sudden relaxation of the vessels, hence the hyperemia. But Eber did not then know what is now so well established, that the relaxation was due to the vaso-relaxer, which is an inhibitory nerve to the vaso-contractor. I suppose there are but few medical men who have not seen inflammation of the lungs from scalds on the thorax, and I see a case lately recorded of ulceration and perforation of the small intestines from a scald of the nates and legs, and it is an oft-told tale, how flogging on the back has produced pleuritis and pneumonia, yet moralists tell us to spare the rod and spoil the child. I say, use the rod and destroy the child's mental organization, if not his life, and here I remark with pleasure that I perceive England is at last about to abolish that remnant of barbarism, flogging in the army

and navy; this improvement is due to men of science.

I think I hear you say I am making the skin of too much importance in the animal economy—this I conceive to be impossible, when we remember that it is the medium through its peripheral sensory nerves between all things objective and our whole material organization, not only animal, but vegetative. Through the skin the sensorium is made cognisant of cold, heat, pressure, painful and pleasurable sensations, and through it we communicate our thoughts by emotional language, for you must remember that man differs so much in degree from all other animals that he possesses what no other animal does—a power of communicating his thoughts and ideas to his fellow by oral speech. But man has, in common with all other animals, an emotional language by which we communicate our thoughts and desires through the sensory nerves. This is the language made much more use of than oral by the opposite sexes when either wish to excite the sexual desire in the other, and render a natural desire morbid, so that desire gives place to ungovernable passion, and *will* loses its influence to guide it. It is well-known that certain irritation of the skin excites in different persons more or less generalized reflex spinal action, exciting the sexual organs in male and female. Some there are that, by a powerful effort of the *will*, can excite in the cerebrum irritations of an inhibitory nerve centre, and thus control the sexual desire, but such persons are few and far between; every man and woman knows the truth of this phenomena, but none care to admit it. All would wish it to be believed that they are exceptions to this natural law, but there are no exceptions; all have sensory nerves which take their origin from the skin, and whose centripetal branches pierce the spinal marrow from whence the reflex action comes, and although men and women laugh and ridicule those who condemn close intimacy between the sexes, particularly that intimacy when touch is permitted, as dangerous to morals, yet those very people know well the danger, but don't wish to admit it.

Knowing, as we now do, the physiology of the skin and sensory nerves, and this emotional language, will we not, as medical men, feel it our duty, when mothers consult us about the health of their hysterical daughters, to warn them not to allow any intimacy between their daughters and one of the opposite sex, or to partake of any amusement where touch is permitted. I am no

speaking as a moralist, but as a medical man, as one who has seen too many young men and maidens find their way into an insane asylum or an early grave, or drag out a miserable existence from uncontrollable ungratified sexual desire. We can have no feeling for such but the greatest pity, whatever may be the feelings we have towards the parents, who have so grossly neglected to perform their duty towards their children. Can there be a more pitiable sight than to see these poor hysterical girls rushing about from one thing to another, and finding no rest, no satisfaction only in the excitement of the moment, sometimes seeking causes of excitement the very opposite to each other, and, when there is no longer excitement, then, sickness and suffering.

I don't believe in the doctrine of all work and no play, I believe it to be a most cruel and unnatural doctrine, a breach of all natural laws; I like cheerfulness because it shows a normal constitution, but I don't like to see abnormal desires take possession of male or female, and, above all things, I wish to see all men and women know thoroughly their duty in whatever their position in life may be, and to let that duty be their first consideration before all other things. When people act thus we may expect to see a normal healthy state of society very different from what it is at present. And I consider it the duty of every medical man to use his best efforts to bring about such a healthy state of society by not only treating his patients when sick, but by teaching them how to live that they might enjoy a sound mind in a sound body, for they cannot have one without the other, and the physiology we have learned from Mr. Haeckel must aid him in his efforts. This is what MIVART would call "rational materialism" founded upon physiological and pathological science. Who is Mivart? In beginning this paper I told you a friend loaned me Haeckel; before concluding it I must tell you that another friend loaned me another book, "Lessons from Nature, by St. George Mivart, Ph.D., F.R.S., Professor of Biology at University College, Kensington, and Lecturer on Zoology and Comparative Anatomy at St. Mary's Hospital,"—that is who Mivart is, and I read his book with just as great, if not a greater, interest as I read Haeckel, and I was delighted to find that my views upon man's two natures were so similar to such an authority. He, however, while admitting that, zoologically, man and ape were of the same order of mammalia,

sternly opposes that man was evolved from the ape. He says: "The lessons, then, concerning man, which we seem to gather from nature as revealed to us in our own consciousness, and as externally observed, is that man differs fundamentally from every other creature which presents itself to our senses. That he differs absolutely and, therefore, differs in origin also. Although a strict unity, one *material* whole, with one form or force (not made by two parts mutually acting according to the vulgar notion of soul and body), yet he is seen to be a compound unity in which two distant orders of being unite. He is manifestly *animal*, with the reflex functions, feelings, desires, and emotions of an animal, yet equally manifest is it that he has a special nature, looking before and after, which constitutes him rational, ruling, comprehending, interpreting and completing much in nature. We also see in him that which manifestly points above nature. We see this since we know that he can conceive minds indefinitely augmented in power and devoid of those limitations and imperfections it exhibits in him. Manifestly a contemplation of nature must be fertile indeed which neglects to ponder on these ideas of power, wisdom, purpose, goodness and will, which are revealed to him in and by his own nature as he knows it to exist, and, therefore, as conceivably existing in a far higher form in that vast universe of being of which he is a self-conscious fragment."

You perceive by the foregoing quotation that Mivart recognizes the two natures in man. He, however, appears to attribute something more to our human nature or something less to our animal nature than I have done in my previous paper. As I have already said I recognize that man has a human nature given to him, in virtue of which he has an Ego, a free will, and an immortal soul; yet when I consider the anatomy and physiology of man, and the pathological effects of disease on man's organization, when I consider the nations of savages aye, even of cannibals, in this our day; when I look at the worse than barbarian crimes committing every day by all peoples, and none surpassing the crimes of Christians, I cannot help but recognize the theory of development or evolution of man, in so far as the intellectual, rational being is concerned, and that the striking difference between individuals, and peoples—between the humane and barbarous, or cruel, man—is in virtue of his animal and not his human nature; the latter I consider, in virtue of its source to be equal in all.

In bringing before you this evening the subjects of heredity of blood-poison, of inflammation, of the physiology of the skin, and sensory and vaso-motor nerves; if I have been obliged to show that neither life nor heredity was in the blood, which was simply the reproductive fluid of our whole organization; if I have been obliged to show you that, properly speaking, there was no such thing as blood-poison; if I have been obliged to give you a different definition of inflammation from what we have been accustomed to consider it; if I have largely extended my remarks upon the physiology of the skin and the sensory nerves;—it was not merely from the desire to break down old-established ideas, and replace them with new, it was because I long had my *doubts* that these old theories were based upon scientific truths, "and, having doubted, I had no rational choice, but was in duty bound to reason out my doubts to the end," and, having done so, making use of all the means within my reach to assist my reason, I have offered the results to you, such as they are, that you may be led to the careful consideration of these questions, and see what claims they possess, or whether we have not yet much to learn in the theory and practice of medicine.

Progress of Medical Science.

TREATMENT OF SEMINAL EMISSIONS.

Bumstead gives the following prescription for its special tonic effect upon the genital organs:

	Grams.
R Tr. ferri chloridi.....	$\frac{5}{8}$ iii 90
Ext. ergot. fld. (Squibb's)	iii 90

M. et. sig: A teaspoonful in water after meal. or each

As a direct means of diminishing the frequency of the emissions, B. recommends:

	Grams.
R Potass. bromidi.....	$\frac{1}{16}$ i 3
Tr. ferri chloridi.....	$\frac{5}{8}$ i 30
Aquæ.....	$\frac{5}{8}$ iii 90

M. et sig: From one to two teaspoonfuls in water, after each meal, and at bed-time.

The avoidance of tobacco in all its forms, cleanliness of mind and body, laxatives when needed, and, in a word, attention to the rules of hygiene, are to be strictly enjoined.—*American Practitioner*, July, 1879.

ON THE TREATMENT OF TUBERCULAR CONSUMPTION.

By CARL BOTH, M.D., New York.

Some time ago I published an account of a treatment of tuberculous phthisis, which I had used with good success for twenty-two years. That treatment consisted in *first*: The cleansing of the bronchi of mucus and pus; and afterward the normal expansion of the air-vesicles by means of actively exercising the respiratory muscles (see *Medical Record* of July 21, 1877, and May 18, 1878). *Second*: The careful study of the needs of the system for certain articles of food containing lime salts; and a proper appreciation of the necessity of getting rid of excrementitious substances as quickly as possible. *Third*: In a medication of certain minerals in organic form, such as lime and silica, for the purpose of aiding the calcification of tubercles; and in acids, such as citric, which contain an excess of oxygen, and which tend to help the oxidation of protein substances. *Fourth*: In bringing the patient in such condition of life that his nervous system is not unnecessarily over-taxed, at the same time it is so employed as to balance nervous force and stimulate his general nutrition as much as possible.

The whole object of this method, which I have called that of the "artificial calcification of tubercles," is to check the suppurative processes and arrest the softening of the indurated portions of lung. It is immaterial how this effect is reached, whether by calcification of tubercles, of fatty degeneration, or ossification, or cicatrization, or by solidification of fibrin, or any other pathological process, so long as we reach our desired object—namely, of drying up, so to speak, the softened or infiltrated portions of the lung-tissue.

I well know how settled the professional mind is on the incurability of phthisis, especially tubercular; and it is not without a feeling of misgiving that I venture to continue my assertions regarding the curability of phthisis. I am aware that such assertions will be charged to undue enthusiasm in a pet method, or to misguided judgment regarding the value of facts. Still I feel it my duty to say what I believe. It is not my purpose to theorize on the relation between the cause and the effect, although there must be room for all theories.

The profession, as a whole, accepts and rejects views as it sees fit. But facts are stubborn things, and are always acceptable to the profession, no matter what their particular interpretation may be. With this view a short description of some of the cases treated by my method is offered, in the hope that the profession may become convinced of its efficacy, and resort to it accordingly. I claim in no way perfection, or anything wonderful, but unless my judgment is utterly defective, these cases must convince the most conservative skeptic, that tuberculosis of the lungs can be arrested to a

degree heretofore considered absolutely impossible.

It may be well to state beforehand, that all the cases reported were more or less desperate ones; that to manage such patients is very difficult, sometimes impossible; and that even with the utmost caution these patients, especially the recovering ones, will commit follies almost incomprehensible, and utterly beyond the control of the medical adviser. But it will be seen that the effect of my treatment is uniform, regardless of the final result, the same in each case, and excluding any accidental improvements which are so common in these cases.

Mr. W. H —, merchant in New York; native of Yonkers; twenty-eight years of age; lost a brother and sister of consumption in 1876; had been sick for ten, and was compelled to give up business for two years. Had tried Colorado, Minnesota, and the South, outdoor tent-living, with injurious results; had been examined by Drs. C. P. Tucker, A. Clark, and A. Flint.

Examination denoted decided dullness at both summits; right side, comprising both upper lobes, with *bruit de pot fêlé*; lower portion of right chest, absolute dullness to about the nipple. Auscultation on right side bronchial, with strong gurgling sound indicating a cavity of four by two inches; middle portion, broncho vesicular; lower portion of chest, absence of sound; right upper lobe, subcrepitant râles with bronchial respiration. Pulse 124 and variable. Heart well. Digestion fair. The patient came under my treatment in October, 1876. In August, 1877, he went back to his business, four months sooner than I wished him to. His condition was then as follows: Dullness of percussion nearly the same, except the right lower portion, where it had entirely disappeared. Auscultation: The gurgling sounds of cavity had disappeared; cavernous respiration indicated the cavity smaller on summit, but had extended somewhat downward, caused by formation of a new cavity; respiration around it broncho-vesicular. In lower portions of right lung, normal vesicular respiration. Left upper portion, respiration vesicular, with a very slight tubular timbre and prolonged expiration; lower portion normal. He was at that time re-examined by Dr. A. Clark.

The patient has remained steadily in business, working hard. I examined him again in January, 1879, when he had neglected himself somewhat. I then heard bronchial râles and moist crepitation on left side. It soon subsided, and he was hard at work when I last saw him in June, 1879. He is at present travelling in Europe. From August, 1877, to June, 1879, he had not missed a day in his business in the city, while he lived in Yonkers. Considering the large cavities, which of course cannot heal on account of the pyogenic membrane, and cause him to cough on exertion, he appears perfectly well from his looks and actions.

Mr. Herm. B —, merchant, in 51 New Street, New York; native of Hamburg; twenty-two years

old; had lost a brother from consumption in Madeira in 1871; was attacked several times by hæmoptysis in 1875; for which he was treated by Dr. Pregitzer, of Staten Island. Not recovering, he consulted Dr. Schmetter, of New York, who sent him to Aiken, S. C., from where he returned much reduced. Dr. S. then advised him to go at once to Pau in the winter, and to Davos, Switzerland, in summer. With the steamer ticket in his pocket, he came to me in October, 1876. His appearance was decidedly hectic: had night-sweats, and a pulse of 135 at rest. Percussion dull on both apices, much more on left than on right side, with cracked-metal resonance between third and fourth left ribs, and pains on percussion. Respiration bronchial, with subcrepitant râle, on both summits on left side down to fifth rib, with cavernous whisper between third and fourth ribs, indicating a cavity of the size of a large walnut. He was not able to walk ten blocks, and could not retain his food. He was under my treatment from October, 1876, to June, 1877, when he sailed for Europe. Before he sailed Dr. Lellmann, physician to St. Francis' Hospital, New York, had the kindness to examine him, and although he was very much better than when I first saw him, Dr. Lellmann warned me not to be sanguine in my expectation of his recovery. The patient returned to New York in October, 1877, and re-entered business. He is a well-known member of the Produce Exchange. He finally became careless of himself, when an attack of hæmoptysis frightened him, and gave me a chance to perfect his cure. He has recovered so as to outwalk me at any time, dances all night, eats and drinks as he pleases; has been through serious business excitements, and broken his fibula, which confined him four weeks on his bed. He looks so well, and shows such vitality that he is laughed at by his friends when he says, he is consumptive. The condition of his lungs is as follows: Percussion is moderately dull in both summits. Auscultation denotes a somewhat large vesicular respiration in the affected portions, with prolonged expiration. The signs of the cavity on left side have disappeared, so has his cough. His pulse is 60 to 70; he is very strong, and has gained considerable flesh. His chest has become full and rounded, and he presents as perfect a recovery as can be realized only by the most sanguine expectation. Still, I am satisfied he would have died had not the hæmoptysis brought him back under my control in 1877; and I may mention that when I took him as a patient with the view of curing him, I was ridiculed by all his friends.

Frank W. T——, M.D., practising physician of New York, came to me in March, 1877. He had been examined by all the leading specialists of New York, and had been treated by Drs. Elsberg and Lincoln for marked aphonia of two years' standing. He told me that these gentlemen found two tubercular ulcers upon the vocal ligaments. Examination of lung denoted marked dullness in

both summits to about fourth rib, and an exudation of two inches in right pleura, over which auscultation, denoted a soft crepitation, indicating a not fully reabsorbed pneumonia. Respiration in both upper portions bronchial, with mucous and subcrepitant râles. Pulse 120, digestion entirely out of order, very weak, and short of breath. Two weeks after I treated him his aphonia left him, when he failed to appear. I found him in his office very sick. He had taken nitrous oxide gas and morphia. I managed to get him out again, but he was a very irregular patient, and I lost sight of him until September, 1877, when he came back much reduced and weaker. He then began treatment in earnest, and improved steadily, so that he could walk daily to my office during the whole winter which he could not do previously.

In June, 1878, he went to spend the summer on a farm, with the direction to return in September to complete his recovery. That was the last I saw of him. I am fearful that he feels so well that he considers no further treatment necessary.

John M ——, architect, a patient of Drs. John L. Campbell and James L. Little, presented at case of pleuritic exudation of about four inches in left pleura, dullness over whole left lung, on right side to fourth rib. Auscultation showed the varieties from cavernous gurgling to dry, moist mucous and metallic râles. Both tympani were destroyed by tubercular ulceration, with ulcers on tongue and pharynx. He had also three fistulæ-in-ano, from which he suffered very much. I treated the case, by special request of Dr. Campbell, from September, 1877, to March, 1878. The patient made such favorable progress that Dr. Little sent me a note of congratulation. An abscess in the lungs broke on the 10th of December. This completely upset him; still he rallied again, walked over three miles per day, until February, when another abscess broke, and two weeks after that another, which completely exhausted him. He died very easy. Post-mortem was decidedly refused. This case was an utterly desperate one, with no chance at all, but it showed the effect of treatment, nevertheless, as the medical gentlemen mentioned above can testify.

Mr. C. A. M., merchant of New York, 22 years of age, had been treated some time by a French physician when he was examined by Dr. A. Clark, who pronounced his lungs affected, and recommended the South. He was also examined by Dr. Metcalf, who concurred in the same opinion. The patient, therefore, went to Asheville, N.C. This was 1877-78. He returned very much sicker. I saw him in May, 1878. Percussion was dull, more or less, over the whole of left lung front—moderately dull in right summit to about third rib—resonance on back about even on both under portions. Auscultation denoted bronchi of cavernous character front and back on left side—some portion almost entirely devoid of any respiratory murmur, while portions between them gave bronchial râles, and subcrepitant râles over the whole

of left portion in front. There was some vesicular murmur audible on lower portion of back, but of a moist character. Left upper side subcrepitant râles on summit, lower portion normal; expiration a little sharper. Pulse 128 at rest; decidedly hectic; parents both healthy and living, but several brothers delicate. Patient could walk but very slow and with difficulty. As the case was decidedly a desperate one, and liable to die at any time, I took the precautionary measure to have him re-examined by one of the most distinguished physicians of New York, who gave his opinion that the patient was beyond the hope of any possible recovery. I then treated the case with the following result: for the first two months he made no perceptible progress, except that he obtained better sleep and became livelier. In September his pulse began to fall, and he improved visibly. In order to reach my office daily, he had to travel twenty-four miles by railroad and a mile to walk. He improved so that he walked three or four miles daily when at home, besides his thoracic exercises. His pulse began to fall from 76-78. In February it began to rise somewhat, and the patient complaining of soreness in his left thorax, made me suspect an abscess ready to open, and he removed temporarily to the Windsor Hotel. After a few days the abscess opened, and he discharged a large quantity of pus. To my surprise this did not affect him so seriously as it generally does, but he soon felt so much better that I permitted him to go home again. Pulse back again to 78. The large cavity left could easily be diagnosed, which, with the already existing smaller cavities, comprised an area from the clavicle down to the nipple. The tissues existing between these cavities I hoped to save for cicatrization. The patient, meanwhile, remained about the same, not well enough to do business and too smart to do nothing; the right lung progressing well all the time. Spending the summer with me in Nantucket, Mass., he left a week in August for New York City to meet his father, who had just returned from Europe, and to have a good time generally. He returned to Nantucket somewhat used up, but still his physical signs were about the same; pulse 96. Thinking that I could make a change for the better I allowed him to travel over the White Mountains, regardless of weather, which he did in September, consuming about three weeks. He enjoyed his trip very much, but returned changed for the worse. His lips and nails, which were rosy and bright, looked bluish; his pulse 112, and very feeble. Examination showed that the cavities in the left lung had coalesced. Right lung in perfect order; respiration vesicular throughout and dry; only in upper portion respiration prolonged and audible. The patient travelled his twenty-four miles every day to reach my office; his pulse is 80 in bed; 104-112 in day-time; appetite and digestion perfect. The case is an extremely painful one, demonstrating the good effect of treatment in one lung and its utter helplessness in the other one. This patient finally succumbed to the disease.

Mr. Alex. W——, bookkeeper in Bank of Lansingburgh, 26 years old. I saw the patient while in Albany. He had been sick about two years, trying in vain different modes of treatment. Besides being lung-sick, he had chills and fever for two months, for which he had been in Brooklyn, but failed to get rid of them. I saw him in May, 1878. Examination showed the left upper lung very dull on percussion. Respiration bronchial, with mucous râles. Subcrepitant râles in lower left lung. Right lung less dull on percussion, with some mucous râles, but with subcrepitant râles in both upper lobes. Pulse 145; very weak. Epigastrium painful, abdomen hard and dull, digestion completely out of order, severe night-sweats; hectic, with bluish lips and nails. I ordered a dose of sulphate of soda, followed next day by a dose of the juice of twenty lemons, with hot-water sheets applied an hour previous to the chill. This arrested his fever and chills at once, and he came to New York. His pulse was 140, and he was so weak that he was unable to walk four blocks. His cough and looks alarmed the guests and landlord at the hotel in Nantucket, who thought he had been brought there to die. He soon picked up, however, and in February, 1879, he walked over 200 miles. Although not quite well he left me in June, with the understanding to spend the summer in Nova Scotia, at the seashore, instead of which he remained at home in Lansingburgh, doing business. The result was a return of the chills and fever, for which he was in New York a few days ago to consult me. I advised him to go home again to apply the hot water until the epigastric pain had gone. Of course, he does not look so well as he did in the spring, but, with some attention on his side, he will soon make up again. His pulse has been all along to 58 to 60, when quiet; since the fever, it has, of course, been higher, varying from 80 to 96.

Mr. Geo. W. Sh——, from Albany, came to me through Drs. Bailey and Curtis, in June, 1878. Examination showed a moderate dullness of both summits to third rib on right and fourth rib on left side, with subcrepitant râles. Pulse 80; no complications. This case made very rapid progress, gaining six pounds in weight, under somewhat severe exercise in two months. Instead of remaining with me until Christmas, when I promised to dismiss him as cured, he felt well enough to discharge himself.

Mr. J. Watson A——, 30 years of age, from Fishkill, N.Y., a merchant, came under my treatment in August, 1878. He had a very moderate dullness over both upper lungs, with bronchial mucous râles and moist crepitation. Pulse 76. This, I considered, was quite a curable case. He left me suddenly after two months, just when the case worked to my full satisfaction. I did not see him again until this last summer, when he had apparently failed very much. Since October 1st he has been my patient again. The dullness now is quite perceptible; his pulse 104 to 112, and I am apprehensive of the formation of an abscess.

Auscultation denotes subcrepitant râles over both upper portions. Respiration decidedly bronchial, with occasional mucous râles. I shall report the result of my treatment hereafter.

Miss H—, from Brockport, N.Y., aged 20, was sent to me by Dr. Brannan, in August, 1878; marked dullness in both apices as low as fourth ribs, with bronchial respiration and subcrepitant râles. Not able to retain any food; very feeble and nervous; pulse over 100. She recovered so quickly that she could walk two miles without difficulty. After six weeks I ordered her to exercise her respiratory muscles more actively, which resulted in serious pains in back and abdomen. I then discovered that she was suffering from prolapsus uteri with antroversion, and which she had hidden from me for unknown reasons. As this arrested my treatment, and she preferred her brother-in-law to the specialists recommended by me, she left for home. I have heard that she died a few months since.

Mr. A. R. McM—, merchant and banker, from Toronto, came to me in August, 1878, through Dr. Walsh, of Michigan. Had been a consumptive invalid for ten years, under treatment of Dr. Philipps, of London, Eng. Had been in Egypt, Madeira, Mentone, and Western America, with temporary benefit, but had failed rapidly for the last two years; fifty-two years of age; presented a strongly marked hectic habitus. Examination, left side, denoted decided dullness to fourth rib, with bronchial and irregular respiration and subcrepitant râles; right side, marked dullness to fifth rib, with *bruit de pot fêlé* under clavicles, which stood out higher than an inch. Auscultation gave strongly-marked cavernous respiration under clavicle, surrounded by bronchial and irregular respiration, with wheezing noises; occasional mucous râles; amphoric voice; pulse intermittent every fifth or seventh beat—irregular, but not higher than 72 to 76; heart appeared normal. Patient was very weak; chest sunk and flat. After three months his pulse became perfectly regular. He left me in May to spend the summer at Rye Beach. He intended to return to business this fall, but, by my advice and that of his friends, will spend this winter still under my observation. His condition is now: Chest full and developed; walks ten miles up and down hill as straight as an arrow, without unusual fatigue; pulse 60 to 64. Examination of chest denotes moderate dullness on both summits. No marked signs of the cavity left. Respiration established evenly in both points, with a broncho-vesicular character and prolonged expiration. No râles. Since August he has occasional spasms of cough, seemingly caused by irritation of throat, but may be due to reflex irritation also. He managed to get his digestion out of order at Rye Beach, without apparent injury to his system. I expect to dismiss him in the spring a fully recovered case—which he is nearly now.

This necessarily short report of these few cases may suffice to illustrate the nature of the affections

in question. It will be seen that most of them have been examined and treated by the most accredited specialists in the country, and there can be hardly any doubt as to the seriousness of the cases, none of which had any chances left by the usual routine treatment. Even if I had lost all these cases, which fortunately I have not, a uniform effect of my treatment is apparent in any of them, as I take patients as they come, and I have to bear up against the fact that the quick recovering ones leave me before I get a chance to finish them, while the failing ones invariably remain with me until death. This fact makes my full recoveries less than they would be otherwise.

As already stated, the treatment cannot be expected to accomplish miracles, but it is offered as one which brings about gratifying results. The expansion of the lungs by the active and varied exercise of the respiratory muscles, is comparatively simple. The difficulty is in keeping it up in a systematic and methodical way, with a determination to accomplish the ultimate result. It requires the utmost patience and perseverance on the part of the patient, and the physician should have him under complete control. The same may be said regarding diet, but in a much greater degree. The patient's diet must be studied day by day; he must keep a diary of his meals, and give a daily account from his written record of the time of eating, the amount and variety eaten, and of any unusual symptoms which may be referred to imperfect indigestion. Under such training, the system soon makes known its wants, and the discriminating physician acts accordingly. But this, of course, cannot be learned except by a study of individual cases and by the use of that common sense which comes of extended experience and careful observation.

13 EAST THIRTIETH STREET.

AIDS TO DISEASES OF WOMEN.

By J. J. REYNOLDS, M.R.C.S. Eng.

TUMOURS OF THE UTERUS.

Polypus Uteri.—There are six varieties of polypi, viz. :—

- | | |
|-----------------|------------------|
| 1. The Fibrous. | 4. The Vascular. |
| 2. " Mucous. | 5. " Placental. |
| 3. " Granular. | 6. " Fibrinous. |

The Fibrous Polypus.—This is the most common variety of polypi. They usually grow from the fundus uteri, and have their origin in the sub-mucous tissue. They are firm, usually solitary and pedunculated, and are composed of fibro-cellular tissue. They cause enlargement of the uterus, and give rise to hæmorrhage, either in the form of menorrhagia or metrorrhagia, leucorrhœa, and pain of a bearing-down or expulsive character. Bladder and rectal irritation may be present, or the polypus may set

up ulceration of the cervix uteri, metritis, septicæmia, or peritonitis.

It must be remembered that a polypus may cause abortion, but, as a rule, they prevent pregnancy.

Treatment.—This variety is best treated by the ecraseur, and the after application of nitric acid. There is generally free hæmorrhage.

The Mucous Polypus.—This variety generally grows from the os uteri. They are usually very vascular, red in colour, small, soft, and pedunculated, and are made up chiefly of connective tissue containing one or more mucous follicles, and a soft and viscid fluid, the whole being capped with a very vascular mucous membrane.

These polypi generally produce either menorrhagia or leucorrhœa, and at times dysmenorrhœa. There may be no symptoms.

Treatment.—Torsion, and the after application of nitric acid, or the cautery or the wire ecraseur may be used.

The Granular or Cystic Polypi.—These generally occur in the cervical canal, and are sessile and multiple. They are bluish-white in colour, soft, and seldom larger than a grape, and are composed of a mucoïd fluid enclosed in a thin membrane. They cause leucorrhœa or hæmorrhage.

The channelled polypus of Oldham belongs to this variety.

Treatment.—They may be treated like the mucous polypi, or else broken up by being seized by the forceps. Thus killed, the hæmorrhage generally ceases, but the cautery had better be applied to the spot as a further security.

The Placental Polypus.—This variety is not recognized by many authorities. It is formed from a retained portion of the placenta, and produces severe bleeding.

The Fibrinous Polypi.—These polypi always cause profuse menorrhagia, and are thought to be the result of an abortion, or produced from retained menstrual blood, &c.

Diagnosis.—A polypus which has emerged from the uterus may be mistaken for inversion of the uterus or prolapse. In the latter the os uteri may always be discovered at the lowest part of the tumour. A prolapsed uterus is very sensitive to compression. A polypus is not at all sensitive.

Dr. Barnes says complete inversion is distinguished by:—

1. The absence of an os uteri at the lowest part.
2. By the neck of the tumour being continuous with the roof the vagina, which is directly reflected off from it.
3. By determining the absence of the body of the uterus from its normal position, &c.

The following tests, he states, will commonly distinguish partial inversion (in partial inversion, as in polypus, there is a rounded tumour encircled by a ring, permitting a sound or the finger to pass up between). The sound will not run more than an inch, perhaps less, beyond the margin of the encir-

cling ring, whereas, in the case of polypus, it will generally run at one part or another at least two and a-half inches, &c. Other diagnostic signs will be found under "Inversion."

Fibrous Tumours.—These tumours vary much in size, some being no larger than a small pea, whilst others are bigger than a cocoa-nut. They are often multiple, but may occur singly, and they are formed of the same strictures as the uterine walls—non-striated muscular tissue, with a varying quantity of connective tissue.

The amount of connective tissue present depends on the age of the tumour, the oldest ones containing the largest amount, while those newly-developed consist almost entirely of muscular tissue.

Fibrous tumours are encapsuled, and occasionally cysts are developed in their interior—fibro-cystic tumours.

There are three varieties:

1. The sub-peritoneal or extra-uterine. This variety grows from the peritoneal surface of the uterus, and can be felt through the abdominal walls.

2. The sub-mucous or intra-uterine, growing directly beneath the mucous membrane and projecting internally.

3. The intramural or interstitial. These grow within the substance of the uterine walls, and they become converted in the sub-peritoneal and sub-mucous varieties. The sub-peritoneal variety may be solitary or multiple, sessile or pedunculated. They do not generally cause enlargement of the uterus, nor do they necessarily influence menstruation or cause hæmorrhage. The only symptoms which are often present are due to pressure. By descending into the pelvis, bladder and rectal irritation may be set up. If pregnancy should take place, abortion would probably be the result, or a tedious labour, followed by post-partum hæmorrhage.

Pedunculated tumours floating about in the abdomen may interfere with respiration, the circulation, or with the intestines.

The sub-mural fibroids are very common, and they cause hypertrophy, enlargement, and frequently distortion of the whole uterus. They nearly always produce hæmorrhage and leucorrhœa, and often dysmenorrhœa. Local pain is usually present, and it is generally of a spasmodic character. Owing to their mechanical pressure various other symptoms may be present, and they are often largely influenced by menstruation and pregnancy. At any period a tumour producing no discomfort may become greatly enlarged, and very painful. Pregnancy also intensifies the symptoms of fibroids; while, on the other hand, delivery is often followed by great diminution or complete disappearance of a fibroid. Fibroid tumours are often the cause of sterility, and, if impregnation takes place, abortion is very liable to occur.

Prognosis.—Fibroids do not, as a rule, cause death, but they may do so from hæmorrhage, asthenia, peritonitis, blood-poisoning, metritis, or

from the effects of pressure. At times a fibroid cures itself. There are four ways by which a natural cure may take place:

1. The tumour may become absorbed.

Fibroids grow very slowly, and after a time have a tendency to cease and diminish. Cases of absorption are not very rare, especially about the menopause, or as the result of involution after delivery.

2. The tumour may undergo fatty or calcareous degeneration, and be finally separated and cast off.

3. The tumour may become spontaneously detached and expelled.

4. The tumour may become gangrenous, and slough away as the result of operation, or from the effects of pressure.

Diagnosis.—This is often difficult. The large fibro-cystic tumours must be distinguished from an ovarian tumour.

Dr. Atthill, in his work, gives the following tabulated form of the differences between ovarian cystic disease and uterine fibro-cystic disease. He states, however, that there is not one of the symptoms enumerated which is not liable to great variation, and that, therefore, the most extreme caution must be exercised in forming an opinion based on them.

Ovarian Cystic Disease.

1. May occur at any age, but probably more frequent before the age of 36 than after it. Of 281 cases recorded by Mr. Clay, and of which the ages were known, 168 were under 36; 68 of these were aged between 17 and 25.

2. Previous history often throws light on the diagnosis, a tumour being frequently felt at first in one or other iliac region, which gradually extended across the abdomen.

3. Growth of tumour comparatively rapid.

4. Menstruation sometimes normal, but frequently irregular, and as the disease progresses is liable to be suppressed; profuse menstruation of rare occurrence.

5. Uterus of its normal size, frequently drawn upwards so as to be difficult to reach, moveable (unless bound

Uterine Fibro-cystic Disease.

1. Rarely met with in early life. Of 23 cases recorded by Mr. Clay, in which the operation was abandoned in consequence of the disease being extra-ovarian, 34 was the age of the youngest patient.

2. Such a history unlikely to occur; growth usually more central.

3. Growth comparatively slow.

4. Menstruation profuse, if tumour be intramural or sub-mucous; normal, if sub-peritoneal.

5. Uterus elongated, if tumour be in its substance or interior. Sound often passing for a considerable distance into

down by adhesions), and sometimes anteflexed.

6. Tumour becomes softer as it increases in size.

7. Urine voided with difficulty.

8. Generally health suffers, more or less; sometimes to a great degree.

The diagnosis from pregnancy is generally easy. In pregnancy the enlargement of the uterus is uniform; in fibroid disease the contour is generally irregular. The history of the two cases is quite different, while the presence of menstruation, the absence of cervical softening, and other signs of pregnancy, will prevent any error. Displacements of the uterus can be distinguished by the sound. When the uterus is restored to its normal situation, the supposed tumour will have disappeared. It must be remembered that flexion and a tumour may co-exist.

The other diseases which may simulate a fibroid are, retro-uterine hæmatocele, perimetric inflammation and malignant growths in the lumbar glands, peritoneum, or intestines. The diagnosis of these diseases can generally be arrived at by careful palpation, the sound, the history, and general symptoms present.

Treatment.—When it is remembered that fibroids have a tendency to stop growing and diminish in size after the menopause, it is obvious that no severe operative measures for their removal should be thought of. A natural cure also is not very rare, and fibroids often produce no distress. Generally, palliative treatment only is required. Hæmorrhage and leucorrhœa must be restrained. When the former resists minor treatment, it will be necessary to dilate the cervical canal, either by mechanical means or by incision; and, if bleeding continues, to swab the interior of the uterus with fuming nitric acid or strong perchloride of iron.

The sub-mucous pedunculated fibrous tumours may be treated, like the ordinary fibrous polypi, with the wire ecraseur, &c.

When palliative measures are of no avail, and the condition of the patient is becoming serious, more heroic treatment must be undertaken.

The different operations which have been practised are:—

1. Incision of tumour.
2. Enucleation of tumour.
3. Incision of tumour, and destruction of its tissue, or gouging.
4. Avulsion, or tearing away the tumour from its attachments.
5. Spaying, or normal ovariectomy.

its cavity. When tumour is rotated, sound moves with it.

6. Time not likely to alter consistence of tumour.

7. Difficulty in passing water occasionally experienced, from pressure on bladder and urethra.

8. General health does not suffer, unless menorrhagia be present.

6. Removal of tumour by gastrotomy, with or without the uterus.

Incision of tumour may be required, in intramural tumours, when hæmorrhage cannot be checked by minor treatment. If ergot be afterwards given, the tumour may be protruded through the opening.

Enucleation of tumor.—This operation always involves a great risk of septicæmia and peritonitis.

Avulsion.—This treatment is appropriate in those cases where natural enucleation has commenced, or to assist enucleation which has been commenced.

Spaying.—The object of this operation is to bring on artificially the menopause, and it may be performed when the symptoms demand such a severe operation.

Gastrotomy.—Only to save life should this operation be thought of. Of course, it is rarely called for.

THE TREATMENT OF POST-NASAL CATARRH.

Read before the Philadelphia County Medical Society, September 24, 1879.

By WM. R. D. BLACKWOOD, M.D.

Under the title of our subject this evening may properly be included the treatment of an extensive series of disorders of the naso-pharyngeal space, evidencing all grades of severity, from the simplest chronic coryza, of little account, to the formidable ozena, which, in its destructive ravages, sometimes threatens, and occasionally destroys, life itself.

The great majority of cases of catarrh are not under medical treatment of any kind, and the majority of the remainder are in the hands of advertising philanthropists, retired clergymen, Indian, botanic, eclectic, homœopathic, and such like illiterate quacks. Thousands of cases have been treated by eminent and by skillful men, without either cure or appreciable relief. Sweeping as this assertion may seem, let gentlemen only interrogate families under their charge, many of whose members suffer from catarrh without applying for advice, and they will readily discover its truth. The natural outcome is that post-nasal catarrh is considered an incurable disease, and, as the laity is not to blame for its mistaken opinion, would it not be well that an effort be made to undo this error by paying the subject more attention than it apparently receives, and which, from its importance, it undoubtedly deserves? It is singular that so much study has been given to some diseases and so little to others, and, as it does not always follow that the gravity of an affection determines the interest felt in its investigation or treatment, it is possible that in this way the subject under consideration may have been unworthily neglected.

Very little enquiry will elicit the reason why so little is successfully done in the treatment of catarrh. Briefly stated, the failure consists in relying upon general constitutional treatment, which is all well enough as an auxiliary, but not sufficient in itself. To cure the sufferer demands the persistent, skillful, personal attention of his medical adviser, and unless this course is strictly and conscientiously followed the patient will receive little benefit and his physician only discredit.

The disagreeable nature of the service, the time and trouble involved, and the difficulty in some cases of mechanical treatment, have deterred the larger part of the profession from devoting the requisite personal attention to their patients, and the expense attendant upon a necessarily extended course in the hands of most specialists has prevented many from receiving the benefits which would accrue from their services.

I do not intend speaking of the pathology of naso-pharyngeal catarrh, there being too much room for difference of theory, and too little time for discussion. The vital point is the treatment of our patient. What is to be done? No claim of novelty is intended in this paper, but it may be that suggestions thrown out as the result of successful management might be elaborated by others, and serve a useful end to those who have hitherto given the question less attention than it of right deserves.

First, then, as to mechanical treatment,—an essential in all cases. The instruments requisite are few and simple in construction and application. At their head stands the nasal douche, an invaluable and indispensable assistant, not to be replaced by any other. The objections to its use are avoidable by simple precautions. Employ water always at a temperature of 100° F.; add one drachm of common table salt to each pint of water used; do not permit the patient to swallow during the flow of the douche; hold the reservoir no higher than the eye of the sufferer; incline the head slightly forward over a basin; use a simple douche, free from valves or complicated mechanism; an ordinary tin or glass funnel, with a yard of quarter-inch rubber tubing and a conical glass, wood, or porcelain nozzle, is as good as any, is cheap, durable, and easily made. Do not trust the douche in the hands of the patient until its use is thoroughly understood and accurately managed.

In stupid, perverse, or nervous persons, never trust it to them; always apply it yourself. I have never had any trouble occur through the use of the douche. The posterior-nares syringe is a valuable adjunct, as also is the atomizer, in getting at the vault of the pharynx, which they do in many cases much more effectually than does the anterior douche. Although, theoretically, the steam atomizer appears preferable, because of the temperature being readily maintained, yet the difficulty of directing the spray in other than a horizontal line, and the view of the parts being intercepted by the boiler, render the hand-ball apparatus more con-

venient, especially in conjunction with simple adjustable tubes, which afford a lateral or vertical discharge at pleasure. A convenient though expensive apparatus is the compressed-air mechanism of Codman & Shurtleff, by means of which a steady flow may be maintained for any desired length of time. In common with those applied by the douche, all atomized solutions should be at blood heat and of sufficient density. Caustic and sponge-holders, brushes of various sizes, an insufflator, a tenaculum for the uvula, a tongue depressor, an anterior-nares speculum, and a rhinoscopic mirror are requisite, with a strong light, natural or artificial, in the management of which nine-tenths of the imposing array of mechanism usually encountered may be dispensed with. Each patient should have his own douche, and all instruments employed in office practice must be kept thoroughly clean. Scrupulous care is to be observed in syphilitic cases that the ordinary catarrh of one patient is not complicated by specific inoculation from another.

In the department of *materia medica* the list of necessary agents will vary with the taste of the physician, some drugs developing powers in the disease under consideration, as in others, according to the ability shown in their use or the idiosyncrasy of each particular case. In my practice the list is not extensive. The first point in treatment is the thorough cleansing of the parts at least twice daily, the ordinary solution of sodium chloride being a satisfactory one. Occasional alternations with a solution of potassium bichlorate, which I prefer to the sodium bichlorate, in similar proportion, will prove effectual where the secretion is free and the posterior-nares blocked. The addition of from three to five grains of potassium permanganate in solution, when the wash is from one-half to three-quarters expended, will modify the fetor and render the subsequent steps much more comfortable to the medical attendant. The liquor sodæ chlorinatæ replaces the permanganate satisfactorily, especially in delicate blondes. Potassic chlorate may also be added, but is serviceable only from its local effect, no constitutional impression being apparent through it in my hands. The use of from one half to one ounce of the distilled extract of witch hazel, as prepared by Mr. McKelway, of this city, is frequently efficacious, but the ordinary fluid extract made by displacement is not reliable. The simple or compound tincture of benzoin is an admirable remedy, both locally and internally. The quantity of water necessary is determined by the amount of offensive secretion, and varies from one pint to many, the prime object being the removal of all crusts, pus, mucus, or blood, without which subsequent medication must fail from the remedy not reaching the congested or abraded tissue. In mild or recent cases the careful cleansing, as described, of the parts will sometimes, if prolonged, effect a cure; but such success is uncommon in this intractable disease.

In long-standing and stubborn cases, after preparing the parts as suggested, a number of astringent or alterative remedies can be selected. That chosen may be employed either in solution, or, as is sometimes more efficacious, in dry powder projected on the parts of the insufflator. Snuffing the powder from the hand does not act so accurately, in consequence of much of the medicament being either detained anteriorly by the turbinated bones, or, having passed them, being drawn into the lower pharynx. Alum, bismuth, cubebs, tannic or gallic acid, with, if thought proper, ferric, cupric, or zincic sulphate, will act admirably in many cases. Granulations or adenoid tissue, if excessive, may be removed, when accessible, by the curette or galvano-cautery. I have not observed distinct patches of ulceration as often as the literature of the subject would imply their existence, except in caries or necrosis of the bones of the nasal passages (or flues, as a locomotive-building patient of mine aptly interprets them), any apparent abrasion being generally diffused; but should examination detect areas thus affected they should be stimulated or cauterized, as required, by strong solutions of the solid silver nitrate. Glacial acetic acid is a favorite with me in such instances, and tincture of iodine frequently acts admirably. Loose portions of bone or easily-detached pieces should be carefully removed, and a very small spicula will, if overlooked, be often productive of continuous discharge. I have not performed Rouge's operation in any case of catarrh, but some time ago in assisting a friend in an operation on the upper maxillary the feasibility of reaching the nares by that method was very apparent, and in a second operation on the same patient by himself I removed another part of the superior maxillary and a portion of the vomer, without dividing the upper lip or cheek, as had been done in the previous operation. The rapidity of union without any suppuration was remarkable, and the freedom from scar or deformity by this method is invaluable.

Attention to the general health is of moment. The secretions of the alimentary canal, the kidneys, and the skin should be inquired into, and placed in proper condition if defective. I have found the Turkish bath a most efficient auxiliary in all stubborn cases. The constitutional remedies employed will vary as indicated by apparent dyscrasia. Mercuric bichloride is notably a tonic and alterative in many cases, even where syphilitic complication is not evident. I usually combine the alterative selected with compound fluid extract of stillingia, in drachm doses, three or four times daily. When well borne, copaiba, long continued, is of great service. Ferric iodide, with or without potassium iodide, and sometimes calcium chloride, are excellent in chronic scrofulous cases. Iodoform has not been of much use in my hands, either locally or constitutionally, nor has carbolic acid. As to salicylic acid or its salts I cannot yet form an opinion of their merit, although, as a detergent, the sodium salicylate is apparently good.

Of all therapeutic remedies I value none more highly than electricity, which convinced me of its value through the importunities of a patient whom I was treating at the time for myalgia, and who suffered badly from post-nasal catarrh. He insisted that electricity would cure his catarrh; and so it did, contrary to my opinion. It cannot, of course, be relied on in every case, but it is a valuable adjunct. Either the galvanic or the faradic current may be necessary,—sometimes both,—but the induced current appears to be the most generally applicable, and it is much the more easily managed of the two, besides being less liable to produce giddiness in those highly susceptible. Care must be exercised in galvanization, from the proximity of the basilar brain. Extremely interesting illustrations might be given in this connection did not brevity forbid.

Diet is all-important. It should be nutritious, but all veal and pork compounds must be tabooed, with all indigestible substances. Tobacco is undoubtedly highly injurious. The so-called grape-cure acts a good part, especially in those who can afford the expense of living at the vineyards.

Much more might be said and many particulars present their claims upon our attention, but your patience has been taxed already. Disagreeable as such patients are to handle, it is our duty to exert our utmost ability in their behalf, not only for their personal welfare, but for the comfort of their families and society at large. Other formidable maladies have succumbed to medical skill, and why not that under consideration? It lies within the power of gentlemen such as compose our Society to do much in this direction, and assuredly the need is urgent.

Although I purposely refrained from touching the causation or pathology of post-nasal catarrh, one point which has interested me may be alluded to in closing, which is the belief in my own mind, from close observation, that, under certain conditions, the disease is contagious, even when positively non-syphilitic. I have repeatedly seen it occur in newly-married persons, and where, at school, children previously entirely healthy became affected when sleeping together. In all such instances noted no hereditary tendency existed, nor were other members of the family thus diseased. I have not heard this idea expressed by others, and many whom I have consulted dissent from it, yet through indubitable evidence I do not hesitate to assert my opinion, for, if it is correct, we should be on our guard, and in those thus exposed remember that "prevention is better than cure."

TOOTH-CARIES OF PREGNANCY.

ITS CAUSE AND TREATMENT.

Extract from a paper by Edward C. Kirk, D.D.S., in *Philadelphia Medical Times*:

It is well known that during pregnancy women are often subject to annoyance and discomfort from their teeth. This may vary in degree, from

a slight uneasiness, a mere consciousness of the presence of her teeth to the severest form of odontalgia. The frequent occurrence of rapid and extensive destruction of tooth-structure during pregnancy is so well recognized that it would be useless to multiply examples.

In cases where women have borne children rapidly it is the common story that up to the time of marriage the teeth were of good quality and gave but little trouble, but since have rapidly failed.

As to the cause of this degeneration of tooth-structure during pregnancy, there is little reason to doubt the accepted explanation that an excessive demand is made upon the system of the mother for the lime-salts necessary for the formation of the osseous structures of the fetus, and the teeth of the mother suffer, along with her osseous system, in meeting this demand when the supply of lime-salts is not sufficiently kept up in the mother's food.

We believe that much can be done to avert this wholesale destruction of the teeth, the loss of which details so much disfigurement and physical suffering. If the cause be as stated, then to supply food rich in lime combinations is the rational indication. But most of the food brought to our tables is not rich in bone-forming material, and it may be that even a liberal supply of lime-containing food would not meet the urgent demands made during pregnancy upon a system already poor in lime-salts. Certainly the judicious use of some of the soluble preparations of lime, such as the lacto-phosphate or hypophosphite, would be of benefit in such a case, not only in maintaining the lime-standard of the mother, but also in insuring to the fetus a well-developed osseous and dental organization. We have every reason to believe that rickets is due to lime-starvation upon the part of the mother and child; and evidence is not wanting to show that certain malformations of the jaws, and consequent irregularities of the teeth, are in a measure due to the lack of sufficient bone-forming material during fetal development.

A fact in this connection which I have had occasion to observe more than once is that in a large number of pregnant women the morbid craving, so called, for unusual articles of food—which is so often present, and may occasion great annoyance to both patient and physician—is for articles of a mineral character, such as chalk, slate-pencils, lime, plaster, whiting, etc.

It seems reasonable to believe that this craving is nature's method of expressing the need for lime when from pregnancy or other causes the supply is not equal to the demand, and the system is poor in lime as a consequence. I say from other causes, for what else is it that will make a rapidly growing, over-worked school-girl chew her slate-pencils and lead-pencils with such apparent relish?

If this be true, then the supplying to the system all the lime it needs, either by properly-selected food or by the administration of a sufficient quantity of some soluble preparation of lime, ought to

do much toward averting the destruction of the teeth by caries during pregnancy, and relieve the distressing cravings for unusual kinds of food. As having bearing on the subject, and showing that an increased quantity of lime is demanded by the system during pregnancy, I may cite the fondness which birds and fowls generally have for lime, oyster-shells, plaster, etc., during the egg-laying period. Another point which I have noted is that this fondness for lime is displayed on the part of the female more than on that of the male. Hens will quarrel for the possession of an empty egg-shell, and the cock will look on without interest while they devour it greedily.

TREATMENT OF SCARLATINA IN CHILDREN.

By M. ARCHAMBAULT,

Of the Hôpital des Enfants Malades, Paris.

Translated by HASTINGS BURROUGHS, L.R.C.S.I., &c.

We have just observed amongst the children of our service five cases of scarlatina, each of which presented something abnormal. At No. 8 in the St. Louis ward is a child who entered the hospital with bronchitis; one evening he was taken suddenly with high fever, and a scarlet eruption appeared over the whole body. There was no sore throat nor vomiting. The next day the fever abated, and the eruption disappeared. It was one of those abnormal scarlatinas that have given the idea that one can have scarlatina without eruption. The child in the next bed was stricken with the same malady ten days afterwards, and presented the same symptoms, but the eruption remained two days. Eight days afterwards another child occupying the same ward took the disease, but in her case the symptoms were regular, except that there was no vomiting. Two other children were similarly affected a few days afterwards. You see by these examples that scarlatina can present considerable anomalies. However, you must not for that forget the type of which I am going to speak. Scarlatina is remarkable for its brusque invasion, more sudden, I believe, than that of pneumonia. It commences by a fever which is very intense from the outset. The first day, in the generality of cases, appear vomiting and sore throat. A child goes to bed in perfect health; he is restless during the night, and is sick; the next day the eruption is observed; or perhaps it is a child who gets up, breakfasts, goes to school, and suddenly feels himself ill, vomits, complains of sore throat; in the evening the eruption appears. The fever is always high—in other eruptive diseases, measles, for example, the fever is remittant. The vomiting comes on immediately on taking food. As for the sore throat, there are two things to be observed—the pain and the eruption. The patients will tell you that the throat is not sore; look, and you will find redness of the fauces. The eruption appears twenty-four or thirty-six hours after the first

symptoms; if it appear later the scarlatina is abnormal. Whilst measles and small-pox commence on the face, the eruption of scarlatina commences often on the neck, chest, or back. Very frequently you will observe at the same time a miliary eruption, small vesicles, and sudamina in the inguinal region. The fever is continuous; in measles the fever falls on the appearance of the eruption. The eruption lasts two, four, five days; towards the fourth or sixth, the fever falls progressively. The pulse is in keeping with the temperature, 140—160 in the minute. They say that the pulse is full and strong; I find it, on the contrary, very small at the outset. Thus I diagnosed a scarlatina in a Russian lady who, taken with fever, sore throat, and vomiting while railway travelling, was thought to have diphtheria. Having felt the pulse of the patient, who was in a dark room, I suspected scarlatina. I caused the shutters to be opened and drew aside the curtain, when I found the eruption. The desquamation commences towards the sixth or seventh day; it lasts from one or two days to a month. I hasten to the question of treatment. There is a certain class of infantile diseases for which it is not at all necessary that the physician should display his skill. Scarlatina is one of these. Put the patient to bed in a well-ventilated chamber, but the windows should not be opened. In England, where it is the rule to thoroughly ventilate the room of a scarlatina patient *on recueille* disastrous statistics; the temperature of the chamber should not exceed 64°. When the fever falls, the temperature may be raised a little, because the patients have tendency to chills. The covering should be no heavier than in health. How long would you leave a patient in bed? Some say that he might get up as soon as the fever fell; others, on the contrary, exact a month or six weeks. Leave him a long while in bed, about three weeks. The statistics of an English doctor, comprising six or seven hundred cases of scarlatina, show that nephritis appeared oftenest from the fourteenth to the eighteenth or twenty-second day. If, then, nephritis is due to cold, as I believe, it will be well to oblige the patients to keep their beds. They might sit up in bed, but care should be taken to put a kerchief around the neck, for secondary sore throats are grave. It would be well also to recommend mittens on the wrists, the carpal articulations being the most subject to the rheumatism which is frequent after this disease. The patients should not go out before the thirty-fifth or fortieth day; but that will depend again on the gravity of the disease. Barthez has told me that he did not know any case of anasarca after scarlatina since he forced his patients to keep the bed during five or six weeks. As regards the medical treatment, properly so called, I will not spend much time over it, as I consider that hygienic precautions are the most important. Hot drinks should not be given unless the eruption does not come out properly. Refreshing drinks, such as lemonade,

gooseberry wine, &c., are preferable. To aid the eruption I have often given the acetate of ammonia. If the patient is constipated, a little rhubarb or castor-oil will suffice. If the nights are restless, a little bromide of potassium I have found of great benefit. The mouth must be washed often, but for the throat caustics are seldom necessary. Chlorate of potash, or alum gargles will be sufficient. If the patient is too young to gargle, one or two grammes of chlorate of potash mixed with five or six grammes of white powdered sugar may be given. Ought baths to be ordered in scarlatina? One might order a bath if the fever were very high and the eruption abundant, but in ordinary cases it would be better to dispense with it. This practice is much used in England; it is thought hazardous with us. Sometimes the itching is very great. Some German doctors conceived the idea of rubbing the children with fresh lard, but to this procedure, which is not very clean, I prefer the English method, which is a mixture of glycerine and cold cream. As regards nourishment, it is evident when the fever is high a light diet should be prescribed; when the fever abates, a stronger nourishment might be administered, but with caution.

Such is the treatment that will suffice in scarlatina; it is simple, and will not cover you with glory, but it will cure your patients and will prevent, in the majority of cases, complication. Do not neglect above all hygienic precautions, for I say, in closing, there is not a case of scarlatina that ought to be neglected.—*Dublin Medical Press.*

THE TREATMENT OF RANULA.

Dr. C. Lovegrove (*British Medical Journal*) has found the following plan most efficacious: Pass a tenaculum through the base of the tumor and draw the part somewhat forward. After withdrawing the thicker part of the tenaculum a little, pass a plain gold ring, such as is used when the ears are first pierced, by the side of the tenaculum, through both holes, then clasp it securely, and leave *in situ* for three or four weeks, then remove. A permanent exit for the mucus, etc., will then remain and all trouble cease.

J. E. G. has found the following plan very successful: Thread an ordinary curved needle with common silk suture; make a double thread; pass the needle through the cyst, tie the thread sufficiently short, so that the loop lies within the teeth and will not be bitten through when eating; move the thread to and fro every other day. If this be kept in for about a week the cyst will have evacuated itself by means of this small seton. When the patient says that it no longer discharges remove the thread (seton) and let it granulate up. The last case he treated in this way (about six months ago) is still quite free from the ranula. Since that case he had another ranula in an old woman about seventy. It involved the whole ex-

tent of her toothless lower jaw, and pushed her tongue up against the roof of her mouth. She could not speak nor swallow. The treatment adopted in this case was to make several punctures, at least half a dozen, through the cyst with a sharp-pointed bistoury. He gave a concentrated solution of chlorate of potash as a lotion to wash the mouth with, and also gave her a mixture of chlorate of potash. This case is still relieved by the above treatment.

Dr. C. D. F. Phillips recommends gradual dilatation of the salivary duct by laminaria tents. After incising and clearing out the ranula, the duct should be sought for and a piece of laminaria (which may require to be as fine as a needle and should be very smooth) be inserted as far as possible, and left in for one or two hours every morning or evening. The size of the tent should be increased, but very gradually, so as to avoid overmuch irritation. The patient himself can learn to pass it after a little instruction, and cure should result in two or three weeks. In some cases it may be necessary to leave in the tent longer, and then a perforated one should be used. Some years ago Dr. Phillips came across several cases in which the duct, as well as the ranula, had been cut away, and much suffering and serious swelling of the gland had resulted. These cases were cured by simple incision and keeping open the artificial duct by laminaria.

Mr. W. J. Tivy suggests the use of a seton composed of three or four threads of coarse ligature silk, which he has found invariably successful.

TREATMENT OF GLANDULAR SORE THROAT.

Glandular sore throat, by which I mean catarrhal congestion or inflammation in and around the glandulæ of the mucous membrane of the pharynx and larynx, is a very tedious and troublesome affection. It has been known as dysphonia clericorum; it is, in fact, the chronic sore throat to which persons are liable who use their voices extensively, especially in large rooms or in the open air. I desire to draw attention to the usefulness of the topical application of borax in its treatment. I order a saturated aqueous solution, which the patient applies to his throat by the aid of Corbyn's throat spray. The spray should be employed for several minutes, thrice, or more frequently, daily, and midway between meals. If the larynx be much implicated, the patient should inspire deeply while the spray is playing upon his throat. I have lately found this very simple method of treatment of striking service. The cure may be expedited by the application of astringent solutions to the pharynx and larynx by means of suitable brushes. When there is much secretion, extract of eucalyptus is a good local astringent, which may be used in the form of lozenge.—James Sawyer, M.D., London.

THE CANADA MEDICAL RECORD,

A Monthly Journal of Medicine and Pharmacy

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MONTREAL, MARCH, 1881.

PROPOSED PROTESTANT LUNATIC ASYLUM.

We believe that among the entire body of Protestants in the Province of Quebec there is a unanimity of feeling that the system of farming out lunatics at so much per head, adopted by our Provincial Government, is one utterly unworthy of a Province, which makes any pretension to advanced civilization. They object to it upon various grounds, but chiefly because it is not in the interest of the contractors to cure the lunatics, and they therefore feel that the system is responsible for placing many a patient permanently upon the Government for support. They would rejoice, for it would be in accordance with the views they hold, if the Government of the Province of Quebec would purchase the Asylums at Beauport and Longue Point, and convert them into Provincial Lunatic Asylums, where patients, quite irrespective of religion, would have the most scientific treatment, under the care of men who have specially devoted themselves to its study. We are pleased to know that these views are held by some at least of the present local administration, and we hope that the day is not far distant when the Province of Quebec will be able to take her place among her sister Provinces in the scientific treatment of the insane. We do not exaggerate when we say that at present her position in this matter is not to her credit (to put it mildly). If the Protestants of the Province of Quebec hold the views we ascribe to them it may be asked how is it that they are at this moment applicants for a charter to establish an asylum under Protestant management, but under conditions similar to those already under contract with the Government?

Simply because they recognize the position of affairs as at present unalterable. While giving every credit for gentle and humane treatment of all placed under the charge of the present asylum contractors, they are of opinion that the clerical character of both, but especially of one asylum, is such as to prevent the free mingling of the Protestant clergy with the patients. They also feel that, medically, much more can be done for the Protestant insane than is being done; and, if they are correct in this idea, that it is their duty to place them where "cure" will be the prime object. If there was no other motive than this, it is a most laudable one. It may be asked, how are the Protestant contractors, for such in truth they would be, going to be more liberal and self-sacrificing than their Roman Catholic confrères. Simply and only in this way: that, as the asylum would be conducted by an association of gentlemen, every one of whose voice and vote would be equal, and its transactions open freely to public scrutiny, they, naturally, would be constantly exposed to public criticism—and we do not know of anything more likely to keep them from doing wrong. Beauport, which, in its way, is a good asylum, certainly in our opinion the best we have, is a private proprietorship, though, of course, fully open to Government Inspection. The Longue Point Asylum is in the hands of one woman, supreme in all her authority, as to internal management, though also open to Government Inspectorship, and having a Government visiting physician, whose powers and authority the Government should most largely increase, for in the person of the gentleman who now fills that position they have the very best medical alienist in the Province, and one who stands very high among his confrères of this specialty in the Dominion. It is but fair to say that at all the meetings which have been held to further the establishment of this Protestant asylum, all the speakers have borne the strongest testimony as to the kindness and the humanity of the sisters at the Longue Point Asylum; the clergy were especially warm in bearing testimony to this fact, and also to the liberality and attention which they received when in attendance on Protestants in that asylum. Beyond the facts we have stated, the Protestants make no complaints.

We object strongly to the term "asylum." Its very sound seems to imply prolonged residence, free from care. The word "Hospital" would, we think, be more appropriate. It is suggestive of treat-

ment, of pills, powders and potions perhaps—but often useful; and then it is also suggestive of convalescence, and that means cure, just what is wanted.

WYETH'S FLUID EXTRACT OF ERGOT.

The menstruum used is that best adapted for extracting all the active matter, and retaining its full power. Each minim represents one grain of the freshly powdered drug. It is entirely free from acid, and can be used subcutaneously without irritation in most cases, having in this respect a great advantage over the watery solutions, which decompose very rapidly. The menstruum is simply Water, Alcohol and Glycerine, no heat whatever is used in its manufacture. Since adopting this formula, a number of valuable papers from foreign authorities have endorsed Wyeth's views.

COLLEGE OF PHYSICIANS AND SURGEONS P. Q.

Mr. Lamirande, the gentleman employed by the College, as its Collector and Detective, having successfully devoted considerable attention to those holding licenses, who had not complied with the last Act, has now turned his attention to the irregular practitioners. We hear of several actions having been instituted in the Eastern Townships. In Montreal, during the present month, Judge Jetté gave judgment in the College *vs.* John Roscoe, a Herb Doctor as he styled himself, fining the defendant in the sum of \$25.00.

PRELIMINARY EXAMINATION COLLEGE PHYSICIANS AND SURGEONS, P. Q.

We direct special attention to the advertisement giving the date (May 5th) of this examination. By error an incomplete advertisement giving wrong date was inserted in our last issue.

The meeting of the Governors of the College will take place in Montreal on the 11th of May, next. *See Adv.*

PERSONAL.

Dr. Imrie, House Surgeon of the Montreal General Hospital, who has been exceedingly ill for the past two months with Pyæmia, is, we are glad to know, quite convalescent.

Dr. Sutherland (McGill College 1879), of Montreal, is to about to visit London, England.

Dr. Costigan (M.D., Bishop's, 1874) of Los Lunas, New Mexico, has been elected Coroner for the County. He was also about the commencement of the year presented by his friends with a handsome present in the shape of a number of Surgical Instruments and Medical works.

A NOVEL PRESCRIPTION.

A recent number of *Le Praticien* reports that a physician of Chalons, France, was sent for into a village in the neighborhood, and, having examined his patient, found he had forgotten his pocket-book. He then asked for a pencil and paper in order to write his prescription, but no such objects were among the possessions of the household. Some one went out to seek for the required necessities, but primary education seemed to have omitted that commune altogether. The physician got tired of waiting, and at last wrote his prescription on the door of the house with a bit of charcoal. The family, after vainly endeavoring to make something like a copy of the doctor's hieroglyphics, at last wisely resolved to detach the door itself, and carry it to the pharmacien in order to get the medicine prepared.

ANNUAL REPORT OF THE WOMAN'S HOSPITAL OF THE CITY OF MONTREAL FOR THE YEAR 1880.

The Committee of Management of the Woman's Hospital of this city, representing the Corporation beg to submit the following report:—

During the year now passed the Hospital has undergone considerable change. For the first four months it occupied a building on St. Antoine street, which was ill-adapted to the purposes of the institution, and where it had been for several years. The demands made upon it for relief became so urgent that it was found impossible to admit over one-half of the patients who applied. It was, therefore, decided to obtain some larger building in a better locality. Fortunately the building known as the Western Hospital, which the institution now occupies, was vacant, and could be obtained for a rental of \$700.00 a year. At the same time, owing to the perspective increased outlay, and the evident benefit that such an institution would bestow, a number of friends directly interested themselves in its welfare by becoming governors and members of the Corporation, under

the provisions of the charter. The Management, thus increased, then leased the Western Hospital building at the above rental for a term of six years, and on the first of May moved into possession.

The Committee beg to draw attention to the fact that this Hospital is the only one of its kind in Canada, being specially devoted to the treatment of diseases of women, and, therefore, filling a want hitherto unsupplied ; in proof of which the increasing number of patients bears testimony. The Committee, for this reason, would state that, in soliciting public support, they do so without infringing upon the claims of older institutions. The very unobtrusive manner in which the Management in former years had worked considerably delayed the full recognition of its merits by the general public, so that the amount of subscriptions was not as large as it would otherwise have been. This the Corporation hope in future to remedy, and by soliciting subscriptions, and more publicly claiming support, trust that the institution will soon become known by all as a great public charity.

Since the Hospital has moved into its present quarters a considerable sum has been expended in placing the building in effective working order, obtaining new furniture and altering the arrangement of some of the rooms so as to make them better adapted for the purposes intended. They are thankful to announce that they have received many donations in kind of articles absolutely required by the Hospital, and friends have come forward with subscriptions in aid of its support. One special feature deserving of notice is its private department, which admits patients of a better class who are able, by the payment of a special rate, to have all the benefits of hospital treatment and nursing, while, by a wise liberality, such patients are permitted to have the attendance of the physician of their choice, irrespective of any connection with this Hospital, being the only institution in this city which permits of this privilege. The Committee beg to state there are four large public wards, containing twenty beds, for the reception of patients, this being the utmost limit which they feel justified in providing, thereby being obliged to refuse admission to many deserving applicants. This the Committee deeply regret. Should, however, the financial condition of the Hospital afford an increase in the number of beds in the future, there is room enough for an additional twenty beds, which would be obtained, and are at present required to meet the demands made by applicants.

During the past summer, a few members of the Ladies Committee held a bazaar in aid of the funds of the Hospital ; the sale of articles was chiefly limited to the circle of friends and acquaintances of those interested in the welfare of the Institution. The sum realized by this almost private effort amounted to \$80.14, for which the thanks of the Corporation are due. Thanks are also due to the Ladies Committee for their valuable co-operation in visiting the patients, and assistance in the management by suggesting and supervising the necessary domestic requirements.

The Management congratulate themselves on the efficient assistance rendered to the Hospital by the Matron and staff under her, and also to the interest manifested by the members of the Medical staff in the care and treatment which they have bestowed on the inmates.

Special acknowledgment is also due to the Provincial Government for the annual grant of \$500.00, which sum your Committee expect to receive during the present month.

In addition to the above information the Committee would announce that the Hospital is visited daily, at noon, by three physicians, at which time patients presenting themselves at the out-door department also receive attention.

PATIENTS.	
<i>In-door Department.</i>	
At date of last report, remaining in Hospital..	11
Admitted during the year.....	107
Remaining in at present.....	13
Total	131
Protestants	85
Roman Catholics.....	46
	131
Deaths.....	5
Protestants.....	3
Roman Catholics.....	2
	5
Out-door department.....	176
Protestants.....	100
Roman Catholics.....	76
	176

DIED.

In Montreal, on the 9th March, Elizabeth Steel, aged 77 years, widow of the late Rollo Campbell, and mother of Dr. Francis W. Campbell.

THE CANADA MEDICAL RECORD.

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MONTREAL, APRIL, 1881

No. 7.

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Original Communications.

Valedictory Address to the Graduating Class, delivered at the Tenth Convocation of the Medical Faculty of Bishops College, by JAMES C. CAMERON, M.D., M. R. C. P. I., Professor of Medical Jurisprudence and Lecturer upon Diseases of Children.

GENTLEMEN OF THE GRADUATING CLASS,—It is now my pleasing duty, on behalf of the Medical Faculty of this University, to congratulate you upon the successful completion of your collegiate course, and your admission into the ranks of the medical profession. The daily round of lectures, the hard and weary nightly grinds, the feverish anxieties and dreadful uncertainties of Examination day, are at last all safely over, and to-day you hold in your hands the just and substantial reward of four years' diligence and attention. We congratulate you heartily upon the creditable examination you have passed, and we welcome you cordially into our number as professional brethren and colleagues. But, though your College duties are now at an end, and you stand here graduates in Medicine, let me remind you that your life-work has only just begun; hitherto you have pursued your studies under the constant guidance and direction of your teachers—now you must pass from under their supervision and control and rely

upon your own resources. You have studied hard heretofore, you must study hard still; you must press on, the world will not wait for you; science is advancing with rapid strides, earnest thoughtful men are pushing their investigations in every department; new facts are accumulating, new theories springing up, new methods of treatment elaborated; if you would keep abreast of the times, you must study long and well, and familiarize yourselves with the progressive labors and discoveries of others. The physician who is content with what he already knows, and thereupon ceases to study, voluntarily drops from the ranks, and is soon left far behind; in the medical profession you cannot stand still, you must either advance or retrograde. But, while studying with diligence and regularity, do not over-estimate its importance, and fall into the error of supposing that book-learning alone can ensure success in your profession; reading may certainly make you well-informed men, it can never of itself make you skillful men. An eminent Professor was once asked by a young graduate what he would recommend him to do, in order to secure success in the profession. "Three things," replied the Professor, "1st, observe; and 2nd, observe; and 3rd, observe." Careful observation is the only road to success; it is the magic key which unlocks the mysteries of Nature and reveals her secrets to the studious inquirer. Train the eye, the ear, the touch daily; take pains to investigate every case entrusted to your care

thoroughly and systematically; observe everything, consider nothing as too trivial or minute; then, after having collected all your data, sift the evidence, and bring reason and common-sense to bear in forming your conclusion and determining a rational line of treatment. Endeavor always to treat your patient rather than his disease. Do not allow yourselves to degenerate into the mere routine practitioner, i.e., into a kind of peripatetic prescribing machine; but, regarding each case as a sort of vital problem, strive to bring to its solution not only competent knowledge, but also your reason and good sound common-sense; and then, as ripening experience comes apace, and advancing years add dignity and authority to your opinions, your self-evident knowledge and skill will excite the admiration, and win the respect and esteem, of your professional brethren and the community at large.

When you enter upon the practice of your profession, you will at once be thrown into contact and competition with other medical men. Remember that you are fellow-workers; let no unseemly rivalry or jealousy mar your friendly relations—act always with courtesy and consideration, strive to follow the golden rule; never slander, depreciate or condemn a *confrère* behind his back, but rather defend him; and remember that there is such a thing as damning by faint praise, and that a curl of the lip, a contemptuous smile, a shrug of the shoulder, may do far more damage to a *confrère's* reputation than an open charge; such means, I need hardly say, are far more despicable because more treacherous. When called to a case in consultation, aid your *confrère* to the best of your ability, and loyally, cheerfully and honorably accept the responsibilities which ordinarily attach to the consultant.

In the practice of your profession, gentlemen, you have certain well-defined duties to your patients—there is, in fact, an implied contract existing between you. On their part, trust and confidence are placed in you, all that they hold nearest and dearest are entrusted to you, health and happiness, sickness and suffering, honor and reputation, the issues of life and death, are placed in your hands; while on your part, in accepting these grave responsibilities, you are bound to possess a competent knowledge of your profession, to devote due care and attention to your patients, and to exercise in their treatment your very best skill. In your professional relations you enter the family circle, sickness often rudely tears off the society-mask and

discloses the inner life of your patients. You know the shadows that darken many a home, the hidden sorrows that imbitter many a life; weighty secrets, important confidences are committed to your care. And thus not only the lives, but often the fortunes and prospects of individuals, the peace, honor and happiness of families, the welfare of communities, may rest in your hands. Upon your prudence and caution great interests hang, beware how you betray them; beware lest you violate the sacredness of professional confidence. As the family physician, you will frequently become not only the medical adviser, but also the trusted counsellor and friend—one whose advice is sought in times of difficulty or distress—one who must at times cheer, sympathize, comfort or support. While, then, you strive to be skilful and accomplished in your profession, do not forget that, when human skill is of no more avail, sympathy and kindness may temper a blow you cannot ward off, or lighten a sorrow you cannot avert.

Let me urge upon you not to begin practice with too great mercenary inclinations; if money-making is your aim in life, I fear you sadly missed your vocation; you should really, gentlemen, have chosen some other calling. Undoubtedly the laborer is worthy of his hire, and people as a rule do appreciate kindness, attention and skill, and gratefully remunerate them as they deserve; while you need, therefore, feel no hesitation in expecting or receiving a fair equivalent for your time and labor, be not discouraged or disheartened if you do occasionally meet with inconsiderateness and ingratitude; but you should endeavor to sink as far as possible the money aspect of the question, and go forth into practice seeking rather how you may best be of use in the world, how you may best combat disease and alleviate pain and suffering. Do not become so strictly professional in your manner and habit of thought as to look upon your patients as merely so many interesting specimens or examples of disease that are to be merely examined, diagnosed, prognosed and treated *secundum artem*; but in your professional dealings with them remember always that they are frail and human, with feelings and sensibilities like yourselves. Make allowance for fretfulness and irritability, be gentle, kind and patient with them; make them feel that you are sorry for their sufferings while you are doing all that you can to relieve them. Kind words and tender sympathy go a long way in the sick room. Prejudiced or thoughtless

people are fond of characterising doctors as hard-hearted pitiless men, generally fond of hacking and cutting and giving pain. Even the Poet-Laureate, in a recent poem, has gone rather out of his way to describe an imaginary medical ghoul. While this is undoubtedly a libel on the great majority of the profession, there is, at the same time, a coloring of truth in the accusation. Familiarity with suffering is said to breed contempt, and thus blunt the sensibilities, and eventually harden a man. It all depends upon yourselves, however. If you enter practice thinking always of the loaves and fishes, if you treat your patients in a strictly professional manner, if you repress your natural sympathies and hold yourselves aloof, remaining impassive and cold as marble, then, most assuredly you will become hardened and callous; but if you always aim at doing good for the love of it, if, while relieving suffering you allow sympathy and kindness to temper every word and act, then, day by day, your hearts will expand with benevolence and love, and you will become purer, nobler, better. Strive to be as a ray of sunshine in every home; let the sick brighten at your entrance; let the little ones long for your visits; then, when your life-work is drawing to a close, when you are old and grey, men and women grown, whom you have watched and tended from infancy, will love and revere you with the tenderest affection and esteem.

As medical men, you have important duties to the community at large. Not only must you seek to cure disease in the individual when it exists, but you must strive to forestall its onset and prevent its spread. No branch of medical science is progressing more rapidly than Preventive Medicine. Hosts of keen observers are studying epidemics, investigating their origin and spread, seeking to discover the specific causes of infectious diseases, and the best methods of destroying or removing them. Vast progress has been made of late in Sanitary Science; impure air, impure water, impure food, impure milk, bad ventilation, bad drainage, have been repeatedly, in fact almost invariably, recognised as playing a large part in the origin and spread of disease; sanitary precautions have been devised, and, when faithfully carried out, have cut short epidemics and saved thousands of valuable lives. Those fearful scourges, typhus and small-pox, are now practically under control; and, judging from the recent interesting and important experiments of Pasteur, we shall,

some day, be able to protect our patients from the ravages of scarlet fever as successfully as we now do from small-pox. A vast field for original research is open to every one of you, gentlemen; those of you who settle in country districts will have even greater opportunities for the investigation of infectious disease than your city brethren; for you can there investigate the circumstances attending the origin and spread of disease far more accurately and satisfactorily than you could in crowded localities where so many fallacies must be guarded against. Let me urge upon you to neglect no opportunity of contributing your mite to the rapidly accumulating stores of knowledge in this most important subject.

There is yet another important matter to which I would like very briefly to direct your attention. As medical jurists your services will be continually invoked to aid the law in furthering the ends of justice; let your influence be impartially cast on the side of right and truth; never allow your judgment to be warped by personal or mercenary considerations. In many directions, the law is slowly but surely yielding to the demands of advancing scientific knowledge, and is being amended and remodeled in conformity with more correct ideas of true justice and humanity. In no case is this more strikingly manifested than in the treatment of the insane. Thank God, the day has gone by when unfortunate sufferers from mental disease were indiscriminately classed as dangerous lunatics and committed to gaols and asylums—why?—simply to get rid of them. As the result largely of the constant agitation kept up by the members of the medical profession, it is at last dawning upon the public mind that insanity is not a special dispensation of Providence, inscrutable and irremediable, but is in reality the result of morbid processes chiefly affecting the brain, just as bronchitis is the result of morbid processes affecting the respiratory tubes. Insanity, therefore, is a disease, and, like other diseases, is amenable to suitable treatment; moreover, as in other diseases, some cases can be cured, some can be only improved, while others are beyond the reach of our present knowledge and skill. Would that the name "Lunatic Asylum," with all its painful associations of ignorance, incompetence, cruelty and neglect, could be forever swept away and forgotten! I sincerely trust that the day may not be far distant when, to the triumph of education, civilization and common humanity, special hos-

pitals will be established for the treatment of mental and nervous disease, which will be quite as important and quite as successful as those similar institutions for the treatment of eye, ear, chest and other forms of special disease. The medical profession has labored hard to rescue the helpless insane from the degradation and misery to which they had been consigned, and to mark out the true limits and conditions of civil and criminal responsibility. Much has been accomplished in the past, but much still remains to be done in the future; let me enlist your sympathy and support in this great work.

Time will not permit me, gentlemen, to enlarge further upon the vast fields of usefulness which are now open to the thoughtful, studious and conscientious physician. Wherever your lot may be cast, there is much to do, your opportunities are great; remember always the sacredness and responsibility of your profession; be just and upright, patient and self-sacrificing; let your mission be one of beneficence and comfort; strive to emulate the sunbeam brightening and cheering the cottage of the poor and lowly, as readily as the mansion of the powerful and rich.

Gentlemen, your Alma Mater this day enrolls you among her sons, and sends you forth into the world bearing her name: your reputation is her reputation, your success is her success; guard well the charge we this day entrust to your care. Go forth into the battle of life, bearing aloft the motto "Excelsior," ever onward and upward, and may success attend your efforts. In the name of your Professors, in the name of the University, God-speed and fare you well.

ON THE TREATMENT OF TAPE-WORM, (TENIA SOLIUM).

By DR. CASSELS, Three Rivers, P. Q.

Persons afflicted with tape-worm are comparatively rare in Canada, and there is little doubt that the great majority of our medical practitioners pass a lifetime at busy practice without meeting with the disease perhaps half a dozen times; consequently it is not to be wondered at that, when a doctor is called upon to treat an isolated case of the kind, even the most able man may find it difficult, if not impossible, to effectually expel this parasite.

The standard authorities enumerate a vast variety of remedies supposed to be, and many of which

actually are, efficacious; but it is one thing to know the names, and quite another to understand the best way of applying them.

Having several times been consulted by brother practitioners, who found themselves troubled by cases of this description, I venture to send you this short article on the subject, hoping that it may prove of service to some of the junior members of our profession.

I have been fortunate enough to have had a better opportunity of getting experience on this matter than most Canadian medical men, inasmuch as sixteen years ago I was for two years and a half in the military hospital at Valetta, Malta, as dispenser, where there was always, at a low estimate, from 3 to 5 cases of the disease in the wards, on an average. The garrison consisted at that time of several thousand men, together with a proportionate number of women and children, and although, during part of the year, the troops were served with, if I remember rightly, one salt ration (consisting of equal parts of beef and pork) per week, the military surgeons were generally of opinion that the prevalence of tape-worm was more due to the water (which is rain water preserved in tanks, there being very few natural springs on the Island) than to the pork, especially as there was no difference in the number of cases during the summer months, when the salt food was discontinued.

I may mention here that both Wood in his "Practice of Medicine" and Vogel in his "Children's Diseases" assert that females are more subject to the complaint than males; this, however, is not borne out by my experience, for, during the time I speak of, many hundred men were treated, and, as well as I can remember, only two or three cases in females.

Another point was that the long train of symptoms, as laid down by the standard authorities, were never present at the most there was an uneasy feeling, hardly amounting to pain, at the pit of the stomach, more marked after a long fast, perhaps a furred tongue and bad breath, with some languor in the morning, and a capricious appetite; but in very many cases the only symptom was the infallible one of pieces of the worm continually passing per anum.

Common as the disease was, it was very important that the treatment should be prompt and effective, and to this end all sorts of combinations were tried. Very excellent results were sometimes obtained from kusso, and from bosk of the pome-

granate root, and seeds of the fruit, but their action was not always sure, more especially kusso, which, when fresh and pure, is very reliable, but deteriorates rapidly when kept any time, and, from its expense, is apt to be adulterated.

After many trials, the following was found to be the best mode of procedure :

When a man was admitted with tænia, he was allowed no food after dinner the day of his admission ; that evening he was given a full dose of compound infusion of senna with one or two drachms of rochelle salts. The senna was found to clear the mucus from the intestines and expose the worm better than any other purge. The following morning, after the bowels were well cleared out, and the man had fasted 15 or 18 hours, he was given from 1½ to 2 drachms of kamala powder, together with the same quantity of ethereal extract of male fern. This was given in the following way : the kamala was first suspended in an aromatic mucilage and the male fern added. Just before giving it to the patient this mixture was poured into half a teacupful of warm milk and taken while hot. An hour or so afterwards, half an ounce each of castor oil and turpentine were given.

The rationale of the treatment is as follows : The worm is made hungry, and exposed by clearing the mucus from the bowels, then the remedy is given in hot milk, as the animal is particularly fond of that article of diet ; the turpentine is to give the coup de grace, if required, and the oil to remove him from the patient.

It is necessary to carefully examine the worm passed to make sure that the head has come away ; otherwise all the trouble is for nothing, as, no matter how many feet are removed, the worm re-grows very rapidly, and in a short time will be as troublesome as ever. It is easy to distinguish the head after having seen one. To the naked eye it appears as a white point on which, with a small-power magnifying glass blackish suckers may be detected. Between these is a conical proboscis surrounded by a double circle of hooks, so small that they are invisible unless with a glass of considerable power. The neck is several inches in length, not jointed, and remains attached to the head.

If the directions I have given are strictly observed, in the great majority of cases the patient will be cured, although occasionally it is necessary

to repeat the operation in a week or ten days, when the head has been left behind.

Very often, however, I have found that, in cases where a second dose was required, some irregularity or deviation from the prescribed routine had been committed.

Particular care must be taken to use good samples of kamala and male fern ; the kamala especially is very hard to get pure.

ON SOME POINTS OF CONTEMPORARY INTEREST.

By C. E. NELSON, M.D., New York.

Sewers, and sewer-gases.—In a large metropolis, these cannot be dispensed with ; if they are well constructed (as in London), in conjunction with the most improved “stink-traps,” charcoal trays, &c., sewers may be very beneficial ; if inefficiently built, of poor materials, with useless traps (as in New York), they may be productive of a certain amount of *malaise*, but hardly of severe disease : many of these cases of so-called town *malaria* were probably contracted in country watering places, from evening exposure ; and the cases of typhoid fever, from drinking foul cistern water in country hotels ; they return to town sick and wearied ; on the return these persons probably rarely take the accustomed out-door walk, so, being confined in rooms which often are superheated, they become languid, and the implanted seeds (now it is called “germs”) of *malaria* develop into lingering, and sometimes fatal disease. It is surely improper to include these cases in the city’s sick list (considering they were contracted in the country), attributing them to our sewer-system. Our watering-class population commit many imprudencies in the country that they would not dream of doing in town such as sitting outside the house during the evening, when the air is raw and damp ; they do not take pattern by the farming class, who never dream of sitting outside their houses in the evening. *Drinking milk* in large quantities, this is “*de rigueur*” with town people, thinking it would not be “the country” if they did not do so ; farmer families rarely drink milk, knowing how it goes through the dirty fingers of cow-boys ; it, however, deranges the stomach and digestion. When the city boarders have drunk and gorged themselves sick, then a doctor is called in, whose medical education may be none of the highest.

Water-closets and privies.—The former are very convenient, and can hardly be dispensed with in a large city; but, likely the privy system, at a little distance from the house, is the best.

Stationary wash basins in the rooms.—These often are the means of diffusing sewer-gases through the houses, but not to the extent that is generally imagined; keeping water in basins and bath-tub might obviate that, the water absorbing the gases.

Dirty cabins, dung-heaps at the door, or in the house, may not be prejudicial, as the door is being continually opened, the cabin is in the midst of glorious air; then again, animal manure is not unhealthy as to odor, it containing ammonia; stable helpers (even in cities) are as healthy as any other class of men.

Hygiene and Boards of Health, Quarantine.—The two former of these are found in the larger cities of the more advanced nations, especially in the "temperate zone:" it is a question whether they have done much good; according to the newspapers, which usually photograph the truth,—"no." As to *quarantine*, that is especially beneficial in a negative way, i. e., keeping out disease, but not curing it. We, of New York, complain that Southern (and foreign cities in the tropics, as Havana) cities are not kept clean, thereby engendering repulsive diseases; they might with reason retort, mentioning our "high rate of mortality;" because after all what does it matter what name is given to the disease (yellow fever, or diphtheria), as long as it is fatal; summer diarrhoea and teething kill as well as cholera.

Diphtheria caused by *bad odours* and *defective drainage*.—I cannot exactly subscribe to this theory; I rather think that our ward-school system (crowding dirty children of all classes and constitutions together) is at the bottom of this. A healthy child goes to school, gets in contact or catching distance of an infected child, comes home, takes sick, communicates disease to other younger children in the family, several of which may die; then people go smelling around the house, and if there is a dead rat or so behind the wainscotting, they forthwith blame our (exceedingly laborious and painstaking) Board of Health about "sewer gases!" Perhaps also an inefficient doctor has been called in.

Typhoid fever may possibly be caused by sewer gases, but it is not perfectly certain.

Typhoid types of acute disease may originate

from sewer-gases, but these two last conditions (fevers, and typhoid types supervening on other complaints) are more likely partially caused by close ill-ventilated apartments, and also by inferior kinds of food. *Malaria* may possibly be induced by sewer-gases; it is likely *intensified* by that agency.

Increased rate of mortality in tenement house districts.—I think this is due to the fact principally, that there are more poor people than rich; also, that there are more people occupying a room (merely as regards simple numbers) in tenements than in rich houses. Send away the bulk of the tenement house population, leaving merely as many people in a tenement house as there would be, on an average, in a rich house, it is a question whether any more would die in the former than in the latter: of course, there is a little difference as regards buying delicacies, getting good food, wines, &c. The laboring men, who live in tenements, go to their work every morning, perfectly healthy, although of course they are in the fresh air most of the day; the mothers pass through their confinements about as well as rich ladies do.

Are vile odours unhealthy?—Doctors are divided on this question; bad odours are very unpleasant, but I do not think they are fatal—witness the men who work in rendering, and other such establishments; also those who work in gas-housest sewers, the former "night-men," who used to clean out privies (now called soil-vaults).

A country village with no sewer, or water-pipe system, no house water-closets, is more likely healthier (apart from the country air) than a town which contains those conveniences of civilization the dirty water and manure thrown out over the fields hurt no one.

Progress of Medical Science.

DEATH FROM BROMIDE OF ETHYL.

Dr. R. J. Levis, of Philadelphia, the distinguished advocate of Bromide of Ethyl, recently lost a patient under this anæsthetic at the Jefferson Medical College Hospital, Philadelphia. The patient was about to be operated upon for stone in the bladder, but died as the first incision was being made. Dr. Levis was present during the administration of the anæsthetic, and no doubt exercised every known precaution.

A LECTURE ON PERITONITIS.

Delivered at the College of Physicians and Surgeons, N. Y.

By ALONZO CLARK, M.D., LL.D.,

Professor of the Principles and Practice of Medicine.

(Reported for the *Hospital Gazette*.)

This disease is important from the great extent of the membrane, which is arranged in the form of an irregular sac, with no openings of any great importance. It is important in its connections with liver, intestines and stomach, for when a viscus is inflamed and the inflammatory action reaches the surface it will involve the serous membrane of that viscus, and consequently when a membrane is inflamed the action will proceed to a limited extent to the viscus. As regards degree, this serous inflammation stands next to *arachnitis*. This is not very common inflammation, much less frequent than the inflammation of pleura and pericardium. Pleurisy is most common of all. To me it seems that peritonitis is most common in mountainous districts. I think I have seen more of this disease in Vermont than in all other places together, including hospital practice. I shall consider peritonitis under four heads. 1st. Sporadic peritonitis. 2nd. Peritonitis from perforation. 3rd. Puerperal peritonitis. 4th. Chronic peritonitis, which is almost always associated with tubercles. We may have any of the three products of serous effusions, but there will always be plastic exudation which will be found more posteriorly on account of the supine position which these patients assume. In the ordinary forms there will be serum and fibrin. Pus is very rarely found alone. In the chronic form the plastic effusion will be organized in layers, the greatest quantity on the surface of intestines. Tubercles will be usually found in connection with the organized matter. Purulent effusion is frequent in the 2nd form of the disease.

SPORADIC PERITONITIS.

The rule is that this is a very painful disease, and that the pain begins at one point and spreads rapidly. This symptom is observed early in the disease. A chill does not commonly occur. The pulse does not feel the influence of the disease until a later period, as a rule. I believe that we have no acute inflammation where the pulse runs up as high as it does in peritonitis. Constipation of an unyielding character exists in the height of the disease. This is as complete as if produced by some obstacle in the intestinal canal. The inflammatory condition extends just through the muscular coat of the intestinal canal (the same plexus of vessels supplying both the muscular and peritoneal coats). When a muscle is inflamed it cannot act, and to this paralysis is to be attributed the constipation; as long as the intestines are in this condition cathartics can only do harm by exciting inflammatory action in the mucous coat. This constipation lasts the whole time that the inflammation is severe.

Vomiting frequently begins in the early stages of this disease, and is due to reflex action of par vagum. The contents of stomach are first thrown up, then the greenish "*spinach-like matter*," whose color and appearance is due to biliverdine. The explanation of this fact is not known, but it occurs in other diseases. Gaseous extension or tumefaction of abdomen called tympanites or meteorism is present in first twelve hours. This gas which is chiefly C O₂, is contained in the intestinal cavity and not in the peritoneal cavity. It does not readily escape, and this forms one of the differences between this and other diseases. The tympanites is one of the most common and marked symptoms of the disease. The countenance becomes pale, with the expression of calmness; features are somewhat pinched. This condition is known as the "Hippocratic countenance." The mind is generally clear. The urinary secretion is not generally affected, but there may be inability to pass urine from adhesions of the bladder. There is no special condition of tongue, sometimes slightly furred.

The causes are: 1st. The obscure causes which produce inflammation.

2nd. Perforation of stomach, colon or vermiform appendix. Perforations of stomach are from two causes.

1st. Perforating ulcer, which occurs near the pylorus and sometimes partly in the stomach and partly in the duodenum. This ulcer appears like a little "well," and causes thickening of tissues to the extent of $\frac{1}{4}$ in. When perforation takes place the contents of stomach pass into the peritoneal cavity and persons die in 12 or 16 hours, though they often live to the second or third day. There may be ulceration of stomach without endangering life, as in spinal or aphthous sore mouth of children. They are not of common occurrence because ordinary inflammation does not produce them. This, however, must not be taken for the erosion caused by the solvent action of the gastric juice after death. In protracted diseases this erosion does not take place because it is not apt to be taken to any extent previous to death. Some years ago an ulcer was found in a Bellevue patient 3 in. by $2\frac{1}{2}$ in. extending to pancreas and liver and producing erosion, and opening two large vessels of the liver, which gave rise to fatal hemorrhage.

2nd. Stomach may be perforated by cancerous disease, and then it is rapidly fatal. These are the only causes of perforation of stomach. Perforation of intestine at duodenum may result from an ulcer, and is much the same as perforation of the stomach; this form is *less rapid*. I have never seen an instance of perforation of jejunum. Perforation of ileum may happen in *typhoid* fever near the ileo-cæcal valve; pain will first be felt on the right side low down. The whole colon is susceptible to perforation during acute *dysentery*, or from *ulcers* or cancerous disease. The ulcer is very much like that in stomach. They are *circular*, and have been known to surround the intestine. Ulceration may

be produced by a calculus in the gall bladder, but these generally pass into intestinal tube. The most common seat of perforation is at the vermiform appendix. In this sac a great quantity of substances taken with the food have been found at the post-mortem examination. The most common cause is fecal accumulation, which fill the sac and cause ulceration, though I cannot recall a case of peritonitis in children under 14 years which did not occur from perforation at vermiform appendix.

The pain begins at R. I. fossa and extends along the transverse colon; this disease always yields to treatment and seems subdued, but soon breaks out again with greater severity. In healthy persons there is a tendency to adhesion and to form a sac to contain the effusion for a day or two, but as it accumulates the sac breaks and so produces the symptoms over again. This feature seems to be distinctive of perforation at vermiform appendix. The effusion which is purulent gives rise to dullness. In a few instances the disease is not fatal, the pus being discharged by some opening.

Peritonitis is apt to be confounded with *bilious colic*; this is not an inflammation, and is not attended with any paralysis of muscles of intestines, but depends upon an unusual contraction of the muscular fibres. There is no increase in the frequency of the pulse for some hours, while in peritonitis this happens early. Colic is relieved by pressure in beginning, but there is some tenderness after a while. No tympanites as in peritonitis. Obstruction of intestines is taken for peritonitis, but here there is no increased pulse.

Under proper treatment a considerable number will recover, but whatever is done must be done with energy, as the natural duration of the disease is "four days." Blood-letting both general and local has been practised to a considerable extent in the treatment of this disease. Dr. Armstrong proposed blood-letting, followed by a full dose of opium, as the latter perpetuated the effect of the bleeding; but, while he looked upon both as necessary, if he could have but one he preferred the opium. Drs. Palmer and Child of Vermont treated their patients by the Armstrong method in 1844 with success. When I first adopted this mode of treatment eight recovered, the ninth died. The rule is to give as much opium as the patient can take without being narcotized. Begin with grsij. to iv. every two hours until the symptoms of narcosis begin to show. In the case of a hospital patient grs. iv. were given and the dose increased gr. j. every hour until a gr. xii dose was taken. One objection to this plan of treatment is that it requires the attention of the physician, who should always administer the opium himself. It is not important which preparation of opium you use, but use the same from beginning to end. If pills are used they should be freshly made up every twelve hours. You are to give the opium by its effects and not by quantity; these effects are *sensible contraction* of the pupils, marked reduction in the frequency of respiration, diminished frequency of pulse,

gentle perspiration of skin, *itching* of the mucous membrane of the nose, and easy but very much protracted sleep, from which patient may be easily aroused. The pain first disappears. Tympanites continues until inflammation is subdued. Let the bowels alone for one week longer, as they will move when inflammation subsides. The influence of opium is to be kept up until peristaltic action is re-established. The dose may then be diminished and when a spontaneous movement occurs it may be suspended altogether. A full dose may be required at night to produce sleep. I believe I have seen peritonitis from perforation cured by opium. In this form there seems to be a tendency for sealing up, and the opening gives time for this healing process to be more complete. No other mode of treatment has been successful. Strong coffee and the cold effusions are to be used as antidotes in poisoning from opium. With a fair amount of caution and these two antidotes you will not likely be to lose a patient. I do not know of a single death produced by opium in this disease.

PUERPERAL PERITONITIS.

This form of the disease, called also *puerperal fever* and *metro-peritonitis*, occurs in lying-in women, although it may occur independent of *parturition*. It is liable to happen within thirty days of the occurrence of parturition, but generally within the first week, and greatest liability on the *second or third day*. This disease and its associate metritis are believed to be contagious for those in the same condition. There is no doubt but that it may be conveyed by the physician, although this is denied by Dr. Meigs, of Philadelphia. This disease has some connection with the cause which produces *crysipelas*. We rarely hear of one case alone, it is much more apt to be *epidemic*, and the effusion is *purulent*. The fatality of the disease, until lately, was enormous. In Bellevue Hospital not more than one in twenty-eight recovered. Now we have much better results, and the disease is much more manageable in private practice. Metro-peritonitis is much more commonly attended by a chill. It is far less often attended by pain, and this leads to mistakes in the diagnosis. The paralysis of muscular coat of intestines is not so great, and hence constipation is not so obstinate, and cathartics are not forbidden. The other symptoms are quite regular. The inner surface of uterus is always inflamed in puerperal peritonitis, so that I have given the name of *endometritis* to this condition. On examination there is found a pasty secretion on the walls of the uterus, which resembles thick *glue* and of the color of *beef brine*. Sometimes the whole interior of the organ is lined with this adventitious material, made up of blood, pus, and fibrin, formed into fibers, not unfrequently with cells. This indicates a most *intense* form of inflammation. The uterine sinuses may be inflamed and purulent matter deposited in their cavities. Pus is then mingled with the blood, and all the symptoms of pyemia are present. From this symptom it

has been called *purulent uterine phlebitis*. These uterine sinuses open on the inner surface of uterus by valvular mouths, situated where the placenta was attached. The inflammation passes over these mouths very readily into the veins and it is this which makes the disease so dangerous. The *lymphatics* of the uterus take on the same kind of action and those in the neighborhood of the round ligament are subject to purulent inflammation. The ovaries are enlarged and covered with lymph. There are evidences of inflammation in Fallopian tubes; purulent matter exudes by pressure. The fibrinated extremities are deeply congested and covered with lymph. In some instances the Graaffian vesicles are destroyed by this process. Puerperal fever, in which peritonitis is the leading feature, is much more easily cured than puerperal fever with metritis, the difference being in the purulent effusion. The symptoms of this are suppression of the lochia for twelve or twenty-four hours, pulse frequent and very small, *extreme prostration like that in pyemia*, impaired digestion. The *perspirations* constitute the chief features of the disease. These take place after six to ten days, or in the second week. The first is usually preceded by a chill, but after this they come on without any reference to the chill. They seem to be conservative in their action, for without these the elimination of pus cannot take place. Abscess of the breast, or broken breast, may result from the sympathy of the breast with the uterus. Again an abscess may occur in the iliac fossa, and obtain a great size, so as to open spontaneously, or require opening. The woman dies in a few days from the depressing influence of the pus upon the nervous system. The opium treatment is used in cases where peritonitis is a most prominent element. In Bellevue Hospital five out of six were cured by this treatment. Besides the opium, these women took a few doses of *ver veride* to diminish frequency of pulse. Norwood's mixture of *veratrum* may be given, dose gtt. v, when the opium has reduced respiration but not the pulse. It produces great nausea, attended by prostration and a tendency to syncope. Alcoholics are to be used when such effects are produced. It is a very good treatment to give opium and *ver veride* in alternate doses, and this is all that is necessary. In *metropéritonitis* opium does not serve any important purpose, and it is useless to give it, except to *soothe* the patient. Leeches to the vulva or perinæum and bleeding promoted to a great extent. Opium grs. j or iij every two or three hours. Injections of warm and tepid water into vagina and uterus. The *veratrum viride* treatment has been introduced and is successful. During the period of purulent infection quinia sulph. grs. (xv per day) combined with morph. sulph., to reduce irritability. If there is a tendency to the formation of abscesses food and stimulants will be necessary.

CHRONIC (OR TUBERCULAR) PERITONITIS.

A somewhat rare disease, usually dependent upon *tubercles*, but sometimes upon *cancer*. Occurs

mostly in young persons, say from *ten to twenty-five* years of age. Is very insidious in its approach, and not usually made out until far advanced. The symptoms constitutional are those of pulmonary tuberculosis, viz: paleness, emaciation, loss of strength, and frequency of pulse. *Constipation of Bowels* alternates with *Diarrhœa*, which is easily explained by the lesions existing. The peristaltic action being hindered by the glueing of the intestines together, *fæces* accumulate. These in short time inundate mucous membrane, and produce a free watery secretion, which constitutes the *diarrhœa*. The cause of irritation being removed by this discharge, the bowels become quiescent, and constipation again ensues, and soon. The bowels are persistently tumefied and tympanitic. Tubercles (*miliary*) are on or under the pleura, and a low grade of inflammation is set up. A thin layer of fibrinous exudation is poured out on surface of pleura. This speedily becomes organized. Upon this new tissue another exudation takes place and this in turn receives another, and so layer after layer is formed until the contents of the abdomen become so welded and hidden in the exudation that it is impossible to distinguish anything with certainty. Although tubercles almost invariably exist in the lungs at the same time it sometimes happens that their symptoms are not well developed, and the phthisis may be far advanced without cough or other rational signs of its existence. As a rule the treatment can only be palliative. (Yet Dr. C. has seen two cases recovered.) We know tubercles *can* be softened and absorbed. There is no theoretical reason why recovery should not occasionally take place. Fresh air, nutritious diet, cod liver oil, tonics, stimulants (in moderation), with counter irritation (iodine being preferable), are the chief remedial agents. The afternoon fever may be controlled by quinine and *acidi sulph. arom.*—*N. Y. Hospital Gazette*.

LECTURE ON MEASLES.

BY ALONZO CLARK, M.D., LL.D.,

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I call your attention now to another of the eruptive diseases—measles. A disease so mild in many cases that the family do not call a physician; and yet so severe in many as to make a pretty large mortality in a city like New York. You will be surprised, perhaps, to hear, if you know anything about the course of measles as it most commonly presents itself, that the mortality here is two, three, or four hundred a year, varying very much; down below a hundred many years, and up to two or three hundred, or more, some years. The explanation of this lies partly in the fact that measles is a more prevalent disease than scarlet fever. If you look into the medical register, or any medical journal that reports the number of

contagious cases that occur in the city week after week, you will see almost invariably that measles is two or three times ahead of scarlet fever in the number of cases.

It is, then, sometimes a very grave disease ; at other times a very mild disease. I will describe it to you in the same manner that I did scarlet fever, by marking the several stages.

It is only to be had by contagion. It does not arise *de novo*, even from decomposing oat-straw ! A western physician made this a source of measles for the young members of the army in the late war ; but there is no good ground for the opinion that I can see. Measles is obtained from measles, and from nothing else.

The period of incubation is not definitely fixed. Indeed, it is fixed, and we have ascertained that it is *irregular* ; that it is uncertain. As for example, Dr. Buell, who lived in New York a good many years ago and moved to San Francisco, recited to a medical society his experience with reference to a house down town, in College Place. College Place was then a place of residence ; it is now a place of stores. At a boarding-house there a lady with two or three children was so unfortunate as to have measles break out among them. As soon as it made its appearance, the boarding-house mistress, conscious that it would injure her business by causing other boarders to leave, required this one to go out of the house. The room was left unoccupied for a week, when another family came in to occupy it with children also. In seven days from the time they entered that room measles broke out in the family. The landlady drove this family away and another took its place, and in seven days after the third family came in measles broke out among their children, so that for two particular instances seven days was the period of incubation. But there are other instances that can be quite as well marked in which it goes on to eight, nine, ten, or even to fourteen days. The period is given very variously by the different persons who have written about the disease. As for example, Holme makes it from seven to fourteen days ; Williams, from six to sixteen days ; Rilliet and Barthez, five to thirty, and even fifty days ; and they are very good authority. Their statements are received as statements made on careful observation.

I should doubt very much whether it has an incubation of fifty days ; at the same time I cannot limit possibilities in the matter.

When, then, it makes its appearance in different persons, at a variable period after exposure it has its stage of invasion, and this is pretty long for an eruptive disease ; the longest of them all, three to four days. It is rarely ushered in with a chill, though cases are recorded in which a chill did occur as the first symptom. There is commonly, before anything very marked is observed, an indefinite feeling of not being well ; *malaise*, as the French call it. And then comes a little febrile action, which increases day by day, and with that

febrile action a redness of the eyes, and a little watery condition of them. The tears are secreted, and then there is the extension of the inflammation that was at first confined to the membrane of the eyes. On the outer membrane of the eyes it extends into the nose and into the fauces, and so down gradually into the breathing-tubes. You have, in a word, a catarrh, and the catarrh, when it is fairly formed, is attended by a peculiar cough in most of these children. The French have called it the "iron" cough ; a harsh, coarse cough. The eyes run a good deal ; the nose is a little busy in that same business. There is some headache ; the temperature is elevated moderately, and this condition continues for a period of from three to four days. The invasion of small-pox is two days ; the invasion of scarlet fever from six or seven hours to twenty-four ; the invasion of measles three to four days. The child is not very sick during this period of invasion, as a rule ; though, as I told you, there is considerable fever, the temperature rising to 102° , or it may be to 103° .

Then comes the eruption. The eruption appears upon the upper part of the body first, and gradually descends to the lower part, just as scarlet fever does in the majority of cases, and yet there are exceptions. Measles may break out all over the body, or it may break out upon the back first, but the general rule is that it appears upon the neck and face first, and gradually descends. It takes it about two days to reach the feet in the greater number of instances.

The character of the eruption you may get an idea of from this portrait, and notice particularly the condition of the eyes. They are red, and so are the fauces and the bronchial tubes and the nasal passages—all reddened by this catarrhal inflammation. This eruption is sometimes called crescentic. I believe this is a fair representation of it, and you will hardly find a crescent in any of these spots of eruption. It is better described as being irregular in shape, varying somewhat in size, but rarely larger than a bean—sometimes in some degree linear and curved, but always varying. Every particular case of measles will give you a multiple form of eruption ; it does not occupy, as the scarlet fever eruption does, all the skin. There will be healthy skin along between the several spots ; red eyes, and a peculiar eruption of a dingy color, not bright red. The eruption lasts in any one spot about four days, and the whole eruption about six or seven days, it disappearing on the feet after four or five days of continuance, as it does upon the upper part of the body in the same period. You observe there is no difficulty in distinguishing the eruption of scarlet fever from the eruption of measles. They are both produced by numerous slightly elevated little points, the loops of the capillaries of the skin, but the irregular patches of measles and the darker hue of the eruption are sufficient to distinguish it from the continuous eruption of scarlet fever.

In a mild case, as in scarlet fever, the fever

gradually diminishes after the eruption appears, but in a bad case the fever continues and the temperature rises. The bad cases are made by certain complications. As, for example, there is the hemorrhagic form of measles, in the old time called black measles. The patches take on a dark, ecchymotic color—not so marked as ecchymosis, but still approaching it. In this case, as in the hemorrhagic cases of scarlet fever, the danger becomes very great, and the chances of recovery of course are diminished. In certain other instances there is a tendency to gangrene, particularly about the mouth; and in the female, the vagina, and sometimes about the anus. And this gangrene comes to be a very grave matter. It is exceptional, fortunately.

Then, again, you have a form of measles that resembles, in its general symptoms, that form of scarlet fever I described to you under the name of scarlatina maligna. The child appears to be overwhelmed by the poison that produces the disease. The nervous system seems to give way. He becomes delirious and comatose, perhaps awakening occasionally from his coma, making a shriek, a hydrocephalic cry, though there is no hydrocephalus.

You observe, then, that measles, though in a greater number of cases a very mild disease, can take on very grave symptoms.

When the period of desquamation occurs, there is a noticeable difference between the desquamative scales of scarlet fever and measles. They are branny in measles, and branny for the most part in scarlet fever, but the scales are larger in scarlet fever than in measles, as a rule. Sometimes in measles you have it in great quantities. I have scooped it up in teaspoonfuls from the sheet on which the patient lay. There is nothing of the glove-form of exfoliation in measles.

There is, as a sequela of measles, a very considerable amount of ozæna, as it is sometimes called—a bad catarrh; running at the nose; the eyes retain their redness frequently for a considerable time; the cough holds over, and may continue for some months. And persons have been known to pass into phthisis, tuberculous disease of the lungs, out of measles.

As to the treatment of measles, the mild cases hardly require any. The catnip-tea that the mother gives is as about as good as anything. And when you come to the severe complications you are baffled very much, because you can hardly find anything that will have much influence over it. If it is the hemorrhagic form, why, then, iron and the vegetable acids, together with the supporting effects of quinine and food, will probably do more for you than anything else, if you can save the case at all. If it is attended by gangrene, there is nothing that has as good a reputation as quinine, and you of course support the power of the patient by alcoholics as far as your judgment will require. In the malignant form I do not believe you will find any medicine do much good. If ergot has

the control that it has the reputation of having over the capillary circulation, it may be possible that it may have some effect upon this form of disease. It has not been tried, so far as I know, and I do not know that it would be useful. Cold to the head, cold to the body as the temperature becomes more and more elevated, is certainly admissible and desirable, to reduce the temperature to a safe point at any rate; and in measles the temperature rises in the bad cases sometimes to 106° or 107° .

There are a few things more to be said regarding measles. I neglected to say to you that another name for it is morbilli. Among the symptoms is rather a curious one; an odor like that which comes from the nest of mice—a mouse-odor. In any case of pretty full eruption you will be likely to find it.

Among the sequelæ will be found, not unfrequently, indeed pretty commonly, a certain amount of nasal catarrh, and this may continue for some weeks after, and associated with that, very commonly, is a pulmonary catarrh. One of the features of the disease, and with its early development, is this catarrhal affection of the mucous membrane of the eyes, nose, and breathing-tubes, and this holds over in a considerable number of cases, and not unfrequently gives some anxiety, and the anxiety is in a few cases well founded, for this disease and typhoid fever are followed more frequently by phthisis than any of the other acute affections that I know—by a tubercular phthisis. Still the vast majority of persons who have measles recover from it wholly.

This ophthalmia is sometimes the occasion of some trickery. I was, a great many years ago, in company with a gentleman from the south. His eyes were red and inflamed to a certain extent, and I saw at once that it was a peculiar relic of the measles. After dinner the entertainer's son asked me what that young gentleman had better do for his eyes. He had been to an advertiser, and the advertiser had informed him that it would cost him \$500 to be cured, and the friend asked me whether it was worth while to pay it. When I learned who it was that he had applied to, I told him certainly not, but to go to Dr. Delafield, the father of my colleague (who was then giving considerable attention to the eyes), and let him put him under the regular treatment. He had sent word to his father to forward to him the \$500 as a fee that he had to pay to cure his eyes. Instead of it, however, at my advice, he went to Dr. Delafield. Dr. Delafield applied around the eyes some veratrum ointment, and in five, six, or ten days, he was all right, and the fee was \$19. This advertiser had tricked him in this way. When he urged that \$500 was a large sum to pay, the advertiser replied: "The medicine is so expensive. You get the medicine and I will treat you for very much less." He gave him, therefore, a prescription for an ounce of veratrum, which at that time cost about \$500. He called on one druggist with the prescription. The druggist said: "I have not that

amount, but I can procure it for you." Well, what will it cost?" "Four hundred and seventy-five dollars."

He went to another, and what would it cost? He had not that quantity, but he could get it for him. What would it cost? Four hundred and eighty dollars. And, after trying three or four times, he went back to the advertiser and said he could not do any better, and the advertiser was getting ready to use a few grains of this ounce that he had prescribed.

Occasionally wry-neck follows measles. The muscles of the neck get stiff and contracted, and turn the head. That is rather a wearisome thing when it occurs. It occurs exceptionally, and frequently requires a good deal of patience on the part of the physician, and I cannot tell you of any particular prescription, or any method of treatment that is of special aid.

Anasarca not unfrequently follows scarlet fever. It is a very much less frequent sequela of measles, and yet it does from time to time occur, and acts in the same way, with the same symptoms, the same developments with reference to the tendency to convulsions, the tendency to the production of inflammatory action, particularly about the heart and pericardium, and will require the same treatment. But its unfrequent occurrence will give you a little satisfaction. That is, as you are coming to the end of a case you will not consider that, as a matter of course, this cedema or anasarca is to occur.—*New York Medical Record.*

THE OPIUM-HABIT—A POSSIBLE ANTIDOTE.

By E. R. PALMER, M.D.,

Professor of Physiology, University of Louisville.

It is not my purpose to enter into a lengthy dissertation upon this "social evil;" yet such a dissertation would be by no means inappropriate, seeing how great is the evil of the opium-habit, and how poor and insufficient the literature bearing on its treatment and cure. No people so well know the uniform evil effects of opium-eating as the medical fraternity. De Quincy and others have founded the pernicious notion among the laity that there is a something far more exhilarating, far more divine in the intoxication produced by opium than in the commoner intoxication of alcohol.

Few people, comparatively speaking, need look beyond personal experience to know that the poet has not been niggard of his coloring when singing the praises of the rosy juice. The majority of mankind has too vividly imprinted in memory the clouded intellect, headache, and nausea following bibulation to bow unqualified assent to the poet's ecstatic verses recounting the virtues of "the generous wine." On the contrary, happily, so far as we Americans are concerned, what the vast majority of us know of the opium-habit is gained from

hearsay, and is, as is well known to the doctor, unreal in the extreme. It has been my lot, like that of most practitioners, to come in contact with opium-eaters, and I will positively affirm that I have yet to see one who even approximated in his nature the "happy-go-lucky" character of the drunkard. Opium eating is a curse without any qualifying dispensation—a black cloud in a sunless life. Unlike alcohol, it cannot be said of opium that its constant use improves the vital powers of the enfeebled. No debates as to its food properties ever have or ever can be held. It is simply a powerful drug, useful in time of great physical distress, and pernicious beyond the power of pen to portray when once it fastens itself upon the mortal frame as a daily necessity.

To be able to cure the opium-habit has been the laudable ambition of many a worthy doctor and the vaunted claim of many a blatant quack. I believe that so far as the literature of medicine goes to-day we have no remedy with any claims whatsoever as a curative of this habit. Those doctors who have succeeded in reforming any of its victims have, I believe I am safe in saying, done so by aiding the weak resolves of their patients with their own strong will and influence. If any medical man has yet discovered a *cure* for opium-eating, I am sure the medical world is not aware of it.

Recent experience has led me, in view of the facts just stated, to hope that I have discovered a cure. What it is and how I came to use it may be briefly told as follows: In looking over the different remedies which various drug-houses have kindly donated to the University Dispensary, I read upon the back of a bottle of fluid ext. of coca, made by Parke, Davis & Co., that this drug "produces a gently excitant effect; is asserted to support the strength for a considerable time without food; in large doses produces a general excitation of the circulatory and nervous system, imparting increased vigor to the muscles as well as to the intellect, with an indescribable feeling of satisfaction amounting altogether sometimes to a species of delirium, not followed by feelings of languor or depression," etc., etc. At this time I was treating in private practice an obstinate case of cardiac irregularity due to a somewhat dissolute life, and not amenable to either belladonna, digitalis, or tonics. I started the patient on coca. From dropping one beat in every four, his heart went, with increasing doses of the drug, to one in seven, one in twenty-one, one in thirty-eight, and finally a cure. The absolute relief and cheer that a good, big dose of coca imparted to this patient were wonderful to observe. I had hardly begun with this case before a similar but even worse case of cardiac exhaustion, with irregular action, offered at the University Chest Clinic for treatment. To be brief, he got coca and got well. In both cases hypochondriasis was a marked symptom, and was speedily cured.

In March last I was sent for in great haste by

the proprietor of a neighboring saloon, and on my arrival was told that "a chap" had just gone to his room from the saloon in a fearful fix. "He looks," said the publican, "as if he had been on a terrible spree, and needs a doctor mighty bad." I was shown to the gentleman's room, and was struck at once by his peculiar appearance. He told me frankly that he was an opium eater; that he had not taken a drink for months; but that this morning, feeling so badly from morphine, he had gone to the saloon and taken a brandy cocktail, which, however, did not stick. He protested that he was dying, and altogether was in a sorry plight. I subsequently learned his dose was three grains of morphine several times a day. I tried various remedies for a day or two, and by moral suasion got him to reduce the dose very materially, but much to his discomfort. About the third day of my attention I bethought myself of the coca and ordered it for him. Imagine my surprise upon meeting him the next day with fine spirits and a record of only one fourth of a grain of morphine taken since my last call. This was the end of the case. He took the coca for some days, and entirely broke off from opium. His statement was that whenever he felt depressed or bad he took a good, big dose of the medicine, and in a few moments was all right.

My second case was so striking in its results and is so recent that I hardly feel justified in reporting it. It is as follows: Upon the 18th of the present month a gentleman sent for me. I found him in bed, looking like a consumptive. He at once told me that he was an opium-eater, and that he had reached a point where thirty grains of morphine daily were necessary to supply the cravings of his perverted nature. He said that he was now trying to break off, and wanted me to help him. I told him of what the coca had done, and with a few cheerful words prescribed it for him. The next day I found him still taking morphine, although in small doses, as he had not been able to find the coca. Upon the following day he had had but one dose of morphine in eighteen hours (one fourth grain) and plenty of coca. He was hopeful and cheerful. The next day I failed to see him, and on calling the day following the servant met me at the door with the statement that he was well, and had gone down street. This much I can say for the last case, that when I last saw him he looked like another man, so light and cheerful was his face, and so free from the evidences of opium.

These are very brief and slender claims upon which to base a claim of discovery: and while I might supplement them by several cases of ordinary hypochondriasis relieved by the agent in question, I do not deem it worth while, as my only desire is to direct professional attention to the administration of coca in the treatment of the opium-habit.

Erythroxylon coca is a native of the eastern slope of the Andes. It is cultivated in the tropical valleys of Bolivia and Peru. The greatest of care

is given to its culture by the natives. An idea of its importance as an agricultural product may be gained from the fact that the duties upon coca in Peru amount yearly to four hundred thousand dollars. The Peruvians are pre-eminently a despondent, an unhappy race, and coca is their balm. To them it is a relic of departed days of glory, and under its benign influence they enjoy in dream and delirium the halcyon days of Monco Capac.

Professor Steele, of the American Pharmaceutical Association, from whose article upon Coca I glean these facts, says: "Coca is both salutary and nutritious; in fact, the best gift the Creator could have bestowed upon the unfortunate Indians. They always carry a bag of leaves suspended from their necks, upon which they draw three times a day with as much pleasure and delight as a connoisseur in tobacco smokes a fragrant Havana. It imparts brilliancy to the eye and a more animated expression to the features, agility to the step, and a general appearance of animation and content." Indeed, one can scarcely read Prof. Steele's article * without wishing to test the virtues of this great antidote for the blues. The ordinary dose for adults of the fluid extract is a tablespoonful.

CHIAN TURPENTINE IN THE TREATMENT OF CANCER.

The *Lancet*, for March 27th, 1880, contains a paper by Professor John Clay, of Birmingham, on "The Treatment of Cancer of the Female Generative Organs by a new method." The remedy he uses is Chian Turpentine, and, although his experience extends over a period of only twelve months, yet, from the results which have been obtained from its use during that time, the author asserts that an amount of relief has been secured to the patients put under its influence which has not been afforded by any other mode of treatment hitherto employed. In the first case in which it was tried it was given in doses of six grains, with four grains of flowers of sulphur, every four hours. The patient was 52 years of age, and suffered from scirrhus cancer of the body and fundus of the uterus. Hemorrhage was excessive, and pain in the back and abdomen agonizing, and the cancerous cachexia was well marked. The patient apparently had not long to live. The uterus was extensively destroyed by the cancer, and its cavity admitted three fingers. On the fourth day of treatment by the Chian turpentine the patient reported herself greatly relieved of the pain. The os was found quite contracted, hardly admitting the index finger, and the surrounding cancerous infiltration was much diminished. At the twelfth week examination was made, and the parts felt ragged and

* Proceedings of the American Pharmaceutical Association, 1878, pp. 774-778.

uneven, and did not bleed on roughly touching them. Several cicatricial spots were seen per speculum. There was no pain or hemorrhage, and the general health was improved. Other three cases are recorded in the paper, showing similar results from continued use of the drug, the os uteri speedily becoming contracted, and its tissues assuming a more natural and healthy condition. The author concludes that the best method of administration of the Chian turpentine is to give it uncombined; that its effects are more rapid and more marked when given alone. Whatever be the ultimate results of further experience of this drug, he believes there can be no doubt that in these diseases of the uterus it is a most valuable remedy. In the early stages of cancer, it may be affirmed that a speedy cure may undoubtedly be expected, while in advanced cases of the disease, if the surrounding structures are not too much involved in the destructive process, an ultimate cure may reasonably be hoped for.

HOW TO USE IODOFORM IN CHANCROID.

From Keyes's Venereal Diseases :

Unquestionably the most efficient local application for these chancroids is iodoform, and its application pure, in powder or mixed into a paste with glycerin and scented with essential oils, is rarely painful. But respectable people will not use iodoform. Its peculiarly penetrating and tenacious odor is unmistakable. Those who have once smelled it upon any one else fear disclosure from the very fact of using it, and most of those who are unfamiliar with it at first soon get to abhor it. In spite of all this it remains the most efficient local application for chancroids too old to burn, and by a careful person can be often so used as to escape all the disadvantage attaching to it.

Nothing will disguise the odor of iodoform. Oil of peppermint is perhaps the best of the aromatic oils for the purpose. Many other sweet-smelling oils have been used. These are combined with powdered iodoform in ointment with various greasy excipients, or the powder is rubbed into a paste with glycerin and then scented. The misfortune is that the odoriferous principle is more volatile than the iodoform, and, aided by the heat of the body, soon leaves the odor of the iodoform supreme. Applications of iodoform dissolved in ether or chloroform have been recommended. Their application is painful, the solvent evaporates, and the odor exhales as strongly from the fine dust left precipitated over the surface of the ulcer as if it had been at first deposited there in its natural state.

Still iodoform is too good a substance to be given up. Those who do not object to the odor can use it freely as a powder, or rubbed into a paste with glycerin. Others may use it undetected if their chancroids are sub-preputial and the prepuce reasonably long. The sores must be washed and

dried. A little fine iodoform dust is then taken upon a narrow piece of card and scattered over the ulcerated surfaces. The prepuce must now be carefully pulled forward and a piece of absorbent cotton placed in its orifice. No portion of the iodoform must be allowed contact with the clothes or the fingers of the patient. He must be careful, upon urinating, to pull out the cotton gently, retract the prepuce only enough to disclose the meatus, and put in a fresh piece of cotton immediately. He must change his dressing frequently at home, and use great care in his washings, not to let the water which has run over the sores touch any part of his person or of his clothing. By using such precautions the most fastidious patient may employ this valuable remedy without betraying himself.

BROMIDE OF ETHYL AS AN ANÆSTHETIC.

A discussion on this subject took place at the last meeting of the *Société de Chirurgie* of Paris. Considerable interest attaches to the debate, from the eminent position on the Continent of several who took part in it. M. Terrillon opened the subject with his experience. He said he had used bromide of ethyl as a general anæsthetic in fourteen cases. The anæsthesia lasted from eight minutes to an hour. The results obtained were : 1. At the commencement, when he used a large dose of five or six grammes, there was little irritation and less suffocation than in administering chloroform, anæsthesia supervening in about a minute without convulsion. Muscular relaxation takes place in from two to four minutes. In most patients the excitement was less than with chloroform, and instead of clonic there were only tonic convulsions. The face, conjunctiva, and neck, were congested, and a sweat sometimes supervened; the pupils were moderately dilated, the pulse always quickened, and each time the bromide was added the acceleration increased. 2. During the anæsthetic stage the intermittences must be very short, and the napkin not entirely removed. The pulse becomes very rapid and small, 125 per minute. The face is congested and covered with sweat. The respiration, which is quickened by the bromide, is sometimes obstructed by mucus collecting in the pharynx, and breathing is stertorous and roaring. The patients attempt to swallow, and the mucus must be removed by a sponge on a whalebone stem, introduced to the back of the mouth. Thus, instead of chloroformic anæmia, we have congestive phenomena. 3. The waking is very rapid. Patients can answer questions in less than a minute, and have no desire to vomit. Vomiting sometimes occurs during the sleep; most of the patients vomit after administration of the bromide as after chloroform. From these facts, M. Terrillon thinks bromide of ethyl is preferable to chloroform for simple anæsthesia, if it is desired to be

rapid, and to last only a short time. If, on the contrary, we require to push it to the point of muscular relaxation, it cannot be so considered. If accidents occur they will probably be in connection with the respiration, and will be such as we may ward off, and which do not take us by surprise. like those due to chloroform. M. Berger thought that some caution was required when the anæsthesia had to be long continued. He had been struck with the ease by which death occurred in animals, which was more rapid in rabbits than with any other anæsthetic. In one case of anæsthesia in man, under M. Gosselin, the bromide of ethyl did not give good results on account of the agitation during the anæsthesia and the subsequent vomiting. M. Verneuil had seen a case where general anæsthesia was produced, even before it was wanted. He was about to remove a small tumour from the vicinity of the nose in a woman fifty years of age, and recourse was had to a spray of bromide of ethyl as a local anæsthetic, but he had scarcely commenced before the inhalation of the vapour caused general anæsthesia. As a local anæsthetic he considered the bromide of ethyl valuable, and had obtained good results from its use. M. Lucas-Champonnière had given the bromide in small doses to lying-in women: the results resembled those of chloroform, but were more disagreeable both to the patient and the attendants. M. Nicaise had seen very good effects from local anæsthesia by bromide of ethyl, when it was desired to use the thermo-cautery or red-hot iron.

It is evident from this debate that the use of this substance as an anæsthetic requires further experimental observations. Sufficient has been adduced to show that it has a certain value, but we are not, at present, disposed to accept it as superior to those tried agents, chloroform, ether, bichloride of methylene, or nitrous oxide. A more thorough investigation than appears yet to have been accorded, will place bromide of ethyl in its proper position.—*Dublin Med. Press, June 9, 1880.*

THE STRONGEST MAN IN THE WORLD.

At Reno, in Nevada, according to one of Mr. R. A. Proctor's letters to an English journal, there now lives a man who is probably the strongest in the world. His name is Angelo Cardela. He is an Italian, age 38 years, 5 feet 10 inches in height, and weighing 190 lbs. He is a laborer, of temperate habits, but not objecting to the moderate use of malt liquors and light wines. In personal appearance he is not remarkable, but "merely a good-natured-looking son of Italy, with a broad, heavy face, a noble development of chest and shoulders, and large fleshy hands." His strength was born with him, for he has had no athletic training. This strength does not reside in his hair by any means, but apparently as much in

his bones as in his muscles. At any rate, he differs from other men chiefly in his osseous structure. Though he is not of unusual size, his spinal column is double the ordinary width, and his other bones and joints are made on a similarly large and generous scale. He has been known to lift a man of two hundred pounds' weight with the middle finger of his right hand. The thing was done as follows: The man to be lifted stood with one foot on the floor and arms outstretched, his hands being lightly grasped by two friends, one on each side, to preserve the balance of the body. "This slight assistance," we are assured, "had no tendency to raise the body being merely to keep him from toppling over." Cardela then stooped down and placed the third finger of his right hand under the hollow of the man's foot, on which he was balancing, and with scarcely any perceptible effort raised him to the height of four feet, and deposited him standing on a table near at hand. It is said that two powerful Irishmen, living near Verdi, in Washoe County, Nevada, waylaid Cardela with intent to thrash him; but he seized one in each hand, and beat them together till life was nearly hammered out of them. He is, however, of a quiet and peaceable disposition. His strength seems to have been inherited, for he states that his father was even more powerful than he is himself.

RINGWORM OF THE SCALP.

Dr. MacLeod (Dundee), after failing to cure an obstinate case of ringworm by various remedies—as ascetic acid, carbolic acid, oil of cade, oil of stavesacre, etc.—found it yield readily to a mixture of iodine and oil of tar in the proportion of two drams to one ounce painted over the patches three or four times. This plan has been recommended by Professor McCall Anderson.—*Lancet.*

PROF. BALL'S PRESCRIPTION IN EPILEPSY.

Ammon. bromid., sod. bromid., aa equal parts; take two to five grams twice daily (with food). Ext. bellad., tinct. oxid., aa .02 gram; make a pill; two pills to be taken morning and evening.—*Ibid.*

IODOFORM AND GOITRE.

In 1843 Bouchardat recommended iodoform as a substitute for tincture of iodine and iodides, and gave it in pastilles and pills. In 1848 Glover followed his example, curing two women who had goitre by internal and external treatment combined. He gave it internally in the dose of thirty to forty-five centigrams (4.6 to 7 grains) a day in three or four pills, making inunction upon the tumor at the same time with a pomade containing iodoform.—*Trousseau's Therapeutics.*

THE TREATMENT OF SUMMER DIARRHŒA.

An interesting lecture on the summer diarrhœa of adults, by Dr. Horatio R. Bigelow, of Washington, D.C., is reported in full in the *Philadelphia Medical and Surgical Reporter*. We reprint the portion of it relating to the treatment of the disorder, as likely to be of practical service to many of our readers at this time of year :

In all cases where we have reason to suppose that there is undigested food in the alimentary tract it is good practice to exhibit at the very commencement a dose of castor-oil and opium. This somewhat nauseous admixture may be rendered palatable by combining with it compound tincture of cardamoms, oil of gaultheria, pulverized acacia, white sugar, and cinnamon water. Should there be extreme pain or cramp, a spiced hop poultice (hops, cinnamon, cloves, linseed, and brandy) over the abdomen gives much relief, while the subcutaneous injection of vi.-x. minims of Magendie's solution will quiet pain and nausea. If the stomach is incapable of retaining the oil it should be administered as an enema. A persistent diarrhœa should be treated with powders of oxide of zinc with bicarbonate of potash, or with gallic acid and opium. Where the anæmia is marked, the debility extreme, and the diarrhœa malignant, in the sense that some anæmias are said to be malignant, there is no more desirable mixture than the elixir of calisaya bark and aromatic sulphuric acid. If the tendency be to cholera, quinine and ergot, or carbohc acid, should be given with hot brandy punches, with laudanum, or the subcutaneous injection of the hydrate of chloral. The simple uncomplicated diarrhœa that one meets so often in the summer will usually yield to a little chalk mixture, with tincture of krameria ; when more severe we may use a mixture of tincture of opium, spirits of chloroform, alcohol, and spirits of camphor. An enema of the sulphate of copper before breakfast is useful in many cases of great tenesmus. As a general rule, when sent for to attend a case of cramps resulting from unripe fruit, or anything of that nature, I order a castor-oil enema at once, with the immediate application of a hot spiced hop poultice over the abdomen. If necessary I add a subcutaneous injection of morphine, and leave the patient with the assurance that he will be well in a few hours, and that nothing more will be necessary. If an adult patient comes to my office complaining of an active diarrhœa attributable to no other cause than that of heat and over-exertion, I order him a few powders of the oxide of zinc and bicarbonate of potash, to be followed by a mixture of the elixir of calisaya and sulphuric acid.

If the diarrhœa be due to constipation, we have nothing better than a pill of extract of nux vomica, extract of belladonna, with extract of physostigma. These should be taken regularly to overcome the habit, which is due probably to a relaxed condition of the muscular coat of the bowel. The anæmia of

malaria attended with diarrhœa is admirably treated with a pill containing chinoidine, sulphate of iron, and the resin of podophyllum. Astringents, as we usually understand the term, are of no possible avail. They do not reach the seat of the disease. An ordinary bilious diarrhœa, not due to catarrhal or obstructive jaundice, will generally yield to a pill containing Turkey rhubarb, resin of podophyllum, and blue pill, with a little hyoseyamus, to prevent griping. After decided action has resulted we may put our patient upon a mixture containing dilute nitro-muriatic acid. The diarrhœas preceding attacks of icterus are treated with a pill of purified ox bile, sulphate manganese, and podophyllum, or with the hydrated succinate of the peroxide of iron. In the reflex diarrhœa due to intense heat, with excessive mental excitement, we have a remedy above all others,—finely powdered ice applied to the whole length of the spine, in one of Dr. Chapman's ice bags, for one or two hours at a time, has a wonderful and immediate effect. It relieves the hyperæmia of the nerve centres, tranquillizes nervous irritability, overcomes insomnia, and checks the diarrhœa. In diarrhœas generally, attended with great nervous prostration we have nothing in medicine of half the value. In these cases the great object to be attained is to subdue as rapidly and completely as possible the hyperæmia of the spinal cord and sympathetic ganglia, and re-establish the healthy equilibrium of the circulation ; and, while the future may demonstrate the way in which this may be accomplished by galvanism, we have not now any means of reaching the automatic nervous centres comparable to that of ice applied along the spine, together with heat to the general surface. With this we may give bromide of lithium and calisaya, or the elixir of calisaya, quinine, and strychnia.

DOUBLE PNEUMONIA AND ABORTION.

Dr. L. A. Rutherford reports the following interesting case to the *Medical and Surgical Reporter*. The case is of so great interest that we publish it in full :

On the 14th of March I was called to see, with another physician, a white woman, aged thirty-three ; skin very hot ; both cheeks flushed ; eyes suffused ; respiration about twenty-three ; pulse 120. Complained of severe pain in both sides of the chest, Cough constantly. Both sides dull on percussion right side more involved. Respiratory murmur at upper part of both lungs very loud, accompanied by some fine crepitation. Tongue very broad and flat, deeply furrowed in centre, base covered with a dense dirty, brownish fur ; lips red ; breath very offensive. Diagnosed double pneumonia. Ordered a large mush poultice, to cover both sides of the thorax, to be as hot as the patient could endure it. Acetate of ammonia, in one drachm doses, to be given every three hours. Five grains of cauto-quinine every six hours. Eleven a. m. next day pulse

was 120. Right lung more involved, pain more acute, respiration more rapid, mouth dry, tongue more brown, fissure deeper, heat of skin $103\frac{1}{2}$. Ordered poultice to be continued, and increased my dose of dextro-quinine to twelve grains, to be given at once, and repeated in four hours. At 9 p. m. saw the patient; complained of diarrhoea. Three doses of dextro-quinine were taken, and the symptoms were much improved. For the diarrhoea a few drops of Monsell's solution of iron were ordered every hour. Nourishment principally consisting of milk. Dextro-quinine was given only twice during the night. On the morning of the twelfth symptoms much improved, though the dullness was as great, but heat and restlessness abated somewhat; diarrhoea under control. During the next two days the acetate of ammonia was continued in one drachm dose, every four hours, five grains of dextro-quinine to be given three times a day.

On the fifteenth I was called in haste to her. Found pulse 135, respiration very rapid, skin very hot; two slight convulsions came on while I was with her. Ordered beef tea and milk to be given frequently, in small quantities. Tincture of veratrum was given in small doses every hour. Four o'clock I saw her again; was told that labor pains were on her. She was four months advanced. Made a vaginal examination, and found the os dilated, perineum soft and yielding, but little hemorrhage, and before I left the house the foetus was expelled, minus the placenta. The shock this abortion inflicted on the system was fearful; she became semi-comatose, pulse went up to 150, small and thready, breathing diaphragmatic. Several convulsions then came on. Hard ones were on her in twenty minutes or more. Face was pale, skin of body intensely hot, while the extremities were cold. Something had to be done forthwith, and as I put about as much faith in dextro-quinine as most men do in a good brake on an express train, I poured out what I thought to be a good twenty-grain dose of that drug, which was dissolved in a solution of tartaric acid, and poured it down her throat. This was repeated in an hour. It was certainly marvelous to witness the effects produced. In two hours the pulse was reduced to forty beats, and the skin much cooler. Though the convulsions did not entirely subside in that time, they were very much lessened. In three hours more I gave her ten grains again; by night she recovered her senses. Next day I found, to my surprise, that there was very much less solidness of lung than at any other time since I first saw her. I removed the placenta with a hook this day; but very little hemorrhage occurred at any time. The dextro-quinine was now combined with Squibb's tincture of iron, five grains to thirty drops every three hours. From this time on the convalescence went on uninterruptedly. I make no comments on this case, but would ask the attention of the profession to the line of treatment followed, which I believe will be found a successful one in cases, both of double pneumonia, pleuropneumonia; intermittent fever, and allied diseases.

BISMUTH OINTMENT.

Dr. Sweet writes to the *Medical Summary*: I wish briefly to call the attention of my medical brethren to the value of the sub-nitrate of bismuth as an external application. Whenever Erasmus Wilson recommends the oxide of zinc ointment, I use the bismuth, and with much more satisfactory results. I do not know what has been the experience of others, but I have found the zinc ungt. too stimulating for any acute eruptions. But the bismuth fulfills the indications perfectly. Mixed with cosmoline or fresh lard, in almost any proportion, it is a sovereign remedy for eczema, herpes, intertrigo of infants, and anything where there is an abraded or irritated surface. A short time since I succeeded in healing an extensive ulcer of the leg which had resisted other treatment. It is also an excellent application for piles, applied as an ungt. externally, or injected in the form of a solution—a teaspoonful to a few ounces of water or other fluid.

THE COOL AIR AND WATER TREATMENT OF MEASLES.

The *Allgemeine Med. and Central Zeitung*, No. 29, 1879, contains an abstract of a long article by Dr. Kaczorowski, of Posen, on the discovery (!) made by him that cool air and sponging with cool water have no such disastrous effect in measles as old writers taught, but, on the contrary, relieve the distress of the disease and hasten recovery. This may be news in Poland, but we hope it is not in this country. Various able writers, among whom we signalize, for his earnest statements, Dr. Hiram Corson, have for years advocated it in this journal and in the *Transactions* of the Medical Society of this State. The old treatment of close rooms and warm drinks ought forever to be banished. They cause a more intractible form of disease, retard convalescence, and render the sequelæ more serious.—*Med. and Surg. Reporter*.

REMOVAL OF STRONG ODORS FROM THE HANDS.

Ground mustard mixed with a little water is an excellent agent for cleansing the hands after handling odorous substances, such as cod-liver oil, musk, valerianic acid and its salts. A. Huber states that all oily seeds when powdered will answer this purpose. In the case of almonds and mustard, the development of ethereal oil under the influence of water may perhaps be an additional help to destroy foreign odors. The author mentions that the smell of carbolic acid may be removed by rubbing the hands with damp flaxseed meal, and that cod-liver oil bottles may be cleansed with a little of the same or olive oil.—*Druggists' Circular*.

THE CANADA MEDICAL RECORD,

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DECISION RESPECTING THE RIGHTS OF QUALIFIED ONTARIO DRUGGISTS PRACTISING IN THE PROVINCE OF QUEBEC.

A case which has created considerable interest for some time among our Pharmaceutical friends in this Province is that of the Pharmaceutical Society of Quebec (Province) *vs.* John C. Bennett, in which a final decision has at last been reached. The circumstances are briefly stated by the *Canadian Pharmaceutical Journal* as follows:

Mr. John C. Bennett, of Brantford, was registered a member of the Ontario College, on June 14th, 1879, by virtue of his having served as apprentice and assistant prior to the passing of the Pharmacy Act. Shortly after the above date he commenced business in Montreal, but was quickly summoned by the Quebec Society, and on trial was fined five dollars and costs for unlawfully using the title of "Chemist and Druggist." He still continued business, and was again subjected to a legal ordeal with a like result. He then signified his intention of carrying the matter to a higher tribunal, and the case was brought up before the Superior Court; but the decision of the Police Magistrate was sustained. Mr. Bennett, who throughout has endeavored to maintain his position with a pertinacity more creditable to his pluck than profitable to his purse, next applied for an injunction to restrain the Pharmaceutical Society from further prosecution, and asking that the Quebec Act be declared unconstitutional and *ultra vires*, as being an interference with trade and commerce. Judge Rainville, before whom the case was argued, dismissed the petition, holding that pharmacy is only a branch of medicine, and comes under the jurisdiction of the Provincial Legislature.

The petitioner was by no means satisfied with

this judgment, and consequently exercised his right to appeal. The case came up on March 22nd, before Chief Justice Dorion and Justices Monk, Cross and Baby. It was merely another edition of the suit entered by the College here against certain general traders in the vicinity of Hamilton. The attempt to upset the Pharmacy Act of Quebec, was however, equally unsuccessful with the effort to prove the Ontario Act unconstitutional.

Chief Justice Dorion remarked that the questions arising upon the division of powers between the Dominion and the Local Legislatures were surrounded with very great difficulty. The appellant here urged that the Quebec Pharmacy Act of 1875 was unconstitutional, on the ground that the Act was an infringement upon trade and commerce, a subject which falls exclusively within the jurisdiction of the Parliament of Canada. The Court was against the appellant on this point. In many instances the exercise of the powers confided to the Local Legislatures must trench in some degree upon the powers entrusted to the Dominion Legislature, just as the exercise of the powers given to the Federal Legislature must trench to some extent upon the powers assigned to the Local Legislature. There was an example of this in the recent case of Cushing & Dupuy, where the bankrupt laws passed by the Dominion interfered in some degree with provincial procedure. The Privy Council treated the question in a comprehensive manner, and held that the Confederation Act, in assigning to the Dominion Parliament the subjects of bankruptcy and insolvency, intended to confer also the power to interfere with civil rights and procedure so far as a general law on the subject of insolvency might affect them. A great many of the powers given to one Legislature must incidentally conflict with the powers given to the other. Thus, the police regulations requiring the doors of saloons to be closed at a certain hour had been held not an infringement upon the powers of the Federal Legislature to regulate trade and commerce. The proper rule was this, that wherever power was given to one Legislature for a certain object, and the exercise of that power incidentally trespassed upon the powers assigned to the other Legislature, the incidental power was included in the power for the main object. Here pharmacy was a local subject, and the Act, in so far as it touched the subject of commerce, was merely incidental to the larger power, and was not unconstitutional. The judgment would therefore be confirmed.

Dr. J. A. Grant of Ottawa writes us with reference to Dr. Bessey's paper on the treatment of Psoriasis by Vaccination, published in our February number. He directs our attention to an article published by him eighteen years ago in the London *Medical Times and Gazette*, in which he reported several cases treated for the first time in the same manner as that followed in Dr. Bessey's case.

WYETH'S PEPTONIC PILLS.

This pill will give immediate relief in many forms of Dyspepsia and Indigestion, and will prove of permanent benefit in all cases of enfeebled digestion produced from want of proper secretion of the Gastric Juice. By supplementing the action of the stomach, and rendering the food capable of assimilation, they enable the organ to recover its healthy tone, and thus permanent relief is afforded. One great advantage of the mode of preparation of these pills is the absence of sugar, which is present in all the ordinary Pepsin and Pancreatin compounds—in this form the dose is much smaller, more pleasant to take, and is less apt to offend the already weak and irritable stomach—The results of their use have been so abundantly satisfactory, that we are confident that further trial will secure for them the cordial approval of the Medical Profession.

Pepsin, pancreatin, vegetable ptyalin, or diastase, lactic acid, and hydrochloric acid with milk sugar—such are the component parts of lactopeptine. Surely the physiologist must contemplate a formula like this with satisfaction; for it embraces the most important of his discoveries relative to digestion, and shows how the fruits of his researches may be made to do good service in the department of practical therapeutics.

This is the age of physiological medicine, and the New York Pharmacal Association has certainly proved its ability to meet the requirements of the time by bringing lactopeptine before the profession. The name of its manufacturers is sufficient warrant for the purity of this preparation, while its worth as a medicine in the treatment of dyspepsia is attested by practitioners of well-known ability.

TENTH CONVOCATION OF THE MEDICAL FACULTY OF BISHOP'S COLLEGE.

The Tenth Annual Convocation of Bishop's College Faculty of Medicine was held in the Synod Hall, Montreal, on the 12th of April. The attendance was very large, the spacious hall being crowded, the ladies being present in large numbers. The presence of His Honor Dr. Robitaille the Lieut.-Governor of the Province of Quebec, for the purpose of having the *ad eundem* degree of C.M., M.D., conferred upon him, gave additional interest to the proceedings. About three o'clock the Chancellor, Mr. R. W. Henneker, entered the Hall, accompanied by the Lord Bishop of Quebec, His Honor the Lieut.-Governor, Dr. Robitaille, and took seats upon the dais. On the platform also were the following members of the Faculty:—Canon Norman, Vice-Chancellor; Rev. Principal Loble, D.C.L.; Dr. A. H. David, Dean of the Faculty; Dr. F. W. Campbell, Registrar; Drs. Kennedy, Wilkins, Kollmyer, Cameron, Simpson, Armstrong, Proudfoot, Wood, Drs. Kerry and Kannon, graduates, were also present.

The proceedings were opened by the CHANCELLOR delivering the following address:—

On this the completion of the first decade of this Medical School, I feel particular pleasure in occupying this chair. Ten years of faithful work is a sufficient guarantee that our Medical School is well founded. The report of the Faculty will give the record of the work done during the past year. I can only express my deep regret that our friend Dr. David should have felt himself obliged to retire from the active duties he has so well fulfilled in the past, and, at the same time, to congratulate him on the fact that he has earned the good opinion of his confreres, so that they have thus determined to associate his name permanently with the work he and they have taken in hand. I wish now to add a few words as to University work in general, and that of our own University in particular. That the work of superior education is gaining in the estimation of the public of all nations must be evident to the looker-on, and that University work is more widespread in its action and influence is equally apparent. The older Universities of the Mother country have enlarged their field of study by the introduction of subjects but little thought of or known in former times. Physical Science, and other cognate subjects, are now accessible to students, and the throwing open of College fellowships to competitors in the great English Universities has given a stimulus to University life scarcely dreamed of a few years ago. In fact, the Universities of England are gradually becoming what the term itself implies: seats of learning,

concentrating a turning into one whole the entire mental resources of man. In these great centres each man may now follow the special course of study for which he has a call or deems himself fitted. But to bring about this large result an almost unlimited supply of money has been required. In some countries the State has controlled the Universities on the ground that, as every man is a member of the State, so his education is more or less a matter of State interest, and this, of course, reminds us of the position of the citizen in ancient times. Our condition in Canada is very different from this. What the State does for us is simply to aid voluntary effort. It does not even inquire as to whether the result corresponds with the outlay. It would, indeed, be almost impossible, until we become a more concrete people, to have one uniform system. Our three different Universities of the Province of Quebec prove at a glance our diversities of language, creed and origin. Laval is French in character, McGill mostly Scotch and non-denominational, Bishop's College denominational, and, to the extent of its means, a copy in its Arts course of Oxford and Cambridge. The great want in Canada is money—the means to establish more than a very few chairs. In Bishop's College we have at the present time represented the so-called "Learned Professions," with an Arts course in addition. It is clear, therefore, that, if viewed from the standard of what a University should be, it is but a nucleus. We do aim, however, though our work is not broad nor varied in extent, to do that work well and thoroughly, so that those who have passed through our hands may prove themselves to be men of thought and action, fitted to cope with the peculiar difficulties which surround life in this new and ever-growing country. Beyond the special technical pursuits of Divinity, Law and Medicine, our means are applied to the study of language, and as language lies at the base of all knowledge—without which knowledge itself is inconceivable—we think it better to apply ourselves to language for the present rather than to attempt too much. And if the study of the Earth, of the Heavens, of Chemistry, and of matter generally is important—which we readily admit—yet language must be held to be of even greater importance, as containing within itself not only the means of interchanging thought between man and man, but of recording for all future ages the thoughts, discoveries, arts and sciences of each age, and everything relating to nature itself. Again, without language we could have no revelation of God's will, and we are brought back to first principles when we say that language is the main distinction between man and the brute creation. Recent discoveries, through the reading of the tablets found in the Assyrian monuments, have brought to light the fact that 1,000 years before the call of Abraham, there were enlightened people with a knowledge of astronomy and mathematics, keeping records of the events of their period, of the traditions of their origin, of the Creation itself, the Deluge, and the other incidents of the early

history of the world which we find recorded in the book of Genesis. With these people of a far distant age government was reduced to a system; the relations between rulers and people were defined; education was fostered; libraries were collected, and the tablets themselves (the books of the period) were studied with marginal references. Surely this study can yield to none in interest, and yet it is the language study of which I speak which has brought about these discoveries. I do not pretend to say that Bishop's College as yet has its chair of philology, or that it can boast a Max Muller amongst its professors, but I do say that we are endeavoring to walk in one branch of the great University system, and that, not the least important branch, when we make a special effort, to teach soundly and well the often-abused but most important ancient classics. But I must bring these remarks to a close, commending the great cause of superior education to your hearty sympathy and support. One or two words in conclusion before the real work of this Convocation begins. The College and School at Lennoxville have been sadly afflicted during the past year by an access of typhoid fever, which has been unfortunately fatal in a few, happily a very few cases. As may well be supposed, none, not even the immediate relatives and friends of the sufferers, have been more grieved and pained than the authorities of the College. Immunity from sickness, except that which is at times epidemic, has been one of the boasts of Bishop's College and Bishop's College School, but the blow has come at last when least expected, for at the time of the annual Convocation in June last, for granting degrees in Arts, nothing could exceed the apparent healthiness of the students and scholars. On the emergency arising it was thought expedient to call in a commission of medical men to examine and report on the probable cause of the outbreak, and the report of this commission has been published. The authorities of the College feel deeply grateful to these gentlemen for so readily coming to their aid under the circumstances, and it is a matter worthy of remark, that this commission was formed from what may be termed rival medical schools, both McGill and Bishop's College being represented. These gentlemen worked together in perfect harmony, and used every effort to ascertain the cause of the outbreak and to suggest remedies. They have been more successful in the latter than in the former part of their work, for the true origin of the outbreak is still a mystery. At the same time, the remedies applied to the drainage and ventilation of the College and School buildings and premises will, I feel confident, render a naturally most healthy site proof against any recurrence of the disaster. I can scarcely explain how fully I feel the kind sympathetic aid of these gentlemen, and I believe I express the sentiments of our whole body.

Dr. F. W. CAMPBELL, the Registrar, then read the following :

REPORT OF SESSION 1880-81.

The number of matriculated students for the session 1880-81 was 32, being five in excess of last year. Of this number four were from the Province of Ontario, one from the United States, one from Porto Rica, and 26 from the Province of Quebec. Ten of this number were from the City of Montreal, where, it is but reasonable to suppose, the School and the facilities which it offers for learning are best known.

The Faculty deeply regret that, early last summer, Dr. David, owing to failing health, tendered the resignation of his chair of Practice of Medicine and his office of Dean. The former was accepted with regret, but the Faculty declined to accede to the latter request, and they are pleased to be able to state that he still continues to occupy the position he has so ably filled for the past ten years.

The fact that this is the tenth annual Convocation naturally suggests a review of the past decade, and without entering fully into the history of the School during that period, it may be said, in spite of many obstacles, we have made a solid foundation. The labor involved has been great, pecuniary reward there has been none, but to those who have been with the Faculty since its organization, the outlook to-day is brighter than it ever was before. The superstructure is about to be raised, and that it will assume fair proportions before the next decade ends is assured, we feel satisfied, from the enthusiasm which pervaded the class of 1880-81.

The Faculty have for several years had the pleasure of presenting at the annual Medical Convocation "The Wood Gold Medal" to the student who has attained the highest number of marks in both the primary and final examinations. This year they are proud to be able to announce the founding of another Gold Medal, to be known as "The Robert Nelson Medal." The name of "Nelson" is one that has been well known in medical circles in Montreal during the last 50 years, and this medal is founded by Dr. C. Eugene Nelson, of New York, a descendant of the family, in memory of his late father, Dr. Robert Nelson, who died at Staten Island, New York, in March, 1873. A word or two may not be out of place concerning the man in whose memory this medal has been founded. Dr. Robert Nelson was born near Sorel, in this Province. Commencing the study of medicine in Montreal, he was, as was the custom in those days, apprenticed to Dr. Ryan, and afterwards to Dr. Arnoldi, with whom he subsequently acted as assistant. After some time he commenced practice on his own account, residing in St. Gabriel street. He represented the Eastern District of Montreal in Parliament for several years; was Health Commissioner during the terrible outbreak of cholera in this city in 1832 and 1834; was President of the Medical Board, and Physician to the Hotel Dieu Hospital.

In the year 1837, along with his brother, the late Dr. Wolfred Nelson, he became implicated in the Rebellion, and was obliged to take refuge in the United States. In 1838 he headed an incursion into Canada, which met with disastrous failure. For some years he remained in Vermont, following his profession, but subsequently removed to New York City, where his reputation as a surgeon, first made in this city, brought him fame and fortune. It seems peculiarly fitting, therefore, that his son should establish, in connection with a Canadian College, a medal in memoriam of his late father, and that he should select Bishop's College as the favored one, inasmuch as the first name which was enrolled as a student of medicine on the Registration Books of this faculty on its establishment, in 1871, was "Wolfred Nelson," a grand-nephew of the deceased.

The Faculty also have pleasure in making the announcement that they have established a scholarship, which they have, in honor of their venerable Dean, named "The David Scholarship." This scholarship will consist of one full set of the Final Classes, delivered at the College, and will become the perquisite of the student who each year attains the highest number of marks in the Primary Examinations.

Ever solicitous of the welfare of its graduates, and proud to chronicle their success, the Faculty is pleased and proud to be able to state that Dr. Chandler, who this time last year in this hall graduated, taking "The Wood Gold Medal," has recently received the appointment as House Surgeon to the Brooklyn Hospital, containing 150 beds, after a competitive examination with 21 candidates. Dr. Foley, the Final Prizeman of last year, has been, since September last, following the practice of the London Hospital, London, Eng.

The following is the result of the examinations:—

Passed in Botany—Jabez B. Saunders, Montreal, prize; Edgar O'B. Freleigh, L'Orignal.

Passed in Practical Chemistry—Wm. Albert Mackay, St. Eustache, Q., honorable mention.

Passed in Practical Anatomy—Frank M. R. Spendlove, Ayer's Flats, Q.; honorable mention; William Caldwell McGillis, Montreal; Charles S. Fenwick, Montreal.

Passed in Materia Medica—Charles Dexter Ball, Stanstead, Q.; Edgar O'B. Freleigh, L'Orignal, Q.; William A. Mackay, St. Eustache, Q.; James A. Shepstone, Brantford, Q.

Passed in Physiology—William Patterson, Montreal; William A. Mackay, St. Eustache, Q.

Passed in Chemistry—Charles Dexter Ball, Stanstead, Q.; William Patterson, Montreal; William A. Mackay, St. Eustache, Q.

Passed in Anatomy—William Caldwell McGillis, Montreal; Charles S. Fenwick, Montreal.

Passed in Hygiene—Heber Bishop, B. A., Marbleton, Q.; Frank M. R. Spendlove, Ayer's Flats, Q.; Ninian C. Smillie, Montreal; Robert H. Wilson, Montreal; Walter de Mouilpied,

Montreal; Eleuterio Quinones, Porta Rica; William Patterson, Montreal; Wm. A. Mackay, St. Eustache; Wm. C. McGillis, Montreal.

Passed in Medical Jurisprudence—Ninian C. Smillie, Montreal; Heber Bishop, B.A., Marbleton, Q.; Charles S. Fenwick, Montreal.

The following gentlemen passed their primary examination, which consists of Chemistry, Practical Chemistry, Materia Medica, Physiology, Anatomy, Practical Anatomy and Hygiene, arranged in order of merit:—Frank M. R. Spendlove, Ayer's Flats, Q., 1st class honors and primary prize; Eleuterio Quinones, Porta Rica; Joseph Arthur Rochette, Quebec; Wm. C. McGillis, Montreal; Chs. S. Fenwick, Montreal.

The following gentlemen passed their final examination for the Degree of C.M., M.D., consisting of the Practice of Medicine, Surgery, Obstetrics, Pathology and Medical Jurisprudence:—Frank M. R. Spendlove, Ayer's Flats, Q., Wood Gold Medal. (This medal is awarded to the graduate who has attended at least two full sessions in the Faculty, and has obtained the highest number of marks in both the primary and final examinations.) Robert H. Wilson, Montreal, final prize; Walter de Mouilpied, Montreal, and Eleuterio Quinones, Porta Rica, 1st class honors, 75 per cent; Joseph Arthur Rochette, Quebec, and Wm. C. McGillis, Montreal, 2nd class honors, 60 per cent.

PRIZES.

Frank M. R. Spendlove, Ayer's Flats, Q., takes "The Wood Gold Medal;" Robert Henry Wilson, Montreal, takes the final prize; Walter de Mouilpied, Montreal, takes "The Robert Nelson Gold Medal." This medal is awarded for the best special examination upon surgery (and for which only those who obtain first-class honors can compete), and the examination extended over three days, one day written, one day oral and one day practical. The competition for this prize was very keen. Frank M. R. Spendlove, Ayer's Flats, Q., gets the primary prize; Frank M. R. Spendlove, Ayer's Flats, Q., gets the senior dissector's prize; E. O'B. Freleigh, L'Orignal, Q., junior dissector's prize; J. B. Saunders, Montreal, botany prize.

Certificates of honorable mention will be granted to the following gentlemen:

Practical Chemistry—Wm. A. Mackay.

Chemistry—Chs. Dexter Ball.

Materia Medica—Chs. Dexter Ball, Eleuterio Quinones, E. O'B. Freleigh, Wm. A. Mackay, Jos. A. Rochette.

Physiology—F. M. R. Spendlove.

Hygiene—Heber Bishop, B.A., F. M. R. Spendlove, N. C. Smillie, R. H. Wilson, Walter de Mouilpied.

Medical Jurisprudence—N. C. Smillie, Heber Bishop, B.A.

The oath of allegiance was next administered to the candidates for degrees by the Chancellor, after which the whole assembly sang the National Anthem.

Dr. CAMPBELL next administered the medical oath.

CONFERRING OF DEGREES.

His Honor Dr. Robitaille, and Professors Simpson and Cameron, immediately afterwards received their *ad eundem* degrees of C.M., M.D., amidst much applause. The graduating class were next presented, and received their degrees and diplomas, after which the gold-medal men and honor men were called up and received their well-earned prizes at the hands of His Lordship the Bishop of Quebec, who made a few pleasant and encouraging remarks to each of the fortunate winners.

The Valedictory was delivered by Dr. Walter DeMouilpied. He referred to the feelings of the student when he has reached that most important stage of his life, the receiving of his degree, when ceasing to be a student, he assumes the responsibility of his profession, and said that another work now lay before him and his fellow-graduates. Heretofore they have been under the guidance of Professors who directed them through the regular course of study; but now they were about to go forth amidst the cares and struggles of a world where they will have to forage, cull and elaborate for themselves. He then referred to the great amount of work there was cut out for men of the medical profession. He spoke of the drudgery there was in store for all young doctors, but they were amply repaid by the feelings they should entertain in spending their lives in the alleviation of pain and suffering. He advised the under-graduates to avoid in future what they had seen wrong in himself and brother-graduates, and to persevere with the same perseverance they had shown this session, remembering always that fortune favors the brave. He closed with an expression of thanks to the Professors for the benefits they had conferred upon them, and an appeal to his brother-graduates to work hard in their profession, remembering that they have the example of the great Physician to whom they all have at last to answer for their talents given and spent.

Professor CAMERON then delivered the address to the Graduates on behalf of the Faculty. This will be found among the original communications.

The CHANCELLOR then called upon His Honor the Lieut.-Governor.

HIS HONOR on rising was received with much applause. He thanked the University for the honor just conferred on him, which he was as proud of as that which he received from his own *Alma Mater*, McGill. He pointed out the good work which the four Universities in the Province were doing, and wished them all possible success.

HIS LORDSHIP THE BISHOP OF QUEBEC, who is President of the College, also addressed some kindly words of encouragement to the students, and graduates now going forth to fight the battle of life. He impressed upon them the necessity of keeping up their studies so that they would do

honor and credit to themselves and their *Alma Mater*.

Rev. Canon Norman and Principal Lobley also made brief and practical addresses. The latter touching upon the recent outbreak of fever at the College, and the means which had been taken to prevent a recurrence of it. He said the College authorities were indebted in a great measure to the medical men of Montreal for the assistance rendered the College in a sanitary way.

This closed the proceedings, and the Convocation of 1880-81 came to an end.

DINNER.

In the evening Dr. Francis W. Campbell entertained at the "Metropolitan Club" the following gentlemen, to celebrate the tenth anniversary of the founding of the Medical Faculty of Bishop's College:—His Honor the Lt.-Governor of Quebec, Dr. Robitaille; Mr. Henniker, Chancellor of the University; Rev. Canon Norman, Vice-Cancellor of the University; Rev. Dr. Lobley, Principal of the University; Hon. Mr. Chapleau, Premier of the Province; Hon. Mr. Robertson, Provincial Treasurer; Hon. Mr. Lynch, Solicitor-General; Dr. R. P. Howard, of Medical Faculty of McGill College; Dr. Hingston, School of Medicine and Surgery; Dr. E. Lachapelle, Medical Faculty Laval University, Montreal; Dr. Gibson, of Cowansville, Dr. Robillard, of Montreal, the "Assessors" of the Faculty; Capt. Harry Shepherd, A.D.C. to His Honor the Lieut.-Governor; Dr. Robt. Craik, Drs. David (Dean), Kennedy, Wilkins, Perrigo, Kollmyer, Armstrong, Wood, McConnell, Cameron, Simpson, Proudfoot, and A. Laphorn Smith.

MCGILL UNIVERSITY—MEETING OF CONVOCATION.

The annual meeting for conferring of degrees in the Faculty of Medicine was held in the William Molson Hall on Thursday afternoon, 31st ult., the room being crowded.

Dr. Osler read the following list of honors in the Faculty of Medicine:—

The total number of students enregistered in this Faculty during the past year was 168, of whom there were from Ontario, 79; Quebec, 48; Nova Scotia, 5; Manitoba, 1; New Brunswick, 9; P. E. Island, 5; Newfoundland, 1; West Indies 1; United States, 19.

The following gentlemen, 36 in number, passed their primary examination on the following subjects: Anatomy, Practical Anatomy, Chemistry, Practical Chemistry, Materia Medica and Pharmacy, Institutes of Medicine and Botany or Zoology. Their names and residences are as follows:

Clarence E. Allan, East Farnham, Q.; Edson C. Bangs, Faribault, Minn.; S. A. Bonesteel, Columbus, Neb.; James C. Bowser, Kingston, N.B.; C. O. Brown, Lawrenceville, Q.; C. E. Cameron, Montreal, Q.; J. W. Cameron, Montreal, Q.; A. M. Cattenach, Dalhousie Mills, O.; H. J. Clarke, Pembina, Dakota; W. C. Cousins, Ottawa, O.; W. J. Derby, North Plantagenet, O.; George A. Dearden, Richmond, Q.; J. J. Gardner, Beauharnois, Q.; James A. Grant, B.A., Ottawa, O.; James Gray, Brucefield, O.; Chas. B. H. Hanvey, Cleveland, O.; Joseph A. Hopkins, Cookshire, Q.; J. H. Harrison, Moulinette, Q.; R. J. B. Howard, B.A., Montreal, Q.; W. D. B. Jack, B.A., Fredericton, N.B.; P. N. Kelly, Rochester, Minn.; John S. Lathern, Yarmouth, N.S.; J. B. Loring, Sherbrooke, Q.; Robert K. McCorkill, Montreal, Q.; W. J. Musgrove, West Winchester, O.; Floyd S. Muckey, Medford, Minn.; T. Pierce O'Brien, Worcester, Mass.; T. A. Page, Brockville, O.; Allen P. Poaps, Osnabruck Centre, O.; And. J. Rutledge, Bayfield, O.; C. Rutherford, M.A., Waddington, N.Y.; W. McE. Scott, Winnipeg, Man.; George A. Sihler, Simcoe, O.; E. W. Smith, B.A., New Haven, Conn.; Andrew Stewart, Howick, Q.; W. E. Thompson, Harbor Grace, Nfld.

The following gentlemen, 38 in number, have fulfilled all the requirements to entitle them to the degree of M.D., C.M., from the University. These exercises consist in examinations, both written and oral, on the following subjects: Principles and Practice of Surgery, Theory and Practice of Medicine, Obstetrics and Diseases of Women and Children, Medical Jurisprudence and Hygiene; and also Clinical Examinations in Medicine and Surgery conducted at the bedside in the Hospital:

S. A. Bonesteel, Columbus, Neb.; T. L. Brown, Ottawa, O.; Paul Cameron, Lancaster, O.; J. H. Carson, Port Hope, O.; W. Cormack, Guelph, O.; H. C. Feader, Iroquois, O.; H. D. Fraser, Pembroke, O.; E. C. Fielde, Prescott, O.; W. L. Grey, Pembroke, O.; C. M. Gordon, Ottawa, O.; J. B. Harvie, Ottawa, O.; H. E. Heyd, Brantford, O.; H. A. Higginson, L'Orignal, O.; D. W. Houston, Belleville, O.; J. J. Hunt, London, O.; G. E. Josephs, Pembroke, O.; W. A. Lang, St. Mary's, O.; E. J. Laurin, Montreal, Q.; Henry Lunam, B.A., Wakefield, Q.; R. T. Macdonald, Montreal, Q.; E. A. McGannon, Prescott, O.; Kenneth McKenzie, Richmond, Q.; F. H. Mewburn, Drummondville, O.; W. Moore, Owen Sound, O.;

W. C. Perks, Port Hope, O.; T. W. Reynolds, Brockville, O.; E. J. Rogers, Peterboro', O.; James Ross, B.A., Dewittville, Q.; J. W. Ross, Winthrop, O.; T. W. Serviss, Iroquois, O.; J. C. Shanks, Huntingdon, Q.; W. A. Shufelt, Brome, Q.; E. H. Smith, Montreal, Q.; W. Stephen, Montreal, Q.; A. D. Struthers, Philipsburg, Q.; J. E. Trueman, B.A., Woodstock, N.B.; G. C. Wagner, Dickinson's Landing, O.; J. Williams, London, O.

Of the above-named gentlemen, W. Cormack is under age. He has, however, passed all the examinations, and fulfilled all the requirements necessary for graduation, and only awaits his majority to receive his degree.

Mr. H. A. Higginson, of L'Orignal, has been taken ill since the examination, and is consequently unable to present himself.

Messrs. James Ross, E. J. Laurin, K. McKenzie, and A. D. Struthers, natives of the Province of Quebec, have fulfilled all the requirements for graduation, but await the completion of four years from the date of passing the matriculation before receiving the degree.

MEDALS, PRIZES AND HONOURS.

The Holmes Gold Medal for the best examination in the primary and final branches was awarded to James Ross, B.A., Dewittville, Q.

The prize for the best final examination was awarded to John W. Ross, of Winthrop, Ont. The gold medallist is not permitted to compete for this prize.

The prize for the best primary examination was awarded to R. J. B. Howard, B.A., of Montreal.

The Sutherland Gold Medal was awarded to C. E. Cameron, of Montreal.

The following gentlemen, arranged in the order of merit, deserve honourable mention: In the final examination, Messrs. Perks, Heyd, Laurin, Josephs, Grey, Shufelt and Rogers; in the primary examination, C. E. Cameron, W. L. Lathern, W. McK. Scott, and J. Gardner.

PROFESSORS' PRIZES.

Botany.—First prize, G. A. Graham, of Hamilton, Ont., and E. Gooding, of Barbadoes, W. I., equal. For the best collection of plants, J. C. McKee, of Port Colborne, Ont.

Practical Anatomy.—Demonstrator's prize, awarded to C. E. Cameron, of Montreal.

Dr. K. McKenzie then read the valedictory

address, and Prof. R. P. Howard delivered the address to the graduating class on the part of the Faculty.

WOOD'S LIBRARY OF STANDARD MEDICAL AUTHORS FOR 1881.

We are a little late in calling attention to the excellent enterprise of Messrs. Wm. Wood & Co., of New York, in their Standard Library for this year. Their list for 1881 comprises the following valuable works:

I. *On Albuminuria*. By W. H. Dickinson, M.D.

II. *Materia Medica and Therapeutics of the Skin*. By Henry G. Piffard, A.M., M.D.

III. *A Treatise on Disease of the Joints*. By Richard Barwell, F.R.C.S.

IV. *A Treatise on the Continued Fevers*. By James C. Wilson, M.D. With an introduction by J. N. DaCosta, M.D.

V. *Rheumatism, Gout, and some of the Allied Diseases*. By Morris Longstreth, M.D.

VI. *A Medical Formulary*. By Laurence Johnson, A.M., M.D.

VII. *Disease of the Esophagus, Nasal Cavities, and Neck*. By Morrell McKenzie, M.D., London.

VIII. *Artificial Anesthesia and Anesthetics*. By Henry M. Lyman, A.M., M.D.

IX. *General Medical Chemistry*. A Practical Manual for the use of Physicians. By R. A. Witthaus, A.M., M.D.

X. *The Diseases of Old Age*. By J. M. Charcot, M.D. Translated by L. Harrison Hunt, M.D. With numerous additions by A. L. Loomis, M.D., etc.

XI. *Diseases of the Eye*. By Henry D. Noyes, M.D.

XII. *On Diseases of the Reproductive and Urinary Organs*. By Robert F. Weir, M.D.

The first year of Wood's Library gave excellent works, and well published. Those issued for 1880 far excelled the previous year, especially in the style of the binding and the character of the press work. This year we are promised a still further improvement, and, judging from the past, the promise is soon to be fulfilled. We are glad to know that our Canadian Medical men have very largely purchased this Library from its outset.

THE CANADA MEDICAL RECORD.

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Original Communications.

DANGEROUS INHALATION OF NITROUS OXIDE GAS.

By DR. C. E. NELSON, New York.

As chloroform accidents are reported, I can see no valid reason for not reporting a similar event, in the case of inhalation of nitrous oxide gas. As far as I am aware, no accident in the case of inhalation of nitrous oxide has as yet been reported, Dr. Colton alone having caused it to be administered to more than 122,000 without accident.

The facts of the case, in this paper, are as follows: On April 21, my six-year old boy required the extraction of two carious molars in the lower jaw; he was accompanied to the dentist's (not Dr. Colton's) by myself, wife and a female domestic; not wishing to see anything done, in the case of my own child, I left the child in the dental apartment in charge of the servant, letting the child suppose I was right behind him, and joined my wife in the waiting room; the child is courageous, and was not in the least flurried in the presence of the dentist; on the contrary, he obeyed all the instructions with alacrity; I mention these points to show he was not frightened in any way. The following account was afterwards told me by the

servant; the readers of this journal may say I did not see the symptoms myself, but I have every reason to believe the girl's statements at all times, which were as follows:—The child took a few deep inhalations, when the face turned pale, the child then cried out, and all of a sudden the face, neck (back and front), arms and hands became covered with purple blotches, lips very dark, face swollen, eyes protruding, and the physiognomy of the child perfectly unrecognizable; arms and legs moving rapidly; the teeth were extracted with marvellous rapidity; the dentist then rubbed the ecchymosed patches, with the effect of almost instantaneously restoring the skin to its normal colour; all this happened perhaps within the space of three quarters of a minute. I then returned to the dental apartment, and saw nothing wrong with the child, although my wife, on entering before me, noticed the dark blue marks on the back of the neck, leading her to suppose he had been forcibly held, which was not the case. As Shakspeare says, "all's well that ends well," but the child was certainly as near death as could possibly be.

Thinking that this was an unusual condition of persons during the inhalation of nitrous oxide, I to-day (April 22) visited Dr. Colton, who very politely told me that in his large experience he had never noticed it; that when a couple of teeth are extracted, person becomes slightly pale; that when up to fifteen teeth are extracted, some people may have their ears a little bluish, and the face a

deep red with a slight purplish tinge, such as you may see in persons who are out in the street on a sharp, cold day; he informed me also that no sense of suffocation is experienced.

Some years ago, Dr. Carnochan performed an operation, prior and during which, anæsthesia was produced by the nitrous oxide, administered by Dr. Colton, but I suppose not pushed to the full extent, as in extraction of teeth; the patient, a lady, was under the influence during some little time, perhaps a quarter of an hour; my father, the late Dr. Robert Nelson, was present; said nothing about the skin being blue, but remarked that the finger-nails were bluish, which he regarded as a very dangerous sign; this was observed in a marked degree yesterday in the case of my child.

Progress of Medical Science.

THE TREATMENT OF EPILEPSY.

Dr. W. R. Gowers concluded his recent course of Gulstonian Lectures before the Royal College of Physicians with the following interesting remarks on the treatment of epilepsy:

The treatment of epilepsy is a subject on which numerical analysis gives little help. A large number of cases are under observation too short a time to enable the effect of remedies to be fairly estimated; and of the cases in which benefit is derived, we have no means of ascertaining how many relapse when treatment is discontinued. My notes of the result of treatment in this series of cases extend to 562 cases only. In the remainder, either the period of observation was too short for just conclusions to be drawn, or, in the press of out-patient work, the influence of remedies was not noted with sufficient precision. The effect of treatment is more likely to be recorded when it is distinct and considerable than when it is slight. Hence the following figures have no relative value. Of the 562 cases, the attacks ceased while the treatment was maintained in 241; doubtless many of these relapsed when treatment was discontinued, but in a few I have been able to ascertain that the patients remained free from fits even for years after they ceased to take medicine. In 266 cases improvement short of arrest was obtained; the fits being reduced in many to $\frac{1}{2}$, $\frac{1}{30}$, $\frac{1}{10}$, and even $\frac{1}{200}$ of their former frequency. In 55 cases little improvement was obtained by any method of treatment.

Time forbids me to enter at any length on the details of treatment, and I can do little more than mention the remedies which in this series of cases were of most distinct service. The subject of possible modes of action it is better to leave almost

untouched. It may be doubted whether a rational therapeutics of epilepsy is yet possible. At any rate, up to the present time, remedies used empirically have been of most service.

Although the results shown that we must not only rely exclusively upon bromides in our treatment of epilepsy, they show also, as might be expected, that on these our chief trust must still be placed. Of the arrests of fits, 66 per cent., and of the improvements short of arrest, 62 per cent., were due to bromides, given alone. Of the three alkaline salts of bromine, that of potassium deserves, I think, as it has popularly received, the first place. I have made a careful comparison between the salt of sodium and potassium in a series of about fifty cases, substituting the one for the other. In a few cases the sodic salt appeared to do better; in the great majority it was distinctly less useful. Bromide of ammonium possesses slightly more power than bromide of potassium, but this is not greater than the larger quantity of bromine which it contains will account for.

The period after its administration at which the maximum effect of a dose of bromide is obtained varies, I believe, with the dose. The larger the dose the longer is the maximum effect deferred; the smaller the dose the sooner does it occur, and the sooner is its action over. When small doses are employed in cases in which attacks occur at regular times, they should not therefore be given more than two or three hours before the attack is expected. This is contrary to some opinions which have been expressed, but I have several times known attacks arrested when a dose was given some two or three hours before the fit was expected, which were not arrested when the same dose was given twelve hours earlier.

The effect of bromide upon fits appears to be for a time cumulative, just as is, indeed, its action in causing bromism. Attacks may continue under its administration for a time, and yet ultimately cease without any increase in the dose. On the other hand, still later, tolerance, or rather indifference, may be established, and attacks which have been for a time arrested may ultimately recur.

Drugs which increase reflex action, such as strychnia, are now believed to do so by lessening the resistance in the nerve-centres involved. Bromide diminishes reflex action, antagonizes strychnia, and it is probable that it does so by increasing the resistance in the centres. If the view above expressed be correct, that the morbid state in epilepsy is essentially an instability of the resistance in the cells, it is also probable that bromide acts by increasing the stability of this resistance.

Bromide is commonly administered in a continuous course, in such moderate doses as will just suffice to keep the fits in check. Given thus it needs to be given frequently. I have more than once observed that a daily quantity which given in two doses did not quite arrest the fits, arrested them completely when given in three doses. If,

therefore, the greater convenience of infrequent doses, one or two daily, is preferred, a somewhat larger quantity needs to be given.

When bromide is thus given continuously, it has not seemed to me desirable to increase the daily dose beyond a drachm or a drachm and a half. If this does not arrest the fits, I have very rarely found that larger doses succeed so well as the combination of bromide with other drugs. But it is I think open to question whether this method of administration, using doses only just sufficient to arrest the fits, is the wisest in all cases. If bromide cures epilepsy, as without doubt it does sometimes, it must be by effecting a nutritive change in the nerve-cells corresponding to its action, whereby they are rendered permanently more stable. That it, or any other drug, does good in epilepsy by influencing the vascular state of the brain, appears to me without even probable proof. Even if such were its action, we are only driven back to similar influence in increasing the stability of the cells of the vaso-motor centre. There are, I think, many grounds for the belief that the change in the nutrition of the cells may be produced more effectually by subjecting the patient *for a time* to the full influence of bromide, giving doses much larger than are needed to arrest the fits, in the hope of producing more readily a permanent nutritive change. In giving bromide thus I have preferred large doses at intervals of two or three days, gradually increasing the dose until it is as large as can be well borne, and then diminishing it. The largest single doses which I have given in this way have been doses of one ounce. This in some patients produces slight stupor, sometimes reaching its maximum on the second day after the dose. In other cases it produces very little disturbance beyond headache. From the marked differences which patients present in their tolerance, it is not well to begin this method of treatment with a larger dose than four drachms.

The value of the various combinations of bromide with other drugs was tested, as far as possible, on a uniform plan. First, bromide was given alone for several months, and then an additional drug was added to the same dose of bromide, and the result watched for several months longer. Of the various combinations which are in common use, those with digitalis and belladonna unquestionably deserve, as they have commonly received, the first place. Digitalis is one of the oldest remedies for epilepsy. It was recommended by Parkinson two hundred years ago, and has been perhaps for a still longer time a popular remedy for this disease in certain rural districts in the west of England. I have met with no case in which, given alone, digitalis arrested the fits for more than a few months, in several cases it effected very distinct improvement. The combination of digitalis and bromide, however, was distinctly more useful than bromide only, in no less than sixty-three cases. In more than half of these thirty-seven cases,

the attacks ceased under its use, although they had continued under bromide alone. In the cases in which cardiac disturbance was associated, the combination was almost always superior to bromide alone; but its use is not confined to these cases. Many cases of nocturnal and other forms of epilepsy yielded to the combination, although the attacks had continued under bromide, and this when there was no evidence of cardiac disease. I know of one patient with nocturnal epilepsy who, for two years under this combination, has not had a single fit, although the attacks occurred every few weeks on bromide only.

In rare cases belladonna alone will arrest attacks. I have met with only one case in which attacks, which continued on bromide, ceased entirely when belladonna was substituted, and this was a case with hystero-epileptic symptoms. The combination of bromide and belladonna, however, was distinctly better than bromide alone in 35 cases, and in 15 of these arrest of the fits was thus obtained.

Indian hemp was first employed in epilepsy by Dr. Reynolds, and is sometimes of clear value. In one case the attacks were invariably arrested for many months by its use, recurring only when the patient ceased attendance, but twice on his resuming attendance the drug instantly arrested the attacks. When bromide was substituted for the Indian hemp, the attacks at once recurred. Combined with bromide it is also sometimes useful, and seems to exercise most influence over attacks in cases in which there is persistent headache. The same fact has seemed true of the combination with gelsemium, which is occasionally of marked service.

The use of opium in epilepsy has long been advocated by Dr. Radcliffe, and in some cases it is certainly effective. The combination of bromide and morphia I have rarely found to present special advantages. In the status epilepticus in which attacks occur with great frequency and severity, and where bromide, even in large doses, was useless, I have found small hypodermic injections of morphia of great service.

The combination of bromide with aconite and hydrocyanic acid I have also tried, and found it in some cases slightly better than bromide only. The addition of iodide to bromide has been lately said to increase its effect. Occasionally this is true, and in four cases of the series the combination was distinctly better than bromide only, but in many other cases it was ineffective. Even in the cases the subjects of inherited syphilis it has not appeared of special value.

Zinc unquestionably deserves some of the repute it has enjoyed for more than a hundred years as an anti-epileptic. Of the cases of this series in which it was employed it was distinctly useful in ten, but in only three did the attacks cease. In three other cases attacks which continued under bromide ceased under bromide and zinc, and in a fourth they ceased under zinc, digitalis, and bromide. The oxide of zinc was the form commonly

employed. Its nauseating influence constitutes a serious drawback to its use, as toleration is difficult to establish, and I have rarely succeeded in giving more than twenty grains a day. Bromide of zinc has seemed of small value, and is borne badly. The addition of arsenic to bromide in no case produced any marked effect on the attacks. It was used in a large number of cases on account of the readiness with which, it was found, the bromide rash could be prevented by its use.

Bromide of camphor, highly praised by Bourneville, was tried in a considerable number of cases, but without any good results. Turpentine has been recommended by Dr. Radcliffe, and I have seen it produce very striking benefit, but only in cases of hystero-epilepsy.

The use of iron in epilepsy has been discountenanced by high authorities, on grounds which are not altogether beyond question. In rare cases it increased the frequency of attacks; in the majority of cases in which it was used it was borne without any ill result; in many the addition of iron to bromide was attended with a marked and permanent improvement, and in some cases iron alone arrested the fits. The series includes 4 cases which ceased under iron only, and 8 others in which iron alone was distinctly better than bromide, and 19 cases in which the addition of iron to bromide exercised a marked influence. In no less than 11 cases attacks which persisted on bromide, ceased on the addition of iron, and remained absent as long as the treatment was continued.

In several inveterate cases of epilepsy in which bromide had no effect, I have tried borax. In some cases it did no good, but in 12 its value was most distinct. I may mention one or two. In one, fits which had continued on bromide and on zinc ceased entirely on borax for three months, and then only recurred when the medicine was discontinued. In another case the fits continued, about one weekly, during three months' treatment on bromide and on belladonna. Borax was then substituted, the fits at once ceased, and for five months the patient had not a single fit; then he had one in each of the two following months; the dose of borax was increased, and up to the present time, eight months later, no other attack has occurred. In a third case, one or two attacks occurred once a fortnight on bromide. Borax was substituted, and for five months the patient had not a single fit. The doses given have been ten or fifteen grains twice or three times a day. It produces in some patients gastro-intestinal disturbance, and, rarely, a form of dysenteric diarrhoea. By others it is well borne, and one of my patients has taken forty-five grains a day for twelve months without the slightest inconvenience, and says that no medicine has ever done him so much good. In cases in which bromide fails, borax certainly deserves a trial.

The use of *cocculus indicus* in epilepsy, recommended by Dujardin-Beaumetz, has lately attracted attention, in consequence of the recommenda-

tion of Planat. I have tried the alkaloid picrotoxine in a few instances, but only in one case has it appeared to do good. My own experience of its use has, however, been small, and I am very much indebted to my colleague, Dr. Ramskill, for permitting me to mention some interesting results which he has obtained by the hypodermic injection of picrotoxine. His experience of its effect on the fits when given through the skin is nearly the same as my own of its employment by the mouth. In seven cases in which it was injected, in daily doses of from one to four milligrammes, no beneficial result was obtained; in most cases, indeed, the attacks were rather more frequent and severe. Of course, we are not justified in assuming that the effects of picrotoxine and of the *cocculus indicus* itself are identical. A very interesting fact has, however, been ascertained by Dr. Ramskill—viz., that picrotoxine in larger doses of from fifteen to eighteen milligrammes will almost invariably produce a fit in twenty or thirty minutes. In one patient, for instance (according to the notes of Mr. Broster, who carried out the experiments), the dose was daily increased, and when more than five milligrammes were injected, a sensation of giddiness followed, similar to that with which the attacks commenced. The same effect followed larger injections, and when the dose reached eighteen milligrammes a severe attack occurred thirty minutes later, and an attack always followed the injection of this dose. In another patient a similar progressive increase of the dose was followed by giddiness and headache, when eight milligrammes were injected. When the dose of fifteen milligrammes was reached, a severe epileptic fit followed. Next day a second dose of fifteen milligrammes did not cause a fit, but eighteen milligrammes, two days later, caused a fit in half an hour. After a week's intermission twenty-four milligrammes were injected, and a severe fit occurred in twenty-five minutes. In a third patient a fit occurred after one injection of eight milligrammes, but ten milligrammes next day caused no fit. Fifteen milligrammes, however, were followed by a fit in thirty minutes, and a second injection of the same dose the following day caused a fit in fifteen minutes. Seventeen milligrammes next day caused a fit in thirty minutes. In a fourth patient a single dose of eighteen milligrammes caused, in ten minutes, giddiness and slight dazzling before the eyes, and in thirty minutes there occurred the usual aura of an attack—a sensation of something creeping up the right arm to the top of the head, and numbness and twitching in the right thigh, but no fit followed, although the patient was stupid and dull for a time just as after a fit.

Among other drugs which I have tried and found useless I may mention benzoate of soda and nitro-glycerine.

In hystero-epilepsy bromides, sometimes useful, fail entirely much more frequently than in simple epilepsy, and the combinations with digitalis and belladonna are also less frequently useful. Iron, especially guarded by aloes, is often of the highest

value, quite apart from the existence of anæmia, and, next to it, valerianate of zinc, morphia, and turpentine.

High authorities have urged on different grounds that the diet of epileptics should contain little or no animal food. In a few observations which I have made by keeping a patient under unaltered medicinal treatment for alternate periods on a diet with and without animal food, I could observe no difference in the attacks, except that in one patient they were slightly more frequent in the periods when animal food was excluded, and in one patient hystero-epileptic attacks on ordinary diet became, when meat was excluded, severe epileptic fits, and again became hystero-epileptic when animal food was restored.

In pure epilepsy the only treatment needed during the attacks is such care as shall secure the patient as far as possible, from injury. It is very different with the attacks of hystero-epilepsy, which, from their character, severity, and long duration, often furnish the attendants with a task of no small difficulty, and which can almost always be cut short by appropriate treatment. The patients often hurt themselves during the attacks, and some control is absolutely necessary. But, as already stated, restraint tends to increase the violence and makes the paroxysm last longer. Hence considerable judgment is often required, so to adjust control as to be efficient, and not too much. I have seen these patients put within padded partitions and left alone, but I have never myself found this necessary.

The slighter attacks can be arrested by closing the mouth and nose with a towel for some thirty seconds, after Dr. Hare's method. The profound effect on the respiratory centre, and the related higher centres, caused, by the anoxæmia, seems to arrest the convulsive action. Cold water over the head is often successful, if applied freely; in severe attacks a moderate quantity only excites redoubled violence, while a second gallon is often more effectual than the first. This has the disadvantage of drenching the patient's head and often giving cold. When the mouth is open during the attacks a small quantity of water poured into it is often effectual. A much more convenient and more effectual remedy than water, however, is strong faradization to the skin; applied almost anywhere it will commonly quickly stop the attack. It is rare that ovarian pressure will arrest an attack. In some cases all these means fail, even when thoroughly used, and I have known such attacks go on, in spite of skilled treatment, for several hours. Chloroform is of little use; its administration is a matter of extreme difficulty, often impossibility, and the attack is commonly renewed, when the influence of the anæsthetic passes off. The remarkable effect of nausea in relaxing spasm, led me some years ago to try the effect of injections of apomorphia, and I have found in it an unfailing means of arresting the attacks. After the injection of a twelfth of a grain in four minutes with cer-

tainty all spasm ceases, and normal consciousness is restored; in six minutes the patient will get up and go to the sink; in eight minutes will vomit, and afterwards, except for slight nausea, is well. A twentieth of a grain has the same action, but is rather longer in its operation. Moreover, I have found that the treatment is, so far as the hysteroid symptoms are concerned, curative as well as palliative, for the attacks in many cases ceased after a few paroxysms had been thus cut short.—*Lancet*,

ACUTE RHEUMATISM.

[A Clinical Lecture at the Louisville City Hospital.]

By JOHN A. OCTERLONY, A.M., M.D.,

Professor of Theory and Practice of Medicine in the Kentucky School of Medicine.

[Reported by A. H. Kelch, Stenographer.]

GENTLEMEN:—I wish to speak to you this afternoon about acute rheumatism as illustrated in the patient we have before us. This young man has had one attack after another of acute rheumatic fever. "Inflammatory rheumatism is a term that has been given to a number of affections that are characterized by fever, an affection of the joints and fibrous tissues, and which are not produced by injury, nor due to gout, nor to pyæmia," and this is perhaps as good a definition as we could give. We may add that acute rheumatism depends upon a peculiar condition of the blood, and is often excited by some cause that for the time being lowers the vitality of the system. There is no doubt that rheumatism of the variety I now allude to is a blood disease; that it affects especially the larger articulations; that it attacks the fibrous and the fibro-serous tissues; that it is attended by fever; and that when left to itself it runs a rather uncertain course. A tendency to recovery is certainly observed, for persons get well when nothing is done for them, and they get well sometimes quickly enough when they are honestly treated with homœopathic medicine, and of course the nominal medication receives the credit. Shrewd and unscrupulous homœopaths give rational medicine, and homœopathy gets the credit, as well as the homœopathist, which is due to rational medicine.

The tendency to run a certain course is so well known that long ago, before the treatment for rheumatism was as successful as it now is, it used to be said that the best remedy for rheumatism was "six weeks," for experience had shown that it took about that length of time to run its course.

I believe when the patient is left to nature, given the simple conditions of good hygienic surroundings, that the disease will often be found to run a much shorter course than six weeks. It is very certain that the average duration of the disease at the present time will be found to be very much less.

It is very frequently developed after exposure to

cold ; or when the individual is debilitated by some disease, such as scarlet fever or some other trouble ; when owing to bad food or depressing influences which reduce the system below par. But not all persons exposed to these influences will fall victims to acute rheumatism. So we are forced to admit that the system must be in a peculiar condition ; these must be something beyond the mere exciting cause, and that has been called the rheumatic diathesis, which makes a person liable to attacks of rheumatism on exposure to any of these causes.

Among predisposing causes, heredity plays a very important part. Persons of rheumatic stock are more liable to this disease than those who come of parentage free from it. Persons who have had one attack are very liable to have another. I do not believe exactly that one attack of rheumatism predisposes to another, for that peculiar condition of the system which led to the first attack will also make the patient liable to a second or a third. There is really nothing in the attack of rheumatism itself, except that it lowers the vitality of the system, that can be looked upon as predisposing to another attack.

The disease began as follows : This man tells us he felt cold ; then he had fever. Sometimes a distinct chill is first experienced. In this first attack the disease was confined to the knee-joints. It is a notable fact the rheumatism affects by preference the larger joints. Another peculiarity of the affection is that it flits about. I know of no disease that furnishes a better illustration of what has been called metastasis. It affects one joint, which swells up and becomes tender and painful—becomes the seat of excruciating suffering and of a really violent inflammation, and as if by magic it disappears in a few hours or in a night, simply to transfer itself to another joint, frequently the corresponding joint upon the opposite side, or from the knee to the shoulder, and so on. These joints then in their turn become swollen, red, and tender. The pain is often greatly aggravated by the slightest provocation, even by some one walking across the floor.

You must not always expect that because the disease attacks a new joint there will be a speedy subsidence in the joint first affected. The disease may affect all the joints at the same time so as to render the individual helpless.

Along with this affection of the joints there is high fever, as there was in this case. This sometimes runs as high as 105° ; sometimes indeed we have hyperpyrexia, as it is called, in which the temperature has been known to run as high as 112° , but these are rare exceptions which you may never witness although you pass a long life in active practice. The fever is usually remittent. There is an exacerbation in the evening and toward morning a remission, but it does not run as regular a course as we observe in typhoid fever. It is not characterized by regular excursions, as in acute pneumonia, but it varies very much for several reasons. First of all, each invasion of a

new joint will be characterized by a rise of temperature. Any complication will be accompanied by it. Sometimes you will find that the first evidence of the disease is not an affection of this or that joint, but a rheumatic inflammation of the heart. I do not remember having witnessed such a case, but it is well known that the cardiac inflammation may be the only evidence of the rheumatic diathesis at the time. For instance, a man has had an attack of inflammatory rheumatism and passed through it without any cardiac complication. A few months after that he is attacked again, and this time it is not the joints but simply the pericardium or endocardium that is the seat of the inflammation ; and after this has existed for a few days, then lo, and behold, a joint affection sets in. This or that joint becomes tender, swollen, red, and painful, and we have now a typical case of acute articular rheumatism. The tongue is usually coated, the appetite wanting, the bowels constipated, and the urine scanty and loaded with urates. You must make the distinction between these and uric acid. Even so far as gross appearances are concerned this is easily done. Uric acid lies at the bottom of the vessel like fine, glistening sand. It does not stain the bottom, and when you tip it up you see the uric acid roll over. When you have a deposit of lithates the vessel is stained by it of a brick-dust or pinkish color, and while we find the uric acid as soon as it has had time to settle, the lithates do not appear until the urine cools. Sometimes the urine is muddy when it is first passed. This is not infrequently the case when the patient drinks but little, when the skin is over-active, and when there is high fever ; but even then we do not notice the staining of the vessel until after the urine has stood for some time.

The skin as a general thing is bathed in sour-smelling perspiration. I do not believe that the perspiration really is more acid in reaction than in health, but the acid is peculiar. It gives a very sour and unpleasant odor, and is in greater abundance, simply because of the increased perspiration, and we are likely to presume that the latter is more intensely acid. Another thing to be noticed is that the sweating gives no relief to the fever. In acute rheumatism the symptoms are in no way alleviated by the free perspiration, but, on the contrary, the more severe the rheumatic fever the more perspiration there is apt to be. The popular opinion is that when a patient sweats freely he can have no fever ; that free perspiration indicates a condition of the system the very opposite to that of fever. This is a great mistake. For instance, in some forms of puerperal fever, where the temperature runs very high indeed, the surface is bathed in copious sweats. In that condition of far-advanced phthisis when we have constant hectic fever the surface is bathed in drenching sweats—the thermometer in the axilla showing a high temperature indeed. So we find in rheumatism, also, that, though there is copious perspiration, this in no way abates the affection nor in any way lessens the intensity of the fever.

The pain is often terrible. The patient can not sleep; he is tormented by pains both day and night. In consequence of the high fever, the loss of sleep and appetite, and impaired digestion, and constant suffering, there is rapid loss of flesh.

The remedies for rheumatism are as numerous as those employed for hooping-cough.

First of all, you want to relieve pain; secondly, you want to shorten the disease; and, third, to prevent complications.

How shall you relieve pain? There are two ways of doing it; one is by internal remedies, the other by external applications. For the relief of pain the internal use of opium in some form is necessary, and the proper thing to do is to administer an opiate without delay if the pain is at all severe; certainly you ought to give it at bedtime so as to secure rest and sleep. A hypodermic injection is perhaps the speediest and surest way to accomplish that result. A quarter of a grain of morphine at bedtime will often give the patient a comfortable night's sleep and will allay the pain. I think it decidedly preferable to the administration of opium by mouth. Secondly, combine with the morphine, atropia. By so doing you prevent some of the unpleasant effects of the morphine, and obtain all its good effects. If the perspirations are very copious and debilitating, I am sure it is an object to relieve them. That can be done by atropia, which has a powerful influence in diminishing and controlling the action of the skin.

I am in the habit of treating the local trouble. It may be done in several ways.

First, if there is not very severe pain, or if inflammation is not very violent, I simply wrap the joint in cotton batting. If the pain is very severe and the distention of the joint very distressing, I use alkaline fermentations. Take a sufficient number of short and broad bandages, also a quarter of a yard of quite soft rubber cloth or oiled silk. Then make a solution of carbonate of potash in hot water, one dram to the pint, and after dipping the flannel cloths in it wring them out and apply them around the joint, last of all putting on the oiled silk. You will find that this dressing affords rapid and marked relief. Sometimes I add laudanum, about two ounces to the pint of the alkaline solution. Sometimes relief is obtained by applying to the joint an ointment of extract belladonna, one dram to one ounce; or the affected joint may be surrounded with a succession of small blisters. This will sometimes greatly mitigate the pain and reduce the local inflammation.

What ought to be the treatment directed against the disease itself? How shall we shorten the disease? Can it be done? I think it can be very materially shortened. I believe the average duration of acute rheumatism at the present time is about nine days—a good deal better than six weeks. While a good many cases must have lasted longer than that, it is evident that a good many must have run a much shorter course.

At the present day the fashion is to give salicylic

acid, and it is given not only in acute rheumatism but also in the chronic form indiscriminately. It is doubtless true that a great many cases of acute rheumatism are benefited by it; that the duration is shortened, and the intensity lessened by the administration of this remedy; yet I am satisfied that in many other cases little good is done by it. What cases are to be treated by it and what cases are not, and how are those not amenable to salicylic acid to be treated? The more violent the case the higher the fever, and the earlier in the case you begin its administration the greater the likelihood that you will do good with salicylic acid. This is a good practical rule. When you meet with a case that has lasted for several weeks, I don't think salicylic acid the best remedy. When you find a patient that is very anemic, one in whom the fever does not run high, where the disease tends to assume a subacute form, salicylic acid is not so likely to do good. In a case like the one before us I would not use salicylic acid.

If you have, then, a moderately well-nourished patient with violent symptoms give salicylic acid, and give it in full doses. How shall you give it? Salicylic acid is not only a powerful antipyretic but it is also powerful antiseptic. When it is given pure, uncombined, it is perhaps as powerful an antiseptic as we have. It deserves to stand side by side with quinine. But when we give it in combination, as the salicylate of soda, it no longer acts as an antiseptic, but merely as an antipyretic. Then, so far as rheumatism is concerned, it is as well to give the salicylate of soda, because only the antipyretic effect is wanted. As a rule the salicylate of soda is better, because not so irritating. About twenty grains in some syrup, and repeated every two hours until the fever falls, and with the fall of the fever there is usually a subsidence of the articular symptoms. If the fever rises again begin with the acid again. There is no doubt that this remedy is absolutely curative in a considerable proportion of cases. If you were to ask me with what remedy my best results have been obtained I would answer, "veratrum viride." If you have a patient in the early stage of the disease, the fever running high, the pulse bounding and full, in whom there is no evidence of anemia nor cardiac asthenia, I would put him upon veratrum viride; and I would expect to do a great deal of good with it. I would give immediately three or four drops, repeated every two hours, and increasing the dose each time by one drop till a decided impression is produced, until the fever had fallen, the pulse becomes slower, and the respirations less hurried, and the skin, from being hot and dry, had become cool and moist. When these violent symptoms pass away the joint symptoms abate, the tenderness and swelling subside. While it rapidly removes the most important symptoms, it tends to shorten the disease.

Some friends of mine are partial to the use of aconite; but while I admit I have seen it do good in their hands, it is a remedy I have not desired to

use so long as I can produce good results with the *veratrum viride*. While this remedy has been used on an enormous scale in many acute diseases throughout the southern parts of our country, the number of cases of poisoning by it have been exceedingly rare. It is, then, a remedy that can be used with safety. It may produce unpleasant effects, such as prostration and diarrhea, but when it does these symptoms are easily controlled by the administration of alcohol and opium. Indeed some physicians are in the habit of prescribing opium and alcohol in combination with the drug.

Large doses of quinine have been used and with signal success in some cases. I would class quinine with salicylic acid. They act very much alike and the only thing that can be said in favor of salicylic acid is that it does not cause as unpleasant effects, though it does produce head symptoms, fullness, and even delirium, but not to the same degree as the alkaloids of bark, especially quinine. Quinine ought to be used, then, in the same class of cases in which salicylic acid is indicated.

We have another class of cases in badly-nourished, weak, anæmic persons. In these you will find the best treatment will be, not by those remedies I have mentioned, but by large, what is called saturating, doses of the tinct. ferri chloridi. Thirty drops given every three or four hours will sometimes be found in the course of three or four days to cut the disease short. How it does it I can not tell you. We must be content with the fact itself when our knowledge extends no further. We must not say, "I will not cure the patient with this medicine, simply because I do not know how it accomplished the cure." That would be unreasonable. While we strain every faculty to solve the mysteries of therapeutics, while we study with the utmost care the physiological action of remedies, the crucial test of their value is clinical experience, and it is that which will finally decide what will be the rank of a drug. Some years ago alkalies were very extensively employed. The carbonate or bicarbonate of potash or soda in doses of twenty or thirty grains was administered every two or three hours. The nitrate of potash was also used. But this was very soon found to be decidedly debilitating to the heart, and it was so nauseating that the patient objected to taking it, and it also caused irritation of the stomach. I have employed the bicarbonate of soda and potash very largely in connection with the *veratrum viride* in sthenic cases of acute rheumatism.

I would mention in connection with this the treatment of acute rheumatism by lemon-juice. That amounts to the same as the administration of alkalies. The acid is the citric, and does not exist in a free state, but as a citrate of soda or potash. So when this acid is taken in large quantities it makes the urine alkaline. The citric acid, during its transit through the circulation, is replaced by carbonic acid; so we find citrates, tartrates, and malates of soda and potash are excreted from the system under the form of bicarbonates. Now these reme-

dies were given on the principle that the poison that causes acute rheumatism is an acid. For a long time it was supposed to be lactic acid, but now we know this is not the *materies morbi*, and we know that the alkalies are not a *remedium universale* of acute rheumatism, though we find they are well adapted to certain cases. It was supposed at one time that the administration of alkalies prevented cardiac complications. I have met with a considerable number of cases that have been conscientiously treated by alkaline measures from the beginning of the disease, and yet cardiac complications arose.

With this brief survey of the remedies used in combating this disease I will close my remarks so far as the treatment directed to cutting short the disease is concerned.

I must now say a few words about the prevention of complications. Can we do it? I think we can to a certain extent. I will put it this way: A certain proportion of cases will have cardiac complications, no matter what we do. In a certain proportion of cases, I have already said, the heart is the organ first affected. In a certain proportion of cases you will find that the cardiac complications arise from the want of attention to proper and necessary precautions. What are they? A person suffering from acute rheumatism, in the first place, ought to have no linen next to his body. He ought to be swathed in flannel. Chambers gives some excellently-reported cases of acute articular rheumatism. He shews how, after patient had been carefully swathed in flannel for a number of days, he allowed his vanity to get the better of him, and put on a shirt with a linen bosom, and in twenty-four hours afterward he had pericarditis. Such events have occurred sufficiently often to make it probable that it is something more than a mere coincidence. If I were attacked myself I would immediately be dressed in flannel from neck to foot. I would sleep between blankets, and when the daily examination of the heart was made the stethoscope should be insinuated between the folds of the blanket. When the daily evacuations of the patient are made he should not be allowed to get out of bed; he ought to use an urinal or bedpan. Then the air of the room ought to be uniformly warm. It is one of the defects in our methods of heating our apartments at the present time. We make a big fire during the day and evening, and during the night it is allowed to die out; and toward morning, when we know the vitality of the system is at its minimum, the air of the sick-room is actually chilly. I am satisfied that in a certain proportion of cases complications are caused by want of attention to these important details. The nurse ought to see that the fire is kept up, night and day, and there ought to be a thermometer in the room by which to regulate the temperature.

The patient's general strength should be kept up. There is no doubt that complications are favored by a much lower vitality of the system. The tendency is to a very considerable reduction

of strength, and the more feeble the system is as a whole the more feeble will be every part.

High fever and rapid action of the heart tend to weaken this organ, and I have no doubt that this is the reason why cardiac complications arise as a rule when rheumatism has been going on for a number of days. I don't think such complications are prone to arise much before the second week, and that indicates that the tendency to rheumatic inflammation of the heart becomes strongest after the system has been weakened. The heart is so enfeebled as to rapidly take on diseased action; and if you can cure the patient before that time comes, and keep his strength up to a certain point, you will diminish very greatly the tendency to cardiac complications. Look at this poor fellow now. He is twenty-three years old. Suppose he were entirely cured of his rheumatism; suppose we had the power, by some magic art, of freeing him in a moment of all rheumatic taint; what would be his future? He has a crippled heart, and its tendency is to grow worse and worse. His circumstances in life are such as to preclude the possibility of his taking good care of himself. The best thing that could be done for him would be to keep him in the hospital all his life. But the hospital is not intended for the care of incurables, and in a short time, when sufficiently improved, he must go out. You know what, after a while, will be the end.

Are there no other complications that may arise? There are. The first is suppurative inflammation of the joint; secondly, we may have rheumatic peritonitis—both exceedingly rare. Then, we may have rheumatic meningitis, also very rare. Then, again, when there is acute rheumatism, and when there is endocarditis, we may have embolism; hence we ought to endeavor, by every possible means in our power, to prevent the cardiac complication which is the most fruitful cause of embolism.

In this disease there is hyperinosis—a very serious thing under certain circumstances. Embolism may occur in connection with rheumatism from this cause, independent of any heart trouble.

Finally, chorea may be a complication of a sequel, and a large proportion of cases of chorea arise in connection with rheumatism, and especially in the young, when the original disease has been protracted and severe and the patient is enfeebled and anemic—*Medical Herald, Louisville, Ky.*

NERVOUS DYSPEPSIA.

Dr. Myers writes to the *Virginia Medical Monthly*: I can not speak too highly of the following preparation which I have employed, with the happiest results, in those cases of nervous dyspepsia the result of cerebral hyperemia:

R	Bromid. sodium	℥ i
	Ext. ergot, fluid	℥ ij
	Pepsin (saccharated)		
	Pulv. carbo-lignis aa.	3 iij
	Aqua	℥ ij

M. fiat mistura. S: A teaspoonful every three or four hours.

It contracts their cerebral vessels in their ordinary size, thereby relieving gastric derangement, etc. If constipation exists, I employ, as a purgative, the combination of ox gall and ext. aloes aa grs. xv; podophyllin, grs. iii, made into five pills, of which one is given every night, or every other night, as the case may require.

THE PULSE.

By T. A. McBRIDE, M.D.,

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GENTLEMEN,—We begin to-day with the study of the pulse. The word pulse is derived from the Latin *pulso*, I strike, and expresses the striking or lifting of the finger by the distending vessel, as, with each contraction of the heart, blood is forced into the vessels. The significance of the word has also been extended, so as to be applied to the appearance of a lifting up of the coverings over a distending vessel, so that the word *pulse* is applied not only to that which is felt, but to that which is seen.

There are two kinds of pulse—the arterial and the venous. The arterial is appreciated mainly by palpation, the venous by inspection. We have to study especially the arterial pulse.

In the writings of the old school of physicians, even to the days of Hippocrates, the pulse was regarded as one of the most important symptoms, and although some of the distinctions that these observers made were too fine and subtle to be really appreciated at the bedside, there can be no doubt that their observations of the changes in the pulse were often extremely acute and accurate. So accurate, indeed, that Dr. Broadbent, referring to these observations, says: * “It was with astonishment that I learnt when I first took up the study, that every single element of the pulse revealed to us by the sphygmograph had been previously recognized by the old school of physicians, and that a nomenclature existed ready made for all of its teachings.

The radial pulse is the one usually selected, since it answers all of the requirements. It is of moderate size, is superficial, and can be readily compressed against the radius. The pulse in vessels elsewhere must sometimes of necessity be observed, as in the brachial, the facial in front of the masseter muscle, the temporal, posterior tibial, dorsalis pedis, the carotid and femoral arteries.

When the pulse is to be taken, the patient should be either sitting or lying down. The observer should place his index, middle, and ring fingers lightly upon the pulse, and should then appreciate the state of the coats of the artery, and

* *Lancet*, vol. ii., 1875, p. 441.

should next note the frequency, the rhythm, the tension, volume and force of the pulse, and lastly, any peculiarities, if present. Moreover, the pulse of one side of the body should always be compared with the other. It should also be remembered that forcible extension or flexion of the forearm will sometimes arrest the radial pulse. In taking the pulse in children and infants, it is well to count the pulse, if possible, while they are asleep. This can often be done nicely in the temporal artery. In taking the pulse at the wrist, asleep or awake, there are often involuntary movements of the arm and twitchings of the muscles, which render it difficult to keep the finger of the observer on the pulse. The difficulty may be overcome in a great degree by grasping the entire hand of the child, and then extending the index finger upon the pulse.

It is also advisable not to take the pulse of the patient until some little time has elapsed after the appearance of the physician.

The factors of the pulse, and the several phenomena dependent upon them, are shown in the following table :

1. Heart.	<div> <div>a. Rate or frequency.</div> <div>b. Rhythm—intermittency and irregularity.</div> <div>c. Force or strength.</div> <div>d. Quantity of the blood.</div> </div>
2. Degree of resistance to the passage of blood through small arteries and capillaries.	<div> <div>a. Degree of tension.</div> <div>b. Size of vessels.</div> </div> <div> <div>Hard or long.</div> <div>Soft or short.</div> <div>Large.</div> <div>Small.</div> </div>
3. Elasticity of vessels.	<div> <div>a. Dicrotism, hyperdicrotism.</div> <div>b. Non-dicrotism (senile pulse).</div> </div>

In health, changes in the frequency and rhythm of the pulse are often met with.

I subjoin a table of the variations in the frequency of the pulse in health which is taken from Hooper's "Physician's Vade-mecum," edited by Drs. Guy and Harley, and from this work is also taken most of what follows on the changes of the frequency of the pulse in health.

Infant asleep at birth.....	140
Infancy.....	120
Child five years of age.....	100
Youth	90
Male adults	72-80
Female adults.....	80-85
Old age.....	70

Heberden records 42, 30, and 26 beats to the minute, in an old man of eighty, apparently in perfect health ; Fordyce, another of 26 (Hooper's "Vade-mecum," p. 179, London, 1869). Great frequency in health is not often met with, but I have under observation a case where the pulse ranges from 100 to 120, and the individual states that this frequency has existed all his life.

Sex has some influence. Up to seven years of age the frequency is about the same in both sexes, but later the female pulse is from 6 to 14 beats—average 9, greater than in the male.

Posture also affects the pulse. It is most frequent in the standing, and least in the recumbent position. The pulse of a man is twice as much

affected by change in position as that of a woman. When the pulse is much increased in frequency, change in position has but little effect, and for the higher numbers entirely disappears. When the head is lower than the body the pulse falls (a hint for the treatment of some forms of palpitation). The general law as to the degree of frequency of the pulse as affected by position is as follows—the frequency is directly proportioned to the amount of muscular effort required to support the body in different positions.

The pulse falls in sleep as much as ten beats. Sleeplessness increases its frequency. On awakening from sleep there is usually a decided increase in frequency.

Food increases the rate. Mental excitement and activity of the emotions increase the frequency ; mental depression is often accompanied by a decrease. Cold lowers and heat raises the rate. Among other causes producing an increase in the frequency of the pulse in health may be mentioned spirituous and warm drinks, tobacco, diminished atmospheric pressure. Among the remaining causes producing diminished frequency there are fatigue, long-continued rest, debility without disease, and increased atmospheric pressure. Occasionally the pulse is *irregular* in health, but when that is so it is usually congenital.

Intermittency is not infrequent in health, and it is then either congenital, or, as Dr. B. W. Richardson* has shown, may be due to terror, anxiety, grief, passion, mental or physical fatigue, adverse fortune, and old age. The intermittency may be only temporary, or it may become permanent ; and if it becomes very frequent, may be pathological.

I now ask your attention to the pulse in disease, and I shall consider the subject under the following heads :

1st.—The condition of the walls of the vessel the seat of pulsation.

2d.—Changes referable to the several factors of the pulse.

3d.—Names and significance of certain pulses.

1st.—The condition of the walls of the vessel the seat of the pulsation. In health, an artery of the size of the radial should not be felt in the interval of pulsation. When the artery can be easily appreciated in this interval, the coats of the vessel have undergone some pathological change, or else the vessel is over-distended with blood ; the blood pressure is greatly increased. The artery sometimes feels like a rubber tube with thick walls, or a pipe with rigid walls, or, again, resembles a string of beads. It is often tortuous or serpentine, and may be traced up almost the entire forearm. These changes in the walls of the artery are the result of chronic inflammation with subsequent degeneration—deposition of calcareous matter. Usually these changes are widely distributed in the arteries throughout the body. The temporal

* Discourses on Practical Medicine : On Intermittent Pulse and Palpitation. London, 1871.

arteries especially are tortuous and serpentine, and sometimes the ophthalmoscope reveals thickening of the arteries at the fundus oculi. Changes in the coats of the arteries are observed in cases of Bright's disease, in the rheumatic and gouty, in the syphilitic, and sometimes in athletes as the result of overstrain, and in lead-poisoning and scurvy. Excessive use of tobacco and alcohol occasion these changes. Certain infectious diseases besides syphilis seem also to excite pathological alterations in the walls of the vessels, as, for example, diphtheria and typhus fever. Exposure to cold and heat, want of food, or good air, also, may produce these changes; and, lastly, they may appear as among the earliest of the degenerations incident to senility.

It is important to appreciate the abnormal conditions of the walls of the artery in the following: in the diagnosis and prognosis of cerebral hemorrhage and thrombosis; in the prognosis, diagnosis, and treatment of changes in the aortic valves of the heart; and in the prognosis and just estimation of many diseases when found associated with this sign of beginning degeneration, and which may be the only positive sign of beginning decay.

I have already alluded to the fact that in pulse of high tension the vessel may be felt in the interval of pulsation, and one may be so deceived as to mistake such a condition of things for a vessel with diseased walls, whereas the artery is over-distended with blood and the walls may be normal. This is not so infrequently met with, and very often we find that disease of the walls eventually does supervene, apparently by reason of this condition of high tension. It may be necessary sometimes to differentiate these conditions, and Dr. Broadbent, in his interesting and valuable lectures on the pulse in the *Lancet*, 1875, to which I shall often refer, has demonstrated how perfectly this can be done by having the patient inhale some nitrite of amyl. If the pulse be one of high tension only, the thick, cord-like vessel disappears in the interval of pulsation, and is only felt during pulsation, and is then very soft. If the walls of the artery are actually thickened or diseased, very little change takes place. But, as I have said, you may find both combined, and the difference is in the change in the compressibility of the pulse.

2d.—Phenomena referable to various factors of the pulse.

The Heart:—Increased and diminished frequency of the pulse.

a. Increased frequency.

I ask your attention to the following schemes of the causes of increased frequency of the heart as determined by experiment on animals. It is taken from Lauder Brunton's book on the "Experimental Investigation of the Action of Medicines," Part I., Circulation, London, 1875. I do this so that you may, if possible, explain to yourselves the probable cause of a frequent pulse in many conditions. I should be overstepping my limits of time were I to attempt it.

Paralysis of vagus roots or vagus fibres.

" " " ends in the heart.

Stimulation of the	{	Directly.
sympathetic roots		Indirectly by lowered blood-pressure.
Stimulation of the	{	Directly.
cardiac ganglia.		Indirectly by increased temperature of the body.

A pulse of 90 or more may be regarded as a pulse of abnormal frequency in an adult. There are exceptions to this, but they are rare.

In the following pathological conditions a frequent pulse is of importance in diagnosis or prognosis.

1. Fevers.—"In fevers the pulse is generally quickened in proportion to the elevation of temperature, though the proportion between the pulse and the temperature varies in different fevers. In scarlet fever the pulse is quicker than in typhoid fever with the same temperature, hence a quick pulse is of less serious import in scarlet than in typhoid fever. The same elevation of temperature quickens the pulse relatively much more in children than in adults."

"If a pulse is quicker than the temperature will explain, it indicates cardiac weakness—the weakness being proportionate to the want of ratio between the temperature and the pulse. In this way the pulse affords important information in prognosis and treatment."

"A pulse that day by day progressively increases in frequency, the temperature remaining the same, shows increasing cardiac weakness."

"In all febrile diseases a pulse in adults over 120 is serious and indicates cardiac weakness. A pulse of 130 or 140 indicates great danger, and with a pulse at 160 the patient almost always dies." *

a. In eruptive fevers, just before the appearance of the eruption, the pulse becomes sometimes very frequent.

b. In relapsing fever, during the febrile periods, the pulse is of very great frequency, and is often 130 to 140. It attains a greater degree of frequency than in any other fever, without being of grave significance (Murchison). †

c. In typhoid fever the prognosis is usually bad when pulse persistently exceeds 120 (Murchison). ‡

d. In the convalescence from all fevers the range of increase in the frequency of the pulse in changing from a recumbent to a sitting or standing position, or the range of decrease in its rate in changing from a standing or sitting to a recumbent position, is a measure of the debility of the patient. During the pyretic period such changes in position have little or no effect. The rate of the pulse may therefore be of importance in gauging the strength of the patient.

2. Inflammations:

a. The occurrence of a sustained frequency of the pulse after confinement is a very suspicious symptom, and may betoken advent of puerperal peritonitis.*

* A Hand-book of Therapeutics, by Sidney Ringer, M.D. William Wood & Co., New York, 1879, pp. 7 and 8.

† A Treatise on Continued Fevers, by Charles Murchison, M.D.; London, 1873.

‡ Pulse in Forming Stage of Puerperal Peritonitis. Archives of Practical Medicine, No. 3, Mary Putnam-Jacobi, M.D. New York, 1873.

b. Diseases of the lungs and pleura.

1. Under the age of fifteen any disease of the lungs is almost invariably accompanied by great frequency of the pulse, so that a pulse of 120 to 140 would not be considered as so serious in significance as if it occurred in an older person.

2. When a frequent pulse is present in pneumonia it is always of bad significance, even if only a small portion of the lung is involved. Moreover, when a pneumonia occurs in the cachectic or debilitated, the pulse is especially apt to be frequent, often 120 to 160, and such cases usually die.

3. When complicated with heart disease, the frequency of the pulse is significant. Traube asserts, when in a strong robust person you find a pneumonia with a pulse of 120, you may be sure that there is present some form of heart disease.†

c. In the diagnosis of incipient phthisis a sustained frequency of pulse is thought to be of importance by Sir Thomas Watson, and others.

d. In pleuritic effusions the pulse may be very frequent, especially when there is displacement of the heart.

e. In pericarditis and myocarditis very great frequency of the pulse is observed at times—especially on any movement by the patient—130 to 160. The change in rate may be very sudden, and is of some importance in diagnosis and prognosis.

f. In acute articular rheumatism unaccompanied by peri-, endo- or myocarditis, a pulse of 120 or more indicates great danger (Ringer).

g. In the last stages of meningitis of the convexity, and particularly in tubercular meningitis, a very frequent pulse is often observed.

3. Diseases of the nervous system:

a. In diseases affecting the medulla oblongata—in glosso-labio-laryngeal paralysis the pulse is quite frequent.

b. In the early state of locomotor ataxia a frequent pulse is a quite constant symptom.

c. In Basedow's disease a pulse of 120 to 140, and even of 200, is often observed at times.

d. In hysteria an exceedingly frequent pulse is not uncommon, 130 to 160 and more.

e. In puerperal mania, Sir James Y. Simpson insists upon the very great importance of the frequency of the pulse in prognosis, and he states that where the pulse is 110 or over, the outlook is very bad, and that in his experience no case had ever recovered.

f. In certain cases of peripheral irritation a very great increase in the rate of the pulse has been observed:

1. Where tumors in the neck have pressed upon the pneumogastric or sympathetic nerves.

2. In cases with intra-thoracic tumors.

3. Where there has been some inflammatory process in the sheaths of the pneumogastric or sympathetic nerves.

4. In cases of irritation of nerves in the abdominal cavity as by over-distention of the intestines

by gas; in the passage of hepatic and renal calculi; worms in the intestines, etc. As showing the very great disturbance of the pulse, which may be occasioned by the presence of entozoa in the intestines, a case was reported in the *British Medical Journal*, June, 1867, in which attacks of palpitation of the heart with a pulse of 240 were observed, and after the expulsion of a tænia from the intestines the attacks entirely disappeared.

g. In nervous exhaustion the result of venereal excesses, of over-indulgence in alcohol, coffee, or tobacco, or from excessive mental or physical labor, or as the result of previous disease, a very frequent pulse is often observed, and this may, when very frequent, have an alarming significance. Dr. Latham, in the new Sydenham edition of his works, vol. ii., p. 538, describes most eloquently the significance of the very frequent pulse. Liking the heart to the finger of the clock, he says: "We have already seen in these two cases the index hurrying rapidly round the dial-plate, and telling that, from some cause or other, the mechanism within was running down, and if it were not arrested that it would quickly stop. Even prior to any outward presentments to give assurance of disease, even earlier than its known beginning, we have seen countless fluttering of the heart and arteries give token of the nervous system already under trial of mortal suffering, and ready to let life go for ever."—*N. Y. Medical Record*.

SUMMER DIARRHŒA OF CHILDREN.

By JAMES I. TUCKER, A.M., M.D., Chicago.

In the broader sense of the term the summer diarrhœa of children is a neurosis. As medical science advances this doctrine will throw off the disguise of the transcendental, and its true significance becoming more and more practically recognized, will finally be accepted by every practitioner from the centre to the periphery of the profession. There is no other rational explanation of the phenomena with which we meet in the complex of symptoms which constitute the disorder in question. The disharmony of function amounts to a pathological entity. To restore harmony is the sole duty of medicine. Medicine thus becomes not only a *fine art*, but the finest of the fine arts, because it deals with human life. Unless we are guided by this principle we will oscillate between the *gloria in inferno* of allotherapy and the *gloria in excelsis* of homœotherapy, and have no resource except in the pitiless and pointless pædiatrics of a pathy. Let the etiology be what it may, certainly heat is a prime factor, but be it what it may a specific disharmony of bodily function exists belonging to the first and second periods of anthropological evolution. The first period is brief, extending not beyond the seventh month, when the first teeth generally appear. But some time before the appearance of the teeth there are many

† Die Symptome der Krankheiten des Respirations, und Circulations Apparats. Traube. Berlin, 1867, p. 31.

disturbances liable to occur which are due, not to the pricking through of the teeth as is popularly supposed, and this idea is not entirely foreign to the profession, but the appearance of the teeth is but an index of the general evolution of the alimentary canal. Bear this in mind, and consider the necessary alterations which take place in the digestive function as a consequence, and we have an important guide to therapeutics. The therapeutics of early infancy is mainly alimentary. The mother's milk is the normal food for her infant. I need not say that she should be free from emotional disturbances which are so common to American life. Doubtless the prominent cause of those changes which render the human milk innutritious is psychic and emotional, and is often removed by what Bulwer Lytton calls the "calm intelligence" of the medical adviser. But artificial feeding must often be resorted to, for the mammary secretion is often deficient. Now we have to avoid both the Scylla and the Charybdis of medical extremes. A wet nurse may be the poorest substitute for the mother. On the other hand the market is flooded with foods which have become an abomination, and the commercial aim back of them is so far from being humane that it has for its object only the transmutation of nostrums into nuggets. In my experience, and it has not been too limited to justify me in expressing an opinion, the best artificial food is made of rice flour with water or with pure cow's milk. Cheap, wholesome, pure, highly nutritious, and easily digestible, there is no one article which commends itself more strongly to the judgment of the physician. When I use cow's milk alone, I generally follow Vogel and deprive the milk of its property of coagulating into large, compact lumps by adding at every meal a teaspoonful of a solution of carbonate of soda (3 j. to water 5 vj.). In hot weather he also renders the milk alkaline by adding a tablespoonful of the solution to five ounces of milk.* The following is a very useful formula which was given me years ago by Dr. B. E. Cotting, of Boston Highlands, and has now and then served me well. Take of gelatine, 5 grains; arrowroot, 25 grains; water, 1½ pints; milk, 1 pint and 4 ounces; cream, ½ pint. Dissolve the gelatine in half the quantity of water cold. Dissolve the arrowroot in the other half, hot. Mix. Boil, adding the milk. In cooling add the cream. Sweeten a little. A very exact dietary, prescribing he food for different ages, in sickness and in health, would be desirable, because babies, like nations, cannot subsist on "glittering generalities." The nearest approach to a reliable dietary is to be found in Eustace Smith's work.†

With variations in quantities and with regard to the difference between our climate and that of

London, and with due consideration of the peculiarities and idiosyncrasies of American children, I have found this dietary a very useful guide. So useful in fact that I transcribe it for the benefit of the readers of the *Review*.

DIET IN HEALTH.

I. FROM BIRTH TO SIX MONTHS OLD.

DIET 1.

If the child be suckled, and the breast-milk be found in all respects suitable :

No other food.

The child should take the breast alternately every two hours for the first six weeks ; afterwards, every three hours, except between 11 P.M. and 5 or 6 A.M.

In cases where the secretion of milk is slow to be established, and the quantity drawn is insufficient to supply the wants of the infant, the following food may be given as an addition to the breast-milk, until the secretion becomes sufficiently abundant :

One tablespoonful of fresh cream.

Two tablespoonfuls of whey.

Two tablespoonfuls of hot water.

This mixture must be taken from a feeding bottle. The whey is made fresh in the house by adding one teaspoonful of prepared rennet to a pint of new milk. The coagulated casein is removed by straining through muslin.

DIET 2.

If the infant be brought up by hand :

New milk and lime water in equal proportions.

Three to four ounces, sweetened with a teaspoonful of sugar and milk, are to be given at first every two hours from a feeding-bottle.

The proportions of milk and lime water may be varied according to the age of the infant.

From six weeks to three months, one-third of lime-water may be used ; and from three months to five months this quantity should be reduced to one-fourth.

DIET 3.

If the infant be partially suckled, the breast milk being poor and scanty :

The breast must be given only twice a day.

For the other meals the child must be fed upon milk and lime water as directed in diet 2.

Up to the age of six months the milk should be warmed by dipping the bottle containing it into hot water. After the age of six months it may be boiled if convenient. New unskimmed milk should always be used. If the milk has been previously skimmed a teaspoonful of cream must be added to each meal.

In all cases where the child is artificially fed, the utmost attention should be paid to the cleanliness of the feeding bottle.

2. FROM SIX TO TWELVE MONTHS OLD.

*Alfred Vogel, M.D., "Diseases of Children," p. 43. Raphael's trans. N. Y., 1873.

†Eustace Smith, M.D., "The Wasting Diseases of Infants and Children." Phil., 1871.

FIVE MEALS IN THE DAY.

DIET 4.

First meal, 7 A. M.

One teaspoonful of baked or boiled flour carefully prepared with a teacupful of milk.

Second meal, 10.30 A.M.

Third meal, 2 P.M.

A breakfast-cupful of milk alkalized, if necessary, by fifteen drops of the saccharated solution of lime.

Fourth meal, 5.30 P.M.

Same as the first.

Fifth meal, 11 P.M.

Alkalized milk, as before.

For the second meal, twice a week, may be given the yolk of one egg, beaten up with a teacupful of milk. * * *

DIET 5.

FOR A CHILD ABOUT TEN MONTHS OLD.

First meal, 7 A.M.

Dessert-spoonful of pearl barley jelly, dissolved in a breakfast-cupful of milk, and sweetened with loaf sugar.

Second meal, 10.30 A.M.

A breakfast-cupful of milk alkalized, if necessary, by fifteen drops of the saccharated solution of lime.

Third meal, 2 P.M.

The yolk of one egg beaten up in a teacupful of milk.

Fourth meal, 5.30 P.M.

Same as the first.

Fifth meal, 11 P.M.

Same as the second.

Pearl barley boiled for six hours forms on cooling, after the water has been strained off, a jelly which dissolves readily in warm water.

DIET 6.

To alternate with the preceding.

First meal, 7 A.M.

Half a teaspoonful of cocoa essence boiled for one minute in a breakfast-cupful of milk.

Second meal, 10.30 A.M.

A breakfast-cupful of milk alkalized if necessary by fifteen drops of the saccharated solution of lime.

Third meal, 2 P.M.

A teacupful of beef tea, half a pound of meat to the pint.

A rusk.

Fourth meal, 5.30 P.M.

A dessert-spoonful of pearl barley jelly, dissolved in a breakfast-cupful of milk and sweetened.

Fifth meal, 11 P.M.

Same as the second.

It is advisable, as a rule, to avoid giving intermediate meals, and therefore the meals should be sufficiently large to satisfy all reasonable demands.

If the child requires food before 7 A.M., on waking from sleep, a little milk may be given.

A healthy child, between ten and twelve months old, will require from a pint and a half to a quart of milk in the twenty-four hours.

3. FROM TWELVE TO EIGHTEEN MONTHS OLD.

DIET 7.

First meal, 7.30 A.M.

A rusk or a slice of stale bread, well soaked in a breakfast-cupful of new milk.

Second meal, 11 A.M.

A drink of milk, a plain biscuit or slice of thin bread and butter.

Third meal, 1.30 P.M.

A teacupful of good beef tea, a pound of meat to the pint, or of beef gravy with rusk.

A good tablespoonful of light farinaceous pudding.

Fourth meal, 6 P.M.

Same as the first.

Fifth meal, 11 P.M., if required.

A drink of milk.

DIET 8.

To alternate with the preceding.

First meal, 7.30 A.M.

The yolk of a slightly boiled egg.

A slice of thin bread and butter.

A cupful of milk.

Second meal, 11 A.M.

A drink of milk.

A slice of thin bread and butter.

Third meal, 1.30 P.M.

A mealy potato, well mashed with a spoon, moistened with two tablespoonfuls of good beef gravy.

A cupful of new milk.

Fourth meal, 6 P.M.

A rusk or slice of stale bread, well soaked in a breakfast-cupful of milk.

Fifth meal, if required.

A drink of milk.

The fifth meal, at 11 P.M., should never be given unnecessarily. The sooner a child becomes accustomed to sleep all night without food, the better. When, however, it wakes in the morning, refreshed by its night's rest, it should never be allowed to remain fasting for an hour or more until its breakfast is prepared. A drink of milk, or a thin slice of bread and butter should be given at once.

Some children will take larger quantities than others at one meal; but, if the meals are made very large, their number must be reduced in proportion. Many children between twelve and eighteen months old will be found to do well upon only three meals a day, as in the following:

DIET 9.

First meal, 8 A.M.

One teaspoonful of baked flour.

One teaspoonful of fine oatmeal.

Three quarters of a pint to a pint of fresh milk.

A little white sugar.

Second meal, 1 P.M.

The same with the addition of the yolk of one egg.

Third meal, 5 P.M.

Same as the first.

In this diet the baked flour and the oatmeal are first beaten up till smooth, with four table-spoonfuls of cold water, and then boiled. The milk and sugar is then added, and the mixture is boiled till it thickens.

For the second meal, the yolk of egg is stirred up in the sauce-pan and boiled with the rest.

If the child requires anything early in the morning or at 11 P.M., he may take a drink of milk, or a thin slice of bread and butter.

A healthy child of a year to eighteen months old will usually take between two or three pints of milk in the four and twenty hours.

4. FROM EIGHTEEN MONTHS TO TWO YEARS OLD.

DIET 10.

First meal, 7.30 A.M.

A breakfast-cupful of new milk.

A rusk or a good slice of stale bread.

Second meal, 11 A.M.

A cup of milk.

Third meal, 1.30 P.M.

Under-done roast mutton, pounded in a warm mortar, a good tablespoonful.

One well mashed potato moistened with two or three tablespoonfuls of gravy.

For drink, milk and water or toast-water.

Fourth meal, 6 P.M.

A breakfast-cupful of milk.

Bread and butter.

After the age of eighteen months it is well to omit the meal at 11 P.M. A healthy child of eighteen months old should sleep from 6 P.M. to 6 A.M. without waking.

DIET 11.

For a child of the same age.

First meal, 7.30 A.M.

A breakfast-cupful of new milk.

The lightly boiled yolk of one egg.

A thin slice of bread and butter.

Second meal, 11 A.M.

A cup of milk.

Third meal, 1.30 P. M.

A breakfast-cupful of beef tea, a pound of meat to the pint, containing a few well boiled asparagus heads, when in season, or a little thoroughly stewed flower of broccoli.

A good tablespoonful of custard pudding.

Fourth meal, 6 P.M.

A breakfast-cupful of milk.

Bread and butter.

These diets can be given on alternate days.

Between the ages of two and three years the same diets may be continued. Meat can, however, be given every day, and a little well-stewed fruit may be occasionally added.

The morning and evening meals should always consist principally of milk. * * * *

I have transcribed these several diets because they are the most complete and specific of any I am acquainted with. Variations will suggest themselves to the individual practitioner according to his peculiar circumstances. A rigid and intelligent regimen is the best prophylactic against the summer diarrhoea of children.

I will close with a brief mention of some of the medicinal agents that have served me well. First I will say that it is a bad practice to resort at once to mercury. If Dr. Clevenger's theory be true, it is preposterous to do so. When the stools are green, many colored and slimy, which is a very early symptom of coming trouble, I use, especially in very young children, *camomile*. It not only alters the character of the passages, but allays restlessness and peevishness. It may be given in infusion in doses of half a drachm or drachm,* or in tincture in water in an equivalent dose. When the character of the stools are not readily changed by this means, I sometimes resort to mercury in the form of a trituration of the mild chloride with sugar of milk in doses of one-tenth of a grain or less two or three times a day, or a trituration of the metal hydrargyrum with sugar in doses equivalent to those of gray powder, upon which it is a decided improvement. On this point Dr. H. G. Piffard, of New York City, has given important testimony. When there is vomiting, in addition to a food consisting of diluted whey with cream, milk and lime water, with cinnamon water and equal parts of veal broth and barley-water, given cold or hot, not tepid, I use wine of ipecac in hourly drop doses, and when vomiting and purging are conjoined, small doses of the tincture of *veratrum album*.† This is a valuable remedy. *Opium* may be used when the diarrhoea is due to simple irritation, but it is, strictly speaking, not a remedy for infants, and if the exigencies of a case seem to demand it, it should be used with great caution, and in doses that are stimulating, not narcotic.‡ Among the astringents I have used *geranium** in infusion, and sometimes increase the astringency by *catechu* or *kino* or *red wine*, and in older children continue to use the *mistura creta* of the pharmacopœia.

One observation I would like to add, that polypharmacy in infantile therapeutics should be studiously avoided. Avoid the shot-gun practice and use only the true rifle, which, under a steady eye and hand, is most sure to hit the mark. Therefore I would seldom combine, but use my remedies singly wherever practicable.—*Chicago Med. Review*.

*Ringer. Handbook of Therapeutics.

†Ringer's Handbook of Therapeutics, p. 413.

‡See Austic's works.

*B. Infusio. geranii mac., one and one-half ounces.

Infusio. authemidis flor. (vel matricariac), one and one half ounces.

Vini. rubr. optim., once ounce.

M. Sig : Dose, one-half to two teaspoonfuls p. r. n.

NANA'S DAUGHTER.

T. B Peterson & Brothers have just published a remarkable book which will create a great sensation, being no less than a continuation of, and sequel to, Emile Zola's great Paris realistic novel of Nana, being a far superior book, which can be appreciated by all. It is entitled "Nana's Daughter," and is one of the most exciting and absorbing stories ever given to the public. The heroine is elevated upon the stage of Parisian fashion, and is more natural than realistic. Look out for another eruption.

FOR TREATMENT OF DISEASES OF THE THROAT AND LUNGS.

Vapor Cajuputi :

Oil of Cajuput..... 4 parts ;
Light carbonate of magnesia..... 1 "
Water, to180 "

Vapor Calmi Aromatical :

Oil of calamus aromaticus 2 parts ;
Light carbonate of magnesia 1 "
Water, to180 "

Vapor Camphoræ :

Spirit of camphor.... 6 parts ;
Rectified spirits of wine..... 9 "
Water, to..... 24 "

Vapor Carui :

Oil of caraway..... 2 parts ;
Light carbonate of magnesia..... 1 "
Water, to.....144 "

Vapor Juniperi Anglici :

Oil of juniper..... 2 parts ;
Light carbonate of magnesia.... 1 "
Water, to - 48 "

One teaspoonful of any of these mixtures in the inhaler is a suitable quantity for one inhalation.—
The Druggist.

CHILBLAINS.

In response to an inquiry in the *British Medical Journal*, the following suggestions for the treatment of chilblains are given :

Have the patient wear large shoes which do not compress the feet. Touch the toes with nitrate of silver. Galvanism has always proved successful with one writer. Liniment of aconite is recommended.

An ointment of lard and dry mustard rubbed in before the fire for twenty minutes will cure the trouble after a few applications.

Paint the affected parts with flexible collodion to protect them from the air. Very hot water, applied with flannels or sponges, is efficacious. A strong solution of acetate of lead was highly recommended by Sir Astley Cooper. Sulphurous acid is useful in mild cases.

CYSTITIS.

Dr. A. J. C. Skene, of Brooklyn, gives the following, which he regards as almost specific in cystitis, especially in the earlier stages, affording rapid and lasting relief :

℞ Acidi benzoici..... } aa gr. x ;
Sodii biboratis..... }
Inf. buchu..... 3 ij.

M. Sig. This quantity to be taken three or four times a day. The diet should also be carefully regulated, and the skin and bowels kept in an active condition.

TREATMENT OF COUGH IN BRONCHITIS AND PHTHISIS.

T. Lauder Brunton (Lond. *Lancet*) thus analyzes the following prescription of Dr. Warburton Begbie :

℞ Liq. morphiae hydrochlorat }
Acidi hydrocyanici, dil.... } aa m xvij ;
Chloroformi..... }
Spiritus chloroformi..... } aa fl. 3 j ;
Acidi nitrici dil..... }
Glycerinæ.. fl. 3 ij ;
Infus. cascarillæ (seu infus
quassiæ)..... fl. 3 ij.

M. A sixth part to be taken three or four times a day.

Here the sedatives—morphia, hydrocyanic acid, and chloroform—tend to lessen the excitability of the respiratory centre ; the glycerin tends to retain the sedatives in longer contact with the throat, and acts also to some extent as a nutrient, and the nitric acid and bitter are supposed to have a tonic effect on the stomach. In what way this tonic effect is produced we can not at present say ; but we will imagine that they will in some way partially counteract the effect of the congestion which the cough produces, and, exciting appetite, will counteract the influence of the morphia. Nitric acid had also, as Dr. Brunton points out, a definite effect upon the secretions of the lungs themselves. Considering those drugs which tend to lessen congestion, Dr. Brunton mentions digitalis, and gives the following prescription from Beasley, as used by Sir A. Crichton :

℞ Succi limonis..... fl. 3 ss ;
Potassi carbonat. ad saturand...
Decoct. sarsaparillæ..... fl. 3 x ;
Tinct. digitalis m x ad xxx ;
Mucilag. acaciæ fl. 3 x.
M. To be taken every sixth hour.

The tincture of digitalis here tends to contract the vessels, diminish pulmonary congestion, and lessen cough. The potash renders the pulmonary secretion more fluid and abundant. Warm food, as beef tea, Dr. Brunton says is a good expectorant, as also is cod-liver oil. Ice, hydrocyanic acid, and alum are recommended in the vomiting of phthisis.

COD-LIVER OIL IN PHTHISIS AND BRONCHITIS.

Dr. T. Lauder Brunton, writing on this subject in the London *Lancet*, says :—

One of the most powerful expectorants is simply a little warm food in the stomach, and in cases of chronic bronchitis, in which the patients complain of violent coughing immediately after rising, one of the best expectorants is a glass of warm milk, either with or without a little rum, and a biscuit or a piece of bread, about a quarter of an hour before they get up. A little warm beef tea will have a similar effect. After taking this for a short time they generally tell you that the sputum comes away much more easily than before, and they are not so much exhausted by it. But perhaps the remedy, *par excellence*, not only in cases of phthisis, but in chronic bronchitis, is cod-liver oil. Persons suffering from long-standing chronic bronchitis will often come to a hospital to beg for cod-liver oil, saying that it eases their cough far more than any cough mixture. Other oils or fats have not this power to the same extent as cod-liver oil. We cannot say positively what the reason of this may be, but I think there is no doubt about the fact. My own belief is that cod-liver oil is more easily assimilated than other oils, and not only so, but more easily transformed into tissues themselves. Whether it owes this property to its admixture with biliary substances or to its chemical composition, we cannot say. Dr. Weir Mitchell quotes a remark made by an old nurse, that "some fats are fast, and some fats are fleeting, but cod-liver oil fat is soon wasted." By this she meant that there were differences in the kinds of fat accumulated under the subcutaneous tissues of men, just as there are differences in subcutaneous fats which accumulate in horses. The horse fed on grass soon gets thin by hard work, while the fat laid on when the horse is feeding on hay and corn is much more permanent. Persons fattened on cod-liver oil soon lose the fatness again, and this, I think, points to the power of ready transformation which the oil possesses. Supposing that it does possess this power, we can readily see how very advantageous it will be. In chronic bronchitis, and in catarrh and pneumonia, we have a rapid cell-growth, but want of development. The cells lining the respiratory cavities are produced in great numbers, but they do not grow as they ought to do. They remain, more or less, lymphoid cells, instead of developing into proper epithelium. They so rapidly form, and are thrown off so quickly, that they have not time to get proper nutriment, and if they are to grow properly we must supply them, not with an ordinary kind of nutriment, but with one which is much more rapidly absorbed, and is capable of much more rapid transformation in the cell itself than the usual one. This power is, I believe, possessed by cod-liver oil, and to its quality of nourishing the rapidly-formed cells in the lungs in cases of bronchitis and catarrhal pneumonia I believe its great curative power is owing.

TEMPERATURE OF SLEEPING ROOMS.

Dr. Horace Dobell, of London, in his excellent work, "Winter Cough," makes remarks on the temperature of bed-rooms, that are so appropriate that I will quote them. He says : "But before leaving the subject of sudden changes of temperature, I must not forget to speak of sleeping-rooms. It is quite astonishing what follies are committed with regard to the temperature of sleeping-rooms. On what possible ground people justify the sudden transition from the hot sitting-room to a wretched cold bed-room, which may not have had a fire in it for weeks or months, it is impossible to say ; but it is quite certain that the absurd neglect of properly warming bed-rooms is a fruitful source of all forms of catarrh. We cannot too much impress this upon our patients." For those who do not become warm quickly after they go to bed, during cool or damp weather, the bed-clothes should be warmed by a hot smoothing iron, or a warming bed pan, before they retired for the night. This warming operation may be necessary, even if there has been a fire in the sleeping-room all day. If a patient is subject to profuse night sweats the dampened bed-clothes should on each morning be removed from the bed, and fresh, well-dried *cotton* clothes (linen sheets and pillow cases should be eschewed) supplied in their stead. If the perspiration has been but slight, the bed sheets alone may be all that requires removal, or even these may be so slightly dampened that their being placed before a grate fire will be sufficient to dry them for the next night's use.—*Dr. Rumbold's Hygiene of Catarrh.*

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THE MONTREAL GENERAL HOSPITAL.

Since our last issue, there has been an election for an indoor and an outdoor physician. The indoor vacancy was created by the resignation of Dr. John Reddy, who, after twenty-five years faithful service, retired upon the consulting staff. Dr. Molson, for several years on the staff of assistant physicians, was elected to fill Dr. Reddy's place. Dr. Gardner was elected to the vacancy which Dr.

Molson's promotion caused. The resignation of Dr. Reddy took place on the 17th, the election was on the 19th. This was quite in accordance with the by-laws, but the sooner the by-laws are altered on this point the better. The contest, if such it can be called (for Dr. Gardner's friends tried to elect him to Dr. Reddy's vacancy, and three candidates went to vote with Dr. Gardner on the outdoor staff), has apparently resulted in promises of some amendment. The Governors, badgered by doctors, relations and female friends in these medical elections, are now loud in demanding the ballot, as a means of affording them relief from persecution, and the possibility of exercising a conscientious vote. Unfortunately the founders of the Hospital did not apparently believe in this manner of voting, and as the charter names how it shall be conducted, it is believed the Hospital will have to go to the Legislature for an amendment to it before this *desideratum* can be obtained. We think the movement a wise one, and wonder that it was not long since adopted. We at the same time warn the Governors that they must be prepared for opposition, for with the ballot the days of the Medical Monopoly, which have always characterized that institution, will we believe be at an end.

THE BOGUS-DIPLOMA BUSINESS IN PHILADELPHIA.

The confession of the now notorious Dr. Buchanan, with regard to the infamous traffic in bogus diplomas, in which he was for so many years engaged, reveals a state of things which is almost beyond belief. That one could have for so long a period carried on this business in a city where medical education occupies a foremost place, and in the midst of men jealous of professional honor, is difficult of comprehension, in spite even of the explanation given. To a representative of the secular press the credit is due of unearthing and bringing to light the nefarious traffic. It appears from the statements made by Buchanan that the bogus-diploma business was not only a distinct branch of industry, but was a business of immense proportions, having its recognized agents, drummers, go-betweens, and influential advisers. Through this concern alone sixty thousand bogus diplomas have been sold within the last forty years; of these forty thousand were disposed of in Europe. The price for each of these pieces of parchment varied from ten to two hundred dollars,

according to the means and gullibility of the applicant. Nothing was required from the candidate but the money. The representative of the *Philadelphia Record* purchased several of these diplomas without having studied medicine a single day, and without making the slightest pretension to a knowledge of the science. Fac-similes of these documents are published by the gentleman in question, and help to make up an interesting part of the history of a stupendous and barefaced fraud. As Buchanan has nothing to gain one way or the other by his statements, it is fair to presume that they are worthy of some credence. At all events they are corroborated by the documents which he has surrendered to the authorities.

One fact of special interest to us as Canadians is the number of men who figure in the published list as hailing from Canada. So far as we are able to judge, few of them are in practice in the Dominion to-day, but, at the same time, we think we have not got rid of all of them. In the Province of Ontario the Registration Act cleared out many of them. If any are in our own Province, they will soon be heard of, for, thanks to the present Governing Board of the College of Physicians and Surgeons, the present Medical Act is not being left a dead letter.

ANOTHER DODGE.

Some two or three years ago the Medical Press of the United States and Canada suddenly awoke to the fact that they were being contemptibly swindled by those men who from one end of the country to the other were writing for "a specimen copy of your Journal." One can hardly conceive that there exists, in the form of humanity, a person so mean as in this way to arrange for the supply of his Medical reading, at a cost calculated simply by the number of post cards which he dispatches asking for "a specimen," yet such was the fact. For a time after the exposé, these little missives, so polite in expression, ceased to come to us; then they began to reach us again, but, failing to elicit any response, they once more ceased. We hoped the "swindle" had collapsed, but if we are not mistaken it has once more come to life—in a form which has, we confess, deceived us for the last six months. During that time we have received from at least a dozen or more persons, living in the United States, a postal card asking quotations for a small advertisement, "and the favor of a specimen copy." At first we took the bait, and gave

ordinary quotations, but never getting a response, we began to think that this was "the specimen copy" man in another form. We then gave quotations ridiculously low, but still no advertising came, and we are now convinced that this is indeed the old swindle in a new form, and consign all such cards to our waste basket. There is, however, a very singular phase to both these swindles, which is difficult to understand. The cards, asking for specimen copies, came in floods for over two years, and from every section of this continent from Nova Scotia to Colorado, and yet the wording was very much the same in all. In the new departure the same thing is noticeable, a remarkable similarity of wording. Does there exist a widespread organization for the purpose of obtaining medical and general literature almost without cost? We cannot believe it, yet facts would almost seem to point that way. Do they believe that literature should be endowed by the State, and disseminated for the general good? Till that time arrives, we must decline to send specimen copies free, even though it be to one "*who desires to advertise.*"

Reader, are you anxious to know what other practitioners are doing? Are you anxious to advance higher day by day in the practice of your profession? Then tell others what you have learned; what strange freaks of disease you have encountered; what remedies have yielded good results, and what have failed. Send us your experience and your subscription money, and you shall hear from the rest. Don't hide your light under a bushel, or think because you are plodding away among the hills and waysides that you know nothing of interest—or, worse still, think you know everything. Keep in line, or the world will wag along and keep you in the lurch.

HOW TO RESTORE THE SCALE OF THERMOMETERS.

Physicians are frequently troubled by the scales of their thermometers becoming indistinct, the pigment in the marks wearing out. The scale may be made distinct again by painting it with an alcoholic solution of any aniline color. Make two or three applications, let the color dry, and then rub off with a dry cloth. The aniline will fasten itself on the roughened glass of the scale alone making each line show distinctly. Water will not

remove the coloring matter, which, when it fades, may be easily renewed.

CANADA MEDICAL ASSOCIATION.

The next meeting of this Association is to be held in Halifax, Wednesday, 3rd August. Owing to the serious illness of the General Secretary, Dr. A. H. David, all communications concerning the meeting should be addressed to the Local Secretary for Ontario, Dr. Adam Wright, who has kindly undertaken the duties of the General Secretary.

A PROPOSED NEW PLAN TO DISINFECT SEWERS.

Dr. A. J. Holkett, the medical examiner for the Germania Life Insurance Company, New York, has laid a new plan for disinfecting the sewers of that city before the Board of Health. He proposes by the use of electricity to neutralize the gases generated in the sewers. It is said to be probable that an experiment will be made, although the Commissioners are not very sanguine of the results.

CORRECTION.—In the February number of the RECORD we published a paper by Dr. F. W. Otiss of New York "On the Sulphide of Calcium in the Treatment of Suppurating Buboes," and credited it to the *N. Y. Medical Record*. This was an error, as the paper first appeared in the *New York Medical Journal*.

ERGOTINE: ITS INCONVENIENCES AND DANGERS.

At a recent meeting of the Paris Academy of Medicine (*La France Medicale*) Dr. Boissarie read a memoir on the above subject. His conclusions are that ergotine, which is of important service in hæmorrhage when we require immediate energetic action, cannot be used with impunity in affections of long continuance, even in small doses, so as to saturate the system. It has the property of accumulating and storing itself up in the economy, and of manifesting itself, after a longer or shorter time, by a sudden outburst of serious consequences. To follow the precept of Trousseau of giving the poison for a long time in small doses is to expose the patient to gangrene.

The *Medical Press* gives an extract from the diary of the late Mr. Mewburn :—

"The following statement from the fee-book of Sir Astley Cooper is curious :—

"My receipt for the first year was 5*l.* 5*s.* ; for the second, 26*l.* ; the third, 64*l.* ; the fourth, 96*l.* ; the fifth, 100*l.* ; the sixth, 200*l.* ; the seventh 400*l.* ; the eighth, 610*l.* ; the ninth, 1,100*l.*

"In 1815 Sir Astley made 21,000*l.*!! A Mr. Hyatt, an ancient merchant, gave him 1,000*l.* on recovery under his care ; and Mr. Coles, of Mincing Lane, for a long course of time, gave him 600*l.* every Christmas."

The invention of the capsule may be regarded as one of the triumphs of modern pharmacy.

The old-fashioned naked pill, with its irregular contour and its nauseous taste, which not infrequently excited in the pharynx an inverted deglutition, has become almost, if not quite, a thing of the past.

The capsule has manifest advantages over the pill, such as, ease in swallowing, readiness of solution, together with the protection it affords the medicine against atmospheric influences, thus insuring that it shall arrive in the stomach in the best condition for assimilation ; and these facts being well understood by the physician, the term "Ft. pilulæ" at the close of a prescription is not now very often seen.

A capsule to meet the above requirements should consist almost entirely, if not wholly, of pure gelatin, which, on entering the stomach, appropriates water of composition, and, becoming a jelly, will readily dissolve and set the contained medicine free.

But the increased demand for capsules, together with a desire to furnish them at a low price, has tempted some manufacturers to use glue and various other cheap and impure compounds in their manufacture.

Capsules made of these substances are sometimes so slow of solution as to seriously delay the action of the medicine, or, worse still, resisting the fluids of the alimentary tract to the end, pass out like bullets, unchanged.

Before ordering them for a patient the physician should test a given specimen of capsules by holding one in his mouth until it dissolves. If its solution is rapid, and no unpleasant flavor is perceived, it may be safely used ; but if it tarries long

upon the tongue, or imparts to the taste a savor of the hide-store or the sour-paste pot, it should not, under any circumstances, be given to a sick person.

The old and highly reputable firm of H. Platten & Son, 224 William Street, New York, furnishes an article which will stand any test, and we can conscientiously recommend their capsules to the profession.

They are made of seven different sizes for the mouth and of three for the rectum. The latter are conical at one end, and present a form which may be easily introduced into the rectum, and retained by this organ without discomfort.

WYETH'S ELIXIR OF PHOSPHORUS.

Although Phosphorus has long been recognized as of great therapeutical value, there has been up to the present time a drawback to its extensive employment in the difficulty of finding a safe, accurate, and agreeable form in which to administer it.

Wyeth, of Philadelphia, now prepares an ELIXIR OF PHOSPHORUS, which is free from all the objectionable qualities above stated. It is absolutely reliable, non-irritating, and pleasant to the taste. Each teaspoonful contains grain 1-100 of free Phosphorus, held in perfect solution, and of assured stability. This article has been tested for nearly a year by leading physicians, and their satisfaction with it has been such as to warrant them in offering it to the profession at large as worthy of their favor. It may be given in combination with other preparations, as for example with Elixir of Iron, Quinine, and Strychnia, with the tincture of Nux Vomica, etc.

THE POPULAR SCIENCE MONTHLY.

The nineteenth volume of *The Popular Science Monthly* begins with the May number, and it would be difficult to find, since its start, an issue that more fully sustains the high reputation of the magazine as an exponent of modern science in a readable and attractive form. The first article, by Professor David S. Jordan, is a capital example of the way science may be made both entertaining and instructive to the general reader, youthful or adult, without any sacrifice in accuracy or dignity of statement. It is entitled the "Story of a Salmon," and treats of the life-history of that interesting and useful fish from the time it is produced as an egg until it becomes itself an egg-producer.

Dr. Felix L. Oswald, who, as readers of the *Monthly* know, has always something interesting and useful to say, continues his articles on "Physical Education," treating in this number the subject of "Gymnastics." The "Mineral Springs of Saratoga" is an illustrated article on the geology of the springs with a brief statement of the two rival theories concerning the sources of their mineral constituents, and an extended table giving the chemical compositions of the various waters.

Professor Tyndall has a valuable paper entitled the "Action of Radiant Heat on Gaseous Matter," in which he describes some wonderful experiments with the photophone.

Under the title of "The Eucalyptus in the Roman Campagna," Mr. H. N. Draper gives a history of the introduction and cultivation of the eucalyptus in one of the worst parts of that pestiferous plain, and the remarkable improvement in the healthfulness of the locality which has resulted therefrom.

New York: D. Appleton & Company. Fifty cents per number, \$5 per year.

ELIXIR FERRI ET CALCIS PHOSPH, CO.

This preparation, made by Dr. Wheeler of Montreal, has now been before the profession for a number of years, and the fact that it is still in large demand proves most conclusively that it is a medicine of very great value. We have always held it in high esteem, and a twelve years' experience of it has only confirmed our high opinion of it. It is palatable, and does not leave a disagreeable after-taste. Our readers who have not done so should include it among their list of remedies, and when occasion presents where it should be useful, we are satisfied, if prescribed, it will give every satisfaction.

GYMNASTICS AS A CURE OF DISEASE.

Physical vigor is the basis of all moral and bodily welfare, and a chief condition of permanent health. Like manly strength and female purity, gymnastics and temperance should go hand in hand. An effeminate man is half sick; without the stimulus of physical exercise, the complex organism of the human body is liable to disorders which abstinence and chastity can only partly counteract. By increasing the action of the circulatory system, athletic sports promote the elim-

ination of effete matter and quicken all the vital processes till languor and dyspepsia disappear like rust from a busy plowshare. "When I reflect on the immunity of hard-working people from the effects of wrong and overfeeding," says Dr. Boerhaave, "I cannot help thinking that most of our fashionable diseases might be cured *mechanically instead of chemically*, by climbing a bitterwood-tree or chopping it down, if you like, rather than swallowing a decoction of its disgusting leaves." The medical philosopher, Asclepiades, Pliny tells us, had found that health could be preserved, and if lost, restored, by physical exercise alone, and not only discarded the use of internal remedies, but made a public declaration that he would forfeit all claim to the title of a physician if he should ever fall sick or die but by violence or extreme old age. Asclepiades kept his word, for he lived upward of a century, and died from the effects of an accident. He used to prescribe a course of gymnastics for every form of bodily ailment, and the same physic might be successfully applied to certain moral disorders, incontinence, for instance, and the incipient stages of the alcohol-habit. It would be a remedy *ad principium*, curing the symptoms by removing the cause, for some of the besetting vices of youth can with certainty be ascribed to an excess of that potential energy which finds no outlet in the functions of our sedentary mode of life. In large cities parents owe their children a provision for a frequent opportunity of active exercise, as they owe them an antiseptic diet in malarious climate.—By DR. FELIX L. OSWALD, in *Popular Science Monthly* for May.

TO PRESERVE THE BRAIN.

Extracted from Journal of Anatomy and Physiology, January, 1879. (Giacomini method.)

The organ enveloped in its membranes is immersed in a solution of zinc chloride sp. gr. 1.343. Turn two or three times a day. If the subject has been dead for some time, inject 600 grammes of the solution through the carotids, so as to give firmness to the somewhat soft brain before its removal. After forty-eight hours the surface is hard enough to have the membranes removed. Let this be done without taking the organ out of the solution. After having been cleaned let it remain in the solution, till, as the hardening proceeds, it begins to sink no longer, and then remove it. Now

it is immersed in commercial alcohol for not less than ten or twelve days. As it sinks here it must be turned often to avoid deformity by pressure on the bottom of the vessel, and it is well to renew the spirit two or three times, the oftener the sooner the process is required to be finished. Let the organ now be immersed in commercial glycerine, at first it floats, but gradually becomes heavier as the alcohol evaporates; when level with the fluid it is to be taken out. Now set it aside for several days till the surface is dry, then cover with gum elastic varnish.

To the above process we would make the following suggestions:

(A mixture of damar and copal varnish will do better, we think. A brain prepared as above will make a beautiful preparation for studying the cortical substance, but as most of the lesions are in the anterior ovule it is advisable to make sections as advised by Pitres in his "Lesions du Centre Ovule," and referred to with illustrations in Ferrier's "Localization of Cerebral Disease." The sections can be very readily made after the brain has been a few days in the chloride of zinc solution, before transferring it to the alcohol. After the sections are made, leave them in the chloride of zinc for three or four days, then proceed as described above.)

REVIEW.

On the Construction, Organization and General Arrangements of Hospitals for the Insane, with some Remarks on Insanity and its Treatment.
By THOMAS S. KIRKBRIDE, M.D., LL.D., &c.
page 320. J. B. LIPPINCOTT & Co., Philadelphia and 16 Southampton street, Covent Garden, London; Montreal, Dawson Bros.

This book is nothing more nor less than what its title implies, and our author has given us a most valuable work, one no doubt which will prove to be of the greatest possible advantage to any community about to establish an insane asylum. The plan of choosing a proper place for such a building, the amount of land that should surround the building or buildings, the plan of the building or buildings, the manner of choosing a governing board, what the medical superintendent, and all the officers and employees of the establishment should be, are matters all gone into with the most minute details, and although these are subjects that have been written upon over and over again, yet our author shows himself to

be no apprentice hand at the work he has undertaken, but a man of master mind; a mind well stored with knowledge from observation, and wishes to impart his knowledge to others.

We said the book would be found useful to those about to establish an insane asylum, we may add that it will be found useful, even to those who have already established asylums, for it affords many practical hints that can be taken advantage of by medical superintendents.

Unfortunately, from the peculiar system of farming out patients to contractors, adopted in the Province of Quebec, a system probably our author never heard of, his book is useless in this Province, for it speaks to those who have no existence amongst us, a medical superintendent having entire power and control of the whole establishment and all that is therein, he being responsible for all his acts to the executive, either directly or indirectly. We doubt if our author ever heard of such an anomaly as of a religious community of ladies being contractors with a Government for the insane of a country at so much per capitum for pauper patients, said ladies being sole proprietors of the insane asylum, appointing one of themselves as Superior and Superintendent of the establishment, who in turn appoints her own attendant physician, that is responsible to her and her only for all his acts and deeds, and so does she appoint all keepers, and discharge them at her pleasure. That these pauper patients are treated in every respect as seems best to this Lady Superior and her own medical attendant, not responsible nor letting any one know what the treatment consists of. True, that the Government has a most reliable, capable and experienced alienist as Government visiting physician to this establishment, who performs his duty to the public fearlessly and honestly, guided in all his acts by benevolence and justice. But what are his powers? To recommend the admission of those whom he considers suitable persons for admission under the law, to recommend to the Government the discharge of those patients whom he, in his judgment, considers should be discharged, to report from time to time the mental and physical state of the patients, to report as to their comfort, that is their clothing, bedding, lodging, &c., and, if he sees anything that he disapproves of in a sanitary point of view, such as heating, ventilation, drainage, &c., to report the same,—so far so good, but he controls nothing.

His opinion is not asked nor is he consulted in anything; the medical attendant never consults him, he does not know what the medical treatment is. He cannot control the classification of patients. He may see cases of acute mania in the same apartment with demented and imbeciles, and he is powerless to correct it. He may disapprove of straps and straight waistcoats, but he can do nothing but report. The Lady Superior controls all these things herself. From the foregoing facts we think our author will see how little use there is for his book in the Province of Quebec. We, however, take this opportunity of protesting against our unscientific system. It is different in the Province of Ontario—there our author's book will be a valuable contribution to the library of medical men.

Dr. Kirkbride writes from the standpoint of a medical superintendent, and, like all others who have written from the same standpoint, considers that, for the majority of insane persons, the best thing to be done with them is to have them treated in an insane asylum, but here we will let him speak for himself: "As the insane generally cannot be treated successfully nor be properly cared for in private houses, very clearly they cannot be in ordinary hospitals, almshouses, nor in penal institutions. The only mode, then, of taking proper care of this class in a community it is obvious, as all enlightened experience shows, is to provide in every State just as many special Hospitals as may be necessary to give prompt and proper accommodations for *all* its insane, to cure those that are curable, to give every reasonable comfort to those that are not curable, and to prevent their becoming worse." We entirely agree with our author in all the foregoing, but we maintain that, amongst the affluent, arrangements can be so made in private houses, where patients can be as successfully treated at home, by a well educated medical man, with the benefit of a consultation with a mental expert, just as successfully, if not more so, as in an insane asylum. We have had such in our own practice, and we are aware that such is the experience of many of our confrères. We confess, however, that there are many occasions where we would avail ourselves of a public institution, if there was one in our province that we had confidence in its management.

We quote one passage more, as bearing upon a very important matter in very many respects:

"There is no power to insure any case, or to

"say that there may never be another attack. No one has a right to assert that a combination of circumstances, like that which produced the first, may not cause another; that ill-health, and commercial revulsions, and family sorrows, and the many other causes that may have originally developed the disorder may not again bring on the return of the same symptoms, just as they may produce them in one who has never before been insane. Out of seven thousand eight hundred and sixty-seven consecutive cases in the author's observation, five thousand six hundred and ninety-five had never had an attack before. Whatever induced the disease in them certainly may induce it in those who have already suffered from the same malady, for we cannot expect one attack of insanity to act as a prophylactic, and, like measles or small-pox, to give immunity for the future. But this new attack is no evidence that the patient was not cured of the previous one. If the patient, then, is well in the sense in which he is considered well from an attack of typhoid fever, or dysentery, or rheumatism, or a score of other maladies, when another attack is developed, it is as much a new case and the recovery is a cure just as much as it would be if he suffered from any other form of illness, and it ought to be so recorded.

"If he does not recover, in the sense in which a recovery has already been described, he should not be recorded as cured."

Our author's experience, from length of years and number of patients treated by him, gives him the right to speak with authority, and in what he has said in the foregoing, we agree with him in every particular. But when it is such an established fact that the large majority of persons who have been once insane generally become insane again, we consider the term recovery is preferable to the term cure, and less likely to lead to error or misunderstanding. A man loses his sanity and recovers it again, no matter from what cause (and generally it is very difficult to pronounce to what cause his recovery is due) is a term quite explicit enough for all purposes. But when the term cure is made use of persons are liable to understand the term as meaning that the remote or latent cause of insanity has been removed from the patient by medical treatment, which gives him immunity for the future.

Aphorisms in Fractures. By R. O. COWLING, A.M., M.D. John P. Horton & Co., Lennoxville, Ky., U. S.

This little work contains some good practical information, and, although we may not agree with all it states, we have no hesitation in recommending it to the busy practitioner and the student.

We are in receipt of a little *brochure* from the Trommer Extract of Malt Company, the object of which seems to be to prove that, for medicinal purposes, the extract of barley malt is superior to that of any combination of cereals. So far as our opinion is concerned, this is a foregone conclusion, as all investigation goes to prove that, in regard to the essential (medicinal) principle of malt extract, barley is richer than any other cereal. The facts in regard to this are clearly stated in the pamphlet referred to, as follow :

"The superiority of barley for malting depends partly upon the peculiar structure of the grain, and partly upon the greater solubility of its nitrogenous principles. The protection afforded to the radicle (or shoot) by the husk which envelopes the grain, during germination or malting, is of the utmost importance. The process can go forward to the desired extent without loss by imperfect or incomplete germination. In the malting of wheat, maize, and even oats, a considerable portion is lost or damaged by germinating slightly and then perishing, leaving decayed grains in such abundance as materially to lessen the value of the malt.

"The nitrogenous matter of wheat consists mainly of gluten, albumin and vegetable fibrin, that of oats in avenin, *substances insoluble in water, and which therefore cannot be obtained by maceration or infusion in a watery menstruum.* Wheat and oats are poor in those soluble albuminoids which abound in barley. This solubility of a larger proportion of its nitrogenous matter, in water, prominently characterizes barley, which yields its constituents generously to this convenient menstruum. On the other hand, the poverty of barley in coagulable, glutenous and albuminous matter, renders it comparatively unfit for bread-making. Thus, while barley is rich in all the principles requisite for the nourishment of man, these exist in such form that malting of the grain is alone necessary to make them soluble in water.

"But a remaining fact constitutes a most impor-

tant consideration. Barley is best adapted for malting because *it yields a larger quantity of diastase than any other kind of grain.* Wheat, oats, and Indian corn furnish by malting scarcely sufficient diastase to convert the starch they contain into maltose and dextrine; whereas barley malt yields so large an amount of that important principle that one bushel is capable of converting not only all its own starch but that contained in from four to six bushels of wheat, oats, Indian corn or rice, into maltose and dextrine. Brewers and distillers are in the habit of availing themselves of the diastatic power of barley malt, thus not only saving the expense of malting, but enabling them also to substitute cheaper unmalted grain in the manufacture of ale, beer, &c."

The pamphlet also contains interesting reviews of "the Physiology of Starch Digestion," and the "Value of Carbo-Hydrates as Food" (drawn from most recent scientific researches on these subjects), which make it very interesting to medical readers. Such of our subscribers as have not received a copy of the pamphlet can do so free upon application to Trommer Extract of Malt Co., Fremont, Ohio.

PERSONAL.

Dr. John Reddy has resigned his position of attending Physician to the Montreal General Hospital after 25 years' service.

Dr. W. A. Molson has been elected to the In-door staff of the General Hospital, in place of Dr. Reddy resigned.

Dr. Wm. Gardner has been elected on Out-door Staff of the Montreal General Hospital, in place of Dr. Molson, elected on the In-door Staff.

Dr. Henderson has been appointed House Surgeon of the Montreal General Hospital.

Dr. J. A. Macdonald and Dr. Mewburn have been appointed resident clinical assistants at the Montreal General Hospital.

Mr. Ninian C. Smillie, fourth year student at Bishop's College Faculty of Medicine, has been appointed resident clinical assistant at the Woman's Hospital.

Dr. James Bell, of Montreal, who retired a year ago from the House Surgeoncy of the Montreal General Hospital, was on the 19 inst. appointed, under the new By-Laws of the Institution, its Medical Superintendent at a salary of \$1500 the first year, and increasing till \$2000 is reached.

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Original Communications.

CASE OF PERITYPHLITIS.

By GEORGE E. ARMSTRONG, M.D., C.M.,

Professor of Anatomy, Faculty of Medicine, University of Bishop's College, Montreal; Attending Physician Woman's Hospital.

On the 16th March I was asked to see Mr. J. M., æt. 38 years, a man of medium height, spare build, dark hair and complexion. I went to his residence, and found that he had been sick for about a fortnight, under the care of Dr. Rodger, who, being exceedingly busy, had requested them to get some one else to attend.

I found well-marked symptoms of saturnism present—a pale anæmic look, together with an icteroid tinge of the integument and conjunctiva, fœtor of the breath, a blue line along the margin of the gums, furred tongue, anorexia, constipation, muscular weakness, and severe paroxysmal pains in the abdomen, confined to the umbilical region. The abdomen was slightly tympanitic, and pressure and percussion over the abdomen were moderately well borne. His temperature was 99.5 F., pulse 92. The integument over the right iliac region was œdematous, and presented many bluish spots, giving to it a peculiar mottled appearance. On pressure being made in this region there was an indistinct feeling of localized fullness, and

the patient complained of pain. The percussion note over this circumscribed fullness was dull, but quite clear and tympanitic all around. The tumor was deep-seated and immovable. No fluctuation could be made out. Digital examination of the rectum discovered nothing. Liver and spleen were a little enlarged, heart and lungs healthy. The only cause he could assign was that a couple of weeks before he took sick he had strained his right side in lifting. He felt it sore for a few days afterwards. Dr. Rodger told me that the patient had had some local peritonitis in the right iliac fossa, and that he had had mustard and turpentine applied, followed by linseed-meal poultices. As he still complained of some soreness here, I had the poultices continued. On the 18th he had a little diarrhœa, and I ordered Castor Oil $\frac{3}{4}$ ss., which relieved it.

On the 20th he had a rigor, and from that date until the 5th April, a period of 15 days, he continued to have rigors, which were irregular in time of occurrence, and varied in severity and duration, generally having 2 or 3 in 24 hours. Occasionally he had none for a day or two. They were all attended by a high fever, the temperature running up to 104° or 105° F., and on one occasion, immediately after a severe rigor, his temperature was 106. They were followed, as a rule, by profuse exhausting perspiration, and the temperature would fall to 99 or even normal. They were either accompanied or followed by retching and vomiting.

He had several attacks of epistaxis. On the 23rd I asked Dr. Fenwick to see him with me, particularly as to the advisability of making an exploratory puncture according to the plan recommended by Dr. Willard Parker in 1867, and if an abscess was found to empty it, but he did not think the evidence of the presence of an abscess sufficiently well marked to do so. He advised the administration of a large dose of *ol. olivæ* to make sure that the cæcum was emptied. This was done, but it did not throw much light on the case. On the 4th April Dr. R. P. Howard saw him, and agreed with me that the symptoms were those of septicæmia, and suggested the possibility of hepatic suppuration.

On the 5th April a smart diarrhœa set in, 10 or 12 stools in 24 hours. The first three or four stools had been emptied before I saw them. His wife thought she had seen some matter in the first, but was not very sure. Those that I saw were fluid of a yellow color, and horribly foetid, the smell sometimes causing the patient to vomit. I had all the stools kept until I saw them, for a day or two, but never found any trace of pus in them. The diarrhœa continued for ten days.

After the onset of the diarrhœa he had no more rigors, and for 27 days or until the third of May his condition steadily improved. His temperature ranged from 99° to 100°, occasionally rising to 100½°. His pulse fell from 140 to 112, and one day 92. The vomiting was less, though it never entirely ceased. Bowels became quite natural, one or two well-formed stools each day, the abdominal pain disappeared entirely, he took considerable nourishment, and was looking and feeling much better.

On the 3rd May when I saw him he was not so well. His temperature was 101.5°, pulse 130, and he complained of severe pain in his stomach, and the nourishment taken that morning had been immediately returned. From the 3rd until the 15th May, when he died, he was unable to retain any nourishment of any kind, and became rapidly emaciated. His bowels remained quite regular; no albumen was found in his urine at any time during his illness. On the 13th May I noticed for the first time dullness on percussion in the right loin, which extended round across the abdomen to within 6 in. of the linea alba; above, it was continuous with liver dullness, and below with the dullness in the right iliac fossa. There was no bulging nor any sense of fluctuation. Hepatic dullness

extended from the lower margin of the 7th rib to 2 in. below the margin of the ribs in the line of the right nipple. Percussion showed the spleen somewhat enlarged, though I could not feel it on palpation. Heart and lungs healthy. Pulse 130, temperature 103.5°. The next day, Dr. Fenwick being present, I introduced the needle of a hypodermic syringe into the right loin, and drew off clear serum. I then introduced an aspirator needle, and drew off three half-pints of the same. His temperature was then 104°, pulse 144. Immediately after the operation for the severe pain in the epigastric region I gave him a hypodermic injection of M xxx. of Battley's sedative solution. He died the following morning, seemingly from inanition. At the autopsy performed by Dr. Osler, an abscess was found behind the cæcum which communicated with the cæcum by a small round opening. No concretions were found in the abscess. The cæcum and ascending colon were healthy. Considerable serum was found in the cavity of the peritoneum.

Treatment.—For the lead poisoning, which seemed to be the principal trouble when I first saw him, I ordered potass. iodid., grs x. four times daily, and morphia to relieve the colic. Ten days afterwards the symptoms of lead poisoning had completely disappeared. When the symptoms of septicæmia came on I placed him on a mixture containing bark and ammonia, to which was afterwards added at Dr. Fenwick's suggestion dilute nitro-muriatic acid; also gave him each day in a single dose quinia bisulph., grs. x. to grs. xx. in powder, trying to give it a couple of hours before a chill, which, however, was not easy to do on account of their irregularity. For the persistent retching and vomiting he had bismuth trisnit, morphia, soda, oxillate of cerium, malto pepsyn, etc., and mustard applied over the epigastrium, but nothing seemed to relieve it. At Dr. Howard's suggestion he took dialysed iron for some time.

Nourishment was given in varied forms, milk and limewater, beef tea, egg-nog, raw eggs beat up in coffee, raw oysters, raw beef, &c. For some time I gave him enemata of dessicated bullock's blood with I thought some benefit.

I believe the case to have been one of inflammation of the cellular tissue behind the cæcum and of that part of the peritoneum immediately surrounding it, suppuration and the formation of an abscess taking place in the cellular tissue which ruptured into the cæcum; the chills to have been due to blood poisoning. It seems

to me that the complete cessation of the chills upon the occurrence of the diarrhoea, which probably corresponds to the rupture of the abscess into the cæcum and the escape of the pent-up pus, bears out this view. I cannot understand why he did not continue to improve. Why did he begin to fail on the 3rd May? I would like the opinion of some of the more experienced members of the Society on this point. Was it in anyway due to the lead poisoning? Could he again suffer from lead poisoning without subsequent exposure to lead?

Dr. Henry B. Sands, of Brooklyn, reports 26 cases of perityphlitis. 22 of these were observed in males and 4 in females, thus confirming the fact already established of the comparative rarity of this disease in the female sex. Ten of his cases terminated in resolution without evidence of supuration. In three cases there was conclusive proof that an abscess had formed, had emptied its contents into some neighboring hollow viscus, two into the bowel and one probably into the bladder, and had been followed by rapid recovery. Eleven cases were treated by operation; of these all recovered but one, in which the patient would not consent to the operation until the 9th week, when the abscess pointed over the middle of the crest of the ilium. He died of septicæmia. Concretions were found in four of the eleven cases treated by incision. Two cases terminated without the abscess discharging its contents either externally or internally. In both cases a large abscess was found on post-mortem examination, and in one of these there was also discovered in the brain changes characteristic of purulent meningitis.

Dr. Flint advises the early operation for the relief of a perityphlitic abscess by opening it as soon as the nature of the case is determined without even waiting for fluctuation. He refers to the operation being performed by Hancock of London in 1848.

Habershon in his work on diseases of the abdomen reports a case in which death followed from exhaustion, after large abscess behind the colon in a tubercular patient had emptied itself into the cæcum.

NÆGGERATH'S OPERATION.

By Dr. C. E. NELSON, New York.

Complete ablation of the womb, including or not the ovaries, was, up to a recent period, thought incompatible with the life of the patient; of late, the German gynæcologists, with Freund at their head, have fearlessly led the way, achieving an amount of success sufficient to warrant the placing

of this operation almost on a basis similar to that now held by ovariectomy, which latter Velpeau and other Parisian surgeons said "should never be performed."

Freund's operation has been the operation performed in Germany until recently; also, modifications of the same. This method consists in making a median abdominal section, through which are taken out womb, with or without ovaries, after disengaging these organs from their connections; the upper end of the vagina, now open at the top, is then sewn up, the suture threads hanging out through the vulva. The other German gynæcologists since modified this operation, in leaving the cut end of the vagina open, it healing up subsequently by granulation; in the meantime a Bardenhauer's rubber drainage tube is inserted through the cut end of the vagina from below, the upper portion, "abdominal" (which is only a quarter of the diameter of the "vaginal" portion), passing out upwards, through the abdominal incision; the upper and lower wounds heal along and up to the tube. To prevent hernia of the intestines through the vaginal wound, a flange is attached to the upper end of the "vaginal" portion of the tube; this flange fits closely against the vaginal wound; there are lateral holes in the tube, to permit of sluicing the parts with detergent injections, and also to allow of the natural draining of fluids; this tube is retained till cicatrization is complete. The abdominal incision is of course closed with sutures.

The new operation which Professor Næggerath, of New York, has inaugurated, and which is now being the more generally followed in Germany, consists of bringing away the womb, with or without the ovaries, after extirpation, through the vagina, thus doing away with the abdominal section, thereby simplifying the operation materially besides rendering the patient less liable to the shock inseparably connected with opening the abdomen. This operation is now a recognized surgical procedure, and has been performed with varied success in Germany and the United States; Professor Næggerath being the chief, and perhaps the only exponent of it in America. I have been at the pains of visiting this distinguished gynæcologist, and, besides being present at two of his operations, have obtained from him the following data of the various steps of this operation. This operation is not so well known in New York as one would suppose, chiefly from its being so very difficult in

performance,—it requiring the hand and judgment of an able and daring surgeon.

Næggerath's operation.—The patient being anæsthetized, and placed in the position for lithotomy, together with being under the play of the carbolized water spray apparatus, to lessen the risk of sepsis, the operator, with or without using a speculum, as the case may be, passes either a loop-shaped galvano-cautery knife, heated to a white heat, or a very long handled heated knife, in shape not unlike a very long quill pen (the cutting portion being very narrow and delicate), through the vaginal attachment of the cervix uteri; a sufficient incision being made, a two branched steel dilator (made on the same principle as a glove-stretcher) is now passed through this incision, and upwards between bladder and womb; the blades are then opened, so as to stretch forcibly asunder the tissues: this is done so as to avoid the hemorrhage that might follow the remaining step of this portion of the operation; the knife is then re-introduced, and with a few sweeps, the remaining anterior attachments of the womb are severed. A like proceeding is now effected posteriorly, that is, the heated knife is passed along Douglass' cul-de-sac, through the posterior vaginal attachment of the cervix, dilator introduced, and the posterior attachments of the womb severed; now the womb is pulled down into the vagina with vulsellum forceps, and the wire rope of an écraseur attached around the womb, embracing the broad ligaments; the wires are then tightened at the handle, the rotatory motion being kept up till the lateral attachments of the womb are severed—that is, broad, round, utero-ovarian ligaments, as well as the Fallopian tubes. In case adhesions have formed connecting the womb with neighboring viscera, Næggerath's operation is inadmissible, as the extraction of the womb per vaginam in that case would be impossible; in such case, we have to select operation by abdominal section. Operating the écraseur always occupies a considerable time; when the womb is completely disengaged from its connections, it is withdrawn per vulvam by means of a vulsellum. The dilator which the Professor uses is his own modification of Ellinger.

Abdominal section is effected by a straight narrow-bladed knife, the cut being merely long enough to introduce the hand, which then applies the wires of the écraseur around the uterine connections, natural and morbid. When the ovaries (one

or both) are removed, the operation is more difficult, and very much prolonged.

Dr. Næggerath's first extirpation uteri per vaginam was performed in the beginning of June, 1876, on a private patient.

The present operation in Germany is a somewhat similar proceeding to that of Dr. Næggerath's; instead of using a heated knife, they effect his incisions with an ordinary cold knife, and ligate the vessels as they proceed; this mode renders the operation much more difficult and tedious.

A more especial feature of this modified operation is, that after the posterior incision is made, a sound is introduced into the uterus which is then artificially *retroverted* through the posterior incision; the womb is then pulled down by vulsellum, broad ligaments cut through, and arteries of ligaments tied; this is a reverse proceeding to that employed by Dr. R. Nelson in ovariectomy, where the vessels were tied first, and the ligaments cut through afterwards.

Adhesions. It might be supposed by some that these could be discovered beforehand by the operator (as they render Professor Næggarath's operation inadmissible): this is not the case, as the adhesions are often (especially in the prior stages) soft, exceedingly pliable, consequently very apt "to give."

Size of tumor, or of uterus. The size of the latter can very often be mapped out, by previous examination, even in cases of fibrous hypertrophy of that organ; but in cases of tumor this is different; as it would be almost impossible to tell, in cases of very large internal tumors of uterus, or tumors growing from the external surface; even in those cases, where small polypi stud the external surface, this would cause difficulty of traction per vaginam. I have a specimen in my house of an internal polypus, larger than a child's head; the woman had never been examined, and had died of something else; the tumor had never given any rational symptoms, and it was only at the autopsy made by the coroner that it was discovered.

Size of tumor rendering extraction per vaginam impossible. One would suppose that where a child's head could pass (as the vagina stretches up to the boundary of the bony outlet) a tumor of that size, or under, could be withdrawn; but such is not the case; in labor, the natural process of expulsion consists of a series of propulsions, gradually increasing in force; besides that, the bag of waters acts as a gradual dilator from within, pushing with a beautifully graduated power; these

forces are spread out from a few hours to three or four days, especially in primiparæ; many gynæcological patients operated on are in the condition of primiparæ, *i. e.*, they have never been *stretched*. If *force* were employed in withdrawal of tumors, we would have to encounter laceration of arteries, causing serious hæmorrhage, destruction of tissue, and severe shock to the patient. Also in cases of large fibroids there is often uncontrollable and dangerous hæmorrhage, in their attempted extraction per vaginam, although many years ago I was present when the late Dr. R. Nelson extracted with vulsellum forceps a polypus uteri as large as a child's head, at one sitting, and without chloroform; the patient belonged to another doctor.

Two years since the professor did not remove the ovaries, not thinking it necessary; at that time I objected to him that the very next time the patient menstruated, the fluid effused in the abdomen would cause death;—he answered, it would only be a few drops from the discharged ovum; however, a few days after our conversation, I read of a case having been operated on in Germany, where, the ovaries having been left, the menstrual flow afterwards came on, causing the patient's death. At present the doctor has modified his views in this respect, and ablates ovaries as well. His views were of course based on the generally received notion that the sanguineous flow proceeds from the internal surface of the uterus, a deciduous membrane (exudation) being also thrown off, of the shape of the womb; this has been proved (by Mauriceau among others) by examining women who were hanged during the menstrual nisis, or who were overtaken by sudden death, by accident or sickness: in these cases, a bloody fluid was seen exuding from uterine surface (lining). When the ovaries are taken away, *e. g.*, "Battey's operations," there is no menstruation, showing conclusively that it is under the influence of ovarian excitement that the excretive action takes place from the uterine cavity. When the uterus is taken away the ovary being left (because I presume menstruation would take place if only one ovary was present) menstruation occurs all the same. A fact that is probably lost sight of in this discussion generally is the pathological condition present in fatal hemorrhagic effusion in extra-uterine pregnancy, where the aperture in the ovarian wall, whence the ovum escaped, is no larger than the diameter of a pencil, if even as large; in these cases the abdomen may contain a pailfull of blood; the womb is not

concerned in this latter case. I was present at a post mortem of a case of this kind many years ago in New York: one of our most distinguished surgeons diagnosed rupture of sac of abdominal aortic aneurism, even after the abdomen was opened. After I had ladled out a large quantity of sanguineous fluid, the ovary was carefully examined, and the bloody point of rupture noticed; my father, the late Dr. Robert Nelson, diagnosed ext. uterine pregnancy, causing internal hemorrhage, two days before the woman died, all the time she was sick from the pain and sudden collapse.

Battey's operation, mentioned above, and performed occasionally by Dr. Battey of Rome, Georgia, U.S., is indicated, as Prof. N. informed me, in cases of ovarian neuralgia, diseases of ovary, painful menstrual nisis, in cases of malformation of uterus, in cases of incurable (*per-se*) artesia; also in case of insanity consequent upon ovarian diseases.

Progress of Medical Science.

THE TREATMENT OF ECZEMA.

At a recent meeting of the Berlin Medical Society, the above subject came under discussion. Dr. Lassar is in favor of excluding the air entirely from the inflamed integument and treating the affected parts with disinfecting remedies. He commends the use of bandages impregnated with melted ointments and applied after the ointment has cooled.

The nature of eczema in its various forms, and wherever seated or from whatever cause it may arise, is an inflammation of the superficial layers of the integument, with a tendency to exudation. It must at once appear obvious that the primary inflammation will the more rapidly subside if not aggravated by the decomposition of the products of the morbid process. In general, it may be stated that an inflammation does not outlive the removal of its cause; an acute irritation is followed by an acute inflammation, and a chronic inflammation is based either on a continued irritation or a repetition of the first cause. If the offending cause has been removed and the inflammation still continues a new cause must be sought for. An illustration is presented in that form of eczema which results from the effects of turpentine (varnishes, etc.) Long after the turpentine has ceased to exert its influence upon the skin the cutaneous affection continues to exist; as soon, however, as a disinfecting occlusive bandage is applied, it usually disappears rapidly.

Though we may not believe in the parasitic

origin of eczema, or there may be no necessity for such a belief, we shall only be successful in our treatment by observing absolute cleanliness in our use of remedies. This is especially the case in the so-called acute eczemas, viz.: those accompanied by much exudation, swelling and moisture. Hebra and his followers advised the expectant treatment during this acute stage: to cover the parts with some inert powder, or at the most, if the tension and itching were intolerable, to apply ice or water. It is a fact, however, that the latter are not well borne, and it is better not to employ aqueous solutions in acute eczema; but the patient may be rendered very comfortable by covering the inflamed parts with disinfecting oils. While water increases in a marked degree the tension and swelling of the integument, oil is rapidly absorbed, and thereby relaxes it and loosens adherent crusts, clots and masses of epithelium; one to two per cent. of carbolic acid added to the oil will relieve the itching.

After the inflamed parts have been cleansed and the oil thoroughly applied, bandages saturated with the same may also be used. The carbolic acid, which may itself finally produce eczema, is sometimes tolerated only for a short time, and must be replaced by salicylic acid (1 to 2 per cent.) or thymol (0.5 to 1 per cent.): the latter is especially useful in all bullous and pemphigoid inflammations. Linseed oil is not to be recommended, since it undergoes oxidation in contact with the atmosphere, and then becomes itself an irritant to the integument. Dr. L. finally mentioned the good results from the use of salicyl-ointments in chronic eczema, particularly in that of the face of children, in which he commends the following paste:—

Acidi Salicylici, 2.0
 Zinci Oxidi,
 Amyli, aa. 25.0
 Vaselini, 50.0
 M sce Fiat pasta.

This adheres firmly, and will not be removed during sleep.

During the discussion which followed, Dr. Lewin testified to the value of the treatment described by Dr. Lassar, particularly the good effects of the oil in relieving the tension, excluding the irritating influence of the air and preventing cutaneous evaporation; he also adds 1 to 1.5 per cent. of carbolic acid to the oil.

Based on an experience of 17 years and 2,000 cases of chronic eczema in the "Charité" alone, besides others in the polyclinic and in private practice, Dr. L. recommends as a remedy *Ergotin*, first suggested by him in chronic eczema, and with which he has obtained excellent results. He observed that the assumption of the chronic character by eczematous affections does not depend always and solely upon external causes, nor the influences of chemical, thermal or mechanical irritations or the other factors mentioned by Dr. Lassar; we are also to take into consideration the actual

existence of a constitutional predisposition. Persons suffering from eczema are mostly feeble, anæmic and irritable. The disease occurs frequently during infancy because the infantile organism offers less resistance to injurious influences, and is more susceptible to the same. Dr. Lewin found on experimenting with patients suffering from eczema that there exists a morbid condition of the vaso-motor nerves; the spasm of the latter being more extensive and of longer duration than in the normal state. L. tried ergotin which we know contracts the vessels. He prescribed it successfully for patients who had suffered from eczema for 10-15 years, and had employed all possible remedies without avail; in one case, a physician who for 20 years had suffered from the disease without being able to secure relief was treated by this remedy with complete success. He gives ordinarily 1-3 to 1 grm., and even more *per diem*. To children he prescribes 1 to 2 grm. in 100 grm. of water, and gives of this a deserts spoonful 3 times daily. As to the external treatment of chronic eczema, he had never found cause to abandon the use of oleum cadini (1.10). The average length of the treatment of eczema has been much reduced since the internal administration of ergotin has been added to external medication.

Dr. Kobner, who took part in the discussion, had not met with such success in the use of ergotin, which he tried in 3 cases, but Dr. Lewin observed that the value of the remedy could not be decided upon without trial in a large number of cases.—*International Journal of Medicine and Surgery*.

THE TREATMENT OF DROPSY AND URÆMIC CONVULSIONS DURING PREGNANCY.

By PROF. LEHMANN, Amsterdam.

K. O., æt. 26, was admitted to the hospital November 21st, 1879, unconscious and in convulsions. Her husband states that she has been ailing during the whole time of her second pregnancy, and occasionally feverish; her feet have been oedematous for several months; later, general dropsy and diminished excretion of urine. At 5 o'clock, A. M., she had a convulsion without any prodroma; again, half an hour later, another very severe seizure. At the time of admission to the hospital, she was, as stated, unconscious, comatose, breathing stertorous, features swollen and cyanosed, pupils contracted, and a bloody froth around her mouth; the belly very large, vulva and limbs swollen; no foetal sound could be detected; the os dilated to the size of a silver 25 cent piece, head presenting, Temperature 102.2°, and labor pains were insignificant. Fifteen minutes after admission she had a third severe convulsion, lasting about thirty seconds, followed, by many more, occurring with but short intervals. A small quantity of urine was removed by the catheter, color dark

brown, reaction acid, sp. g. 1.013; it contained an unusual quantity of albumen, but no sugar.

At a later examination, numerous granular casts and fatty epithelial cells were found. An enema was first given and then a subcutaneous injection of a two per cent. solution of muriate of pilocarpine. This last injection was repeated two hours afterwards, the whole quantity used amounting to 65 minims (or about $1\frac{1}{4}$ gr. pilocarpine). Already five minutes after the first injection the patient was perspiring freely, with abundant secretion of saliva, but the convulsions still recurred with unabated violence and frequency. At half past 7 o'clock, shortly after the second hypodermic injection, the intermissions seemed to become somewhat longer. The os was yet not larger than a silver half-dollar, the general condition commenced growing worse, the coma continuing, the pulse very rapid and barely perceptible, the temperature lowered down to 100.4° , the skin, particularly on the arms, covered with a profuse perspiration, a quantity of sanguineous slime oozing from mouth and nostrils, labored and stertorous breathing, face and hands pale and clammy. Considering the imminent danger, and fearing she might die undelivered, as labor pains were absent, instrumental delivery was resorted to successfully, the child was easily delivered in a few minutes but dead, and another foetus could be felt in the womb. About ten minutes after this delivery she had another severe convulsion lasting 45 seconds, and the second foetus was delivered, also dead. The placenta was removed about ten minutes afterwards, the womb contracting firmly. The patient was in nearly a collapsed condition, temperature 98.6° . Sulphuric ether was injected into the arm, and this injection repeated two hours afterwards. At midnight she still remained comatose, with stertorous breathing. The skin, however, was everywhere covered with profuse warm perspiration, pulse stronger, temperature 99.5° , no convulsions since delivery. The following morning found the patient still comatose, respirations less stertorous; pulse rapid and weak, skin warm and perspiring, temperature 98.6° . A large quantity of urine was removed with the catheter; no change in its composition from the preceding day; uterus well contracted, not over sensitive to pressure, lochia normal. Only towards evening did she commence to show signs of returning consciousness. She drank a small quantity of milk and passed the night quietly. The following morning she was in the full enjoyment of her mental faculties, passed a large quantity of light-colored urine still containing an abundance of albumen, and the oedematous swellings had decreased considerably. Twelve days after admittance she left her bed—urine non-albuminous.

M. S., æt. 27, second pregnancy, was admitted September 22nd, 1879, at 7 p.m., unconscious, after repeated severe convulsions. Her first pregnancy ended by abortion in the third month of gestation. Three months ago, while apparently in good health, dropsical swellings appeared, first in

her feet, thence spreading up her limbs, abdomen, face and arms. Although she had, up to the present time, violent desire to void her urine, it had been but scantily excreted after vomiting several times. She was first seized with convulsions at 6 a.m.; they recurred with but short intervals and she became unconscious. Her whole body was oedematous, particularly her face. Coma, breathing stertorous, pulse 140; temperature 105° ; pupils contracted; no foetal sound could be heard. The external os would barely admit the finger, head presenting, apparently not at full term, foetus probably dead, no labor pains, her features cyanosed, sanguineous froth around her mouth, convulsions very violent, and recurring with an interval of 8 to 10 minutes. From 7 to $8\frac{1}{2}$ p.m., she had nine seizures of unusual severity and duration. Very little urine could be obtained by the catheter; it was of acid reaction and loaded with albumen and casts. Prognosis very unfavorable. Death before delivery probable.

This case was treated exclusively with pilocarpine; no other remedy was used. At half-past eight o'clock an injection of 32 minims of a 2 per cent. solution of pilocarpine was given hypodermically on the anterior surface of the left thigh. Five minutes afterwards the whole surface of body as well as of limbs was covered with profuse perspiration; saliva and slime flowing from mouth and nostrils; pulse 156. She was again seized with another convulsion, followed with but short intervals by many more. Half-past ten o'clock another similar injection was given, causing an unusually profuse perspiration of her whole body, so abundant that it continually ran down her forehead and face guttatim, perfectly bathing her arms and limbs; nevertheless the seizures would recur, but not as severe as before, while the intervals were longer. The respiration, however, became more oppressed. At half-past eleven o'clock, she was lying deeply comatose, her arms bathed in cold, clammy perspiration, features shrunk, thready and very rapid pulse, temperature in vagina 105° . She appeared to be dying. No labor pains. At half-past one o'clock a third hypodermic injection was given, and 15 minutes afterwards the perspiration was somewhat warmer and she became quieter, so that only light convulsions of her arms could be detected. At half-past seven o'clock on the following morning she was found in labor pains, although still unconscious. By examination it was seen that the head was born and the body came shortly afterwards. The placenta followed immediately, and the womb contracted well. The foetus was still-born, the skin peeling off in different places. It had nearly reached full term.

Eleven o'clock, temperature 100.4° , pulse 100 and stronger, skin covered with warm perspiration, patient still comatose, but breathing less stertorously, no convulsions. At 8 o'clock p.m., slight signs of returning consciousness, copious excretion of urine, temperature 101° . After passing the night quietly she woke next morning perfectly

conscious, temperature 99°. The swelling was considerably diminished, and had completely disappeared 5 days afterwards, although the urine at that time still contained a trace of albumen but no casts.

The author considers both cases as results of uræmic poisoning, contingent upon parenchymatous nephritis, which he is disposed to believe had become developed during pregnancy. The treatment with pilocarpine he considers to have been very essential as a diaphoretic and diuretic agent, while he expresses doubt about its action as an oxytocic. He also mentions having employed the pilocarpin in six primiparous cases, as well as in two multiparæ between the sixth and ninth month of gestation, all suffering from dropsical effusions consequent upon chronic parenchymatous nephritis with diminished excretion of urine, containing cylindrical casts and a very large quantity of albumen. He used two injections of thirty-two minims of a two per cent. solution twice a day, and in nearly all cases did he succeed in completely curing the patient after using five injections within from 8 to 14 days. Three women gave birth to dead foeti of 6 to 7 months gestation, from 6 to 8 days after the last injection. One was admitted to the hospital unconscious, after having aborted in the seventh month of her pregnancy during violent convulsions. The remaining four cases went to full term and bore living children.

The usual effect of pilocarpine is first to cause a general warmth of the whole body, followed a few minutes afterwards by increased secretion of saliva; then the perspiration would commence, first on the forehead, breast and limbs, sometimes very profuse, so that it would flow drop after drop, frequently with an increase of the secretion of tears. The unpleasant consequences of the injections consisted in sickness of the stomach, vomiting, rarely dizziness and headache, and only once, 15 minutes after the injection, irregular action of the heart. It even ceased to beat for a moment, the features became cyanosed, and the pulse slow and intermittent. These symptoms passed away, however, as suddenly as they came. This patient suffered from mitral insufficiency with hypertrophy of the right ventricle. After the lapse of six to eight hours all these symptoms would usually disappear. Urine would be excreted freely, and the bowels move repeatedly. Occasionally diarrhœa would supervene. The albumen and casts would frequently disappear in four to five days.—*Holland Journal of Medicine*.—*Norw. Med. Jour.*

RECENT PROGRESS IN THE TREATMENT OF DISEASES OF CHILDREN.

BY D. H. HAYDEN, M.D.

CONSTIPATION IN CHILDREN.

Dr. J. Lewis Smith contributes a paper on this subject in the January number of the *American*

Journal of Obstetrics and Diseases of Women and Children. After considering the various kinds of so-called symptomatic and idiopathic constipation and their causes, the author refers to a peculiar class of cases where there seems to be a constitutional tendency to constipation,—a tendency quite independent of the usual conditions (obstruction, disease, sluggish muscular contractility, improper diet), and co-existing with perfect health, where defæcation takes place every second, third, or even fourth day, unless produced by measures employed.

These cases are the exception, however, and a largemajority of children require a daily evacuation of the bowels to do well.

In the treatment of this complaint the author dwells largely on the idiopathic form. The importance of establishing a daily habit at the same hour is insisted upon.

Chicken tea and to a certain extent beef and mutton tea are laxative, and when made plainly are useful in connection with other articles. The various kinds of berries and fruits have also a decidedly stimulating effect on the intestinal surface, and aid in removing constipation. The apple scraped or baked, or apple sauce, may be given to quite young children; and for those that are older currants, cherries, and, among dried fruits, prunes and figs are laxative. Unfermented cider in its season, which has been found so useful for adults, may also be given to children in moderate quantity, at least to those who have reached the age of two or three years.

It is generally believed that the small size of the salivary glands in the first months of infancy prevents the conversion of starch into glucose, except in very inadequate quantity. It appears, however, highly probable that there is an epithelial ferment which converts starch into sugar, * so that young infants can digest starchy food. Nevertheless, the theory that the infantile digestion up to a certain age is incompetent to effect the change led to the preparation of food for infants in which the change of starch into glucose was accomplished by a chemical process. Now glucose, administered in considerable quantity, is laxative, and Dr. Smith has found it necessary to give it sparingly or not at all during the hot months, when infants are so prone to diarrhœa. This laxative effect renders the glucose preparations of the shops very useful in the treatment of habitual constipation of infants, whether we employ the "maltose" or "granulated sugar of malt," or the preparations of Liebig's food. Of four constipated infants in the New York Infant Asylum to whom Horlick's "sugar of malt" was administered, three were relieved. Any of the glucose preparations can be given quite freely to a constipated infant, without impairing the digestive function or producing other ill-effects, so long as no more than the normal evacuations follow. Dr. Smith considers them among the best and safest of

* See Chemical Phenomena of Digestion, by Charles Richet. *Revue des Sciences médicales*, October, 1878.

the foods for the relief of constipation in infants ; but glucose or grape sugar is only feebly laxative, probably not more than cane sugar. The laxative effect of oatmeal gruel for nursing infants is well known. Bread or pudding from coarsely ground or unbolted flour or meal and vegetables which contain saline and fibrous substances have a stimulating and laxative effect on the surface of the intestines, and therefore are useful for constipated children of the age of two or three years and upward. There can be no doubt that the free use of water in the ingesta materially aids in relieving costiveness; and it is probable that the laxative effect of the broths, gruels, fruits, and mineral water are partly due to the amount of water which they contain. A liberal quantity of water has doubtless a laxative effect in children, and its judicious use is proper for them.

Frequent kneading of the abdomen is an important aid to overcoming constipation, and the author relates a case in which obstinate constipation occurring in a child of three years, from peritoneal bands and adhesions, was to a great extent corrected by friction over the abdomen, for three or four minutes at a time, with cod-liver oil three or four times daily. The manipulation probably did the good, and not the oil ; but the use of one of the oils for inunction renders the kneading less painful, and insures its more thorough performance by the nurse.

Cold-water bathing, the sudden application of a cloth wrung out of cold water to the abdomen, and in certain obstinate cases even the douche may be used to stimulate the muscular coat of the intestines and the abdominal muscles to a greater activity.

For temporary constipation and for many cases that are habitual, enemata should be employed.

The belief that the frequent use of warm clysters produces a relaxing effect is probably correct, so that if it is necessary to employ clysters often in consequence of the torpid state of the intestines, cool water is preferable. For infants a clyster of one or two ounces generally suffices. In certain long-continued aggravated cases the frequent injection of a large quantity of tepid water is indispensable, and perhaps in extreme cases the dilatation of the sphincter ani and the introduction of the speculum may be desirable. Suppositories may be sometimes usefully employed in place of enemata, Cocoa-nut butter, molasses candy, or soap cut in shape of a pencil may be used for this purpose. Dr. Nagel speaks highly of a suppository of brown gelatine. This is steeped in water for twelve hours, and having been thus softened is introduced into the rectum, and an evacuation obtained. The doctor attributes the laxative effect to the hygro-metric action of the gelatine. Those who have employed the galvanic current to relieve constipation speak favorably of its use.

The ordinary purgatives should not be given habitually to relieve a constipated habit. One or two doses for present relief, both in habitual or temporary constipation, are sometimes required,

provided that an injection is for any reason not preferred. For this purpose castor-oil or a few grains of calomel mixed with syrup of rhubarb, the syrup of senna, or the compound licorice powder of the German pharmacopœia may be administered with advantage. But for habitual constipation the ordinary purgative medicines should be discarded.

Belladonna, so highly recommended by Trousseau, has not seemed to the author to possess any decided purgative effect; and from its known physiological properties there is no evidence of its increasing the intestinal secretions or the action of muscular fibres, one or the other of which results we expect from the use of an agent which is really laxative. Nux vomica and strychnia, its active principle, are, on the other hand, valuable adjuncts to purgative mixtures.

Physicians are not infrequently at a loss what to prescribe for the habitual constipation of nursing infants, which is by no means infrequent. But recollecting that the colostrum is more laxative than ordinary milk, and that it differs from it in containing more sugar, salts (largely phosphates), and butter, we have a hint as to what is probably lacking in milk, and what, therefore, should be supplied.

Dr. Smith is in the habit of giving these ingredients in the following formula, and usually with the desired laxative effect:—

R Ol. morrhue two parts
Aq. calcis,
Syr. calcis lactophosphat. aa one part. M

One-quarter, one-third, or one-half teaspoonful may be given with each nursing, or a larger quantity, as a teaspoonful or more, three times daily. Breast milk with this addition becomes more nearly like colostrum in its laxative properties, while it does not possess those properties of colostrum which disturb the digestive process. The author knows of no agent of a medicinal nature which meets the indication so well as this for infantile constipation.

He has found it necessary, however, in his practice in not a few instances to rely mainly on simple enemata for the relief of the constipated habit till the infants reached the age where a mixed diet was proper.

For the habitual constipation of older children, when it is desirable to employ active purgatives of the pharmacopœia, since the portion of intestine which is chiefly implicated is the colon, such should be selected as produce little or no irritation of the long tract of the small intestines, while they simulate the function of the colon. The aloetic preparations are preferable for this purpose, as the tincture of aloes and myrrh, or the simple tincture of aloes, which may be given in doses of a part of a teaspoonful in a convenient syrup, as the elixir adjuvans of Caswell and Hazard, or in coffee or milk.

THE USE AND VALUE OF SALICYLATE OF SODA IN CERTAIN FEBRILE DISEASES OF CHILDHOOD.*

Whilst Riegel, Becker, and Brazina speak in high terms of salicylate of soda as an antipyretic remedy in typhoid fever, Riess, regarding the same as a specific in this disease, Filatow expresses exactly opposite views, declaring that, with the exception of lowering the temperature, all the other symptoms remain unchanged or are more developed, the pulse becoming slower and at the same time weaker, and that of thirty cases of children sick with typhoid fever two died. Filatow arrives at the conclusion that salicylate of soda has no effect at all in typhoid fever, and can therefore not be recommended in this disease.

On account of this diversity of opinion the writer instituted a series of experiments, the observations extending to over two hundred cases.

Salicylate of soda was administered during three years, and especially cases were selected of febrile diseases characterized by a constant and typical fever course. Prominent among such diseases belongs typhoid fever, which it is well known runs a milder course in childhood, and in which disease the experiments of Riess have been particularly conducted, with beneficial results. Moreover, it was used in diphtheritis, inflammation of the joints, and malarial fever.

During these three years there were one hundred and twenty-eight cases of typhoid fever, of which ninety-six were treated with salicylate of soda, thirty-two partly with quinine and partly with mineral acids. The latter circumstance was due to the fact that the disease was not recognized in its early stages on account of its irregular appearance, or on account of complications, or because the children came first into the hospital after the disease had run its course, and consequently needed nothing but rest. The daily dose of the salicylate of soda was two to four grammes (one-half to one drachm); to smaller children given in solution in teaspoonful to dessertspoonful doses; to older children this amount was given divided into ten powders, which one was taken every hour in wafers. Immediately afterwards the children were given water to drink.

The author directed his attention principally to the course of the fever, and for this purpose the temperature was taken night and day every two hours so long as the temperature continued to rise after its fall; and it was thus easy to determine in what time and for how long a time a certain quantity of the remedy was able to keep down the fever.

The beginning and duration of the fall in temperature was very various. One time this took place half an hour after administering the remedy; a second time one hour afterwards; in a third case, where the temperature rose to 105.8°; F., not until

four hours. The fall was generally one to two degrees, often down to the normal. The remission varied in length on an average ten to fifteen hours; then the temperature began again to ascend, and gradually to reach its former height. In a few obstinate cases, after the first three grammes, there was no, or only a very little, fall in the temperature observed; and it was only after this dose was repeated the second or third time that the working was observed. There was generally found a large fall in temperature when large doses were given in rapid succession, whilst the same effect was not produced once where the same doses were given at long intervals. In addition to the fall in temperature other effects were noticed after administering salicylate of soda. In a small number of the patients there appeared, especially on the face and thorax, a slight transpiration, which lasted fifteen to thirty minutes, the skin then becoming dry again.

In other cases,—and these formed the majority—there was no sweating at all. With the youngest children the author was often able after large doses to notice a certain depressed and languid condition. In no case was there any complaint made of noises in the ears, deafness, headache, or vertigo, as is the rule with quinine. In a few cases where the remedy was used for a long time there was nausea, and older children complained of a tickling in the throat and pain in the stomach. The symptoms, however, disappeared rapidly as soon as the remedy was left off for a short time. There was no noticeable effect produced upon the pulse, this becoming slower in proportion as the temperature fell. A marked weakness of the pulse, as described by Filatow, the author never met with. Salicylate of soda seems to work on the bowels; and in several cases where there was a diarrhoea this ceased with the use of this remedy. A shortening of the typhoid fever, however, was not noticed in a single case, so that salicylate of soda cannot be regarded as a specific in this disease, such as quinine is in intermittent fever; but as the high fever, which is always present in typhoid fever, and threatens to exhaust the patient, is materially and permanently kept down by this remedy, in this way a part of the danger is averted.

In addition to typhoid fever the author has employed salicylate of soda in cases of diphtheria, acute inflammation of the joints, and intermittent fever.

The effect upon the temperature in diphtheria was in no way so striking as in typhoid fever, nor was there any effect produced upon the course of the disease by this remedy.

In acute articular inflammations there were seen about the same changes as in typhoid fever; moreover, the pain was relieved.

As an example the author relates the case of a young girl, ten years old, who was attacked with acute articular rheumatism three weeks after a scarlet fever. The pains were so intense that the patient groaned and sobbed continuously day and night. After the first three grammes (forty-five

* Ign. Weiss, Emeritus Assistant in the Clinique of Professor Bokai, in the Budapest Children's Hospital. Allgemeine Medicinische Central-Zeitung, April 7, 1880, No. 28.

grains) of salicylate of soda the pains and fever both yielded in a very short time. The temperature fell from 104.3° F. to 101.1° F.

In intermittent fever a paroxysm was prevented only when the remedy was given immediately before the paroxysm was expected. An effect was noticed only on the day of the fever, and when the remedy was not given on the fever days it always returned at the regular time. Quinine has this great advantage in malarial fever that it has the power to cut short the disease completely, whilst salicylate of soda is only effectual to cut short the paroxysm when given just before it is expected. From the fever curve of a case reported it is seen that the paroxysm returned every afternoon at the same hour: the high temperature lasted three hours, then sank gradually, and the child was free until the next day. Immediately before the expected attack three grammes of salicylate of soda were given, and there was no paroxysm. On the two following days, when the remedy was not used, there was, in the afternoon, a considerable rise of temperature.

On the third day eighty centigrammes of quinine (twelve grains) were given, and the paroxysms did not return.

The author sums up the result of his observations in the following conclusions:—

(1) Salicylate of soda is a powerful antipyretic remedy in the typhoid fever of children, which, whilst it does not shorten the course of the disease, renders it much milder.

(2) The results with this remedy in typhoid fever are better than have hitherto been obtained by quinine, cold-water baths, cold wrappings, and the various mineral acids.

(3) The beneficial effect can only be obtained when large doses are given at short intervals, and the author has never observed any ill effects following its use.

(4) In diphtheritis salicylate of soda has no influence upon the course of the disease.

(5) In acute articular rheumatism the effect both upon the fever and upon the pain is a remarkably favorable and quick one.

(6) In intermittent fever salicylate of soda is only of service when given immediately before the expected attack. As quick as the remedy is left off the paroxysms return.

TWO CASES OF POISONING BY MORPHINE AND OPIUM RESPECTIVELY IN INFANTS.*

Werthheimber † relates a case of poisoning by one centigramme (one-sixth grain) of morphine in an infant fourteen days old. For an hour and a half after the administration of the above dose the child was cyanotic, completely comatose, and pulseless, the heart's beat being weak and intermittent. The extreme contraction of the pupils led

to an accurate diagnosis of the cause of the child's condition, which had previously not been known.

The employment of artificial respiration by a rhythmical compression of the thoracic walls continued for a long time, combined with the use of black coffee and of liquor ammoniæ anisatus, led to recovery.

In a case reported at the meeting of the academy of Medicine, held February 17th of this year, by Le Roy de Mirecourt, and observed by Nicolas and Demony, a child three weeks old took by mistake a teaspoonful of Sydenham's laudanum (vinum opii). The first symptoms of poisoning made their appearance two hours afterwards, and consisted of a deep somnolence, which was interrupted by attacks of convulsions. After such an attack the weakness would be so great that at times the heart ceased to beat. Here, also, artificial respiration was resorted to, and especially put in operation during the convulsive paroxysms.

To the perseverance in these measures must be attributed the fact that eight hours after the appearance of the first symptoms of poisoning the somnolence seemed to diminish a little, and the infant's condition gradually advanced towards recovery.

On the following day there were violent reactionary symptoms. There was not complete recovery until the fourth day. Micturition took place for the first time twelve hours after the beginning of the symptoms.

WEAK SPINES IN YOUNG GIRLS AND THEIR TREATMENT.

Read before the Philadelphia County Medical Society, December 15, 1880.

By JOHN M. KEATING, M.D.

Lecturer on Diseases of Children in the University of Pennsylvania, Visiting Accoucheur to the Philadelphia Hospital, etc.

My intention this evening is to bring before you a subject that may at first sight appear a trivial one, but which more extended observation and careful study have led me to consider worthy of the attention of this Society.

Thousands of young children are at this time bending over their books in the crowded school-room, straining their eyes, narrowing their chests, and bowing the back upon whose erectness and resiliency they should in future depend not only for support, but for health,—even life. A few years hence, these very spines, now strained, weakened, and probably curved, will be called upon without further preparation to bear the brunt of the great requirements of society, and soon after to be tortured by the physical burden of maternity; or probably the store, the sewing-room, or the factory, aided by some inherited taint, will determine the lesion and give us the cases of phthisis, diseases of

* Berliner klinische Wochenschrift, April 19, 1880.

† Deutsches Archiv für klinische Medicine, Bd. xxiv. Heft 3.

the heart, carcinoma, and the various chronic affections that fill our mortality tables.

I call particular attention, in my paper, to the girls, because they are by far the more important class, and the out-door games and occupations of the boys tend to obviate what the sedentary tasks of their sisters but tend to increase.

Once free from the thralldom of school, the boys break loose to unbend their backs and free their lungs; the girls, to saunter home, their arms burdened with books, to aid their mothers in domestic duties.

The infantile diseases of the spinal column, those that involve the structure, have received careful study, and now, thanks to Sayre, the body is at once placed in splints until the rickety diathesis is overcome by growth and a full supply of bony deposit. Even such cases of structural disease as develop later in life are now easily detected at their earliest manifestation, and either held in abeyance by immediate treatment or effectually checked in their course.

But it is my purpose to call attention to another class where spinal weakness, due to the strain of position,—a condition so insidious in its onset and masked in its course,—escapes attention till the frame, fully set by complete bony deposits, cramps the viscera, and, by impeding healthy action, forms a nidus for disease. The development of the skeleton is undoubtedly influenced by the activity of its muscles: symmetrically-developed muscles will produce straight bones. We read much of dystocia, we hear of pelvic distortions, of narrow diameters. Has any one endeavored to mitigate these evils by helping Nature to make normal what the requirements of dress and pursuit have tended from early life to deform? The remedy for those conditions that have suggested the forceps, the cranioclast, or "version by the feet" lies in the early development of the skeleton by proper physical training,—in other words, by educating the female child to be a mother, and if its diathesis be rickety train its pelvis as well as its brain. Far be it from me to decry anything that will tend towards the most thorough education of the intellect: my object is simply to contend that study can be accomplished without cramped positions, and that weak spines are not essential to educated women. My attention has frequently been called in connection with dispensary and other practice to a series of cases that forms the basis of this paper. For better elucidation, and to avoid repetition, I shall group them under two heads,—the first comprising those young enough to go through the daily routine of school life and thereby suffer at once from its ill effects; the second, those who, after having spent years in developing their intellect at the expense of their muscular and nerve force, suddenly call upon them to bridge them over the most difficult period of their lives. The first group you recognize by their pale faces, bowed backs, and rounded shoulders, frontal and occipital headache, weak eyesight, cardiac palpitations, disordered digestion, and cer-

tain nervous combinations, chorea predominating. Stand at any school-room door on an afternoon in the early spring, and you will not fail to see the cases that fill our dispensaries. You read their remedy in their very faces,—a proper division of study and recreation, recreation that means not mere rest from book-work, but muscular exercise, good food and fresh air.

To-night to the second group I wish to call special attention: a chapter devoted to its consideration might most appropriately bear for its heading the one prominent symptom, "backache." Free from the daily restraint of school life, their hours are devoted to the absorbing necessities of society; and their habits either become extremely active or extremely sedentary, the mania for violent exercise developing from the lassitude that follows nervous excitement; and from one extreme to the other will these girls drag out years of miserable existence whose monotony will be relieved only by the periodical tortures of dysmenorrhœa. That the functions are deranged is simply in accordance with the general physical strain. In all such cases the great muscles of the back are those most called upon, and soon from excessive tension or want of nutrition, fail in their most important duty. The equilibrium which is maintained by the concerted action of those of either side is lost by the giving way of the muscles that malposition has tended to weaken, and the stronger group brought into play draw the spinal column where they will. Neuralgic pains, backache, and internal congestions are the result, to say nothing of the occasional permanent lesion in long-standing cases by the absorption of cartilage. Weariness from anæmia, chlorosis, and hysteria in all its forms is the inevitable sequence. Let me picture for you an example. A young girl comes to your office with the following history. Possessed of a naturally strong constitution and vigorous intellect, she has been ambitious, has graduated after years of close application and with the highest honors in her class. Her winters have been spent in the sedentary pursuits of the school-room; even her hours of leisure have been devoted to her books. Of course, the usual result—"break-down"—has followed, and the routine treatment of tonics has been adopted, and, so far as general appearance is concerned, the patient has been benefited by them. But the principal complaint is weariness, a continual feeling of fatigue, following the smallest amount of exercise, brought on equally well by standing and by sitting, by day and by night. This feeling of weariness is more decided in the back, and is so uncomfortable, not to say painful, as to require some constant form of pressure in the lumbar and sacral regions, which, when lying in bed, is brought about by placing a pillow in the hollow. There is also an aching in one of the shoulder-blades, and a feeling of weakness in the muscles at the back of the neck. Upon examination, your patient appears well nourished, but the muscles upon pressure are found to be soft and flabby. It will

be noticed when the back is examined that the patient leans more or less to one side, and if allowed to assume a natural and (to her) comfortable position that the difference is often surprising. As a rule, the aching or weariness is found located in the muscles that form the convexity, because those on the concave or the side towards which the spinal column leans seem to draw it in that direction, and thereby stretch the muscular tissue of the opposite side. In several cases that I have seen this view appeared to be strengthened by the fact that faradic contractility was slightly diminished on the outer convex or weaker side. I have seen cases where the pressure seemed so great as to cause absolute pain from the curvature alone, and I have no doubt that, without any distinct disease as an initial lesion, a permanent tendinous contraction can take place after a time identical with that which requires surgical interference in other parts of the body. Certain it is that in one case that came under my notice the pressure caused all the symptoms of phthisis in the lung pressed upon, all of which were relieved by straightening the spinal column. It is scarcely necessary to enumerate further the complaints of a patient such as I have described if the condition has been one of long standing: the interference with circulation, the indoor life, the restlessness from nervous irritability, the reflex nervous disturbances, the loss of appetite and want of nutrition, will be shown by a tangled chain of evidence that will tax the power and patience of the most accomplished and amiable of diagnosticians. Various forms of uterine disease, with flexions, versions, and prolapses, ovarian engorgements, enlarged and displaced ovaries, will add to the confusion by their perplexing train of symptoms. Relaxation is the word expressive of the one general cause of such conditions, and in our treatment we must bear in mind the atonic condition of every muscle, nerve, and fibre of the whole body. The admirable teachings of Dr. S. Weir Mitchell have enabled us to value, above all things, absolute rest in all such and allied cases; and to insist that, in the majority of those to which I now allude, it is the primary factor in their treatment, is simply to add testimony which is not required to the great success that has attended its trial.

When examination shows us decided weakness in the muscles of the back, I have of late adopted a plan calculated to give the support which is needful until the nutrition and strength of the muscle have been increased by local treatment. Instead of the plaster dressing, which is so valuable at other times, I would suggest the use of some lighter material, cardboard for example, which softened by hot water, easily moulds, and when dry and hard forms a light and admirable splint. It may be applied in this way. A small strip, extending fully the breadth of the back from the lower border of the scapulæ to the most prominent portion of the sacrum, covered with linen, is applied, when softened, over a piece of cotton flannel or

some such material, while the patient is sitting, care having been taken that during the application the spinal column is erect. A few turns of a roller will secure it in place. I usually cut the cardboard heart-shaped, with the base upward and the apex down. When dry, the support will be found complete. The shoulders will rest on a level, the lower borders of the scapulæ firmly fixed upon the upper part of the board, this position being, I think most important. The cardboard can be attached to the corset, taken on and off with it, and, as the clothing fits perfectly without giving the least hint as to what lies beneath, patients will wear it with comfort and willingly for any length of time. But above all things I believe in the daily use of the faradic current, applied to those muscles or groups that it is proposed to strengthen, and to them alone: thus, if the column leans towards the right side, faradize the muscles of the left. This, I believe, is of far greater value than we have been accustomed to consider it, for single muscles can thus be readily exercised to the exclusion of others, and exercise of this kind brings with it increased nutrition, strength, and development in size. With such a power, when applied with the perseverance it demands, what are we not capable of doing? The aurist will tell you of its use in increasing the muscular tonicity of the smallest and most delicate muscles of the inner ear. In diseases of the uterus so powerful is its local action, when properly applied on muscular fibre, as to make permanent a position in many cases which has needed for years the support of the pessary. I may almost predict for the oculist its value in restoring accommodation instead of the ever-fashionable glasses. It is the daily systematic use of a well-contracting current that is followed by the beneficial result, just as it is the mildest form of continued exercise, and not the spasmodic muscular effort, that makes a man powerful. Recommend your patient before retiring to hang by the hands from a horizontal pole for a few moments, to use cold sponging, friction, and, above all, when possible, massage, to exercise daily in the open air, which the back-support invites, as the want of it before discouraged. When strength is gradually accumulated, encourage that most healthy and invigorating exercise, swimming, which is never followed by the ill effects so often seen in women from the overstraining of violent walking or horse back-riding.—*Philadelphia Medical Times*.

FISSURE OF THE RECTUM WITH CONSTIPATION.

A CLINICAL LECTURE.

By WM. GOODELL, M.D., Philadelphia, Pa.

(Reported expressly for the Southern Clinic.)

This woman complains of bearing down pains and menorrhagia at her monthly periods, and of excessive leucorrhœa between times. No examin-

ation has been made thus far, and treatment has only been through the mouth. She has had very obstinate constipation. Costiveness of a very pronounced character is common in women. Men are generally glad to defecate when the desire comes; but women do everything to put off the act, from over-modesty or other causes. This statement holds good not only with reference to the bowels, but also as regards the bladder. You have no idea how often the most violent cystitis is produced by continually restraining the desire to urinate. This patient tells me that her bowels have not been moved freely for *seven years*, and are never moved at all except by the use of medicines. She says that defecation gives her so much pain that she puts it off as long as possible, and so never takes purgative medicine except once in ten days or so, when she buys an ounce of sulphate of magnesia.

I have had the woman put thoroughly under the influence of ether, so as to allay spasm and relax all the muscles, and shall now proceed to make a most careful examination. There is very evidently a post-uterine tumor of some sort or other, which I think will turn out to be a hardened collection of fæces. I shall also probably bring to light one, if not more, fissures of the rectum. Let us see what goes on in a case of obstinate constipation. A species of fermentation ensues, and a large part of the fæces are reabsorbed, giving a yellowish tinge to the complexion, and bringing on a chronic torpidity of the liver. With my finger in the vagina, I discover the womb pushed upward and forward, and behind it a hard tumor. I shall now have to make a thorough rectal examination; but before doing so, it will be well to have my hand and fingers covered with carbolized oil. I am going to use my left hand for this dirty work (I shall probably have to remove the impacted fæces by hand), and I want to enforce upon you all the necessity of being able to work as well with your left hand as your right. Suppose that I were called an hour hence to make an examination of a pregnant woman. I might produce the very gravest results were I to use the same hand that I am now using, for I could not be absolutely certain that it was free from impurities. However thoroughly I might cover it with carbolized soap and water, some little taint might still remain enough to produce septicæmia in a pregnant woman. So all of you should learn to use your left hand when occasion demands, so that the right hand may be reserved for cleaner and more delicate work. Now, what do I discover with regard to this post-uterine tumor? I can indent it slightly by pressure. It is probably a collection of hardened fæces. Two years ago the woman had a child, and if there had been any impaction it would then have been forced out by the descending head. There are three points in the large intestine where obstruction may occur; it rarely, if ever, occurs in the small intestines. These three points are—the caput caecum in the right iliac fœsa, the sigmoid

flexure, and the rectum. Movements of the bowels occur in some women only after very long intervals. Dr. G. B. Wood speaks of one case where there had not been a movement for the space of six months. Where there is such stubborn constipation we generally find, upon examination, a fissure of the rectum. This always renders defecation very painful. Constipation would give rise to all the symptoms of which this patient complains. Thus, the menorrhagia and leucorrhœa would be caused by the congestion of the womb consequent upon the stasis of the blood in the vessels of the intestines. This might also produce fissures and bleeding piles. The frequent tenesmus may be very easily mistaken for bearing down pains.

I am going to set to work and break down and remove this collection of hardened fæces. This sometimes requires the handle of a spoon, but I think I can bring them down with my hand in the present case. But first, let me see if I can discover any fissure in the rectum. To do this I pass one finger into the vagina and evert the lower portion of the rectum. There is a small fissure on the posterior wall. Fissures may be cured in two ways, viz: (1) By cutting through the adjacent muscular fibres; and (2) By over-stretching the sphincter ani. I much prefer the second method. To do this, insert your two thumbs into the rectum and pull them apart until the sphincter begins to yield, or you feel the rami of the ischia on each side. To do this requires the employment of considerable force. Having stretched the sphincter I am now the better able to remove the fæces. As far as I can reach I feel lumps of hardened fæces. I am able to push them down by the aid of a finger in the vagina. Here is one lump which has entirely lost its fæcal odor and seems to be covered with a sort of false membrane, so long has it been retained. In the present instance, I am able to break up these lumps with my hands, but in some cases I have found them so hard as to require the assistance of a pair of polypus forceps to remove them. I have now removed all the lumps, and am glad to see that the womb has gradually been falling back into the place. Evidently the tumor which she has felt for so long a time was nothing but hardened fæces.

Upon what treatment shall I place this woman? To-night I shall order her ten grains of blue mass, and to-morrow morning two tablespoonfuls of castor oil. I think that I have removed all the hardened fæces; but if it turns out that the transverse colon is obstructed, she must be given a "gravity injection," filling up the entire lower bowel. Of course this must not be given while she is under the influence of ether, or we should have no guide as to the quantity of water injected, and thus might inject so much as to burst the bowel. As regards after treatment, the patient must be taught to go to stool regularly every day, and to eat certain kinds of food only. For medicine I shall order the following prescription:

R. —Ext. colocynth comp.....gr. ii.
 Pulv. rhei.....gr. i.
 Ext. belladon.....gr. $\frac{1}{4}$
 Ext. hyoscyami.....gr. ss.

M.—Et in pil No. 1 div. S.—To be taken at bed time.

In some cases $\frac{1}{20}$ of grain of strychnia may be added to the above with advantage. Iron must not be employed at present, as it tends to constipate. As regards local treatment, I shall advise the patient to rub her groins and abdomen with a flesh-brush or rough bag of camel's hair. I want, just here, to say a word in strong recommendation of the treatment known as "Massage." While under this treatment, one of whose items is a daily, painstaking, kneading of the muscles, I have even been able to administer iron without constipating. Indeed, during the second and succeeding weeks of the method by "Massage," I have noticed a considerable tendency to diarrhoea. I think that the above-mentioned methods of treatment will relieve the woman's torpid liver and congested womb.

THE ABORTIVE TREATMENT OF ERYSIPELAS.

Several times during the last few years have I succeeded in checking facial erysipelas, by painting a broad ring of collodion around the attacked part. Although perhaps other physicians may have used this treatment, I have nevertheless been unable to find any mention of it, nor have those of my confrères with whom I have spoken in regard thereto, been acquainted with this mode of treatment.

As it undoubtedly is quite desirable to be able to check a facial erysipelas, at least a very disagreeable, even if not dangerous, disease, and having of late repeatedly used the collodion treatment in my own practice, as well as received reports from my colleague, Doctor Christie, who also has employed it successfully, I make mention of it here, in order that other physicians may give it a trial in their practice.

I consider the treatment theoretically correct if, as is universally admitted, erysipelas is caused by an infectious material, whether bacteria or some substance setting up a chemical process* extending through the loose subcutaneous cellular tissue, and we can prevent its extension by the application of collodion.

I have only seen disappointment from the former way of using collodion, that is, by penciling it over the whole diseased surface, while a ring around the attacked parts puts a check to the extension of the poison. I have repeatedly seen how the morbid process has extended to the obstruction, fought against it, but without being able to overcome

it; I have also seen it break through a weak place in the ring, but compelled to stop at a new ring drawn around it. I will relate a few cases. The last one occurred in January this year. The erysipelas commenced as usual from the nose, extending to the cheeks on both sides with considerable fever, foul tongue, and general malaise. The collodion ring was drawn around the diseased parts, and the following day the erysipelas was checked, except a small place on the right cheek, where it had broken through the ring; here a new ring was formed around it, on the third day the erysipelas was completely checked, and the tongue was clean and moist again.

That I, in this case, had to deal with a severe attack, was proved by the fact that the patient still for several days suffered from debility, and was unable to attend to his business. It may be said it would have stopped by itself, as occasionally happens with erysipelas commencing at the nose. In reply, I will relate Dr. Christie's case. It happened about the same time as my own. He writes as follows:

"I have just had occasion to bring into practice your method of treating erysipelas by penciling a ring of collodion around the periphery of the place attacked. The erysipelas commenced near the nape of the neck and rather rapidly spread over both ears, forehead, and cheeks, preserving a perfectly symmetrical figure. I drew around the attacked parts, about a quarter of an inch from its circumference, a rather broad circle of collodion. The following day the erysipelatous blush had reached the collodion at nearly every point, still, it nowhere crossed this boundary, although it ultimately reached it everywhere. In some places, particularly on the right cheek, the swollen erysipelatous skin actually rolled out on the collodion ring. During the following days the blush gradually faded away. I believe the collodion prevented the further spread of the disease, as the boundary line was not passed at any point, and on the right cheek it looked as if the poison was held in check like a stream dammed back."

I am unable to say if this treatment will prove equally effective in checking erysipelas in other situations. The face offers the advantage that the compression is very firm against the closely underlying bones. Some years ago I failed in arresting an erysipelas on the leg; it commenced after the amputation of the great toe, but I am sure I did not then use a sufficient quantity of collodion. I had some fear of causing gangrene by compressing the whole circumference of the limb.

In conclusion, I will request to make the collodion ring both broad and thick, being particularly careful where there is hair or beard.—Dr. A. G. NORREGAARD, in *Norwegian Journal of Medicine*.

* (It has been demonstrated that the skin at the margin of the inflammatory redness in erysipelas is full of micrococci.—TRANSLATOR'S NOTE.)

TREATMENT OF MAMMARY ABSCESS.

In the last number of the *Gazette* we reprinted a very interesting and instructive contribution on this subject, made by Prof. Taylor, of this city, to the late meeting of the Tri-State Society, at Louisville. In the last number of the *American Journal of Obstetrics*, Dr. Hiram Carson of Coshocton, Pa., gives his views and some personal experience that will doubtless prove of value to our readers to give in brief abstract. After alluding to the usual routine of cloths steeped in hot vinegar, plasters and poultices, Dr. Corson states that for the past twenty-seven years he has used no other remedy but cold applications. His method being to fill a bladder part full with cold water and ice in it, and apply to the inflamed part. This application of ice-water affords almost immediate relief, and if suppuration has not taken place will always prevent it. And indeed, in cases which have already "suppurated, been poulticed and broke," or been lanced, this method is "just as applicable, efficient and safe." The following is one of the illustrative cases given:

"Mrs. B——, a few days after confinement, suffered from a chill, followed by pain, heat, redness and swelling in the right breast; the nurse worried with it in the usual way, but the great suffering of the patient induced them to send for me. I had gone away for a week, and a medical friend took charge of her for me. He found her suffering from a large abscess, ready to be opened. It discharged freely, and the poultice which she had on at the time was replaced. He saw her several times before my return, and opened another abscess, and continued the poultice. My first visit to her was with the physician. She was suffering greatly. The breast was much swelled, was solid and heavy in some parts, and a red, highly inflamed surface of several inches, on the under and outer part, gave warning of a third abscess. I advised the use of ice, which greatly surprised both patient and physician. The fact that she had been kept very warm for two weeks for fear of getting more chills, and that she had had warm poultices steadily applied during nearly all that time, was to their minds strong reason for objecting to its application—the change from heat to cold they deemed most hazardous. As the patient was a new comer in the place, and knew nothing of cold treatment, and positively refused to have it applied, the breast was supported, and the poultice continued. She was truly wretched; half sitting up, supporting her suffering side, no good sleep, no appetite, the breast stinging and burning night and day, as those only know who have suffered like torment, she was a picture of distress. . . . In a few days I opened the third abscess; the other openings, too, were still discharging, and had become larger. I then prevailed on her after the most solemn assurance that no harm would come to her, to have the ice applied. A large bladder was partly filled with water and lumps of ice, and applied; two thick-

nesses of wet muslin first being applied to the inflamed breast. The relief was soon apparent to her by the speedy removal of the great heat, which night and day had tortured her. That night she had comfort. There were no more abscesses; the heat, tension, and pain of the inflamed parts subsided, and in a few days the hot, tender, angry breast was so changed that she rapidly regained her cheerfulness and health."

Dr. Corson proceeds to say further: "I have very often been called to women whom I have found with a breast painful, swelled, and red over the swelled part; the result, the patient would tell me, of a "chill," which happened in the night and fell right away on the breast, since which time she had had no rest. I here at once applied the ice, and in no instance, if suppuration had not already taken place, have I failed to disperse the inflammation, at the same time that I brought comfort to the patient. In some cases I have found the suppurating process so far advanced that nothing could prevent it; but even here I apply the ice, knowing that it will give the woman great comfort, by removing the heat, allaying the inflammation and thus preventing any more of the breast from, becoming involved in the suppurating process."—*Obstetric Gazette*.

HEMOPTYSIS.

An extract from Lecture II of the Harveian Lectures. By James E. Pollock, M.D., F.R.C.P. (*British Med Journal*):

Hemoptysis has a leading place among the events of chronic disease of the lung; and new doctrines have recently been enunciated about its influence, both as a cause and consequence of such affections.

Hemoptysis is generally a symptom of congestion, which, in such cases, is the real condition to consider and to treat. It is only another word for pulmonary apoplexy of greater or less extent. There is another and very fatal form, which is a mere leakage from a broken vessel, and almost always the result of the rupture of a small aneurism of the pulmonary artery.

There are therefore two kinds of hemorrhage from the lung—the congestive and the passive.

To those who hold that chronic changes in the lung are due to inflammation, a hemorrhage arising from increased afflux of blood to a highly vascular tissue, is no unexpected event. It is in fact a part and a symptom of congestion.

On the other hand, the school who believe in tubercle formation being the essence of lung induration are puzzled to account for it. I would remark that acute tuberculosis—by which I mean an invasion of a large tract of one or both lungs by the gray miliary (millet seed) tubercle—is not accompanied by hemoptysis. The acute croupous pneumonia has its colored sputa (colored, that is

by exuded blood); but hemorrhage as such is not a feature in the case.

I think we need not discuss the question whether hemoptysis is of pulmonary or of bronchial origin. It is almost always pulmonary.

Whether the first steps in the lung induration be an inflammation or tubercular, we may, I think, concede that, excepting in the slowest and most insidious forms, it is accompanied by congestion of lung-tissue, and hence the great prevalence of hemoptysis. It will be remembered that the earliest changes in phthisical lungs are shedding of alveolar epithelium and block of the air-cells, with consecutive small cell changes in the walls of the cells and in the intercellular tissue, in which lie the blood-vessels and lymphatics of the lung. Engorgement is sure to follow an impeded return of venous blood, while the tissues become softened and disorganized.

The occurrence of congestive hemoptysis at the beginning or in the progress of phthisis is accompanied by a high temperature, running up to 104° or 105° . Its persistence may also be gauged by the thermometer and by the pulse. Should a more or less sharp hemoptysis subside, the temperature falls and the pulse becomes soft.

Should the bleeding initiate a lung attack—that is, occur to a person apparently in good health—we may expect it will be followed by the signs of consolidation of a portion of lung and the events of phthisis. There is a form of rapid phthisis, of which I have given an instance, which proceeds with great activity after an initial florid hemoptysis of some extent; and we must be on the lookout for such, and remember that it proceeds by progressively causing patches of consolidation in the lung, of which you will have the usual physical signs.

Should congestive hemoptysis occur (as it generally does in the course of chronic phthisis, you may have a long pause, or suspension of the active symptoms following its cessation. I have so often had occasion to observe this event that it seems well worth bearing in mind when called on to deliver an opinion on the result. How often also do we witness repeated attacks of rather profuse hemoptysis at long intervals in the same patient? That a second and third hemoptysis may succeed is almost certain, and that an appreciable amount of relief to the lung is produced by the bleeding I have no doubt. All these events bear strongly on the proposition that the local congestion of the lung has much to say to the clinical history of phthisis. I shall afterward speak of its bearing on the treatment.

DIAGNOSIS OF ADHERENT PLACENTA.

Dr. A. C. Air writes to the *Lancet*, February 5th:—

I have met with several cases of morbidly adherent placenta during the last fourteen years, and am inclined to believe that the diagnostic problem

may be solved with almost absolute certainty; although, from my experience being limited to so short a time, I would desire to write with all becoming modesty.

The diagnosis is, I think, to be founded upon two symptoms, one of which is mentioned by Dr. Churchill, the other by Dr. Barnes, viz., that at some period of pregnancy, generally between the third and fifth month, a fixed pain, generally of a dull, aching character, is felt over some part of the uterus; and this is converted into a severe *dragging* pain when the patient attempts to turn over to lie on the side opposite to the placenta site: so much so that patients with an adherent placenta will never (as far as my experience goes) voluntarily lie on that side. This pain I believe to be of the same nature as that mentioned by Dr. Barnes as being experienced when the cord is drawn upon; and is due to the dragging on the cord by the child, when, from gravitation, it sinks through the liquor amnii.

Theoretically, it may be objected to this explanation that usually the cord is sufficiently long to prevent any such dragging; but I think it will generally be found that when the cord is long it is twisted around the neck or limbs of the child, and produces the same effect as a short cord would.

No history of this dragging pain on the patient's turning to the side opposite to the placental insertion will be obtained when the retention of the after-birth is merely due either to the inertia of a wearied uterus, or from irregular contraction; if there is hemorrhage in either of these cases, one would be justified in trying the effect of cold, compression, etc., before introducing the hand, but in cases of true placental adhesion, trying these and similar means leads to dangerous loss of precious time.

GLYCERINE IN THE TREATMENT OF FLATULENCE, ACIDITY, AND PYROSIS.

Drs. Sydney Ringer and William Murrell write, in the *Lancet*, for July 3, 1880:

An old gentleman, who for many years suffered from distressing acidity, read in a daily paper that glycerine added to milk prevents its turning sour, and he reasoned thus: "If glycerine prevents milk turning sour, why should it not prevent me turning sour?" and he resolved to try the efficacy of glycerine for his acidity. The success of his experiment was complete, and whenever tormented by his old malady he cures himself by a recourse to glycerine. Indeed, he can now take articles of food from which he was previously compelled to abstain, provided always that he takes a drachm of glycerine immediately before, with, or directly after his food. He recommended this treatment to many of his friends—sufferers like himself—and one of these mentioned the above circumstances to us.

We have since largely employed glycerine, and find it not only very useful in acidity, but also in

flatulence and pyrosis, and that it sometimes relieves pain. We meet with cases where flatulence, or acidity, or pyrosis is the only symptom; but more frequently these symptoms are combined. Some patients rift up huge quantities of wind without any other symptoms than depression of spirits; in others we get flatulence and acidity, one or the other predominating; and we meet with others who suffer from acidity, and also pyrosis. In all these various forms we find glycerine useful, and in the great majority of cases very useful. We do not mean to say that in all cases it is superior to other remedies for these complaints; indeed in several instances it has only partially succeeded when other remedies at once cured. On the other in some cases glycerine speedily and completely succeeded, where the commonly-used remedies for acidity and flatulence completely failed. We do not pretend to estimate its relative value to other remedies; we are only anxious to draw attention to its virtues.

TREATMENT OF MENORRHAGIA AND METRORRHAGIA.

By R. Tausky, M.D., Attending Physician to Mt. Sinai Hospital.

Résumé. In the treatment of the above and of pelvis congestion, *rest*, with pelvis elevated, is of the utmost importance. Hot water injections and scarifications of cervix and endometrium are beneficial. Salicylate of soda, quinia, digitalis in large doses and opium (anodyne and nerve sedation) are invaluable. Ergotin in large doses every hour is one of the most valuable aids. Intra-vaginal balls of astringents (preferably gr. iv. alum with a few drops of iron and glycerine) introduced every hour, if the hemorrhage be alarming, or better application to fundus of tannin and glycerine on a probe, or of Monsel's solution and water equal parts, have checked obstinate hemorrhages of months standing. Catarrhal endometritis requires cauterization once a week; flexions require straightening with the sound and a pessary, and if adhesion be present, by Bozeman's method of tamponing the vagina. In submucous and intramural fibroids, injecting ergotine daily often for months, has frequently checked long-continued metrorrhagia. In carcinoma, rodent, ulcer, fungosities, polypi and granulations, the cutrette and Monsel's solution are applicable. If the bleeding be from an rodent cervix, he often applies the Monsel powder or strong solution of alum. In rare and obstinate cases, occasionally he applies nitric acid or hot iron to endometrium with only good results. Compressing the abdominal aorta has saved three cases in his hands, when the patients were moribund and all else had failed.—*Am. Journ. Med. Sci.*, Jan., 1881.

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TO OUR SUBSCRIBERS.

As we are nearing the end of Volume 9, we propose, before the issue of another number, to send accounts to all our Subscribers. We hope that they will promptly remit the amount due.

CANADA MEDICAL ASSOCIATION.

We again would remind our readers that the Canada Medical Association will meet at Halifax on the 3rd of August. Those who intend to attend must procure certificates from the Acting General Secretary, Dr. Adam Wright, Toronto.

ELECTRICITY IN THE TREATMENT OF EXOPHTHALMIC GOITRE.

In the *New York Medical Journal* for June, 1881, Dr. A. D. Rockwell, Electro-therapeutist to the New York State Woman's Hospital, alludes to eight cases of exophthalmic goitre previously recorded by him as having been treated with electricity—three ending in recovery, and one in approximate recovery, and gives the history of an additional case in which the result was favorable. It would be impossible, he thinks, to obtain similar results in a number of cases by any one method of electrical treatment. In some cases localized galvanization by the ordinary method may prove efficacious. This method may be thus described: Place the cathode over the cilio-spinal centre, above the seventh cervical vertebra, and the anode in the auriculo-maxillary fossa, gradually drawing the latter (after a few moments of stable treatment) along the inner border of the sterno-cleido-mastoid muscle, to its lower extremity. The second step in this process consists in removing the anode to the position occupied by the cathode, and placing the latter over the solar plexus, using for a few moments longer a greatly increased strength of cur-

rent. In other cases currents alternately increased and diminished may prove most effective. The general application of the faradaic current sometimes proves an important factor in the method of treatment. It is not very difficult to believe, he remarks, nor to understand why general faradization is so effective in lowering a pulse that is rapid as a result of nervous excitement, and in increasing its strength when it is both rapid and weak through nervous exhaustion. It is more difficult to explain why this result is so pleasantly obtainable in cases of exophthalmic goitre in which the galvanic current, after benefiting up to a certain point, fails to do more. The faradaic certainly does not affect the sympathetic so directly and powerfully as the galvanic current does, and we are obliged, for an explanation, to refer to its well-known superior tonic properties, and to the fact that the complete and thorough excitation of the cutaneous nerves by general faradization is followed by a greater and more desirable reflex influence. In a case of over thirty years' standing, which the author recently treated, but in which he failed to cause any appreciable reduction in size, this power of one current to supplement the action of the other was well illustrated. The pulse of the patient was constantly at or above 115. The action of the galvanic current reduced it to 105, but failed to do more than this after considerable effort. General faradization was then attempted, with the result of effecting within a week a further and seemingly permanent reduction of twelve beats. At the same time the patient's general condition was much improved.

BISHOP'S COLLEGE SCHOOL, LENNOXVILLE.

We are pleased to hear that all the suggestions which last winter were made by the Medical Commission appointed to investigate the cause of the outbreak of Typhoid Fever at Bishop's College School have been carried out, and are now completed. We are informed that the School will re-open at Lennoxville in the autumn. Confidence is being rapidly restored, and we hope for a future for this school which will far exceed its past success. We are glad to know that the labors of the Medical Commission (consisting of Drs. Simpson, Osler and Cameron) are warmly appreciated by all the friends of Bishop's College. The resolution given below, and which was carried unanimously at a meeting of the Corporation of the College, held on

the 2nd of June, is but the formal expression of this gratitude.

It was moved by Revd. Canon Norman, seconded by Mr. John S. Hall, and resolved:—

“That the sincere thanks of the Corporation are due and are hereby tendered to Dr. Simpson, Dr. Osler and Dr. Cameron, the Medical Commission, for their services rendered gratuitously in relation to the investigation as to the recent outbreak of Typhoid Fever.”

IODIDE OF ETHYL IN ASTHMA.

The *New York Medical Journal* for June, 1881, publishes three cases of asthma treated with inhalations of iodide of ethyl, with remarkable benefit. They occurred in Dr. R. M. Lawrence's service at the Boston Dispensary. Following the cases are some remarks by Dr. Lawrence, in which he says of the iodide of ethyl: “Its speedy absorption into the blood, its antispasmodic quality, and prompt reflex stimulation of the respiratory muscles, may reasonably account for its beneficial action in the asthmatic paroxysm, while its power of liquefying and detaching accumulations of mucus sufficiently explains its curative influence in chronic bronchitis..... Experience has confirmed my faith in its remedial worth in a large majority of cases of labored respiration (whether due to bronchial spasm or to increased mucous secretion), and also in certain obstinate cases of dyspnoea, not due to organic pulmonary or cardiac lesions, where other remedies may have proved inefficient. In a small minority of cases it has failed to afford relief.” He does not recommend it as a substitute for internal medication, but rather as an adjunct thereto.

TO TEST HOUSE DRAINS.

In London house drains are tested by pouring in at the highest point of the pipes an emulsion of oil of peppermint and water, following this up with a couple of buckets of water to wash the emulsion through the drains. Should there be any leaks they can be located by the penetrating smell of the peppermint. The same system is, we believe used in Boston and in Montreal.

PERSONAL.

Dr. Edmond Robillard of Montreal has had the honorary degree of Master in Surgery conferred upon him by the Medical Faculty of Victoria College. The honor is well deserved.

Dr. McGillis (C.M., M.D., Bishop's College, 1881) sailed for Europe by the Dominion S.S. "Ontario" on the 3rd of June.

Dr. Eleuterio Quinones Cardona (C.M., M.D., Bishop's College, 1881) sailed from New York for his home in Porto Rico the second week in June.

Dr. R. Palmer Howard and Dr. Osler of Montreal sailed for Liverpool by the Allan S.S. "Parisian." They visit London to attend the meeting of the International Congress, and will be absent six or seven weeks.

Mr. Bemrose, F.C.S., has been appointed Lecturer on Practical Chemistry in the Medical Faculty of Bishop's College.

Dr. G. E. Gascoigne, late of the Royal Artillery, and who was for several years located at Brockville, but for the last year in Panama, has left for Jamaica, having received a Government Medical appointment.

COLLEGE OF PHYSICIANS AND SURGEONS.

The semi-annual meeting of the Board of Governors (Provincial Medical Board) of the College of Physicians and Surgeons, Province of Quebec, was held in Montreal, on the 11th May, 1881, the President, Dr. R. P. Howard, in the chair.

The following governors were present:—Dr. Howard, President; Drs. Trudel and Lemieux, Vice-Presidents; Drs. F. W. Campbell, Lachapelle, Perreault, R. F. Rinfret, Côme Rinfret, L. Larue, Lanctot, Robillard, Marsden, Austin, Church, Mignault, Lafontaine, Gibson, Laberge, Rousseau, Kennedy, Rottot, T. Larue, Ladouceur, Rodger, St. George, Marmette, Desaulnier, Hingston and Prevost.

The Secretary read a letter from the Registrar of the Medical Faculty of Bishop's College, stating that, owing to continued ill-health, Dr. David had resigned his position as representative to the Provincial Medical Board, and that the Faculty had elected Dr. R. A. Kennedy, to replace him.

Dr. Kennedy, the new representative from Bishop's College Faculty of Medicine, was introduced by Dr. Gibson, and took his seat.

It was then moved by Dr. Marsden, seconded

by the Hon. Dr. Church, and carried unanimously:

"That this Board has received with regret the announcement of Dr. David's withdrawal, owing to ill-health, from this Board, and that, before accepting such resignation, it desires to put upon record its high sense of the service rendered to the profession and this College in the long series of years during which Dr. David has been a member of the former and an active worker in the latter. His thorough early and professional training, his large experience and active nature, enabled him to bring great power to the consideration and discussion of all matters affecting the interests of the profession. In parting with him, this College ventures to express the hope that the cause is only temporary, and that Dr. David may yet be spared many years to bring his large store of useful knowledge and ripe experience to the assistance of the profession, and to forward the work of this College."

The reports of the assessors from the Universities of McGill, Bishop's College, Victoria College, Laval, Laval (*succursale*), Montreal, were then read.

The Secretary then read the report of the Board of Examiners on Preliminary Education, stating that the following gentlemen had passed the required examination and been admitted to the study of medicine, viz., W. Galt Johnston, M. Brophy, E. Labonté, H. T. Hurdman, H. Gaudreau, D. B. Darby, H. B. Smith, C. Bussiere, B. Smith, W. H. Leonard, F. Simard, and P. Morin.

The following gentlemen passed the supplementary examination imposed for partial failure last year, viz.: J. C. Blanchet, F. Jeannotte, J. O. Lambert, A. Lamothe, C. Prevost, N. Tessier.

A. Gaboury was passed for special reasons, the Board two years ago consenting that he should pass his preliminary examination after receiving his degree.

The Board for Preliminary Examination reported that twelve gentlemen had been remanded for a supplementary examination on certain subjects; also, that twenty-four gentlemen had been entirely rejected, having failed to obtain the requisite number of marks. Three gentlemen were rejected for copying.

Dr. F. W. Campbell raised the question whether a student could be examined upon the final portion of his examinations at the end of his third session, then go and study a year with a physician,

returning at the end of his fourth year and get his diploma. Dr. Campbell stated that this practice was in vogue amongst some of the medical schools, and according to his interpretation of the by-law (chap. viii., sec. 2), such practice was irregular.

Considerable discussion ensued, when the subject was adjourned till the afternoon session.

Dr. Marsden raised the question of the legality of the new by-law, restricting the attendance of the assessors to three days. He stated that he had consulted counsel, and that the by-law was in direct opposition to the Act.

It was then unanimously resolved to alter and amend the by-law sanctioned by His Honor the Lieut-Governor on the 3rd September, 1880, in relation to assessors, as follows:—

“To substitute the following for section 6, chap. 10, of the said by-laws: The assessors shall attend during the medical examinations of each University or Medical School; within eight days immediately following these examinations, they shall send their written report to the secretary of the College residing in the city in which these examinations have been held. They shall be paid, in addition to their travelling expenses, a remuneration of ten dollars for every day that they shall be detained by their duties, providing it does not exceed three days, in which case only five dollars shall be paid for each additional day that they shall be detained, but in no case shall their remuneration exceed fifty dollars.”

The report of Mr. Lamirande, the prosecuting officer of the College, was read by Dr. Lachapelle. The Treasurer also read a statement of his receipts and expenses during the past six months; also a letter from him with regard to his work.

It was then moved by Dr. Lachapelle, seconded by Dr. Larue:—“That the arrangements made between the Medical Board and Mr. C. E. Lamirande, at the last semi-annual meeting, be continued, moreover the Board engages to pay, from this date, a bonus of twenty dollars for each conviction, which he obtains against a charlatan, and, furthermore, that this bonus shall be 25 dollars for each such conviction where the charlatan is too poor to pay the fine, and goes to prison.”—*Carried.*

The meeting then adjourned till 2.15 P.M.

When the afternoon session was opened, the President in the chair, the Secretary read the names of the candidates for License, whereupon Dr. Lanctot asked the President if he had received

a protest from the School of Medicine and Surgery (Victoria College) against granting licenses to the graduates of Laval University, in Montreal. The President said he had been served with such a protest. At the request of Dr. Lanctot the protest was read.

Proposed by Dr. Lanctot, seconded by Dr. Bonin, That the protest, now before the Board, be accepted, and submitted for discussion.

Moved, in amendment, by the Hon. Dr. Church seconded by Dr. Marsden, “That, inasmuch as section 7 of the Act incorporating this College provides that the holders of Diplomas from all the Universities mentioned in section 4 of the said Act shall be entitled under the circumstances in said section 7, to the License of this College; that, pending adverse decision rendered in the Courts, this College continue in the future, as in the past, to grant all such holders of Diplomas the License of this College.”

The amendment, being put, was carried by a vote of 18 to 6.

The main motion, on being put, was lost on the same division, and the amendment declared carried.

Licenses were granted to the following gentlemen:—

Laval University, Quebec.—J. Pelletier, M.D., Quebec; A. F. Poulin, M.D., Quebec; J. W. H. Blagdon, M.D., Quebec.

Laval University, Montreal.—A. Gaboury, M.D., St Martin; J. A. Cardinal, M.D., Napierville, Quebec; A. Savard, M.D., St. Eustache; J. H. B. Jeannotte, M.D., Brigham; R. Tranchemontagne, M.D., St. Louis de Gonzague; E. Poirier, St. Cyrille.

Bishop's College, Montreal.—W. C. McGillis, M.D., Montreal; E. Quinones, M.D., Porto Rico, S.A.

McGill University, Montreal.—G. W. Gernon, M.D., Marieville; J. C. Shanks, M.D., Huntingdon; W. A. Shufelt, M.D., Knowlton; J. W. Ross, M.D., Winthrop, Ont.; H. Lunan, M.D., Litchfield, Ont.; F. W. Newburn, M.D., Drummondville, Ont.; R. T. MacDonald, M.D., Montreal; T. L. Brown, M.D., Ottawa; H. E. Poole, M.D., Kazubazua.

Victoria College, Montreal.—H. Legault, M.D., St. Armas; A. J. Prieur, M.D., St. Anicet; J. Asselin, M.D., Joliette; E. Fournier, M.D., Montreal; A. Martin, M.D., Iberville; P. E. Marier, M.D., Terrebonne; E. Lalonde, M.D., Montreal; G. L. Laforest, M.D., St. Liboire; J.

O. Soulard, M.D., Quebec; N. Beaudet, M.D., St. Gregoire d'Iberville; J. G. Leduc, M.D., Montreal; J. L. Carignan, M.D., Goubelle; E. Voisart, M.D., Pointe du Lac; T. Hamelin, M.D., Three Rivers; C. Fauteaux, M.D., St. Simon; S. E. Bergeron, St. Etienne.

The license was issued to James Irwin, M.R.C.S. Eng., of Pembroke, Ont., on his English diploma; also to A. M. Gibson, M.D., (Queen's, Kingston) L.R.C.P. & S., Edin., of Massawippi, on his Scotch qualifications.

The following gentlemen submitted to the professional examination, and being found duly qualified, received the license of the College: C. S. Fenwick, Montreal; E. Tremblay, Nicolet.

Proposed by Dr. Lachapelle, seconded by Dr. Marmette, "That at the opening of each semi-annual meeting of the Provincial Board of Medicine, the secretaries shall each deposit on the table a list containing the names of the candidates for the license, the date of their admission to the study of medicine, the origin of their certificates of admission to the study, the date of their diploma and the name of the University, and that the secretaries be authorized to have the necessary blanks printed."—*Carried.*

Dr. Fred. Church applied for the License, he being a graduate of McGill University, Montreal, but not having his diploma, from an oversight of the Registrar; having given satisfactory proof of this, it was on motion unanimously resolved that he be granted said license.—*Carried.*

Moved by Dr. Gibson, seconded by Dr. Prevost, "That in view of certain notices of application to the Legislature for private bills, authorizing this Board to admit certain persons, in such notice named, to examination, this College is of opinion, and respectfully represents, that no such bills be passed, unless first submitted and recommended by the Board of Governors of this College."—*Carried.*

Moved by Dr. Lachapelle, seconded by Dr. F. W. Campbell, "That a copy of the above resolution be sent to every medical man in the Provincial Legislature."—*Carried.*

Moved by Dr. Church, seconded by Dr. Desaulnier, "That the President, Secretary (Montreal), and Treasurer be a committee authorised to prepare an announcement of the College, containing lists of all the text-books recommended by the matriculation examiners, the regulations of the College as to the medical curriculum; the fees;

the time and places of holding examinations, etc., for the guidance of medical students, and candidates for the license."—*Carried.*

Moved by Dr. Church, seconded by Dr. Lachapelle, that the writing in all diplomas, documents, records, etc., intended to be permanent, be written with an ink which will not affect the material upon which such writing is made nor become illegible from decomposition.—*Carried.*

On motion of Dr. Lafontaine, seconded by Dr. Laberge, it was unanimously decided that the salary of the Registrar from the 29th of September last be three hundred dollars a year.

Dr. Robillard gave notice of motion, seconded by the Hon. Dr. Church, that at the next semi-annual meeting of this College, he will move that the salaries of the Secretaries and Treasurer be increased to one hundred dollars.

Moved by Dr. Marmette, seconded by Dr. Church, "That the members of this College have heard with deep regret of the death of Dr. Michaud an old member of this College, and they desire to express deep sympathy with his family in their bereavement;" and that a copy of the above resolution be sent to the family of the deceased by the Secretary.—*Carried.*

Moved by the Hon. Dr. Church, seconded by Dr. Lafontaine, "That the account of Dr. Marmette and other witnesses for attendance at the preliminary investigation of the charges brought by Dr. Gilbert against Drs. Fenwick and Worthington, after having been revised and approved by the President and ex-President, Dr. Rottot, be paid."—*Carried.*

Dr. Rodger brought before the College the fact that large quantities of obscene medical literature were being circulated through this Province by Dr. A. M. Ross, a licentiate of this College.

Moved by Hon. Dr. Church, seconded by Dr. Rodger, "That the documents now produced by Dr. Rodger and laid on the table, purporting to have been issued at the instance of Dr. A. M. Ross of this city and circulated through the city and country, be referred to a committee, consisting of Drs. Rottot, Trudel, Craik, and F. W. Campbell, with instructions to examine them and to enquire whether these documents have really been put in circulation by Dr. A. M. Ross; that if the committee shall be of opinion that he put them in circulation, the said committee enquire and report whether the Act incorporating this College affords any remedy for such misconduct, or if not, whether

the criminal law affords any punishment for similar conduct; to consult counsel, if necessary, for the foregoing purposes, and to report the result of their deliberations to the College."—*Carried.*

Dr. F. W. Campbell moved, seconded by Dr. Gibson, "That the subject with regard to the legality of the fourth year of medical study being passed with a practitioner, after he has passed all the examinations for his degree, introduced by Dr. F. W. Campbell, at the morning sitting of the Board, be referred to one school representative, from the medical schools in Montreal, and the two outside governors for the city of Montreal."—*Carried.*

Moved by Dr. Lanctot, seconded by Dr. Marsden, "That the governors of the College of Physicians and Surgeons be notified by post card of the time of holding the semi-annual meeting."—*Carried.*

A vote of thanks to the Laval Faculty of Medicine (Montreal), for the use of their rooms, was unanimously passed.

THE NEW YORK SANITARY ENGINEER.

The above is the name of a paper published in New York, and although but in its fourth year it is now acknowledged to be the leading Sanitary authority on this Continent. It has labored for some time to get a food and drug adulteration bill through the Legislature of New York State, and success has at last crowned its efforts. We congratulate our contemporary on this practical evidence of its being "a power" in the Legislative Halls of the Empire State.

LACTOPEPTINE.

This is a remedy which is constantly gaining in favor with the profession. Our own experience with it has been most satisfactory. In the summer complaint of children we have used it with excellent results. Indeed we have found it very valuable as a preventative of this affection. We frequently order it, with this object in view, and we believe that our expectations have been realized.

"NANA'S DAUGHTER"

Is destined to make a deep sensation among novel readers. It is a sequel to ZOLA's famous "NANA," but is in many respects superior to it. Intense and continuous action characterizes it

throughout, and every page is of absorbing interest, while there is no lack of refinement and fine feeling. The aim is to show that evil instincts are not hereditary. All the characters are vividly sketched, the plot is of unusual strength and merit, and the style of composition is vigorous and concise. The translation of "NANA'S DAUGHTER" is by John Stirling, who has done his work conscientiously well. It is published in a large square duodecimo volume, paper cover, price 75 cents, and will be found for sale by all Booksellers and News Agents, and on all Railroad Trains, or copies of it will be sent to any one, to any place, at once, on remitting 75 cents in a letter to the Publishers, T. B. Peterson & Brothers, Philadelphia, Pa.

WYETH'S VINUM CIBI.

Owing to the type of debility which characterizes the great majority of the diseases now prevailing, the tonics or strength-giving remedies have assumed an increasing importance of late years. Much attention has been paid to preparations of this class, and we desire to bring to the notice of the Medical Profession, Wyeth's Wine of Beef (Vinum Cibi). In each tablespoonful of this preparation there is the essence of one ounce of beef, in solution in sherry wine. It is therefore a refreshing stimulant, the effect of which is not merely to quicken the circulation and impart a temporary excitement, but also to supply actual strength.

THE MACKINNON PEN OR FLUID PENCIL.

We direct attention to the advertisement of this pen. We have now been using one for the past six months, and consider it a most valuable invention for medical men. The profession know how difficult it is to get good ink in the majority of houses with which to write prescriptions, and, if the ink is generally bad, the pens are nearly always execrable. Pencils are unsatisfactory, for prescription-writing, and it soon fades and often gets illegible. The Mackinnon pen, when once charged with ink, will last a long time without replenishing. It is always ready for use, and not being as large as a fair-sized pencil it can with perfect ease be carried in the vest pocket.

SCRIBNER FOR JUNE.

The element of timeliness which is found, to some extent, in every number of SCRIBNERS' MONTHLY, is particularly noticeable in the June issue, just published. The first paper to be turned to by most readers, will perhaps, be the second part of Col. Waring's "Sanitary condition of New York," entitled "The Remedy," and recommending a complete system of house and street drainage, applicable to any house or locality. "An August Morning with Farragut"—a vivid account of the great admiral's famous victory at Mobile, by Lieutenant J. C. Kinney, who was on board the *Hartford* throughout the fight, and tells the true story of the lashing. His account is confirmed and supplemented in a letter in the same number from Commander J. Crittenden Watson, who was also an officer under Farragut. Other papers which come under the head of "seasonable," are: a brief sketch of the late Earl of Beaconsfield, accompanied by a full-page portrait, engraved by Cole, together with an unpublished sonnet written by Disraeli in 1839;

Lovers of light reading will find plenty to interest them in this number. There is the opening instalment of several pages of "A Fearful Responsibility," by W. D. Howells (the "fearful responsibility" being an American girl); "A Rainy Day with Uncle Remus,"—five new fables told in his inimitable style, by Joel Chandler Harris; the second instalment of George W. Cable's "Madame Delphine," which is full of action; "Fritz," a bright history of a pet bird; "Along the North Shore of Long Island," describing a canoeing trip by Charles H. Farnham, with charming illustrations by Vanderhoof and Lungren; a description of lobster-fishing and lobster canning, contributed by W. H. Bishop, with illustrations by J. C. Beard and Burns, a travel article, by Miss Gordon Cumming, giving account of a visit to "The Largest Extinct Volcano" in the world, with an illustration of the crater.

ST. NICHOLAS FOR JUNE.

The children's magazine, ST. NICHOLAS, is, in the present volume, fully satisfying the demands of those parents who desire that their children's reading shall be not merely interesting, but instructive. It is now presenting, in serial form, two "features" which combine entertainment with a rich store of information.

THE POPULAR SCIENCE MONTHLY FOR JULY, 1881.

A very striking article on "The Races of Mankind" opens "The Popular Science Monthly" for July. It is an abstract from the new and admirable work of E. B. Tylor, F.R.S., on popular anthropology. The paper is profusely illustrated with finely executed representations of all the leading modifications of the human family, and we have nowhere seen so excellent a summary of the distinctions and characteristics of the races and tribes of men as are exemplified in this comprehensive article. There is an article on "The Phenomena of Death" by Dr. Thomas D. Spencer, who clears away a group of current superstitions in regard to this physiological process. He shows that the common notions about "death-agonies," "death-struggles," and the "pangs of death," are grossly erroneous, and that in the last moments of life pain and death seldom go together. Death is generally made painless by an anæsthetic kindly provided by Nature. The departments are full and varied, and the number is one of unusual attractiveness. New York: D. Appleton & Company. Fifty cents per number; \$5 per year.

CASCARA SAGRADA.

Dr. R. W. Alexander, in the *Therapeutic Gazette*, describes a case the symptoms in which were relieved by this remedy. He says of the patient:

Her condition at this time was as follows: Sallow complexion; general emaciation; broad, flabby tongue, coated with a thick, yellow, fur; foul breath; cardialgia; headache; habitual constipation; liver enlarged, with considerable pain upon pressure. I ordered two preparations of cascara from a druggist in this city, who had gotten some for my special use. The first was Dr. Bundy's preparation, which I intended should meet the dyspeptic condition of her system, and is as follows:

℞ Cascara sag. fl. ext. (P. D. & Co.) ʒ j;
Acid hydrocyanici dil. ʒ j;
Malt extract. fl. ʒ ij;
Berberis aquifol. fl. ext. fl. ʒ j.

M. Sig. A teaspoonful after meals, or oftener, if there is pain or distress with belching of gas or wind from the stomach.

In addition to the above I ordered the second, as follows:

℞ Cascara sag. ext. fl. (P. D. & Co.) ʒ ij;
Syr. hypophosphit. co., ad. ʒ iv.

M. Sig. A teaspoonful at night when the bowel fail to move during the preceding day.

THE CANADA MEDICAL RECORD.

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MONTREAL, JULY, 1881.

No. 10

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Original Communications.

CASE OF CHRONIC BRIGHT'S DISEASE TREATED BY NITRO-GLYCERINE.

By JAMES C. CAMERON, M.D.,

Professor of Medical Jurisprudence, Medical Faculty,
University of Bishop's College, Montreal. (Con-
densed from a paper read before the Medico-
Chirurgical Society of Montreal.)

On account of the intractable nature of Bright's disease, the discomfort and danger of extensive dropsical effusion, and the obstinacy with which, at times, it resists treatment, we are always ready to welcome a new drug which promises any chance of success. Nitro-glycerine was first used medicinally by Dr. Hering, a homœopathic physician of Philadelphia; it has lately attracted considerable attention, and has been employed with marked success in cases of migraine, asthma, angina pectoris and epilepsy. Its action is similar to that of amyl nitrite, and it is used in similar cases. In November last, Dr. Robson of Leeds wrote to the *British Medical Journal*, advocating the use of nitro-glycerine in acute and chronic Bright's disease, and detailing several cases in which it had been employed with advantage. He

employed a one per cent. alcoholic solution, in doses of one to three minims every three, four or six hours as required; when the urgent symptoms subsided, he added the muriated tincture of iron in doses of fifteen to twenty minims. Dr. Robson claims that in Bright's disease nitro-glycerine rapidly reduces vascular tension, softens the tense corded pulse, relieves labored and difficult breathing, augments greatly the quantity of urine, raises its sp. gravity, and rapidly removes anasarca. He thinks that it is particularly useful in the condition of arterio-capillary fibrosis described by Drs. Gull and Sutton.

I tried nitro-glycerine last winter with marked benefit in a desperate case of Bright's disease which had resisted most of the ordinary methods of treatment, and was at the time rapidly sinking. My patient was a man 48 years of age, an old soldier, a hard drinker, and one who had undergone much exposure to wet and cold. He had a tubercular deposit in one of his lungs, had suffered for months from cough and night sweats, and had several mild attacks of anasarca during the past two years. Towards the close of September last I attended him for an acute congestion of the kidneys, the result of a heavy spree and exposure to cold. The acute symptoms soon subsided, but the urine remained highly albuminous, and œdema

persisted in the legs in spite of purgatives and diuretics, hot air baths and an exclusively milk diet. Pilocarpine was then administered hypodermically with the happiest results; the albumen decreased and œdema disappeared, and by the end of October he was quite convalescent. One cold rainy day he went out very imprudently and got wet and chilled, and indulged again in liquor. Acute symptoms set in, and then even jaborandi failed to afford any relief; the œdema gained ground, the quantity of urine gradually diminished, the albumen increased, and the tubecasts, which had formerly been granular and hyaline, became studded with fat globules. Uræmic symptoms at last set in; on December 11th, the total amount of urine passed in twenty-four hours was 8 oz. with a sp. gr. of 1040; the ordinary methods of treatment were ineffectual, and his condition became very grave. As a last resort I determined to try the nitro-glycerine treatment. Mr. Henry R. Gray prepared for me a one per cent. alcoholic solution, and on Dec. 12th I administered one minim of this solution in syr. tolu. every four hours; in three days, the dose was increased to two minims, and on December 16th the patient was much better, and passed 35 oz. of urine. On the 19th tinct. fer. mur. M xx. was added to each dose. The case was seen by Dr. R. P. Howard in consultation on the 26th, and the dose of nitro-glycerine solution was increased by one minim; by the 29th the œdema had so far decreased that the mixture was given less frequently. On New Year's day he got up and dressed, and dined with his family; that day he passed 49 oz. of urine. On January 10th the mixture was reduced to three doses daily, and on the 15th he was so much better that it was discontinued altogether, and a mixture of digitalis and iron substituted. The digitalis soon upset his stomach, so that on the 22nd I returned to the old mixture of nitro-glycerine and iron. The œdema, which every now and then came on afresh after some indiscreet exposure to cold, slowly disappeared as the urine increased in quantity, till on February 14th it was entirely away; that day he passed 100 oz. of urine. I then stopped the nitro-glycerine and continued the iron alone; but he grew rapidly weaker, on the 19th vomiting set in, on the 21st diarrhœa, the urine speedily diminished in quantity, and the albumen increased. On the 25th hiccough began; on March 3rd the urine become completely suppressed, and on the 6th

he died exhausted. Unfortunately a post mortem examination could not be obtained.

The first month was hopeless, and treatment only palliative. In carefully reviewing it, my opinion is that nitro-glycerine prolonged life for nearly two months. It increased markedly the quantity of urine passed daily; but although the *relative* amount of albumen was considerably reduced, the *absolute* amount was not much affected. The œdema and labored breathing were undoubtedly relieved by its use, and the pulse rendered softer and less corded. From the careful and daily study of this case, I am convinced that in certain conditions nitro-glycerine is a valuable remedy in the treatment of chronic Bright's disease, and may be administered with perfect safety and without unpleasant symptoms for a considerable length of time.

The following table shews at a glance the effect of this treatment upon the daily quantity of urine.

TABLE SHOWING THE AMOUNT OF URINE
PASSED DAILY DURING THE NITRO-
GLYCERINE TREATMENT.

1880	1881
Dec. 11	Jan. 1
Dec. 12	Jan. 2
Dec. 13	Jan. 3
Dec. 14	Jan. 4
Dec. 15	Jan. 5
Dec. 16	Jan. 6
Dec. 17	Jan. 7
Dec. 18	Jan. 8
Dec. 19	Jan. 9
Dec. 20	Jan. 10
Dec. 21	Jan. 11
Dec. 22	Jan. 12
Dec. 23	Jan. 13
Dec. 24	Jan. 14
Dec. 25	Jan. 15
Dec. 26	Jan. 16
Dec. 27	Jan. 17
Dec. 28	Jan. 18
Dec. 29	Jan. 19
Dec. 30	Jan. 20
Dec. 31	Jan. 21
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1881	1881
Jan. 23 Voided 42 oz.	Feb. 18 Voided 96 oz.
" 24 " 45 "	" 19 " 63 "
" 25 " 36 "	" 19 Vomiting began.
" 26 " 37 "	" 20 Stop mixture
" 27 " 33 "	" 20 Voided 72 oz.
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" 29 " 36 "	" 21 Diarrhœa set in
" 30 " 45 "	" 22 Voided 60 oz.
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" 17 " 84 "	

infection for a long time latent, so that as soon as proper conditions are present it will manifest activity.

Carefully-observed cases also establish the fact that it is capable of producing typhoid fever although admitted to the system in very minute quantities and much diluted. It seems that the opportunities for the admission of the virus, in such small amounts as have been known to produce typical typhoid fever, must be so frequent and general that a vast majority of the community must at some time or other have been exposed to it. Probably, therefore, it requires, in a degree even greater than do other zymotic poisons, suitable pabulum for its development, and a state of system predisposing to its zymotic action.

At times the virus is so concentrated and active that, in whatever way it gains entrance to the body, it infects the system in nearly every instance and causes a virulent zymosis. On the other hand, the virus may be much less active: so that, supposing it to be taken into the alimentary canal, if the secretions are normal and the glands of the mucous membrane not susceptible or vulnerable, it may be thrown off without the production of the disease. Again, the virus may be more active or more fully propagated in the intestinal canal, and cause marked irritation of the enlarged solitary and Peyerian glands of the mucous membrane, so that the intestinal lesions become considerable; and yet the virus may be arrested in the swollen mesenteric glands and no marked infection of the system occur. This agrees with the well-known fact that no constant relation exists between the degree of intestinal lesion and the intensity of the primary constitutional infection or zymosis.

It is further to be noted that even in cases where primary infection of the system has not been intense, and where the intestinal lesions have been quite marked, it is quite possible, and indeed probably quite frequent, for the morbid intestinal contents to favor further development of the specific virus, and thus endanger continued absorption, or else for the putrid débris and secretions to give rise to a secondary non-specific septicæmia.

It thus seems to me that we must recognize practically the following different primary forms: first, ordinary typhoid fever, with moderate intestinal lesions and moderate zymosis; second, cases with grave intestinal lesions and moderate zymosis; third, cases with grave zymosis and profound constitutional symptoms from the start.

I have spoken of the first form as ordinary typhoid fever, because my own experience would indicate that this and—to a less degree—the second form are by far the most common in this district, although far too frequently individual cases or limited outbreaks of the grave primary zymotic type occur.

I have referred to these familiar views simply to call attention to the immense importance of the rôle which the gastro-intestinal mucous membrane plays in typhoid fever from the earliest moment.

Progress of Medical Science.

REMARKS ON SOME POINTS IN THE TREATMENT OF TYPHOID FEVER.

By WILLIAM PEPPER, A.M., M.D.,

Professor of Clinical Medicine in the University of Pennsylvania.

I have no intention, in the limited time at my disposal, of entering into a full discussion of the treatment of typhoid fever in its various forms and with all its complications, but simply to state in a brief manner the results of my observation as to the management of the ordinary form of this fever, as I have met with it both in hospital and in private practice in this city and its neighborhood.

Although the attempts to isolate the particular poison of typhoid fever have not met with full success, it seems to be generally accepted that this disease is caused by a special *materies morbi*, for the most part admitted to the system through the alimentary canal, although capable, also, of gaining admittance by inhalation. I am disposed myself to believe that this poison is capable of being produced or brought into activity under conditions much more varied than it has recently been the habit to assert.

However this may be, the poison presents certain peculiarities which are important to note from their bearing upon the treatment of the disease. It is undoubtedly capable of retaining its power of

It is very important, also, to recognize the fact that the stadium of typhoid fever presents two stages theoretically distinct,—namely, the primary true zymotic stage and the subsequent irritative or secondary septic stage. The first of these is probably the more definite in its duration, lasting, perhaps, from twelve to sixteen days, although the data do not exist for determining its duration accurately.

In speaking of the actual treatment, I would first consider ordinary cases of typhoid fever in private practice, coming under observation at the first development of symptoms of malaise. It is my profound conviction that in a great majority of cases of this form—that is, of course, excluding those of grave primary zymosis—proper treatment of this forming-stage will modify and moderate the whole subsequent course of the case, and will prevent the development of those grave and alarming conditions to the treatment of which so much time and attention are bestowed in most discussions upon this disease.

It is universally recognized that continued exposure and efforts during the forming-stage of typhoid fever greatly increase the gravity and danger of the subsequent attack, and I have often seen patients who, after the symptoms have actually developed themselves, have been allowed to leave the bed merely to use the close stool, or to sit in an easy-chair while the bedclothes were being changed, exhibit early and alarming exhaustion, that was at least partially due to these injudicious efforts. The first essential to secure this result should be absolute rest in bed.

I have been surprised to find that some writers who begin by recommending early and complete rest make later allusions which show that their idea of such rest is far from being as thorough as I believe should be enforced. Every case in which the symptoms justify even a suspicion of typhoid fever should, in my opinion, be immediately consigned to bed, and the use of the urinal and bed-pan be at once insisted upon. I have even seen such patients, when allowed to leave bed merely to use a close-stool or while the bedclothes were being changed, exhibit such exhaustion at a subsequent stage of the disease as could only be explained by these injudicious efforts. More frequently still have I seen the gastro-intestinal irritation increased seriously by the improper exposure to currents of air while out of bed.

In the next place, a most rigidly restricted diet should be insisted upon. Later in the case more abundant and concentrated nourishment and stimulants will perhaps be called for; but in this forming stage I believe that a very limited amount of very light nourishment is sufficient, and that its use will exert a happy influence upon the subsequent course of the case. Not only should all solid food be at once forbidden, but the liquid food allowed should be light and very digestible.

Equally important is the avoidance of all irritat-

ing medicines, and especially purgatives, at this stage. It is scarcely possible that an emetic or a purgative should remove every particle of the virus from the intestinal canal, and yet we know that the virus will act even when present only in minute quantity and very dilute state if favorable conditions exist; and it is probable that the morbid secretion favored by the action of a purgative in this state of the system constitutes the best possible pabulum for the propagation of the virus, while at the same time it must render the glandular apparatus of the mucous membrane more sensitive and vulnerable. Digestion is disturbed and strength impaired, the intestinal lesions are aggravated, and the case is rendered more serious. If the state of the tongue and secretions indicates a laxative, good results will usually be obtained from the administration of the following:

R Hydrargyri chloridi mitis, gr. ii;
Sodi bicarbonatis, gr. xlviij;
M., ft. mas. et div. in pil. no. xii.

Of these one may be taken every two or three hours until the bowels are moved, or until ail have been taken, when a movement can be secured by an enema of tepid water or gruel.

During this early stage the remedy which seems to me most constantly called for is quinia, which I am in the habit of giving in larger doses than at the later periods of the disease, except in a particular condition. My reasons for so doing are the following: during this stage the irregular febrile movement frequently simulates a mild malarial attack, and undoubtedly a malarial element is not unfrequently present when true typhoid also exists. Again, it is probable that the use of quinine may lessen the activity of the virus and the danger and degree of infection.

If, however, the gastro-intestinal irritation is at all marked, I invariably administer the quinia by suppository, as follows:

R Quiniæ sulph., ʒi;
Pulv. opii, gr. iv;
Ol. theobromæ, q. s.

M. et div. in suppositoria no. xii.

S. One every four, six, or eight hours, while the powders above mentioned are administered by the mouth.

I have found very many attacks of mild gastro-intestinal catarrh, with or without malarial complication, with symptoms closely simulating the early ones of typhoid fever, subside rapidly under the above treatment, together with a diet of chicken or mutton-broth, gruel, skim-milk, or milk and water in equal proportions.

If, however, the symptoms persist, it can soon be seen that a true typhoid fever is developing, and, if so, the observance of the course above described will have tended much to lessen its gravity. Of course the same absolute, scrupulous observance of rest continues essential. The diet should now be as nourishing as the state of the digestion will permit. I believe, however, that it should

be liquid in character throughout the entire course of the disease.

I have repeatedly seen ill results from the infringement of this rule, while I have rarely seen a case where the digestion had been carefully managed from the start in which liquid nourishment did not suffice to maintain nutrition. Indeed, such is my conviction of the supreme importance of the condition of the mucous membranes in this disease, and of the necessity of giving only such food as can be fully digested and absorbed, that I am inclined to believe that far more patients are over-fed than under-fed in typhoid fever.

I have seen many cases where, while beef-tea and pure milk were freely administered, dryness of the tongue, nausea or vomiting, and diarrhoea existed, and where the substitution of light chicken or mutton broth, and of skim-milk, or milk diluted with equal parts of water, has led to the subsidence of these symptoms and the re-establishment of good digestion.

With regard to the use of stimulants. I have been led to feel that they are not to be regarded as a necessary part of the routine treatment of typhoid fever. During the early stage of the disease, indeed,—unless exceptional symptoms arise demanding them,—their use is often injurious, and tends to increase the derangement of digestion and the gastro-intestinal catarrh then existing. When the early stage is carefully managed, stimulants are often not called for throughout the whole course of the case, or only towards the close to hasten convalescence. On the other hand, in cases where the constitutional infection is serious, and marked nervous prostration and heart-failure exist, their free use may be demanded. No question in the treatment of typhoid fever has seemed to me to rival in difficulty that of deciding, in cases which do not come under notice until high hyperpyrexia, serious nervous symptoms, a rapid and feeble circulation, together with marked derangement of digestion, have supervened, how far the symptoms are the result of nervous exhaustion from protracted surface irritation which may be increased by the free use of stimulants, and how far they are the result of poisoning of the nerve-centres and depression of the vital forces by the zymotic poison.

In such cases it is probably better to use stimulants at once, but with the greatest caution and with a mind fully awake to the fact that their use may aggravate the very symptoms they are given to relieve. Where the case has been under observation from the very beginning, and stimulants have been withheld until the appearance of symptoms actually demanding them, it is generally a comparatively easy matter to determine when they are called for, and to decide in what form and to what extent they shall be given.

In every case of typhoid fever the febrile movement should be carefully watched, and the temperature be recorded two or three times in twenty-four hours,—say at 9 A.M., 2 P.M., 9 P.M. In many

cases no special treatment is called for to reduce the temperature. If the primary zymosis is not violent, and the gastro-intestinal irritation is moderated by proper means, the febrile movement preserves its well-known course without the maxima attaining, in most cases, a dangerous point. So long as the temperature fluctuates 2° or thereabouts within each twenty-four hours, and the maximum alone, lasting for a few hours or less, reaches 102° to $103\frac{1}{2}^{\circ}$, while the nervous symptoms and the heart's action are reasonably favorable, no special anxiety need be felt about the pyrexia. This is especially true in women with sensitive nervous systems and in children, since in them high temperatures are most readily produced and have less serious significance. It is, however, desirable for the comfort of the patient and for the promotion of healthy action of the skin that the surface should be sponged several times daily. The water may contain a little alcohol, vinegar, or carbolic acid, and its temperature should be determined by that of the body and by the sensations of the patient. For instance, in a highly-nervous and delicately-organized young woman of 25 years, with marked typhoid fever in which the maximum daily temperature reached 104° , $104\frac{1}{2}^{\circ}$, even 105° , for ten or twelve days successively, sponging even with tepid water produced a sense of chilliness, so that it was entirely abandoned, and a perfectly satisfactory recovery was made. I am entirely convinced that any "cold-water treatment" of typhoid fever, with rigid rules for cool bathing, etc., as soon and as often as the temperature reaches a certain point ($102\frac{1}{2}^{\circ}$ to $103\frac{1}{2}^{\circ}$ or so on), is unphilosophical, unnecessary, and less successful than the simpler mode of treatment here advocated. The excellent results obtained by some of the advocates of frequent cool bathing show that such baths are well borne, and may be safely conjoined with a scrupulous attention to all the other details of rational treatment. But I have preserved the notes of the last one hundred cases of typhoid fever of whose treatment I have had the direction from the beginning of the attack, and the mortality has been but three per cent., and in only five or six of these cases were full baths employed. In the great majority of cases, then, I believe that cool bathing can be dispensed with, and sponging of the surface be found sufficient. But, on the other hand, there are certain conditions that seem to call imperatively for rapid reduction of temperature by cold baths. The first of these is when, early in the case, the temperature rises very high ($104\frac{1}{2}^{\circ}$ or over) without any sufficiently severe local irritation to explain it, so that there is clearly a grave zymosis present. Again, when at any period of the disease the daily maximum reaches $105\frac{1}{2}^{\circ}$, and the daily average is very high, and the hyperpyrexia is maintained despite the free use of cool sponging and the judicious use of antipyretics, cool bathing should, as a rule, be instituted. I follow this rule whether the hyperpyrexia is due

apparently to increased septicaemia or to the failure of the inhibitory action of the nervous system ; but if severe pulmonary inflammation or a serious exacerbation of intestinal inflammation has occurred to cause it, I do not advise the use of cool baths until the character of the nervous symptoms or the failure of the force of cardiac action indicates that the exalted temperature is producing dangerous secondary results. A few words must be added in regard to the use of other means for reducing hyperpyrexia. Undoubtedly, quinine is the most reliable of these. I have already spoken of its use in the later stages of the disease, either by mouth or rectum, and I think its judicious use thus greatly lessens danger of hyperpyrexia later. When, however, the temperature runs up as the disease advances, it does not seem to me advisable to give large single doses of quinia, but to persevere with the use of twelve to twenty-four grains given in divided doses during the twenty-four hours. The elevation of temperature is so frequently connected with the evolution of gastro intestinal lesions that it appears desirable to avoid any measure liable to increase this surface irritation. The administration of colossal doses of quinia (twenty-five to forty grains at a single dose), while capable in some cases of lowering the excessive temperature, it seems to me has in more than one instance shown itself to be open to serious objection. If, however, the temperature persistently rises despite absolute rest, judicious diet, the regular use of quinine in moderate doses, repeated sponging, and if any special reason exist why cool bathing should not be used, or if after cool baths have been used the dangerous hyperpyrexia persists, then only would I recommend the administration of very large doses of quinia ; nor would I use them even then unless the state of the stomach encouraged the hope that severe gastric irritation would not result. Digitalis, which is very valuable where failure of the innervation of the heart exists, has not, in my experience, proved itself reliable as an antipyretic or a tonic to the heart when its feeble action results from degeneration of the muscular walls from hyperpyrexia. Salicylic acid and its salts have also disappointed me, often failing to reduce the temperature satisfactorily, and often causing a most unsatisfactory amount of gastro-intestinal irritation.

To return from this consideration of the treatment of the pyrexia in typhoid fever, there is one other condition, and only one, that seems to me to demand attention in every case of this disease. Pulmonary or venous complications may or may not exist in any pronounced degree, but unquestionably there is wide-spread irritation of the gastro-intestinal mucous membrane in every case. This may or may not be so intense as to prove the source of the greatest danger in the case, it may not be associated with severe diarrhoea,—nay there may not be the slightest diarrhoea present,—and yet there is always hyperæmia and follicular enlargement. Differences between individual

constitutions, as well as differences in the degree of these local lesions, cause them to exist in different degrees of reflex irritation, and thus to influence very differently the symptoms and course of the case ; but the essential fact is that they are present in every case to an unknown extent, and the obvious inference would seem to be that they should receive suitable treatment in every case.

My own feeling is that this treatment should be instituted as soon as reasonable suspicion exists that the case is one of typhoid fever, and that it should, if possible, be steadily maintained until it may be thought that the mucous membrane has returned to its healthy state. It seems to me altogether probable, even despite the presence of a special poison in the intestinal contents, that some control can be exercised over the extent and progress of these local lesions ; and I must add that prolonged clinical observation has convinced me of the truth of this view. The substances which would seem most appropriate for this purpose are the salts of silver and of bismuth and creasote or carbolic acid. Of these my own preference is very decidedly for nitrate of silver, the use of which now constitutes an essential and, in my judgment, a most important part of my treatment of typhoid fever. After the preliminary measures before described, I direct nitrate of silver in the dose of one-quarter or one-sixth of a grain for an adult, usually in pill, or for children in solution in mucilage of acacia three or four times daily, to be taken soon after food. If the bowels are constipated, extract of belladonna is combined ; if a tendency to looseness exists, a small amount of powdered opium is added. When given in solution, the opium is added in the form of a few drops of deodorized laudanum. Since I was led to the adoption of this remedy by the study of the morbid anatomy of typhoid fever, I have acquired a constantly-increasing confidence in its value as an element of the rational treatment of this disease. By modifying, as I believe it does, the state of the mucous membrane, it modifies the symptoms that are dependent on the irritation reflected from the mucous membrane ; and the result has seemed to me to be that in a long series of cases treated with most scrupulous attention to every detail, and in all of which nitrate of silver was administered, there has been a remarkable freedom from grave complications and a most gratifying percentage of recoveries (ninety-seven per cent.).

As may be inferred from the above remarks, there does not seem to me any objection to the judicious use of opium in typhoid fever. Not only have I seen it useful in checking diarrhoea, but it has often proved the most valuable remedy for the insomnia, headache, and excessive nervous excitability that may be present in this disease. It is true that I have known one of the bromides or chloral or spirit of chloroform produce good results in some cases where such symptoms existed, but far more frequently I have succeeded in

relieving them by the use of carefully graduated small doses of deodorized laudanum, given alone, or with sweet spirit of nitre, or with a moderate dose of bromide of potassium. Not until opium has failed, unless decided constipation exists, do I resort to the use of chloral or the bromides alone.

Time will not allow me to allude in detail to the measures which have proved, in my experience, most valuable in the treatment of the numerous complications of typhoid fever. When bronchitis becomes severe or pneumonia ensues, I substitute carbonate of ammonia for the nitrate of silver, continuing the use of full doses of quinia, increasing the amount of alcohol, and avoiding the use even of sponging with cool water unless the temperature goes over 105° Fahr.

By the observance of a very carefully regulated diet and the early use of nitrate of silver with minute doses of opium, the occurrence of troublesome diarrhœa is rendered rare. When it does occur, the diet should be even more carefully guarded and the amount of opium be increased, and, if necessary, acetate of lead, or a carefully prepared mixture of chalk and bismuth, with an opiate, be administered. Tympanitic distention of the abdomen often results from the fermentation of excessive or unsuitable food, and will be relieved by modification of the diet, and the administration of some such combination as the following :

R Creasoti purificat., gtt. v vel x ;
Bismuthi subnitrat, 3 i vel 3 iiss ;
Tinct. cardamomi comp., f 3 iij ;
Aquæ, q. s. ad f 3 v.

M. One tablespoonful every six hours.

But often also it comes from a quasi-paralytic condition of the intestinal coats which renders them incapable of resisting the expansive force of the gas enclosed. It is when tympanitis is due to this latter cause, and associated with the general symptoms of prostration and with wasted development of the typhoid state, but without much diarrhœa, that the internal use of oil of turpentine in emulsion (ten drops every three or four hours) will usually produce excellent results.—*Philadelphia Medical Times*.

THE ADVANTAGES OF CALOMEL IN THE DISEASES OF CHILDHOOD.

By E. MARLETT BODDY, F.R.C.S., F.S.S.

Calomel, by reason of its purgative properties, frequently causes green evacuations, and so does castor oil when the child is out of health ; but this phenomenon of disease ceases the moment the child becomes well. Therefore the green stools are not by any means produced by the calomel, but are caused by some morbid action going on in the intestines. When the child is ill the mother will almost invariably tell you that the evacuations are green and slimy. This assertion of the parent alone

proves that calomel, when given, is not the originator of green stools, but that they are produced by some morbid influence. I think the color is very probably caused by an over-secretion of bile, which will to a certainty show itself independently of the calomel.

As there is no fear of mercurialization arising from calomel, as it promotes the elimination of the over-secretion of bile, and as it restores the intestinal canal to its ordinary healthy tone, it is, without doubt, the best purgative we can possibly administer in *all* diseases appertaining to infancy, ignoring to a certain extent those of a congenital nature. Mercurialization can only occur when the drug is allowed to remain and accumulate in the system ; and to accomplish this the best method is to follow the general rule, viz., the administration of the hydrargyrum cum creta ; by so doing we shall be decidedly successful. But as this result is not desired we shall be able to prevent such an untoward complication by administering calomel by itself or combined with a small amount of sugar. This addition is not at all necessary ; in fact, I do not understand what advantage can be gained by combining the two. Calomel, I think, is quite as efficacious without sugar ; therefore it can be well dispensed with.

Regarding a very recent sage discovery made by a certain *savant*, that by giving to an infant calomel and sugar we may very likely poison it through the formation of corrosive sublimate while the compound remains in the stomach, though chemically true, yet I must say it almost verges on puerility. No case of poisoning has, I believe, occurred through the combination of calomel and sugar, and I dare say never will. I think we may consider it as bordering on the absurd until a *bonâ fide* case of poisoning resulting from the administration of calomel and sugar is brought before the profession and thoroughly substantiated as such. The discovery is ingenious, to say the least of it ; but it is of no practical utility when one considers it in the abstract. However, it is not for this chemical change in the stomach that I am advocating the non-administration of calomel and sugar, but because I do not see what can be possibly gained from the combination of the two. In such matters we can only judge correctly by the relative value of the results obtained ; and if calomel produces that which is to be desired by its own inherent qualities (which are not in the least enhanced or diminished by the sugar), then in *all* cases, I say, of infantile disease we may with safety and advantage administer it by itself. In dropsy, one of the sequelæ of scarlet fever, some compound jalap powder may be combined with it with advantage, though I have found that calomel alone is equ a as efficacious, even supposing that there is albuminous urine. Calomel may also be combined with santonin in cases of worms ; but of this anon.

We have now ascertained conclusively, I think, that it is highly injudicious to give infants hydrargyrum cum creta, owing to one ingredient, stultify-

ing, we may say, the action of the other, and that it may be left to discretion whether any gain may result from combining calomel with sugar; it now remains for us to determine how we may promote its action to a greater degree, and thereby accelerate a speedier return to health.

To obtain this end satisfactorily, I always make it an invariable rule to administer the calomel at night, and the next morning to follow it up with some castor oil, which practice has always resulted by my expectations being realized. Sometimes, on account of the stubbornness of the bowels, owing to neglect, calomel is comparatively powerless as regards its purgative qualities; but it never fails when followed by the castor oil, which seems to stimulate it to fresh exertions, and entirely prevents, in children as well as in adults, the much-dreaded mercurialization.

This mode of treatment is, as the reader may perceive, remarkably simple, and consequently by some may be impugned as being too much so; but simplicity, to my mind, is or should be the goal of all things. Complexity and abstruseness show undeniable and unmistakable ingenuity and tact, and great praise is due to those who can obtain the desired end through the media of such channels; but the great fundamental in the treatment of disease is simplicity, which, if carried out successfully, is the acme of medical science and the perfection of medical skill.

Some seem to have a grudge and a determined ill-will toward calomel; no words and terms are too strong for them to use when they denounce it; in fact, they abuse it with a hearty good-will; and many, I know, would prefer giving no medicine at all than be under the necessity of administering it. Some are truly fearful, and altogether refrain from using it, because so and so may happen; but what catastrophe one cannot without great difficulty elicit from them; and, supposing we are successful in our endeavors, we find their objections and reasons very vague and unsatisfactory. Some will honestly tell you that to a certainty mercurialization will occur, and that is the sole reason why they do not use it.

Assuming, for the sake of argument, the correctness of their objections, I do not see why such a result should necessarily occur if it be given with care. If a man chooses to cut his throat with a razor there is no reason why I should follow his example, for I may use the very same implement for other purposes. If a man chooses to poison himself with opium, the same drug given by me may save another man's life. So it is with calomel; if a man administers it carelessly and injudiciously, evil consequences may result; but I may give the very same drug, and good results will ensue.

This dislike to calomel is sheer prejudice, and in many instances approaches the whimsical. I remember being told by a great enemy to calomel that it should never be given save to a plowman, and then only very gingerly. "Colocynth and hyoscyamus," said he, "for a la ly, colocynth and

jalap for a gentleman, but colocynth and calomel for a plowman." This absurd injunction, I need hardly say, I very soon found to be the quintessence of erroneous treatment; besides, it was entirely antagonistic to all common sense; for the intestines of a "plowman" have not as yet been discovered to be dissimilar to the intestines of a "lady" or "gentleman." Perhaps when he made the above remark he was under the impression that there did exist a dissimilarity, and, being of that opinion, considered that a different course of treatment was necessary to meet the various peculiarities of the several intestines.

This digression serves to show what a groundless, illogical abhorrence some have to calomel, for no reason at all except that something prejudicial to the patient may possibly occur, but of what nature they are entirely undetermined upon, unless it be mercurialization, which is the only objection its opponents can reasonably urge against its administration.

In what diseases or morbid conditions of infancy is calomel indicated, and how should it be administered, whether alone or in combination? Infantile diseases are few in number when compared with those which attack the adult, for the following very cogent reasons: The constitution of an infant or child has not gone through the wear and tear of life; the lungs have not yet been irritated through inhalation of infinitesimal carboniferous matter; the digestive powers have not yet been impaired through the ingestion of indigestible food; nor have the coats of the stomach been injured by the destructive properties of alcohol, which is regarded by a great majority as a necessary staple of nourishment, and neither is the liver disorganized by habitual drinking.

The most prevalent of all infantile diseases are convulsions, proceeding from either intestinal or cerebral irritation or from dentition. Those arising from intestinal irritation are sometimes induced primarily from dentition, and in many instances one state is co-existent with the other; and the same may be said regarding those convulsive attacks which owe their origin to cerebral irritation, though the latter condition may exist singly and alone; in other words, we may find one state complicated with the other.

There are two kinds of intestinal irritation—that proceeding from fecal contents and that resulting from the presence of worms (which generally belong to the round variety, though sometimes the thread-worms are also provocative of convulsions, but they are not of so severe a nature, and they are more common among children averaging from two years and upward, but rarely found among infants at the breast). Those convulsions proceeding from irritation produced by the accumulation of fecal matter are easily cured if treated correctly, but are simply aggravated if treated in the usual style, *i. e.*, two or three grains of the hydrargyrum cum creta administered three or four times during the day.

All that these infants require is a calomel powder at bedtime, followed the next morning by some castor oil, which must be continued till the alvine excreta resume their normal appearance, which is too well known—at least I hope so—to my readers to need specifying. However, as it is the generally received opinion of the profession that calomel produces green stools, irrespective of the condition of the patient, I do not think I shall be erring on the wrong side when I tell them that when an infant is in health the ejecta are as yellow as mustard, whether it is administered or otherwise.

When the convulsive attacks proceed from the presence of worms, santonin should be combined with the calomel, and should always be given at night-time, to be followed the next morning by some castor oil. This course should be perseveringly persisted in till the motions are natural, which will very soon occur after the expulsion of the parasites. There is not the slightest fear of mercurialization, nor will the santonin cause retention of urine, and neither will the convulsive attacks be increased, for the very reason that the santonin has not sufficient time to resolve itself into xanthopsin, on account of its being eliminated by the castor oil.

If the convulsions proceed from the irritation produced by the oxyuris vermicularis, or the ascaris vermicularis, commonly known as the thread worm, the best treatment to pursue after the motions have become normal (which will by no means take place till the worms have been expelled) is to inject some infusion of quassia or salt and water into the rectum. This is comparatively useless if the administration of calomel and its adjunct (if I may so term castor oil) is omitted; for though those minute parasites are supposed to infect the rectum only, they would no doubt be found, though perhaps fewer in number, in the sigmoid flexure and descending colon, if they were searched for on a favorable opportunity, which could only be in a post-mortem.

Depending simply upon an injection in those cases is really not of much benefit; if I may be allowed to make a comparison, it is like clearing out the lower part of a drain-pipe and leaving the upper portion foul and impure.

I have already mentioned the treatment which should be followed out during teething, and I think I have clearly demonstrated the disadvantages accruing from the administration of the hydrargyrum cum creta and the advantages resulting from calomel, and the remarks I have made regarding them will also apply to nearly all the diseases which are prevalent in infancy.

I shall now pass on to consider those other complaints in which the administration of calomel is advisable. The most common after convulsion is diarrhea—a medical bugbear which, when once it commences, frightens the mother and causes the medical man to resort immediately to a very silly mode of practice, but which at the present day is regarded as a very scientific procedure; and the

antidote (presumed to be such) is to be found in the British Pharmacopeia, and accordingly it is given with great faith when diarrhea shows its hideous presence, in the vain hope of—stopping it.

What is diarrhea? and what causes it? and why should we be in such consternation when it occurs? We will examine and answer these questions from a practical common-sense point of view.

First. What is diarrhea? The answer is simple, and not at all difficult of comprehension. It is the endeavor of nature to get rid of an evil, and the evil is nothing more nor less than a collection of fecal matter in the intestinal canal. In the majority of cases what else can it be? If the coats, especially the muscular, of the intestines are weakened to any extent in an infant there are very few chances of its ultimate recovery, because the weakness depends upon some organic mischief, which is not to be remedied by human means. Now if the diarrhea originates from such a condition all the chalk mixture in the world will not stop it; and most probably if the administration is too often repeated the child rather succumbs to the pernicious effects of the astringent than to the diarrhea. Here in these cases, by-the-by, we administer chalk to stop the action of the bowels, and in other cases we combine chalk mercury to open them—contradictory, there is no denying; but then it is accounted correct treatment.

Second. What causes diarrhea? The contents of the intestinal canal and the efforts they make to get out—nothing else. They have done their duty; all nutriment has been extracted from them; they are therefore useless, and nothing else than an incumbrance, and consequently the sooner they are ejected the better. Nature is of the same opinion, and accordingly sets to work, and would perform her duty alone and single-handed were the fecal contents in their usual amount and normal condition; but it is not so; the infant no doubt has been previously stuffed or rather overfed by a too anxious parent. The intestinal canal is too full, and as a natural consequence diarrhea results, which is the strenuous efforts of nature to rid herself of an irritating load, which we scientifically endeavor to prevent by the prompt administration of an astringent in the shape of chalk-mixture. In these cases nature requires the helping hand to lift her over the difficulty, not to be thwarted or antagonized by the administration of drugs of an astringent tendency. Such treatment is not only outrageous, but discreditable to medical science; and I regard it as such, however strongly and indeed cleverly it may be advocated by those who are thought more competent to decide than others; for the arguments they advance with such plausibility are entirely based upon theoretical knowledge (or practical ignorance) rather than upon sound principles of practice and careful investigation into the varied phenomena of health and disease. I am afraid that we regard the human organism as a piece of workmanship much more

complex in its design and working than it really is ; and again, that we too frequently run our heads against the idea that we can mould it just as we please, forgetting that nature is, on the average, able to conduct her own proceedings to a favorable termination without the aid of science, but is hindered and perhaps completely impeded by our somewhat too great a hastiness to adopt the so-called scientific treatment of the present day, and which, in infantile diarrhea, is more hurtful than otherwise.

One question now remains for our consideration. Why should we look upon the presence of diarrhea with the eye of suspicion and apprehension? and why should we regard the efforts of nature to relieve herself as indicative of danger? I think we can easily account for our groundless fears from the fact that we clothe simple diarrhea in so many technicalities that many who are either too indifferent or too ready to take for granted the opinions of others neglect investigating and probing to the bottom the origin of a condition which is quite the reverse of what we imagine to be prejudicial to health.—*Medical Press and Circular*.

INCONTINENCE OF URINE IN BOYS.

By JOHN MORRIS, M.D., of Baltimore, Md.

Read before the Baltimore Medical Association, April 25th, 1881.

The subject to which I shall call your attention for a brief period, to-night, is one of a practical character, and well worthy, I think, of our consideration. It was suggested to me recently by a philanthropic gentleman of the city, connected with most of our public charities. In a visit with him to some of our reformatories, I was surprised to find, on inquiry, that one boy in every twenty suffered from incontinence of urine. At the reformatory for colored boys, in Prince George's County, the ratio is still greater. On further inquiry, too, I discovered that this serious trouble exists, almost to the same extent, in many of our boarding schools. This is certainly a very unpleasant, if not a startling condition of things, and has been entirely overlooked heretofore, by those having charge of our reformatory institutions. It may be possible that the disease was deemed intractable, and, consequently, received but little notice. Incontinence of urine in children does not, I think, prevail to so great an extent in private practice. If it does, it is a serious reproach to parents and to our profession—a reproach which should at once be wiped out, by proper and earnest efforts in the future. It is a surprise that a subject of so grave importance as incontinence of urine should not have received greater consideration from the profession. Our text books afford us very little information in regard to it, and every medical man,

when called to treat a case, has to rely almost solely on his own experience. I shall, in my address to-night, confine myself to nocturnal enuresis in children, because we are more frequently called on to treat this disease than the bladder troubles of old people, which are of an entirely different character. I have said that our text books afford us very little information in regard to this matter, but during the past few years a number of articles have appeared in the journals, containing suggestions of more or less value on this subject. Before the appearance of these articles this disease had been treated almost at random, and nothing of a scientific character was suggested for its relief. It was looked on as one of the *approbria medicorum*, and its poor victims were left to the mercy of the merest empiricism.

Incontinence of urine in old people is frequently an evidence of some severe nervous lesion, but it is not so in the young. In the latter it is a curable disease, and exists almost always independently of brain or spinal trouble. It may result from a number of causes, the most frequent of which are intestinal irritation, acidity of urine, worms, defective nutrition, feebleness of constitution, and, possibly, teething. A very frequent cause, too, is a nervous temperament, or diathesis, independent of any organic disease ; but the most frequent cause of all, in my judgment, is a condition of the bladder, or rather of the sphincter, brought on in early youth, through the slovenliness and inattention of mothers and nurses. They feed the child with improper food, and suffer the bladder to become distended before putting it to bed. No attention is paid, even during the day, to see that the urine is voided at proper intervals. The consequences of this inattention are daily recognized by medical men on entering dwellings and rooms occupied by these poor, forlorn children. To make it plainer, it is enough to say that the odor of these apartments is not that of "Araby the blest."

In the treatment of the disease it is necessary for us to ascertain its origin. The history of the child, and its habits from birth, as well as the family history, should be inquired into. The urine should be tested for acidity, and the bladder and rectum, if needs be, examined. Atony of the bladder might, by causing over-distention, give rise to it, or undue irritability might prove sufficient to overcome the resistance of the sphincter. If incontinence be due solely to acidity of the urine, it is easily cured. The administration of a simple alkali in combination with benzoic acid is all that is necessary. A solution of benzoate of soda, combined with a very small quantity of belladonna, will be found very useful in this condition. This form of the disease is owing to perverted secondary assimilation. If the disorder is caused by worms, some anthelmintic remedies will be required ; but worms in this affection, as in many others, are simply a *bugbear*. Intestinal irritation, no matter from what cause, must be

met by proper agents ; defective nutrition, by the use of cod-liver oil, iron, and a judicious general regimen, embracing the cold bath, fresh air, calisthenics, etc.

The form of the disease most amenable to treatment, and which, as I said before, is very common, is the purely nervous form. It is most frequently met with in boys and girls, of a lymphatic or scrofulous temperament. They lose the co-ordinating power, at first, from the will not being called on and properly exerted, and this is afterwards kept up by habit. In these cases the syrup of the iodide of iron and the cold sitz bath act as a specific, particularly if aided by moral means. Large doses of the iodide of iron must be given to the big and strong boys in public reformatories. The reason that syrup of the iodide of iron is preferable, in cases of children, to other preparations of iron is, it is easily decomposed in the stomach. The iodine is set free, as Jacobi states, and acts as an anti-fermentative in the many cases of disturbed gastric digestion occurring, even in normal children whose circulation has been disturbed, or whose gastric secretions are certainly below their normal amount, in consequence of a deficient supply of blood. If nocturnal enuresis exists with daily incontinence, belladonna may be given with the iron at bedtime. I can speak with great confidence of these last two remedies. I have given them a fair trial, and in every instance, save one, have they proved beneficial ; indeed, in my judgment, they are the only drugs which have any real value in this disease. Strychnia has no specific powers, and I much doubt if a single cure has been effected by it. In cases of atony, or paralysis of the bladder, I believe it might, in combination with syrup iodidi ferri, prove highly efficacious. In abnormal irritation of the bladder, belladonna is our best remedy, and far preferable to conium or henbane ; the bromide of potassium has been recommended, but I think it almost useless. Tincture of cantharides has no virtue whatever, at least I have obtained no good results from its administration.

In the purely nervous form of the disease that I have heretofore described, the condition of the urine is very singular. It is voided in large quantities ; it is limpid, almost colorless, and lacks the normal ingredients. Hysterical patients, as you all know, pass enormous quantities of limpid urine, and from precisely the same cause. The diet of the little patients suffering from this particular kind of enuresis is an important matter. From their family history, peculiar temperament, and other causes, they are apt to be overindulged, and the loathsome penalty they pay is oftentimes but a retribution of the gods.

In mechanical means I have no confidence whatever, I have tried Sir Dominick Corrigan's remedy, the application of collodion over the meatus, but obtained no good results. As I left it to the patients themselves to make the application, it may be possible that it was ineffectively

done, or perhaps the collodion itself was defective in quality. I think it possible Sir Dominick's suggestion may prove useful in other hands and under better conditions, and I shall certainly recommend its trial in the public institutions I have referred to. It is, at least, the only one of the mechanical remedies that possesses the slightest trace of merit. Of course, if incontinence of urine can possibly be superinduced by congenital phimosis, an operation is necessary. I invariably examine the prepuces of my patients, with a view to the discovery of any local trouble. Trousseau's truss, the passage of a catheter, the injection of warm water, as proposed by Dr. Braxton Hicks, Pluvier's pads, applying a nail to the back, a circular band around the pelvis, etc., etc., are not only useless, but injurious.

As to the kind of moral means to employ, I have very little to suggest ; the judgment of the practitioner must be exercised in each particular case. It is only in cases of a purely nervous character that the old mode of treatment, by whippings and scoffing, has any value, if it has value at all. Though the nervous supply of the bladder is derived from various sources, and though the sympathetic is the controlling influence, there is enough of voluntary power derived from the cerebro-spinal system to play an important part in our treatment. It is this power that is evoked and brought into action by the moral means before indicated. Hydrate of chloral was suggested some years ago, to be given in ten-grain doses, at bedtime. It was said to act very kindly, by giving rest to the bladder and sphincter, and thus enabling them to regain their normal tone. I have given it a trial, but with no satisfactory result. I have no doubt that it might prove useful in cases of spasm of the bladder. I shall recommend its trial on a larger scale, to the gentlemen having charge of public institutions and boarding schools, in a lay pamphlet which it is my purpose to prepare at an early day, for their use. The preparation of this pamphlet has been suggested to me by the philanthropic gentleman referred to in the beginning of this paper.

I am convinced that a fair trial could be given to all the remedies that have been suggested for incontinence of urine, if undertaken properly and systematically, in our large institutions for the reformation and education of boys. I am also convinced that if the medical man had under his own immediate charge all the cases he is called to treat, so that he might see that proper food was given, tea and coffee, or other slush avoided ; hard beds and light bed clothing used : the urine voided at certain regular hours, particularly before retiring, in addition to constitutional remedies, a far greater number of cures would be effected. As it is, he has to rely solely on the few means that I have briefly suggested.

In conclusion, let me say that I have no confidence in any treatment that is not constitutional. Enuresis is always a sign of mental or physical

weakness ; the strong in mind and body are never its victims. Let our efforts, then, be directed to the building up of the physical nature of our patients, so that they may enjoy that greatest of all boons, a sound mind in a sound body.—*Medical and Surgical Reporter, Phila.*

CHLORATE OF POTASH IN THE HÆMORRHAGIC DIATHESIS.

By ALEXANDER HARKIN, M.D., Membre Associé Étranger
de la Société Française D'Hygiène, Paris.

The therapeutic value of chlorate of potash is, to a certain extent, recognized by the profession. This medicine has not, however, in my mind, received the attention to which it is properly entitled. Its sphere of usefulness has a much wider range than has been accorded to it, for there is not in the catalogue of the *Pharmacopœia*, according to my experience, a single remedy so many-sided, whether given alone or in combination, as this crystalline body, the product of the laboratory.

At its introduction, this salt was principally recommended as an antidote to scurvy. It is now prescribed for throat affections, for scarlatina, for low fevers, for blood-poisoning, etc. I am convinced, however, that it will yet be recognized as a most potent agent in the treatment and cure of all maladies dependent on suboxidation, on defective nutrition, secretion, excretion, aeration, and molecular metamorphoses. Nor need it be considered strange that important results should follow its administration, when we remember that the elements of which it is mainly composed, viz: oxygen and potassium are indispensable to the genesis of healthy arterial blood, and to the recuperation of its nutritive powers, when, after making the circuit of the system, it returns to the heart as venous blood of darkened color and impaired coagulability.

By the agency of the first-named, chiefly through the organs of respiration, the blood is chemically changed, and its vitality renewed by the metamorphosis of the corpuscles. Oxygen is, as we all know, required for other important purposes ; notably for the conversion of the phosphorus and sulphur which are found in the protein compounds into phosphoric and sulphuric acids, and their subsequent combination with bases. The other elementary substance, potassium, also operates in the circulation as an oxidizing agent ; for, according to Bence Jones, "alkalies furnish, out and in the body, the most marked evidence of assisting in oxidizing actions." This alkali, too, appears to subserve another important purpose, as, according to Franz Simon, the basic salts of potash and soda in the blood serve for the purpose of combining with the lactic, fatty, uric, and probably carbonic acids that are continually secreted during metamorphosis. (*Vide Simon's Chemistry*, vol. 1, page 152).

To the general use of the potato, which contains an abundance of potash, combined with a vegetable acid, may fairly be attributed the rarity of scorbutus in modern times. To its absence as an article of food during periods of scarcity and famine and the substitution of a bread and tea or rice diet, I have credited many cases of purpura and scurvy which have come before me. The late Dr. Baly has stated that scurvy was most prevalent in prisons where no potatoes were used. Dr. Garrod, in 1848, demonstrated that scorbutic blood was deficient in potash ; and, more recently, Dr. Dickinson, in the pages of the *British Medical Journal*, has attributed with apparent probability, the existence of lardaceous disease to a deficiency of potash in the white corpuscles. The importance of those elements, considered singly, will not be questioned. The consideration then arises : In what manner do those agents, combined as chlorate of potash, act upon the system ? This can, in the present state of our knowledge, only be guessed at ; but, judging from analogy, and from the results of observation, it may be surmised that, after the reception of a solution of the salt in the stomach, one portion, obeying the law that governs the action of the nitrate and iodide of potassium, is immediately carried out of the system by the kidneys, and may be detected unchanged in the urine. Another part, borrowing the language of Bence Jones, as applied to soluble salt of iron, "diffuses in the liquor sanguinis into every texture, into the blood-globules and white corpuscles, making a greater formation of hæmo-crystalline, and thereby promoting that combination with protagon, on which the formation of new blood-globules depends." And, further : "By dialysis, all crystalloid medicines act as directly on the textures as on the blood ; they act according to their chemical power when they enter the textures, and according to the chemical and physical properties of which the different textures are composed." The remainder is supposed to part with three equivalents of oxygen in the blood, leaving, as a residuum, chloride of potassium, which is found in the urine as well as in the blood of which it is a normal constituent. The probability of the theory of direct absorption of these equivalents of oxygen is strengthened by observation, which shows that the constitutional changes induced by the persevering use of chlorate of potash are similar to those ascribed by Beddoes, Hill, Thornton, Birch, and other writers, to the direct inhalation of oxygen gas, viz: an improvement in color, an increase of vital and nervous energy and physical power, and the more healthful performance of all the nutritive and secretory functions of animal life.

It is, however, with chlorate of potash as a hæmostatic remedy that we are at present concerned ; and it shall be my endeavor to demonstrate that, in its intelligent use, will be found a definite remedy for a specific diathesis, thus fulfilling within its own limits the prediction of John Simon,

"that the results of empirical and popular observation will be transcended and eclipsed by the positive results of rational pathology; that diseases will presently yield to philosophical investigation what they have refused to blundering quackery; and that within the lifetime of many here, there will be specific treatment of each diathesis, founded on an exact knowledge of the physiological laws of its manifestation." (*General Pathology*, p. 15).

When we inquire what is the condition of the blood in the hæmorrhagic diathesis, we find that it coagulates with difficulty, that it has a soft clot, that it is not buffed, that it shows a diminished proportion of fibrine; and that, along with this depraved state of the blood, there is a corresponding abnormal delicacy of structure in the capillaries and minute vessels, which are easily torn, and are wanting in contractile power and tonicity.

In this condition, the slightest cut or scratch may lead to excessive hemorrhage; a trifling contusion to extensive extravasation under the skin. For this dyscrasia, an antidote is needed that shall increase the fibrin of the blood, add to its plasticity and chemico-vital constituents, and that shall also tend to restore the contractile power of the capillaries and smaller vessels. That chlorate of potash, whether alone or in combination with a soluble salt of iron, is possessed of these properties, and has the power of controlling the various manifestations of the hæmorrhagic diathesis of the human system, an experience extending over more than twenty years has thoroughly convinced me. To detail at length the evidence upon which this conviction, is founded is forbidden by the space at my disposal. It shall be my duty, however, to report some examples of the salutary influence of this remedy in several of the most important lesions of this group; and my first illustration shall be drawn from a case of hæmorrhage from the bowels.

On December 18th, 1867, F. C., a constable, aged 27, of spare habit, residing at Boyne Bridge, Belfast, after returning at night from the music hall, found his boots full of blood, the source of which he traced to the rectum; next day he had medical advice, and remained under the care of several experienced practitioners in hospital till February 14th following, without receiving any benefit. He then sent for me. On examination I could not discover any sign of fissure or hæmorrhoids, the blood seeming to flow from a congested state of the mucous membrane of the rectum. I prescribed rest, and a mixture composed of one ounce of chlorate of potash and twenty ounces of water; dose, one ounce three times daily. After the first day he began to improve, and on the third every trace of the disease had disappeared. With the exception of a slight return after an interval of two years, he has been quite free ever since, one or two doses of the mixture having sufficed to relieve him. I have had occasion to see him officially very often since that time. He is now a strong, robust

man, and he attributes the change in his constitution to the use of the mixture, which he persevered with for a time.

Hæmophilia: Epistaxis.—A. B., aged 18, tall, of florid complexion, engaged in a large concern near Belfast, established for the manufacture of the textile fabrics for which that town is remarkable, suffered so much from a continual dropping of blood from the nose, caused by dust from the flax, that he feared he should have to relinquish the business. His family history is remarkable, his father having been subject to many and severe attacks of epistaxis, sometimes persisting, in despite treatment, for a month at a time. Another member of the family suffered in the same way after the extraction of a tooth; a wound on the skin, as by shaving, giving rise to most troublesome bleeding. Having been asked by a friend, in the end of 1874, to prescribe, *in absentia*, I ordered a mixture, which was forwarded to him, containing, as in the previous case, an ounce of the chlorate dissolved in twenty of water, but with the addition of one drachm of the tinctura ferri perchloridi; dose as above. A fortnight after, the young man called to thank me for his cure. Nearly five years have since elapsed without a relapse, save on one occasion, when, having lost a train, he ran a distance of two or three miles, when a slight bleeding occurred, which was staunched by his pocket handkerchief.

Hæmaturia Renalis.—W. McN., aged 25, a saddler by trade, living at Albert Bridge Road, Belfast, of very delicate constitution and deformed spine, and subject to lumbar pains, consulted me in July, 1863, for a very profuse discharge of bloody urine, which had troubled him for many months, and for which he had been treated ineffectually by several medical men. The blood came in large quantities, mixed, but not suspended, in the urine, apparently from the kidney; the bladder was healthy and free from calculus, having been carefully sounded by my friend Dr. Murney. I tried for a time a number of styptics, etc., in vain; among the rest the tincture of iron; when on recurring to my favorite remedy, and joining to the iron the chlorate of potash in the usual dose, immediate relief was the result. For a period of twelve years the man was subject to periodical returns of the affection, perhaps twice in the year. His custom was to have the prescription renewed, generally without reference to me and with the same happy result; he was thus enabled to continue at his trade, and to assist his friends, until the month of August, 1875, when, having taken a long drive upon a rough road the hemorrhage recurred with great violence, and the attack terminated fatally in ten days. I had not the opportunity of post-mortem examination.

Purpura Hæmorrhagica.—I was requested by some charitable ladies, in the summer of 1865, to visit a factory worker named Hagan, who lived at 58 Mary street, Falls Road. She had been confined to bed for thirteen weeks, and been carefully attended by the dispensary doctor of her own and

the Shankhill districts. I found her much exhausted by a continuous drain of blood proceeding from the gums, nose, bowels, vagina and bladder. She was profusely covered with purple maculæ on the chest, arms, legs and abdomen. Her diet had consisted for months exclusively of bread and tea, alternated with rice, with little milk, potatoes being scarce and dear, and not having any one to cook them. I advised a complete change of diet, and prescribed the usual mixture. When I called to see her at the expiry of a week, she opened the door herself, quite recovered, all bleeding having ceased ere the mixture was finished. As a later example, I may give the case of Sarah Flanagan, aged 12, an inmate of the St. Patrick Industrial School, Belfast, whom I visited on May 8th, 1878, suffering from bleeding from the nose and gums, her body being dotted freely with the characteristic purple spots. In her case, two drachms of the salt, with thirty minims of the tincture of iron, effected a cure, every trace of the disease having disappeared within a week. Her diet was of course looked after.

Menorrhagia.—Miss L., a school teacher, aged 38, wan and feeble, very tall and delicate, consulted me for a discharge of blood, which had continued, with short intervals, after a menstrual period several months previous. She suffered from severe pain in the back, from palpitation, and the other constitutional symptoms consequent on a continuous drain. She had tried various remedies prescribed by other medical men without effect. I advised relaxation from her duties for a time, and the chlorate and iron mixture. I saw her some time afterwards; her color began to improve, the discharge diminished, and finally disappeared. The mixture was renewed, and taken occasionally as a preventive.

Hæmorrhage from the womb.—Mrs. McS., mother of five children, called my attention to a profuse discharge of blood, which had recurred a fortnight after her previous confinement. On examination with the speculum, I discovered abrasion of the os, from which the blood flowed. She was treated topically by the application of strong perchloride of iron and by the internal use of the mixture. The case was rather tedious, but she always spoke of the sustaining power of the mixture, and the sinking feeling which occurred when the dose was intermitted. She recovered in about a fortnight.

Hæmatemesis: Hæmoptysis.—There yet remain two highly important lesions for consideration, in the treatment of which, when they can be traced to the hæmorrhagic diathesis, this remedy has invariably proved beneficial, especially as its administration need not contraindicate the use of more energetic hæmostatics, such as ergot of rye, ergotin, given hypodermically or otherwise, ice, acetate of lead, tannic or gallic acid, etc., if given at sufficient intervals. In cases of hæmatemesis due to malignant disease of the stomach, liver or spleen, and in those cases of hæmoptysis caused by hyper-

trophy of the right ventricle, in pulmonary apoplexy due to a peculiar condition of the parenchyma, or from hæmorrhage caused by the breaking down of a tubercular deposit, and the laceration of an artery passing through the deposit, it is not to be expected that a constitutional remedy should be solely depended on; but when a state of pulmonary plethora exists, evidenced by an effusion of blood from the mucous membrane, in the absence of pulmonary disorganization, and in those cases where a sudden cessation of an accustomed discharge, menstrual or otherwise, causes congestion of the mucous membrane of the stomach or of the bronchial tubes, and vicarious discharge from either, then the liberal administration of the chlorate of potash and iron will be found as salutary and satisfactory as in the other phases of the disease.

Having thus presented a few typical cases, behind which, had opportunity permitted, I might have marshaled a host of equally striking examples, I have but to remark that, while it is the duty and the instinct of the physician, after obtaining satisfactory results from any remedy to seek for and to theorize upon the *modus operandi* of that remedy it is wise, while he remains steadfast and immovable upon the basis of practical experience, to advance with diffidence and reserve the solution which to him appears satisfactory but which others, equally or better fitted to judge, may not believe to have passed beyond the region of hypothesis, lest, in condemning the superstructure, the foundation itself may suffer in their estimation.—*British Medical Journal*.

TREATMENT OF SPRAINS.

Mr. R. Dacre Fox, Surgeon to the Manchester Southern Hospital, in a communication to the *British Medical Journal*, Sept. 25, 1880, makes the following interesting observations, on the treatment of sprains:—

The frequency with which sprains occur in general practice, and the somewhat unsatisfactory results of the treatment ordinarily adopted, induce me to bring forward a method that I have used in a great many cases with considerable success. Sprains may be broadly divided into two kinds, mild and severe; the former consisting merely of a temporary over-distension of the parts around a joint, which rest and anodyne applications usually soon cure; the latter involving, as I believe, much more serious pathological results, which the following plan is especially contrived to obviate.

The effects of a severe sprain are, that the fibrous ligaments controlling the movements of the joint and binding the tendons in their grooves become over-stretched, swollen, and softened; the cellular tissue about the ligaments and in the tendon-grooves becomes œdematous; and plastic material is exuded; while, as a consequence of these changes, the tendons are displaced in their

beds. If this condition be not actively treated, it may, and often does, lead to continued lameness due, in all probability, partly to a diminution in the calibre of the tendon-groove, with impaired muscular action, and partly to the torn ligaments and bruised cellular tissue having undergone changes which render them incapable of adapting themselves to the movements of the joint, which are consequently impeded. I believe this result may be prevented by the application of firm, direct equal pressure, applied manually at first, and kept up and controlled by pads placed in the line of the tendons, and kept in position by properly-shaped plasters and bandages, and sometimes by splints. This pressure helps to disperse the œdema, to replace the tendon in its normal position, to hasten the absorption of any plastic exudation, and thus to prevent diminution in the calibre of the tendon-groove. I cannot say this is a novel method of treatment; but I think it is one not usually practised, partly because it entails the expenditure of much time and trouble, and partly, I feel sure, because there is and has been a tendency to underestimate the inconvenience and distress arising from a badly sprained joint.

The common practice, in treating a sprain, is to put on a bandage, telling the patient to take it off if the joint becomes painful, and to substitute warm-water fomentations. When the swelling has subsided, if the injury be not so slight as to be already cured, a liniment or the application of iodine is generally ordered. Very frequently the tight bandage causes inflammation, while the rubbing and painting are practically useless. There are numbers of cases of slight sprain, indeed, which will get well with comparatively little treatment or none at all; but in that more severe form where after an inflammatory or at least exceedingly hyperæmic stage, swelling takes place with the results I have described, the application of these remedies does not prevent the joint from being left rigid, painful, and unfit for use for a very long period. Now it is, as I have said, in preventing all this, that the plan of treatment by direct, equal, and continuous pressure will be found exceedingly valuable; for, where it has been properly carried out, I have always found that the joint returns quickly to its normal condition—pain being speedily relieved, and rigidity prevented. The treatment may be divided into two stages; the first lasting from a day to a week or longer, during which the treatment has to be directed to averting inflammation by rest, warm applications, anodyne lotions, etc.; the second commencing when the joint has become cold, swollen, and painful on movement—in fact, when the injury has assumed a more or less chronic character. It is during this second period that I believe the active treatment I advocate ought to be employed. It is important not to commence this until the surface-heat is normal; for undoubtedly, when any tendency to inflammation exists in the tendon-sheath, pressure aggravates it, and I have known it to lead to untoward results.

It is, of course, impossible, within the limits of this paper, to describe the special adaptation of this method to each joint; but I will take as an illustration the ankle. If a wire be passed round the joint so as to impinge on the two malleoli and the tendo Achillis, it will define three or four well-marked hollows: one on each side of the tendo Achillis behind each malleolus, one in front of the fibula, with a fourth shallower one in front of the tibia. When the ankle is severely sprained these fossæ become obliterated, and are filled up with effusion, over-stretched ligaments, and displaced tendons.

Observation has led me to believe that there are very few sprained ankles in which muscular displacement to some degree does not take place. It most commonly occurs in front of the outer malleolus, involving the outer part of the annular ligament, the extensor longus digitorum, and the anterior fasciculus of the external lateral ligament; next, perhaps, the posterior peroneo-tarsal ligament and structures behind the external malleolus. Cases of similar over-stretching and displacement on the inner side of the ankle are happily rare; but in gravity they bear much the same relation to the former as a Pott's dislocation does to a simple fractured fibula. I will assume an ankle-joint has sustained a severe sprain all round, and has arrived at the chronic stage: modifications of the treatment of such a case will meet all that are likely to occur. To carry out the first principles of treatment by direct, *equal*, and continuous pressure, it is clear the fossæ mentioned above must be filled, or rather their sites covered by pads so as to cause the retaining plasters, bandages and splints to exercise equal pressure everywhere. By making pressure with the thumb from below upwards in the line of the fossæ, a good deal of the œdema may be squeezed away and the displaced tendons in some degree restored. I make, as a rule, five pads (of tow and lint or leather): two about four inches long by one inch wide (one a little shorter than the other, so as to be better adapted to the curve extending upwards from the dorsum of the foot to the crest of the tibia) another shorter, broader, and thinner, to place over the tibialis anticus and extensor proprius pollicis; and two, three or four inches long, and bolster-shaped, to fill in the posterior fossæ on each side of the tendo Achillis. It is often advisable, in old-standing cases, to supplement the pads by strips of plaster to insure firmer pressure. Both pads and strips of plaster should be made exactly to fit, as, if too large, they are useless, from the pressure being too diffused; and, if too small, they exercise too little pressure. A moment's consideration will render this obvious. If too large a pad, for instance, be placed over the outer post malleolar fossa, its edges rest on the tendo Achillis and outer malleolus like the piers of an arch, leaving the fossa itself untouched. To keep these pads in their place, I use a long extended half-moon shaped piece of plaster (*emplastrum saponis*, spread on leather), long enough for the ends to overlap in front when the heel is placed in

the centre, and a narrow oblong piece above this, placed round the lower part of the leg, to cover the upper part of the pads. The handiest way to apply the pads is to place an India-rubber band above the ankle, to slip the pads under it, and then, planting the heel in the centre of the curved plaster to bring the two ends across the front of the joint so as to overlap. The pads having been secured in position, the elastic ring is to be cut, and the oblong piece of plaster put on so as to encircle their upper ends; lastly the whole ankle is to be firmly bandaged. Amongst the working classes, or in the case of an uncontrollable patient, it is advisable to apply two thin splints over the anterior pads, keeping them in position by a long strip of adhesive plaster. Where there is much superficial ecchymosis, where there are bullæ, or where there is unhealthy looking-skin, instead of using soap-plaster, the pads may be kept in position and pressure maintained by a piece of lint on which ointment has been spread. Calamine ointment, made stiffly, is clean, and not uncomfortably greasy. If, as occasionally happens, even this should cause irritation, warm wet lint, covered by oiled silk, may be advantageously used over the pads, and secured by a firm bandage; but neither of these applications can compare in efficiency with the soap-plaster spread on leather.

REMEDIES FOR HEADACHE.

The following recipes and suggestions for the treatment of different forms of headache are collected from a variety of trustworthy sources:

Two grains citrate of caffeine, in capsule, taken every half-hour, is a very effectual remedy in nervous and sick headache. One or two doses are often sufficient to give complete relief. The only objection to its use is sleeplessness, which sometimes results if it is taken in the evening. It is preferable to guarana, as being hardly ever rejected by the stomach.

The following, according to Dr. W. W. Carpenter, is very effectual in most forms of headache:

Muriate of ammonia, 3 drachms; acetate of morphia, 1 grain; citrate of caffeine, 30 grains; aromatic spirits of ammonia, 1 drachm; elixir of guarana, 4 ounces; rose water, 4 ounces. Mix. Dessert-spoonful every ten or twelve minutes.

In nervous headache, Dr. W. A. Hammond states the value of various drugs as follows:

Oxide of zinc is of great value. Ordinary dose, 2 grains three times a day, after meals; maximum dose, 5 grains. It is best given in form of pills.

Nux vomica is preferable to strychnia. The dose is $\frac{1}{4}$ grain, after meals. If the patient is chlorotic, it is well to combine a grain of reduced iron and $\frac{1}{2}$ grain sulphate of quinine.

Bismuth, in the form of subcarbonate, will often take the place of oxide of zinc. Dose, 2 grains after each meal. Bismuth probably aids digestion

more than any mineral tonic, and is of use when there is gastric disturbance.

The bromides are serviceable when the nervous system has been irritated; when it is exhausted, they do harm.

Phosphorus is very useful in most forms of nervous headache. The best results are obtained from dilute phosphoric acid, in doses of 30 drops, largely diluted, three times a day, after eating, or phosphide of zinc, $\frac{1}{10}$ grain, in pill, three times a day.

Arsenic, as a nerve tonic, stands next in value to zinc. Dose, 5 drops, three times a day, after meals.

Galvanism is sometimes valuable, but by no means a specific. The *constant current* should always be used, being careful to avoid too great intensity, lest amaurosis be produced.

Dr. T. Lauder Brunton, editor of the *London Practitioner*, says:

The administration of a brisk purgative, or small doses of epsom salts, three times a day, is a most effectual remedy for frontal headache when associated with constipation; but if the bowels be regular, the morbid processes on which it depends seem to be checked, and the headache removed even more effectually, by nitro-muriatic acid, diluted, 10 drops in a wine-glass of water, or bicarb. soda, 10 grains, in water, before meals. If the headache be immediately above the eyebrows, the acid is best; but if it be a little higher up, just where the hair begins, the soda appears to be the most effectual. At the same time that the headache is removed, the feeling of sleepiness and weariness, which frequently leads the patient to complain that they rise up more tired than they lie down, generally disappears.

A writer in the *London Lancet* remarks:

At the Middlesex Hospital, female patients who have suffered many years from sick headache, evidently of an hereditary character, have been greatly benefited, if not cured, by the administration of ten minimum doses of tincture of Indian hemp, three times daily, between the attacks. This is well worthy of trial in those cases of never-living, ever-dying, martyrdom-like suffering.

In headache due to determination of blood to the head and in fever, the following simple treatment is to be commended:

Put a handful of salt into a quart of water, add an ounce of spirits of hartshorn and half an ounce of spirits of camphor. Cork the bottle tightly, to prevent the escape of the spirit. Soak a piece of soft cloth with the mixture and apply it to the head; wet the rag fresh as soon as it gets heated.

Soaking the feet in very warm water, in which a spoonful of mustard has been stirred, is also beneficial in drawing the blood from the head.

Two teaspoonfuls of powdered charcoal, well stirred in half a glass of water and drunk at once, is a valuable remedy in sick headache from sour stomach, flatulence, etc.

Tincture of nux vomica is recommended by

Ringer as possessed of real curative powers, when given in drop doses, repeated every five or ten minutes for eight or ten doses, and then continued at longer intervals, for sick headache, accompanied with acute gastric catarrh, whether due to error in diet, constipation, or no apparent cause.—*Boston Journal of Chemistry*.

HOT WATER INJECTIONS FOR POST-PARTUM HEMORRHAGE.

This use of hot water, as recommended by Emmet, appears to be more and more appreciated across the Atlantic. Dr. Atthill, *Dublin Journal of Medical Science*, says that this treatment has proved eminently satisfactory. It has, indeed, much to recommend it, for not only is it a powerful hemostatic and excitant of uterine contraction, but it is also a general stimulant. If used with ordinary care, it is not only harmless, but beneficial, by thoroughly cleansing the uterus from clots, portions of membrane, etc., which may have been left in its cavity. It will not, in Dr. Atthill's opinion, be found altogether to displace the use either of cold water or of the perchloride of iron, but rather to be applicable to a distinct class of cases, in which the former of those remedies would be unsuitable, and the latter unnecessary. The method of carrying out the practice is exceedingly simple. An ordinary syphon syringe is the only instrument required, though we now use one with a long vulcanite nozzle, specially constructed for vaginal and intra-uterine injection. This is carried up to the fundus, and, with the usual precautions against injecting air, and securing a free return, we inject water as hot as can be conveniently borne by the hand, i. e., about 112° F., in a full stream into the cavity, continuing this until a good contraction is secured, and the water returns quite clear and colorless. Dr. Atthill gives the following as some of the results of his experience in the use of hot water:

I. In cases of sudden and violent hemorrhage in a strong and plethoric woman, it is better first to use cold.

II. Where, from the prolonged and injudicious use of cold, the patient is found shivering and depressed, the beneficial effect of injecting hot water is rapid and remarkable.

III. In nervous, depressed and anæmic women, hot water may at once be injected without previously injecting cold.

IV. In cases of abortion, where, from uterine inertia, the ovum, although separated from the uterine wall, is wholly or in part retained, the injection of hot water is generally followed by the most satisfactory results.

V. Where the injection of the perchloride of iron is considered necessary, previous injection of hot water clears the uterus of clots, etc., permitting the fluid to come directly in contact with the bleeding surface, and lessening the danger of septic absorption.—*Chicago Medical Review*.

THE TREATMENT OF CONSUMPTION.

In a paper on the treatment of pulmonary consumption, Prof. Péter, of Paris, insists strongly on the value of hydrotherapy. He begins with frictions with dry flannel, then passes to rubbing with cloths dipped in aromatic alcohol, cologne water, or vinegar, followed by dry friction for five or six minutes, and finally advances to the use of the cold sponge. The process is repeated twice daily, immediately after rising and before retiring. He believes sponging to be better than the douche, because it is more easily carried out. The chief points to be observed are, to accustom the patient gradually to the use of cold water, and not to prolong the bath too much at first. Prof. Péter divides the sweats of phthisis into three classes, according to their cause, viz.: ordinary night sweats, which depend not so much on the pulmonary trouble as on the general condition and the tubercular fever, the sweating which follows high evenings exacerbations of the fever, and colliquative sweats. To control the first, he recommends especially sponging with vinegar, combined with the usual internal remedies, such as acetate of lead, tannin, etc. Atropine, he considers unreliable. Quinine is useful for the second form, because it controls the fever. For the colliquative sweats there is no remedy. For the cough, he gives opium and belladonna in small doses; he orders pills containing one-sixth of a grain of opium, and one-twelfth of a grain of ext. belladonna, and gives at first, one at a dose, increasing afterward if necessary. When the cough causes vomiting, he gives one or two drops of tincture of opium before meals, with good effects. When the vomiting seems to be due more to dyspepsia than to the cough, he gives a few drops of hydrochloric acid after the meals. In such cases, alcohol in some form is also useful, but it must be given freely. For the diarrhœa, when it is due to simple intestinal catarrh, as is usually the case at the outset of the disease, he employs subnitrate of bismuth, in connection with a carefully regulated diet. When it is due to the use of cod-liver oil, or to the milk or grape cure, the exciting cause must be discontinued, and the stomach, if overloaded, be emptied by an emetic. When it is due to inflammation of the stomach and intestines, he prescribes opium, nitrate of silver, perchloride of iron, etc., and employs also derivatives to the skin. For colliquative diarrhœa there is no remedy. For controlling the expectorations, he has found the balsams, glycerine, and kermes, to be the best remedies. For hæmoptysis, he recommends, in the first place, the use of emetics, and explains their action on the theory that they excite a reflex action through the sympathetic, which causes anæmia of the lungs, and controls the hemorrhage. When patients have been greatly reduced by the hæmoptysis, he has found quinine and ergotine useful.—*Allg. med. Cent. Zeit.*, February 25, 1880.—*Med. Record*.

ON THE CAUSE AND TREATMENT OF THE BAD ODOUR SOMETIMES ASSOCIATED WITH EXCESSIVE SWEATING OF THE FEET.

Dr. George Thin has recently made a fruitful investigation of this subject, the report of which is published in the *British Medical Journal* for Sept. 18, 1880, and from which the following is abstracted :—

The patient who has afforded me the opportunity of investigating the cause of the smell is a young woman, aged 22, who has suffered from evil-smelling feet, with soreness of the heels, for several years. Her hands are usually moist, or even wet, but are always odourless. The smell from the feet is not constant, disappearing in dry bracing weather, and reappearing when the weather is moist and depressing.

The first experiment I made was to subject the soles of the stockings and boots to the action of an antiseptic solution. The success was complete, the odour being entirely banished. The antiseptic precautions having been soon neglected, the smell returned, and I took the opportunity of investigating its cause more minutely.

The sole of the stocking, a few hours after it was put on, was found to be quite wet; and a stocking if worn for a whole day was so extremely offensive that, when held close to the nostrils, its overpowering fetor was comparable to that of putrid blood. The inside of the boot was equally wet and offensive; but at the very time that the stocking and boot smelt so strongly, the heel itself, exuding moisture profusely, had no disagreeable odour. The sole of the heel was reddened and tender, and macerated around the edge, like a washerwoman's palm.

The reaction of the moisture in the stocking and in the sole of the boot was alkaline, that of the moisture exuding from the skin of the sole of the heel faintly alkaline, whilst that of the perspiration of other parts of the body was acid.

The fluid from the sole of the heel was thus shown to be not pure sweat, the faintly alkaline reaction being doubtless due to the serous discharge accompanying the eczema set up by the local hyperidrosis.

The fluid in the sole of the stocking was found to be teeming with bacteria forms, the nature and development of which I have carefully investigated. These investigations have produced results of some scientific interest, which I have communicated to the Royal Society*. The rapid development of bacteria in the fluid which exudes from the soles is doubtless favored by the alkaline reaction produced by the mixture of serous exudation with the sweat.

The treatment instituted in this case is as simple

* On *Bacterium fetidum*: an organism associated with profuse sweating of the soles of the feet. (Proceedings of the Royal Society, No. 205, 1880.)

as it has been effective. The stockings are changed twice daily, and the stocking-feet are placed for some hours in a jar containing a saturated solution of boracic acid. They are then dried, and are fit for wear again if it be desired. The boracic acid effectually destroys the smell. But to kill the bacteria in the stocking is not enough. The leather in the bottom of the boot is wet and sodden, and smells as vilely as the stocking. This difficulty is got over by the use of cork soles. I directed my patient to get half a dozen, which she finds sufficient. A pair must only be worn one day unchanged; at night, they are placed in the boracic jar, and are put aside the next day to dry. If these directions be accurately carried out, the evil smell is perfectly destroyed.

The boracic acid solution is an excellent application to the painful skin in these cases. When the tender skin of the soles is washed with it, a sensation of coolness succeeds the feeling of heat and tension which are the usual accompaniments of the eczematous condition associated with the smell, and the skin becomes harder and loses its abnormal redness.

The bacteric fluid would seem to act as a direct irritant to the skin. My patient assures me that if she wears stockings which have been dried without being disinfected, irritation is speedily felt; and that the cork soles, if worn a second day without having been purified, act in a similar way.

AN OPINION ON BLOOD-LETTING.

It requires no little courage to confront the popular prejudice as Dr. Hiram Corson does in the following passage, taken from a paper on pneumonia communicated to the *Philadelphia Medical Reporter*:

"I have been in active practice continuously for fifty-two years, and during all that time have not once had occasion to believe that there was any change in the human system or in the climate, which made it more hazardous to treat acute inflammatory affections by means of cups or leeches and other anti-febrile remedies, than it was in the beginning of my career. I am therefore free to declare that it is just as safe to use them now, and they are quite as efficient, as they were in the days when the physicians of Philadelphia were using them so freely, with so much confidence and with so great success. Surgeons now perform fearful operations, by which not only is a great amount of blood lost, but the patient is also injuriously affected by the shock to the nervous system, yet the recoveries are oftentimes astonishingly rapid. Women in time of childbirth often flood until they are in the very presence of death, and yet, when it is arrested, they will in a few days be found as bright and cheerful as if nothing had happened, soon regain their usual strength and have no disability from their loss of blood. They bear it as well now

as they did fifty years ago. Even those who would not bleed a woman in labor to save her from convulsions have no fear that she will suffer from a flooding which happened after the delivery of the placenta. A man may cut his leg and bleed till he faints, but no one feels that the mere loss of blood will do him any permanent injury; and yet what a hue-and-cry from these same people if a physician should bleed a person to remove a congestion of the brain, or relieve a pain in the head or a pleurisy. I have rarely met with a graduate of the last fifteen years who has ever used a lancet, and yet these are the very persons who are so opposed to its use. They regard the older physicians who do use it as persons who are ignorant of the "valuable new remedies" (which they believe were discovered about the time they began to study medicine), when the truth is they are themselves ignorant of nearly all the means of cure save *veratrum viride*, *aconite*, *digitalis*, a few cathartics, morphine, chloral and—I was near forgetting them—poultices; poultices for croup; poultices for diphtheria and scarlet fever; poultices for the liver, and poultices for the kidneys; poultices for the chest, and poultices for the belly; and when you ask them what effect they expect from these means, they have no answer but this: 'They are very much used in the hospitals now.' Is there any reason why physicians who practised forty years ago should not know as much of all the above remedies as these men educated during the crusade against blood-letting? *Digitalis* was much used long since; forty years ago I used tincture *aconite*, with good effect in many cases, as did others who then practised; and as for newer remedies, does any one suppose that such men as Dr. John Atlee, Dr. Trail Green, Professor Gross and hosts of others—practitioners and close students—are ignorant of the reputed merits of these champion medicines?"

TREATMENT OF INDIGESTION AND HEARTBURN.

In the course of an article in the *Practitioner*, January, 1881, Dr. J. Milner Fothergill writes:

For the purpose of whetting the appetite, and thus acting reflexly upon the gastric secretion, we employ the class of agents known as bitters. To these we add hydrochloric acid. Ringer has pointed out how an alkali taken into the stomach before a meal, when the stomach is alkaline, produces a freer flow of acid afterwards. Consequently we comprehend the value of that well-known preparation indifferently termed, "Haust. Stomach," or "Mist. Mirabilis," or "Mist. Rhei et Gentian," in the various hospitals; a combination of world-wide fame. One drawback to this combination of *rhubarb*, *gentian* and *soda* is, that the student becomes familiar with it and its virtues, but remains ignorant of its exact composition, and so loses sight of it when he enters upon practice for

himself. Such a mixture before meals, followed by ten drops of hydrochloric acid after the meal, will often make the difference betwixt imperfect digestion, producing discomfort, and digestion so perfect that it does not provoke consciousness. Or, where there is much irritability in the stomach, *i. e.*, when a bare, red tongue, imperfectly covered with epithelium, suggests a like condition of the internal coat of the stomach, then bismuth is most soothing. The mixture of *soda*, bismuth, and *calumba* is in use for such indigestion with good results. The dietary in such a case should consist of the blandest food, milk, with or without baked flour in it, beef tea with baked flour; nothing more, till an improved condition of the tongue tells of a more normal condition of the stomach. In such cases a plain opium pill at bedtime often soothes the stomach very nicely. Then there are cases where imperfect digestion is accompanied by the production of fatty acids, butyric and others, which add the phenomenon of "heartburn" to the symptoms; or there may be later products formed which cause the bitter, hot taste in the mouth on awakening in the morning or after a post-prandial nap. It is usual to treat "heartburn" by the exhibition of an alkali; but this is not good practice. In union with an alkali the offending matter is nearly as objectionable as in the form of free acid. It is much better to give a mineral acid, as the hydrochloric, or phosphoric, which breaks up the feebler organic acid. By such means we can aid the digestive act. Then at other times the indigestion is due to lithiasis, where the presence of uric acid impairs the efficiency of the gastric juice. In these cases all measures which do not entertain the causal relations of the dyspepsia are of little use. By the administration of potash in a bitter infusion, well diluted, taken half an hour before a meal, this element of trouble is removed. In all cases of gouty persons suffering from dyspepsia, do not forget this cause of impairment of the gastric juice.—*Philadelphia Medical and Surgical Reporter*.

THERAPEUTIC USES OF TOBACCO.

In looking up the medical uses, etc., of tobacco, I find that very little mention is made in the various therapeutics of its employment as a constituent of poultices. Believing it to be a means of great value in certain painful affections, I desire to bring its use to the attention of physicians. Tobacco poultices were at one time rather generally used, but for some reason or other their efficacy has of late been lost sight of. I hope that the slight resurrection which I may occasion may prove of service to the profession.

A case or two from my note book will serve to illustrate the good effects of tobacco poultices.

Mrs. M., last fall, had intermittent fever, contracted through the ignorance of her physician in

directing her, on the tenth day after confinement, to sit up the greater part of the day, and for nearly an hour to remain by an open window overlooking a large lot full of decaying leaves, weeds, animal matter, etc.

I was called in on the following day. Among the symptoms which presented themselves, I found over the chest great tenderness and pain on the slightest pressure. I diagnosed this to be due to an irritated condition of the nerves or nerve-endings; and ordered flaxseed, mush and other poultices, one after another, but without avail. The pain still continued. I then gave medicine, belladonna ointment, etc. I exhausted the list without giving relief.

I mentioned the case to my friend, Dr. J. V. Myers, of this city, who advised me to use a poultice of flaxseed and tobacco, equal parts, care to be exercised as to the toxical effects of the latter. I took advantage of the advice. The alleviation of the pain, which before the application was excruciating, was immediate and permanent. The relief was beyond my expectations. On the same patient, this same poultice has on one or two occasions since done equally good and effective work.

Mrs. J. had an attack of perityphlitis. For the pain, I ordered the usual medicines, together with mush and flaxseed poultices. These had no effect. I then had applied the poultice of flaxseed and tobacco. There was an almost instantaneous cessation of the agonizing pain from which, for two days, the patient had suffered.

I cite the two above cases, because I know that there can be no mistake, but that the tobacco was instrumental in doing the good work.

In all instances when a simple poultice does not meet with the success desired, I add tobacco to it, in the proportion of one half. The leaves are the best for the purpose; but the various kinds of clippings in the manufacture of cigars, etc., will answer. The tobacco should be cut up finely, and then well mixed with the flaxseed; the poultice is made in the usual manner. A fine piece of linen, or gauze, is to be placed between the poultice and the body. Care must be taken that the part to which the poultice is to be applied is not denuded of its skin, for the tobacco may, in such a case, give rise to symptoms of poisoning. I think that with ordinary care, there can be no danger; in my hands this poultice has proven of great value.

I would ask that the readers of the *Reporter* employ this poultice when indicated, in the stead of the simple flaxseed poultice, and report their success or failure, as the cases may prove to be. *Phil. Med. & Surg. Reporter.*

NEW TREATMENT OF ABSCESES.

In the wards of Dr. Steven Smith, a new treatment of abscesses has been very successful. When the abscess points it is opened and the contents evacuated. The cavity is then injected with car-

bolized water, and over-distended for two or three minutes. The water is then pressed out, and over the whole area undermined by the cavity, small, dry, compressed sponges are laid and bound down with a bandage. Carbolized water is then applied to the bandage and injected between its layers until the sponges are thoroughly wet, after which a dry bandage is applied over all. The sponges by their expansion make firm and even compression upon the walls of the abscess, and hold them in perfect apposition, thus favoring a union. The dressing is left on for five or six days, unless there is a constitutional disturbance or pain in the seat of the former abscess. It is found, in most cases, when the bandage is removed, that the abscess has completely closed by an approximation of its walls, and the external wound heals readily under a simple dressing of carbolized oil. A case was recently seen where this admirable result was secured in a child, although the abscess was a large one, originating in caries of the head of the femur, and opening on the outside of the thigh. No constitutional disturbance, no discharge, no accumulation, and no pain followed its use. Mammary and sub-mammary abscesses have been treated by this method with excellent results.—*Chicago Med. Review.*

BENZOATE OF SODIUM IN THE TREATMENT OF ACUTE RHEUMATISM.

Dr. David MacEwen (*Brit. Med. Jour.*, vol. i., 1881, p. 336) observing that benzoic acid is closely similar to salicylic acid in chemical composition, and somewhat the same in physiological effects, endeavored to determine whether it, like the latter, possesses anti-rheumatic properties. He publishes notes of five cases in which the remedy was employed in the form of benzoate of sodium. On the first occasion in which he used it, the relief of pain and subsidence of fever were so immediate, and the recovery was so rapid and complete, that he had no hesitation in adopting the same treatment in subsequent cases. The dose was, in the earlier cases, fifteen grains of the salt every three hours; in the later cases, twenty grains every two hours. In all the cases the symptoms passed off in periods varying from three days to a week after the commencement of the medicine; in none did cardiac complications arise in the course of treatment, and Dr. MacEwen thinks the convalescence was more rapid than in cases he had seen treated with salicylate of sodium. Benzoate of sodium possesses this advantage, that it does not give rise to the nausea and depression or the unpleasant head-phenomena which the salicylate frequently produces. It is most conveniently prescribed in the form of a mixture, and it may be given in doses of fifteen to twenty grains every two or three hours. It should also be continued in diminished doses for twenty-four to forty-eight hours after the rheumatic symptoms have disappeared.

COMPULSORY VACCINATION IN FRANCE.

The following are the conclusions of the committee appointed by the Académie de Médecine upon this subject: 1. Vaccination, with extremely rare exceptions, is an inoffensive operation when practised with care and on a subject in good health. 2. Without vaccination, hygienic measures (isolation, disinfection, &c.) are of themselves insufficient for preservation from small-pox. 3. The belief in the danger of vaccinating or revaccinating during the prevalence of an epidemic is without any justification. 4. Revaccination, the necessary complement of vaccination for assuring immunity against variola, should be practised ten years at least after a successful vaccination, and repeated as often as possible, when it has not been followed by the characteristic cicatrices. 5. The Academy is of opinion that it is urgent and of high public interest that a law should be passed rendering vaccination obligatory. 6. As to revaccination, it should be encouraged in every possible manner, and even imposed by administrative regulations under all circumstances where this is possible.—*Gazette des Hôpitaux*, March 31st, 1881.

TO REMOVE FISH-BONES.

Fish bones lodging in the pharynx are rendered flexible and are finally broken up by a mixture of hydrochloric acid (four parts) or nitric acid (one part to two hundred and forty parts of water) used as a gargle, the teeth being protected by oil or lard. So says Professor Voltolini in *Monatsschrift für Ohrenheilkunde*.

THE CANADA MEDICAL RECORD,

A Monthly Journal of Medicine and Pharmacy

EDITOR:

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MONTREAL, JULY, 1881.

IMPORTANT QUESTION.

At the last meeting of the College of Physicians and Surgeons of the Province of Quebec Dr. F. W. Campbell, one of the University representatives, raised a most important question, as to the period when it was permissible for a student, under the present law, to pass a year in study with a medical man. Dr. Campbell stated that, to his knowledge, students

had presented themselves at the end of the third year and passed their examination; that the end of the following year these students had returned, with a certificate of having studied during that year with a medical man, and had then been presented with their Diploma. This is, in our opinion, opposed not only to the spirit of the law, but to its letter. Students, according to the Act, have to study four years. They must take three sessions at a Medical School, the first whereof must be that succeeding the passing of their preliminary examination—and they are allowed to study one year with a medical man. All this period of study is, of course, presumed to show its effect by the knowledge which the student exhibits when undergoing his examination. But if he is allowed to pass the year with a physician *after* he has undergone his examination, and to a large extent has become independent of the University, can he be truly said to have studied four years? We do not think that he can. Unfortunately, such certificates are too easily obtained, but, even if the attendance has been faithful, in many cases—the stimulus of a subsequent examination being wanting—the time so passed is time absolutely lost. Far better at once let it be understood that only three years is required, for when the diploma is obtained, and the graduate enters practice, he has the stimulus of competition to urge him to keep up the knowledge he has acquired. To allow him to go to a Physician after his examinations are over, and count it as a portion of his period of study, is absurd. He has no immediate incentive to work, and the result, in nine cases out of ten, is that the graduate finds himself with his diploma, but minus much of that information which he had a year before, when up for examination. And this lost material is matter on which he would have kept himself posted had he gone from College to the struggle for a livelihood, amid the keen competition of Medical practice. So much for the common-sense reasons against such a procedure. But Dr. Campbell claimed, and we think he was right, that any such arrangement of a student's studies is contrary to the Bye-laws of the College, founded on the Medical Act of 1879. Chap. viii., section 11, of the College Bye-laws says: "A certificate of study from a licensed practitioner for the period *intervening* between the courses which the student has attended will be required." This, to our mind, is clear as it is possible for language to make it. We have *italicised* the word intervene, and

we ask how can a period of study taken *after* a student has *completed* his courses be said to intervene. It is an absurdity to try and make it appear that what Dr. Campbell condemns is in accordance with the law. We are glad to know that the members of the College seemed to agree with him, but to give the matter full consideration it was referred to a Committee of Governors of the College connected with the various schools, and they will report the result of their deliberations at the meeting which will take place in Quebec on the 28th September next.

UNIVERSITY OF BISHOP'S COLLEGE.

The Annual Convocation of the Faculties of Divinity, Arts and Law of the University of Bishop's College was held at Lennoxville on the 24th of June. The attendance was very large, and among several distinguished gentlemen present was Dr. Dawson, the highly-gifted principal of McGill University, who received the degree of D.C.L. Dr. Cameron represented the Medical Faculty of the University, and addressed the Convocation, speaking substantially as follows :

"It is a matter of great regret on my part that Dr. F. W. Campbell, our Registrar, has been unavoidably prevented from being here to-day to represent the Medical Faculty. In filling his place I am pleased to have had an opportunity of seeing so much of your work and hearing such glowing accounts of your prospects and success."

"I have been commissioned by the Faculty of Medicine of Bishop's College to express to you not only the deep interest we feel, individually and as a Faculty, in the prosperity of the sister Faculties, but also our sympathy with you in the severe trials and discouragements of the past few months. We believe that you have acted wisely in endeavoring to make the sanitary condition of these fine buildings as perfect as possible; and, though the cost has been heavy, and the loss and inconvenience great, we believe that, in grappling with your difficulties fairly and honestly, and striving as far as possible to eradicate disease and prevent its return, you have merited and gained the heartfelt sympathy and active support of most right-minded men. Too often under similar circumstances have subterfuge and deceit been resorted to, and too often have apathy, indifference and masterly inactivity characterized the action of trustees and corporations; but the

frankness, candor and zeal displayed by the authorities of Bishop's College throughout their trying ordeal have been alike creditable to themselves and the University."

"The Medical Faculty of Bishop's College has just completed its tenth session; like most new undertakings we have had our fair share of toil and trouble, discouragement, disappointment and financial embarrassment and constant struggling against heavy odds, and keen competition; but we have come safely through, and, pausing now at the end of our first decade to look back upon the past and look out into the future, we are proud to tell you that we are now upon a firm basis and our prospects were never brighter: our students are increasing in numbers, enthusiasm and *esprit de corps*—they have won recognition and honors at home and abroad—our hospital advantages have been much enlarged, our facilities for clinical teaching improved, and we are now in a position to offer to those who desire to obtain a good, sound, practical education, advantages and facilities surpassed by no medical school in the Dominion. But in the future, as the Medical Faculty of the University, we look to our sister Faculties for sympathy, co-operation and support. The success of a University is really the sum total of the success of its various Faculties; each Faculty shines partly by its own and partly by reflected light; the prosperity of one is, to a certain extent, the prosperity of all; in unity of purpose and unity of action lie the secret of University success."

"In the early history of a University, especially in a new country, the Medical Faculty aids materially in spreading the name and fame of the University throughout the length and breadth of the land; and it is a well-known fact that the noble Faculty of Medicine of McGill College has been one of the chief means of building up the world-wide reputation of that Institution, attracting students to her halls, and indirectly aiding in building up and strengthening the other Faculties. Now, gentlemen, what the Medical Faculty of McGill has done for McGill College, the Medical Faculty of Bishop's, if properly encouraged and supported, may and can do for Bishop's College. All that we ask is that you, our sister Faculties, would remember that your own Medical Faculty is in active operation in the city of Montreal, and needs your active assistance and support. But when we see so many boys who have been trained in

Bishop's College School, and have perhaps taken out their Arts' Course in Bishop's College, drifting away from their Alma Mater as soon as they commence their professional studies, and swelling the ranks of other medical schools, we naturally feel as if we were being left somewhat out in the cold, and we sometimes are inclined to fear that our sister Faculties have forgotten the important fact of our existence."

"As we take an interest in your success, we hope and trust that you, in turn, will take an interest in ours; and when we know each other better we will be able to work together more unitedly and harmoniously for the general welfare of our University."

"As a Faculty we feel that we need but to explain our position and wants, and to lay our claims fairly before you in order to obtain for them that courteous consideration which has always been manifested towards us by the authorities of Bishop's College."

DEATH OF MR. STEPHEN S. ALFORD, F.R.C.S., LONDON, ENGLAND.

We deeply regret to have to chronicle the death of Mr. S. S. Alford, 61 Havestock Hill, Verdon, and brother of the late Dean Alford, as the result of injuries received on the Midland Railway. Two years ago he paid a visit to Canada and the United States, with a view to acquire all the information possible in the treatment of Dipsomaniacs. Since his return he has been actively at work in his favorite cause, and was at the time of his death about to assume the medical management of the first Inebriate Home, just ready to be occupied, near Verdon. A few days previous to his death he wrote to Dr. Bessey of Montreal, with whom, as a co-worker in the same cause, he had kept up a correspondence since his visit here, two years ago, in which he spoke hopefully of being soon able to visit Canada again. It was otherwise ordained; and a good physician and whole-souled philanthropist has gone to his rest.

We have received from Wm. Wood & Co., of New York, a copy of the catalogue of their works, which has been prepared for presentation to the Members of the International Medical Congress, which assembles in London on the 2nd to the 9th August. It is beautifully printed, is bound in satin,

and is altogether an excellent specimen of American enterprise. It will undoubtedly redound to the profit of a most successful firm.

WYETH'S DIALISED IRON.

Wyeth's Dialised Iron is a pure neutral solution of oxide of iron in the colloid form, the result of endosmosis and diffusion with distilled water. It possesses great advantages over every other ferruginous preparation heretofore introduced, as it is a solution of iron in as nearly as possible the form in which it exists in the blood. It is a preparation of invariable strength and purity, obtained by a process of dialysation, the iron being separated from its combinations by endosmosis, according to the law of diffusion of liquids. It has no styptic taste, does not blacken the teeth, disturb the stomach, or constipate the bowels.

It affords, therefore, the *very best* mode of administering iron.

THE POPULAR SCIENCE MONTHLY FOR AUGUST, 1881.

The August "Popular Science Monthly" well maintains its standard of excellence. Those who have read and admired the pungent papers of Dr. Oswald on "Physical Education" have a treat before them in the present article on "Recreation." So intelligent and impressive a statement of its needs, importance, and general neglect, and the evils that follow from the lack of due recreation, and so scathing and terrible a denunciation of that asceticism in society which still finds its religious apologists, we have never seen. Dr. Fairchild continues his popular physiological articles, and this month takes up the subject of "The Blood and its Circulation." Dr. Dyce Duckworth has a short but very practical article on "The Insufficient Use of Milk" in our dietaries. There are many valuable hints in it.

REVIEWS.

The Hygiene and Treatment of Catarrh. Part 1. Hygienic and Sanative Measures. Part 2. Therapeutic Measures, with forty illustrations. By THOS. F. RUMBOLD, M.D., St. Louis; George O. Rumbold & Co., 1881.

Dr. Rumbold has written a book which can be studied with profit by every medical man. He

has avoided much of the beaten track travelled by others before him, and has struck out for himself. Finding that the new route produced much that was novel, he has thrown aside many of the opinions of writers upon diseases of the nasal cavity, and has expressed views often at variance with those generally accepted at the present day. Whether he is correct is a matter on which we express no opinion, but, as an independent observer, he is entitled to respectful consideration. We agree with him, however, in believing that no class of diseases depend so much upon general sanitary measures for remaining well after being cured as do diseases of the nasal cavity. We are likewise heartily with him in his views, that it is bad practice to apply strong solutions to catarrhal mucous membranes, and that solutions for use in catarrhal inflammations of that membrane are best applied by means of an atomizer. So much in commendation, a word or two of fault finding. We quote from the preface. "*I have spared no pains to make the armamentarium of my offices, including my operating table, as perfect and convenient as possible.*" What this fact has to do with a work on the hygiene and treatment of catarrh, we are at a loss to discover. We are forced therefore to think that this is a little bit of personal advertising—a fault too evident in many of the works issued at the present day.

A Treatise on Diseases of the Nervous System. By William A. Hammond, M.D., Surgeon General U.S. Army (Retired list), Professor of Diseases of the Mind and Nervous System in the Medical Department of the University of New York. With one hundred and twelve illustrations. Seventh Edition—re-written, enlarged and improved. New York, D. Appleton & Co., 1881. Montreal, Dawson Bros.

Few men have obtained such a world-wide celebrity in comparatively so short a time as the author of this book. Leaving the service of his country—in which he held an exalted post—under considerable of a cloud, he commenced practice in the city of New York, with some friends and many enemies. For a couple of years his progress was slow, but after that he rapidly came to the front, and, ere long, began to be known as an excellent authority upon diseases of the Nervous System, to which specialty he has devoted his life. He is now the recognized authority on this branch of Medicine in the United States. A book from his pen, as can be well conceived, must be a standard one, and so in

truth it is. Not only has its merits been fully recognized on this continent, but its reputation has spread to Europe, and in 1879 a translation of it appeared in Paris, and at the present moment an Italian translation is going through the press under the direction of Professor Diodato Borrelli, Professor of Pathology and Clinical Medicine in the Royal University at Naples. The book is a large one, consisting of over 900 pages, and is divided into six sections, embracing: 1, diseases of the Brain; 2, Diseases of the Spinal Cord; 3, Cerebro-spinal Diseases; 4, Diseases of the Peripheral-Nervous System; 5, Diseases of the Sympathetic-Nervous System; 6, Toxic Diseases of the Nervous System. Under each of these sections the various diseases combined are described and the treatment given. The style of the author is pleasant, the printing is clear, and the book altogether is one which, externally, will look well in any library; while its contents will many a time prove exceedingly valuable to the practitioner, perplexed as he often is with many of the symptoms of obscure Nervous affections.

A Treatise on Bright's Disease and Diabetes, with Especial Reference to Pathology and Therapeutics. By JAMES TYSON, A.M., M.D., Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania, with illustrations: including a section on Retinitis in Bright's Disease by William F. Norris, A.M., M.D., Clinical Professor of Ophthalmology in the University of Pennsylvania. Philadelphia, Lindsay and Blakiston; Montreal, Dawson Bros. Price \$3.50.

For several years Dr. Tyson has been looked upon as a close and thoughtful observer in urinary diseases. His studies have been largely in that direction, and, as can well be supposed, he must have collected a considerable amount of material bearing upon the disease, the consideration of which occupies the principal part of this volume. The accumulation of this material has given him an experience which he believes may be useful to others. This is his reason for presenting this book to the Profession. We have read several chapters of it, and believe we have derived profit from their perusal. Several original drawings are given in the section, giving the histology of the kidney. They are from the pencil of Dr. George C. Piersol. The illustrations are all admirable, and are beautifully executed, and add much to the value of the Treatise. The Pathology of the disease is brought down to date, and the work is one which we feel assured will meet with much favor.

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THE CANADA MEDICAL ASSOCIATION.

The fifteenth annual meeting of the Canada Medical Association was held in the City of Halifax on the 3rd and 4th of August. The attendance of members was fair, and a number of interesting papers were read. Not being able to be present, we are indebted to our contemporary, the *Canada Medical and Surgical Journal*, for a large portion of our report of the proceedings.

Dr. Canniff, of Toronto, the President, occupied the chair.

Dr. Strong, Superintendent of the Cleveland, Ohio, Lunatic Asylum; also the Military and Naval Surgeons stationed at Halifax, were elected members by invitation.

Dr. Reid, Halifax, read the report on Medicine. Special attention was drawn to the disease known as General Paralysis of the Insane—a malady of most fatal character and on the increase, and not receiving sufficient attention. The report was received for discussion.

Dr. Stewart, of Brucefield, Ontario, read the report on Therapeutics.

The President of the Association, Dr. Canniff, read a paper on "Vital Statistics and Public Health." The President stated that the Committee appointed at the last meeting had waited upon Sir John A. Macdonald, and had been accompanied and assisted by many of the medical men now in Parliament, that the Government are heartily inclined to assist in forwarding the movement to provide for the public health, and that if it had not been for the very indifferent health of the Premier himself, it is probable that legislation on this important matter would, before this, have been introduced into the Dominion Parliament. He believed that the Association was doing a good work in keeping the subject before the country, and hoped they would continue their efforts until brought to a satisfactory issue.

Hon. Dr. Parker considered this a most important matter; hoped that further action of a decided nature would soon be taken. His idea is that our aim should be to have a committee formed of good representative men from each Province to initiate and watch the progress of a bill for this object. This law-making should begin with the separate Provinces, each for itself, and the whole should be consolidated under some Act governing the entire Dominion, and passed by the House of Commons.

Sir J. A. Macdonald used formerly to say that all matters connected with statistics belonged to the Provincial Legislatures, but he has seen reason to change this opinion, and would be ready to admit the control of the general government over statistics and such like matters which are necessarily intimately connected with sanitary legislation. They had recently held a meeting of the profession of Nova Scotia at Antigonishe, and had been able to lay the foundations for taking their share in the proposed plan of concerted action. The report of the President was received, and laid on the table for future discussion.

Moved by Dr. Botsford, seconded by Dr. Steeves, that the following compose the Nominating Committee: Drs. Robillard, Ross and Fenwick of Montreal, Dr. Eccles of London, Drs. D. Clark and A. H. Wright of Toronto, Drs. Lawson and K. F. Black of Halifax, Dr. Steeves of St. John, and Dr. Atherton of Fredericton.—*Carried.*

Dr. Hill of Ottawa then read for Dr. Grant of Ottawa a short paper descriptive of a method of using the ordinary enema-syringe for a stomach-pump.

Some members objected to the method, that it would be found very difficult to introduce a flexible and soft tube down the esophagus, but Dr. Hill said that he had been assured by Dr. Grant that in trying the instrument he had not experienced this difficulty.

The Association adjourned at 1 p.m.

AFTERNOON SESSION.

The President took the chair at 2.30 p.m., and proceeded to read his address on "Medical Ethics." He stated that it was with some difficulty he had selected a subject for an address which might be of practical interest to the Association, and he finally determined to review the present code of ethics by which we are guided, and make some remarks upon certain of the clauses. He entered fully into the duties of the members of the profession towards the public, towards each other, and towards themselves. Towards the public, in leaving nothing undone tending to the restoration to health of those entrusted to their care; towards each other, in the most delicately honorable bearing; towards themselves, in not neglecting those much needed recreations and moments of rest which the generally over-worked practitioner so much requires. He strongly deprecated any assumption of superiority, pointing out that the

proper line of conduct for a physician was that of the unobtrusive gentleman; advised free untrammelled consultations in all cases when difficulty or doubt presented themselves; and endeavored, throughout his address, to show that a code of medical ethics could not be otherwise than in harmony with a Christian code of ethics. But charlatanism, in or out of the profession, received a severe castigation. The address was of a very practical character, and cannot fail of having a beneficial tendency in recalling attention to many of those points upon the strict observance of which depends the existence of harmony amongst our *confrères*.

The report on Therapeutics, read by Dr. Stewart, was next discussed. Several members gave their views on the comparative safety of chloroform and ether, the former being the favorite.

Dr. Atherton said that in his opinion the bad results in Great Britain from chloroform were chiefly to be attributed to two causes. 1st, the complicated apparatus frequently made use of; and 2nd, the dread which they appear to have of it. In Edinburgh it is given freely and he thinks carelessly. In judging of the comparative merits of various anæsthetics we should be guided more by the opinions arrived at by those who are in the habit of daily administering it, and not so much from the results obtained by experiments. He gave some particulars concerning a case (published in the *Canada Lancet*) where he had performed tracheotomy for the purpose of resuscitation from chloroform poisoning.

Dr. Hingston asked why, in this case, a tube might not have been passed *per vias naturales*, avoiding the operation. The answer was, that opening the trachea was the idea which first presented in the urgency of the moment, and it was fortunately successful.

Dr. Fitch spoke strongly in favor of ether, which he uses exclusively. He thinks that drawing the tongue forcibly forward should always answer every purpose for admission of air into the trachea.

Dr. Stewart said that many were in the habit of entirely neglecting the pulse, regarding the respiration only. He thought that this was a mistake, that the pulse should be carefully observed. Kepler has shown by sphygmographic tracings that in all dangerous cases there is great fall in the blood-pressure. He knew of three deaths in three years in Edinburgh alone. French exper-

imenters have shown that the application of very hot water to the cardiac region is of great service in stimulating the heart's action.

Dr. Oldright referred to the anæmia observed in chloroform administration as indicative of syncope tendency, and to the frequency of accidents in dentists' chairs, the latter being due perhaps to two causes, the semi-erect position, and the known danger of interference with the fifth nerve. He had made one trial with bromide of ethyl, using f. i. He entirely failed to anæsthetize the patient, and has never used it again.

Dr. Oldright then exhibited his method of treating empyema. After the chest is punctured with a trocar, and the pus drawn off, he attaches a tubing, passing through a vessel containing an antiseptic solution, and held some distance above the patient; the pleural cavity is then washed out and fluid is passed through until it returns quite clear, and this is repeated every few days. Dr. O. gave several cases treated in this way, in which the results had been very satisfactory. In one the expansion of the lung had been such that subsequently no difference could be detected between the two sides.

Dr. Jennings preferred a counter opening, but also advocated washing by syphon.

Dr. Fenwick thought the plan had no advantage over simple incision. This plan was now used by him in the Montreal General Hospital, and was very satisfactory. He employed Lister's dressings. Never advises aspiration, for the pus always re-collects. Does not think recovery is ever complete, but that there always remains some shrinking of the affected side.

Dr. Atherton formerly treated it by washings, but had abandoned the plan, finding it inconvenient, and reaching as good results by incision and dressing of carbolyzed oil. He agreed with Dr. Fenwick as far as concerned operations on adults or aged persons, but believed that in the young perfect expansion of a lung could be obtained. He alluded to the fact that sudden death had occurred from injecting the pleura.

Dr. Farrell advocated draining by a tube with the extremity beneath an antiseptic solution, as being cleanly and effectual. Always used an oval and not a round tube, as fitting better between the ribs.

Dr. Geo. Ross said that the procedure of Dr. Oldright contained nothing novel. It was better than syringing, as giving a less forcible stream.

The principle of very copious washings was that taught by Fraentzel and the Germans. He alluded to the plan by valvular drainage advocated by Dr. Phelps, of Chateauguay, N. Y., but could not admit that any other procedure ever gave better results than a large incision and Lister's dressing without any injections.

EVENING SESSION.

The President took the chair at 7-3 p.m.

Dr. Bessy, of Montreal, read a very interesting paper on "Vaccination from Animal Vaccine." In the paper he referred to the prominence which vaccination with lymph direct from the animal had already attained. He called attention to the bad results which had followed vaccination in the past, especially in former years in the city of Montreal, when done with long-humanized lymph, which had, in spite of every care used in its collection, conveyed various materies morbi associated with the vaccinal disease.

He took it for granted that certain propositions were now accepted by the profession from which other propositions naturally followed. 1st. That vaccination was our best prophylactic against small-pox. 2nd. That not to be disappointing it must be well and thoroughly done with lymph capable of reproducing a perfect vaccine vesicle. 3rd. That to avoid "accidents" the lymph must be pure. That to fulfil the obligation resting upon the practitioner it was necessary to avoid the use of either degenerated lymph from too long human transmission, or lymph containing blood impurities, which it could hardly fail to do if taken promiscuously from human subjects. He shewed, by drawings of the disease when in full bloom and the resulting scars, 15 varieties of typical vaccinal cicatrices here given. That bovine lymph or heifer transmitted lymph induces a development of vaccinia in a greater state of perfection, and of more protective efficacy, in consequence, than humanized lymph. That the calf lymph was benign in its action, and gave all the results of true Jennerian vaccination. He would not deny that humanized lymph might by carefulness in selection, in the hands of careful men, be used for even 30 or 40 years with apparently satisfactory results as regards accidents, but it was now established beyond cavil that each remove a greater distance from the animal perceptibly shortened the period of duration of the disease and diminished its effect on the constitution, thus lessening the amount of

protection afforded by the operation. That vaccine, being indigenous to the heifer, does not degenerate: the painting of the arm shown is from a child vaccinated from lymph taken from the 240th heifer, from the original spontaneous cases which occurred at Longue Pointe, near Montreal, in Nov., 1877, during which year an epidemic of animal pox prevailed among cows and horses. He traced the progress of animal vaccination, and mentioned the various new stocks of animal lymph that have been introduced to the profession since the time of Jenner, 1798, which were, Woodville in 1800, Passey of France in 1836, Galbeata's retro-vaccination in Italy, 1810, followed later by Prof. Negri; the introduction of animal vaccination into France by Janvix, discovery of the Beaugency stock in 1868 by Prof. Depaul, the Longue Pointe stock by himself in 1877, and the progress of animal vaccination under Dr. Warlomont in Brussels, and last of all its introduction into England by Act of Parliament in 1881. That he had vaccinated three children of a family with lymph from a case of horse pox, and two of the same family with the cow pox, as an experiment, upon the same day: the result was in both cases the development of typical vaccinal vesicle, the horse pox producing rather more local disturbance, but running its course and terminating satisfactorily. That accidents follow vaccination and lack of prophylactic effect, are directly traceable to an imperfect vaccination with imperfectly developed or impure lymph. That a perfect vaccination consisted in the reproduction of a perfect vaccine vesicle with its attendant constitutional fever, and nothing else; that he feared, and believed in the possibility of conveying syphilis, skin affections, scrofulous taints, etc., with humanized lymph. He described a number of spurious vaccinations which might result from the operation, none of them protective, and suggested revaccination at an early date in all doubtful cases, which is not, like past vaccinal inoculation, illegal. He concluded by instancing the following advantages to be derived from the use of heifer lymph: 1st. It guarantees against the possibility of transmitting any other blood contamination. 2nd. The advantages of constant supplies of reliable lymph. 3rd. It gives the greatest possible guarantee of protection by emulating perfectly spontaneous vaccination, as observed by Jenner on the hands of milkers, and which has always been found to give absolute security against future contagion. 4th.

It enables the practitioner to be independent of his patients as to his stock of lymph. It had been objected to it that it was hard to take, this objection would be entirely removed with due care in its propagation and use, which he very fully explained, showing that both producer and user must use considerable judgment in the matter to secure success. He concluded a most interesting paper with the hope that the Association would press upon the attention of the Government the duty of establishing a National Vaccine Institution for the benefit of the whole country.

Dr. Slayter does not believe that syphilis can be communicated by vaccination. He has always used lymph supplied by the Royal Institution, and has never been dissatisfied with the results. He thinks with Dr. Bessey that there should be some means by which the public could be supplied with pure vaccine lymph.

Dr. Robillard said that in 1874, during an epidemic of small-pox, he vaccinated two children with lymph procured in Liverpool from the Royal Institution. In both of these, eruptions showed themselves, one of which he felt satisfied was a syphilitic nature, and which disappeared under mercurial treatment. He had never felt safe with that lymph since.

Dr. McDonald (Londonderry) procured his vaccine from Boston. He found that animal lymph was more insoluble than humanized lymph, and ignorance of this fact probably led to some of the failures when the former was used. He would also urge on the Government the importance of their taking charge of this matter.

Dr. Cowie said that formerly the lymph used in Halifax was perfectly satisfactory. In 1860 he had in one day vaccinated 120 persons; only six or seven failed, and in none were there any troublesome symptoms. During the past two or three years it had not been so satisfactory. There were now many more failures, and he had recently seen a man, vaccinated a month before, with large unhealed ulcers and enlarged glands.

Dr. Geo. Ross said that he would like to bear testimony from his own observation to the excellent results which had followed the introduction of animal vaccine in Montreal. Previous to this with the ordinary crust and lymph which were passed along from one to another, nor only were failures comparatively frequent, but unpleasant consequences were often met with. He had seen long-standing ulcers, axillary abscesses, erysipelas

and cellulitis, and even in rare cases, pyæmia with multiple abscesses. These unfortunate occurrences had led to the widespread opposition to vaccination which had prevailed in Montreal. Now, however, we had a supply of pure animal lymph, which we used with perfect confidence, and could say that such accidents as the above never occurred. He was satisfied that animal lymph should always be used when procurable, and that to that end it was highly desirable that the Government should arrange some plan for perpetuating and disseminating a generous supply of the pure article.

Dr. Bessey, in reply to certain enquiries by members, said that he was in the habit of personally selecting perfectly healthy young animals exposed for sale for the purpose of inoculation. He keeps always two in the stable—one in the later stages and the other partly vaccinated. He once used a lean, poor heifer, but found that the lymph was bad, and caused weak, unhealthy sores. He was obliged to recall all the results of that inoculation. He found from experience that for human vaccination it was better to charge points on the sixth day, and not wait till the vesicles were at their height on the eighth day; but that for inoculating another heifer, he would wait till the eighth day or later. The reason for this is, that in the first case, for complete absorption, you require a thinner lymph than in the latter case. Full maturity also implies a larger size of the lymph vesicles, which renders them unsuitable for use on the human subject, but has no effect when used for bovine inoculation.

Dr. Worthington (Clinton, Ont.) then read a paper on "The Treatment of Scarlatina Maligna by Cold Water and Ice." He selected a number of instances where, during the epidemic prevalence of this disease in his locality, he had adopted this treatment in apparently very desperate cases, accompanied by high temperatures and the usual concomitants of delirium or coma, and had saved many cases thereby. In these frightful attacks, such is his confidence in these antipyretic measures, that, if he cannot gain the consent of the friends to their employment, he prefers to retire from the responsibility of their treatment. He urged very strongly the more general adoption of these very valuable measures of combating this formidable complaint.

Dr. Jennings spoke highly of the plan of inoculation for reducing fever.

Dr. Fitch said that he had latterly employed

glycerine for the same purpose, and found it answer well.

Dr. Coleman advocated the repeated cold-water bathing in this as well as typhoid fever.

Dr. Eccles remarked that the same principle as advocated in the paper applied to all febrile diseases when violent symptoms seemed purely due to fever heat.

Dr. Fenwick then read a paper on "Antiseptics in Ovariectomy and other surgical Operations."

The next paper was by Dr. Hingston, "On certain features in Ovariectomy."

The Association adjourned at 11.10 P.M.

MORNING SESSION, AUG. 4.

The Association met at 9 A.M.

The Secretary, by direction of the President, exhibited some spruce shaving splints sent by Dr. Grant, of Ottawa.

Dr. Slayter exhibited an ingeniously-contrived self-retaining speculum, which enables the surgeon in certain cases to dispense with the service of an assistant.

Dr. J. W. Macdonald, of Londonderry, read a paper on "Water Analysis," and at the same time exhibited a case containing chemicals and apparatus for the examination of water.

Dr. Stewart, of Brucefield, read a paper on "Treatment of Exophthalmic Goitre by Ergot."

Dr. Coleman read a paper on "The use of the Ophthalmoscope in the diagnosis of Brain Disease." He cited several cases and their mode of treatment, and his success in such treatment.

Dr. Jennings read a report of some cases in practice, shewing the effect on the temperature of a patient on a water bed by using hot or cold water; also some cases shewing the effect of constant irrigation with carbolyzed water as compared with the ordinary Listerian spray and gauze. At the same time he exhibited an instrument used in the process of irrigation, which was worked on the syphon principle.

Dr. Slayter gave notice of the following resolution:

"WHEREAS,—The system of specialism and specialists, which at present obtains to a certain extent in the Dominion, and which has developed to a very large proportion in the neighboring Republic, is for the most part the outgrowth of superficial professional education and want of success as practitioners of medicine and surgery;

"THEREFORE RESOLVED,—That it is the opi-

nion of this society that specialism should be discountenanced by the members of this society, and that specialists should be treated and looked upon as irregular practitioners, except in rare cases, where long experience, extended study, and peculiar aptitude have placed a medical man in a special position towards his brethren ;

"BE IT THEREFORE RESOLVED,—That the members of this society pledge themselves to do all in their power to check the growth of this species of evil."

In supporting his resolution, Dr. Slayter said the evil complained of was ruining their profession in America.

Dr. Farrell spoke of the difficulty of the doctors getting together in these annual meetings, as now held, and thought the smaller societies in the Maritime Provinces should be consolidated into a branch of the Dominion Association. He moved that a committee be appointed to consider the matter, and confer with the various provincial medical societies for the purpose of bringing about a plan of organization of the medical societies in the Dominion in connection with the Canada Medical Association. Drs. Clark, Canniff, Hill, Fenwick, Hingston, Steeves, Atherton, J. F. Black, Farrell and the Secretary were appointed such committee.

Dr. Fenwick, of Montreal, for Dr. Howard, brought up a notice of motion made at last session to amend chap. 7. sec. 2, of the by-laws, so as to impose a fee of \$2, to be paid by each member only at every annual meeting attended.—The motion passed.

Dr. Page made a short speech on sanitary legislation, and moved that Drs. Canniff, Oldright, Grant, Hill, Bruce, of Ontario ; the President-elect (Dr. Fenwick), Drs. Osler, Larocque, of Quebec ; Botsford and Atherton, New Brunswick ; and Hon. Dr. Parker and J. W. Macdonald, of Nova Scotia, be a committee to seek from the Dominion Government improved legislation in respect to sanitation and vital statistics, and to insist upon the organization of the profession as a condition of political support at the next election.—The motion passed.

On motion of Dr. J. F. Black, seconded by Dr. Slayter, the Committee on Public Health was instructed to hold a conference with the Committee on the same subject of the Nova Scotia Medical Society.

The President of the Association having an-

nounced that Dr. A. H. David had withdrawn from the office of General Secretary of the Association, a resolution was passed expressive of the Association's deep regret that any cause should prevent him from continuing his services, and more especially that this cause should depend upon personal indisposition. The success of the Association had heretofore largely arisen from the steady and persevering efforts of Dr. David, and the Association trusted that he might for many years witness the continued success of an institution to which he had been so devoted.

Dr. Oldright gave notice that at next meeting he would move that clause 18 of by-laws should be amended by substituting the words "Public health, vital statistics and climatology," for the words, "Climatology and epidemic diseases."

On motion of Dr. Slayter, a vote of thanks was passed to the railway companies for reduced fares.

On motion of Dr. Atherton, a vote of thanks was passed to the Sandy Cove Bathing Company and the Local Government, the former for the use of baths, and the latter for the use of the Provincial building.

On motion of Dr. Hill, a vote of thanks was passed to the medical profession of Halifax for their kindness to visiting members.

The following is the report of the Nominating Committee which was read by the Chairman, Dr. Robillard :

President—Dr. Fenwick, Montreal.

General Secretary—Dr. W. Osler, Montreal.

Treasurer—Dr. E. Robillard, Montreal.

Vice-President of Ontario—Dr. D. Clarke, Toronto.

Local Secretary of Ontario—Dr. A. H. Wright, Toronto.

Vice-President of Quebec—Dr. F. W. Campbell, Montreal.

Local Secretary of Quebec—Dr. Belleau, Quebec.

Vice-President of Nova Scotia—Dr. R. S. Black, Halifax.

Local Secretary of Nova Scotia—Dr. C. D. Rigby, Halifax.

Vice-President of New Brunswick—Dr. P. R. Inches, St. John.

Local Secretary of New Brunswick—Dr. C. Holden, St. John.

Committee on Arrangements—Drs. D. Clarke, Oldright, Temple, A. A. McDonald, of Toronto, with power to add to their number.

Committee on Necrology—Drs. Fulton, Toronto ; Atherton, Fredericton ; Lachapelle, Montreal.

Committee on Education—Drs. Eccles, London ; Holmes, Chatham, and Bessey, Montreal.

Committee on Climatology and Public Health—Drs. Botsford, St. John ; Worthington, Clinton, Ont. ; Larocque, Montreal ; McDonald, Londonderry, and Coleman, St. John.

Committee on Ethics—Drs. Canniff, Toronto ; Malloch, Hamilton ; Gardner, Montreal ; Marsden, Quebec ; Bayard, St. John ; Parker and W. J. Almon, Halifax ; Steeves, St. John ; Beaudry, Montreal, and Chas. Moore, sen., London.

Committee on Publication—Drs. Ross, Montreal ; Cameron and Fulton, Toronto ; the General Secretary and Treasurer.

Committee on Practice and Medicine—Drs. Lawson, Halifax ; Graham, Toronto ; Duncan, Bathurst.

Committee on Surgery—Drs. Shepherd, Montreal ; J. F. Black, Halifax, and McFarlane, Toronto.

Committee on Obstetrics—Drs. Temple, Toronto ; Trudel, Montreal, and McKarren, St. John.

Committee on Therapeutics—Drs. Tye, Thamesville ; Wilkins, Montreal, and Somers, Halifax.

The Committee recommended that the next meeting be held in Toronto, the time to be decided by the Association.

The report was adopted *en bloc*.

On motion of Dr. Hingston, a vote of thanks was passed to the retiring President for his able conduct in the chair and his admirable address, containing many useful and practical hints. This was acknowledged by Dr. Canniff amidst applause.

The Association then adjourned to meet in Toronto on the first Wednesday of September, 1882.

Correspondence.

Editor "CANADA MEDICAL RECORD."

SIR,—It may be regarded as extremely doubtful whether, amid the infinity of practical questions to which the medical man may direct his attention, the time devoted to the consideration of such subjects as evolution and kindred problems of mind and life is not spent in vain. Yet shall we never vary the "pleasing monotony" of work in the *terra medica* by an occasional holiday trip into the adjoining territory of biology and mental

philosophy? No doubt Dr. Henry Howard had in view recreative pleasures of this kind when he treated your readers to his very able paper on "Man's Two Natures" and his review of Ernest Hæckel's "History of the Evolution of Man."

I have tried to follow him during this retrospective journey, and I felt that somebody ought to present the "other side of the story," as regards the scope and plan of evolution, in so far as Dr. Howard has touched upon it. The writer accepts evolution. He recognizes "that the evolution theory of creation is more in accord with nature's laws as we now understand them than that God called man and all other animals in perfect order in a moment of time out of the earth ;" nor can he see that "the evolution theory takes anything from the honor and glory of God as first Cause and Creator." So far, so good. The truth of the theory of evolution is certainly not bound up with that of the existence of Deity. But from a third position which Dr. Howard takes, and the one upon which he lays great stress, it seems to me every unbiassed lover of truth must instantly dissent. Mark the conciseness of these statements:—"opponents [of evolution] assume that the theory is contrary to the teachings of Moses as recorded in the book of Genesis * * * * * yet to my reading of the first chapter of Genesis—the whole of it—is evolution." And again—"suppose that, in accordance with God's established natural laws, the grain of dust or slime from which man was evolved, and all other animals evolved—but I will only speak of man,—suppose, then, that this grain of dust was first evolved into an ovum whose seed was in itself, and that it took millions of years, in fact the whole of the 6th period of time, before it became a perfect animal, and then that God endowed this animal with a human nature, by which it became man,—*there is nothing in such a supposition contrary to the teachings of Moses.* yet it would be evolution."

Let us see. Firstly, this is how the Mosaic biologist accounts for the origin of woman: "And the Lord God caused a deep sleep to fall upon Adam, and he slept: and he took one of his ribs, and closed up the flesh instead thereof; and the rib which the Lord God had taken from the man made He a woman, and brought her unto the man." Is that the Darwinian version? Does Hæckel thus explain the origin of sexual differentiation in the higher vertebrates?

In following the long chain of organic life, which probably began with *Bathybios Haeckelii* and culminated in man, each link fits in with generally received scientific theories, and among these none have been so unhesitatingly accepted as the nebular hypothesis of the origin of our planet—as taught by Kant and Laplace—and the explanation of the complex relations existing between the members of our solar world—known as the Copernican system.

But evolution, even when restricted in its application to animal life, has a yet closer connection with these theories, for the simple protoplasmic mass that finally assumed the shape of living amœboid masses originated from the earth's crust; and the earth itself is the product of an inorganic evolution—unfolded from that fiery cloud which rolled for untold ages the mother-nebula of solar worlds. If, then, the one of these theories be not true the sister theory of evolution will require serious remodelling; if the other be wholly a delusion, geology is a lie; if only a partial truth, then a blow will have been struck at the very foundation of the theory of evolution, and that philosopher who in his musings on the weather-beaten Matterhorn saw in primordial matter the promise and potency of all earthly things, had a mental hypochyma, and the "nebulous haze" he speaks of was a purely subjective phenomenon of his imperfect vision. I am obliged to insist upon this because no twistings of the translation and no perversion of the evident meaning of the text will reconcile the ancient Jewish cosmogony to the present teachings of science. When (Genesis i. 3) God said, "Let there be light; and there was light," that light must have existed countless centuries anterior to his making of the heavenly bodies during the fourth "day." And yet all this time vegetation flourished and actinic energy from some source was storing away the boundless wealth that constitutes our coal-measures! On the first day He created the *effect* of solar light, but postponed for innumerable cycles the creation of what we know to be the one great *source* to us of light and life!

Similarly the evolution of vegetation, which is now as firmly insisted upon and as fairly shown as the evolution of animal life—how does it accord with this statement in Genesis ii. 4, 6: "These are the generations of the heavens and of the earth when they were created, in the day that the Lord God made the earth and the heavens,

and every plant of the field before it was in the earth, and every herb of the field before it grew: for the Lord God had not caused it to rain upon the earth"? That is to say, while the doctrine of evolution teaches the gradual development, in the course of ages, by means of natural selection, the survival of the fittest, and other processes, of all plant life from inorganic matter, the account in Genesis portrays an anthropomorphic God-gardener who performs a sort of will jugglery and lo!—*ex nihilo*—the plants are there! For once the sacred writer is explicit. The plants are created "brand new, and bearing the stamp of the manufactured article." And no rain? Why the most violent storms that traverse our earth are ethereal mildness itself when compared with primeval downpours! If the rain-drop markings on the oldest stratified rocks were not preserved to this day to totally disprove the assertion of this verse the very fact of the existence of Eozoic seas implies rain and thunder storms as plainly as if we possessed authentic meteorologic reports of those primitive eras. But Dr. Howard goes still further. He would constitute these crude conceptions the patron saints of modern science, for he says:—"We then may read the passages thus—the evening and the morning was the first period, instead of first day, *and much of the trouble will be overcome towards establishing the theory of evolution to be a scientific fact.*" The italicized sentence leads one to ask, which has the more trying task to accomplish, he who measures out his science to suit his religious creed or the man who stretches upon the procrustean bed of his science the tortured remains of his religious *corpus*? In this particular instance one would wish for the former that the writers of the Pentateuch had been disciples of Pythagoras. Had that been the case, we should not now be obliged to witness the mental gymnastics of those sincere but much-to-be-pitied searchers after truth who consider it possible to "reconcile" the mythical Ptolemaic system with the more reasonable conception of the former philosopher. And for the latter class—well, they are at least allowed the pleasure which comes from the unrestrained use of their reasoning faculties. There is, finally, one matter to which Dr. Howard alludes that Hæckel's sympathizers, as well as his opponents, seem to have recognized, and that is his bigotry on theological questions. Prof. Huxley, writing in a late review, mourns over this lack of charity,

and insists upon it that respect for an adversary's opinions and a desire to avoid sources of ill-feeling are far more productive of good results than impatience and uncharitableness. In this sense Hœckel deserves the rebuke administered to him in Dr. Howard's second paper. Still, while admitting Prof. Hœckel's evident ignorance of the real significance of the dogma of the Immaculate Conception, I cannot but think Dr. Howard is mistaken in supposing that he proceeded on the assumption that the "Virgin Mary had no father, but was procreated asexually by her mother." There is no "glimmer of hidden truth" here. The most natural conclusion is, as it seems to me, that he confounded the dogma of the Incarnation (see Luke i. 34, 35) with that of the Immaculate Conception.

But a far more ironical commentary on this tendency is the inconsistency which the man shows himself to be guilty of. "Where science ends, then faith begins," is what he affirms in that "History of Evolution" which he wrote some years previous to his work on the "Evolution of Man." Had he kept this maxim in view he would not have been guilty of the blunder referred to. And here let it be noticed is the only safe gauge by which to measure the scope and mutual relations of science and religion. Many difficulties would be overcome, and much ill-feeling prevented, if, to use the pregnant words of the Lord Bishop of Carlisle, science were regarded not as either *atheistic* or *theistic* but as *atheous*; that is, as preserving an absolute neutrality on all questions of religious faith. It would eliminate two very manifest and important errors which, curiously enough, Dr. Howard mentions, and one of which he unconsciously falls into. Because (following this train of thought) while it is a mistaken notion that "the science of evolution leads to infidelity and atheism" it is just as incorrect to repeat the much-employed statement that "the more a man knows of natural science the nearer is he to the supernatural Creator." If the Bishop's suggestion were universally received and acted upon, scientific men, on the one hand, might carry on their researches undisturbed by timid questioning of the tendency of their work; and, on the other hand, men of all shades of religious opinion would have a sure harbor of refuge, where they would be unaffected by, and might be indifferent to, the tempest raging without on the troubled ocean of analogous and inductive reasoning.

Like Faraday, each of us would be able "on entering his laboratory to shut to the door of his oratory; on passing into his oratory to close the door of his laboratory."

Yours truly,

H. SAPIENS, M.D.

Montreal, June 26th, 1881.

MALTO-PEPSYN.

We direct attention to the letter of Dr. Burns of Toronto, concerning this preparation, which we publish below. Knowing Dr. Burns, we place much reliance upon his testimony. Our own experience is that Malto-Pepsyn is a very valuable preparation, and we recommend its use by our readers.

TORONTO, 26th July, 1881.

HAZEN MORSE, ESQ.

DEAR SIR,—In reply to your letter of the 12th inst., asking our experience of the use of Malto-pepsyn in the Infants' Home, I beg to say on my own account, and for Doctors McDonald and Pyne, to whom I have spoken on the subject, that much benefit has been derived from the employment of your preparation wherever the use of agents required to promote digestion were indicated.

It has been found beneficial also in vomiting accompanying diarrhoea among the infants of the Home, and is advantageously administered in certain forms of diarrhoea.

Yours truly,

J. H. BURNS, M.D.

Consulting Physician at Infants' Home.

Progress of Medical Science.

HEADACHE, AND THE REMEDIES PROPOSED.

There is scarcely any other complication, to which the human system is heir, which causes the patient more continued misery, and the physician more annoyance and disgust with his powers of diagnosis, and with the workings of his remedies, than headache. The medicine which has been acting so nicely proves inert, and the patient suffers all his former torments unrelieved.

It has been thought that it would be of value to the young practitioner to present in one article all

the remedies which have within recent years been found valuable in this complaint, that from them he may continue to select until he finds one adapted to his patient. With this view and hope the present article has been prepared.

Dr. Henry Hartshorne, in his "Essentials of the Principles and Practice of Medicine," says that pain in the head, cephalalgia, may be considered as depending essentially upon:—

"Neuralgia; rheumatism of the scalp; congestion of the brain; toxæmia (*e. g.*, by narcotics, alcohol, etc.); fever (remittent, yellow, typhoid, etc.); chronic disease of brain (tumors, etc.); uterine irritation, etc.

"The distinction between these different forms of headache is by no means always easily made out. As a general statement it may be said that neuralgic headache is mostly on one side (hemicrania), and extends more or less to the face; it is usually accompanied, also, by sensitiveness of the scalp, and is shooting or darting in its character. Rheumatism of the head is attended by stiffness of the muscles which move the head from side to side. Congestive, febrile, and toxæmic headaches are accompanied by heat of the head, and are throbbing or pulsating. That of uterine irritation is on the top of the head. The pain of chronic cerebral disease (tumors, etc.) is commonly constant or periodic in one spot, and is attended by some functional disorder of the brain."

Although the physician will often be baffled in his search for a cause of headache in a patient, yet many causes will often be patent. One, especially in females, is constipation, by which habit the blood is poisoned and the nervous centers unbalanced. Irritating foods are a frequent cause of headache; all such should be avoided; gastric catarrh, irritability, acidity, and flatulence are all excellently corrected by abstaining from food for one or more meals when headache is threatened. Acidity of stomach should be corrected by magnesia, soda bicarbonate, or blue pill. Impure gases in living rooms and bed-chambers, due to defective or insufficient ventilation, are constant causes of headache. Tumors in the brain, when suspected, should be treated with potassium iodide. Persons troubled with nervous or sick headache should go to bed after drinking a cup of tea, and remain as quiet as possible. The remedies which follow are, for headache, toxæmic and congestive, though they may be sometimes applicable in other cases.

In nervous headache, Dr. W. A. Hammond gives preference to the following drugs:

Oxide of zinc, in pill. Dose, two to five grains.

Nux vomica. Dose, one-fourth grain after meals, frequently best combined with iron and quinia, especially in chlorotic patients.

Bismuth subcarbonate and subnitrate may both be used in place of zinc oxide. Dose, two grains, after each meal. It acts by allaying any gastric disturbance, and thus promotes digestion.

The bromides, especially bromide of potassium,

are valuable in all cases of headache from nervous irritability; if one bromide does no good, try another. In cases of nervous exhaustion they often do harm.

Phosphorus is often found useful in cases of nervous headache. An excellent form is phosphoric acid, thirty drops, largely diluted, three times a day after eating, or phosphorus in pill, one-sixtieth grain, or the phosphide of zinc may be used in pill, one-tenth grain, three times a day; or phosphorus dissolved in ether one-sixtieth grain. Arsenic is highly valued. An excellent preparation is Fowler's solution, five to ten drops after each meal.

Galvanism has in many cases been found to give relief; use the constant current and avoid too great intensity.

The solution of acetate of ammonia is unrivaled in treatment of nervous and sick headache. Dose, a teaspoonful or two, repeated every hour.

Morphia sulphate, one-fifth grain in a cup of coffee, has been found to be an excellent occasional remedy for nervous headache of females, occurring about the menstrual epochs. It is unsafe for constant use. The acetate and muriate of morphia have a similar action, and may be tried.

Hydrate of chloral has a transient effect in nervous headache, dose ten to twenty grains in peppermint water, or it may be applied locally, made into an ointment, with lard; chloral seven parts, lard twenty-seven.

Butylchloral hydrate has lately been recommended for nervous headache in anæmic girls and women. It must be administered in glycerine or syrup strongly flavored with essence of peppermint, or syrup of liquorice root, to cover up its bitter taste.

Tea, coffee and Paraguay tea, from the contained caffeine, are found valuable in nervous headaches produced by cerebral congestion; hence, when the face is flushed they are indicated, but when the face is pale and the pain is simple neuralgic, these substances seem to aggravate the trouble.

Two grains of citrate of caffeine, in capsule, taken every half hour, is said to be a very effectual remedy in nervous and sick headache, one or two doses usually being sufficient to give relief. It is seldom rejected by the stomach, but in some patients it produces sleeplessness. It is indicated in the cases mentioned as suitable for tea and coffee.

The following is said to be frequently prescribed by Dr. W. W. Carpenter, for headache.

R Muriate ammonia ℥ iii.
Acetate morphia, gr. j.
Citrate caffeine, grs. xxx.
Aromatic spirits ammonia, f ℥ j.
Elixir of guarana, f ℥ iv.
Rose water, f ℥ iv.

M. Sig. Dose, dessertspoonful every ten or twelve minutes.

Monobromated camphor has been found valuable in headaches brought on by over-stimulation of the brain through study or excitement. Dose, two to five grains in sugar-coated pills.

Linden flowers in infusion, thirty to sixty grains of the flowers to a pint of water, is a common domestic remedy for nervous headache; it may be taken either cold or warm, whichever is the more agreeable. The linden trees are variously known as lime trees, bass-wood, and whitewood; they are stately noble trees. All species are valuable, both American and European.

Ammoniated tincture of valerian has been used in nervous headache. Also the elixir of valerianate of ammonia. Dose, a fluid drachm. These are among the most reliable remedies for this troublesome affection.

Valerianate of zinc was formerly much praised for its influence over nervous headache, but is now only employed in cases of excitable or hysterical females.

On the authority of Schumacher, ergot is said to be valuable in cases of nervous headache or migraine. It is administered in powder, six grains a day, gradually increased to fifteen grains.

The inhalation of ether frequently relieves nervous headache.

In nervous headache, faintness or drowsiness, the stimulating effects of strong vinegar, or dilute acetic acid are useful; the best results are obtained by snuffing the fumes, and by placing a wet cloth with them upon that portion of the head in which the pain is most acute. The effect is increased by the addition of camphor, and other aromatics.

The headache produced by quinia and iron is prevented when these medicines are combined with hydrobromic acid, a substance which appears to act upon the nervous system, much in the same way as does potassium bromide. The acid also prevents the tinnitus aurium, and disorders of vision which often follow the continued use of larger doses of quinine. Dose, thirty drops, diluted. Flavor with lemonade.

Headache depending upon acidity of the stomach is often relieved by carbonate of ammonia. It may be administered by inhalation and internally. Dose, two or three grains in water solution, with mucilage or sugar to destroy taste.

Aromatic spirit of ammonia is employed almost exclusively for the relief of headache, and especially those forms depending upon acidity of the stomach, and accompanied with flatulent eructations. It probably corrects the acidity, and provokes the expulsion of the gases, and at the same time gently stimulates the nervous system in a manner which allays pain. Dose, thirty minims, diluted, repeated.

Nitrate of amyl has been found to relieve nervous headache. Dose, three to five drops inter-

nally, taken in some aromatic spirit, or by inhalation, about five drops being inhaled from the hand or handkerchief.

The delicate and refreshing perfume of orange-flower water will be gratefully received by many afflicted with nervous or sick headache. It may be administered by inhalation, or by the mouth.

Camphor water, in doses of a tablespoonful, is valuable in nervous headache. Camphor may also be given in substance.

Many patients gratefully take peppermint water in doses of a tablespoonful or more for headache. It acts in the same manner as other diffusible and aromatic stimulants. An infusion of the fresh herb may also be administered, also the spirit.

For periodical headaches, the sulphate of berberina has been found valuable. The dose is one to two grains, dissolved in aromatic sulphuric acid, well diluted with water. Its efficacy seems to be due to its anti-periodic virtues.

Owing to its anæsthetic properties the extract of cannabis indica has been tried with some success in cases of recurrent headache, or migraine. In such cases it is recommended to take it habitually in doses of one-third of a grain twice a day, during the attacks, to be increased to grain one-half or more. This remedy is said to be especially valuable in cases of hereditary headache, and is well worthy of trial in all these cases of "ever-living, never-ending, martyrdom-like suffering."

Berberina has been much praised for its control of periodical headaches. Dose, grains five to fifteen, gradually increased.

Guarana, in its control of headache, much resembles tea and coffee. It is especially valuable in the various forms of recurring nervous sick headache, especially in females at the menstrual periods, and the headache which follows a debauch, when the head throbs and the eyes are bloodshot. It, however soon loses its power in most cases; it is best administered in infusion or alcoholic extract. The elixir of guarana is an excellent preparation.

Primula officinalis, primrose, and convallaria, lily of the valley (officinal parts, the roots), have been used as sternutatories for relief of headache, and they probably have some value.

Sneezeweed (*helenium autumnale*), a native plant of the natural order compositæ, has been used as an errhine in incipient coryza, and to relieve headache. The flowers and leaves are officinal, and are administered in powder.

Exhaustion of Nervous System.—Valerianate of ammonia, in doses of two to ten grains, dissolved in water, with some flavoring tincture, continues to be administered with considerable success in nervous headache. It is most valuable when the nervous system is exhausted.

Valerianate of quinia has probably some value in sick headache.

In headache brought on by nervous exhaustion, cubebs, by stimulating the nervous centers, has

been thought to be beneficial. The action of the drug is probably indirect, by improving the digestion, and hence the blood. Dose, ten grains, in water with sugar, or in wafers.

Local applications.—Bisulphide of carbon, from its anæsthetic properties, has been used as a local application in headaches. It is made into an ointment with from five to ten parts of lard.

Chloroform is also used topically and by inhalation. Covered with oiled silk it quickly blisters. It should always be inhaled by a patient when alone, with care, and always discontinued before insensibility is reached.

Oil of lavender may be used topically to calm nervous headache. It may be given internally in doses of four or five drops. Best administered in the simple or compound spirit of lavender.

Oil of peppermint was used by the ancient Romans, and from the remotest antiquity by the Chinese, as a local analgesic remedy. It is of special value in neuralgic headache. It should be applied on a saturated cotton compress, covered with a piece of oiled silk, waxed paper, or sheet caoutchouc, and placed over the supra-orbital, the temporal, or other nerve in which the pain is most severe. Frequently merely painting the skin with the oil from a small brush or feather will answer.

Oil of origanum may be used in the same way, and for the same purpose, as oil of peppermint.

Black pepper may be applied locally in the form of a plaster, for headache; and to improve the digestion, and thus relieve headache. Dose, five grains, in pill.

Spirit of nitrous ether is recognized as a soothing application to the forehead, in cases of neuralgic headache. It should always be recently prepared, as old preparations, sometimes, when frequently applied, irritate the skin.

Spirit of lavender is an agreeable lotion for bathing the forehead in nervous headaches. Dose, internally, thirty minims, diluted.

Bay-rum (spirit of myrica) is used in the same way as spirit of lavender, as a lotion.

Ginger, for its rubefacient and anodyne qualities, is much employed in cataplasms and fomentations for the relief of headache. It is not without value.

Still other Remedies.—Dr. T. Lauder Brunton, editor of the *London Practitioner*, says: "The administration of a brisk purgative, or small doses of epsom salts, three times a day, is a most effectual remedy for frontal headache, when associated with constipation; but if the bowels be regular, the morbid processes on which it depends seem to be checked, and the headache removed even more effectually by nitro-muriatic acid, diluted, ten drops in a wine-glass full of water; or bicarbonate of soda, ten grains in water, before meals. If the headache be immediately above the eyebrows, the acid is the better; but if it is a little higher up, just where the hair begins, the soda seems to be the most effectual. The removal of headache invigorates the whole system."

Tincture of nux vomica is given by Ringer, in drop doses every five or ten minutes, for eight or ten doses, and then continued at longer intervals, for sick headache, accompanied by acute gastric catarrh, whether due to error in diet, constipation, or no apparent cause.

An excellent local application is made of a quart of water, half pint of common salt, one ounce harts-horn, and a half-ounce of spirits camphor; mix and keep in a tightly corked bottle. Saturate a cloth and apply to seat of pain.

When the head is filled with blood and the temples throb, soak the feet in very hot water, in which a spoonful of ground mustard has been stirred. In the same way use a salt foot-bath. The blood will be drawn from the head to the feet and relief obtained.

A tablespoonful of charcoal, powdered, stirred into a glass of water and drank at once is excellent in many cases of headache from sour stomach, flatulence, etc.

Digitalis, by moderating the heart's action, is often valuable in headache with cerebral congestion. Dose, one grain, in powder.

Oil of turpentine, in moderate doses, has been much praised as a remedy for headache.—Prof. Geo. B. Groff, M.D., S.B., in the *Physician and Surgeon*.

THE INUNCTION OF CASTOR OIL AS A PURGATIVE.

Dr. John McNicoll, L.R.C.P., etc., Ormskirk, writes in the *British Medical Journal* October, 16th, as follows:

In a case of acute dequamative nephritis in a child five years old, where I wished to act speedily upon the bowels, and had tried to administer the usual purgative powders and draughts (but had failed owing to the struggles of the child, which neither promises of rewards nor of punishments would subdue), I ordered the inunction, with a warm hand over the abdomen, of one-third of an ounce of castor oil. The result was a free action of the bowels five hours afterward, followed by two other movements during the day.

Dr. Ringer, at page 318 of the latest edition of his *Therapeutics*, does not appear quite satisfied as to the possibility of the oil acting in this manner; having tried and found it so successful, I wish to record the fact, believing that we have in this method a means of purging children (and possibly adults) which must be valuable to those who suffer from the horrible nausea which usually attends the administration of castor oil by the mouth.

That any one should doubt the possibility of introducing medicines epidermically is marvelous. They have but to try it to be convinced. To children with delicate stomachs this is the best way to give antiperiodics. The remedy should be thoroughly mixed in petrolina, vaseline, or lard.

ON A NEW METHOD OF ARRESTING GONORRHOEA.

Under this title Mr. W. Watson Cheyne, Assistant Surgeon to King's College Hospital, describes (*British Med. Journal*, July 24, 1880) an antiseptic treatment of gonorrhœa. An examination of gonorrhœal pus disclosed the presence of micrococci in large numbers, and Mr. Cheyne thinks it probable that the essence of disease consists in the growth of these or allied organisms.

In the case of gonorrhœa, Mr. Cheyne supposes that, at the time of infection, a small number of the specific organisms, which in all probability possess a considerable resisting power to the destroying action of the healthy living tissues, are retained in the urethra, that these go on developing, that the products of their growth irritate and weaken the mucous membrane in their vicinity, that the organisms can then penetrate into and live in that weakened tissue, and that the extension of this process over a portion of the mucous membrane of the urethra is the cause of the inflammatory symptoms.

Now, granting that this view, Mr. Cheyne says, which I think must be admitted to be very probable, were proved, the problem to be solved for the cure of gonorrhœa would be, how to destroy these organisms without at the same time injuring the inflamed and highly sensitive mucous membrane. If they were destroyed, one would expect the extension of the disease to cease, and the inflamed mucous membrane to return more or less rapidly to a normal state. On thinking this matter over, two substances appeared to me suitable for this purpose, being both powerfully antiseptic, and at the same time but little irritating. These are iodoform and oil of eucalyptus.

The next question was, how to apply them. It is quite clear that, if used as an injection, there would be no certainty that they would be brought into contact with the whole of the inflamed surface, partly because the swollen mucous membrane would interfere with the passage of the fluid, and partly because the patient would not in many cases apply it effectually. At the same time, an injection could not be expected to do much good, for it would flow out very quickly, and the antiseptic would not have sufficient time to act. I therefore use these antiseptics mixed with cocoa butter, and made into bougies of various lengths. These bougies are introduced well into the urethra, and a strap and pad over and around the orifice retain them. The bougie rapidly melts, and the mucous membrane of the urethra remains bathed in the antiseptic material for any length of time desired. These bougies possess an additional advantage over injections in that, from their size (they have a diameter of a No. 9 or 10 catheter, tapering at the point), they, so to speak, unfold the swollen mucous membrane, and thus cause the antiseptic to be more thoroughly applied.

I have tried the two antiseptics separately and

also combined, and I find that they are most effectual when used in combination (possibly because iodoform is soluble to a considerable extent in oil of eucalyptus, and is thus brought into more perfect contact with the mucous membrane). The formula which seems best is five grains of iodoform* and ten minims of oil of eucalyptus in a bougie of forty grains. These bougies have been made for me by Mr. Martindale, of New Cavendish Street.

The specific cause of the disease being eradicated by this means, the question of further treatment arises. It seems to me that, although the development of the gonorrhœa is arrested, yet, if the discharge be allowed to become septic and irritating, urethritis might be kept up for some time. I, therefore, order an injection of boracic lotion (saturated aqueous solution of boracic acid), or an emulsion of eucalyptus oil (one ounce of eucalyptus oil, one ounce of gum acacia, water to forty or twenty ounces) to be used for two or three days. At the end of that time, injections of sulphate of zinc, two grains to the ounce, may be begun. At the same time, the great tendency of the urethral mucous membrane, when once inflamed, to remain in a state of inflammation, must be kept in mind, and everything which might tend to keep up the inflamed state must be removed. Notably, the patient must be cautioned against drinking, and it is well to order diluents and alkalies.

The method may be summed up as follows. The patient is first told to empty his bladder, partly to clear out his urethra, and partly to prevent the necessity of expelling the antiseptic from the canal for several hours. He then lies down on his back, and a bougie from four to six inches long is introduced, and the orifice of the urethra closed by strapping. The bougie ought to be dipped in eucalyptus oil, or in carbolic oil (1-20) before insertion. The patient is instructed to refrain from passing water, if possible, for the next four or five hours. If the case be severe and advanced, he takes another bougie home, and is instructed to introduce it in the same manner after he next passes urine. On that evening, or on the following day, he commences the antiseptic injection, which he uses four or five times daily. On the third or fourth day, when the symptoms have entirely subsided, an injection of sulphate of zinc, two grains to the ounce, is begun†. At the same time, the other points mentioned are attended to.

* A considerable number of the cases have been treated with bougies containing ten grains of iodoform; but Mr. Martindale informs me that during the warm weather it is almost impossible to make them. I find, however, that bougies containing five grains are quite satisfactory, and I have had no symptoms of irritation following their use.

† In hospital practice, where the patient is only seen once a week, and where there is no great necessity for arresting the discharge quickly, I do not order the sulphate of zinc injection till the week following the introduction of the bougies.

I have now used this method in about forty cases, and in all the result has been the arrest of the progress of the gonorrhœa. For a day or two the purulent discharge continues; but afterwards it steadily diminishes in amount, becoming in four or five days mucous, and ceasing altogether in a week or ten days. At the same time, the scalding and pain and the symptoms of inflammation rapidly diminish, and disappear completely in about thirty-six to forty-eight hours. In fact, the case becomes no longer one of virulent gonorrhœa, but one of simple urethritis, rapidly progressing towards recovery, if properly treated. ‡

I have used this treatment only in the early stages of the disease, from the first to the seventh day after the commencement of the symptoms; but it has answered equally well in all. Thus the following is the case in which it was used seven days after the commencement of the symptoms. The patient presented himself on June 19th, stating that the symptoms of gonorrhœa had existed for seven days. There was a profuse purulent discharge from the urethra; the penis was somewhat swollen and red; there was intense scalding when urine was passed, and a constant feeling of heat and uneasiness; no chordee. A bougie containing ten grains of iodoform and ten minims of eucalyptus oil was passed down, and the orifice closed in the usual manner. The patient was also ordered an injection of an ounce of oil of eucalyptus and an ounce of gum acacia in a pint of water, to be commenced in the evening, and to be used four or five times daily. On the 19th he again presented himself, and stated that he had not passed water till five hours after the introduction of the bougie; that the scalding and feeling of uneasiness rapidly subsided, and had completely ceased in forty-eight hours; that the discharge had steadily decreased from the second day, and was now very small in quantity. He was ordered the sulphate of zinc injection, which completed the cure in three days.

In one case, there was a recurrence of the symptoms. The patient, a hospital patient, first

presented himself on June 5th, stating that on June 2d, five days after connection, a discharge had commenced, which had steadily increased, and was now profuse and accompanied with considerable uneasiness and scalding in passing urine. A bougie containing ten minims of oil of eucalyptus alone was inserted; no other treatment was ordered. On June 9th he returned, stating that, after the introduction of the bougie, the scalding and uneasiness had diminished, and had almost disappeared on the evening of the 6th; but that on the afternoon of the 7th they began to return, and were now more severe than on the 5th. I introduced a bougie containing ten grains of iodoform and ten minims of eucalyptus oil, and gave the patient another to insert at bedtime. At the same time, I ordered the injection of boracic lotion to be commenced on the following day. When seen again on the 16th, he stated that this time the treatment had been successful, and that now the discharge was very slight. An injection of sulphate of zinc and a mixture containing copaiba were ordered, and the discharge ceased entirely on the 20th.

In two or three cases there has been slight increase in the scalding on the first or second occasion on which the patient passed urine after the introduction of the bougies; but this has only been temporary, and these cases were as rapid as the others. In four instances, however, there has been considerable increase in the symptoms for twenty-four or thirty-six hours. In three of these the bougies had been made with beeswax, and they did not melt properly, and consequently came out of the urethra at various periods as small cakes. Further, it seems that some iodine had been set free from the iodoform, probably during their manufacture. In the fourth case, four bougies, each containing 10 grains of iodoform, were introduced in succession. In all these, however, the symptoms passed off in about three days; and then the gonorrhœa was found to be checked, just as in the other instances.

Such are the results as yet obtained by this method. I do not claim any specific power for the two substances I have mentioned. It may be that there are other antiseptics which would be more suitable, and I intend to test any which seem likely to yield good results. Whatever substance be used, however, I venture to think that the results already obtained show that the principle on which it ought to be applied, and on which it will prove most satisfactory, is that which I have attempted to indicate in this paper.

TO DISGUISE THE TASTE OF TINCTURE OF IRON.

Dr. Hager recommends that tincture ferri chloridi be mixed with simple syrup and then with milk. This mixture will not affect the teeth nor will the styptic taste be apparent.

‡ The course described here is that usually followed when boracic lotion has been employed as the injection; but since I have begun the use of the eucalyptus emulsion, the cessation of the discharge has, as a rule, been more rapid. Thus, to give an example, a patient came to the hospital on July 3d with symptoms of gonorrhœa, which had lasted four days. He was suffering from a very acute attack, having severe scalding and commencing chordee. He had not previously suffered from gonorrhœa. A bougie containing five grains of iodoform and ten minims of eucalyptus oil was introduced; and he was ordered to begin an injection of the eucalyptus emulsion (1 in 40) in the evening. The patient showed himself again on July 7th, and stated that in twenty-four hours the painful symptoms had entirely disappeared, and that the discharge diminished rapidly, and ceased altogether on July 6th. I have since that time had several nearly as rapid cases. I have tried in three cases injections of eucalyptus emulsion without previous introduction of a bougie, but without any appreciable effect on the progress of the disease.

TREATMENT OF POST-PARTUM HEMORRHAGE.

Dr. George J. Engelmann, of St. Louis, thus briefly outlines (*St. Louis Med. and Surg. Journal*, Aug., 1880) that treatment of post-partum hemorrhage which seems to him the most rational, as suggested by his own experience, and a careful analysis of the recent experience of able and judicious obstetricians.

A.—*Preventive treatment after induction of labor.*—1. Careful attention to every detail, and strict observance of obstetric rules in every case of labor.

2. The administration of a full dose of ergot as the head enters the vaginal orifice.

3. Should hemorrhage threaten, follow the uterine fundus with the firmly superimposed hand.

4. Express the placenta by Crêdè's method, and retain a firm grasp upon the fundus.

B.—*Treatment of an existing hemorrhage.*—1. External manipulation, pressure, and friction with the cold hand, or with ice.

2. Ergot.—best subcutaneously, one or two large doses, whilst other manipulations are in progress.

3. Introduction of the hand into the vagina, and if no contractions follow, into the uterus; removal of clots and irritation of the surface, in order to stimulate contractions.

4. The subcutaneous administration of ether.

4a. Ice or vinegar, if at hand, may now be tried in the uterine cavity, but if they fail must not be persisted in.

5. The hot-water douche, which, if it is not followed by the desired contraction, will at least stimulate the patient, and cleanse the cavity, so that the final, safest, and most reliable remedy may be resorted to.

6. The iron swab—this may be used at once, if the introduction of the hand and the subcutaneous injection of ether fail, or after the trial of the hot-water douche; but in desperate cases must be resorted to at once, without losing time with other less reliable methods.

OPHTHALMIA NEONATORUM.

In a "special article" in "The New York Medical Journal and Obstetrical Review" for July, 1881, Dr. Charles Stedman Bull, Surgeon to the New York Eye and Ear Infirmary, writes of the ophthalmia of new-born infants, dividing the affection into (1) purulent (2) croupous or membranous, and (3) diphtheric conjunctivitis. Recognizing the purulent form of the disease as due in the great majority of instances to inoculation with the muco-purulent or purulent discharge from the mother's vagina during parturition, the practical question is one of prophylaxis; and to this end the care of the disease must be placed in the hands of the obstetrician and those of the nurse,

and on them must rest the responsibility of the results. The prophylactic measures recommended by the writer are as follows: In all cases of vaginal discharge in parturient women, whether specific or not, the vagina should be carefully cleansed and disinfected repeatedly before parturition begins. As soon as the child is born the external surface and edges of the eyelids should be carefully cleansed with a one or two per cent. solution of carbolic acid, and then the conjunctival cul-de-sac washed out with some of the same solution, or with a saturated solution of boracic acid. This must be done by the attending physician, or by a skilled nurse under his supervision. The eyes of all new-born children should be carefully watched for the first week or ten days, and, whenever any signs of an ordinary catarrhal conjunctivitis appear, the conjunctiva should be thoroughly brushed over with a solution of nitrate of silver, from two to five grains to the ounce of water. If the conjunctivitis has become purulent, and the case is one of real ophthalmia neonatorum, the child should, if possible, be isolated from all healthy infants, and have its own bath-tub. If this is not possible, the diseased infant should be bathed *last*, and no sponges should be used, but only cloths, which can afterward be destroyed. If one eye only is affected, do not apply the hermetically-sealed bandage to the sound eye, but envelope the arms or hands of the baby, so as to prevent the secretion from being carried to the fellow-eye, and lay the child upon the side corresponding to the diseased eye. The most important feature in the treatment is enforced cleanliness. This requires constant attention and the frequent use of some soft cloths and plenty of water. The use of cold cloths, dipped in cold water or even iced water, and laid on the eyelids, must be regulated by the amount of swelling of the lids and heat of the parts. As soon as the lids can be everted, the proper treatment is a thorough application of nitrate of silver to the conjunctiva of the lid and retrotarsal fold, daily, and sometimes twice a day. If this is thoroughly done, a five-grain solution will in most cases suffice; but, where there are profuse secretion and considerable swelling of the conjunctiva, a ten-grain solution becomes necessary. When, owing to marked hypertrophy of the papillary structure of the conjunctiva, a stronger caustic becomes necessary, it is better to discard solutions, and employ the lapis mitigatus (one part nitrate of silver to two parts nitrate of potassium), and neutralize its effect by a subsequent washing with a solution of common salt. It is well to employ a one-grain solution of sulphate of atropia in a saturated solution of boracic acid in every case of purulent ophthalmia, as the great danger in this disease is purulent infiltration and perforation of the cornea. Should this infiltration occur at the center of the cornea, the atropia should be instilled frequently, for, if perforation occurs, the dilatation of the pupil will prevent a large prolapse of the iris through the perforation. If the infiltration of the cornea, on the

contrary, be at or near the margin, it is better to employ a two-grain solution of the sulphate of eserine, as thus an extensive prolapse of the iris may be prevented if the ulcer perforate. In all cases the cleansing and washing of the lids and conjunctiva should be done with a saturated solution of boracic acid, and the atropine and eserine should be dissolved in the same. As regards the membranous form of the disease, Dr. Bull dissents decidedly from Saemisch's statement that in a small number of cases it merges into the diphtheritic variety, holding that the two are distinct diseases. The diphtheritic form is very rare in the United States and Great Britain. Out of more than twenty thousand case of eye disease the author has seen but ten cases. The prognosis is almost always bad in this variety, owing to the very rapid strangulation of the tissues. The author agrees with von Graefe that while in many cases diphtheritic conjunctivitis is a symptom of a general disease, yet there are cases in which it is a local disorder, caused by infection with the secretion from a purulent ophthalmia.

IODIDE OF POTASSIUM IN CARDIAC DYSPNŒA.

Iodide of potassium has been found by Professor Sée to work well in all cases of continuous cardiac dyspnœa, particularly when this is connected with some structural lesions. It is very useful in valvular lesions. No evil result can occur from its use, even if a mistake is made and the affection is asthmatic. The iodine liquifies the bronchial secretion. The dose is twenty grains a day, gradually increased to two or two and a half scruples. A good formula is :

R Potas. iod..... 3 vss.
Syr. aurantii cortf. $\frac{3}{4}$ iv.

Sig.—Two to four teaspoonfuls a day in a tumbler of water.

Patients suffering from heart disease are more tolerant of iodide of potassium than other patients. The contra-indications to its use are : 1, tendency to hemorrhage ; 2, loss of flesh ; 3, loss of strength ; 4, loss of appetite ; Opium may be added to prevent iodism. Another useful combination is digitalis with iodine, as one has a soothing influence on the dyspnœa by acting on the lungs, and the other increases the action of the heart and modifies the arterial tension. The following formula will be found to answer well :

R Potas. iod..... 3 ss.
Tinct. digitalis.....f. $\frac{5}{8}$ ss.
Syr. Acaciæ.....f. $\frac{3}{4}$ iv.

Sig.—Dessertspoonful four times a day.

When digitalis is unsuitable, chloral may be substituted.

A MENSTRUUM FOR SALICYLIC ACID,

In the *Louisville Medical News*, Dr. Springer states that salicylic acid is readily soluble in effervescing Vichy or Seltzer water, the former, from containing an excess of alkaline carbonates, being preferable. The acid is put into a tumbler first and mixed thoroughly with a small quantity of water, to prevent its floating, and the glass is then filled with the effervescing water and the liquid drank off. When perfectly dissolved it is said to have a very pleasant, exhilarating, pungent, and sweetish taste.

PREVENTION OF LACERATED PERINEUM.

B. E. Mossman advocates artificial dilatation of the perineal structures before the head reaches the floor of the pelvis, in order to prevent laceration. He claims that his method has never failed in uncomplicated labor in normal primiparæ to prevent rending so much as even the mucous membrane covering the inner sides of the fourchette.

He anoints the external parts and vagina as far as the finger will go, with melted lard with extract of belladonna ; and if the first stage of labor occupies one or two hours, he makes two or three such applications. As soon as the womb has dilated sufficiently so that the cervix is safe against laceration, he begins at once artificial dilatation of the perineum. He applies the belladonna ointment freely, and then places one or two fingers within the vagina, making pressure lightly but continuously downward and forward.

When the head descends so as to press upon the perineum, he removes the fingers from the vagina, and introducing them into the rectum and placing the thumb upon the occiput of the child, pulls the perineum forward and upward, and presses the head upward under the pubes whenever a pain comes on, Goodwell's method of protecting the perineum.

When the pain ceases and the head recedes, he applies the dilating force with the fingers in the vagina as before, alternating the pressure from within with the forward traction during the pain, and retarding the expulsion of head until the dilatation is sufficient to allow the escape of head without laceration.

He thinks that it is very rare that shoulders cause laceration after the head has safely passed. —*American Jour. of Obstetrics*.

TREATMENT OF SPRAINS.

Dr. Brinton (*Philadelphia Med. and Surg. Reporter*) orders the injured limb to be placed in hot water, and boiling water added slowly until the highest endurable temperature is attained. The limb should be retained in the water fifteen or twenty minutes, when the pain will be found to have disappeared in most cases.

ANTI-PRURITIC REMEDIES.

For some we have employed a remedy locally which has given much satisfaction. It is the yellow of the egg beat up and applied to the part by means of surgeon's lint. The lint is to be cut in small pieces, dipped in the egg, and applied to the part. The itching and soreness generally yield quickly to the application—the application to be made several times a day till the disease yields.

Of course constitutional treatment must be employed to relieve any diseased condition of the uterus or vagina, which may give rise to it.

This remedy we obtained from Dr. Semple, of Wilkesburgh. He had long employed it, with some members of the profession in that section, with marked advantage.

While giving a local remedy for a disease of which itching proves its chief symptoms, it may not be amiss to say a word or two in reference to the itching which accompanies some other forms of disease. In chronic eczema and other varieties of skin disease, especially of the anus and the genitalia occurring in old people, and accompanied by distressing itching, chloral and camphor mixed with vaseline quickly gives temporary relief. The preparation should only be employed when there is no abrasion of the skin.

In the January number of the *New York Medical Journal*, Dr. A. D. Buckley recommends the tincture of gelsemium, given internally, as an excellent and efficient anti-pruritic remedy. He gives it chiefly to adults, and carefully watches its physiological effects. Generally he has observed its effects after the exhibition of one or two doses. First ten drops are exhibited, and this may be repeated in a half hour in slightly increased doses for two hours, or until relief or some physiological effect appears. Generally about one drachm or so of the tincture may be given in two hours. This often gives perfect relief to the itching when the remedy must be discontinued. It is mostly given at night, and that only when the prurient symptoms are troublesome. Relief cannot be expected in all cases, but in many it gives great relief.

The fluid extract has also been employed with advantage. From three to ten drops are administered every two or three hours till its characteristic effects are observed.—*Pittsburgh Med. Journal*.

TREATMENT OF ULCERS.

By E. Fiebig. *Berlin Klin Wochenschr*, 1880. No. 35.—After cleansing the surface of the ulcer by treatment with carbolic acid or iodoform, continuous compression by means of a thin plate of lead, such as is used in packing tea, contributes materially to the cure of callous or torpid ulcers of the leg.

CAUSES OF DISPLACEMENTS OF THE UTERUS IN GENERAL.—

1. Conditions producing increase in the bulk or weight of the uterus, as—

I.—Uterine tumors.	IV.—Inflammations of uterus.
II.—Subinvolution of uterus after labor or abortion.	V.—Hypertrophy of uterus.
III.—Congestion of uterus.	VI.—Pregnancy.

2. Conditions producing diminution in the consistence of the uterus, as—

I.—Pregnancy.	IV.—Uterine Inflammations.
II.—Subinvolution.	V.—Feeble health.
III.—Uterine congestion.	VI.—Mal-nutrition.

3. Conditions tending to produce relaxation of uterine supports and general loss of tone in adjacent structures, vagina, perineum, &c., as—

I.—Effects of pregnancy, and parturition.	III.—Feeble health.
II.—Vaginitis.	IV.—Mal-nutrition.

4. Mechanical causes pushing or dragging the uterus, as—

I.—Tumors, either uterine or non-uterine.	III.—Excessive intra-abdominal pressure, as from tight lacing.
II.—Inflammatory deposits or effusions.	IV.—Distended Bladder.

5. Accidents, injuries, &c., as—

I.—Falls.	III.—Sudden exertion.
II.—Concussions.	IV.—Injuries of parturition, as ruptured perineum.

6. Muscular effects, as—

I.—Violent coughing.	III.—Occupations which necessitate much standing as shop women, or prolonged muscular exertion in the standing position as laundresses.
II.—Straining at stool.	

7. Congenital peculiarities of the uterus.

Remarks on Displacements of the Uterus.—

1. When no symptoms are present, treatment is quite unnecessary; but it must not be forgotten that sterility may be the only symptom.

2. When the displacement is fixed by inflammatory adhesion or deposits, mechanical treatment, as a rule, must not be undertaken.

3. Displacements may either be the cause or the consequence of chronic hyperæmi, inflammation, or hyperplasia of the uterus. In these cases—rest in bed, local depletion, vaginal douches, and mild saline purgatives, are often necessary before mechanical treatment can be commenced.

4. Displacements act in three ways, producing three sets of symptoms:

- I.—Functional, relating to the organ itself.
- II.—Mechanical, by pressure upon neighboring organs.
- III.—Remote or constitutional, due to the reaction of the two former.

5. Displacements tend to get worse, and there is little tendency to spontaneous reposition. They

are nearly always secondary affections, and generally occur during the child-bearing period; pregnancy and parturition being the most important factors in their causation.

6. A pessary, when in situ, ought to cause no inconvenience or pain. A properly fitting pessary generally affords immediate relief, and may be left in situ for several weeks or months.

7. A stem-pessary should never be left in the uterus for a longer period than a month or six weeks without removal.

8. Displacements frequently cause sterility or abortion.

Retroflexion and Retroversion of the Uterus.—The former occurs when the uterus is bent backwards at the fundus only, the os uteri remaining very nearly in its normal situation.

The latter exists when the whole uterus is inclined backwards, the uterine axis not being altered.

Retroflexion of the Uterus is probably the most common displacement to which the uterus is liable. It may occur in young or advanced age, and it is usually a secondary affection, being generally developed out of a partial retroversion.

The causes producing the condition most likely to result in this displacement are mentioned more especially under Nos. 1, 2, 6, 7, "Causes of Displacements in General."

Symptoms.—They vary much in different cases. The catamenia may be profuse, scanty, or painful. Dr. Atthill says, that when the displacement is due to congestion or chronic inflammation of the uterus, terminating in hypertrophy, the catamenia are diminished in quantity, and frequently painful; but that when retroflexion is the result of subinvolution of the uterus, following labor or abortion, the catamenial discharge is increased in quantity, sometimes to an alarming degree.

Pain in the back, and a sense of weight in the pelvis, are generally present, as well as various other symptoms due to pressure and reflex irritation, as difficult and painful defæcation, bladder trouble, vomiting, &c.

By vaginal examination, &c. :—

1st. Cervix uteri will be found in situ.

2nd. The fundus uteri will be felt behind the os as a rounded tumor.

3rd. The rounded tumor will disappear if the sound be passed with its concavity backwards, and then a half-turn be given to the instrument.

Retroflexion has a two-fold action on the uterus.

1st. The veins are compressed by the bending of the organ, producing congestion and hindering the exit of the menses and other secretions.

2nd. Hypertrophy and inflammation are set up.

Treatment.—The uterus must be restored to its normal situation. This can usually be done by one of the different kind of pessaries, the uterus being first replaced by the finger if possible. When the pessary fails to raise the uterus, or when the uterus, although raised, still remains bent on itself, it will be necessary in the first place to

replace the organ either by means of a stem-pessary, pressure per rectum, or by the use of the sound as a repositor (*vide* Nos. 1, 2, 3, "Remarks on Displacements in General.")

Retroversion of the Uterus is a rare affection, and is nearly always associated either with pregnancy or prolapse of the uterus. It produces, unless extreme, comparatively little effect upon the uterus itself; the symptoms being chiefly those due to pressure and dragging, and those which belong to the hyperæmia and inflammation present (*vide* No. 4, "Remarks on Displacements in General.")

On vaginal examination :—

1st. The os uteri will be found to be tilted forward and elevated.

2nd. The fundus uteri will not be in situ.

3rd. No angle can be felt behind the os between it and the cervix.

Retroversion and retroflexion have to be distinguished from :—

1. A tumor in the posterior wall of the uterus.

2. A retro-uterine hæmatocele.

3. A small ovarian tumor in Douglas's pouch.

Retroversion of the gravid uterus usually terminates in one of three ways :—

1. Utero-gestation may proceed normally, the uterus rising out of the pelvis in due time.

2. Abortion may occur—three or four months.

3. Death may take place.

Treatment.—The uterus must be kept in its normal position by means of a pessary (*Vide* Nos. 1, 2, 3, "Remarks on Displacements in General.") In retroversion of the gravid uterus it is necessary to keep the bladder empty, and to raise the fundus uteri above the brim of the pelvis. The latter can often be accomplished by means of two fingers in the vagina, care being taken to avoid the promontory of the sacrum. After the fundus has been raised, it will be necessary to confine the patient strictly in the recumbent position for some time, as a relapse or abortion is very liable to occur. The catheter must also be used regularly. When reposition cannot be accomplished, abortion must be performed.

Anteversion and Antelexion of the Uterus.—These are the forward displacements of the uterus. In anteversion, the whole uterus inclines forward, without alteration of the uterine axis.

In antelexion, the uterus is bent forwards upon itself. The former is frequently a primary affection; but the latter, like retroversion and retroflexion, is usually secondary.

The factors producing the conditions most likely to result in the forward displacements, are enumerated under Nos. 1, 2, 3, 4, &c., "Causes of Displacements in General."

Anteversion of Uterus.—Dr. Barnes states that coitus is not an unfrequent cause of this displacement.

Symptoms.—*Vide* Nos. 4 & 8, "Remarks on Displacements in General."

Physical examination will reveal :—

1st.—By vaginal examination, the os uteri high

up, under the promontory of the sacrum, and generally pointing backwards.

2nd. In front of os uteri the vaginal wall will be felt tense and stretched, and through it the rounded mass of the uterus can be made out.

3rd. By combined vaginal and abdominal examination, the fundus uteri can be felt above or behind the symphysis pubes.

The sound will also give diagnostic signs, but it must not be used if pregnancy is present.

Treatment.—Some mechanical support is necessary to keep the uterus in its normal situation. The sound will rectify the displacement, but it usually quickly returns to its malposition without a support. When the abdomen is very prominent a good abdominal belt is indicated. (*Vide* Nos. 1, 2, 3, "Remarks on Displacements in General.")

Anteflexion of the Uterus.

Symptoms.—(*Vide* No. 4-8, "Remarks on Displacements in General.")

Treatment.—The rectification of the anteflexed uterus is more difficult than that of the anteverted one. It is most important that the fundus should be raised to its normal position and retained in it. The former can generally be easily effected by means of the uterine sound, but the latter is a matter of much difficulty. A stem-pessary, when it can be borne, often accomplishes the latter purpose. When the abdominal walls are very flaccid, a good belt ought to be worn. (*Vide* Nos. 1, 2, 3, 7, "Remarks on Displacements in General.")

Prolapsus Uteri, or downward displacement of the uterus. There are different degrees of descent of the womb. The minor degrees, in which the uterus only drops in the vagina, are usually distinguished as prolapsus; whilst the extreme ones, in which the uterus passes forth through the vulva, bear the name of procidentia. In a large proportion of cases of prolapsus the history is a continuous one, beginning with labor, and marked successively by uterine engorgement, subinvolution, inflammation, prolapsus, retroversion, and hypertrophy.

Prolapsus is called acute when it is produced suddenly, as by violent coughing, from a fall, &c.

Causes.—Especially those enumerated under Nos. 1, 2, 3, and 5, "Causes of Displacements in General." In a large majority of cases, this displacement is associated with elongation of the supra-vaginal cervix.

Symptoms.—They vary much in different cases, and in aggravated examples there may be much suffering. Dragging pain in the back, hypogastrium and groins, is generally present, as well as a sense of bearing down. Micturition and defæcation are difficult. Menorrhagia may exist, and there is nearly always leucorrhœa. In cases of old standing, when the prolapse is complete, the mass hanging outside the vulva is frequently enormous; in them the surface of the tumor is covered with patches of ulceration, while the mucous membrane of the vagina is so altered by exposure and the effects of friction as to resemble true skin.

Treatment.—Prolapse is always a very troublesome affection, the tendency of which is to become slowly worse. The prolapse can usually be replaced by manual treatment, the patient being placed in the horizontal position. In favorable cases, if reposition is followed by prolonged rest, a cure may result: but generally some kind of pessary is necessary to retain the uterus in its proper position. Astringent injections must be used if the vagina is relaxed. Operative measures are often necessary in this displacement, but palliative treatment should always first be tried. Much can be done by postural treatment, by astringent injections, and by the judicious use of pessaries. For an irreducible procidentia, the only available treatment is a suspensory bandage, which may support, and by gradual pressure eventually diminish, the displaced mass. When the perineum is much relaxed, or if it has been lacerated from parturition, it will be necessary to narrow the vagina. In these cases a V-shaped portion of the mucous membrane of the anterior vaginal wall must be removed on Sim's plan. If there is considerable elongation of the cervix uteri, amputation of the cervix is indicated. This is not a difficult operation, and is best performed by means of the ecraseur, care being taken not to remove any portion of the vaginal wall. When there is considerable rectocele, with impairment of the perineum, the perineal operation, or posterior colporrhaphy, must be performed. — *London Hospital Gazette.*

ELIXIR CHLOROFORMI COMPOSITUS.

By W. F. McNUTT, M.D., L.R.C.L., ETC., ETC., ETC.,
Professor Principles and Practice of Medicine, University of California.

I have been in the habit for several years of prescribing Collis Browne's chlorodyne, in certain cases of asthma, colic, diarrhœa, neuralgia, rheumatism, hysteria, etc. It has seldom failed to be of some benefit, and often acted like a charm; in fact, I found it a most excellent and reliable anodyne, antispasmodic and sedative.

On account of several objections to its use, I have, after a great deal of experimentation, adopted the following formula as a substitute for chlorodyne, viz.:

R	Morp. mur.....	gr. ½
	Chloral hyd.....	
	Chloroform.....	aa 3 ss.
	Tinct. cinnab. ind.....	
	Tinct. capsici.....	
	Acid hydrocyan. dil.....	aa M xx.
	Spt. menth. pip.....	M x.
	Syr. sassafras co. ad.....	5 j.

Dose—5 j.

This I have named elixir chloroformi compositus, and can heartily recommend it to those who have been in the habit of using chlorodyne. To those who have never used chlorodyne I may say that they will find elix. chlorof. comp. a most efficient

remedy for many purposes and under many circumstances; for instance, in whooping-cough, asthma, emphysema, cough of many phthisical patients, in many cases of hysteria, and especially in many cases of dysmenorrhea it certainly has no equal. Given as an anodyne, it seldom produces headache or disturbance of the digestion, as does morphine, or depresses the heart's action as does hydrate of chloral. In diarrhœa accompanied with cramping pains and tormina, in teaspoonful doses, repeated every two or three hours, it generally acts quickly and satisfactorily.

In many cases of diarrhœa in children, a few drops of the elixir, together with a few drops of castor oil and vini ipecac, in syrup of acacia, make a most efficient remedy.

The objections to chlorodyne are—

1. It is very expensive in this country;
2. It is not a perfect mixture, as it separates;
3. It is too concentrated to be safe for general use;
4. And principally it is a patent medicine, the exact formula of which is unknown.—*San Francisco Western Lancet*, August, 1880.

VARICOCELE AND ITS TREATMENT.

C. Nebler (*Inaug. Diss.*, Breslau, 1880; *Cbl. f. Chir.*, 1880, p. 635) urges the radical operation,—double ligature after laying open and excision of a section of the venous plexus,—with antiseptic precautions. He says this is absolutely without relapse and usually harmless. His views are based on five cases operated upon by Fischer. Nebler also concludes that atrophy of the testicle, which was observed as the result of two operations in Halle and once by Miflet, is not necessarily the result of the operation, but of the simultaneous wounding and ligature of arteries. Experiments on animals are brought forward by Nebler in support of this view. He regards the older operations as frequently dangerous.

TUBERCULOSIS AND PREGNANCY.

Gaulard (*Thèse de Paris. Le Progrès Méd.*, 1880, p. 670) says that pregnant women are far from enjoying that immunity from acute and chronic disease which used to be supposed. Pregnancy exercises anything but a salutary influence on the course of tuberculosis. The puerperal condition aggravates phthisis, as does nursing. Gaulard brings forward a large number of cases in support of this view. In one series of thirty-two cases, phthisis existed before pregnancy; the aggravation of the disease was, so to speak, constant. In a second series, tuberculosis appeared at a more or less advanced stage of pregnancy, and became worse and worse until its termination. Finally, in a third series of cases, phthisis did not seem to show itself until a period more or less prolonged after accouchement. It seems to Dr. Gaulard

that in these last cases the puerperal condition exercised considerable influence on the appearance of the disease. On the whole, the influence of pregnancy, as shown by Gaulard's statistics, is unfavorable: in pregnant women phthisis runs a more rapid course than in other women.

TREATMENT OF CYSTITIS.

Diday (*La France Méd.*, 1880, p. 523) recommends patients suffering with this disease to drink daily a large glass of flaxseed tea mixed with orgeat or other flavor, or with some mineral water. A stimulating plaster twice the size of the palm is to be placed over the kidneys, and if necessary retained in position until it produces an eruption. The patient should take great care to resist the inclination to pass the last drops of urine. This is very important, and exercises an immediate happy influence on the tenesmus and the exudation of blood. In addition, a pint of an infusion containing the following powder is to be taken twice daily: \mathfrak{R} Folii hyoscyami, gr. xii.; sacch. alb., gr. ii.— \mathfrak{M} . A slight narcotic effect is produced by this infusion, which is favored by inunctions in the perineum with belladonna ointment, or by rectal suppositories containing one and a half to three grains of extract of belladonna. If the pain persists, the narcotics can be increased to a toxic degree, carefully watching their effect. During the morning the patient drinks every half-hour a tablespoonful of an infusion of forty-five grains of hyoscyamus in three ounces of water. In a few hours relief is almost always obtained. The medicine may be begun again after a few days if the trouble returns. Ice is indicated in anal tenesmus and enlargement of the prostate. For the prevention of ammoniacal urine the following prescription is recommended:

\mathfrak{R} Acid. benzoic., gr. xv. ad xl;
Glycerinæ, f 3 i ad 3 iss;
Syrupi acaciæ, f 3 v.— \mathfrak{M} .

Sig. Half a teaspoonful to a teaspoonful daily.

TREATMENT OF FISSURE OF THE ANUS.

In an unusually painful case of this character Dr. Glénérat (*Bull. Gén. de Thérap.*, vol. ii., 1880, p. 269) used the following means of relief. The patient took about a drachm of calcined magnesia in syrup every evening before retiring. In the morning she was seated upon a commode containing a boiling-hot decoction of belladonna leaves kept hot by fresh additions of the same, and the vapor confined by a wrap around the seat and body of the patient. After a few minutes efforts at defecation were made, which at first were very painful. When the pain began to lessen, the efforts were again made, and the pain became less and less. After the stool was finally passed, a few minutes more were spent over the

belladonna vapor, and then the following suppository was placed in the rectum :

℞ Ol. theobromæ, 3 ijss ;
Ext. belladonnæ, gr. iij ;
Ol. amygd. dulcis. q. s.—M.

The ointment was smeared upon a wisp of lint, and this formed the suppository, which was renewed if it fell out during the day, and was changed every morning after the fumigation. After eight days of this treatment the patient was much better : the magnesia was stopped on the tenth day, the suppository on the fourteenth, and the fumigation at the end of the third week, though the patient was recommended to use the latter from time to time.

PRURITUS VULVÆ.

According to Martineau (*Le Progrès Médical*, 1880, p. 530) pruritus vulvæ may be due to general causes, such as glycosuria, pregnancy, and nervous perturbation, or it may originate in mere local disorders, as intestinal worms (oxyuris), pediculi, tinea tonsurans, vesical calculi, vegetations or polypi of the urethra, or vulvitis. The general condition of the patient should be very closely looked after, and appropriate remedies should be applied to remove the remote cause of the trouble, whatever that may be found to be.

In the acute stage of pruritus accompanying vulvitis, emollient applications are, of course, indicated. Starch poultices (not linseed, for this decomposes too easily), lotions of infusion of belladonna, aconite, or poppy-heads, or of a weak solution of bromide of potassium or of chloral (three grains to the ounce), may be used. They should be hot rather than cold. Washes of corrosive sublimate of one-per-cent. strength may be employed when the stage of acute inflammation is passed.

Fifty parts of perfectly neutral glycerole of starch, containing one part of the following substances, tannin, calomel, extract of belladonna, or oil of cade, according to circumstances, may be used with advantage. Now and then light cauterizations with nitrate of silver prove advantageous. Révillout has occasionally found that the insertion of slices of citron between the vulva will allay the itching. In chronic cases Dr. Guéneau de Mussy anoints the vulva night and morning with the following :

℞ Glycerol. amyli, 5 j ;
Potassii bromidi,
Bismuthi subnit., aa gr. xxv ;
Hydrarg. chlor. mite, gr. x ;
Ext. belladonnæ, gr. v.—M.

The vulva are to be washed with a dilute solution of borax containing a little emollient, as starch.

Delieux de Savignac follows the lotion just mentioned with a powder :

℞ Pulv. lycopodil, 3 j ;
“ bismuthi subnit., 3 iss ;
“ radicis belladonnæ, 3 ss.—M.

In very rebellious cases, hip-baths, each containing two to three drachms of corrosive sublimate first dissolved in dilute alcohol, may be employed.

SCOUR WEED (*Equisetum hyemale*).

A. B. Woodward, M.D., writes in the *Therapeutic Gazette* :

No case of inflammation of the kidneys can be so successfully treated as with this simple remedy. It is also valuable in all inflammation wherever located. If there is a specific for children wetting the bed at night, it is *equisetum hyemale* ; and I have treated the worst cases of diabetes mellitus successfully when other remedies had failed to render any assistance whatever. The specific indication for its use are a fissured tongue with pain and tenderness in the region of the kidneys. If the tongue is fissured both transversely and longitudinally, and has a dark, shiny redness, add tincture of iron. Say to two-thirds of a goblet of water add—

℞ Tinct. equiseti hy..... 3 j ;
Tinct. ferri. chlor.....gtt. xxiv. M.
Sig. Teaspoonful every two hours for an adult.

HYPODERMIC INJECTION OF ERGOTIN AS A COUGH-SEDATIVE.

Dr. James Allen, in a communication to the *British Medical Journal* (vol. i., 1881, p. 158), says that ergotin, injected hypodermically in doses of from one to three grains, is a remedy of notable power in allaying coughs of various lung-conditions, and in diminishing sputum. Unlike some potent drugs, that occasion general distress out of proportion to possible good results, ergotin is not followed by any constitutional disturbance. However injected, there is local irritation : if into the subdermal connective tissue, suppuration may take place ; it should be thrown deeply into a muscle, as the deltoid. In a small proportion of cases it entirely fails. Sedative effect persists for a day or two, and is likely to control a cough that has defied even the most cunningly devised linctus. In the severe harassing cough of advanced phthisis, not unfrequently exciting sudden fatal hæmoptysis, ergotin is indicated as a prophylactic. The internal administration of the liquid extract of ergot, in moderate or tolerably large doses, does not seem to have the same effect.

CARBOLIC ACID FOR CARBUNCLES.

Dr. J. T. Woods gives the results of several experiments with carbolic acid in the treatment of carbuncles, in a recent issue of the *Medical and Surgical Journal*. He describes the treatment on a patient suffering with two carbuncles, one on

the back of the head, the other below it on the neck. He loaded a hypodermic syringe and, passing the point through the openings and into the sloughing mass in every direction, completely saturated it with the pure acid and awaited results. In a minute the smarting disappeared, and with it all pain and all sense of soreness. He again charged the instrument, and thrusting it through the skin over the other carbuncle, in a variety of places, soaked the whole carbunculous mass beneath the skin, enough of necessity escaping to fully bathe the borders, modify inflammation, and destroy any septic elements then developed. In a few moments all the pain and soreness was gone in this also. The skin over the mass became quickly white, hard, and dead, and in a few days detached, in the form of a slough, the interior mass also becoming rapidly loosened, only requiring the cutting of a few shreds to remove it, when the cavity was found to present a satisfactory appearance and rapidly filled up, leaving an exceedingly small cicatrice. The remarkable feature in this case was that after the complete saturation of the carbunculous mass no pain occurred, the patient going about his ordinary labor without discomfort. Dr. Woods advises the use of the pure acid only, and to complete saturation. Dilution would increase, if not create, danger of absorption of the acid, converting a very simple procedure into a condition of great danger, and insufficient quantity defeat the purpose for which it is used.

THE TREATMENT OF BRIGHT'S DISEASE.

Dr. W. T. Gairdner devotes a long article to this subject, having special reference to the employment of diuretic remedies. He refers to the elimination or evacuant method of Osborne, in which the skin was powerfully acted upon; and says in regard to it that he believes the care of the function of the skin within reasonable limits to be exceedingly important, and the means proposed for exciting its activity in transpiration well adapted for the purpose. Moreover he is not opposed to the specially English practice of using strong purgatives; but he ventures to affirm that these means do not need to be employed merely to save or spare the kidney, and that the employment of the milder diuretics, even when not *per se* effective or sufficient, is by no means to be avoided or in most cases postponed to other methods of treatment. In other words, he holds as the result of simple clinical experience, apart altogether from theory, that diuresis in Bright's disease is not a thing to be avoided, but to be promoted if possible, and therefore that diuretics *per se*, so far from being proscribed, should in most cases form a part of all good treatment, even of the acute and subacute forms; and further, that diuresis is commonly at once the index and the result both of successful treatment by other therapeutic methods and of the spontaneous resolution of the disease. His experience

entirely confirms the early statement of Christison, that when the more mild saline diuretics can be brought to act at all in renal diseases they by no means tend to increase but rather greatly to diminish the proportion of albumen in the urine, while the total excretion of the normal solids is notably increased.—*Glasgow Med. Journal*.

AMMONIO-SULPHATE OF COPPER IN TIC DOULOUREUX.

Doctor Fereol of Lariboisiere has used the above old and long forgotten remedy in four cases of tic douloureux, with results so satisfactory, that he strongly recommends its re-introduction. He prefers the following formula:

R. Cupric-ammonio-sulphate.	grs. $1\frac{1}{2}$ -2;	
Syr.	$\frac{3}{4}$ i;	
Aq.	$\frac{3}{4}$ iii.	M.

This quantity is to be taken during the 24 hours, preferably after vegetable food. If the pain continue, increase the dose. In one case as much as nine grains were used during the day, giving rise, however, to gastro-intestinal disturbance; even the administration of the usual doses will cause fetor ex ore and a metallic taste, nevertheless continue with $1\frac{1}{2}$ gr. daily for 12 to 14 days.—*Medical Times and Gazette—Norwegian Journal of Medicine*.

CURE OF OZÆNA BY IODOFORM.

Dr. Letzel prescribes iodoform, mixed with gum Arabic, so as to form a smelling-powder, in the proportion of two grains of the former to ten of the latter; from three to six of the powders to be used daily. In six cases of ozæna so treated the result was extremely satisfactory. In two of these, which had been under various treatments for two months, this effected a cure in from ten to fifteen days. In the other four cases, which were less serious, a cure resulted in six to eight days. Before administering the powder, the nasal douche is to be used.—*Allg. Wiener Med. Zeitung*.

THE WONDERS OF TELEPHONY.

Punch has the following, which is good enough to be true: The Principal (from the city, through the telephone, to the Foreman at the "Works"): "How do you get on, Pat?" Irish Foreman (in great awe of the instrument): "Very well, sir; the goods is sent off." The Principal (knowing Pat's failing): "What have you got to drink there?" Pat (startled): "Och! Look at that now! It's me breath that done it!"

Small boy to rustic parent: "I say, pa, what kind of medicine is P. P. P. P., which I see painted on the fences?" Parent: "Well, I don't 'zactly know; but I suppose it is something to act on the kidneys."

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MONTREAL, AUGUST, 1881.

The issue of the August number has been delayed by the absence of the editor upon his annual vacation. Early in August we sent a statement of account to every subscriber. The replies have not been what they should. We propose at the end of the volume to cut off all those in arrears for a considerable period. In the meantime we ask our friends to think that the RECORD has to be paid for regularly, and to send us without delay the amount of their indebtedness.

LITERARY NOTE FROM THE CENTURY CO., N.Y.

A PORTRAIT OF DR. HOLLAND.

There is hardly a literary man in America whose writings have been more widely read than those of Dr. J. G. Holland, nor one whose name is better known among the people. It is said that nearly 600,000 copies of his books have been sold, to say nothing of the enormous sale each month of *Scribner's Monthly*, over which he presides as Editor-in-chief. The Century Co., publishers of *Scribner's* (to be known as "*The Century Magazine*" after October), will soon issue a portrait of Dr. Holland, which is said to be a remarkably fine likeness; it is the photograph of a life-size crayon-drawing of the head and shoulders, recently made by Wyatt Eaton, and will be about the size of the original picture. It is to be offered in connection with subscriptions to *The Century Magazine*.

COLLEGE OF PHYSICIANS AND SUR- GEONS, PROVINCE OF QUEBEC.

The Preliminary examination for admission to the study of Medicine takes place in Quebec at the Laval University on the 22nd September. The semi-annual meeting of the College for granting licenses and the transaction of general business takes place in Quebec on the 28th of September. It will then be just a year since Mr. Lamirande was appointed prosecuting officer for the College. During that time he has not been idle. A large number of Medical men who were not registered have been compelled to do. Several who had never taken out their license, although entitled to it, have been brought to see the error of their way. A very large number in arrears for their annual contribution have been taught that punctuality in its payment is the cheapest way in the end. In the matter of prosecuting charlatans, at least good progress has been made. The following judgments have been rendered in favor of the College.

John Resco, Montreal.

Mrs. McIntosh, midwife, Montreal.

Denis Dragon, Montreal.

Joseph Rondpré, St. Anne la Pérade.

Napoléon Mercier, Quebec.

The following actions are now pending in Court
Theodore D. Whitcher, Beebe Plain.

Gabriel Courchène, La Baie, Yamaska.

Jerome Fiset, Quebec.

Emilie Fortin, St. Benoit.

Richard Birch, Templeton.

Joseph Quintal, Longueuil.

J. B. Goulet, Lambton.

"THE BRIDAL EVE."

Mrs. E. D. E. N. Southworth's powerful and highly absorbing novel, "THE BRIDAL EVE," is shortly to be issued by Messrs. T. B. Peterson & Brothers of Philadelphia, Pa., in excellent style at the exceedingly low price of seventy-five cents a copy. This fascinating story deals with love, romance, crime and woman's devotion, and has plot of the most ingenious and effective description. The scene is laid in England, and the characters mostly move in high social circles. The cheapness of the work should give it an immense sale. Everybody will be delighted with it.

WYETHS' ELIXIR OF GENTIAN WITH TINCTURE OF CHLORIDE OF IRON.

In this preparation, by the addition of a small quantity of acidulated Citrate of Potash, the peculiarly disagreeable and styptic taste of the Chloride of Iron is avoided. Physicians will find this preparation the most agreeable and effective mode of administering this pure bitter Tonic, with the most prized of all the salts of Iron, but hitherto often inadmissible owing to difficulty of inducing nervous and fastidious patients to take it, on account of styptic taste, effect upon the teeth, as well as the occasional diarrhœa it induces, etc., etc. This preparation may be given to children and delicate females with great benefit, and with but little fear of disagreeing with the most sensitive stomachs.

REVIEWS.

The Bacteria. By DR. ANTOINE MAGNIN. Translated by Dr. G. M. Sternberg. Little, Brown & Co., Boston.

This book concludes by saying: (1) "Bacteria are cellular organisms of vegetable nature.

"(2) Their organism is more complicated than was for a long time believed. The principal points brought to light are: their structure, the presence of cilia, the nature of the substance contained in their protoplasm, colored granules, grains of sulphur."

We doubt if more than a small minority of our professional brethren are aware of above facts. Should this surmise be correct, perhaps no better *raison d'être* could be for this volume.

Independent movement does not, of itself, indicate animal life, as such movements are seen in diatoms, spores of algæ and some fungi. The presence of cilia, which are found in nearly all bacteria, seem, according to some microscopists, to account for their movements. Dr. Magnin, on the other hand, agrees with Cohn in believing it to depend on the presence of oxygen, as, when this gas is absent, the bacteria are motionless. No doubt now exists as to the true nature of their bodies. Cohn asserts that, with high powers, he has been able to see the cell membrane. The action of chemicals proves that it exists and is composed of cellulose, the reactions being the same as that of vegetable cells. The contents consist of protoplasm which is highly refractive. Whether the gelatinous substance in which some forms of bacteria are included, forming zooglea, is a secretion from the protoplasm, or is pro-

duced by a thickening and jellyfication of the cell membrane, is not satisfactorily established.

To distinguish bacteria from inorganic substances, optical and chemical signs are given: These, however, are frequently fallacious. Men of admitted scientific attainments and renown have minutely described as species of bacteria the results of their method of procedure, such as the effects of chromic acid, etc.; others have described as specific forms what have been proved to be well-known organisms present in many putrefactive processes. The method of *cultivation*, which within the last few months has been followed by important practical results in France through the labors of Toussaint and Pasteur, is by far the best means of distinguishing the bacteria. Koch of Wollenstein, Greenfield and Burdon-Sanderson of London have also done much good work in this field, but Pasteur's name stands pre-eminent. The presence of bacteria in a fluid does not necessarily signify putrefaction. This is well exemplified in the case of a microorganism discovered by Toussaint in what is inappropriately termed fowl-cholera, with respect to which Pasteur has particularly directed his attention during the last few months. The organism, which is most destructive as a disease, occasions no putrefactive changes in chicken broth, in which it may be cultivated.

Although these investigations are not referred to in Dr. Magnin's book for the very good reason that they were undertaken since its publication, the author does justice to his previous labors.

The work is a particularly good *résumé* of what is known with respect to bacteria. Without such a book as this it would be a difficult matter to acquire correct knowledge of their true nature. That such is the case can easily be imagined when the "Bibliography" alone in Dr. Magnin's book occupies thirty-two pages, referring to about 600 different monographs and publications.

We cannot leave the book without referring to the micro-photographs which have been made by the translator under the auspices of the National Board of Health of the United States.

Although all the plates are not equally well executed, the work reflects credit not only on the artist but also on a Board of Health that should hold such enlightened views as encourage such a method of recording scientific investigations.

G. W.

BIRTH.

At Emileville, St. Pie, on the 11th June, the wife of Dr. E. A. Duclos of a daughter.

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Original Communications.

VACCINATION WITH CALF LYMPH.

By W. E. BESSEY, M.D., Public Vaccinator to Board of Health, Montreal.

Read before the Canada Medical Association at Halifax, N.S., August 4th, 1881.

MR. PRESIDENT, GENTLEMEN,—The subject of vaccination with *lymph direct from the animal* is one which at present is occupying so much of the attention of the Profession every where that no apology is necessary for its introduction on an occasion like the present.

A discussion of the topic of *animal vaccination*, if fully entered into, would involve a rehearsal of the entire history of vaccination with a consideration of the many unfortunate results which have occasionally been observed to follow ordinary arm to arm vaccination—this, time will not permit. The troublesome consequences which have from time to time been observed to follow the use of *impure lymph* are the disagreeable facts which the Profession have always had to contend against, and this, coupled with the frequency with which attacks of genuine (variola) small-pox, sometimes

fatal, have followed spurious vaccination, has led in some quarters to a most determined opposition to the practice of vaccination.

The unfortunate results which have followed vaccination may, in all fairness, be said to be inexcusable, inasmuch as with due attention, and a proper knowledge of the subject, such casualties might always be prevented.

Such accidents are usually traceable to *long humanized virus* taken from scrofulous or otherwise tainted or unhealthy subjects, or it may be from sources quite unknown to the practitioner using it, and directly responsible for the results.

That vaccine is very sensibly, but gradually, deteriorated by long human transmission has been well established by Bosquet and others. In the illustrations accompanying this paper I have endeavored to give an illustration of a *perfect vaccination*. The resulting cicatrix from vaccination with bovine lymph, early removes of the humanized and long humanized almost inert. We have learned from the mistakes of the past that *two things* are absolutely necessary to guarantee perfect safety in the daily practice of vaccination; and to ensure that degree of prophylaxis or immunity from a future attack of small-pox which the patient has a right to expect.

First, *absolute purity*.

In this, as in other cases, we find that the inexorable law of propagation holds sway, and "we reap that we have sown."

If our lymph has contained *pus* mingled with vaccine germs, we will have a crop of septic poisoning, taking the form, it may be, in a favorable subject of edematous inflammation or erysipelas, followed by abscesses.

If it has contained the taint of syphilis, then following the decline of the vaccine vesicle will appear a hardened base with elevated edges; or in its stead perhaps a phagedenic ulcer, which it will require all the skill of the surgeon to treat.

If an *ichorous* liquid has been included in the discharge of lymph flowing from a vaccine vesicle, which may be the case in an unhealthy subject in an advanced stage of the disease, then such lymph will prove most virulent in its action, when used upon another subject, and following the vaccine vesicle (which will go through its stage of development and appear all right) there will be an acrimonious discharge and a slow healing ulcer, with possibly several new sores occurring where it has touched.

Again, some forms of imperfect vaccine pustules are described by old writers on Vaccination under the head of Spurious Vaccination. Willan describes *three*, and Burns (of Glasgow, 1820), *one*; and as security against small-pox is not conferred by spurious vaccine vesicle, it becomes necessary to study carefully not only the characteristics of the genuine disease as produced with *pure bovine virus* or its *early removes*, but also those appearances which characterize spurious vesicles.

To meet these dangers we have been obliged to go back to as perfect an imitation as possible of the original conditions noted by Jenner in his observations and experiments.

These were based upon the observation every where corroborated—that milkers upon whose hands the disease vaccinia had been casually produced by contact with the disease as it appears spontaneously upon the cow's udders were thoroughly protected, or enjoyed a perfect immunity from subject attacks of small-pox when exposed thereto. Neither could they be made to contract the disease by inoculation.

It will be self-evident that the above conditions are more nearly fulfilled in any given child's case when vaccinated with lymph direct from the

heifer, than when lymph of long human transmission has been used.

The question arises, does the virus obtained by this inoculation of heifers with the virus of original cow-pox induce a development of *vaccinia* in greater perfection and of more protective efficacy, in consequence, than that derived from the use of virus which has passed through a long series of human transmissions?

I maintain that it does, and this is one of its principal advantages. For, whatever may be our opinion of the degree and permanence of protection afforded by long-humanized vaccination, it can hardly be doubted that the nearer the intentionally induced disease approaches in its phenomena to that accidentally contracted by grooms and milkers, which has been proved beyond cavil to be perfectly and permanently protective, then the safer must we be in the assumption for artificially induced attacks of the *vaccinia disease* direct from the animal, of a like thorough and permanent protection.

It may also be asserted that the lymph from the heifer when applied to the child exhibits perfectly all the phenomena of the disease described as having resulted from the use of the earliest removes in Jenner's time, and though admitting that the virus of carefully selected human subjects one or even ten removes from the animal may be equally protective, and less liable to failure in the use, yet the risks from possible evils, such as syphilitic, erysipelalous or septicæmic contagion, are such as to make the choice of animal lymph almost an imperative duty of the practitioner of to-day.

It may safely be asserted that the use of virus direct from the animal ensures safety from scrofula, syphilis, cutaneous diseases, pus inoculation and more especially imperfect vaccination from the use of deteriorated lymph.

Vaccine virus, being indigenous to the heifer, does not degenerate by frequent transmission through the animal, but, when removed to a foreign soil—the human subject—it undergoes modification, and if the greatest care is not observed, is liable to undergo very serious degeneration, for it cannot be doubted that a very gradual but imperceptible change does take place from one transmission to another, sometimes more perceptible in one case than another.

This change has always been observed to be in the direction of a shortening of the period of incubation and developement, a decrease in the

intensity of the vaccinal phenomena, and a diminution of its effect upon the system.

The vaccinal phenomena seen in different cases may differ materially, because of the different sources from whence the lymph has been obtained, for the reason that no two *stocks* of vaccine have manifested precisely the same characteristics: each is distinct in appearance, development and duration, and all equally protective.

Some of the early lymph used in Jenner's time showed a tendency to undue violent irritation and ulceration, which evinced a tendency to spread and be troublesome, and in some cases was attended with erysipelas; later stocks have not manifested these characters. The Beaugency stock of France was mild in character, and, wherever propagated, its use has given every satisfaction. The Esnean (Belgian) in the hands of Dr. Worlmont, has attained great popularity because of its characteristic results. Nothing could have given greater satisfaction than the virus obtained by propagation direct from heifer to heifer of our own Canadian Longue Pointe stock, observed near Montreal on Nov. 6th, 1877. Its use has been very extensive by the Board of Health of Montreal, and has been entirely free from any unpleasant complication, as the following statement of the Vaccination Committee will attest, and which subsequent experience has confirmed.

The undersigned members of the Vaccination Committee of the Board of Health, City of Montreal, having for a length of time had under their personal observation the results of the vaccine lymph supplied to this Board by W. E. Bessey, M.D., have pleasure in bearing testimony to its purity and reliability. Among many thousand children where it has been and is now being used, neither undue irritation nor trouble of any kind has occurred, and as a fact that the lymph was direct from the heifer became known, the prejudice unhappily existing against the practice of vaccination in certain portions of the community has been overcome.

(Signed),

W. H. HINGSTON, M.D., *Chairman*.

J. W. MOUNT, M.D.

F. X. Z. TASSE, M.D.

A. B. LAROCQUE, M.D., *Medical
Health Officer*.

A new source of lymph has been recently discovered in the United States, called the *Cohasset*, which is being propagated by Dr. Martin of Boston. Of its characteristics I am unable to speak.

I am desirous of placing on record a protest against a statement made in the Boston *Transcript*, to the effect that Dr. Martin claimed no well-

authenticated case of spontaneous cow-pox has occurred in America? Dr. Martin must have been aware of the well-established existence of an epidemic of cow-pox among the herds in the neighborhood of Montreal in 1877, immediately preceded by an outbreak of horse-pock attested by Dr. McEachern, V.S., Principal Montreal Veterinary College, and the high character and standing of Dr. Hingston, through whose patient the Lennie Longue Pointe stock was discovered, must be a sufficient answer to any objections that might be raised against it. It occurred in this wise: A patient of Dr. Hingston's, whose husband was a farmer at *Longue Pointe*, called upon him to have her child vaccinated, Nov. 5th, 1877, because she believed their cows had small-pox, and she feared the child might take it, and enquired whether cows ever had small-pox? (An epidemic of small-pox had previously been raging in the city). On being apprised of the circumstance by Dr. Hingston, I visited the farm next morning, in company with Dr. Reed, then another public vaccinator, and found a number of animals in different stages of the disease. I procured crusts and lymph, and on Nov. 7th made my first attempts with it on a number (10) of children. One only of these was successful, namely the child O'Mara.

I paid a second visit to this farm, and obtained some lymph from a heifer in the best possible condition, and with this I succeeded in vaccinating other children and some heifers at Logan's farm. Since then the succession has been kept up constantly from animal to animal, and the happy influence, the supply of vaccine from this source has had in eradicating prejudice, and establishing confidence in the minds of the people and profession of the city of Montreal, has more than satisfied me for the very great trouble and expense connected with its propagation, which the necessity of my position as public vaccinator, in the face of the determined opposition of a misguided public, forced upon me. Let this suffice as to the source of our Canadian lymph.

The objects sought to be attained by the practice of vaccination, are, as I understand it: 1st. To secure protection against future attacks of small-pox, and, 2nd. In doing so to avoid what may be termed "accidents," in the form of unpleasant or unfortunate results, which, it must be admitted, have been altogether of too frequent occurrence. The first of these objects has not been secured by vaccination, as it has been too

frequently performed in the past without care or discrimination as to the lymph used, and with perfect indifference as to the result. This lack of prophylactic power is without doubt traceable to the use of degenerated lymph, although some practitioners of my acquaintance point to their own experience and that of the Royal Vaccine Establishment of England as arguments against this view. But the frequent recurrence of post-vaccinal small-pox can be accounted for in no other way than by the assumption of a previous imperfect vaccination, which observation in small-pox hospitals has fully established as true.

One of the reasons why old practitioners preferred a *crust* for vaccination from was because crusts of a typical character never form where the vesicles have been imperfect either in type or development, and hence by a continual survival and reproduction of the fittest they were able to go on for years without much apparent degeneration in the lymph in use.

Perfect *vaccinia* is always attended with profound constitutional fever, and this is much more marked where heifer lymph is used than where exhausted virus of long human transmission has been employed, and is usually coincident with the rise, development and decline of the *areola* which begins middle of 8th and lasts until 12th day.

Stress requires to be laid upon this constitutional fever, which was considered of the greatest import by the earlier vaccinators, who deemed a vaccination unattended with it not to be depended upon as protective against small-pox. This was Jenner's explanation when *post-vaccinal variola* excited so much comment some years after the introduction of vaccination, laying down as a *dictum* that in all such cases the alleged vaccination had been *spurious*, and that the unfallible test of a perfect vaccination—such as alone was prophylactic against small-pox, consisted in the occurrence of this accompanying febrile action; that without it the patient must not be considered protected, but should be revaccinated.

In my own judgment a better test of a perfect vaccination is the production of characteristic vesicles, passing through all their several stages of development, decline and fall of crust, leaving behind them indelible cicatrices or depressed scars of the peculiar and well-defined type.

The resulting *vaccine scar* is a matter of great importance, and offers to the observing practitioner an excellent guide with respect to the perfection of

a vaccination owing to the direct relation between the two. A great variety of vaccine scars are to be met with, while there is but *one* typical of a perfect vaccination.

Decanteleau, a French writer, in a monograph upon "the cicatrices of vaccine," gives illustrations of sixty, fifteen of which are typical of varieties always to be seen.*

* I have endeavored to obtain a good chromo-lithographic illustration of some of these, with perfect resulting vaccine vesicles, after use of bovine lymph taken from cases in practice.

These variations from the normal type may be accounted for in the following manner:

They may result: 1st. From the use of lymph enfeebled by a long series of human transmissions. 2nd. Some imperfect condition of the vaccine—however pure—preventing its proper development, or an insusceptibility on the part of the patient; or 3rd. Violence applied to the vesicle by which it is lacerated, as from scratches, adherent clothing, etc.

90 per cent. of the variations are due to the first cause, a small number to the second, and fewer still to the third. Since in all but the very feeble good vaccine will produce a perfect vesicle followed by a typical scar, even rupture of the vesicle, while modifying, fails to prevent the formation of a characteristic cicatrix.

The phenomena resulting from vaccination with virus direct from the animal differ materially from those presented by long-humanized lymph, and from what may be termed *spurious* vaccinations.

Jenner described the fully developed disease and areola as having the appearance of "*a pearl upon a rose leaf*," and the crust resulting as of a shape exactly the same as that of the vesicle, circular in form, with a very decided umbilication in the centre. The color of the crust a rich dark brown, sometimes a dark mahogany or amber color.

The *Longue Pointe virus* gives usually a *group of small vesicles*, circular, umbilicated and contiguous, but not confluent. After several human removes it becomes confluent, and as many of these vesicles may be produced as the operator desires by extending his crucial scratches. It develops slowly—sometimes very tardily—until the 6th day, when a small vesicle begins to form, which by 7th day is quite distinct, and by the 8th is fully developed and contains a quantity of clear water lymph, which if extracted will reproduce itself with a slight quickening or shortening of time in the several stages of the phenomena.

On the afternoon of the 8th day the areola has begun to form, which is very decided on the ninth. The vesicle now has the look of a bead of pearl imbedded in a ground work of a rose color, extending from half an inch to one or two inches and tumid. But we should never have redness deepening to purple, or extensive swelling—that is indicative of edematous inflammation, the result of pus poisoning or local septicæmia from pus crusts or impure lymph.

The fever should be very marked from the 9th to the 12th day, by which time the lymph has become dry and opaque. From that date to the 18th the scab or crust is in process of formation, and about the 21st day may be removed or falls off soon after, leaving an excavated depression or pit, having a *smooth central point* and *radiating hands* extending to the circumference. If the lymph has been humanized a number of *foreolations* or pin pointed depressions will appear among the radiating bands. The whole should be terminated by the 30th day, but, if violence has been used, and an irritated sore or vaccinal ulcer has been created, time will be required for the healing.

And here I would like to enter my protest against all kinds of interference with vaccinal sores, beyond cleansing with warm water and the application of a little salad oil, by means of a feather, to the surrounding cuticle, if irritable. Bandages, adherent garments, ointments, powder, and all other tamperings of the ignorant and the pretentious are to be deprecated and condemned. In these phenomena there is seldom seen a single vesicle, generally a group of them. They progress in development very regularly and gradually, seldom or never create any undue irritation or ulceration, and are attended with a well-marked and decided constitutional fever.

I have frequently applied Boyce's test or re-vaccination as a test of the constitutional effects resulting from the use of the lymph in cases where a good result had been obtained, and always with a negative result. I also inoculated six different children with virus obtained from small-pox cases, but without producing anything more than local disturbance and a slight fever. The action of this stock of lymph has always been of a benign and satisfactory character, and it has proved to us in Montreal a providential blessing by removing prejudice and opposition to vaccination.

A very frequent species of spurious vaccine is evidenced by a *pustular* rather than a *vesicular*

eruption. It increases rapidly, instead of gradually, thus a raised centre is situated on a hard inflamed base, surrounded with diffused redness. It contains a fluid at no time clear, but turbid and opaque. It soon bursts and discharges an abundant irritating matter, forming, when it does, flakes of a dirty white crust. If a scab be formed or the vesicle has had the general aspect of a vaccine vesicle, and has progressed regularly, it will be found on the ninth day to contain purulent matter, and will probably dry up and fall off by the 12th day, leaving a soft sloughy sore to granulate. This affords *no* protection to the subject. Another type of spurious vaccination shows itself in the form of a perfect vaccine vesicle in its course of development; it matures early, is white or pearl colored, with a slight tinge of yellow, perhaps I ought to say at once that it is straw-colored—the vesicles seem too full, and the point of umbilication is elevated, as if ready to burst, which it frequently does, discharging an acrid purulent fluid, which is very infectious, and new pustules are created where it touches, a disagreeable sort of secondary vaccination or Boyce's test. It leaves a ragged-looking spreading ulcer, hard to heal. This is sometimes covered with a friable scab, which falls every two or three days, to be renewed again, and so on for weeks or months together.

A piece of clothing becoming adhered to one of these sluggish, soft, or, as I call them, *scrofulous*, *vaccine sores* is certain to cause trouble, as with its removal the surface of the sore is opened anew, aggravating its condition, and bringing upon the head of the unlucky practitioner the anathemas of the patient or friend.

This condition of things may occur with the best virus in a scrofulous subject, no matter how pure, carefully preserved or skilfully used. But it more especially and more frequently follows where long humanized virus has been used, and the greater the number of removes from the original source, the greater the tendency to this unpleasant complication.

Dr. Willan described three typical spurious vaccinal results:

1st. A single pearl-colored vesicle, less than the genuine. The top flattened, but the margins not rounded nor prominent. It is set on a hard base, slightly elevated, with an areola of a dark rose color.

2nd. This is cellular, like the genuine vesicle, but smaller, and with a sharp angulated edge, areola pale red and very extensive.

3rd. A vesicle without an areola.

None of these afford any security against small-pox.

Three causes were suggested to account for the failures: 1st. From matter having been taken from a spurious vesicle, or from a genuine vesicle at too late a period. 2nd. From a patient being seized soon after vaccination with some contagious fever, as measles, scarlatina, &c. 3rd. From the patient having been affected at the time of inoculation with some chronic skin disease, as tinea, lepra, &c. These eruptions always disappear after vaccination. And.

4th. It has been supposed that in arm-to-arm vaccination puncturing the vesicle in order to take lymph from it, by disturbing the process of development, may destroy its prophylactic influence.

It must, therefore, be manifest that some test should be adopted whereby we can ascertain whether the system be protected.

Two have been proposed: *First Boyce's test* or a re-vaccination on the tenth or twelfth day after first. If the system be protected no regular vesicle can be produced, only a vaccinal sore will result.

Second, variolation, or inoculation with small-pox virus. If the system is protected this may produce a small pustule, wholly unattended with constitutional fever; sometimes a slight febrile action may be excited, attended with an efflorescence of the skin, which rapidly disappears, but without any pustule. If performed nine days after vaccination it will not be a fair test, its action then being nil.

Another objection to the use of humanized lymph of any remove is its liability to convey syphilis. This is no myth, but a reality against which we must guard.

In large cities and more densely populated rural towns, it is impossible to be certain that any given child is free from the taint of syphilis, in view of the frequency with which young men become syphilized, and at a later period become fathers of families. No treatment can eradicate the taint from the system, and therefore no such person can propagate a perfectly healthy offspring.

In large cities and more densely populated rural towns it is impossible to be certain that any given child is free from any taint of syphilis, seeing the frequency with which young men (who later become fathers of families) become syphilized, and, after undergoing a course of treatment, more or less

effective, marry, reproduce themselves, and inevitably impart to the offspring whatever blood taints were lurking in the parent constitution.

This, by means of vaccine lymph, may be spread to large numbers, if proper precaution be not taken to avoid it, and no amount of care can guard against such a danger where humanized lymph is made use of for public or extensive vaccination.

My friend, Dr. Robillard of Montreal, relates an experience of his with some tubes of lymphs obtained from a druggist in Liverpool purporting to be from the Royal Vaccine Institution, England, by which two or more children were syphilized and required subsequent constitutional treatment to restore them to health again.

Mr. Hutchison publishes illustrated plates of *Vaccinal Syphilis* occurring in eleven out of fourteen *Vaccinees*, vaccinated from a child carefully selected at one of the stations of the English National Vaccine Institute. Ten had chancre on both arms, one on a single arm, and three escaped.

I was once called upon to treat a case of syphilitic lepra on a child which a senior practitioner had vaccinated a year previous, since which time the child had never been well. I treated it constitutionally and the symptoms entirely disappeared.

The *Lombardy Gazette*, Feb. 2, '78, narrates 26 cases. The *Rivalta* calamity will also be fresh in the minds of professional readers.

We are all liable to convey some blood contamination or septic poison of more or less import by the use of humanized lymph, no matter how carefully it may have been selected, and an action of damages for malpractice would be liable to follow, much to our detriment at the same time, by using a sample of vaccine from which perfect protection cannot be secured and from which many serious accidents are liable to follow.

It seems to one alive to the advantages of vaccination with bovine lymph, almost criminal culpability to use humanized lymph for the purpose of vaccination when animal lymph—from which no bad result can follow and perfect protection may be guaranteed—can be obtained.

The advantages to be derived from the use of *heifer-transmitted lymph* may be briefly enumerated as follows:

1st. Animal vaccine guarantees against the possibility of transmitting any diseased contamination. Cutaneous disease, syphilitic or septic contamination are quite unknown as a sequence.

2nd. It enables a constant supply of pure lymph

to be kept up, on which to draw in an emergency. To this end it is desirable that the Dominion or Local Government should subsidize or otherwise maintain an *Animal Vaccine* establishment, so that every facility may be afforded for its propagation.

3rd. It gives the greatest possible guarantee of protection by enabling the practitioner to carry out true Jennerian vaccination, which has been amply proven by the recorded experiments of Woodville and others to be permanently protective.

4th. It enables vaccination to be carried on without reference to those already vaccinated or the necessity of our tapping a vesicle to obtain humanised lymph, thereby rendering it less protective, and it prevents a *vaccine famine*.

It has been objected to vaccination with animal lymph that

1st. It is too violent.

This I have found to be reversed in the case of Longue Pointe virus, the action of which has always been mild and pleasant. I have found always that the *less pure* the lymph has been that was used in any given case, the greater the local disturbance, and not long since I was asked to see two cases in which abscesses had followed the use of humanized lymph giving a great deal of trouble.

2nd. It has been asserted that animal vaccine might communicate diseases from the animal.

This objection cannot hold where only healthy animals of the choicest quality are used, and in a condition fit for the butcher.

3rd. That it is difficult to *take* unless used when quite fresh.

This is the only objection worth considering, which may be met and overcome by trying to understand and appreciate the fact that *bovine albumen* is much less soluble than the human, and therefore special care is necessary to liquify the lymph on the ivory point by dipping in *cold water* previous to using, and rubbing firmly over the scratches to remove the lymph effectually. This quite overcomes the difficulty.

4th. That it does not keep long active.

If collected on ivory points or slips, and properly put up for preservation, it keeps active as well and as long as any other lymph.

4th. That it is difficult to propagate.

This objection disappears in the hands of a competent and painstaking physician. There is no special difficulty in vaccinating animals that cannot be readily overcome with proper appliances and suitable premises

In the propagation of *animal virus* in the most efficient state for human vaccination, it should be collected at a *certain* and *brief period* during the early stage of the *vesicle*, while that taken at a much later stage is found quite efficient for the vaccination of other animals.

Animals should be selected of the best possible quality, and should be vaccinated directly from each other.

It cannot be denied either that for the successful vaccination of animals and collection of virus in the best condition for use, a high degree of intelligence, patience, experience and skill are required. It will not do to assign the task to an ordinary stable man.

6th. It has been objected that *animal virus* is expensive.

This objection will always continue owing to the trouble and expense which are inseparable with its propagation, but if the Government could be induced to give a money grant sufficient to establish and maintain a National Vaccine Institute, the expensiveness of it might be no longer an objection.

The common practice of vaccination has been very carelessly conducted as a rule, and the public have had no guarantee of safety from impure virus, for the following among other reasons.

1st. Because of the absence of any Government provision for the maintenance of a proper Vaccine Institute where a constant supply of *pure virus* could be produced for gratuitous or partly gratuitous distribution.

2nd. From ignorance and carelessness of practitioners in collecting and preserving lymph or crusts for future uses.

3rd. Too low fees for vaccination, considering its vast importance and the trouble and responsibility which it entails, thereby encouraging indifference.

4th. Neglect of public vaccination by municipal bodies, and low salaries given public vaccinators where it is carried on, vesting the character of service rendered entirely upon the physician's own conscientious sense of duty.

As this is a question of State Medicine, something should be done by the State to establish a Vaccine Institute. It would be very gratifying to find the example of the Government in the mother country followed by the Government of the Dominion in providing animal vaccine at the public expense for gratuitous distribution.

I trust the Committee on Sanitary Legislation appointed by this Association may use its influence

with the Dominion Government to secure an annual grant for the maintenance of a *National Vaccine Establishment*, where a good supply of animals can always be kept under conditions favorable to the propagation and perpetuation of the stock of lymph.

Such an establishment is an imperative necessity in this country, in the interests of the profession and the public.

Progress of Medical Science.

AN OPINION AS TO QUININE IN PNEUMONIA.

A writer in the St. Louis *Clinical Record* says: "I think a good many pneumonic patients are killed with quinine. If there is any indication or reason for giving it, I don't know what it is. It disorders the nervous system, impairs digestion. It has no influence in preventing hepatisation or hastening resolution. I know a man in my country who has complete amaurosis from taking quinine for pneumonia last winter. His doctor gave him half a bottle in twenty-four hours on the 'vasomotor,' 'inhibitory,' 'accelerating,' 'depressing,' 'constricting,' dilating,' hypothetical theory of the day. But the fashion now is quinine, from a stone-bruise to a broken neck. If no more quinine should be used than is really beneficial in disease it wouldn't be worth a dollar a bottle."—*Pacific Med. and Surg. Journal*.

BENZOATE OF SODA IN WHOOPING-COUGH.

D. Tordeus, of Brussels, writes that he has prescribed the benzoate of soda in a number of cases of whooping-cough, and that in all the cases the parents reported that the coughing fits began to diminish in force and frequency after one or two days of treatment. He gives four grains of the salt every hour to a child of two or three years. The drug seems not alone to diminish the force and frequency of the paroxysms, but also to exert a favorable influence on the mucous membrane of the respiratory tract, and to prevent the development of serious pulmonary complications.—*Journal de méd., etc., de Bruxelles*.

TREATMENT OF LEUCORRHOEA IN CHILDREN.

Leucorrhœa in children, says M. Bouchut (*Practitioner; from Le Praticien*), is caused by

vulvitis, not vaginitis or metritis. He therefore treats this condition by extreme cleanliness, repeated bathing with bran-water and lead-water, lotions of corrosive sublimate (two grains to ten ounces of water), carbolic acid (two grains to the ounce), and occasionally solution of nitrate of silver (three grains to the ounce). In the intervals of applying the lotions a pledget of lint saturated with coal-tar or an ointment of red precipitate may be placed between the labia. Such a pledget kept in place by a pad protects the surrounding parts as well as the labia themselves from the irritating secretion, which is often present in considerable quantities. For the general treatment M. Bouchut recommends the administration of cod-liver oil and quinine to strumous patients, and of arsenic to those with eczematous eruptions.

FOR FRESH COLD IN THE HEAD.

Dr. T. F. Houston writes: For fresh cold in the head, accompanied with obstruction in the nasal passages,

R̄. Carbolic acid.....	3 i
Absolute alcohol.....	3 ij
Caustic solution of ammonia	3 i
Distilled water.....	3 iij

M. Make a cone of writing paper; put a small piece of cotton in it; drop on the cotton ten drops of the mixture, and inhale until all is evaporated. Repeat this every two hours until relieved.—*So. Med. Record*.

MANAGEMENT OF THE THIRD STAGE OF LABOR.

Dr. Max Runge, in a communication to the Obstetrical Society of Berlin, criticizes the current teaching regarding the management of the third stage of labor. He takes as the special text of his animadversions the directions given by Fritsch, which are to the effect that *immediately* after the birth of the child the uterus is to be seized by the hand on the abdomen, and the placenta pressed out. Dr. Runge states that for a long time he faithfully carried out this method; and so did others in Prof. Gusserow's clinique. The objection to it is, that the squeezing out of the placenta is begun before that organ has become completely separated; consequently, when the placenta has been expelled, often a lit of the membranes may yet be attached to the uterus and be left behind after the placenta has been taken away. While this teaching was carried out it was quite a common thing for a pair of forceps to be needed to remove these retained pieces of membrane, and secondary post-partum hemorrhage became extraordinarily frequent. He refers to a former

communication of his own, in which, treating of post-partum hemorrhage, he expressed his surprise that within a short time he had many cases of this complication. Then he supposed this frequency was fortuitous. Now he knew the reason, which was his undue haste in pressing out the placenta. Midwives are now instructed, after the birth of the child (and having, of course, seen that the uterus is sufficiently contracted upon the placenta to prevent hemorrhage), to wash and dress the infant before proceeding to press out the placenta. The separation of the placenta and membranes, Dr. Runge holds, is not complete until, upon an average, about a quarter of an hour after the birth of the child; and therefore about this length of time should be allowed to elapse before the placenta is pressed out. Since instructions based upon this principle have been given to the students and midwives of the Strasburg Obstetric Clinique post-partum hemorrhage has become of very infrequent occurrence.—*Journal of Psychological Medicine*.

TREATMENT OF DIABETES MELLITUS.

Prof. Flint, in a recent clinical lecture on this subject, said:

The treatment is emphatically dietetic. There have been a great many remedies proposed from time to time, recommended as having control over this disease. Now I am not prepared to say that there are no remedies which do exercise more or less control over it. But we should commit a grave error, and act very much at the expense of the prospects of our patients, if we gave any remedy which rendered them less careful in attending to the dietetic treatment. In other words, the dietetic treatment is to hold the first place. This treatment consists in withholding from the food almost entirely (for entirely we cannot) sugar in any form, and all the starchy constituents of diet capable of being transformed into sugar. That is the principle. Well, if we merely state that to patients, and tell them they must not eat sugar, they must not eat starch, they will not be likely to carry it out. In the first place, it is not likely they will know enough of the subject to be able to carry it out, even if they were so disposed; and unless we go further, and are very careful as regards details, we shall find that the elimination of these constituents of the food will not be done; they will not tolerate it. If we are to succeed we should give appropriate attention to the preparation of the food, the number of articles which the patient should be allowed to take, and the variation of the food from day to day, to make this anti-diabetic diet satisfactory to the patients; that is, satisfy their appetites and the purposes of nutrition. This can be done, and if it is done the patient carries out the treatment, because it is no hardship to carry it out; and the treatment is to be carried out not for a few days, or a few weeks,

or a few months, but for an indefinite period—for years, and perhaps during the whole of life.

How is this second object to be effected? We must place before the patient a list of all articles of food which are to be avoided, specifying them; not contenting ourselves with the statement in general terms, but specifying on the one hand all the articles of food which he must not take, and on the other hand all the articles of food, animal and vegetable, and so on, which he may be allowed to take. He should have such a list before him, and such articles should be selected from the allowable ones as to make a variety from day to day, and so prepared by the artifices of cookery as to render them satisfactory. It can be done, but it requires patience, and it requires care on the part of the patient or somebody else, and it requires some means. A very poor man, who has no one to look after these matters for him, and who has not sufficient means to obtain all the articles of food which are desirable, will find it very difficult to conquer this disease; and in certain public institutions—this hospital, for instance—it is very difficult to carry out the proper dietetic treatment. It requires so many things and so much attention to details that the dietetic treatment is very unsatisfactory in public hospitals.

The article of food which will cause most trouble is bread, and diabetics realize the force of the statement that bread is the staff of life. Frequently they say at first that they care little for bread, and can get along without it with no trouble; but they do not find it so after a while. They find that there is a craving for bread, and they feel that they cannot do without it. So there have been various substitutes for it. There is what is called the diabetic flour, which is bran very finely ground so as to divest it of all rough particles; but it has no nutritive quality whatever. It is really no better than sawdust, so far as nutritive value is concerned, and the patient adheres to it only a short time. For the past two years the patients that I have seen have been in the habit of using a bread which so far seems to be very satisfactory, but it is not entirely divested of starch. It is what is called gluten bread, prepared by the Health Food Company, corner of Tenth Street and Fourth Avenue, of this city. Analysis shows that it is not entirely divested of starch, but it is so prepared that it is not deprived of the agreeable qualities of ordinary bread. Last winter I brought a loaf of that bread before the class and distributed it. I like it to eat myself, finding it by no means disagreeable; and patients take this bread and it meets their wants, thus removing a great obstacle to the successful dietetic treatment of this disease.

I do not deem it necessary to go over the entire list of these dietetic articles. You will find them by reference to different works. But the thing to do is to go into minute details with the patients. Explain to them fully just what is to be done.

Well now, after they enter upon this course of

treatment in a very considerable proportion of cases the sugar diminishes at once, and sometimes it speedily disappears. Of course we should examine the urine from time to time to determine its condition as regards the presence of sugar and the amount of sugar. This treatment does not cause a disappearance of the sugar in all cases. I have a patient under observation now whom I saw for the first time about three weeks ago—a young, thin, intelligent man, who, I have reason to believe, adopted the anti-diabetic treatment and has carried it out fully. I prescribed no medicine at first, and that has been my custom, in order to see what the dietetic treatment will do of itself. In this case it has accomplished very little so far; and this case I am led to fear therefore will be one in which we cannot expect much success from treatment of any kind. If the dietetic treatment does not succeed we have no other resources; that is, no medicinal remedy yet known will succeed. It may have a certain influence over the disease, but it will not effect a cure. Then I could mention other cases. A gentleman whom I have seen now for two years, who until lately has taken scarcely any remedies, but has carried out the dietetic treatment very faithfully, presents urine which gives no evidence of sugar whatever. He retains his strength mentally and physically; he is a man of great activity, being engaged in business involving large responsibility, able to go on with it, and finding the dietetic treatment perfectly satisfactory—finding it no hardship.

Now, as to medicines, as I have said, a great number have been proposed from time to time, have been tried a short time, and then have passed out of use, others taking their place. This patient is not under my own care here. He is under treatment with the sulphide of calcium, a fifth of a grain three times a day, together with the dietetic treatment, so far as it can be carried out. With regard to this sulphide of calcium, one patient—a medical man in this vicinity who suffered from this disease—consulted me about three years ago, at which time he found that he had diabetes, adopted the dietetic treatment, relinquished his duties in town, which were exceedingly laborious, and went into the country, and his urine after a time showed no evidence of sugar. When I saw him last, which was a few months ago, I had never seen him look better, and he said to me that he had never felt better in his life. And, by the way, as an evidence that this disease may have existed some time before the patient's attention has been directed to any disease, this has been said to me over and over again by patients, even when the urine still contained sugar. They were not aware that they had any disease, as they felt much better than they had for months, perhaps for years before. They would not be aware that they had any disease were it not for a chemical examination of the urine. If they could put that out of view they would not have the consciousness of having any disease at all. This gentleman, who was a very

able practitioner, was led to use the remedy that I have just mentioned from finding it recommended, as he told me, in some medical journal. He has the impression that the sulphide of calcium had considerable to do with his apparent cure. Well, I am free to say that when I talked with him about it my own belief was that he was apparently cured by the dietetic treatment, and by a change of habits of life, the avoidance perhaps of some excesses.

To one patient who came to see me I stated these facts with regard to that remedy, and I said, "If you feel no objection I will prescribe it for you." This was a case in which the dietetic treatment had been extremely successful, and most of the time there was very little if any sugar in the urine. I told the patient that the remedy in question would do no harm; that I thought I could say that. He said, "Well, let us try it." I put him upon the remedy, beginning with small doses, and increasing them. I began in his case with an eighth of a grain, but I think we might begin with a quarter of a grain; in other cases I have begun with a quarter of a grain three times a day, after a fortnight doubling it, going up to two grains, and continuing it indefinitely. Well, this patient went on in that way, and he is very much impressed with the idea that it has been of use to him. Now we must make some degree of allowance with regard to the opinion of the patient as to the effect of the remedy. I do not mean to say that the remedy has not been of value, but I do not feel as certain as the patient does with respect to its value. I am also prescribing the same remedy in three or four other cases, but the period during which it has been used is too short, I think, to enable one to form a correct judgment with regard to it. I shall certainly continue the use of the remedy, for it can do no harm; and, moreover, it is a gratifying thing to the patient to be taking a remedy which he supposes may be of use. The moral effect of remedies, as people's views are now, is by no means inconsiderable; it is a factor which we cannot altogether ignore in the treatment of disease.

This disease I believe may be kept in abeyance indefinitely by appropriate dietetic treatment, and yet I am extremely doubtful whether a patient can ever properly consider that there is a permanent recovery.—*American Practitioner*.

SYPHILIS IN MARRIED LIFE.

By M. FOURNIER.

Lecture delivered at the St. Louis Hospital (Paris).

GENTLEMEN,—How often, in your practice, are you consulted by individuals who, having been unfortunate enough to contract syphilis, desire to know if they are completely cured, and if they may marry with safety!

The importance of the reply you will make to such a question cannot be over-rated. If you interdict marriage to a man in a fit condition to marry, your medical sentence may destroy his happiness and his subsequent career. If you authorize the marriage of a man still suffering from syphilis, you expose not only the individual himself, but also his young wife, to whom he brings the disease as a wedding present, and again the entire family which may result from the union.

I have witnessed too often these sad dramas of family life, and I can affirm to you that nothing can be more execrable than the situation of such a man before a wife who weeps, but forgives; before her family, who do not forgive; and before a nurse infected by the child, who recriminates, gives rise to scandal, and divulges the secret. We will, then, seek to resolve this terrible problem regarding syphilis in the marriage relations. And, primarily, an important question presents itself for consideration.

Does syphilis constitute an absolute obstacle to marriage? "A man who has the syphilis should remain a bachelor;" this is what you will very often hear. I could cite two very honorable practitioners of my acquaintance who have renounced marriage on this account. One of the two, who enjoys a high reputation, has never allowed himself to be persuaded by me, and always replies: "When a person has syphilis, he should keep it for himself alone."

To this I reply: when one has the syphilis it should be cured, and then marriage and a family may be thought of.

Syphilis is not an insurmountable obstacle to, nor an absolute interdiction of, marriage; daily observation shows cases where such marriages have been contracted with safety: we meet every day with married men whom we have seen suffering from syphilitic lesions, and who have transmitted absolutely nothing to their wives, and have children as healthy and flourishing as they can desire.

I have been able to find fifty-one published cases besides those I have observed in my own practice. These fifty-one syphilitic fathers had ninety-two children, all free from the disease. I recall one such case where there were four children and another where five children were born. I have been physician of both families for many years, and have never observed a trace of syphilis in the children. I conclude, then, by asserting, with a conviction fortified by observation, a man may enter the married state after having contracted syphilis; but he should marry only under certain conditions.

A young girl espouses a man presenting syphilitic lesions; after being married a few months a physician is called to the young wife, who presents strange and uncommon symptoms; syphilitic eruptions are found, mucous patches about the mouth, granular enlargements, falling of the hair (alopecia), etc. If the physician seeks for the origin

of these lesions, he is unable to find any trace of initial chancre, or of a bubo, faithful companion of the chancre; secondary lesions alone are found without any trace of primary lesion: on the other hand, if the husband is questioned in secret, he will affirm and protest energetically, that he has never had any venereal disease, that he has always carefully examined himself after intercourse, etc.

He is right: in effect his wife may become syphilitic through contact with this man who exteriorly appears not to suffer from the disease; this apparently paradoxical fact has been too frequently observed to place its occurrence for one instant in doubt. This mysterious contagion is explained by the fact that the woman is with child. Always, in such cases, you will find that the woman has borne a child or had a miscarriage a short time previously. The mother has, in fact, been infected by the child and not by the father. Contagion has taken place through the placental exchange going on between mother and child; a fact absolutely proven to-day. I hold it as a constant fact that a syphilitic father is dangerous for his children.

But I admit that the possibility of transmission is much less certain than has been generally supposed when the father alone is affected, the mother remaining free from the disease.

Paternal influence may be rare and restricted, but it is sometimes exercised.

Syphilitic fathers have procreated syphilitic children, the mother remaining free from infection. Ricord, Trousseau, Diday, Liégeois, have all given incontestable cases. But this is but a part of the question, which assumes gravity from the following considerations: The death of the foetus in utero is very frequent under the conditions of which we speak. The child of a syphilitic father dies in the womb of its mother and is expelled by miscarriage or by premature labor.

A young wife becoming enceinte has one, two, three miscarriages, without it being possible to find any other cause except the syphilis of the father.

And what proves this to be the real cause? If the father places himself under a course of treatment, the following pregnancies proceed to full term and the children are born alive, without the disease.

I have observed such cases very many times. I will cite one case among many others: One day I met a former companion. His wife, though of fine constitution and very strong, had miscarried four times in succession. I then recalled to mind that my friend had suffered, long before, from syphilis, and had not followed any regular course of treatment. I, therefore, advised him to place himself under a course of treatment for his syphilitic affection, which I did not consider cured.

My counsel was rigorously followed, and fifteen months later I learned of the birth of a fine child, who is ten years of age to-day, and enjoys excel-

lent health. Two ulterior pregnancies in the same case also terminated happily.

Whenever the physician finds himself in the presence of a series of miscarriages, occurring in a healthy woman of good constitution, he should commence to suspect that these accidents are due solely to the syphilis of the father, who has destroyed his child in the womb of its mother.

Another important point is : a syphilitic father may transmit the disease to his wife, and then, the father and mother being syphilitic, what will be the condition of the children?

Three alternatives present themselves :—

1. The child will perish in utero, and that is assuredly the best for the child.

2. He will be born at term, but infected with the disease.

3. He will survive with his health compromised and exposed to all the alternatives of disease.

a. For the first case—death in utero—experience has demonstrated its frequency ; thousands of cases sufficiently prove its occurrence : all the observations are so exactly in concord that they appear stereotyped. The pernicious influence continues to be felt even in ulterior pregnancies ; there has been observed series of four, six, and seven successive pregnancies terminating always the same way, in miscarriage. I have seen, at the Lourcine Hospital, a young woman, strong and of splendid constitution, who married in her nineteenth year, and had three successful pregnancies. Her husband, in an extra conjugal adventure, contracted syphilis, communicated it to his wife, who became enceinte and miscarried in the fifth month ; a second pregnancy terminated in premature labor, the child being dead ; a third, a fourth, a fifth pregnancy had the same ending ; the sixth terminated in miscarriage, in the third month ; the seventh at the sixth week, in the same way. This case is extremely interesting—seven miscarriages succeeding three successful pregnancies and supervening after transmission of the disease.

b. In another series of cases the child is born living, but infected with the disease, and is consequently exposed to all the dangers of infantile syphilis, from which, by careful nursing and attention, a few infants may be saved, but the great majority perish.

c. It is possible that the child escape death and the disease also, but the influence of the hereditary taint will show itself in another way ; by the natural debility which characterizes the most of these children, who are weakly, wrinkled, like old men, and of very poor constitution ; nothing attests the existence of syphilis, but they are so puny that they cannot survive and usually succumb, wasting away gradually, without any apparent disease, no particular lesions being found at the autopsy.

Or, again, they have certain morbid predispositions : 1st. They are born hydrocephalic, or frequently become so. 2nd. They are very frequently subject to nervous troubles, to epilepsy, while they

are very young, and later to convulsions ; they very often die in simple convulsions. Finally, they are generally lymphatic, and have feeble vital resistance to scrofula. But scrofula is not, on this account, a metamorphosis of syphilis, as has been erroneously pretended ; it is a fixed morbid entity, just as is syphilis ; it is, however, incontestable, that venereal disease constitutes a predisposition to scrofula, inasmuch as it is a debilitating, asthenic malady, acting on the organism in the same deleterious manner as insufficient nourishment, confined, impure air, and crowding in small, humid tenements.

Do not depart thinking I have exaggerated in drawing so sombre a picture ; I have but presented to you what I have but too often seen, these hidden family dramas which are a veritable social misery. I will cite but a few cases taken at random ; here it is one of the most popular actors in one of the great theatres, who, having contracted syphilis, treated it with supreme indifference. Happily he did not infect his wife and had a healthy child, but he was attacked himself later on by a syphilitic ulceration, which took on a phagedenic form. I was unable to arrest its ravages, and it invaded successfully the face, nose, upper lip, soft plate, and pharynx, and in the end caused the unhappy being to become an object of horror and disgust to all about him.

In another case an artist, a painter, contracted syphilis ; the disease was incompletely treated, and he was attacked with an affection of the eyes which finally caused complete loss of vision, and the unfortunate was obliged to apply to the public Board of Charities to save himself from starvation. I could not finish if I undertook to recount all the sad social calamities I have witnessed. What should be said of the author responsible for all these evils ? He is more ignorant than guilty, and it is a duty we owe to society to instruct the public concerning these dangers they ignore.—*Med. and Surg. Reporter*, Phila., Jan. 22.

STIGMATA OF MAIZE.

Last winter and again this spring the *News* called the attention of its readers to corn-silk, technically stigmata of maize, as a remedy in nephritic and cystic troubles, etc. The medicinal properties of corn-silk were brought to the notice of the profession by Dr. Dufau, a French Physician, in *Le Courrier Médical*. He commends the remedy in uric and phosphatic gravel, chronic cystitis, mucous and muco-purulent cystic catarrh, and in cardiac and nephritic dropsy. Dufau has given it without injury for three months at a time. He has known it to triple and even quintuple the quantity of urine passed in twenty-four hours. He says that in decoction it is unreliable and uncertain. He gives it in a syrup largely diluted, upon an empty stomach. Stigmata of maize is said to have been used time immemorial by the Mexicans.

Dr. Landrieux, of France, has published two cases showing its diuretic properties. The first was an individual with ascites from cirrhosis. Under the influence of the drug, given in a syrup, the urine arose rapidly from five hundred grams to twelve and fifteen hundred grams. In three weeks all ascites disappeared. The other case was the subject of heart-disease, with great edema of the legs, enormous ascites, pulmonary and renal congestion, and a considerable diminution of urinary excretion. The stigmata of maize increased the quantity of urine from two hundred to eight hundred grams in twenty-four hours. The edema and the ascites disappeared in a short time. Dr. Landrieux terminates his article thus: 1. Not only the different preparations of the stigmata of maize are useful as a modifying agent of the urine, but these same preparations can be equally considered as an incontestible diuretic agent; 2. Diuresis is rapidly produced; 3. The pulse becomes regular under its influence, the arterial tension increases, while that of the veins diminishes; 4. Complete tolerance of the drug, and in chronic cases the treatment might be continued during a month or six weeks without the slightest inconvenience.

We trust that some of our friends have tried this remedy, and will write us the results. We have used it in a single instance, but with a decided effect. Two double handfuls of corn-silk were boiled in two gallons of water until but a gallon remained. A tumblerful of this was given thrice daily to a patient of eighty, the subject of dropsy of the legs. His urine was scant, but a thorough examination failed to discover in the heart or kidney or liver any cause for the dropsy. While taking the corn-silk decoction, which relieved his dropsy, he declared that he had never made so much water in all his life.

Professor Scheffer, of this city, is now preparing an extract of the stigmata of maize. Experiments must yet determine the time for gathering the silk, and the proper dose and best form of the remedy. It may be that the silk should be gathered before it is impregnated by the pollen from tassel.—*Louisville Med. Times.*

REST AFTER DELIVERY.

Dr. H. J. Garrigues read a paper which was a revised edition of his former paper on the subject, read Sept. 8, 1877, and published in the "Proceedings of the Kings County Medical Society." The question was, "How long should a woman remain in bed after confinement?" It was desirable that practice, in this particular, should be as uniform as possible, and the author believes that the views entertained should not be so divergent as at the present time.

The chief representative of those who recommend that the time should be shortened as much as possible, was Dr. Wm. Goodell of Philadelphia. At this point Dr. Garrigues referred to a case in

which the woman was urged by her medical attendant to rise early, and she rose on the fourth day after delivery; and on the fourteenth day she was induced to ride in a carriage, but it was nearly at the cost of her life. From that single illustration, however, he did not wish to draw any definite conclusions.

At the time Dr. Goodell's paper was read, 756 cases were reported, with a total mortality of only six; and the chief reasons why its author recommended early rising after delivery were the following: 1. Labor, if it was a physiological process, should not be made to wear the livery of disease. 2. The upright position excites the uterus to contract, and thereby lessens the amount and duration of the lochia. 3. Uterine diseases are not known among the nations whose women rise early after delivery; and 4. Experience has shown that convalescence is far more prompt and sure than when the woman is kept in bed for a prolonged period. To these points Dr. Garrigues directed the attention of the Section. He maintained that although parturition was a physiological process, it was one in which the transition from the normal to the pathological condition was extremely common; and that was especially true of women of modern times. Again, if the upright position favored the discharge of lochia and diminished its amount and lessened its duration, it must also be borne in mind that serious displacements were liable to be produced by placing the woman in that position before the changes incident to the post-partum state had gone on sufficiently to enable the tissues of the pelvis to resist properly superincumbent weight and pressure; and therefore by other means should the influence of the lochia be modified. While it might be true that uterine disease did not apparently exist among the women of nations where early rising after delivery was commonly practised, there were two factors by which such a conclusion must be modified when applied to modern civilized women; first, not much was known of uterine disease in ancient nations, and, second, modern women with all the enervating influence of what is termed civilization cannot resist disease as did the ancient or the modern uncivilized matrons.

With reference to the good results obtained by Dr. Goodell, he thought they were due to the general excellent care given to his patients, rather than to early rising; and besides he thought it impossible to judge of final results by those obtained in the average length of time which the woman remained in the retreat after delivery.

Dr. Garrigues then quoted from leading authorities in three chief countries in Europe, all of whom recommended absolute rest in the horizontal position for one, two, and even three or four weeks after parturition. In New York, also, most obstetricians favored the long period of retention in bed after delivery.

In the language of the author of the paper, "anatomy and physiology teach us that the puer-

peral uterus is large, heavy, flabby, anteverted and anteflexed; that all the surrounding parts destined to support it are distended, soft, and yielding, that its interior presents one large wound bathed in a fluid rich in disintegrated tissue-elements; that the placental site is pervaded by large venous sinuses, filled with recently-formed blood-clots; that at least the vaginal orifice and often other parts of the obstetric canal present open wounds; that the process of transformation, absorption, and regeneration required at least two months; and that the retrogression is most active during the second week."

It is not necessary that the woman should lie upon her back after the first twenty-four hours, but her position might be changed to that upon either side. The liability to hemorrhage, displacement of thrombi, causing sudden death, and the occurrence of septicæmia, was regarded as sufficient reason for insisting upon rest in the horizontal position for several days at least after delivery. The vagina should be kept clean with disinfectant injections. It was with reference to rest after delivery in normal childbirth that it was desirable to reach a unanimity of opinion. Upon that point Dr. Garrigues had reached the conclusion, from the combined teachings of experience and physiology, that the woman should be kept lying quietly in bed, alternately upon the back and side, until the uterus has contracted sufficiently to be behind the symphysis, and for two months she should avoid any great exertion.

Dr. Isaac E. Taylor remarked that the views held by Dr. Goodell were substantially those entertained by Hamilton and White, and published several years ago. The important point, however, was with reference to the management of the woman after normal natural labor, and he did not agree with Dr. Goodell, because he believed that we must be guided by the nature of the case under observation: what was the woman's physiological condition? what was the condition of the uterus as regards its length, weight and position? etc.

Dr. Taylor then referred to a case in which the uterus returned to the pelvic cavity within five days after delivery, and the woman made a rapid and good recovery; but not every case progressed so favorably as that one. He kept the woman in bed until the uterus had returned to the pelvic cavity, whether it required one or four weeks. So far as rest after delivery was concerned, we must judge by the constitution of the woman. Rising within two or three days and sitting on a vessel would, doubtless, facilitate removal of clots and also the lochia; but if the woman suffered formerly a good deal from the discharge, etc., he kept her in bed three or four weeks. There could be no line drawn or rule laid down which could be made applicable to every case.

Dr. S. T. Hubbard remarked that he had found a great difference among women with reference to the time after delivery at which they could get up

without injury. His rule had been to keep them in the recumbent posture, if possible, nine or ten days, and prevent them from walking for two weeks. He thought the time must be regulated by the attending physician without reference to any rule.

Dr. Tusky fully agreed with Dr. Garrigues, and also believed that an important factor in preventing the development of puerperal fever was maintaining the recumbent posture after delivery for a week or more. He referred to a case in which the woman, feeling perfectly well on the fifth day after a normal labor, arose, and puerperal fever immediately followed. Some women might get up on the first day after delivery and no harm follow; and so it occasionally occurred that a person fell from a third-story window and received no serious injury, but he regarded such as exceptional cases, and thought that no woman should rise before the eighth or ninth day after a normal labor. He also approved of injections of the cavity of the body of the uterus as recommended by Hegar, whenever the external os was patulous.

Dr. Caro remarked that we need not go to Rome to study Roman women, for they were here, and he then referred to his experience among Italian women in the city of New York, which had been that early getting up after delivery frequently destroyed the life of the woman, and was a most prolific source of all kinds of pelvic disease. He never allowed a woman to rise, if it could be prevented, before the ninth or tenth day. He regarded cleanliness as godliness, but it was a virtue which most of the Italian women discarded; and doubtless their habits in that respect contributed largely to the development of diseases among them.

Dr. Garrigues, in closing the discussion, remarked that he took it for granted that there were injuries more or less severe to the obstetric canal in every case of labor. The injury might be very slight, but it was sufficient to permit the absorption of septic material; hence the care that should be taken to keep the passages properly cleansed and the discharges properly disinfected.

The minimum time which he would keep the woman in bed was eight days, a period long enough to allow granulations to form for the repair of injury done to the tissues of the obstetric canal.—*N. Y. Medical Record.*

MANAGEMENT OF ABORTIONS.

Dr. Parvin (*The Obstetric Gazette*, July) presents his manner of meeting the difficulties of these cases. He says: suppose a case of incomplete abortion having hemorrhage which by its persistence of profuseness brings danger to the patient, or commencing offensive discharge that heralds a possible septicæmia, and then interference is imperative and must be immediate. Let the patient lie on her back, upon a hard bed, her hips brought

to its edge, lower limbs strongly flexed; then introduce Neugebauer's speculum, and bring the os fairly in view; now catch the anterior lip with a simple tenaculum or, better, with Nott's tenacular forceps, and then if there be any flexion—and it is not uncommon in cases of spontaneous abortion to observe this—use gentle traction to strengthen the bent canal; at any rate fix the uterus by the instrument.* Now take a pair of curved polypus forceps of suitable size, or, better still, Emmet's curette forceps, and gently introduce the closed blades into the uterine cavity, open them slightly, then close them and withdraw, when the fragments of membranes can be removed, and the instrument be re-introduced. Repeat this three or four times, if necessary, until all membranes or placental fragments are extracted. Then, by means of an applicator wrapped with cotton wool, swab out twice, or oftener, the uterus with Churchill's tincture of iodine—one of the best of local uterine hæmostatics, if not one of the best of antiseptics. Finally, let the patient have ten or fifteen grains of quinia, and it will be very rarely, indeed, that her convalescence is not prompt and perfect.

AMENORRHŒA.

In cases of this nature, due to torpid action of the ovaries, Dr. Goodell orders the following prescription:

R. Ex. aloes, 3 j.; ferri sulph. exsic, 3 ij., assafoet. 3 iv. M. et in pil. No. c, divide.

Sig.—One pill to be taken after each meal. This number to be gradually increased, first to two, and then to three pills after each meal.

If the bowels are at any time over-affected, the patient is to stop and begin again with one pill.

Where the amenorrhœa is due to arrested development, Dr. Goodell has derived the very best results from the constant use of Blot's pill, as recommended by Niemeyer:

R. Pulv. ferri sulph., potas. carb. puræ, aa 3 ij., mucil. tragacanth, q. s. M. et in pil. No. xlviii, div.

Sig.—To be given daily, in increasing doses, until three pills are taken after each meal.

This gives the large quantity of twenty-two and a half grains of the dried sulphate of iron per diem.

If these pills give rise to constipation, Dr. Goodell uses this formula:

R. Pulv. glycyrrh. rad., pulv. sennæ, aa ss., sulphur sublim., pulv. feniculi, aa 3 ij., sacchar. purif. 3 jss. M.

Sig.—One teaspoonful in half a cupful of water at bedtime.

Where the suppression is due to change of habits and loss of health, tonics are employed. When the

suppression comes on suddenly, from cold or exposure while in the midst of the menses, and is accompanied by severe lumbar pains, the patient is placed in a mustard hip-bath, a Dover's powder is administered, she is put to bed and hot drinks are given to provoke copious diuresis and diaphoresis.—*N. Y. Record.*

THE TREATMENT OF PNEUMONIC FEVER (ACUTE LOBAR PNEUMONIA) BY THE EMPLOYMENT OF THE WET-SHEET.

Dr. Austin Flint, in a recent clinic (*Gaillard's Medical Journal*, March, 1881), presented three cases of pneumonic fever, treated antipyretically by means of the wet-sheet, no other active measures of treatment having been employed. The favorable course of the disease under this treatment, in these cases, was highly gratifying. Dr. Flint said, "Inasmuch as these cases are but a small proportion of those which have been treated in my wards during the session, you may ask why the treatment has been thus limited. The treatment is, as yet, novel in this country. In relating the first two cases at a meeting of a medical society of which I am member, doubt was expressed by other members as regards a favorable influence produced by the treatment, together with distrust of its propriety and safety. I was not without apprehensions, in the first place, in respect of the treatment itself, and, in the second place, as taking the place of other therapeutical measures, notwithstanding the strong testimony of some German writers in behalf of the efficacy of cold baths in this disease. These considerations led to a careful selection of cases. The cases selected were those in which the disease was in an early stage, the patients apparently robust, the pyrexia considerable or high, and no complications existing. I am by no means sure that the treatment might not have been employed in other cases with advantage, but it was thought best to select cases in which there was the least likelihood of harm were the effect not satisfactory."

The plan of treatment was as follows: The directions were to employ the wet-sheet whenever the axillary temperature exceeded 103° Fahr. The patient was wrapped in a sheet saturated with water at a temperature of about 80° Fahr., the bed being protected by an India-rubber covering. Sprinkling with water of about the same temperature was repeated every fifteen or twenty minutes. If the patient complained of chilliness, he was covered with a light woolen blanket, which was removed when the chilly sensation had disappeared. In none of the cases was the blanket used much of the time when the patient was wrapped in the wet-sheet. The patient remained in the sheet until the temperature in the mouth fell to 102° or lower, care being taken to watch the pulse and other symptoms. When the temperature was reduced, the wet-sheet

*It is well to use a uterine probe in order to ascertain the course of the cervico-uterine canal and the depth and size of the uterine cavity.

was removed, and resumed if the temperature again exceeded 103° Fahr.

The first case entered the hospital on the third day after the attack. On the second day after his entrance the wet-sheet was employed thrice. He remained in the sheet the first time, two hours and forty-five minutes; the second time, an hour and a half, and the third time, an hour and ten minutes. On the second day the wet-sheet was employed once, and continued for one hour. On the third day the wet sheet was not employed, the temperature not rising above 103° . On the fourth day the wet-sheet was employed once, and continued for an hour. There was complete defervescence on the fifth day, and no return of the fever afterward. Dating from the attack to the cessation of fever, the duration of the disease was seven days. The patient had no treatment prior to his admission into the hospital. The treatment in the hospital, in addition to the employment of the wet-sheet, consisted of carbonate of ammonia in moderate doses, whiskey given very moderately, and a little morphia. The patient was up and dressed five days after the date of the defervescence. There were no sequels, and the patient was discharged well.

The second case entered hospital seven days after the date of the attack. She had no medical treatment prior to her entrance. The wet-sheet was employed on the second day after her admission, and continued for six hours. Complete defervescence took place on the third day. Recovery followed without any drawbacks. Both lobes of the left lung were involved in this case. The invasion of the second lobe, probably, was about the time of her admission into hospital.

The third case entered hospital three days after he was obliged to give up work. On the day of his entrance the wet-sheet was employed, and continued for ten hours. The wet-sheet was employed on the second day after his admission, and continued for five hours. Defervescence took place on this day. The duration of the fever was five days, dating from the time he was obliged to give up work and seven days from the occurrence of chills and pain in the chest.

Dr. Flint said the histories of these cases as bearing upon the treatment employed were of considerable interest. They certainly show that in cases like those which were selected, the treatment is not hurtful. More than this, they render probable the inference that the disease was controlled and brought speedily to a favorable termination by the treatment. They also go to show that the disease is essentially a fever, and that treatment is to be directed to it as such, and not as a purely local pulmonary affection. It remains to be determined by further observations how often and to what extent this method of treatment has a curative efficacy. It is also an important object of clinical study to ascertain the circumstances which render the treatment applicable to cases of pneumonic fever, and, on the other hand, the circumstances which

may contra-indicate its employment in this disease.

To this series Dr. Flint adds a supplementary case of decided interest in which the pneumonia began in a well-pronounced chill, fever, headache, pain under the left nipple, cough, and a feeling of general prostration. Being without a home, the patient spent the time from Feb. 18th to the morning of the 21st in a lumber yard without food, and with no shelter but a pile of boards. During this time there was a snow-storm of considerable severity, and the temperature fell as low as 10° Fahr. On admission there was a dusky redness of the face, and the expression was anxious; pulse 122, respiration 52, temperature 102.25° . He complained of dyspnoea, pain in left side and cough. The expectoration was semi-transparent, adhesive, and had a reddish tint. Increased vocal fremitus, dullness, bronchial breathing, and bronchophony over the left lung.

Treatment.—Whiskey, \bar{s} ss, Ammoniae carb., gr. v, every two hours, and a milk diet. Temperature in the afternoon, 104.25° F.

22d. Temperature, a. m., 99° ; p. m., 99.25° . Pulse 115 and feeble. Ordered tr. digitalis, gtt. x, every three hours.

23d. Patient improved. All the signs of solidification are yet present, and the crepitant râle is heard behind. Pulse 70 and full. Digitalis discontinued. Respiration 32. Flush had disappeared from the face.

24th. Temperature, a. m., 98.25° ; p. m., 98.25° . The physical signs now show beginning resolution. Dullness is less marked, bronchial respiration has given place to broncho-vesicular, bronchophony to increased vocal resonance, and the subcrepitant râle is frequently heard.

25th. Much better. Temperature, a. m., 97.50° . Has a good appetite, takes beef-tea and milk.

28th. Patient is up and dressed.

Two inquiries suggest themselves in connection with the history of this case. One is, did the disease end from an intrinsic tendency to recover in spite of the circumstances under which the patient was placed for the first two days of his illness? It is, of course, absurd to suppose that the disease was arrested by the whiskey and ammonia which were given after his admission into the hospital. The second inquiry is, did the exposure in the open air for three days shorten the duration of the disease by means of an antipyretic effect? These inquiries are submitted by Dr. Flint without discussion for the reflection of the reader.

TREATMENT OF CHRONIC PROSTATIC ENLARGEMENT.

Mr. Thos. Smith, surgeon to St. Bartholomew's Hospital, in a recent lecture published in the *London Medical Times and Gazette*, gives the following advice on the above subject:—

Treatment.—Your assistance will rarely be sought in the early stages of this disease; but should you be consulted by an elderly patient suffering from undue frequency or difficulty in micturition, it will always be prudent to make a digital examination through the rectum, to ascertain the condition of the prostate. The examination is best made with the patient lying down on his back. Your finger-nail being filled with soap, and the finger well oiled or greased, it should be introduced very slowly, so as not to excite spasm of the sphincter.

Should you judge that the urinary difficulty is caused by prostatic enlargement, the occasional passage of a full-sized instrument will often relieve the inconvenience, and, if steadily persevered in at regular intervals, will generally secure the patient against all the more serious consequences of the disease.

In cases where the difficulty in micturition has gone on to produce an inability to empty the bladder completely, it is of primary importance that at least once in the twenty-four hours the urine should be all drawn off; but in carrying out this plan it is necessary to exercise caution, lest by suddenly emptying a greatly distended bladder you should produce a complete paralysis of the organ, with a loss of the power of voluntary micturition, and cystitis.

As a general rule, if there be not more than one pint of retained urine in the bladder—that is, urine the patient is unable to pass for himself, it may be safely drawn off at once. But if there be more than this of residual urine (and there may be several pints), you should draw it off by installments, taking away a little more each day, until the bladder is completely emptied.

This complete evacuation of the bladder, when once accomplished, should be repeated each day, by means of an instrument, and for the purpose an india-rubber catheter, a bulbous-ended or a Coudé catheter, should, if possible, be used.

By these means, in an early stage of the disease, the patient will generally regain the power of normal micturition, or at all events, if this result be not attained, he will be secure from the worst consequences of the disease.

The treatment may be carried out by the patient himself if you will be at the pains to teach him how to pass an instrument—nowadays a comparatively simple process, owing to the great improvements in catheters; for you should know that since the introduction of the various forms of soft catheters now in use, the instrumental treatment of prostatic enlargement has lost more than half its terrors and much of its danger.

This large silver prostatic catheter which I now show you—at one time almost the only instrument used in these cases—is truly a formidable weapon with its long shaft and wide-sweeping curve. It was constructed to ride over the prostate, but in the hands even of experienced surgeons it frequently failed in the performance of its normal functions

and rode under the gland, or through its substance. Used with a strong and steady hand it rarely failed to draw off water. As an instance of its powers in this respect, I may mention a case within my knowledge where a prostatic catheter in the hands of an energetic surgeon drew off some gallons of water, which, however, a post-mortem examination disclosed to have come from the peritoneal cavity.

I will suppose now that you are called upon to treat a patient with retention of urine dependent upon enlarged prostate. The difficulty will usually have come on at night time; the patient will, as a rule, be advanced in years; and the prostate can be felt in the rectum unduly prominent. In such a case let me advise you first to try a flexible red rubber catheter, of full size; it will often find its way round a corner, and through a urethra which would be impervious to a more rigid instrument. This failing, you should try and pass the same catheter with a stout wire stylet reaching two-thirds of the way down the instrument; this gives you more power to push the catheter onwards, and leaves the end flexible, to accommodate itself to the distorted urethra.

Next in order you may try the Coudé catheter, which I show you: then, if necessary, the bulbous French instrument, a gum elastic, without and with the stylet; and lastly, others failing, a silver instrument.

Whatever instrument you use, let it be a full size; it will go in as easily as a smaller one, and is less likely to damage your patient. Keep the point of the instrument on the upper wall of the urethra; and, above all things, use no force.

After drawing off the water in a case of retention, the patient will, for a time at least, require the regular use of the catheter until he recover his power of voluntary micturition; and should there have been great difficulty in introducing the catheter, I should advise you to tie it in for the first twenty-four hours.

In the subsequent treatment of these cases of prostatic retention, in addition to other troubles you will often have to contend against an increasing frequency in micturition. The frequent desire to pass water must be resisted as much as possible by the patient, or it will grow upon him. The bladder must be completely emptied, and, if need be, washed out, at regular intervals, and the patient exhorted not only to resist by a strong effort of the will the solicitations of his bladder, but to avoid all sights and association that are likely to suggest to him the necessity of micturition. With this object in view, you should counsel your patient to keep his catheter and chamber-utensil out of sight; as soon as possible to leave his bed-room during the day; and to occupy his mind by any pursuit which may draw his thoughts away from his urinary necessities.

THERAPEUTICAL EMPLOYMENT OF IODOFORM.

The *Journal de Medicine Belge* gives, according to the *Journal de pharmacie et de chimie*, a formula which permits the employment of iodoform without inconvenience. According to Dr. Lindeman the balsam of Peru completely masks the odor of iodoform; two parts of this balsam neutralizes perfectly one part of iodoform. The best vehicles are lard, glycerine and above all vaseline. Here is a formula that the author recommends:

℞ Iodoform.....1 part.
Balsam Peru.....3 parts.
Vaseline..... .8 parts.

He also often prescribes the following:

℞ Iodoform.....1 part.
Balsam.....3 parts.
Alcohol, glycerine or collodion.....12 parts.

First mix exactly the iodoform and the balsam Peru, then add the other ingredients.—*Journal de Medicine et de Chirurgie*.

MORPHINE IN PUERPERAL ECLAMPSIA.

C. C. P. Clark says he has never seen opium, properly used, fail to ward off eclampsia when it seemed to be threatened; that he has many times seen it obviously and at once put a stop to the paroxysms after they had been commenced; and that he has never known a patient to die of this disease when that medicine had been administered in season, in sufficient quantities, and in the proper manner.

When premonitory symptoms of eclampsia appear, continuous or paroxysmal pain in the head, alterations and figments of the senses, especially of sight, mental dullness, ataxy, a countenance expressive of suffering and apprehension, an irresolute and incapable manner, and complaint of indefinite distress, he orders two or three grains of opium per diem with full confidence that convulsions will be warded off. He does not ignore eliminants, but does not trust to them alone or chiefly.

When the convulsions have appeared, he says, the patient "should have forthwith injected into her arm a grain and a half of morphine *by weight*." "Should the paroxysm return any time after two hours, this dose should be repeated. And if she be in labor, she should have another dose after eight hours any way."

He asserts that a comatose or half-comatose condition is no contraindication to such use of morphine; and he urges that this course be pursued unhesitatingly unless the patient be obviously moribund; and has the greatest confidence that morphine so used will succeed in all cases where the brain has not already sustained irreparable injury by a long succession of paroxysms, or by a few of great violence.—*Amer. Jour. of Obstetrics*.

ERGOT IN NEURALGIA.

Dr. Marino, of Palermo, says that local injections of ergot give better results than any other treatment in tic douloureux, not even excepting quinine. Some cases, not all, of sciatica were relieved in the same way. Other forms of neuralgia should receive the same treatment. The injections usually cause pain, but abscesses seldom follow if cold water compresses are applied to the point of puncture. One or two injections suffice, as a rule, but they may have to be continued some time. About two grains of ergot, in water or glycerine, is the proper dose.—*London Medical Record*.—*St. Louis Clinical Record*.

IMPROVEMENT OF SAYRE'S TREATMENT FOR SPINAL CURVATURE.

Mr. Richard Davy, of London, believes he has an improvement on Dr. Sayre's method of tripod suspension in applying the plaster of Paris jacket in spinal caries. He places the patient in a hammock, face downward, arms hanging through slits in the canvas. Extension may then be used or not, according to the views of the surgeon, and the plaster of Paris or other dressing leisurely applied, including the canvass. A free circulation of air is allowed access to the body and the dressing dries rapidly, the patient often sleeping during the time employed. After the drying is complete the spare canvass is trimmed, and the patient literally takes up his bed and walks. After reviewing some of the other methods of treating spinal caries according to SAYRE'S plan, that is of providing an outside support of the body, relieving the weak spinal column, Mr. DAVY concludes in favor of his own plan. Aside from the small expense and inconvenience involved, he thinks suspension not always safe in spinal, and especially cervical, caries.—*American Practitioner*.

SULPHUR FOR PIMPLES ON THE FACE.

Dr. Gage Parsons believes that Mr. Erasmus Wilson was the first to propose sulphur lotion in acne punctata, according to the *Practitioner*. The usual lotion of the flowers of sulphur with glycerine and water is undoubtedly a valuable remedy, but from the readiness with which the sulphur separates it is inelegant and inconvenient, while it is not quite satisfactory in its results. A far more efficacious mode of using sulphur is to dust the face with pure precipitated sulphur every night with an ordinary puff used for toilet purposes. Recently two severe cases of acne of two years' standing, which had resisted the ordinary methods of treatment, yielded at once to sulphur thus applied. If the sulphur be scented with oil of lemon or roses it will form an elegant cosmetic.

MATERNAL IMPRESSIONS.

The following occurred in the practice of a Maryland physician, according to the *Dublin Medical Journal*: "A lady, during pregnancy, carried with her a pocket edition of MOORE'S poetical words, which she read almost constantly. Her child, at three years of age, exhibited a most wonderful gift of putting sentences into rhyme; in fact, naturally expressed his little ideas and thoughts in flowing measure!" Blame not the bard—but a case like this shows how important is a well-assorted library to a gravid uterus.—*British Med. Journal*.

EPISTAXIS CURED BY A BLISTER.

Dr. Verneuil relates the case of a man whose epistaxis occurred every third day. Sulphate of quinia was given without avail; ergot was administered with no better result; so was digitalis. The patient had been a habitual drinker. The liver was thought perhaps to be "cirrlosed," although no enlargement or tenderness was found in this region. A large fly-blister was applied over the liver, since which time the epistaxis has not returned.

COD LIVER OIL IN EPILEPSY.

Dr. Fairbairn, of Brooklyn, N. Y., writes: The digestive disorder and annoying and disfiguring eruption which result from taking the bromides in large doses for a length of time, are serious disadvantages connected with the administration of these salts. A remedy which will prevent the bad effects of a medicine, and at the same time will rather aid than detract from its good effects, is certainly a valuable one. I think in this case we have such a remedy in cod liver oil.

A young lady suffering from epilepsy has been under my care for the past five months, who has taken bromide of potassium in large doses for nearly a year, and by this remedy cod-liver oil has warded off the above troublesome results. The mode of taking it was this: Brom. potas., 3 ss., was taken thrice daily after eating; this was followed one hour after each dose by ol. morrhue, 3 ss. When first attacked by the malady she had eight convulsions in twenty-four hours. She began the bromide in 3 ss. doses, but was compelled to stop it on account of the gastric derangement. A friend recommended the cod liver oil. She resumed the bromide, adding the oil, and has taken it without further trouble since. The eruption, before profuse, disappeared under this management. The disease has been well controlled, only four convulsions having occurred in the past seven months. I doubt not that the cod liver oil has had its share in the direct benefit done to the nervous system, besides affording a protection from the irritating salt to the coats of the stomach. In summing up the good effects of the oil I find: 1st, Absence of the digestive disorders; 2d, Ab-

sence of the acne eruption; 3d. That the anæmi usually found in persons taking this medicine continually, is far from being marked; 4th. The body is better nourished, and appetite unimpaired. I have made trial of this treatment in others cases, with similar good results. As the articles that have appeared in your Journal in the past month, on the bromides, have made no mention of this device, I have been led to write the above.—*N. Y. Medical Record*.

BEEF SUPPOSITORIES.

Though the rectum is, strictly speaking, an excretory organ, it may nevertheless, by virtue of its absorbing power, take the place of the stomach and small intestine in the ingestion of medicinal and alimentary agents. Dupuytren used to say that owing to the absence of digestion the agent passes more directly, more purely and more surely to its destination from the rectum than it does when taken by the stomach. Hence the speedy efficacy of chloral in mania and the vomiting of pregnancy; of opium and ipecac in dysentery, etc. With this fact in view I have lately used Johnston's or Liebig's beef extract incorporated with cocoa butter in the form of suppository to support life in chronic gastric disorders, adynamic diseases and all cases where the administration of food by the ordinary channel was impossible. The beef is easily combined with the butter, or to save time, or for other reasons, the hollow suppositories may be used. The advantage of the suppositories over the beef *injection* will immediately commend itself.—*Dr. James I. Tucker, in Chicago Med. and Surg. Journ.*

TREATMENT OF AMENORRHEA.

William R. D. Blackwood, M.D., Physician to St. Mary's Hospital, writes, in the *Medical Bulletin*:

A large number of remedies have been credited with emmenagogue properties, many of them being inert, and some of them simply irritant poisons whose employment has frequently resulted fatally, especially when used with criminal intent, as abortifacients. Strychnia affords excellent results in many instances. A favorite with me is the following:

Strychnia sulph	gr. j;
Cinchonidia sulph.....	3 j;
Ferrum per hydrogen.....	} aa 3 ij;
Assafetida pulv.....	
Ext. quassia.....	q.s.

M. In pil. No. 60 div. Sig. One four times daily.

I usually add at bedtime ten drops of Squibb's fluid ext. ergot in water; and a forcible jet of cold water along the spine every morning on rising for a few minutes, with brisk friction of the abdomen, succeeds admirably in many cases. Exercise in the open air, equestrianism particularly, with attention to a normal action of the skin, kidneys, and bowels is essential.

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TO OUR SUBSCRIBERS.

The CANADA MEDICAL RECORD, with this number, closes the ninth year of its existence. We have much to be thankful for, and we look back with feelings of great satisfaction to the progress which the RECORD has made during that period. For the past two or three years we have, however, felt that the growing claims of practice, as well as duties devolving upon us in other spheres of Medical work, has prevented our giving that constant attention to the RECORD which its interests demanded. The result has been that every now and then our appearance has been delayed, and this in spite of every effort to prevent it. We have, we believe, succeeded in making arrangements by which this great drawback will in future be avoided. Dr. Perrigo has withdrawn from the Editorial chair, much to our regret, and is replaced by Dr. Cameron, who is already known as a ready, vigorous and logical writer. In future the Assistant Editors will take the active work of the RECORD in their own hands, and will relieve the Senior Editor of the major part of it. In this way, with a division of labor, we anticipate being able to appear regularly within a day or two of a given date. Arrangements have been made for the publication of a number of communications, lectures, &c., from some of the leading Physicians and Surgeons of Montreal. We are also promised, from one well qualified, a series of papers on the Early Medical History and Medical Men of Montreal, while the Editors propose monthly to give the history of the Medical Charities of Montreal. A monthly "Hospital Chat" will also

form a feature of the RECORD for the future. The RECORD has a Dominion reputation for the practical character of its selections. This department will still continue under the control of the Senior Editor. The RECORD is not the organ of any Medical school, clique, or party. We have conducted it for nine years with this intention, and we challenge any one to prove that we have been unfaithful to the programme laid down by us when the RECORD was first issued. We ask the co-operation of all—we will treat every one alike—the profession, as a whole, will be our care.

And now we are addressing some for the last time,—we allude to quite a number, who have received the RECORD for periods varying from nine to six years without ever paying a cent of subscription: We have, through the RECORD, by letter, and by post card, politely asked you to pay up; you have not heeded our request, and as we can but think that such conduct is intentional, and therefore dishonest, we have decided to terminate our monthly visits to you. If any who read this desire to know if it is they who are meant, we refer them to the date on their address label, which will give the desired information. If we wrong any, the matter can be easily set right by the amount due being paid.

We ask the kind aid of our friends to extend our circulation. Our Nova Scotia and New Brunswick subscribers have done much for us in that way, so that a very large percentage of the Medical men in both these Provinces are on our list. What they have done, others can. Will you?

SACCHARATED PEPSIN.

The experience of physicians has been so favorable to the use of Pepsin as an aid to impaired digestion and kindred affections, that it is only necessary to say the Saccharated Pepsin Jno. Wyeth & Bro. of Philadelphia manufacture exhibits the principle most fully, and will give therapeutic results to the entire satisfaction of the physicians wishing to prescribe this remedy. Each tea-spoonful of the Liquor Pepsinæ prepared by the same firm represents the full dose of Saccharated Pepsin five grains, combined with Lactic and Muriatic Acids, Glycerine and water.

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TROMMER EXTRACT OF MALT.

From the LONDON MEDICAL RECORD, March 15, 1879.

Trommer's Malt Extract is a preparation which has been received with considerable favor both in Germany and in America, and is now being introduced into this country. The malt extract of this kind of an unfermented preparation of malt, and containing carbo-hydrates, malt-sugar and dextrine, which take the place in therapeutics which has hitherto been essentially filled by cod-liver oil, while, from the fact that these carbo-hydrates are combined with diastase, with phosphates, and with the bitter principle of hop, it has many advantages over cod-liver oil in respect to its power of aiding digestion. Thus the preparation is not only in itself nutritive, but also tonic, and has the power of increasing the gastric secretion, and of rendering starch digestible through the medium of its diastase, which converts it into glucose. A great number of eminent practitioners abroad, including, indeed, most of the leading teachers, speak of it in the highest terms, and independently of the obvious merit of its composition, there is in its favor a mass of clinical evidences, which should certainly secure for it an extensive trial in this country.

From the BRITISH MEDICAL JOURNAL, April 19, 1879.

This extract of malt has obtained a very large celebrity, and has come into very extensive use in the United States, where, indeed, it has become an article of almost daily use in professional practice. Malt extracts of the kind, consisting of the soluble constituents of barley malt, not fermented, appear to have considerable value in maintaining and strengthening nutrition. They are rich in malt sugar, dextrine and diastase. Hoppe-Seyler points out that, while the dextrine possesses the property of increasing the activity of the gastric secretion, and the diastase assists in converting starch into glucose and dextrine, the malt extract includes also a combination of malt sugar, alkalies and phosphates, which together make it a nutrient and medicinal agent of great value. There is, indeed, an accumulation of considerable clinical evidence that malt extract is capable of taking the place of cod-liver oil, to a large extent, in the treatment of phthisis and other wasting diseases. In Ziemssen's Cyclopædia, vol. xvi, it is said to almost entirely have taken the place of cod-liver oil at the Basle Hospital, without any reason having been found as yet for returning to the latter remedy.

From the LONDON LANCET, January 25, 1879.

We find that this extract converts starch into glucose and dextrine rapidly and in large quantity. In flavor it is excellent, and we have, therefore, no hesitation in praising it highly. Malt extract seems to be steadily increasing in favor for diseases involving impaired nutrition; but its preparation requires great care, as it is easy in making it to destroy its activity as a starch-converter, and so render it nearly useless. The malt extract is supplied in various forms: for example, the simple, for nutrient purposes, with cod-liver oil (which it disguises pleasantly), with the hypo-phosphate, and with iron.

From the LONDON CHEMIST AND DRUGGIST, February 15, 1879.

Trommer's Extract of Malt is one of the best of the various preparations of a similar character. It is of the consistence of honey or treacle, and has a pleasant flavor, rendered slightly bitter by the addition of hop. Professor Redwood finds Trommer's Extract has all the power of acting on amylaceous bodies which diastase possesses, and considers the preparation has been made with great care and judgment.

The TROMMER EXTRACT OF MALT COMPANY is engaged exclusively in the manufacture of Malt Extract, "plain," and in such combinations as have been suggested and approved by some of the most eminent members of the Medical profession in both Europe and America. Notwithstanding the large demand, they maintain, by unremitting personal attention to all the details of manufacturing, the uniformity and excellent quality which have established the high reputation attained by their productions on both sides of the Atlantic.

Sold by all Druggists throughout the Dominion of Canada.

TROMMER EXTRACT OF MALT COMPANY, FREMONT, OHIO, U.S.

WHOLESALE AGENTS:

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To the Medical Profession.

LACTOPEPTINE.

We take pleasure in calling the attention of the Profession to LACTOPEPTINE. After a long series of careful experiments, we are able to produce its various components in an absolutely pure state, thus removing all unpleasant odor and taste (also slightly changing the color). We can confidently claim that its digestive properties are largely increased thereby, and can assert without hesitation that it is as perfect a digestive as can be produced.

LACTOPEPTINE is the most important remedial agent ever presented to the Profession for Indigestion, Dyspepsia, Vomiting in Pregnancy, Cholera Infantum, Constipation, and all diseases arising from imperfect nutrition. It contains the five active agents of digestion, viz: Pepsin, Pancreatine, Diastase, or Veg. Ptyalin, Lactic and Hydrochloric Acids, in combination with Sugar of Milk.

FORMULA OF LACTOPEPTINE.

Sugar of Milk.....	40 ounces.	Veg. Ptyalin or Diastase	4 drachms.
Pepsin.....	8 "	Lactic Acid.....	5 fl. "
Pancreatine.....	6 "	Hydrochloric Acid.....	5 fl. "

LACTOPEPTINE is sold entirely by Physicians' Prescriptions, and its almost universal adoption by physicians is the strongest guarantee we can give that its therapeutic value has been most thoroughly established.

The undersigned, having tested LACTOPEPTINE, recommend it to the profession:

ALFRED L. LOOMIS, M.D.,

Professor of Pathology and Practice of Medicine, University of the City of New York.

SAMUEL R. PERCY, M.D.,

Professor Materia Medica, New York Medical College.

F. LE ROY SATTERLEE, M.D., Ph. D.,

Professor of Chem., Mat. Med., and Therap., in N. Y. College of Dent.; Prof. of Chem. and Hyg. in Am. Vet. Col., etc

JAS. AITKEN MEIGS, M.D., Philadelphia, Pa.,

Prof. of the Institutes of Med. and Med. Juris., Jeff. Medical College; Phy. to Penn. Hos.

W. W. DAWSON, M.D., Cincinnati, Ohio,

Prof. Prin. and Prac. Surg. Med. Col. of Ohio; Surg. to Good Samaritan Hospital.

ALFRED F. A. KING, M.D., Washington, D. C.,

Prof. of Obstetrics, University of Vermont.

D. W. YANDELL, M.D.,

Prof. of the Science and Art of Surg., and Clinical Surg., University of Louisville, Ky.

L. P. YANDELL, M.D.,

Prof. of Clin. Med., Diseases of Children, and Dermatology, Univer. of Louisville, Ky.

ROBT. BATTEY, M.D., Rome, Ga.,

Emeritus Prof. of Obstetrics, Atlanta Med. College, Ex-Pres. Med. Association of Ga.

CLAUDE H. MASTIN, M.D., LL.D., Mobile, Ala.

PROF. H. C. BARTLETT, Ph. D., F.C.S., London, England.

The New York PHARMACAL ASSOCIATION,

Nos. 10 & 12 COLLEGE PLACE, NEW YORK.

LOWDEN, NEILL & CO., Toronto, Ont.,

Wholesale Agents.

TROMMER EXTRACT OF MALT.

"In Malted Barley we have an unlimited supply of diastatic power."

(W. ROBERTS, M.D., F.R.S., in *London Practitioner*.)

Opinions of the Medical Press.

"Have been using Trommer Extract with excellent results; very serviceable in certain forms of dyspepsia, agrees with the most fastidious stomach."—*Canada Lancet Toronto*.

"This Extract converts starch into glucose and dextrine rapidly and in large quantity. Seems to be steadily increasing in favor for diseases involving impaired nutrition."—*London Lancet*.

"There are many conditions in infancy, old age and debility, where a physician, once acquainted with the value of this Extract, would be at a loss to replace it."—*Medical and Surgical Reporter, Philadelphia*.

"During convalescence from fevers, in cases of phthisis in certain forms of dyspepsia, and generally in all cases of malnutrition, we have found it of very great value."—*Ohio Medical Recorder*.

"There are few remedies which to a greater extent offer *a priori* grounds for their use. The clinical evidence, too, which has sanctioned the physiological claims of Malt Extract, is abundant."—*Louisville Medical News*.

"Adapted to a wide range of cases requiring supplementary food; acceptable to the stomach; aids digestion; an excellent vehicle for other medicines; and will keep in the hottest climate."—*Medical Journal, Wilmington*.

"The Trommer Company has hitherto taken the lead in the introduction of the Extract of Malt. The uniformity and reliable character of this Extract has induced an enormous demand and sale, so that we presume there is scarcely a drug-house on the continent that does not supply it."—*Obstetric Gazette, Cincinnati*.

"It is employed with great advantage in the wasting diseases of children, both as a nutrient and to improve digestion."—*Cincinnati Medical Times*.

"One of the best of the various preparations of a similar character. Prof. Redwood finds Trommer's Extract has all the power of acting on amylaceous bodies."—*London Chemist and Druggist*.

"The preparations of Malt manufactured by the Trommer Company are too well known to require commendation. Malt fills a place in the treatment of disease of the utmost utility."—*Courier of Medicine, St. Louis*.

"Trommer Extract of Malt has grown so rapidly in favor with the profession that there are few practitioners in Canada who do not regularly prescribe it."—*Canada Medical Record*.

"The Trommer Company was the first to bring prominently before the American profession the virtues of Malt Extract. As a Malt Extract we have no hesitancy in saying that there is no brand in the market its equal in every respect."—*Medical Advance, Detroit*.

"Eminent practitioners, including most of the leading teachers, speak of it in the highest terms. Independently of the obvious merit of the preparation there is in its favor a mass of clinical evidence."—*London Medical Record*.

"There is no scarcity of good alimentary articles, but there is an objection to most of them that they will not keep. This makes our estimate of Trommer's Extract of Malt higher each season. It will keep in the hottest climate."—*N. C. Medical Journal, Wilmington*.

The Trommer Extract Company is engaged exclusively in the manufacture of Malt Extract, "Plain," and in such combinations as have been suggested and approved by some of the most eminent members of the profession in Europe and America. Notwithstanding the large demand they are enabled, by unremitting personal attention to all the details of the manufacture, to maintain the excellent quality which has established the reputation of their preparations on both sides of the Atlantic.

MALTINE IN PULMONARY PHTHISIS.

The great value of MALTINE in all wasting diseases, and especially in Pulmonary affections, is becoming more and more apparent to the Medical Profession.

Since we issued our pamphlet on Maltine one year ago, we have received nearly one thousand commendatory letters from the Medical Profession from most parts of the world, a large portion of which speak enthusiastically of it in Pulmonary affections.

Any physician who will test MALTINE, Plain, in comparison with Cod Liver Oil, in a case of Pulmonary Phthisis, will find that it will increase weight and build up the system far more rapidly. There are, however, many cases where the compounds with Hypophosphites, Phosphates, Peptones, Malto-Yerbine, and Pepsin and Pancreatine are strongly indicated.

After full trial of the different Oils and Extract of Malt preparations, in both hospital and private practice, I find MALTINE most applicable to the largest number of patients, and superior to any remedy of its class. Theoretically, we would expect this preparation, which has become *practically officinal*, to be of great value in chronic conditions of waste and mal-nutrition, especially as exemplified in phthisis. Being rich in Diastase, albuminoids and phosphates, according to careful analysis, it aids in digesting farinaceous food, while in itself it is a brain, nerve and muscle producer.

WM. PORTER, A.M., M.D., St. Louis, Mo.

123 Lundsdowne Road, Notting Hill, W., London, October 16th, 1880.

I have used MALTINE with Cod Liver Oil with the happiest results in a case of tuberculosis attended with tubercular peritonitis, in which the temperature of the patient rose to 105.5° and persistently remained above 100° for upwards of two months. The only medicine taken was MALTINE with Cod Liver Oil, and an occasional dose of Carbonate of Bismuth, to check diarrhoea. She gradually improved and made a perfect recovery. I find MALTINE with Cod Liver Oil is more readily taken and more easily assimilated than Cod Liver Oil in any other form.

EDMUND NASH, M.D.

Bridge House, Reresby, Boston, Lincolnshire.

The trial of your MALTINE I made in the case of a lady suffering from phthisis pulmonalis has been most satisfactory. Her left lung had been in the last stage of disease for some time, and her temperature ranged for many months between 101° and 104°. After taking the MALTINE for a few days the temperature came down to 100°, and to-day it stands below 99°, which makes me feel sanguine that the disease is checked.

THOMAS HUNTER, L.R.C.P.

Kensington Dispensary, London, Nov. 24th, 1879.

We are using your MALTINE among our patients, and find great benefit from it, especially in cases of phthisis.

DR. CHIPPENDALE, Resident Medical Officer.

The Beeches, Northwold, July 28th, 1879.

I find that my patients can readily digest your MALTINE with Cod Liver Oil without causing any unpleasant after-feeling. I have full confidence in the virtue it possesses to sustain the system during prolonged diseases of a tubercular or atrophic nature.

FREDERICK JOY, L.R.C.P., M.R.C.S.

PROF. L. P. YANDELL, in *Louisville Medical News*, Jan. 3rd, 1880:—MALTINE is one of the most valuable remedies ever introduced to the Medical Profession. Wherever a constructive is indicated, MALTINE will be found excellent. In pulmonary phthisis and other scrofulous diseases, in chronic syphilis, and in the various cachectic conditions, it is invaluable.

Adrian, Mich., Feb. 16th, 1880.

I have used your MALTINE preparations in my practice for the past year and consider them far superior to the Extract of Malt. I have used your Malto-Yerbine in my own case of severe bronchitis that has troubled me for the past five years. It has done me more good than anything I have ever tried.

J. TRIPP, M.D.

Leighton, Ala., Feb. 18th, 1880.

I am more pleased with your MALTINE preparations every day that I use them. I don't know how I could dispense with them in some cases I have under my care at this time. In one case especially, the MALTINE with Cod Liver Oil has had a most marked effect, agreeing with the patient's stomach, without the least trouble, after other preparations of Cod Liver Oil had been tried in vain.

J. M. KUMPE, M.D.

New Richmond, Wis., Aug. 14th, 1880.

After having given several of your elegant MALTINE preparations thorough trial I have found none of them to disappoint me. I consider it invaluable, and as indispensable to the profession as opium or quinine.

F. W. EPLEY, M.D.

In order to test the comparative merits of MALTINE and the various extracts of Malt in the market, I purchased from different druggists samples of MALTINE and of the most frequently prescribed Extracts of Malt, and have subjected them to chemical analysis. As the result of these examinations, I find that MALTINE contains from half as much again to three times the quantity of Phosphates, and from three to fourteen times as much Diastase and other Albuminoids as any of the Extracts of Malt examined.

PROF. WALTER S. HAINES, M.D.,

Professor of Chemistry and Toxicology, Rush Medical College, Chicago.

In comparison with the alcoholic Malt Extracts, your MALTINE is about ten times as valuable, as a flesh former; from five to ten times as valuable, as a heat producer; and at least five times as valuable, as a starch digesting agent.

PROFESSOR ATTFIELD, F.C.S.,

Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain.





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