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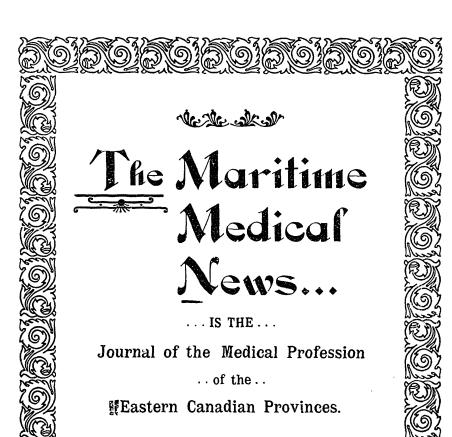
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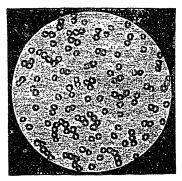
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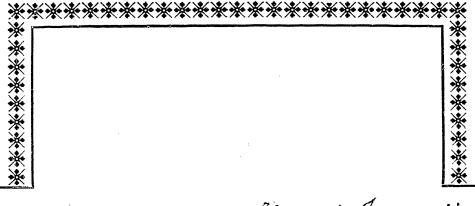
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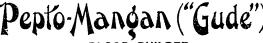


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Pneumonia Following La Grippe.

BY M. E. CHARTIER,

Docteur en Medecine de la Faculte de Medecine de Paris, Membre Correspondant etranger de la Grande Encyclopedie, Section de Philologie.

As a rule certain diseases prove more fatal, not only in given districts, but during certain periods of time, along particular areas of territory. We have La Grippe, decreasing in intensity for the present; it has been replaced by pneumonia, which is not only raging in the United States, but in European countries. The bacteriologists will have to explain this fact; the truth remains however, that the mortality from pneumonia in its various forms is now far in excess of any previous record.

Twenty years ago, and preceding the re-appearance of La Grippe in its epidemic form, pneumonia proved as dangerous as it does at the present time. Many cases fell under my personal observation, and I must admit that my Parisian confreres were at a loss, not for a remedy for the disease alone, but even for a logical line of treatment. Dujardin-Beaumetz became so skeptical that he prescribed stimulants, regardless of therapeutical conditions. The mortality in his ward at the Hotel Dieu proved that his patients fared no worse than the others submitted to the antiphlogistic remedies then en vogue.

At that time, I advocated in my treatise on therapy, the administration of sulphate of codeine in two to five centigrammes doses—onefourth to one-half grain. Codeine is the only remedy known to me possessing a marked and distinct effect upon the hypersecretions of the bronchial mucous membrane. What I then wished was an analgesic possessing antipyretic properties, which I could safely use. This I have since found in antikamnia and I believe it can be exhibited safely, especially on account of its not having a depressing effect on the cardiac system.

Experimental doses of from one-half to one gramme—seven to fifteen grains—of antikamina administered under ordinary conditions did not develop any untoward after-effect. The following trace, taken with the sphygmograph was made ten minutes after the administration of one gramme—fifteen grains—of antikannia.



Pulse, 112. Temp., 101 1-5 Fahr.

The above trace shows plainly that unlike other coal-tar products, antikannia has a stimulating effect upon the circulation. In this particular case the temperature was sensibly reduced—102° to 101 1-5°. The analgesic effect of the drug was satisfactory.

My conclusion is that in the treatment of pneumonia, antikamnia is indicated as a necessary adjunct to codeine, on account of its analgesic and antipyretic properties and particularly because it acts as a tonic upon the nerve centres. The tablets of antikamnia and codeine containing four and three-quarter grains antikamnia and one-fourth grain sulphate of codeine, to my mind, present these two remedies in the most desirable form. I also find one tablet every hour, allowed to dissolve slowly in the mouth almost a specific for the irritating cough so often met with in these complications. For general internal medication, it is always best to crush the tablets before administration.

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MARITIME MEDICAL NEWS,

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Vol. X.

HALIFAX, N. S., FEBRUARY, 1898.

No. 2.

Original Communications.

MIGRAINE *

WITH SPECIAL REFERENCE TO THE GASTRIC CONTENTS.

By Andrew Halliday, M. B., C. M., Shubenacadie, N. S.

Headaches are classified by many writers into a great many different groups; thus we have headaches from sympathetic nerve involvement, from functional disturbances of nutrition, from anæmia and hyperæmia; also toxic, diathetic and neurasthenic headaches.

In this paper it is not my intention to discuss headache due to such causes as eye-strain, to any particular diathesis, or the sequence to organic disease of some important organ. I wish to deal only with migraine or sick-headache so-called, of which we meet a great deal in ordinary practice, and which while not in itself a very serious malady, yet causes a great deal of intense suffering and occasions a great deal of annoyance from its interference with the pursuit of ordinary avocations.

It is unnecessary to enter into the symptoms, which are only too familiar, but as I am in this instance the patient, I may briefly outline my case.

Since boyhoood I have been subject to these attacks, and suffered greatly when I was at school, and still I am a victim.

Sometimes I get up in the morning feeling perfectly well, but an hour or two after my mid-day meal my head will begin to ache, perhaps in the frontal, orbital, temporal or occipital region, and the pain will

^{*} Read at meeting of Medical Society of Nova Scotia, July, 1897.

increase in severity, until, late in the afternoon, I am almost incapacitated for any work on account of the pain, which is aggravated by the least noise and particularly by movement. Thus, turning my head quickly will cause such a throbbing as to make it seem that the whole vault of the cranium rises and falls at each cardiac impulse.

If the attack be slight, the pain may be confined to one region, but if very bad it may be frontal, temporal and occipital on one side and may even radiate somewhat to the other side. It always is hemicranial at the start and remains so in most instances to the finish.

I have often noticed that it is particularly apt to come on on Sunday, when after getting up somewhat late I feel it in one spot slightly, reaching its acme in the afternoon, unless precautions be taken to prevent it, of which I shall speak later.

Again, after a long railway journey or an exhausting drive I am sure to have it, particularly if I feel hungry and take an ordinary meal at the end of it. Excitement alone rarely causes it.

I nearly always have premonitory symptoms, consisting chiefly in a heavy feeling in some region on one side of the head, disinclination for work, melancholy, mental lethargy, irritability of temper, and very frequently hunger.

I never, throughout the whole attack, have any subjective symptoms referable to the stomach or indeed discomfort in any other organ except the head. I seldom am nauseated and never vomit. These conditions I wish specially to emphasise.

From this brief sketch then, I think you will agree that I suffer from the classical migraine.

As it is the ætiology with which I am particularly concerned, you will pardon me if I call your attention to a few of the ordinarily accepted theories regarding its cause.

Osler * gives the following: "The nature of the disease is unknown. Liveing's view that it is a nerve storm or form of periodic discharge from certain sensory centres, and is related to epilepsy, has found much favor. According to this view it is the sensory equivalent of a true epileptic attack. Mollendorf, Latham and others regard it as a vaso-motor neurosis, and hold that the early symptoms are due to vaso-constrictor, and the later symptoms to vaso-dilator influences. The fact of the development of arteriosclerosis in the arteries of the affected side is a point of interest bearing upon this view."

^{*} Osler-Practice of Medicine, p. 958.

Sinkler * traces a connection between hemicrania and menstruation in women. He also mentions the general health of the patient as having a great predisposing influence and enumerates as causes, indiscretions of diet, over fatigue, physical or mental; also the gouty diathesis. draws attention strongly to the connection between migraine and epilepsy and says "we cannot but regard the two conditions as more or less allied to each other. Moreover, patients who suffer from migraine frequently have a family history of epilepsy, and both disorders may occur in the same person."

Lauder Brunton, † after discussing headaches due to diseased teeth, a point on which he lays considerable stress, takes up the pathology of migraine. He states that the great physiologist, Du Bois-Reymond, was a martyr to the disease, and that gentleman in studying his own case found that the temporal artery on the affected side was spasmodically contracted. Brunton, however, shews that sometimes it is contracted and sometimes dilated, and explains the discrepancy by shewing that Reymond was too localized in his examination, for he (Brunton) finds that if the artery be traced backwards to the carotid, some parts are constricted and some dilated.

Hammond t remarks that while Du Bois-Reymond believed in the angio-spastic theory, Mollendorf believed that it is always angio-paralytic. Eulenburg and Gutman on the other hand recognise cases coming under both heads, but refer it back from the vessels themselves to their nervous supply, viz.: the cervical sympathetic ganglia.

Campbell § considers headache due to "a perturbation of the centres of general sensibility which are intimately connected with the sensory centres."

Wallace ++ believes it to be due to defective secretion partly of the liver and mainly of the kidneys, and that the severity is directly proportional to the acidity of the gastric contents, and that it can be greatly lessened by the free use of alkaline draughts.

Gradle # of Chicago, estimates that nearly one half of cases of migraine are due to astigmatism. I cannot, however, admit those in the class of paroxysmal headaches which I am at present considering.

^{*} Hare's System of Practical Therapeutics, Vol. iii, p. 379.
† T. L. Brunton—Disorders of Digestion, p. 103.
‡ Hammond—Diseases of the Nervous System, p. 859.
§ Campbell—Sajous' Annual, 1894, Vol. 2, C. 16.
†† Wallace—Sajous' Annual, 1894.

tt Cradle-Sajous' Annual, 1895, Vol. 2, C. 41.

Westphalen * considers headache of gastric origin. He thinks his cases due to the absorption of toxic materials from the stomach and says that all the cases were benefitted by the administration of hydrochloric acid.

With the views of Westphalen I am entirely in sympathy. "In every living organism there is a possible maximum of vital force. In organisms with a nervous system there is a certain similar maximum of available nervous energy; the amount depending on the conditions of the animal at the time—just as with a Daniell's cell there is only so much electricity generated, even when in the best possible condition—which may be very much less if the conditions of the battery's action are not perfect. If a portion of this electric force be diverted along one conductor, there is so much less left for other possible channels; thus it is with the nervous system."

So says Prof. Wesley Mills in a paper entitled "A Physiological Basis for an Improved Cardiac Pathology." He further states "as is well known the changes in the cells of the digestive glands dependent on nerve stimulation can be observed microscopically even in the living gland. * * It is important to have it clearly understood that the changes effected are directly dependent on the nerves and not necessarily on the blood pressure or the blood itself."

This is essentially what Dr. Mills terms the neurotrophic theory which has been so admirably worked out with regard to the heart by himself. Gaskell and others.

Adopting then, this neurotrophic theory I shall endeavor to show that it supplies us also with "a physiological basis for an improved" migraine pathology.

That the secretion of hydrochloric acid, pepsin, etc., from the gastric glands is due to nervous impulses transmitted from the higher centres we are free to admit a priori.

Let us now for convenience denominate the maximum of gastric juice under the most favorable circumstances for the given individual by x and the maximum amount of food that can be digested by the same by y, then our physiological equation reads: x = y.

But suppose that some cause—excitement, worry, fatigue, etc.—diverts a portion of the nervous impulse along other conduits or perhaps inhibits the maximum production, and yet the same amount of food is

^{*} Westphalen-Sajous' Annual, 1892, Vol. 2, C. 63.

taken, then the equation no longer is

$$x = y$$

but $x - = y$

What results would we expect? That a certain portion of the food would be digested; that all the available gastric juice (x-) would be raised up; that the remaining portion of the food would be exposed now to the action of any organic ferments, bacteria, etc., which it might contain; that the conditions are most suitable in view of the diminished amount of hydrochloric acid, and so organic acids would be rapidly manufactured, and very probably in the evolution of these, alkaloids would also be developed, which, getting into the circulation, might, like muscarine or any other of these organic poisons, cause a toxic condition of which one prominent symptom might be migraine.

On the other hand reverse the condition and instead of altering the value of x add something to that of y, such as an increased quantity or more indigestible food, and the equation is now not

$$x = y$$
 but $x = y +$

which means that the same amount of gastric juice has to do more than its maximum of work and digest not y but y+, a physical impossibility, and thus, again, we have a surplus of food undergoing fermentation with such products as lactic, butyric, acetic and other organic acids, and toxines produced just as before.

As an illustration of the two different types I may give the following. I can often eat and digest an apple without suffering any abnormal effect. In such a case x = y. But very often an apple of just the same size will originate a violent attack of hemicrania. In this case we we have x - y. That it was due to the apple I have often proved, (1) by the fact that the apple was the only substance ingested, and (2) on washing out my stomach by the means which I will explain later I have thus got rid of the apple undergoing digestion and fermentation, and in a very short time relieved my headache.

As an example of the other condition, viz.: where x = y +, I may instance the eating of a doughnut. Under no circumstances can my gastric glands secrete enough of x to equal the y +, hence it invariably causes headache.

I could go on almost indefinitely, so numerous are the instances and so many the articles which will induce an attack of migraine.

Nature has, however, to a certain extent provided against these attacks on our lives, and, short of that, of headache, for as some writer remarks "We are constantly in danger of poisoning ourselves."

We must remember that great curator of the public health—our livers.

The function of the liver, as has been pointed out time and again, is not merely to secrete bile, but to act as porter to prevent the entrance of toxic and injurious substances from the stomach and intestines, into the general circulation and thus prevent an auto-intoxication—a matter which has been entirely removed from the province of doubt in Bouchard's work on the subject.

Hence it is that an ordinary purgative is of so much value in cases of migraine, stimulating the intestines to more rapid action and thus getting quickly rid of the toxines per vias naturales. A chologogue is often of great benefit, evacuating the bowels and removing those noxious materials from the liver when it is overloaded with them.

Many of those who suffer from migraine are more or less constipated immediately before the attacks. This simply means that the whole portal circulation must be loaded with these ever developing toxines. The liver now has as much work as it can do, and when food is taken, in this unequally balanced condition of what I have called the physiological equation, it is easy to understand how a fresh supply will get past the liver in its overworked condition, and thus cause an attack of migraine, whereas a few grains of calomel the day before might have prevented such a result.

But one can reason a stage farther back, and easily perceive that while the toxemia falls short of producing headache it may be virulent enough to alter the amount of our x (gastric secretion) and in this way a vicious circle is set up.

In cases where constipation, not necessarily pronounced, is not present the effect may possibly be produced by a rapid absorption of a considerable amount of these toxines.

That the liver has this power of rendering those toxines within certain limits innocuous is abundantly proved.*

It acts in two ways, (1) by excreting some of them and (2) by altering their composition in such a way as to make them non-poisonous. It is found that double the quantity of strychnine, veratrine, morphine, etc.,

^{*} Brunton. - Modern Therapeutics, p. 172.

is required to kill an animal if injected into the portal vein than is necessary to do so when injected into the jugular, and three times as much curara is required.

The liver has the same effect on peptones and ptomaines, compound ammonias and weak acids.

It has further been shown that albumoses and peptones, the natural products of digestion, may act as powerful poisons but for the so-called "sentinal" action of the liver.

Bouchard* discusses intestinal intoxication and points out that the chief products after intestinal fermentation are phenol, cresol, indol and particularly indican in the urine. He shows the toxicity of the urine to be increased. He further says: "An objection made to the hypothesis of intoxication of intestinal origin is the fact that constipation is compatable with health. I reply that constipation ought be be regarded as a protection against constipation. In constipation, there is, at first, a preliminary phase, in which appears a threatening of intoxication, but in the second place intoxication is no longer in operation. Besides, are constipated people healthy? They suffer headache, migraine and vertigo. Hypochondriacs whose sufferings are chiefly subjective are constipated."

I may now formulate my opinion of the cause of migraine to be an auto-intoxication due to disturbance of the neuro-trophic physiological equation enunciated above. In other words it is due either to weakened nervous impulses causing a diminished secretion of gastric juice, particularly hydrochloric acid, or to the ingestion of such food in quantity or quality that the ordinary amount of gastric secretion cannot completely digest. This is the primary condition. The secondary is auto-intoxication from fermentation as the common result of either of the above failures to maintain the physiological balance.

I may yet go a stage further and say that the reason why this physiological balance is so unstable in my case, and why I so often suffer from attacks of hemicrania, is because my gastric secretion is not equivalent to that of my more fortunate brethren, but is always x- as compared with x, and as a consequence I cannot eat and digest many articles which are perfectly innocuous to others, for in order to maintain the physiological equilibrium in my own case it must be not

$$x = y$$
but $x - = y$

^{*} Bouchard-Auto-intoxication.

In other words I have to be very careful not to eat as much as many others can easily digest or I get x = y + with the accompanying results, abnormal gastric fermentation, auto-intoxication and headache.

But having thus propounded a theory it is only fair that I should be asked to substantiate it, and this I shall now proceed to do, first, stating that for this I am eminently fitted, not on account of superior knowledge, but because, on the one hand, I suffer much from the affection, and on the other, I can regurgitate my gastric contents whenever I wish without the slightest inconvenience and thus make an examination of them either before, during or after an attack.

In order to ascertain the usual condition of my gastric juice I have taken Ewald's test breakfast (300 c. c. weak tea and 35 grammes bread.) The result of seven such examinations are given as follows:

I. The total acidity.

Greatest total acidity = 56.

Least " = 34.

Average " = 38.

Ewald gives as normal 40 to 65. It will therefore be seen that my gastric acidity is almost constantly a trifle below the normal.

II. Free HCl.

The amount of free HCl, estimated with a decinormal soda solution and Gunzburg's phloroglucin-vanillin test, was as follows:

Greatest amount of free HCl. = 0.175%.

Smallest " " = 0.123%.

Average " = 0.134%.

Again it will be seen that the HCl is on an average slightly below the normal which is given by Ewald as 0.14 to 0.24.

III. Organic Acids.

In a few instances, with Uffelmann's reagent, I was able to get a trace of lactic acid, but never any of the other organic acids.

IV. The Ferments.

The proteolytic ferment was always perfectly active, digesting blood fibrine in all instances within an hour when kept in an incubator at a temperature of about 100° F.

Rennet ferment always coagulated milk in a very few minutes used according to Leo's method.

The results are vastly different when we come to examine the gastric filtrate during an attack of hemicrania.

The following are the results of six such examinations:

I. Total Acidity.

Greatest total acidity = 64. Least " = 35. Average " = 45.

II. Free HCl.

The most interesting facts are shown with regard to the free HCl, as follows:

Greatest amount of free HCl. = 0.065.

Least " = not a trace with Gunzburg's test. Average " = 0.042.

III. Organic Acids.

These were always present in large amount as shown by Uffelmann's reagent. In nearly all instances lactic acid was present in considerable amount; in several the other fatty acids (probably butyric); and on two occasions acetic acid was distinctly evidenced by the smell.

IV. The Ferments.

The proteolytic and rennet ferments were always present, but compared with those from an ordinary test filtrate they were much less active; thus in one observation the fibrine, which was all digested by the test filtrate in 45 minutes, was not equally affected in 90 minutes by the other, the same amount of fibrine being used.

Again, while the rennet of the test filtrate coagulated the case in in about three minutes, that of the abnormal filtrate did not do as much in twenty minutes, and then there was a great difference in the coagulum—that of the former being firm and in one solid mass, while in the latter instance it was loose and flaky.

On these considerations, then, I am led to believe that migraine, in my case at least, is always accompanied by this abnormal condition of the gastric contents, be they associated in the relationship of cause and effect or not.

But is there any proof that they are the cause? Having the power to regurgitate my gastric contents, I have also the power to wash out my stomach. This, I have frequently done, and by means of this autolavage completely emptied the organ of all its abnormal contents. The result invariably is that in a short time my headache is gone and I am able to take another meal, with this restriction, that I must be very careful as to quantity and quality.

This disappearance is greatly facilitated by taking a dose of phenacetin, provided I first wash out my stomach, or that I take the drug as soon as I feel the headache coming on.

It is difficult to be sure just how phenacetin does its work. There are to my mind two possible ways in which it may do so: (1) It may act as a direct antidote to the toxic materials absorbed; and (2) it may increase the secretion of gastric juice.

This may seem to be a little "far fetched," but the following, at least, are the facts with regard to the effect of phenacetin on the HCl. when taken fifteen minutes after a test breakfast in a gr. x. dose. (The figures are from five examinations.)

> Average amount of HCl. = 0.196. Greatest = 0.223.Least = 0.145.

The comparison in the three different instances is at least very interesting, being as follows:

Amounts of free HCl.

I.	I. Normal gastric filtrate.		II. Migraine filtrate.		III. Filtrate after taking	
	Least	0.123	Not a tra	ce.	Phenacetin. 0.196	
	Greatest	0.175	. 0.0		0.223	
	Average	0.134	0.0	42	0.145	

This would also tend to show why phenacetin is so much more efficacious when given at the beginning of the attack.*

Another point, and one of physiological interest, is that in migraine there is delayed passage of the contents from the stomach into the intestine, since I am always able to regurgitate far more in these instances at a given period—say three hours after a meal—than normally. In one of the instances considered I regurgitated three and a half hours after a meal, something like 320 c. c. and I had not taken more than

^{*} Since writing this paper, I notice that Dr. Brunton, in his lately published Lectures on the action of Medicines, thus explains why antipyrine relieves in some cases of migraine and fails in others. He points out that if antipyrine be taken at the beginning of the attack it usually relieves, but if not taken till the attack is well on, then the stomach absorbs very

slowly and the antipyrine simply lies dissolved in the gastric contents.

In the same work he advocates giving potass, brom., combined with sod. salicyl., repeated every hour or so till relief is obtained. He claims great success from such treatment.

But Brunton also points out in his lectures that potass, bromid soothes the irritable nerve centres and that sod. salicylate is one of the most pronounced of all cholagogues.

It is thus easy to understand why such treatment should be beneficial, the one drug allaying the irritability of the centres, and the other meanwhile eliminating the poisons of the liver.

This still further shows that spastic and paralytic conditions of the temporal and carotid arteries are simply factors in the condition and do not stand in a causative relationship.

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380 c. c. in all. Is it not then at least probable that the amount of HCl, or at least the acidity of the stomach contents due to HCl, may be a prominent factor in regulating the discharge through the pylorus?

I stated in an earlier part of this paper that I always had premonitory symptoms of the invasion. Using this fact together with the facts obtained from analysis of the stomach contents, I believe I have averted several attacks by the administration of hydrochloric acid in $\mathbb{N}x$ doses, repeated one and two hours after meals, and I have reason to believe that I would be greatly benefited by systematically carrying out this treatment, which, however, I have not been able to do, as it would interfere with other work I have on hand.

Treatment.—It is hardly necessary to say much under this head, because the indications are really contained in what has gone before.

Phenacetin has been mentioned in this connection as a possible antidote and so may the other aromatic compounds. Brunton has shown that atropine, which is a derivative of pyridine, itself a tertiary amine, is the physiological antagonist of the organic poisons choline, neurine and muscarine, which have chemically been shown to be substituted ammonias, and which are produced in tainted meat by the agency of microbes. Considering the fact that there is a production of abnormal chemical compounds in the stomach it seems quite reasonable to assume that the antagonism may be of a similar nature. It is at least a point well worthy the attention of the pathological chemist.

It has been pointed out that when abnormal decomposition is going on in the stomach either from yeast, sarcinæ or bacteria, the administration of creosote and such drugs might be beneficial, acting as disinfectants. But the indication is here given by nature, and undoubtedly the most valuable drug from a prophylactic standpoint must be hydrochloric acid, knowing as we do that it is deficient in quantity and that it is antagonistic to those microbes and other organisms which give rise to abnormal fermentation, since these prefer a neutral or alkaline medium in which to carry on their operations.

As before stated, Wallace believes migraine to be due to defective secretion of the liver and kidneys, that it is proportional to the acidity of the gastric juice, and that it can be greatly lessened by the free use of alkaline draughts. It may seem paradoxical for me, after advocating hydrochloric acid, to say that I consider his treatment good, but I must strongly dissent from his implied idea of the method of action.

Ringer has shown that one of the best diuretics is lots of water, and that the effect of poisons may be greatly diminished by having them washed rapidly out of the system.

Sanquirico demonstrated this experimentally by injecting a weak saline solution into the veins, setting up a copious diuresis, and thus converting poisonous doses of strychnine, chloral and other drugs into harmless ones.

I think then that Wallace's treatment acts simply as an eliminator of the poisons of the kidneys, just as cholagogues and purgatives produce their effects by the liver and intestines, and are on this account to be looked on as valuable adjuvants in treatment.

I have also called attention to the fact that I am particularly liable to have attacks of migraine on Sunday. Sinkler notices the same and I have had patients complain of this also.

I believe that it is due to the accumulation of waste products in the system owing to sleeping longer than usual, and these may probably have a depressing effect on the nervous system, preventing the normal secretion of gastric juice. This is borne out by the fact that I can prevent the headache coming on by carefully abstaining from food except in very moderate quantity: thus, if I take the breakfast of porridge and milk I am accustomed to, when I get up feeling I am likely to have a headache, I shall certainly have one, but if I take nothing but a little weak tea and a small piece of bread, and repeat it in two or three hours, avoiding a heavy mid-day meal, I am quite sure to escape, and by evening I can take an ordinary meal with impunity.

This I have proved time and again, but it is difficult to always abstain, for strange to say, it is almost always in these circumstances that the appetite is most keen, and, speaking for myself, I have often committed indiscretions in diet knowing perfectly well that I must suffer the penalty later in the day (unless, indeed, I regurgitate, and so relieve my stomach, which treatment hardly ever fails if carried out early.)

In conclusion then, while I hope no one will consider me so illogical as to assume this condition to be the only cause of migraine, I must again state that I believe many cases are due to deficient supply of gastric juice and a consequent intoxication. Further, I think that the secretion is chronically below the average normal, and that it can best be met by proper dietary, never allowing more food to be taken than can be properly digested, and reducing the amount still more when subjec-

tive feelings indicate that the vicious circle is about to be established and that all that is necessary to develop the attack is "a good square meal."

Medicinally, hydrochloric acid ranks first, given as previously stated, its action being prophylactic. For the subsequent toxemia, purgatives, cholagogues, and possibly diuretics are indicated to eliminate the poisons: and for immediate relief of the headache, phenacetin and its congeners.

I may add that I have noticed both the angio-spastic and angio-paralytic condition of my temporal artery during separate attacks, but never could, as Brunton suggests, discover the two conditions present at the same time, even on tracing the artery back to the carotid.

With the idea that migraine is a nerve storm analogous to epilepsy I have no sympathy. If I may be allowed to express vito-chemical processes in the language of physics, I should say that it is not an evidence of superabundance of kinetic, but a deficiency in potential energy.



SHOCK.*

By J. H. SCAMMELL, M. D., St. John, N. B.

What is shock?

By this condition is meant a functional depression of the circulatory system. The degree of depression depends upon the situation of the injury, the character of the operation and the idiosyncrasy and age of the individual. Or in other words, it is a general lowering of the vital powers induced by a severe impression made directly on the nerve centres, or indirectly through the peripheral nerves.

Should one while groping his way in a dimly lighted room or passage meet unexpectedly a strange person, he experiences a start, a mental apprehension, and his heart flutters for a time but soon recovers its balance. But now if he misses a step in the dark, he has a greater shock to his nerves, he braces himself, perspires or is chilled. If he falls and bruises himself moderately, he has vertigo, nausea, cold sweat and pain. If the fall produces a more severe condition he suffers from syncope, nausea, fluttering pulse, perspiration, pain and perhaps unconsciousness.

Thus the degrees of shock are many and varied.

Moderate shock terminates in reaction. This is the recoil of the system. It restores the balance; but the pendulum which marks the nervous force, swings back beyond the normal line, and we have temporary fever, flush, full pulse and excitement. Severe shock is more lasting. The pulse vibrates, intermits, flags, rallies, flags again, is soft, compressible, and uncertain. Faintness is constant but partial; vomiting occurs; pupils are dilated; the extremities are cold; there is pallor and very slow recovery.

The nervous system is primarily affected in shock, and, secondarily, the circulatory. This is evident, because with a normal action of the heart shock is impossible.

The same injury will produce different degrees of shock in different individuals, and different degrees likewise in the same individual at different times. Women as a class are less susceptible to shock than

^{*} Read at meeting of St. John Medical Society, Jan. 12, 1898.

men. Persons whose nervous system is dulled by long illness, drugs, etc., are less susceptible to shock than those whose nervous system is in a higher degree of activity. Mental conditions modify shock. Fear, despair, disappointment, etc., aggravate it, while on the contrary, hope, joy, success, etc., diminish it.

The symptoms of shock are those of general depression. The surface is cold, especially the extremities. The pulse is frequent, feeble and fluttering. The face is pale, the lips blanched, the skin covered with a clammy sweat, the eye is half closed and perhaps glazed and the respiration is shallow. There is marked muscular relaxation and at times nausea and vomiting. The symptoms may gradually increase and the patient die of syncope or asthenia, or he may gradually pass into the reaction stage. The pulse will then become full and increased in frequency, temperature slightly raised, the face flushed, the skin hot and dry, the urine scanty and high colored, tongue furred and the bowels costive.

The point which I wish to bring more prominently before the society this evening is the relation of shock to operations. And first, let let me speak of cases in which shock is the result of an accident and the question of an operation arises. We have to take into consideration that we have renewed shock, prolonged shock, or secondary shock, a matter of days rather than hours. It is unphilosophical and fatal to operate in cases of primary shock before reaction has come on. The golden moment of fairly established reaction must be seized, before traumatic fever sets in. This comes in from six to eighteen hours after the injury, or it may never come. It should be considered an axiom that anæsthesia does not diminish existing shock, but only annuls the additional shock which the pain of cutting produces. It prevents the pain of an operation from increasing the shock which may be present from an injury and it adds to the secondary shock if the anæsthesia is prolonged.

In feeble subjects the lack of nourishment which proceeds an operation, desirable on account of safe anæsthesia, is much aggravated by their inability to retain food after the operation. This has an important

influence in bringing about collapse.

Lowering of the body temperature is constant after an operation under anæsthesia. The thermometer often falls to 97° or 96°, and after severe and prolonged operations even to 95° F. This is a very serious matter and has a marked influence in delaying reaction from shock. This chilling of the vital heat is induced first by anæsthesia, which if prolonged, ends in a dripping sweat; next by careless exposure during an operation. Then also it is largely due to antiseptic irrigations, or douches of similar agents, and to applications of cloths (wet in corrosive or carbolic solutions) around the site of the operation. The axillae, the

neck, the thorax and the abdomen are especially prone to deleterious

chilling in this way.

Evaporation is a great factor in reducing heat; and this is constantly occurring on the body of a patient, in a warm atmosphere, during a prolonged operation. Especially is this dangerous when the peritoneal surfaces are exposed; evaporation is then very rapid and extensive. Warm douches and washes give as great a subsequent chilling as cold ones, as all experience who take a tepid bath. The surgical toilette of wounds, in the modern modes of dressing, is depressing, exhausting and devitalizing.

Finally comes the greatest evil of all, nausea. Nausea is one of the marked symptoms of severe shock, primary or secondary. Unfortunately anæsthetics very frequently produce this as a secondary effect. Persistent vomiting and retching mark the slow sinking and collapse of secondary shock after capital operations. Continued nausea is one of the worst symptoms; begun in pain and shock, it recurs after anæsthesia and continues as the most dangerous factor in preventing reaction.

What can we do to prevent shock?

1. Wait for reaction.

2. Never neglect to calm those suffering mental shock by a cheerful word and personal presence.

3. Give alcohol, either spirits or wine, a quarter of an hour before

the anæsthetic.

4. Make the anæsthesia short; never begin it until everything is ready; suspend it during the less painful dressings. Consciousness returns tardily.

5. Conduct the operation as rapidly as can prudently be done.

Consume as short a time in the dressing as is practicable. 7. As a cardinal point avoid chilling the patient.

To promote reaction after operation:

Persistent and carefully applied dry heat (being careful to avoid burning).

Liquid nourishment, combined with stimulants and a little laud-

anum, by enema.

3. Subcutaneous injections of brandy.

Spts. ammon. arom. by mouth. Champagne is sometimes retained when other things are rejected.

5. Black coffee and brandy, the stimulant par excellence when it

can be retained by the stomach.

6. Quiet. Sleep. Assure patient that all is over, and everything is going well.

Modern surgery has won three great triumphs:

It substitutes sleep for pain.

It averts secondary hæmorrhage by ligature.

It prevents sepsis by aseptic methods.

Can we add a fourth by stilling the nervous system and averting or diminishing secondary shock?

RETROSPECT DEPARTMENT.

Surgery.

UNDER THE CHARGE OF

MURRAY MACLAREN, M. D., M. R. C. S., St. John, N. B. John Stewart, M. B., C. M., Halifax.

REMOVAL OF AN ANGIOMA OF THE LIVER BY ELASTIC CONSTRICTION EXTERNAL TO THE ABDOMINAL CAVITY, WITH A TABLE OF 59 CASES OF OPERATION FOR HEPATIC TUMOURS.

(Dr. W. W. KEEN in Pennsylvania Medical Journal.) This paper reports the case above mentioned and reviews the opertions so far performed on the liver for removal of tumours. The case was that of a woman aged 53, whose health had been failing for the past five years. For three years she had noticed a tumour at the pit of the stomach with recurrent attacks of severe pain. On examination an elastic tumour was felt to the right of the middle line and half way between umbilicus and ensiform cartilage. It could be moved about, was tender to pressure and slightly movable on respiration. It was three inches in diameter and was thought to be connected with the omentum.

At the operation, an incision was made through the right rectus and the tumour was found to be at the lower border of the liver, to the left of the notch. It had a rounded, bosselated surface and was raised one-half inch above the surface. Pressure on the tumour gave indication of its nature. It extended into the liver somewhat and therefore an artificial pedicle was formed by cutting into the liver on each side with Paquelin's cautery and an elastic rubber tube was tied at the base. The constricted tumour was brought outside of abdominal cavity. In six days the rubber ligature and tumour were removed, and there was complete recovery in 52 days.

The first reported operation for hepatic tumour was in 1886, and in all 59 cases have been collected.

- 1. Mortality.—49 recovered, 9 died, 1 uncertain.
- 2. Age.—The extremes were two and a half days and 67 years.
- 3. Sex.—42 were women, 9 men. This disproportion is probably due to the constriction of women's clothing.
 - 4. Diagnosis.—Most of the cases were incorrectly diagnosed.
- 5. The long duration of the tumour even in some of the malignant cases is striking.
 - 6. Varieties.—The interesting point is that there are many kinds.
- 7. Technique of Removal.—The one great danger is hæmorrhage and is such that the liver should not be punctured except after cœliotomy. The principal methods of checking hæmorrhage are the ligature, the cautery and the elastic ligature. Hepatic vessels may be ligated, but it is of great importance to tie slowly to avoid cutting through the tissue.

CERTAIN CYSTS OF THE ABDOMINAL WALL

(Dr. RICHARD DOUGLAS, in Richmond Journal of Practice.) This paper is confined to the consideration of abnormalities of the urachus. Vesico-umbilical fistulæ are generally met with in childhood and frequently close spontaneously. In adults occasionally there is dilatation of the urachus. Under this circumstance there is usually present some disease of the urethra or bladder, causing retention of urine or tenesmus. A tumour suddenly develops above the pubis, at first small, hard, with no fluctuation on account of the tenseness of the walls, and it is sometimes quite tender. Nausca and vomiting ensue and a constant symptom is pain over the entire lower abdomen. The tumour gradually enlarges and becomes softer and fluctuating. If the urine is septic a purulent inflammation of the walls of the urachus may develop and the tumour may resemble an abscess. More frequently after catheterization of the bladder the urachus is drained into the bladder and the tumour disappears with relief of symptoms.

There is another form of urachal cyst, where the vesical and umbilical ends are closed and the intermediate portion is dilated, and Dr. Douglas reports such a case. The cyst was removed but the patient died on the second day. The detached peritoneum was found to be gangrenous. It had not been stitched to the abdominal wall as it was thought the intra-abdominal pressure would restore it to its position.

MARITIME MEDICAL NEWS.

Vol. x.

FEBRUARY, 1898.

No. 2

Editorial.

THE PATENT MEDICINE PROBLEM.

In these fin de siecle days, when the connection of bacteria with disease has become a subject to which we devote ourselves with a zest which is perhaps too absorbing, and in which the general public are sharing our interest to a large degree, we find that evils are growing up amidst the good and of these not the least evident is the habit, which is increasing in prevalence, of self-medication on the part of the laity. A little knowledge, which we have long known to be a dangerous thing, is quite sufficient for the average man of to-day when all that is at stake is his own health. And the knowledge that phenactin and agents of that class will relieve headache, is a sufficient indication for the said average man to hie him to the nearest drug store for a dose which he knows he can get for the asking—and five cents. Sulfonal will relieve sleep-lessness, calomel will purge, Dover's powder will induce perspiration, quinine will do pretty nearly anything—and may the doctor be blowed.

And then the patent medicines. The credulity of the public is well recognized, and it is assuredly the case that in matters relating to their health people do like to be gulled. Prima facie evidence of this is to be found in the pages of our evening newspaper, where numberless parasites, more dangerous by far than the bacteria we hold in so much respect, vaunt the "virtues" of their medicines—each and all of which have the remarkable property of curing after all other remedies and even the doctors themselves have miserably failed.

Any physician of experience can tell many a tale of ruined health and much thinned wallet—many a sad story of valuable lives sacrificed by the faith-pinning which people manifest towards quack nostrums in the early and curable stages of disease.

If people only realized how difficult it is at times for even the best trained physicians to decide upon the best course of medication to adopt, they would be more cautious about indulging themselves in the quantities of drug-stuff which they take without more reason than ϵ vague hope for a good effect.

Is it not time that an educational campaign was begun, the aim being to prevent this mad fashion for patent medicines and self-drugging from extending further? We desire to be put on record as saying yea in answer to this question, and we mildly suggest that the campaign be conducted systematically, beginning with medical men; then—and devoting especial attention to—the clergy; then, the druggists; and then the press. Which of these various classes needs instruction the most, it is difficult to say, but probably the worst offenders are the clergy and the religious press.



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contains all the nutritive virtues of the best malt liquors in a much higher degree than any other product with which it can be compared, and the least amount of alcohol (3 per cent.) of any like preparation which avoids the distressing consequences experienced from the use of spirituous liquors, or malt extracts containing a large amount of alcohol.

WYETH'S MALT EXTRACT

is agreeable to take, and is a valuable nutrient, tonic and digestive agent, containing a large amount of extractive matter. Those of the medical profession who have given the subject of malt extracts careful study are unanimous in endorsing all the claims that are made for it.

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is especially adapted to nursing mothers and children, to those suffering from nervous exhaustion, childiness, and to those unable to digest storchy food. It also acts as a roborant in all cases of debility, and is a most valuable addition to the treatment required in convalescence.

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is practically a liquid bread that is partly digested. It has for its prime object the production of nutriment, and the entire process of manufacture is devised for the purpose of attaining that end.

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WYETH'S MALT EXTRACT

is a purely pharmacentical preparation, and we would caution physicians when ordering to specify "Wyeth's," as it is well known that there are a great many so-called malt extracts in the drug stores which contain such an amount of alcohol that it is not safe to leave the choice to the discretion of the patient, who might be prevailed upon to purchase an inferior article on account of its being a little cheaper.

Free sample bottles of Wyeth's Liquid Malt Extract will be sent to any practicing physician in Canada upon application.

PRICE, \$3.50 PER DOZEN BOTTLES.

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WYETH'S ELIXIR TERPIN HYDRATE.

There seems to be little or no doubt from recent investigations and the flattering results of the internal exhibition of this derivative of Turp entine, that it plays a very important part in the therapeutics of the profession. In the treatment of Chronic and Obstinate Cough. Bronchitis, etc., it has proven almost a specific. The eminent authority, Lepine, says unequivocally, and with emphasis, that "it is the best expectorant in existence." This, also, seems to be the impression it has made upon a number of our own medical men most familiar with the treatment of diseases and ailments of the lungs and throat.

Per dozen Pints.

\$12.60.

WYETH'S ELIXIR TERPIN HYDRATE AND CODEINE.

This combination will, we think, prove most acceptable, embracing the expectorant and calmative properties of these two most valuable remedies. The experience of those who have already used this latter clixir, has proven it to be eminently successful in allaying the distressing cough following Influenza and other Bronchial affections, without disturbing the stomach by creating nausea or loss of appelite.

TERPIN HYDRATE .. CODEINE SULPHATE

1 grain. 1-8 grain.

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As compressed by Messes. John Wyeth & Bro. in the form of Tablets, it affords the most convenient, agreeable and efficient mode of administration.

WYETH'S ELIXIR UTERINE SEDATIVE SPECIFIC

Viburnum Opulus (CRAMP BARK), Piscidia Erythrina (Jamaica Dogwood), Pulsatilla (Anemone Pulsatilla).

Hydrastis Canadensis (GOLDEN SEAL),

The above combination cannot but at once appeal to the intelligent practitioner as almost a specific in the treatment of the various kinds of pain incident to the diseases of the female sexual organs, so varied in their character and such a drain upon the general health and strength.

It is most valuable in cases of Dysmenorrheea. Never fails, and is equalled

only by opium, without having any of the dangers of that narcotic.

It possesses very remarkable antispasmodic properties. It also acts as a nervine tonic, astringent, and is a useful remedy in Diarrhoea and Dysentery, and is particularly valuable in preventing abortion and miscarriage, whether habitual or otherwise.

Per dozen Pints.

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Matters Personal and Impersonal.

The town of Amherst has honored the medical profession by recently electing Dr. D. C. Allan to the mayoralty chair. We congratulate the Doctor on the honor conferred on him and have no doubt of his filling the position creditably.

Still another physician has acquired the reins of office, Dr. James Warburton having just been elected mayor of Charlottetown. His popularity may be judged by the very large majority obtained over his opponent. From personal acquaintance we know that Charlottetown will feel proud of her selection.

Dr. C. S. Elliot, of Guysborough, is another of our young medicos who has recently joined the large army of benedicts. He enjoys a large practice in his locality and has wisely followed the proper course. Joy be with him and his—so says the News.

We have just received the programme and rules of the Ninth Congress of Hygiene and Demography from the general secretary, Dr. Amalio Gimeno, of Madrid. The meeting this year will be opened in Madrid on the 10th of April, lasting for a week, and will be under the patronage of Alphonso, King of Spain.

Dr. Cruzius, of St. Louis, whose death occurred lately, was well known, not only on account of his medical attainments, but as a caricaturist of much ability. The "Sheleton Sketches" issued by the Antikamnia Chemical Co., which we referred to in our last issue, are familiar to our readers and testify to the great originality of Dr. Cruzius who has now gone the way of all flesh.

Dr. Joseph O'Dwyer, by whose efforts much suffering has been alleviated and the lives of scores of children saved, has lately passed away to receive his just reward. His name has long been associated with intubation of the larynx, but being of a very retiring disposition, would have gone from our midst forgotten had it not been for the invention which made him famous. His unassuming modesty and nobility of character endeared him to all who had the good fortune of his acquaintanceship.

Mr. Ernest Hart, who filled the position of editor of the British Medical Journal so ably for many years, died on January 7th. He did much to extend the influence of the British Medical Association by assisting in the formation of new branches, chiefly in the colonies. When he first assumed the editorship of the Journal the Association had only 2,000 members though it had existed thirty-four years; it has now over 17,000 members. He was instrumental in having passed many valuable measures to improve the condition of the poor in London, and when chairman of the parliamentary bills committee of the British Medical Association, was active in promoting many measures of a more strictly medical nature. Mr. Hart had been in feeble health for some time, the ultimate cause of death being due to gangrene following diabetes.

The Loyalist Society of St. John recently honored their distinguished president, Dr. Bayard, by presenting him with an address in recognition of his services as a distinguished and public spirited physician, who some time ago completed sixty years of active practice. Among those present on the occasion were representatives of the medical, legal and clerical professions, the mayor and a number of aldermen, as well as an equally large number of ladies. The address, which was beautifully embossed on parchment, was heavily bound in Turkey morocco. On the front cover were the arms of the Loyalist Society, and on the back cover the crest and motto of Dr. Bayard, handsomely done in brass, and gilded. Suitable speeches were made by prominent citizens, while Dr. Bayard's reply was a very fitting one. After all had extended congratulations and admired the beautiful souvenir refreshments were dispensed to the large gathering present.

We have been favored with a copy of a little brochure on "The Philosophy of Art," from the pen of Dr. D. R. Moore, Stanley, N. B. The author writes intensely and poetically upon a subject which he evidently loves much. It is so rerely that a physician breaks away from the usual routine of medical practice to countenance, even as a recreation, the finer and more soulful of the arts, that it is a pleasure to note such an exception as Dr. Moore proves himself to be, and to commend his course as a wise and saving one. Dr. Moore's pamphlet has been printed for distribution amongst his friends, but doubtless he would be glad to furnish copies to any of the profession who have a fellow-feeling with himself upon his pet topic.

Book Reviews.

ELEMENTS OF LATIN.—For students of Medicine and Pharmacy. By George D. Crothers, A. M., M. D., Teacher of Latin and Greek in the St. Joseph (Mo.) High School; Formerly Professor of Latin and Greek in the University of Omaha; and Hiram H. Bice, A. M., Instructor in Latin and Greek in the Boy's High School of New York City. 5½ x 7½ inches. Pages xii-242. Flexible Cloth, \$1.25 net. The F. A. Davis Co., publishers, 1914-16 Cherry Street, Philadelphia; 117 W. Forty-Second Street, New York City; 9 Lakeside Building, 218-220 S. Clark Street, Chicago, Ill.

We are firm believers in the good old-fashioned way of being introduced to Latin through the medium of a primer containing the essentials of accidence and syntax, and then going on to form the acquaintance of Cæsar and Virgil. It sometimes happens, however, that one who has neglected opportunities of making himself acquainted with the language in his school days, afterwards decides to take up the profession of medicine or of pharmacy, and then he finds that some knowledge of Latin is indispensable, and would like to acquire the necessary modicum without going through the ordinary processes. It is to meet the needs of such a one that the neat little volume under review is intended, and it has been carefully compiled to supply just such information as is needed for the purpose and no more. In the half-a-hundred exercises that are given, each preceded by a vocabulary of words not previously used, the learner is not worried by being thrown among ail the Protean forms and uses of the subjunctive mood, but his attention is confined to the jussive use simply. In other respects, too, no attempt has been made at completeness, but at every point the effort is made to present a volume sufficiently concise as to permit of its being mastered by a student of fair ability in three or four weeks.

OUTLINES OF RURAL HYGIENE.—For Physicians, Students and Sanitarians. By Harvey B. Bashore, M. D., Inspector for the State Board of Health of Pennsylvania. With an Appendix on The Normal Distribution of Chlerine by Prof. Herbert E. Smith, of Yale University. Illustrated with twenty (20) Engravings. $5\frac{1}{2} \times 8$ inches. Pages vi-84. Extra cfoth, 75 eents net. The F. A. Davis Co., publishers, 1914-16 Cherry St., Philadelphia; 117 W. Forty-second St., New York City; 9 Lakeside Building, 218-220 S. Clark St., Chicago, Ill.

The need for a better knowledge of matters sanitary among our "country folk," be they lay or professional, is admitted by all. In this

little book there are given brief though explicit accounts of many topics of hygienic interest—the selection of a source for water supply, and the protection of the water against contamination; the disposal of refuse; the drainage of the soil; the construction of dwellings, etc. That it may have a wide circulation, and thus have plenty of opportunity for usefulness, is a wish prompted by a desire to see the general health bettered.

ANNOUNCEMENT.—Messrs. E. B. Treat & Co., New York, announce for early publication the *International Medical Annual* for 1898. For fifteen years this *Annual* has maintained its popularity, and none who have once subscribed to it would think of giving it up. For the present year's issue special features are promised which will make it surpass previous issues. The *Annual* is a book which we cannot praise too highly, and we have much pleasure in commending it to our readers. The price will be \$3.00.

ELECTRIC TREATMENT IN GOUT AND THE URIC ACID DIATHESIS.—By Robert Newman, M. D. Reprinted from Medical Record.

CRIMINAL ABORTION; ITS PREVALENCE, PREVENTION, ETC.—By H. R. Storer, M. D. Reprinted from Atlantic Medical Weekly.

BOOKS OF THE MONTH.

ORTHOPEDIC SURGERY.—By James E. Moore, M. D. With 177 illustrations. Price \$2.50 net. Published by W. B. Saunders, Philadelphia.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY.—Edited by George M. Gorld, A. M., M. D. Royal 8 vo., pp. I257. Profusely illustrated. Cloth, \$6.50 net; half morocco, \$7.50 net. Published by W. B. Saunders, Philadelphia.

THE COUNTRY DOCTOR.

THE country doctor! Let the bard Whose lyre is tuned to idle praise—His locks unshorn, his face nnmarred By sweat and grime, his hand unscarred By daily toil—in dulcet lays, In empty word and hollow phrase Recount the annals of the great; Let him record and celebrate Their noble deeds, their pomp and state,

Their wisdom—all, perpetuate.

A humbler theme to thee I bring—
The smell of flowers, the breath of spring.

The flutter of the bluebird's wing—And with it all I bring to you
The country doctor, good and true.

The country doctor! He whose life, From sun to sun, is daily rife With bootless toil and ceaseless strife; Whose sturdy frame is made to feel The summer's flame, the winter's steel—I come to sing in praise of him His soul is fat; his purse is slim; His eyesight keen; his foresight dim; For, caring not for power or pelf, While there's a crust upon the shelf, He works for fun and boards himself!

Ah! ye who traverse city streets, On swaying springs and cushioned seats,

The difficulties that he meets—
The bumps and jolts—ye little know.
Through seas of mud, o'er wastes of
snow,

Where icy tempests howl and blow; In pouring rain, where torrents flow And sheen and shadow come and go Astride the sorriest of nags And armed with spur and saddlebags, He onward works his weary way; And be it night or be it day,

He never falters nor looks back Adown the steep and rugged track. But sets his teeth and onward plods, Himself a clod among the clods.

I've said—"A clod among the clods!"
'Twere better "god among the gods!"
For, sacrificing hours of ease,
And striving hard to do and please,
And winning but the dregs and lees
Of life's sweet wine, he fights disease
With clenched hands and bated breath—

And knows no conqueror but Death. It shames me not to tell the truth—An unkempt, muddy god, forsooth! Besmeared, bespattered, leggins, suit—From crown of hat to sole of boot, And ofttimes tumbled in the wave That seems to yawn a watery grave, He bobs serenely on the flood And swims about the sea of mud. For lo! his pockets are so light He cannot disappear from sight.

No scientific friend has he—
Who ends his name "A. M., M. D."
Or tacks thereto a "Ph. G."—
To help him in perplexity,
And earn them both a handsome fee;
But when he finds a knotty case,
A problem that he dare not face,
He sends his patient off to town
To some physician of renown.
(God save the mark! All, all are great
Who dwell within the city's gate!)
And this great man dilates his eyes
And rubs his hands, looks wondrous
wise—

And nimbly gobbles up the prize! The city doctor counts his gold, Makes fresh deposits in the banks, And sends the country doctor old A neatly worded note of thanks!

To church the city doctor goes
(Ye need not smile and wink at me)
And strive his spotless name to smirch;
I'm told on good authority
The city doctor goes to church,
To take an hour's profound repose,
To hear the gilded organ ring,
To say his prayers and nod and dose
And see the sweet soprano sing.
The organ peals; the tenor squeals—
Great Scott! how good that doctor
feels.

The self-same hour, the self-same date,
The country doctor—sport of fate—
Moves up the gully's rocky course,
Astride his rhubarb-colored horse.
The only anthem that he hears,
The only tune that greets his ears
Is murmured by the evening breeze,
Which moans "Old Hundred" thro'
the trees.

The city doctor spends his days In crowded marts and travelled ways; At night he sees the latest plays, And rests his half-enchanted gaze On some new "star" that lights the stage—

A star of most uncertain age,
Of whom the critics rant and rage.
The country doctor, poor, dispised—
His purse half-starved and undersized,
Contents himself to stay at home;
The only star he ever knows
Are those that rest in heaven's dome
And light the waste on winter's snows.

The country doctor! Blessed be he
Who sets the weary sufferer free
From burning fever, raking pain
And countless ills—and does it, too,
Without a thought or hope of gain;
Without a single cent in view!
I come to sing in praise of him
Whose soul is fat, whose purse is slim;
Whose eyesight keen, whose foresight
dim;

For, caring naught for fame or pelf, While there's a crust upon the shelf— He works for fun and boards himself.

-Ohio State Journal.

INSPIRATION FOR DELINQUENTS.

An editor has been inspired, after looking over his list of delinquent subscribers, to perpetrate the following:

"How dear to our heart is the old silver dollar
When some kind subscriber presents it to view;
The liberty head without necktie or collar,

And the strange things which to us seem so new; The widespreading eagle, the arrows below it,

The stars and the words with the strange things they tell;

The coin of our fathers, we're glad that we know it, For some time or other it will come in right well;

The spread-eagle dollar, the star-spangled dollar,

The old silver dollar we all love so well."

—Troy Times

Matters Medical.

DIFFERENTIATION OF BACILLI.—Dr. KLEIN, in his recent Harben lectures, claims that on the one hand, in the majority of cases in which the presence of the typhoid bacillus has been alleged, the organism actually observed was the B. coli; and that, on the other, little reliance could be placed on its alleged absence, since even when its presence was certain, from the proved admixture of enteric evacuations, it might easily elude detection (Medicine). The B. coli is, strictly speaking, positive evidence of fecal contamination direct or indirect, since it is always derived originally from the intestine of man or beast, but not of the gross pollution that is commonly suggested by the expression. In towns and populous districts it is ubiquitous, being present in earth, air and water, in food and drink, and even in the saliva and sweat. It is not found on mountains and moors. So far from its ubiquity elsewhere negativing the theory of its origin, this simply means that air and water are nowhere absolutely free from slight taint. It is the chief cause of the souring and curding of milk, which, though sterile so long as it is in the udder, becomes infected during milking. Milk being the richest of culture media, that sold in the shops teems with bacilli.

It is absolutely distinguishable from Eberth's bacillus by: (1) Its power of coagulating milk, this being due to the formation of special ferment, and not to the acid, which is generated equally by Eberth's bacillus, as shown by the cultivation of either in gelatin tinted with blue litmus. (2) The evolution of gas forming large bubbles in a solid gelatin culture. (3) By the production of indol in broth cultures kept at a temperature of 37 degrees C., indicated by the deep red color following the addition of a few drops of commercial nitric acid, this being in fact the source of the indol which is a normal constituent of the contents of the intestine. None of these properties is possessed by Eberth's bacillus, which is more slender, growing far less rapidly, and, under special staining methods, showing numerous flagelli, the B. coli having few or none. The bubbles beautifully seen in stab-cultures are by themselves conclusive.

The detection of the typhoid-fever bacillus is extremely difficult; even in the undiluted sewage of a wing of a hospital in which were

forty typhoid patents it was demonstrable in a minority only of the preparations; and though the epidemic of Worthing was indisputably due to a contaminated water supply, none were found in 2,500 cubic centimetres taken from the main and only a few in 1,200 cubic centimetres from the well itself; and the results were little better when he inoculated with cultures of the typhoid bacillus cultures and fluids containing B. Coli, etc.

The examination of sewage organisms may be greatly facilitated by making cultures in gelatin with 300 to 400 per cent. of phenol, which eliminates all but the B. coli, Eberth's, Proteus, Zankeri, and perhaps one or two more; but under all circumstances the B. coli, originally the more numerous, multiplies with such rapidity as to crowd out wholly the more delicate organisms of typhoid. Yet the presence of large numbers of the former shows such fecal pollution as to render specific contamination possible at any moment, and in this lies their chief significance.

A like difficulty, or, rather, danger, attends the differentiation of Koch's bacillus of cholera from Finkler's, which is present in the diarrheas often miscalled cholera nostras, etc., if the examination be conducted in a perfunctory manner.

The most characteristic appearance of Koch's bacilli is that of chains of commas, or pairs, giving the form of an S, in the flocculi of rice-water evacuations. From these flocculi cultures are made in water with 1 per cent. of pepsin and 0.5 per cent. of common salt. Subcultures made by a stab in gelatin are easily recognized by the more rapid liquefaction of the gelatin by Finkler's, which gives a jelly-bag appearance to the track, that following a stab of Koch's presenting the appearance of a string of beads.

This distinction, depending upon the different rates of growth, is analogous to that observed in the case of B. coli and Eberth's, though the effect is in the one instance evolution of gas, and in the other liquefaction of the gelatin. To detect cholera-bacilli in water, 500 cubic centimetres should be mixed with a 10 per cent. solution of pepsin and 5 per cent. of salt, in such proportions that the mixture contains 1 per cent of pepsin and 0.5 per cent. of salt. Fluid cultures treated with a few drops of sulphuric acid absolutely free from nitrates gives an indol reaction—that is, a deep red color.—Medical Standard.

THE CURATIVE POWER OF FEVER.—A. Lowey and P. F. Richter energetically defend a view now held by a large number of clinicians

LACTOPEPTINE TABLETS

Same formula as Lactopeptine Powder. Issued in this form for convenience of patient—who can carry his medicine in his pocket, and so be enabled to take it at regularly prescribed periods without trouble.

"Everything that the science of pharmacy can do for improvement of the manufacture of Pepsin. Paucreatine, and Diastase, has been quietly applied to these ferments as compounded in Lactopertine."

—The Medical Times and Hospital Gazette.

Can be ordered through any Druggist. Samples free to Medical Men.

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DUNCAN, FLOCKHART & CO.'S CAPSULES

I am instructed by Messas. D., F. & Co., to send working sample to every physician making application for same. Full List of Capsules will be forwarded on request.

R. L. GIBSON, SS WELLINGTON STREET WEST, TORONTO.

AN Prices on these Capsules have been materially reduced. That

The Standard Nerve and Nutrient Tonic.

MALTINE WITH COCA WINE

Dr. C. H. Brown, of New York, Editor of the Journal of Nervous and Mental Diseases, says:

"Maltine with Coca Wine has served me well in cases of Neurasthenia from any cause. It "serves as a most excellent sustainer and bracer. Besides these two essential qualities, we "are forced to believe in another element in this combination, and that is the sedative quality "which makes it a most valuable therapeutic desideratum. This action does not depend entire" ly upon the Coca, or the Coca in combination with wine. My conviction is that the Maltine "plays a leading part in this triple alliance."

SAMPLES SENT PHYSICIANS ON APPLICATION.

MALTINE MANUFACTURING COMPANY, TORONTO.



EFFERVESCENT

SALT.



A pleasant effervescing aperient, taking the place of nauseating mineral waters.

Recognized and prescribed by eminent members of the profession in Great Britain and Europe.



that fever in acute infectious diseases is one of the weapons of defense possessed by the animal body. In proof of this they detail a series of experiments on rabbits, consisting in the production of high temperature by the "heat puncture," i. e., by injury to the corpus striatum and subsequent inoculation of the animals with the minimal lethal dose, or its multiple of pneumococcus, hog cholera (Schweinerothlauf), and diphtheria. The results showed that the animal in which fever had artifically been produced lived longer than the controls; some, indeed, survived the infection.

Although indicating the curative power of fever, the authors do not oppose the proper use of antipyretic measures, when these have favorable incidental effects (quieting the nervous system, etc.). But, they added, it may be profitable to search for pyretic agents, i. e., such that evoke an artificial rise of temperature.—Canada Lancet, October, 1897.

Lactation Atrophy of the Uterus.—1. Modern researches tend to prove that post-puerperal involution consists chiefly in a retraction and contraction of the individual muscle-fibers, whereby the whole uterus is reduced in size.

- 2. When involution goes to its full completion the uterus is reduced to a size smaller than that of the nonparous organ.
 - 3. This condition of complete involution is known as post-puerperal hyperinvolution. It is principally seen in nursing women, and from this circumstance has received the cognomen lactation atrophy.
 - 4. The so-called lactation atrophy is a normal and desirable condition. It is temporary in its duration, but very rarely under favorable circumstances may become permanent.
- 5. When the parturient is unable to perform the function of lactation it is the duty of the physician to endeavor to bring about hyperinvolution by other means at his disposal. An observance of this course will prevent many a woman from developing a host of gynecologic affections which frequently result from imperfect involution.

 —VINEBERG, in Am. Jour. Med. Sciences.

Hæmophilia in an Infant.—Comby (Bull. et Med. de la Societé Médicale des Hopitaux) records the case of a girl, aged eleven months, in whom from the third there had been continuous hæmorrhages from the nose, mouth and rectum, and into the skin, without, however, imparing in any manifest way the child's development. There was a history on the father's side of hæmophilia, but not on the mother's.

The patient was the only living child; there had been two other girls who had died in infancy, but had not shown any signs of hemophilia.—

British Medical Journal.

Katatonia.—Peterson & Langdon (Med. Record, vol. 52, no. 14) interestingly treat upon this peculiar form of insanity. Heredity is a very important predisposing cause of the disease, while scrofulous and tuberculous diatheses are frequently predisposing causes. Age and sex count no little in the etiology, the majority of cases being youthful and belonging to the male sex. Students and teachers are said to be especially prone to have this trouble. Stimulants, masturbation, sexual exhaustion, any excess, religious and emotional excitement, mental strain, worry, anxiety and syphilis, all are exciting causes. The authors are inclined to believe that the more this class of cases is investigated, the greater will be the record shown with the pathological findings in melancholia.

Katatonia commences with headache, usually occipital, insomnia, a general feeling of mental distress and uneasiness, followed sooner or later by an attack of convulsions epileptiform in character, or a condition of excitement or melancholia agitata. This is soon followed by a condition of rigidity and immobility—the "attonita" stage. Recovery may now take place or the patient may drift into a condition of terminal dementia. The authors' study of the subject and their own cases lead them to the following conclusions:

- 1. Katatonia is not a distinct form of insanity, not a clinical entity.
- 2. There is no true cyclical character in its manifestations, hence it cannot properly be classed a form of circular insanity.
 - 3. It is simply a type of melancholia.
 - 4. It is not desirable therefore to retain the name katatonia.
- 5. The term "katatonic melancholia" or "katatonic syndrome" may be usefully retained as descriptive of melancholia with cataleptic symptoms, verbigeration and rhythmical movements, but should be strictly limited to this symptom complex.
- 6. The prognosis in melancholia with katatonic symptoms is more grave than in any other form.

The treatment of the katatonic syndrome is the same as for other types of melancholia.—Memphis Medical Monthly.

THE ARCTIC AS A HEALTH RESORT.—In a recent lecture Dr. Nansen, the famous Norwegian explorer, again called attention to the healthful-

ness of the far North and the absolute freedom of the atmosphere from all disease germs. This feature of polar life is sure to attract more attention as the region becomes more accessible and the food supply is more assured by progress in the art of preserving and condensing the kinds of nutriment suited to the climate. The destruction of all bacilli, microbes and germs in the system by a winter's residence in 80° north latitute would be an easy way of restoring the health when compared with some of the methods now pursued by those afflicted with innumerable diseases caused by the minute but ever victorious enemies of the human race.—Providence Journal.

TATTOOING, according to the *Press and Circular*, was an ancient method of treatment, the forerunner of scarification. A mummy discovered in Egypt in 1891, that of a priestess of Hathor, some 5,000 years old, displays traces of a methodical tattooing of the abdomen, suggesting that the cause of death was generalized peritonitis. Tattooing is still resorted to in Egypt as a remedy for periositis, arthritis, synovitis, and for migraine and neuralgia.—*Medical Times*.

A STERCORAL TUMOR in a child 7 months old was observed by Jordens. The child was attacked by frequent vomiting and bloody stools, was greatly excited, cried continuously, but had a normal temperature. Examination revealed a tumor of the abdomen situated above the pubis, which was hard and round to palpation. The finger introduced into the rectum detected a tumor. A high injection was administered with an Esmarck's apparatus, following which the tumor felt by the finger disappeared from its old situation to the left iliac fossa. The child passed a few liquid stools. During the following days the vomiting ceased, but the nervousness and the ceaseless crying continued, and the abdomen became quite sensitive to the touch. The temperature rose to 38.6C.°. The child took some sterilized milk, frequently without vomiting, and had a few liquid stools spontaneously. The tumor in the abdomen remained present, however, and the patient died on the fifth day from exhaustion, symptoms of intussusception never having made their appearance. Autopsy showed there was no intussusception, no sign of peritonitis, and no injury to the intestines. The ending in death of this case was quite exceptional, for, even where an occlusion of the intestines takes place in these cases, we are always able, by purging and elysters, to keep the lumen of the bowels open.—Pediatrics, Jan., 1898.

Therapentic Suggestions.

Sprains and Their Treatment.—In the Boston Medical and Surgical Journ., June 17 and 24, 1897, Graham emphasizes what he has called attention to before, viz., the advantages to be derived from the treatment of a sprain with almost immediate massage and passive or active motion. Applied intelligently, massage is allowable from the first, the presence of, or increase in the pain being the surest guide to an excessive or faulty use of this method of treatment. From study and a large and continued experience, the writer draws the following conclusions:

- 1. A sprain is a wrench or twist of a joint, a sudden, partial displacement of two articulating surfaces, followed by immediate replacement.
- 2. The symptoms are pain, swelling, discoloration and usually heat and impaired motion.
- 3. Its diagnosis way be obscured by the swelling which may conceal a fracture.
- 4. Whatever will quickly reduce the heat, pain and swelling—such as massage, snug bandaging and elevated position of the joint—will proportionately make the diagnosis easier.
- 5. The means just mentioned are, therefore, not only valuable for diagnosis but also for treatment; and their use in many cases of sprains of all degrees of severity, show that they recover in one-third of the time required under absolute rest and fixed dressings without massage.
- 6. Even the sprain of a joint previously weakened by malignant disease may be rapidly ameliorated by massage.

Other articles by LOVETT and MUMFORD in the same numbers of this journal, substantiate these claims, and give details of treatment.—Med. News.

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M. S	ig.: Two or three teaspoonfuls daily.	
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	Hydrargyri chloridi mite	0.01
	Sacch albi.	0.2

M. Ft. Pulv. tales No. xij (12). Sig.: One powder every two hours for a child four to six years.—Ibid.

IRREGULAR MENSTRUATION IN YOUNG WOMEN DUE TO ANEMIC CONDITIONS.—H. Edwin Lewis, M. D., Burlington, Vt., Resident Physician Fanny Allen Hospital, in Vermont Medical Monthly. Aug., 1897.—The young physician just starting into practice cannot help but be impressed with the frequent occurrence of menstrual disorders in young girls during the period just succeeding the age of puberty. The metamorphosis of a girl into womanhood, consisting as it does of structural and functional changes throughout her body, in many instances leaves behind pronounced alterations in the quality or even quantity of the blood current. How common it is to have a mother bring her daughter to the physician and say, "Doctor, I would like to have you do something for my daughter. For nearly a year she has been losing interest in everything and seems to be completely worn out. She has no appetite and absolutely no ambition for work, study or play. She does not lose flesh or grow thin at all, but her color is so poor and she seems so weak that I fear she is going into consumption."

Inquiry on the part of the doctor elicits the further information that the young lady in question is sixteen years old or thereabouts, and that she is a school girl. A year or two ago she first menstruated, and since that time has been unwell only twice, or at irregular intervals varying anywhere from three to nine months. Her bowels are either constipated, or the reverse, and she may complain of headaches, vertigo, palpitation of the heart, insomnia, indiges-The pale face with its sallow greenish tinge, the bleached tion, etc., etc. tongue, the colorless conjunctivae and finger nails tell well the tale of impoverished blood. Combine the history with the objective symptoms and the diagnosis is clear of chlorosis or green-sickness. The absence of cough or pulmonary symptoms excludes the dreaded "consumption," but we have instead a condition of the blood in which the essential constituents are dimished and the whole quality of the he giving current so depreciated that the various organs of the body are unable to perform their normal functions. The uterus is small and ill developed and the supply of rich blood it so urgently requires in its developmental state is not to be had. Is it any wonder, then, that the chlorotic girl does not menstruate regularly? It is a great wonder that she ever menstruates at all. Correct the anemic or impoverished condition of her blood and the physiological function of her uterus will be resumed as naturally as that of any other organ.

How this chlorotic condition can best be corrected is the next question, and one which because of its frequency concerns every practicing physician. Countless remedies have been presented to the profession, but far and foremost above them all is iron, notwithstanding certain high authority to the contrary. Arsenic is certainly valuable, but it ranks far below iron or even manganese in the therapeutics of anemia. In order to be most efficacious, however, the iron should be in its most readily assimilable form, and until recently the carbonate and albuminate have been supposed to present this requisite in the highest degree. But since manganese has grown in favor as an adjuvant to iron, a new preparation has been submitted to the medical profession, and in every way it has proven itself an ideal one. I refer to Dr. Gude's preparation of the peptonate of iron and manganese, known as Pepto-Mangan. This admirable combination of iron and manganese is readily taken into the human economy and appropriated to its needs, without deranging the weakest alimentary tract, or hindering in any way the normal processes of digestion, assimilation and excretion. It should be given in water or milk in teaspoonful doses after meals, and its administration is invariably followed by the results desired.

But in order that the medical treatment of chlorosis may be most valuable and efficient, it should be augmented by auxiliary treatment consisting of careful attention to diet and exercise. It goes without saying that the food of an anæmic girl should be most nutritious and particularly abundant in albumen, while the exercise should aim to provide greater qualities of oxygen in the form of pure air, without lowering the vitality. Walking, skating, tennis or bicycling in moderation are all able to supply the demand for exercise.

Treatment laid down on the above lines, followed out in every instance with good habits of hygiene and a careful observance of Nature's demands, will regulate the various functions of the body, and the menstrual function will

prove no exception to the rule.

The following cases will substantiate the above:

Case I. Miss C. S. K.—Seventeen years sold. Decidedly anæmic and much troubled with constipation. First menstruated at fourteen, since which time she has never been regular, flowing profusely sometimes twice a month, and other times going three or four months without menstruating at all. Has frequent fainting spells and a decided anæmic heart murmur. At time of coming under observation had not menstruated for two months and ten days.

Treatment consisted of a regulated diet, tablets of aloin, strychnine belladonna and cascara sagrada, one each evening until bowels were regular, and teaspoonful doses of pepto-mangan (Gude) after meals. Graduaily the fainting spells and heart symptoms disappeared and on the fifteenth day after commencing treatment she began to menstruate, the flow being natural in quantity and continuing four days. Treatment was continued and twenty-nine days later she menstruated again, continuing this time five days. Soon after this the pepto-mangan was stopped. From now on, up to the present time, a

period covering three months, her menses have appeared regularly every twenty-eight days.

Her whole appearance is changed and in every respect she appears well and

strong. Period of administration of pepto-mangan 55 days.

CASE II. Miss K. M.—Aged twenty. Menstruated first at age of fifteen and was fairly regular for three years, but since an attack of typhoid fever two years ago, has never known when she was going to be unwell. Patient was not thin, but face was pale and yellowish, hands and feet were cold "all the time," and her whole condition was one of "blood poverty. Complained of frequent attacks of diarrhom following constipation.

Treatment consisted of plenty of out-doer exercise, good food with abund-

ance of milk, and pepto-mangan (Gude) in teaspoonful doses after meals.

Her restoration to health has been rapid and satisfactory. She has menstruated three times since beginning treatment, the longest interval heing thirty-one days. Says she is all right, and her appearance certainly sustains her words.

In this case the administration of pepto-mangan covered a period of thirty-six days.

CASE III. Miss D. L.—School girl. Aged fourteen. For two years she had been troubled with headaches, dizziness and short breath, fainting away at the slightest provocation. Had no appetite, and as her mother expressed it, for the last six months had been going down hill pretty fast." Had been treated by a physician for heart disease, but received no benefit. Menstruated first seven and a half months ago, "but had not seen anything since."

Examination showed heart to be normal, although it was a trifle fast, and a slight murmur could be determined when patient was in are cumbent position,

evidently anemic in origin. Lungs proved to be all right.

Her general condition was animic, and she was put on pepto-mangan (Gude), a teaspoonful after meals, and sent into the country where she could be out doors most of the time and have plenty of eggs and milk. A letter from her mother says that she has changed so that she can hardly believe it is the same girl. Furthermore, her menses appeared twenty-one days after starting the pepto-mangan, and returned again twenty-nine days after. The pepto-mangan was ordered stopped, and since then I have not heard direct from the patient, although from her father I learn that she is "perfectly well," and coming home soon.

Period of administration of pepto-mangan, fifty-six days.

Case IV. Miss L.—Aged 18. Had never menstruated. Her general appearance was one of profound anemia. A careful examination eliminated any abnormality of genital apparatus. Organs normal in relation, but undersized. Prescribed pepto-mangan in teaspoonful doses after meals, and gave general directions as to diet, etc. Began to menstruate thirty-two days after beginning treatment, the flow continuing one week. Twenty-nine days later she menstruated again. At the present writing she is still under treatment, and is due to menstruate in seventeen days. Her whole condition is very much improved.

A WINTER REMEDY.—That codeine had an especial effect in cases of nervous coughs, and that it was capable of controlling excessive coughing in various lung and throat affections, was noted before its true physiological

action was understood. Later it was clear that its power as a nervous calmative was due, as Bartholow says, to its special action on the pneumogastric nerve. Codeine stands apart from the rest of its group, in that it does not arrest secretion in the respiratory and intestinal tract.

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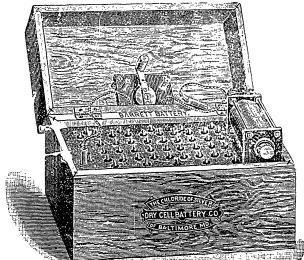
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O. WM. CUTTLER, M. D.

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