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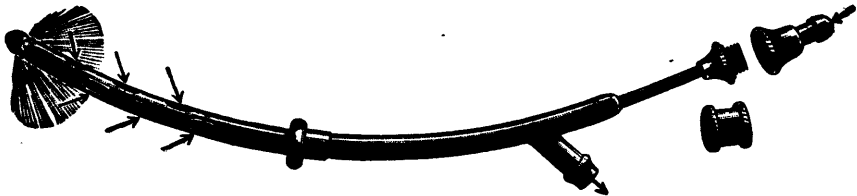
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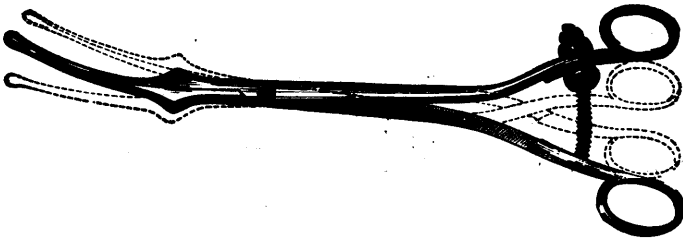
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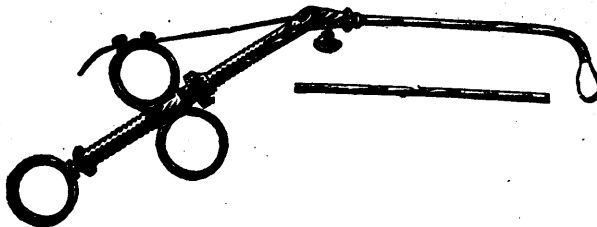
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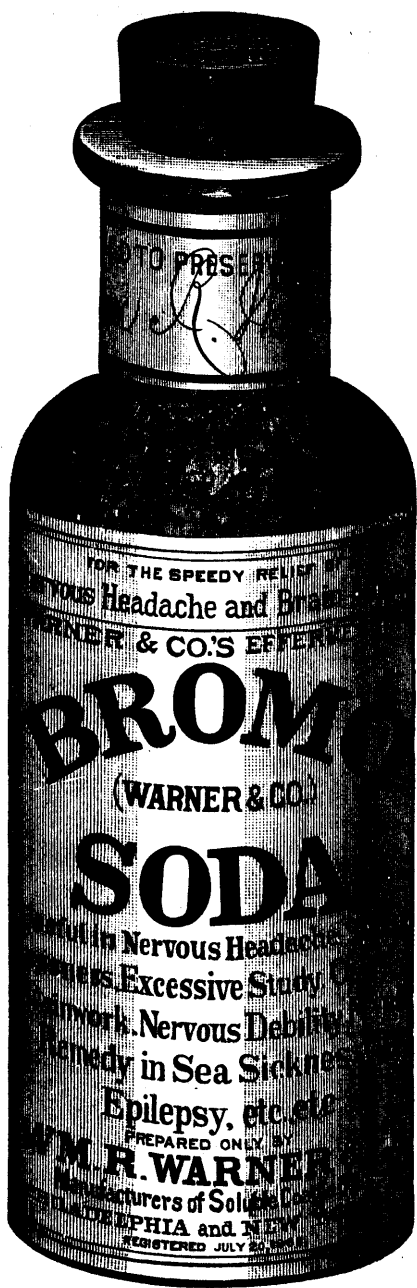
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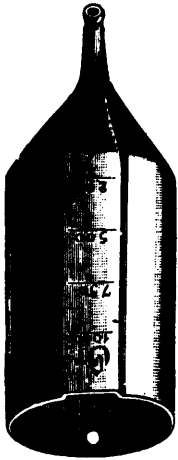
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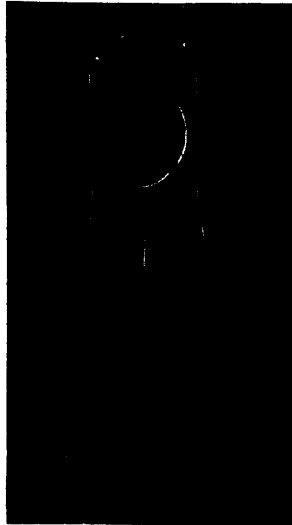
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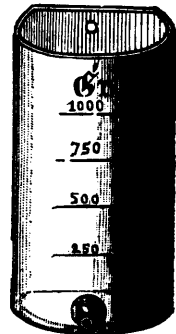
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## MESSAGE AS AN OCCUPATION FOR THE BLIND.\*

BY ARTHUR G. BENNETT, M.D.,

Instructor in Diseases of the Eye and Ear Medical Department University of Buffalo, N. Y.;  
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According to the census of 1890 there were in the United States 50,568 blind persons; in New York State the number was 4,398. I think we may fairly estimate that there has been at least a 10 per cent. increase in population since 1890, and with that increase a corresponding increase amongst the blind. This would make a total of nearly 56,000 persons, the great majority of whom are dependent upon private benevolence or public funds. From the twenty-eighth annual report of the New York State School for the Blind, in Batavia, I quote the following passage taken from the report of Dr. Lucien Howe, the Ophthalmic Examiner:

"The total number (of blind) in the State is 4,398. Of this entire number it is probable that only a small proportion can support themselves entirely unaided. The figures given by Supt. William B. Wait, of the New York Institution for the Blind, shows that only 7.8 per cent. of the entire blind population of the United States, even those trained in the schools for the blind, are able to support themselves; and Supt. Fuller, of the school at Batavia, informs me that 6 or 8 per cent. would be

\* A paper read before the New York State Medical Association at the thirteenth annual meeting, October, 1897.

considered by him a large average of the blind of all ages in the State who are able to accomplish this."

In answer to a question bearing on this point, addressed to every superintendent of a State school for the blind in this country, I have received widely divergent estimates. The question was, What percentage of pupils, after graduation, becomes self-supporting? For some reason, not apparent, the graduates of the southern schools seem to be more fortunate in this respect than those in the north. For instance, Mr. J. E. Ray, Principal of North Carolina Institution for the Deaf and Blind, estimates that 80 per cent. of the male white graduates become self-supporting, and Mr. E. P. Becton, of the Austin Institution (Texas), puts the figures at 75 per cent. of the male students. On the other hand, Mr. Frank H. Hall, Superintendent of the Illinois Institution, estimates only 6 per cent. of the males and but 1½ per cent. of the females. Mr. E. P. Church, of Michigan, without going into figures, says that the number is "small." Mr. H. F. Bliss, of Wisconsin, puts the males at 20 per cent. and the females at 5 per cent. It is, however, extremely difficult to form any just estimate, as Mr. Hall remarks in giving me his figures. "They are almost guesses." The pupils are lost sight of in a large measure after leaving school, and no figures can be considered absolutely trustworthy. There is one point about which all the gentlemen who have been kind enough to answer my question agree, and that is that but a small proportion of blind *women* become self-supporting.

At present there are comparatively few avenues by which the blind can earn a living, and *not one* in which they can compete successfully with the seeing. In this iron age it is the weakest that goes to the wall. Blind broom-makers cannot compete with the large factories, and about the only way a blind broom-maker can earn a living is by selling his goods to charitably-minded individuals, who purchase his wares because of his infirmity. And what is true of the broom trade is also true of every trade or profession yet taken up by the blind. The element of sympathy must come into play in most instances in order for a blind person to make a living. Let me quote a few authorities. Mr. E. P. Church, of the Michigan School for the Blind, says: "No blind person can do as good work in general as a seeing person." Mr. H. F. Bliss, Janesville, Wisconsin: "Very few blind persons become expert at any line of work. An element of sympathy is necessary" (*before employment is given them*). Mr. W. B. Wait, of the New York Institution for the Blind, says: "It may be laid down as a fundamental proposition that persons who are deprived of sight cannot successfully follow any skilled employment." The majority of the superintendents who have touched upon this question find that there exists a prejudice against employing the blind.

The foregoing remarks apply perhaps with less force to the musical trades and professions than to the purely mechanical ones; but right on the threshold of this department we are confronted with the objection that all blind persons are not musical—certainly not sufficiently so to make it pecuniarily profitable for them to make music their life work. We may take it for granted, I believe, that the misfortune of blindness does not confer upon its unfortunate victim a musical ear or temperament any

more than the loss of hearing would specially fit a deaf person to become an artist. In this belief I am upheld by some of the foremost instructors of the blind in the country, notably Mr. G. H. Miller, of Kansas, who goes so far as to say: "In the education of the blind music has held a very prominent position, and its importance as an educational factor has been greatly over-estimated. The false notion that the blind are generally gifted with superior natural musical ability, is, perhaps, the principal reason why their musical education has received undue attention. What are the facts? Inherent musical capacity is certainly not above the average of the seeing, and, for reasons we cannot now present, we have no hesitation in stating that it is considerably below the average." (From a paper read at the fourteenth biennial convention of the Am. Assoc. of Instructors of the Blind, Pittsburg, 1896.) At the same meeting, Mr. Glascock, of Indiana, said: "I have had parents who thought their children were specially gifted in music because they were blind; and I know we have to curtail that feeling all the time." Mr. E. P. Church said he entirely agreed with Mr. Miller, and, in answer to a question on this subject, writes me that probably not 10 per cent. of the pupils can profitably take up music, either as a mechanical trade or a profession. His estimate agrees closely with that of Mr. Becton and Mr. Hall.

With the mechanical trades barred to the women, there are still fewer opportunities for them to become self-supporting, and as far as their chances in the matrimonial market are concerned they are practically nil. If the amount earned by the blind man is small, that earned by the blind woman is still less.

Is there any avenue by which the blind man or woman can earn a living honorably, not by semi-charity, but in competition with the seeing, rendering as efficient service and receiving a remuneration that will enable them to live comfortably and support not only themselves but their families? Yes, I believe so. It is my opinion that the blind can make massage their own particular profession. The blind possess some qualifications that eminently fit them to excel in this line of work. In the first place, they possess that peculiar delicacy of touch bestowed by a beneficent Nature to compensate in some degree the loss of vision. While, doubtless, this is the result of long training, and could be acquired by a seeing person, as a matter of fact a seeing person not having the necessity never does acquire the extremely sensitive fingers of the blind.

Another qualification that the blind possess is blindness itself. There is no other occupation that I can think of in which a blind person's infirmity is a positive advantage, but as a massage operator the fact that the patient can be treated without every bodily imperfection being noticed is a point not to be ignored. Most people object to expose their persons even to their own family physician, and more still object to do so before an entire stranger, as the massage operator, in all probability, would be. If, however, the operator were blind this objection would be largely obviated. The question of cost debars many worthy persons from taking advantage of the benefits of massage. Its enormous therapeutic value is now generally recognized by the profession

at large, but, unfortunately, two facts often prohibit its use; on the one hand the expense, and on the other hand, and this particularly true of the country districts, the difficulty of obtaining an operator. It is only the well-to-do that can afford to pay the fees demanded by the professional masseur. Take, for example, the case of a sick wife of a clerk or mechanic. Her sickness entails the services of a physician and the employment of some one to take care of the house. The physician decides that it is necessary for his patient's good that she shall receive massage regularly for some time, but on broaching the subject is told that it is absolutely impossible to pay a dollar or more a treatment. What with his fee and the extra expense of employing help to take the wife's place, there is not much left of the breadwinner's wages at the end of the week. But if a blind masseuse could be employed who would come and give the necessary treatment at a moderate charge this objection would have less force. On the other hand, if nothing is said and a high-priced masseuse is engaged, in all probability it is done at the physician's expense, for the masseuse, more worldly-wise than he, expects her fee to be paid at once, while the physician may wait indefinitely. In small towns and villages it is absolutely impossible to obtain a masseuse except at prohibitive rates from a larger city. This valuable therapeutic measure is therefore neglected, or the patient is obliged to leave home and visit some sanitarium, in which case the patient passes out of the hands of his family physician. Nearly every small town could provide sufficient employment for a blind masseur and masseuse, to the great benefit to the community at large, besides enabling the practitioner to keep his patient under his own eye, and the operators to earn an honorable living.

The field of labor is large and not yet adequately filled. Every hospital large and small could offer continuous employment to at least one operator. Every sanitarium could employ at least two, one of each sex, every insane hospital, private retreat, or home for the feeble-minded need masseurs, and Turkish baths can be counted among the institutions that require their services. Specialists in diseases of the nervous system keep many operators busy, and if the services of competent persons could be secured at moderate fees would keep many more busy. How much oftener would massage be prescribed if the physician felt that his patient could afford it, and how many of our nervous patients might recover more rapidly if it were possible for them to avail themselves of its beneficent action.

Another reason for the blind taking up this occupation is the great benefit it will be to the blind themselves. It is an acknowledged fact that physically the blind are not the equal of the seeing. This is mainly due to the lack of exercise and physical training. If as I propose massage is taken up as a course in the State institutions, as students they will require subjects to operate on, and where will they find patients more in need of their art than right at home? I should expect to see as a result of this a decided improvement in the general health of the pupils, manifested in an increase in the average weight, chest measurement, and grocery bill.

What is necessary for this proposition to be successful? The blind person who expects to take up massage for an occupation must be of sufficient physical strength. This I believe is largely under his own control. Muscular strength depends upon muscular use, and given a determination to succeed and build up a muscular system that has been enfeebled by lack of use, the average blind person can certainly undertake the duties of a masseur with a feeling of confidence.

No blind person who is infected with specific disease should become a massage operator. Even if the disease is no longer contagious—no one—not even a physician, would care to be operated on by a syphilitic if he knew it; there is a natural feeling of repugnance, and the success of this movement must not be hazarded by an accidental infection. If such an infection were to occur the news of it would travel as all ill news always does—apace. Therefore I would insist at the outset that specific infection should be an absolute bar to instruction, at least in any State institution.

The training must be *the best*. The pupils must be thoroughly grounded in the anatomy and physiology of the human body before the practical work of massage and Swedish movement is imparted. I should suggest a similar course to that given at the Baron Possé school. This institution turns out skilful operators, and if the blind are to succeed in this line of work nothing but the best is good enough. We have too many incompetents now. In this world to be successful one must offer as good an article as one's competitor, so if the blind would succeed they must offer service equal to that of the seeing, and not expect to be employed simply on account of their infirmity.

The habits of the operators must be above reproach. By reason of their infirmity the blind are apt to be untidy, as they cannot see if the clothing is clean or when their linen is soiled, but much can be accomplished by training. All disagreeable and unpleasant habits must be eradicated and a pleasing and cheerful manner cultivated. Success depends often as much upon little things as upon great ones, and an otherwise acceptable masseur will be handicapped if he neglects to keep himself and his wearing apparel scrupulously clean or has a disagreeable manner.

That this movement may be successful it is above all things necessary that it should meet with the co-operation of the medical profession, and this is my excuse for presenting this subject, though not a strictly medical one, before this association. Massage with all its attendant benefits is at present limited to the few who can afford to pay the somewhat high fees now demanded, but what is good for the banker or banker's wife is just as necessary for the bookkeeper and his wife, and if the profession can obtain as good and efficient service at a moderate cost it is certain that massage with all its tremendous therapeutic value will be employed more and more. There is no reason why a blind person should not become just as expert and efficient as a seeing one, and some reasons why they should be more acceptable. If in the course of the next few years blind massage operators apply to any member of this association for employment I trust that at least they may be given an opportunity to show whether or not they are capable.



**A SEVERE CASE OF SEPTICÆMIA LYMPHATICA.—RECOVERY.**

BY ALEX. FORIN, M.D., ROSSLAND, B.C.

On the 5th day of April, 1897, I was called to a rather unusual case, unusual in that the patient was so completely infected that all sensation was benumbed, and I report the case for the purpose of argument, to show that, notwithstanding the symptoms seem almost hopeless, it is not well to consider the patient beyond help and do nothing.

When I saw the patient the temperature was 103 F., pulse 146. She was unconscious. Husband gave history as follows: Age 36. Mother of 5 children, miscarriage 10 days previously at 3 months. For several days the temperature had been high in the region of 104, and pulse frequent around 150. No decided chill, but cold, creepy sensations, bowels loose, sweating profuse, vaginal discharge limited, odor very offensive, bedding and patient in dirty condition, albumen in urine about 8%.

I advised and performed curettage within one hour after first seeing patient, assisted by Dr. Kenning. We found a large amount of debris in uterus, the result of broken down decidua, the odor of which was extremely offensive; used the sharp spoon curette, followed with intra-uterine douche of sterilized water, drying out cavity with absorbent gauze, swabbing with 95% carbolic solution, packing uterus with 10% iodoform gauze, and vagina with 5% of same. It was not necessary to use any anæsthetic, so far under the effects of the infection was the patient, not giving any indication by moan or movement that she felt the least pain; true the somewhat patulous os rendered the use of the dilator simple. Still, enough force was used to cause pain if the patient had been sensible to it. Five hours after operation I called, to still find her in an unconscious condition, but was able to arouse her slightly; pulse 130, temperature 101; again relapsed into unconsciousness or stupor, in which condition she remained till the following morning, when the temperature was 100.2-5, pulse 120; p.m. temp. 99.3-5, pulse 104. Removed vaginal tampon in evening and used vaginal douche hydrarg. bi-chloride 1-2500, again tamponed with iodoform gauze 5%.

7th. Pulse 98, temp. 99, patient stronger but wandering; removed intra-uterine packing in evening, and although I found everything very favorable, no odor being present, I used an intra-uterine douche of bi-chloride solution 1-2500, again packing uterus and vagina with iodoform gauze 5%.

8th. Pulse 130, temp. 101.3-5; ordered strychnia sulph. 1-60 gr. every hour till twitching of muscles presented; and although I strongly suspected the increased temperature and pulse present was caused by the toxic effects of iodoform, I did not remove the vaginal or uterine packings until the evening, when I douched with 2% creolin solution; upon removal of iodoform gauze the temperature dropped to normal and pulse to 98.

From this time on the patient continued to show improvement, sleeping and eating fairly well. Stimulants were used freely.

11th. Patient complained of pain in right side of face, temperature increased  $1\frac{1}{2}$  degrees and pulse quicker; gave calomel purge.

12th. I recognized a parotitis on right side. Dr. Osler reports some 50 cases of septic parotitis, and under that head I will have to place this. Although very painful for a few days, under the application of plumbi. acet. and Tr. opii. sol., it ended in resolution. From that time on the case has been uneventful. She is not moving around very lively on account of a burn on the sole of right foot, occasioned by applying too hot an iron the first day I saw her; although forewarned of the danger with the patient unconscious to pain, the attendant was remiss. Under iron and quinia tonic and proto-nuclein tablets she is quickly recovering.

This would not be complete without mention being made of the surroundings. In a new city like Rossland one cannot expect everything he would wish, and the houses or shacks are in some cases rather primitive. In this case the house was 10 x 12 ft.; one room, which was used as kitchen, dining-room and bed-room; the bed or bunk was what is known as a "double-decker," built in one corner of the room, with the kitchen stove in another corner. I was fortunate in having several ladies interested in the case, and they took turns nursing; the soiled and infected bedclothes were changed after my first visit; the case was a desperate one when I first took charge and looked rather hopeless, but the result proved that it was not too far gone. True, I had no inflammation develop; but one thing sure, death would have occurred in a few hours had not radical means been used. Never give up while anything can be done.

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AIROL IN DIARRHŒA.—Venuti and Barbagallo (*British Medical Journal*) give the results of the administration of aïrol in 11 cases of diarrhœa. The dose given varied from 20 cg. to 90 cg. in the 24 hours. No ill-effects were noted, even when given for several days. Good results were speedily obtained in indigestion diarrhœas. Each case is briefly reported. On the whole the results were decidedly good.—*Maryland Med. Journal*.

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PARALYSIS AFTER CHLOROFORM.—Tasse has recorded in the *Therapeutic Gazette* two cases personally observed by him, in which paralysis followed chloroform narcosis. He believes that such paralysis arises from several causes: 1st, from the position in which the patient is lying, whereby pressure is exercised upon a supplying nerve, or as a result of tractions on the arm or leg of a violent nature; 2nd, the employment of impure chloroform, which seems capable of poisoning the nervous system and producing such paralysis, at the same time developing transient or permanent albuminuria. He also believes that in some rare instances the chloroform renders the patient susceptible to microbic intoxication, with secondary paralysis from this cause.

**PROVINCIAL RECIPROCITY IN MEDICAL LICENSE.**

While perhaps little general interest has as yet been aroused in Ontario on the subject of a registration and license covering the whole of Canada, the subject has aroused fairly widespread attention in most of the other provinces. It seems, at first sight, a great pity that the undoubtedly wise arrangement of the B.N.A. Act, by which educational matters were left in the hands of the provinces, should work such division in the ranks of the profession, for it is really too much of an anomaly that a man, for instance, who can practise in Hull, Que., should be fined if he consult with a brother practitioner in Ottawa. The last issue of the *Canadian Practitioner* contains a long and very useful gathering together of various public utterances of journals, councils, and medical societies, from which one can learn accurately the history of the attempt to secure uniformity since 1892. Among other statements of opinion from well-known men is the following from T. G. Roddick, made in his Presidential Address last August at the Montreal meeting of the British Medical Association :

“Time will not permit of my discussing the subject of medical legislation in Canada at any length; and besides, you will find it very fully treated in the excellent official guide or souvenir prepared for you by the executive committee. In addition I might explain, however, that when the British American provinces became confederated in 1867, under the British North America Act, the governance of educational matters was taken away from the federal authorities and handed over to the provinces, each to look after them in its own way. A Chinese wall is built round each province, and the frontier is carefully guarded so that it is unsafe for a medical man to pass from one to the other unarmed with a license, because of the risk of fine or even imprisonment. Such a condition of affairs is hardly credible and probably exists nowhere else to the same extent. What is the remedy? Two remedies have been suggested—either the establishment of a central examining board in each province with a uniform standard of matriculation and a uniformly high standard of curriculum, which shall in time lead up to a general scheme of reciprocity; or, secondly, a Dominion Examining Board. The first scheme is at present under serious consideration; although there are many difficulties in the way of its accomplishment, no one of them is insuperable, however, providing a spirit of conciliation prevails. The second alternative (a Dominion Examining Board) would in many respects be more desirable, because not only could the licentiate practise in any part of the Dominion, but he could register in Great Britain, and thus receive recognition all over the Empire. As you are doubtless aware, we, as a profession, suffer in this country from being inhabitants of provinces which are confederated. Under the Medical Act, now of some twelve years' standing, it has been decided, in effect, that the Medical Council of the United Kingdom can recognize the degrees of universities situated in autonomous provinces only. As a consequence, Australians obtain privileges which are denied to us, being permitted to register in Great Britain without

examination. We are being punished for belonging to a colony whose form of government is recognized to be in advance of theirs, and likely to be imitated by them. Let common school education go to the various provinces if you will, but for the profession of medicine (and doubtless law also) there should be a uniform standard of matriculation, a uniform curriculum of medical studies, and one Central Examining and Registering Board composed of the best men from all the universities. We hope in Canada to reach that ideal at no distant date; in fact, I have the very best authority for stating that it is not impossible of accomplishment. Some scheme of reciprocity first arranged would doubtless make the task less difficult, but failing that, our duty is to arrange for some legislation which shall give our better and more ambitious students an opportunity of passing a Dominion Licensing Board (or whatever it may be called), which shall give the privilege of practising their profession not only in any part of their native country, but in any part of the world over which the British flag flies. Such a scheme need not interfere in any way with the autonomy of the provinces. Each may still retain its Provincial Board for the purpose of examining and issuing licenses to those candidates who are satisfied to practise their profession in the limited sphere of their own provinces. I think the legislators of this country will some day (and not far distant either) be induced to see that the system which at present obtains is unworthy of a great and growing country."

The proposal to have a central Dominion Board for examining and registering "our better and more ambitious students" may need more consideration, but we confess that it seems to us attractive, though open to the objection that it would mean the multiplication still further of examinations, which are always an evil, and more particularly so when carried to the extreme which they have reached in Ontario, not in medicine only, but more particularly in the Public and High Schools and Universities. Of course, inasmuch as the greater includes the less, the probable outcome would be the natural death of the provincial examinations from lack of candidates, who by the one Dominion examination would secure all that the Provincial examination could give them, and a great deal more. At the late meeting of the Canadian Medical Association in Montreal the committee appointed last year brought in the following report, to which it will be noted the names of the Ontario representatives are not appended:—

"The committee beg leave to report that the Medical Councils of Quebec, Prince Edward Island, Nova Scotia, New Brunswick, and Manitoba have signified by resolution their approval of the resolutions of the committee of 1896, and have accepted them as the basis of agreement for inter-provincial registration. We therefore recommend that the matter be referred to the councils mentioned to formulate an agreement, and to carry it into effect. Signed by Dr. D. Marsil, Dr. C. S. Parke, Dr. H. Cholette, Dr. Beausoliel, of Quebec; Dr. George Coultheard, jr., Thos. Walker, of New Brunswick; Dr. Ed. Farrell, Dr. W. S. Smith, of Nova Scotia; Dr. Joseph MacLeod, Dr. James Warburton, of Prince Edward Island; Dr. R. S. Thornton, of Manitoba; Dr. James Christie, of British Columbia."

Dr. Walker moved the adoption of this report. Ontario did not appear as one of the assenting councils, and this was explained by doctors from that Province as due to the fact that they could not reciprocate while the Provincial law remains as it is. They would not consent to reduce the term of study from five years to meet the other Provinces. Ontario doctors disclaim any wish to be stumbling-blocks, but could see no use in adopting a scheme of inter-provincial registration.

Dr. Beausoliel championed the cause of Quebec and the other Provinces, and was supported by several gentlemen. They asked their Ontario colleagues to give and take, and pointed out that in Quebec the profession was endeavoring to harmonize the curriculum and standard with that of Ontario. Moreover, it was argued that a four-year course of eight months each was at least equal to a five-year course of six months each.

Dr. Pyne, Toronto, came out for Imperial federation of the medical profession, and declared that it would be impossible to obtain this or even reciprocity with the motherland if the standard of Ontario was lowered. It was an easier method for the other Provinces to come up than for Ontario to go down.

Dr. Thorburn, Toronto, spoke in a similar strain, while expressing sympathy with the other Provinces.

The report was adopted, many Ontario delegates voting aye.

This is a very imperfect report of the discussion which followed the presentation of the report. Among others who spoke were Drs. Dickson, Bray, Thornton, and H. P. Wright.

It will be remembered that a year ago the Councils of each Province were formally asked by the Canadian Medical Association to consider the question, and to have a definite and authoritative answer ready. The other Councils did so, and went to the trouble and expense of having accredited representatives at Montreal, but Ontario quietly ignored the matter at the midsummer meeting of Council, though reminded of it by the Secretary of the Canadian Association at the time. This action, it seems, laid them fairly open to the charge of discourtesy at the Montreal meeting. It would have been more polite to frankly state their position *pro* or *con*, and follow it up with reasons. It has been stated that this stolidity on the part of our Council may be met by a vigorous prod from the Legislature. Less likely things have happened in the past. The lay press in Montreal and Toronto have shown signs of taking it up. The Council should take warning in time, for if public opinion is once aroused they will have to give way with what grace they may.

**SURGERY.**

IN CHARGE OF

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**A REVIEW OF THE AUTHOR'S METHOD OF ANCHORING THE KIDNEY.**

RY R. HARVEY REED, M. D., COLUMBUS, OHIO.

The frequency with which surgeons meet both floating and movable kidney has long since attracted attention as to the best method of anchoring this organ so as to preserve its normal functions. The multitude of complex disturbances and reflex symptoms associated with a floating or movable kidney, are such that the surgeon is constantly called upon to render relief. These abnormal conditions may last for years without serious results, yet they are liable to give rise to degenerative changes which may necessitate a nephrectomy or a nephrotomy at any moment. Palliative treatment, by means of rest and bandaging, as a rule, avails but little. The difficulty of holding a kidney in place with a bandage is such that little reliance can be placed on this method of treatment.

From the fact that this abnormal condition is chiefly a source of annoyance rather than danger, patients hesitate in submitting to an operation for the purpose of anchoring the kidney, as it seems to them like a very large undertaking for the purpose of accomplishing very small results. It is hard to make them understand the importance of having the kidney anchored and the danger that is likely to arise from neglect of the proper surgical treatment. At the same time we can hardly blame them or their family physician for not urging an operation which requires a large oblique gash through the lumbar muscles and a number of buried sutures which are difficult to insert. Only those who have attempted to perform this operation can appreciate how hard it is to hold the kidney in place by the old-fashioned method until it is sutured to the deep muscles of the back. The difficulty of this procedure stimulated me to devise a new operation which had for its object, simplicity, rapidity and efficiency.

Referring to a paper read before the Columbus Academy of Medicine, November 19, 1894, on "A New Method of Anchoring the Kidney,"

published in the *Columbus Medical Journal*, December 25, 1894, you will find that my operation consists "in making the ordinary perpendicular abdominal incision over the median line of the kidney. As a rule it need not exceed two and a half inches in length, depending largely on the thickness of the abdominal walls. Having made the incision sufficiently large to get the fingers in and bring the kidney to its normal place, I then use a long needle which I have had made on purpose, seven inches in length. Two of these needles are threaded with aseptic silkworm gut or aseptic silk, using but one ligature. Having placed the kidney in its normal position (and in the case of a floating kidney scored the peritoneum so as to favor adhesions), I now insert my first needle through the upper and inner part of the cortical substance of the kidney directly through the muscles of the back, bringing it out between the eleventh and twelfth ribs. The second needle, which is on the other end of the ligature, is also passed through in a similar manner, about an inch from its fellow, through the upper and outer cortical substances of the kidney, making, as you will recognize, a staple stitch. These ligatures are tied on the integument of the patient's back by an assistant. If necessary another suture is inserted in a similar manner through the outer margin of the kidney, the first needle of the second suture being passed about an inch below the last needle of the first suture, and the second needle of the second suture about an inch below the first needle of the second suture through the cortical substance of the outer portion of the kidney."

You will readily see that this is a very simple operation, does not involve any vital structures, and can be performed in a few moments with little or no danger to the patient, while the results have been even more than anticipated. In explaining the method I had adopted, to my friends, I found but, practically, one criticism, and that was a lack of confidence in obtaining satisfactory results. Recognizing the fact that it required several sutures, by the old method, to hold the kidney in place, they did not see how it was possible for one or two sutures to accomplish the same. If you stop to study the difference between the two methods, you will readily observe that the new method "clinches," so to speak, the kidney by a staple suture, while the old method simply sutured the posterior portion to the deep lumbar muscles. The merest tyro will readily see the mechanical difference between the two sutures. The one not only embraces the entire kidney, but pierces the lumbar muscles and is re-enforced by the integument on the back, while the other simply involves a portion of the friable cortex of the kidney and a small portion of the tenderloin; hence it is quite evident that more sutures would be required by the old method than the new.

Since devising this plan for anchoring the kidney, I have had an opportunity for demonstrating its practical utility in five cases operated by myself and one by my colleague, Dr. Means, with the most satisfactory results in each case. The rapidity with which the operations were done is one of the marked features. It is only necessary to make a very small opening into the abdominal cavity, bring the kidney to its normal position, pierce it with the needles, as above described, tie the sutures over a piece of iodoform gauze on the back, and close the abdominal

wound. There are seldom any constitutional symptoms following the operation. The patient has little or no pain or rise of temperature, while the pulse remains practically normal. In about ten days the suture can be removed, leaving the kidney entirely free from any foreign substance. I usually have the patient remain quiet from two to three weeks after the operation.

Up to date there has not been a single instance of a return of the disease; so far as I have any knowledge, the patients are all enjoying good health, and are entirely free from the reflex symptoms which were so annoying prior to the operation. In two of these cases it was my fortune to have an opportunity to examine the result; in one case several months afterwards and the other nearly two years. In each case the patient had to be operated for ovarian trouble, and in each I made a careful examination of the kidney which had been anchored, and found it firmly fixed, and, so far as I was able to judge, in a perfectly healthy condition.

I do not claim that the few cases which I have reported are sufficient to establish the fact that this method is without fault, but I do claim that up to date the results secured are better than those usually obtained by other methods.

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#### TREATMENT OF STRICTURE OF THE RECTUM.

Berger referred to the communication made by Réclus upon this subject at the previous meeting, and expressed the opinion that progressive dilatation brings about very satisfactory results, provided certain rules are observed. The dilatation should be made slowly and carefully, and there should always be an interval of from twenty-four to forty-eight hours between the sittings. The insertion of a larger dilator should not be attempted at each *séance*, and it should be borne in mind that the axis of the pathologically-modified rectum is not the same as that of the normal rectum. Simple dilatation is not sufficient to cause the disappearance of the symptoms of stenosis; the rectitis must also be combated. The latter feature of the disorder is best treated by lavage. Dilatation does not always succeed; the conditions which cause its failure may, however, be previously determined and regarded as counter-indicative of this mode of treatment. Berger considers that dilatation is contra-indicated when (1) the stricture is located very high up; (2) when there is great abundance of suppuration, intensity of pain, and tenesmus; (3) when great weakness has induced a precarious condition of the patient; (4) when violent reaction, sometimes occurring after a sitting during which dilatation has been performed—*i.e.*, chills with collapse, symptoms denoting an infectious condition—is present. For the cases in which dilatation is not available Berger prefers linear rectotomy to extirpation.

Quénu cited an example which clearly demonstrated that specific treatment is of no use in stricture of syphilitic origin. In the case in question Quénu witnessed the formation of a syphilitic ulcer of the anus followed by stricture of the rectum. Very energetic antisyphilitic treatment



failed, and it was necessary to resort to excision of the stricture. Notwithstanding this measure, the rectitis remained so intense that it was decided to make an artificial anus. Generally speaking, Quénu believes that none of the treatments result in a cure, but merely produce amelioration. He considers that the extent of the stricture should serve as a guide in indicating extirpation.

Schwartz cited a case in which posterior rectotomy, followed by dilatation, produced an excellent result, which was maintained during twelve years.

Réclus stated that in reporting his two cases he wished to call attention to the facility with which dilatation can be practised when the mucous membrane is previously anæsthetized by the aid of a tampon saturated with a cocaine solution. He was able to proceed more rapidly. It is not necessary to leave an interval between the *séances* when this local anæsthetic is employed.

### THE NERVOUS AND MENTAL PHENOMENA FOLLOWING SURGICAL OPERATIONS.

BY HAROLD N. MOYER, M.D., CHICAGO.

It is needless to refer to the great advances of modern surgery. It has often formed the theme of addresses before medical societies, and furnishes a fit introduction to many surgical papers. With the advent of anesthetics fifty years ago there was a great impetus given to operative work, which twenty years later was accelerated by the discoveries in the domain of surgical fever and wound infection. To these great achievements must be added a third, namely, the control of hemorrhage, which plays such an important part in modern surgery. It may be said that surgery in our day has reached the position of an exact science in relation to pain, hemorrhage and infection. Could the same be said of shock the surgeon would be well-nigh omnipotent in the operative field.

Our knowledge of shock is about the same as it was fifty years ago. Undoubtedly, shock was much greater before the days of anesthetics, but it is to be remembered that surgical operations have lengthened and operative technique has become greatly extended since the discovery of anesthesia. Indeed, it may be safely asserted that surgery, as to-day understood, would have no existence but for the boon of artificial anesthesia. The same is true, to a lesser degree, of antiseptics and hemostasis.

It seems to the writer that too little attention is paid to the nervous states which predispose to shock. Of late years studies of the heart and kidneys have been made, but the nervous system does not seem to have been included in that careful scrutiny which should precede every surgical operation; at least the literature on the subject is exceedingly meagre. It has been known for years that patients sometimes die very suddenly during the most trivial operations, such as a hypodermic injection, or a slight incision, or the extraction of a tooth; but only during the past year have a series of these cases been investigated. In all of them an enlarged condition of the thymus gland was found, to which condition

the term "constitutio-lymphatica" has been given. We know of no means of recognizing this condition during life. Perhaps, if cases were studied in reference to this state, clinical data might be accumulated by which it could be recognized, and thus some of the most deplorable accidents in surgical practice might be averted.

It would also seem advisable to study the general nervous system, especially with reference to the pupils, muscular tonus as shown by the tendon-jerks, the superficial reflexes, co-ordination, etc. We are not aware that systematic studies of this kind have been made. It would seem that in this way valuable data could be obtained relative to the conditions which pre-dispose to shock.

It is now generally believed that the length of an operation, the quantity of anesthetic, the part involved, the amount of hemorrhage, are the chief causes which determine the degree of shock. This is only a partial statement, as the nervous condition of the patient is frequently a determining factor of vastly greater importance. Ever since the beginning of surgery it has been observed that some patients bear operations well and others do not, relative to the amount of shock sustained. Up to the present we know of no systematic studies looking to an explanation of this fact. We believe that if such studies were made valuable data would be obtained for the treatment of patients before operation. Even with our present imperfect knowledge it would seem as if much might be done to lessen the collapse which accompanies or follows operation.

While it is conceded that shock is largely physical, yet the mental condition of the patient plays a most important rôle. A confident feeling on the part of the patient in the operator and the result of the operation is one of the most important factors in lessening shock and preventing the unpleasant nervous sequelæ which follow. We think that too little attention is paid to this important point. The value of suggestion here will be at once apparent. An effort should be made to hypnotize patients before operation, and to precede the anesthetic by full hypnosis. In some cases it prove unnecessary to employ an anesthetic at all; we believe that much may be done by the use of drugs. The use of a few large doses of bromides before an operation will tranquilize the nervous system and lessen apprehension. Alcoholics and opiates may be employed for the same purpose. We believe that all of these agents are too much neglected in the preparation of the patient. In addressing a body of surgeons it is hardly necessary to emphasize the importance of reducing the length of operation to a minimum. We are of the opinion that in many cases the anesthetic is given carelessly, and in others the time of anesthesia is prolonged owing to a want of preparation. Again, care is often not exercised to reduce the amount of an anesthetic used to a minimum. To do this requires the services of an experienced anesthetist, while too often this important duty is left in the hands of the junior assistant, who begins his medical experience in this way. Another subject which is not referred to in our statistics of anesthesia is the question of nervous shock and sequelæ in relation to the particular anesthetic employed. We have had a prolonged controversy as to the mechanism of death by chloroform and ether, but I know of no data bearing on the relative influence of these agents in producing shock.

The question of local anesthesia by the Schleich method is one that is bound to be of great importance in lessening general anesthesia and consequently shock. We do not yet know how much this can be employed in connection with general anesthesia, thus lessening the duration of the latter and the amount of drug required.

I cannot pass this topic without reference to the importance of maintaining body heat during an operation and in the early post-operative period.

The nervous phenomena which follow operation often have their foundation in the pre-operative period, and no intelligent discussion of their treatment can be had which does not include the entire care of a patient before and after operation. It is to be remembered that every operation is followed by a certain amount of shock; this may be of longer or shorter duration, and should be treated in each case. After every operation the patient should be surrounded by warm bottles, and the foot of the bed elevated. I will not go into the description of treatment of severe shock, but will confine my remarks to the neurasthenic state which succeeds the shock and which may last for from a day or two to a lifelong condition. In the presentation of this and other nervous sequelæ the most important thing is to secure sleep. If pain follows an operation it should be relieved if possible. If the patient is nervous and shaky a sedative should be given. We believe that the bromides are too infrequently used for this purpose. The common impression regarding them is that they interfere with nutrition and are very depressing. This is true of their prolonged use, but their employment for a few days is not attended with such objection. They have the property of putting the nervous system in splints, and for this purpose are invaluable, and are too much neglected by surgeons in the post-operative treatment. They should be administered in large doses to be efficient, from thirty to eighty grains well diluted. With bromides a good general tonic may be administered. Particular attention should be paid to the condition of the bowels, and above all to the amount of fluid taken in; in some cases this is excessive, but in many it is diminished, and we are confident that many cases if watched will be found to take very little fluids. For these water must be prescribed in definite quantities. Of course the early administration of liquid food goes without mentioning. The plan which ought to be adopted is to lessen so far as possible the shock of operation, and to treat the neurasthenic state which is the outgrowth of this condition. The treatment of the neurasthenia should begin immediately after operation. In this way the best results will be secured and the patients will not pass into the category of chronic invalids.

We have spoken of neurasthenia as being to some degree present after all operations; in some cases hysteria may develop, but this is more rare and usually occurs in those who have had the disorder.

Mental disorders are by no means uncommon—the mild or severe delirium which comes on soon after operation, and which may lead to a fatal termination in a few days. This has been and is well described by the term "delirium traumaticum." Its treatment is not different from that of acute mania, though the surgical aspects may materially complicate the treatment.

The forms of insanity following operations are almost always included under the terms confusional, which is the most frequent; melancholia, less frequent; hypochondriasis, simple mania, and sometimes paranoia. As a rule the chronic degenerative psychoses do not have their initiation in a surgical operation. The treatment of these various conditions is not different when caused in this way from what it is when occurring in non-surgical cases.

I cannot leave this part of the subject without calling attention to the very great importance of differentiating the psychoses from the mental changes which follow the acute inflammations of the kidneys and the consequent lessened secretion by these organs.

In conclusion, allow me again to call your attention to the very great importance of the nervous system in surgical work, that a due appreciation of it is an important factor in preventing mortality and in realizing that full benefit of operative work—a restoration of health.—*Medicine.*

### SURGICAL HINTS.

Look out for your assistants, and hold them equally responsible with yourself for any mishap. A furuncle of minute size on the hand of any assistant may cause the failure of an otherwise perfect piece of surgical work.

It is a mistake to constipate the patient for more than forty-eight hours after the operation for hemorrhoids by clamp and cautery. When the bowels do move by oil or soap-suds enema, see that some one is with the patient to act in case of syncope.

High temperature is not a necessary feature of appendicitis. A case may run the whole gamut of perforation, abscess, peritonitis and death while the thermometer never exceeds ninety-nine degrees Fahrenheit. The pulse is a much safer guide.

Cotton and linen thread boiled for a few moments in five per cent carbolic watery solution makes a useful suture or ligature material in an emergency. It is, of course, not so strong as silk or catgut, but is quite non-irritating, and may safely be left in a wound as a buried ligature or suture.

The operation of tracheotomy is rendered much easier by allowing the patient's shoulders to rest upon a thin pillow with no pillow for the head. The tissues at the front of the neck are thus put upon the stretch, and one has plenty of room for the work. Let your skin incision be a long one.

When a mass of tissue has been removed from the soft parts in an aseptic operation, it is well, by means of sutures, to obliterate as much as possible of the vacant space, bringing its walls everywhere into contact. If this is not done, the defect fills with clot, which forms a tempting feast for the germs of putrefaction.

Leave a fillet of silk in each edge of the tracheal wound to be used in case the inner tube becomes dislodged. Should this accident occur, or

should suffocative symptoms arise when the tube is purposely removed, a slight traction upon the silk fillets will open the trachea widely, at once relieving the patient and rendering the reinsertion of the tube easy.

When a lymph gland abscess which has been incised shows indolence in healing, the cavity should be frequently curetted and disinfected. When the signs of neighboring gland involvement appear, a free and extensive dissection should be undertaken for the removal of all suspicious tissue, whether cicatricial or glandular. A delay of a few days may be permitted where syphilitic disease is suspected in order to try the effect of appropriate general medication.

Catgut may be rendered aseptic and even antiseptic without complicated apparatus by the following simple method: Wind the gut on reels. Shake the full reels in a jar of ether to remove the fat. Soak them in ten per cent. carbolic made with alcohol for from six to twenty-four hours, according to the thickness of the gut. Now place the reels in pure alcohol and the catgut is ready for use, and will be found to have lost little or none of its tensile strength.

In operating for hemorrhoids by clamp and cautery, be sure you clamp the tissue in radiating folds, so that the eschars shall be to the anal center as the spokes of a wheel to the hub. Subsequent stricture is thus avoided. Do not include too much tissue, for the cautery often burns deeper than one might expect. Only the pile-bearing mucous membrane should be burned; if it is desired to remove the external or skin piles, it may be done by ligation, previously incising through the skin to avoid the pain of the constricting ligature.

In estimating the character of a new growth, one should never depend wholly upon the microscope. Clinical observation is far more important, although in case of doubt the histology, as revealed under the lens, may turn the scale. In the present stage of medical science it would be poor surgery to condemn a limb or an organ, or to perform an operation which would imperil life, on the uncorroborated evidence of the microscope, while a tumor histologically benign, though clinically malignant in its course, should be extirpated as thoroughly as if the pathologist's report had been unfavorable.

In using retractors during a dissection, be careful to raise up the tissues, not merely separating the lips of the wound, but lifting the skin or fascia away from the deeper structures. In this way the blood vessels are not emptied and rendered invisible, but may be clearly seen, allowing the operator to secure them before dividing them. The different fascial and muscular layers are also separated from each other, so that they may be divided one at a time. By the faulty method of mere lateral traction the layers rest one upon the other, forming apparently a single membrane, while very considerable vessels being emptied of their blood become invisible, and may give one a most disagreeable surprise when, after a stroke of the knife through an apparently innocent bit of fascia, the tension is released and a sudden gush of blood fills the wound.

**MEDICINE.**

IN CHARGE OF

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**HEMORRHAGIC PLEURISY: A STUDY OF THIRTY CASES.**

The present paper is based on an analysis of thirty cases, twenty-seven men and three women, taken from the records of the Boston City Hospital, in whom a pleural effusion, sooner or later in its course, assumed a hemorrhagic character. With one possible exception, a patient in the last stages of phthisis associated with hepatic cirrhosis, where a distinction was impossible, the effusion was the result of a pleural inflammation and not a local manifestation of a general dropsy. In thirteen cases it was present in the left side, and in eleven in the right alone, while in six both were involved, in two of the latter bloody fluid being found in each chest. In two others one pleura contained blood and the other clear serum. In the remaining two cases the character of the exudate was determined only in one side, the amount in the other not being sufficiently large to require aspiration. It is perhaps questionable whether five cases, in which the first and one in which the second tapping also was macroscopically clear, while the second or third was bloody, should have been included in this number, from the possibility that the hemorrhage may have been due either to accidental injury by the needle or to rupture of the newly-formed vessels on the surface of the pleura during the expansion of the lung. The former is a comparatively rare event which would probably show itself by the appearance of blood in the latter portion of the fluid withdrawn at the time, while the fact that the rank and file of cases undergo repeated aspirations and yet remain serous throughout would indicate, that, if the escape of blood occurred during expansion, the same changes had taken place, either locally, or in the blood or in the vessels, as in cases which are hemorrhagic from the start, but that some outside influence had been required before such changes became evident. It is possible, also, from the considerable distance between the several sites of puncture that some of the cases were examples of a loculated pleurisy, one cavity containing blood and the other clear serum, while others were instances at the outset of Dieulafoy's microscopically hemorrhagic cases, the presence of large numbers of normal and abnormal red globules being demonstrated in the first exudate, although not in sufficient quantity to give a distinct red tinge.

The question whether some of the cases ought not also to be included, in which the first portion of the fluid ran clear while the later became

bloody, need not be discussed in this connection, since only three instances happened to be found, in one of which a large vessel was evidently wounded, while of another, the record states that he turned during the operation and probably scratched himself, and of the third that the hemorrhage resulted from scraping of the canula upon the visceral layer of the pleura.

Special interest attaches to the etiology of these cases from the very generally received opinion that tuberculosis and cancer are the most frequent causes, but unfortunately it is impossible to definitely determine it in every instance, partly from the inherent difficulty of the subject and partly because bacteriological examinations were so rarely made; yet an analysis of them show conclusively that a hemorrhagic effusion may occur as a symptom in pleurisies of very different origins. Tuberculosis, nevertheless, heads the list as the most frequent etiological factor, though not present in a majority of the cases, eight being classified as due to an uncomplicated tubercular process. Yet the diagnosis was proved only in one case, which came to autopsy, in the others it rested either on the associations of characteristic pulmonary or other lesions, or on the course of the disease in spite of repeated failures to find the bacillus either in the sputum or the exudate. Three other cases were associated with phthisis, but as one of them was complicated by hepatic cirrhosis (fatal), one with chronic nephritis, and one with sarcoma of the ribs, while streptococci were found in the effusion, it is difficult to estimate which of several factors may have been operative, since there is no reason why a patient with a phthisis should not suffer from a pleurisy due to some other cause than the tubercle bacillus, though this possibly seems to be frequently overlooked. It is interesting to compare this series with a somewhat smaller number of serous pleurisies recently reported by Eichorst, in which fifteen out of twenty-three were proved to be tubercular by inoculation experiments; but no inferences can be drawn, since it is possible that in the former the tubercle bacillus may have played an active part in some of the cases which have been classified under other heads. The fact, however, that but one case out of four, which came to autopsy, showed any evidence of tuberculosis is interesting in this connection.

A number were undoubtedly due to infection with the pneumococcus, although positive proof was furnished by its discovery in the effusion in but two, one of which occurred in the course of a chronic nephritis; the other was secondary to pneumonia and eventuated in empyema. It was also demonstrated in the sputum of another in which both acute rheumatism and pneumonia were present, but was not found in the exudate, which was sterile. Two others either accompanied or followed an acute lobar pneumonia, in one of which Friedländer's capsule was found in the expectoration, and probably also the pneumococcus, although owing to the peculiar wording of the record it cannot be definitely stated. The effusion was sterile. In two more the cause of death was proved by autopsy to be a general infection with the latter organism, but no mention is made of cultures being taken from the pleural fluid. One had been admitted for puerperal eclampsia, the other for measles. The latter was the only case in which any of the exanthemata was concerned, and here it probably

played only a subordinate part, if any, in determining the character of the effusion, as the pneumonic process, to which the pleurisy was secondary, developed late in the course of the disease.

It is an accepted fact that pleurisy is a common complication of acute rheumatism and chronic nephritis, and in the present series this association, in addition to the cases already mentioned in connection with tuberculosis and pneumonia, was represented by three instances of each. The rheumatic cases all ran a very severe course, as all three developed a pericarditis, while in two the endocardium was also involved. In one of the latter infection with the colon bacillus was proved by its discovery in the exudate.

Four may be grouped together as instances of simple pleurisy, in one of which a culture showed a growth of pure staphylococcus aureus. All of them developed in previously healthy individuals, ran an acute course and ended in apparent recovery, more or less fibrinous deposit, however, still remaining at the base of the chest at the time of discharge.

The results of the bacteriological examination of the eleven cases in which it was made are summarized as follows: six were sterile, one contained streptococci and eventuated in empyema, one staphylococci aurei and one the bacterium coli commune. Two contained pneumococci, but for reasons which have already been given this number probably does not fully represent their activity. In a twelfth case miliary tubercles were found at the autopsy.

That but one case associated with malignant disease is found in this series, and in this it is doubtful if it possessed any etiological significance, is perhaps explained by the fact that they were largely taken from the general index of the hospital and not from a search through the records, so that it is possible that a pleurisy occurring as a complication may not have been so indexed in the latter that it could find its way into the general catalogue. This may also account for the appearance of but one case in which any of the exanthemata were involved.

The evident reason for the bloody character of the fluid furnished by the pathological state of the pleura at the autopsy of some of the cases which are due to tuberculosis and cancer may account for the grave significance so generally attributed to this symptom, but the favorable course of the effusion in many cases of the former class would indicate that in a portion of them at least local lesion is histologically rather than grossly tubercular, and similar to what usually occurs in simple serous effusions arising from this cause, and occurring either with or without marked phthisical changes in the lungs, and that the blood was the result of a general condition which might exert the same determining influence in cases of hemorrhagic pleurisy of tubercular origin as in those which are not. This might be a personal idiosyncrasy, although there was no reason to suspect a hemorrhagic tendency in any of these cases, or the effect of a grave constitutional disturbance, which by leading to changes in the blood-vessels or in the blood would allow the easier escape of the latter through rupture or diapedesis. Among the causes which might induce the latter, overwork, exposure, and the neglect of every hygienic and sanitary law are so common in hospital patients that no special stress



can be laid upon them, and the same is true, though in much less degree, of over-indulgence in alcohol, which was frankly admitted by nine, while nine others confessed to its use in moderation, a term which, under the circumstances, admits considerable latitude of definition. Age may have been a factor in some instances, since nine were over forty-one (seven being over forty-six), a period when vascular changes may be expected, especially among persons whose manner of life would accentuate any tendency thereto. Fifteen cases occurred during the course of diseases accompanied by serious changes in the blood, in the blood-vessels or in both, five, or six if the case of puerperal eclampsia is included, in which fatty degeneration of the liver and kidneys was found at the autopsy, being associated with nephritis, four with acute rheumatism, two with chronic valvular disease of the heart and one with hepatic cirrhosis. The two remaining cases were suffering from active syphilis, in one of which it was the cause of death, the autopsy showing syphilitic myocarditis with an unusual distension of the cardiac walls and the presence of pulmonary infarctions. There was an effusion in both pleural cavities, but it was bloody only in the left, which was actively inflamed. Several of these factors were frequently combined in the same individual, but there were twenty-three in whom one or more of them were present.

In order to determine the final result in those patients who left the hospital with the issue still in doubt, an effort was made to trace them to their homes, but as, from their nomadic habits, it met with success in but four instances, the prognosis in about half the cases must be based on their course while under observation, their condition at the time of discharge and the probable etiology, a certain margin of error being admitted. Eight patients died in the hospital, while seven others were discharged in a practically hopeless condition, one of whom has since died and another is in the last stages of consumption, making exactly fifty per cent. of the whole number. Ten left the hospital practically well after an average stay of 46 days; that is, apart from a sense of debility incidental to a confinement of several weeks, they felt in their normal condition of health, and the signs in the chest had either disappeared or were those of a fibrinous deposit at the base of the pleura. Five cases must be left out of account as they remained under observation too short a time.

These results show the course of the serious constitutional diseases so frequently associated with pleurisy of a hemorrhagic character rather than the progress of the pleurisy itself, which may have entirely healed long before the fatal result and have contributed to it only indirectly, if at all, by weakening the resisting power of the patient. In sixteen cases one or two aspirations were sufficient to arrest the accumulation of the fluid, and this happened in one case where the autopsy showed the presence of gross tubercular lesions, the visceral and costal pleura being much thickened and studded with grayish-white specks the size of a millet seed. Only a small amount of fluid remained in a coarse mesh-work of fibrous tissue at the base of the lung. In eight cases no conclusions can be drawn, as five died and three were discharged almost immediately after aspiration. Two eventuated in empyema, which, in one following pneumonia, was foreshadowed by the cloudy character of the fluid ob-

tained at the first puncture. In contrast to the latter there were two in which the effusion at the second aspiration proved to be clear serum. In two thoracentesis was not considered necessary, the character of the fluid being shown at the autopsy. In two instances, both of which were undoubtedly tubercular and ran a rapidly fatal course after admission, the chest immediately refilled after each tapping, which was performed three times, the amounts withdrawn varying from one to six pints. The behavior of the exudate in the two last cases brings up the only point in treatment which seems worthy of mention, as it suggests the impropriety of too frequently repeated punctures or the withdrawal of too large amounts of fluid, since, if reaccumulation is rapid, aspiration is practically a venesection and more harm may result from the loss of blood than from the presence of the fluid. In a few instances, where a large amount was removed, the discomfort of the patient seemed to be increased and the tendency to refill made greater by allowing the highly inflamed surfaces of the pleura to rub against each other.

The number of cases under consideration is too small to allow conclusions drawn from their analysis to be embodied in statistical form, but the following propositions seem justified:

(1) Hemorrhagic pleurisy may occur either as a primary affection or as a complication occurring in the course of other diseases.

(2) That as in other forms of pleurisy tuberculosis is the etiological factor in a very considerable number of cases, yet the proportion due to other causes is so large that the mere fact of its hemorrhagic character does not justify a diagnosis of tuberculosis, even in the absence of cancer, without corroborating evidence.

(3) That among other causes the pneumococcus takes a prominent rank, but other micro-organisms occasionally are found as the infecting agent.

(4) That in a large proportion of the cases conditions are present which lead to an easy escape of blood from the vessels by producing changes either in the blood, in the vessels, or in both. Among them may be mentioned advanced age, alcoholism, and the presence of severe constitutional diseases, of which nephritis and rheumatism are the most prominent.

(5) That, as in cases of simple serous effusion, the prognosis must be individualized and based on the underlying causes and the general condition of the patient, but that taken as a whole, from the frequent association of other diseases, the prognosis is graver than in simple pleurisies, yet a very considerable number completely recover.

(6) That except when it appears as a complication in the later stages of some other disease a hemorrhagic effusion may be expected to run a favorable course, as in a majority of the cases the chest does not refill after aspiration, which may, however, have to be repeated once or twice.

(7) That, as in simple serous pleurisies, a certain proportion of cases will eventuate in empyema, but that there seems to be no special tendency toward this result.

(8) That in the occasional cases where the chest rapidly refills, aspiration should not be repeated too frequently, lest more harm result to the patient from the loss of blood than from the presence of the fluid.—DR. G. G. SEARS, *Boston Med. and Surg. Jour.*

**SOME OF THE UNTOWARD EFFECTS PRODUCED BY THE ADMINISTRATION OF THE BROMINE COMPOUNDS.**

BY H. A. HARE, M.D.,

Professor of Therapeutics in the Jefferson Medical College of Philadelphia.

It is not my intention to discuss in this paper the well known untoward effects of the bromides as they are manifested by eruptions on the skin, mental torpor, and the final development of a cachexia and general as well as nervous feebleness. The conditions on which I desire to dwell are more unusual and not so well known to the profession, although they are more common than would be supposed.

In the study of remedies, both old and new, the tendency of the physician is rather to record his successes than his failures, and to report the instances in which the drug has done good rather than those in which it has failed or done harm. It is only after many years of experience roll by that the profession gains a complete view of the reverse of the therapeutic shield.

The untoward or unexpected effects of drugs are, however, never to be forgotten, and the possibility of a remedy causing an unusual symptom is to be ever borne in mind.

At a meeting of the Association of American Physicians held in Washington in May, 1896, Weir Mitchell read a paper detailing a number of instances in which the use of the bromides had speedily produced a number of untoward effects over and above the skin eruption, disordered digestion and mental slowness usually met with after full doses of this drug are used. Thus the symptoms manifested consisted in great irritability of temper, moroseness, and homicidal or suicidal tendencies. In one case, that of Jacksonian epilepsy in a child, imbecility developed from the use of bromides; another child became a sufferer from amnesic aphasia; and in an adult female suicidal tendencies and melancholia appeared when the drug was used and disappeared when it was stopped. Voisin and Stark reported cases many years ago, and Harriet Alexander as recently as July, 1896, has contributed a valuable paper on this topic, in which she reviews the literature on this subject in this country quite thoroughly. Seguin reported the case of a twelve-year-old boy who had *petit mal* in the form of chills, and when these were stopped by the bromides he became unmanageable and boisterous. Hughes of St. Louis has reported another case of *petit mal* which developed kleptomania when the bromides were given, and Rockwell has recorded an instance in which an epileptic female on taking the bromides became irritable and suspicious. Dr. Alexander in the paper quoted cites several instances from an earlier contribution of hers on this subject. An epileptic nymphomaniac always became irritable and suspicious on the use of the bromides. In another woman, with a family history of epilepsy and imperative homicidal conceptions of long continued form, erotico-religious, auditory and visual hallucinations followed the use of the bromides. In another female troubled by coprolalia the bromides caused sullenness and

unrestrained coprolalia. In still another case the bromides caused an irritable suspicious state in which the patient became treacherous. A ten-year-old girl with procrursive epilepsy had three attacks replaced by irregular kleptomania attacks, and she became suspicious and irritable. The last three cases reported by Alexander are particularly interesting. They are as follows :

A female has *petit mal*. She denies all epilepsy. Long after her marriage, epilepsy, although it clearly existed, was never suspected until she awoke her husband one night by beating his face with a slipper while unconscious. In the inter-epileptic period she is mild-tempered, good-humored, and suave. Under the bromides she becomes first irritable, and querulous during the inter-epileptic period, then paroxysmally and furiously excited, and has vivid auditory and visual erotic-religious hallucinations and is coprolaliac. Mixed treatment has no such effects.

Since then Alexander has observed the following cases :

A thirty-four-year-old woman had *grand mal* followed by a dazed condition. Under the bromides these attacks were replaced by nymphomania with decided erotic manifestations, attended by religious hallucinations and furious masturbation. The use of ergot removed these manifestations, and the alternation of ergot with the bromides prevented them.

A forty-two-year-old woman had attacks of *grand mal* at the menstrual period and *petit mal* in the interregnum. These were both replaced by furor under the bromides.

Similar instances have been reported by Janeway, Dana and Draper ; and the older literature of medicine shows that these unusual effects were not unknown and are not now met with for the first time. Many years ago Hammond recorded the case of a gentleman to whom he gave at first fifteen grains of potassium bromide three times a day. These doses, which were slightly increased, soon produced symptoms of mental aberration, which disappeared when the medicine was stopped. Later the patient of his own free will insisted upon taking as much as one ounce of the drug a day. He developed marked insanity, delusions of persecution, and the delirium of grandeur. He became timid and cowardly, and finally so insane as to necessitate his removal to an asylum, in which recovery took place. In other cases hallucinations as to sight or sound have come on without there being any alcoholic history to complicate the case.

Bannister has also reported a condition of pleasurable intoxication with exaltation of mind after doses of bromide. Thus he reports the case of a man of thirty-six years of age who was a sufferer from frequent epileptic attacks and had slight mental impairment, but no true psychic disorder and no delusions. He was regarded as a quiet, well-behaved patient, except when the bromides were given him, when he became furiously excited and unsafe. Thus before commitment to an asylum he had been convicted of homicidal tendencies. Small doses of the bromides rarely brought on the attacks except after several days, but as much as one and a half drachms daily made him unmanageable in three or four days. Stopping the bromides stopped the mania, but allowed the return of the attacks. Bannister reports other cases, three in all out of twenty-one epileptics under his care. This and the following report of cases

illustrated the clinical fact that the arrest of epileptic attacks by full doses of the bromides produces on rare occasions evidences of nervous excitation in other forms. Thus Baker in the *Medical Register* of December 8, 1888, reports the case of a male of eighteen years suffering from many convulsions each day who was said to be unable to take the bromides. Nevertheless, he was put on fifty grains a day. This resulted in an arrest of the attacks, but they were supplanted by noisy outbreaks of ungovernable rage, but no delusions. Another case of a young man was met with who had maniacal delusions which always disappeared if the bromides were stopped and the attacks allowed to return. A third case experienced mental confusion when the bromides stopped the attacks. Lepine also reports a case (*La Semaine Médicale*, Dec. 23, 1891) of a tabetic young woman who received sixty grains of bromide a day for convulsive attacks. In the course of a few weeks she became progressively weaker and delirious; and Lepine believes that difficult speech, delirium, and mental weakness often followed the use of bromides.

Holmden in *The Lancet* of October 18, 1886, also reports the case of a sailor, aged thirty-three years, who was in the habit of taking three drachms of bromide of potassium a day for the purpose of relieving insomnia, and who began to develop delusions and to be unable to collect his thoughts. Notwithstanding advice to the contrary he persisted in the use of the drug and developed delusions of persecution, maniacal symptoms, and suicidal tendencies, followed by great prostration. Recovery ultimately occurred.

Hameau (*Journal de Médecine de Bordeaux*, March, 1868) has reported the case of a young woman of twenty-two years who after taking no less than four and a half pounds of bromide of potassium in ten months developed cachexia and delirium, and after great prostration she died.

We have also the report of Einger in the *Wiener Medicinische Presse*, Nos. 25-34, 1886, who records the case of a woman who took five pounds in a year, and after developing the ordinary symptoms of bromism developed tremor, a staggering gait, followed in a few hours by excitement passing into delirium, with delusions of poisoning.

Thompson in *The Lancet* for May 11, 1889, asserts that he has frequently seen cases of maniacal insanity produced in feeble-minded persons and in the insane by drenching them with bromides. He does not, however, report any definite cases.

Gaston Lyon in his "Traite Elementaire de Clinique Therapeutique," 1895, says in some cases the bromides have to be stopped when given to epileptics, as they either increase the number of the attacks or, if they stop them, bring on cerebral disturbances.

Marked untoward effects of the bromides are recorded by Soullier ("Traite de Therapeutique et de Pharmacologie," Paris, 1895), who states that in those instances in which a bromide cachexia develops there is in addition to feebleness commencing paralysis of the lower extremities, tremors, coldness, anorexia, and diarrhoea, loss of intelligence and memory, and sometimes delusions, hallucinations, headache of an intense kind, and dilatation of the pupils. He quotes Le Gendre as having seen instances in which the bromides in overdose caused in epileptics symptoms simulating typhoid fever.

Laborde (*Gazette Médicale de Paris*, 1886) has seen sexual excitement followed the bromides, and Winters has reported visual hallucinations (*New York Medical Journal*, 1883). Alexander also quotes Kiernan and Monroe (*Medical Standard*, 1887 and 1891) as having met with cases of aphrodisia from this drug.

One conclusion seems certain beyond doubt, that in many cases of epilepsy the bromides are very capable of causing grave injury aside from the general depressing influence which they excite in all persons if given in full doses for any length of time.

In other instances in non-epileptic patients the use of the bromides has produced aphasia and apyrexia. Thus Lockhart Clarke has recorded an instance of a patient who said "contraction" for "subscription," and E. H. Clarke one who called a buckwheat cake a comb and a comb a buckwheat cake.

### WHY PUBLIC BATHS ARE ESSENTIAL.

Bathing of the human body as recorded in sacred and ancient history was a prescribed sacred ritual for purification, especially for accidental, leprous or ordinary uncleanness. A bathing chamber was probably provided in the houses of the lower ranks in early times, as well as in those of the wealthy, the latter with much elaboration and elegance; these were often in the gardens of the wealthy. The pools of Bethesda, Siloam and Hezekiah are among the first indications of public baths established for promiscuous public bathing.

In all religious ceremonies the high priests were required to purify themselves by bathing before performing religious services; uncleanness of person was considered sinful. Even the leper was commanded to go and wash in the pool of Siloam seven times before he could be made whole.

Body exhalations are impurities oftentimes poisonous, infective and contagious, and which nature by her constant physiological activity in the human system, through sensible and insensible perspiration, endeavors to get rid of; and healthy conditions can only be maintained by removing these poisonous elements from the cutaneous surface by bathing. The millions of cutaneous pores, covering the whole body surface, must be relieved of these exudations or ill health will be the result. Purification increases cutaneous blood circulation, stimulates nerve radicals, eliminates and removes effete and poisonous accumulations, and renders the blood purer, promoting healthy action and strength.

Athletic training of gladiators and soldiers of the olden time among the Greeks and Romans by the daily use of the bath was considered indispensable; and even at the present time no athlete, whatever the sport, can afford to ignore this important adjunct in his preparation for any great physical effort. Common laborers and muscular toilers need the bath quite as much, to remove the effete exhalations from their perspiring bodies, to maintain strength and muscular activity. All health resorts throughout the civilized world hold forth their bathing facilities as great inducements to those seeking renewed health.

The treatment of diseased conditions at the present day is largely relegated to the various water appliances. Impure air, unbathed bodies, ab-

sence of sunlight, are largely the inciting factors of the poisonous germs of typhus, as of less malignant diseases. Where else can one find this combination better than in the densely populated tenement-house districts of large cities? for here no baths are provided in their airless and sunless domiciles. Impurity, uncleanness and ill health go hand in hand. In the common lodging-houses, again, are found like conditions intensified; typhus fever—that fatal disease—easily finds lodgment therein.

In the tenements the practice of bathing is almost an impossibility, since a tub filled with water is the only resort. In this limited supply the water soon becomes befouled, and the impossibility of cleanliness by its use is evident. Such conditions do not encourage the practice of bathing.

A bath that does not effectually remove from the surface of the body all impurities and constantly supply fresh, pure water is not a bath of purification. A small modicum of surface dirt may be washed off, but the pores of the skin are but partially relieved of their clogged-up mouths, filled with the effete products of physiological activities; neither is the cold bath alone sufficient for good purification. Hot or very warm water, with plenty of soap, is necessary to dissolve and remove the oleaginous exudations which are always present.

In the sea-water swimming-baths the alkaline condition of the seawater is an important adjunct for cleansing purposes, useful and invigorating, provided the water is clean, and free from sewage contamination. Objectionable as this may be, from a sanitary point of view, the popularity of these cooling, pleasure-giving, summer swimming-baths is shown by the enormous number of bathers. It is a pertinent question what number of persons would avail themselves of a system of free public baths with hot and cold water always provided the year round?

No better system for promoting the public health could be devised except, perhaps, tearing down both front and rear tenement-houses, where impaction takes place and where sunless and airless abodes are the rule. These public baths with hot and cold water would become immensely popular and put to frequent use, affording facilities for a cleanly body the year round.

The hygienic environments that unquestionably surround public bathing establishments and public comfort stations are directly and indirectly conducive to the elevation, both physically and morally, of those now compelled, for want of proper facilities to go unbathed for weeks, months, and even years.

It needs no extended argument to convince any intelligent person that such conditions of personal uncleanness are very great menaces to health and danger to the public. The recent developments of the science of bacteriology have demonstrated the presence of subtle, poisonous germs, and that the body exhalations of an unwashed sample of humanity, with whom one is brought in contact in crowded cars, may, unknown, communicate a deadly fever germ.—*Sanitary Record*.

Mr. W. J. Gage, of Toronto, has recently offered to erect and maintain free baths for public use near the centre of this city. A police census shows that 11,000 people in that immediate locality are unprovided with bathing facilities. It is to be hoped that public-spirited men in other Canadian cities will follow Mr Gage's excellent example.

**OBSTETRICS AND GYNAECOLOGY.**

IN CHARGE OF

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**A CASE OF PUERPERAL SEPTICÆMIA TREATED WITH ANTI-STREPTOCOCCIC SERUM ; DEATH.**

BY J. D. RAWLINGS, M.B. LOND., M.R.C.S. ENG.

Many cases of septicæmia, puerperal and otherwise, have now been published in which the use of antitoxin has been followed by extraordinary recoveries, but I have seen few in which antitoxin has been tried and apparently failed. As negative results in such matters are as important, though not so gratifying, as positive ones, I offer the notes of the following case, in which serum treatment was begun three days after the onset of the disease and was continued until the patient was moribund, the case going steadily down-hill all the time. On the only other occasion when I had the opportunity of trying anti-streptococcic serum the result was the same, but in that case the treatment did not have a fair chance, as it was not begun till twelve hours before death.

A primipara, aged twenty-four years, was admitted on Aug. 24th, 1896, into the General Lying-in Hospital, Lambeth. Pregnancy had reached full term, and the patient was said to be in labor for fifty-four hours. On the evening of admission an unsuccessful attempt had been made to deliver with forceps in the patient's own home. On admission to hospital the patient was in good general condition, showing no constitutional symptoms or local signs of obstructed labor. Fairly strong pains were occurring every ten minutes. The foetal heart was 156. Pelvic measurement showed a slight degree of general contraction, thus : Distance between the iliac spines,  $9\frac{3}{8}$  in. ; distance between the iliac crests,  $10\frac{1}{2}$  in. ; external conjugate diameter, 7 in. ; diagonal conjugate diameter,  $4\frac{1}{4}$  in. ; and true conjugate diameter (measured after labor), 4 in. Immediately after admission a vaginal douche of perchloride of mercury (1 in 2,000) was given. Two hours later chloroform was given and forceps applied. There was no unusual difficulty about delivery ; the head was brought from the brim to the perineum in half-an-hour ; there were no lacerations. The child, weighing seven and a half pounds, was born alive. The placenta was expressed from the vagina. The total amount of hæmorrhage during and after labor was twenty ounces. After delivery the uterus and vagina were very thoroughly doused with perchloride of



mercury (1 in 2,000). A little later the temperature was 99.2° F. and the pulse was 84. On the 25th, twelve hours after delivery, the temperature was 103.6° and the pulse 120, no rigor having occurred. On the 26th the temperature varied from 101.4° to 104.2°, the pulse from 122 to 140, and the respirations from 28 to 36. The patient was sweating freely and had a headache, but no rigors. In the evening there was found to be some superficial sloughing of the lower part of the vaginal wall and vulva posteriorly. The lochia were normal in appearance, odor, and quantity. The vagina was douched with creolin and the vulva powdered with iodoform. Four ounces of brandy per day were ordered. The appetite was good, and the patient slept well at night. On the 27th the patient was bright and cheerful, the temperature varied from 102.4° to 103.4°, the pulse was 126, and the respirations were 28. The bowels were very freely relieved twice; the tongue was clean; there were no signs of pneumonia, pericarditis, or peritonitis, but the heart's apex was felt one and a half inches outside the nipple line and hæmic murmurs were heard at the base; the lochia were still normal; the breasts were flaccid. The dose of brandy was increased to six ounces, and digitalis and caffeine were ordered. In the evening a little chloroform was given, and the uterus was scraped with a blunt flushing curette; only a few shreds came away. During the operation creolin (1 in 200) was flowing through the curette; afterwards a quart of plain water was run through the uterus, and this was followed by two quarts of perchloride (1 in 4,000). After the cur-etting the temperature suddenly fell to 97.8° and the respiration became infrequent and sighing, but the pulse was 100 and of good volume; the extremities were warm and there was no increase of pallor. The patient only slept two and a half hours. On the 28th the patient was still very bright and cheerful. The temperature gradually rose during the morning to 103.2° and the pulse to 120. At noon the uterus was douched with perchloride, when the vagina was looking better than it had done before. At 2 p.m. 9 c.c. of streptococcic antitoxin were injected. In the evening the patient was seeming a little better in herself, but the pulse was intermittent. The temperature was 102.8°. The uterus was douched with perchloride, when a few sloughs came away, and the vagina looked much more healthy than before. A further 9 c.c. of antitoxin were injected. The patient slept for two hours after half a grain of morphia. On the 29th the patient said that she felt better; but she looked worse, and certainly was so. The temperature varied from 102° at 2 a.m. to 98.6° at 10 a.m., twenty hours after the first dose of antitoxin; the pulse was generally 136, but very variable in rate and very irregular. The tongue was slightly furred, but moist, and the appetite was good. Two liquid offensive motions were passed. The lochia were normal, but diminished in quantity. The dose of brandy was increased to twelve ounces. Antitoxin was injected at 1 p.m. and again at 9 p.m., but no fall in temperature occurred. Digitalis, strychnine, and caffeine were given hypodermically. In the evening the patient complained of intense pain in the back, which persisted almost without remission till her death, and was unaffected by morphia. She slept a very little after the administration of one grain of morphia. On the 30th the temperature ranged from 100.4° to 101.4°;

the pulse was 200. A cadaveric odor was present. The patient scarcely slept at all at night, in spite of morphia, which was given hypodermically in doses of half a grain, until three and a half grains had been given in eight hours. On the 31st the temperature was 103.4°. The pulse was 208 and scarcely perceptible at the wrist. She was not in pain for a short time in the morning. She asked for solid food at dinner time, and ate a quarter of an ounce of cold beef and an ounce of mashed potato and drank half a glass of ale. In the evening she ate a whole pear with avidity. There was twitching of the supinators of the left arm. On Sept. 1st the movement of the abdomen on respiration was a little impaired, and there was slight resistance in the left flank. In the evening the twitching increased, hiccough occurred, food was refused, and the patient died at midnight.

*Necropsy.*—Post-mortem the top of the uterus was found to be one and a half inches below the umbilicus, and the weight of the uterus was 14 ounces. There was no general peritonitis, but on the left half of the posterior aspect of the uterus the peritoneum was injected. Douglas' pouch contained about two drachms of free pus. There was no recent lymph or adhesions. Inside the uterus was some blood-stained thin pus, but no retained membranes or placenta. When the pus was sponged off, the surface appeared healthy. The upper part of the vaginal walls was healthy, but contained pus like that in the uterus. There was some sloughing of the lower part of the posterior vaginal wall and the posterior part of the vulva. The true conjugate measured 4 in., and the transverse diameter of the brim was 4½ in. There was no thrombosis or pus in the iliac veins. There was no endo- or peri-carditis. The lungs, pleuræ, and spleen were natural.

*Remarks.*—Apart from the antitoxin treatment there are some interesting points in the case. It is somewhat unusual for so acute a septic process to be unaccompanied by any rigors. The case is a striking example of the extreme value of a high pulse rate in the diagnosis of puerperal fever. It is not uncommon during the first days of the puerperium for the woman to get a rise of temperature and headache without any localizing signs anywhere and with a pulse well under 100. Such symptoms need cause but little anxiety, and generally disappear after a purge. With a pulse of 120, however, the same symptoms are of the utmost gravity. In the present case, for example, the pulse rate was at first the only indication that the fever was of a serious nature, there were no rigors, the lochia were sweet and plentiful, the patient was bright and cheerful, the tongue was clean and moist, and the appetite good. On the other hand, the bowels were loaded, and that might have been accepted as an explanation of the fever and headache. And yet there was an acute septic process going on which was to terminate fatally on the eighth day. In this connection it is interesting to note that during the twenty hours following the first dose of antitoxin the temperature fell from 103.2° to 98.6°; but as this was unaccompanied by any fall in the pulse-rate it was not regarded as a sign of improvement, but merely as a remission of temperature such as occurs naturally in septic cases; and this proved to be the case. Seeing the extreme importance of early treatment in puer-

peral sepsis, and the great value of the pulse-rate as a means of diagnosis in the early stages, I would lay down the following rule: if in the first three days of the puerperium the temperature rises without obvious cause to  $102^{\circ}$ , and is accompanied by a pulse-rate of 120 or more, the case should be regarded provisionally as septic; and if the temperature and pulse-rate are maintained for twelve hours and still no satisfactory cause is discovered the uterus should be curetted and douched without further delay. This was not done so early in the above patient's case because her condition was at first thought to be due to septic absorption from the vagina, and it was hoped that vaginal douching would be sufficient; there would, moreover, have been the risk of carrying septic matter from the vagina into the uterus on the douche tube. Dr. Champneys, in his lectures, and Professor Byers, of Belfast, in a paper read before the British Medical Association last July, emphasize the importance of the pulse-rate in these cases; but the point is, I venture to think, not sufficiently insisted on in text-books. Pain in the back of such intensity as in this case is unusual, and nothing was found to account for it before or after death. The patient's tolerance of morphia was extraordinary; in one night she took three and a half grains hypodermically; the tolerance was genuine, for different samples of morphia were used. As so often happens in fatal septic cases, the condition known as euphoria was well marked; although she was being rapidly killed by acute sepsis the patient felt well, was in good spirits, and until the pain in the back began had no idea that she was seriously ill. Six hours before death she recognized her husband and talked rationally to him. No rash of any kind occurred.

I am indebted to Dr. Boxall, under whose care the patient was, for permission to publish the case.

#### VAGINAL DOUCHING.

Giles (*The Lancet*, May 15, 1897) states that vaginal douching has become such a universal practice, both in the hands of the public and under the supervision of medical men and nurses, that it may be well to review briefly some of the circumstances in which it is required, and the most suitable solutions under varying conditions. At the outset it is necessary to raise a protest against unnecessary and too frequent douching. The researches of Winter, Doderlein, and others have shown that the vagina is normally inhabited by a benign bacillus, to which, through the formation of lactic acid, the acidity of the vaginal secretion is due, and the special rôle of which appears to be to antagonize and disarm of virulence any pathogenic organisms that may enter the canal.

Frequent douching of the normal vagina, especially with soapy and other alkaline solutions, tends to hinder or arrest this beneficent action and to destroy the guardian bacillus. Hence, under the circumstances, morbid conditions are provoked rather than prevented. The same argument applies to the practice of giving a vaginal douche before or during labor, for when this is normal the uterine and vaginal secretions, follow-

ed by the rush of liquor *amni*, tend to sweep the passages in the most effective way—namely, from within outward. Secondly, it is necessary to protest against a long-continued use of very hot douches, whether in health or otherwise. Frequently, in inflammatory and other conditions of the pelvic organs, the medical attendant orders douches "as hot as they can be borne." These have their place, and an important one, for their effect in relieving pain and pelvic congestion is often most marked; but this is provided they be used only as a temporary measure. Not infrequently, no later directions are given, with the result that patients continue these hot irrigations, perhaps twice a day, for months, and the means intended for cure becomes instrumental in prolonging and emphasizing the complaint, by inducing chronic pelvic congestion with its consequent leucorrhœa. The remedy is simple—namely, that patients should be instructed to regard a hot douche as a temporary expedient, to be replaced as symptoms improve by tepid, cool, and even cold irrigations.

The use of a douche for purposes of comfort and cleanliness must be left in large measure to the discretion of patients; but they should be warned of the harm that may result from its too frequent use, as stated above. Therapeutically, the douche is indicated in three sets of conditions: (1) after labor; (2) after vaginal operations; and (3) in the treatment of inflammatory conditions of the vagina, uterus, and appendages.

1. After labor. When the labor has been normal, with little or no intervention on the part of the attendant, and when the puerperium is also normal, it is open to question whether any form of douche should be used. In skilled hands no harm can result, and in lying-in institutions it is probably an advisable routine procedure; otherwise it is probably better omitted. In cases of postpartum uterine atony or hemorrhage a hot douche is indicated, and when there is reason to fear septic developments a course of douching with mild antiseptics is desirable. In actual septic conditions one or repeated injections of stronger antiseptics may be required.

2. After vaginal operations. Here it is usually necessary to resort to vaginal douches for one or several weeks, either to keep the passages clear of blood, which would tend to decompose and so hinder the healing of wounds, or because there has been much manipulative interference. An aseptic or mild antiseptic solution generally suffices; at times, in septic conditions, a strong antiseptic is needed.

3. In inflammatory conditions. In these cases the douching is generally performed, not by the medical attendant or nurse as in the previous conditions, but by the patient herself or a lay friend. Hence more discrimination is required in prescribing potent solutions. Usually a bland solution is all that is necessary; in a few cases, as in gonorrhœa, some stronger antiseptic may be temporarily required.

The fluids to be used for vaginal douching fall into three categories: (1) neutral or aseptic; (2) mild antiseptic; and (3) powerful antiseptic.

1. Neutral or aseptic solutions. Of these the first is plain or sterilized water. For the relief of pelvic pain and congestion this answers perfectly. If a more astringent solution be required we may use alum, one to two drachms to the pint; acetate of lead, one ounce to the pint; chloride

of lead, saturated solution; and permanganate of potash (Condy's fluid) in weak solutions. This is one of the most generally convenient on account of its portability and ready solubility.

2. Mild antiseptic solutions. Among these we may mention: boracic acid or borax, two drachms to the pint; sulpho-carbolate of zinc, two to three drachms to the pint; carbolic acid, 1 in 80 to 1 in 40; tincture of iodine, one drachm to the pint; Condy's fluid, two drachms to the pint; cresol, 1 in 250; lysol, 1 in 250; corrosive sublimate or the biniodide of mercury, 1 in 5,000; or chinolol, 1 in 8,000. Of these, boracic acid, sulpho-carbolate of zinc, and Condy's fluid are perhaps the favorites when prescribing a douche to be used by the patient. Chinolol is comparatively a newcomer, but answers very well. Carbolic acid and iodine are useful for hospital administration. The poisonous character of corrosive sublimate is a contraindication to its indiscriminate use. For milder purposes other things answer as well, and in stronger solutions it should not be used except by the medical attendant. Lysol has the disadvantage of not being readily portable.

3. Powerful antiseptics. These are required after operations, and in obstetric practice, under septic conditions, and in the treatment of gonorrhoea and septic conditions of the vagina and uterus. The most important are: carbolic acid, 1 in 40 to 1 in 20; iodine liniment, one to two drachms to the pint; corrosive sublimate, 1 in 1,000 to 1 in 4,000; and chinolol, 1 in 1,000 to 1 in 8,000. Of the first three we need not speak in detail, as their merits and demerits are well known. The desideratum is a material that shall be portable, readily soluble, non-toxic, and at the same time a powerful antiseptic. From this point of view a few words may be said about chinolol, which answers these requirements, and which, being a comparatively new drug, may possibly not be familiar to practitioners in this country, though used a good deal on the Continent. It is a light yellow powder which belongs to the quinoline group, and is readily soluble in all proportions of water. It is non-poisonous, and for this reason it is especially suitable for use by patients themselves, and its antiseptic action appears to be considerable, being at least equal to that of corrosive sublimate. Where albuminous fluids are concerned chinolol appears to be superior to the sublimate, inasmuch as it does not coagulate albumen; corrosive sublimate, on the other hand, forms an insoluble albuminate of mercury, whereby the antiseptic action is interfered with. Chinolol resembles iodoform in appearance; and if it is intended to be used in dressings or on tampons, as a substitute for iodoform, the chinolol powder requires to be diluted with boracic acid in the proportion of one part of chinolol to five or ten parts of boracic acid.

When strong antiseptic solutions are required for vaginal douching, corrosive sublimate, carbolic acid, and iodine should be used only by the medical attendant; chinolol for use by the patients themselves.

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**PRACTICAL OBSTETRICS.**

BY R. G. WOODWORTH, PUEBLO, COL.

A few suggestions as to my *modus operandi*, under the above caption, may not come amiss, but, on the contrary, be helpful to some of the novices in the profession, and not prove unwelcome even to those of broader experience by reason of the years of devotion to the subject.

One point I wish to emphasize is: bimanual pressure as against the use of forceps in tedious labors. In a number of recent cases I have not failed to carry my forceps with me, not so much because I felt they were indispensable as the fact of the mental impression they produce. Not unusually a patient assumes a physician is broader-minded and more skilled if she sees a few instruments, and it also leads her to believe the doctor has fully equipped himself for every emergency in her particular case. Of course, the rule should be to use the forceps if other means fail. As between ergot and the forceps, I would choose the forceps, but as between the use of the forceps and bimanual pressure, I choose the bimanual pressure in the great majority of instances. There are two points which should be considered before thinking of employing the pressure. The first is, are the contractions sufficiently strong of themselves to expel the foetus? Secondly, is the tenderness of the womb so great as not to admit of pressure? Both of these questions can be decided upon a very casual and superficial examination. When the uterine pains, after dilatation of the cervix, become expulsive, I observe, from time to time, whether any progress is being made, and if so well and good; but, after a given length of time, if the foetus fails to advance and seems apparently to be lodged, I do not hesitate to use the pressure. How is the pressure applied? I seat myself at the side of the patient with a good-sized pillow on the opposite side of the patient on which to rest my elbow. The arm resting on the pillow, of course, is more or less fixed. The other arm, if it be the right (which is usually the case) can easily be aided by being pressed upon by the right knee. By this powerful means of applying bimanual pressure sufficient force can be brought to bear upon the womb during contraction as shall be immediately apparent in effecting the progress of delivery. It is plain that only sufficient force should be employed as to accomplish the desired end, namely, slight progress. The pressure should be employed only during the contractions of the womb, and a weak and inefficient contraction, augmented by pressure, can be made to accomplish a mighty work in hastening delivery.

I said that a tender womb is a contra-indication to the application of this pressure. It is not necessarily so, for if it be remembered to use the pressure only during the height of the pain the patient seldom complains.

Much of the work in obstetrics in every part of the country is done by midwives, and to say the least, they know about as much about this important branch as swine do of roller skates. If Nature will do the work without their intermeddling, or, to speak more correctly, in spite

of it, the patient is certainly fortunate, the midwife gets the praise, her egotism has gone up a notch, and she is prepared to assume greater risks in the future.

Only a short time ago I was called to assist a woman in delivery who had been in pains for three days with fever, thirst, restlessness and tenderness; the vagina was hot, the uterus exhausted, and the midwife and neighbors frightened. I first gave the woman ten grains of quinine, anointed the vagina, which was dry, with vaseline, and as soon as she began to feel the effects of the quinine I commenced the bimanual pressure. In about thirty minutes the child was born. The question might be asked why I did not give ergot to bring on the pains. The reason is that my experience with the use of this drug before the delivery of the placenta has not been very flattering. In many instances when the drug is used the uterus contracts down on the placenta and imprisons it so tightly as to require much labor and worry to accomplish its expulsion, and even then only at the risk of portions being left behind which necessitate judicious surveillance of the case for some time, with possibly the subsequent evils which occur under such circumstances.

Forceps, like drugs, are exceedingly dangerous except in skilful hands. Bimanual pressure is efficient and free from harm, and the mere novice can employ it with results as gratifying to himself as they have been to me, and at the same time not subject himself to the contempt of the family, which is pretty apt to show itself consequent upon the injury resulting from unskilful or improper manipulation of the forceps.—*The American Journal of Obstetrics.*

CREOSOTE IN GASTRIC AFFECTIONS.—According to Dr. Th. Zangger (*Sem. méd.*), a mixture made as follows has given him excellent results in cases of infantile gastro-enteritis and various dyspeptic conditions:

|                           |                  |
|---------------------------|------------------|
| ℞ Beechwood creosote..... | 3 drops.         |
| Alcohol.....              | 1 gme.           |
| Gum arabic powd.....      | 10 gme.          |
| Syrup.....                | 30 gme.          |
| Orange-flower water.....  | 10 gme.          |
| Water.....                | to make 100 gme. |

M.

Sig. A teaspoonful for children, or tablespoonful for adults, immediately before each meal

The writer has found that creosote in small doses exerts a particularly favorable action, and that, under its influence, gastric affections and diarrhoea, when due to gastric derangement, rapidly recede.—*Am. Med.-Surg.*

*Bul.*

Carbolic acid also acts in the same manner, and a question which occurs to us is as to whether the good effects observed from the use of the creosote, as indicated above, may not be due to some free phenic acid.

## NERVOUS DISEASES AND ELECTRO-THERAPEUTICS.

IN CHARGE OF

CAMPBELL MEYERS. M.D., C.M., M.R.C.S., Eng., L.R.C.P., Lond.,  
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### THE NERVOUS SYSTEM IN DISEASE.

BY JOSEPH F. EDWARDS, A.M., M.D., ATLANTIC CITY, N. J.,

Fellow of the College of Physicians of Philadelphia; Ex-Member State Board of Health of Pennsylvania; Foreign Associate Member French Society of Hygiene, etc.

Some five years ago a girl of fourteen (a member of my own family), who had all through her life presented every appearance of robust health, after a period of close application to study commenced to present evidences of some little loss of her previously vigorous health; and one day said to me, laughingly: "I am getting paralyzed; I have no feeling in my fingers. You could cut them off and I would not feel it." For two weeks at intervals she would repeat this remark, then run off to her books or play, and no attention was given to these supposedly insignificant and meaningless complaints. It should be particularly noted that the outward, obvious evidences of departure from vigorous health were so insignificant as not to attract attention, and only to be remembered and recalled in the light of subsequent events. This young girl retired one night in her usual health. In the morning she was the sickest-looking child I have ever seen; she presented symptoms of perihepatitis, pleurisy, and, subsequently, double pneumonia, with death from heart failure at the end of two weeks.

In the very beginning of the illness I enquired into the condition of the different organs, to ascertain whether they would be likely to carry her through the contest. In the course of this examination, made at the onset of the disease, I was struck at finding in the urine enormous deposits of the earthy and alkaline phosphates. Owing to personal reasons this case made a deep and lasting impression upon me, and this enormous phosphatic deposit was constantly in my mind, until, so to speak, unconsciously the question evolved itself, whether a broken-down nervous system had not preceded and made possible the development of the disease; whether we are not putting "the cart before the horse" when we teach that prostrated nervous systems are the results of disease; whether prostrated nervous systems are not always a necessary pre-requisite of disease, whether that which we call the result is not, in truth, the cause.

Then I commenced to examine the urine of every patient that came before me, with the invariable result of finding a very great deposit of phos-



phases in all conditions of weakness or prostration, and an extremely slight deposit in disorders not attended by prostration. Then I began adding to my routine treatment for the particular disease under consideration nerve tonics or nerve sedatives, as I would find an excess or deficiency of phosphatic deposit. My results were good; so very good that I found myself securing the reputation of a "specialist in nervous diseases" among my patients.

Then I commenced to look for a theory that would fit into my observation and experience, and I elaborated the following doctrine, a brief outline of which I now submit to my professional brethren.

I have come to regard the various organs and parts of the body merely as agencies for the manifestation of a force that is generated in the nervous system. The functions of digestion, assimilation, excretion, circulation, calorification, respiration, and so on throughout the whole list of vital functions, I have come to regard as manifestations of a force generated in the nervous system. Just as one central dynamo may furnish heat, light, motion, or sound, in accordance with the construction of the agency through which the force generated in and by the dynamo is made manifest—so the stomach will digest, the kidneys will excrete, etc., not because of any power resident within, or generated within themselves, but because of a latent resident power incited to activity by the force generated in the nervous system. In other words, my idea is that, while capable of function, no organ can originate within itself the force necessary for its function. The carbon points are necessary for the manifestation of the electric light; the car is necessary for the manifestation of the electric force generated for motor purposes; but neither the carbon points nor the car are capable of generating this force within themselves. The stomach, liver, spleen, kidneys, lungs, heart, etc., are all necessary for the manifestation of vital force familiar to us as life, but not one of those organs can originate within itself this force.

According to this doctrine, we would be compelled logically to regard the nervous system as the vivifying, regulating, controlling portion of the body, and so I took it to be; I did not, and do not, think that I am advancing any new physiological doctrines, but simply that I am suggesting a wider and more universal application of those already taught. So I thought, until I was staggered by the replies received by me from the professor of physiology in one of our leading medical colleges, to some queries bearing upon this question.

1. Is not the nervous system the only portion of the body capable of originating force? To this query our professor replies, No.

2. Can any organ perform its function because of a force or power originated within itself, independently of the nervous system? To this query he replies, Yes.

3. Would functional activity be possible without the force originating in and transmitted from the nervous system? To this he replies, Yes.

Now, while these replies may be in accord with physiological teaching, are they correct?

The affirmative reply to query No. 2 would seem to imply that each individual organ of the body constitutes in itself an entity capable of independent existence. Is this correct?

Does not an affirmative reply to query No. 3 imply that the voluntary muscles possess in themselves the power of contraction and relaxation independently of the nervous system, and, if this be true, why does paralysis of certain muscles follow a remote injury that interferes with the transmission of force from the nervous system to these muscles? If the bladder can perform its function independently of the nervous system, why does paralysis thereof result from injury to the cord? If the heart is a complete entity, capable of independent function, why will destruction of the cerebellum arrest its action?

These queries have arisen in connection with my doctrine that a disordered nervous system is a pre-requisite to the existence of disease.

It seems to me that we can make two grand divisions of all diseased or disordered conditions:

1. Functional derangements, in which there is no alteration of structure; simply a defect in quality or quantity of vital force.

2. Nutritional or organic, for in all organic diseases, not mechanical, the fundamental lesion is an alteration in the structure of the diseased part; hence it is a nutritional change.

If, then, the nervous system originates the force or power necessary for function; if nutrition is a function; if a normal nervous system will originate normal, and an abnormal nervous system abnormal force—does it not logically follow that an abnormal nervous system must precede an abnormal functional or nutritional derangement of any organ, or part, that is not mechanical or produced by a mechanically acting cause? Let it be understood that when I speak of the "nervous system," I am not confining my reference to the brain and spinal cord, but that I include, of course, nerve tissue wherever it may be found. With this understanding, is it not true that the nervous system is the only portion of the body capable of originating force; that a normal nervous system is absolutely inimical to an abnormal condition of any remote organ; and that, in seeking to locate the seat of original departure from health, must we not look for it in some abnormal condition of the nervous system? If my contentions are correct, will it not logically follow that, with organic disease in which some organ is so damaged structurally as to be incapable of perfect function, the measure of function to be derived therefrom will depend upon the quantity and quality of vital or nervous force with which it is supplied, and that the quantity and quality of this force will depend upon the degree of integrity of the nervous system that originates it? Hence are we not compelled to fall back upon the nervous system as the ultimate element in etiology, and to start with it as the primal element in therapeutics?

### REPORT ON NEUROLOGY.

BY A. FERREE WITMER, M.D.

A CONTRIBUTION TO THE PATHOLOGY OF EPILEPSY.—Dr. Collins, of New York, is the author of this paper (*Brain*). After localization of the convulsive movement, the offending portion of the motor-area was excised and examined in two cases. In the first case was found:

(1) Meningo encephalitis, chronic in type, with acute exacerbation; this latter probably occurring subsequent to the operation.

(2) Marked obliterative changes occurring in the bloodvessels of the pia and cortex.

(3) Slow degenerative changes in the ganglion cells.

(4) Softened areas; probably resulting from the obliteration of some of the bloodvessels at the junction of the white with the gray matter.

(5) Replacement of the softened area by true neurologic tissue.

In the second specimen the author noted scattered points of hemorrhage, although the superficial layers of cells, including the small pyramids down to the layer of large pyramids, seemed normal. The large pyramidal cells are diminished both in number and in size while their processes are attenuated. The nuclei, too, are not as distinctly outlined as normally; in many cells no nuclear structure can be made out.

CASES OF PARAPHASIA AND WORD DEAFNESS.—(*American Journal of Insanity*). In this paper, Dr. Worcester suggests that the examination comprise:

(1) Ability to comprehend spoken words, best tested by directions to be followed by the patient.

(2) The memory of words; best tested by requiring the patient to name objects.

(3) Ability to repeat spoken words.

(4) Ability to read.

(5) Ability to write spontaneously, or after dictation.

(6) Ability to copy written or printed matter.

PATHOLOGY OF EPILEPSY AND OTHER CONVULSIVE DISEASES.—(*Journal of Nervous and Mental Diseases*). Dr. Langdon concludes in this article that:

(1) Epilepsy, chorea and probably most convulsive disorders are the dynamical expression of an inhibitory insufficiency, not indicative of an overproduction of nerve-energy, nor due to a molecular irritability *per se*.

(2) That the cause of the inhibitory insufficiency is to be sought in the end bulbs of the collateral processes of various cortical neurons, the situation varying with the type of disease whether inhibitory, sensory, psychic, or motor.

(3) That this defect consists most probably in a structural incompleteness, or a numerical deficiency—possibly of both—in the collaterals referred to.

These defective collaterals may favor recurrences of convulsions in two ways:

(1) By impairing connection with the neuron (inhibitory storage).

(2) By increased resistance to overflow currents, causing a temporary overcharge of motor axis cylinders.

## PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

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### THREE CASES OF HÆMORRHAGIC DIPHTHERIA.

BY J. W. W. STEPHENS, M.B., LAWRENCE STUDENT OF PATHOLOGY; AND  
C. D. PARFITT, M.D. (TRIN. TOR.)

From the Pathological Laboratory, St. Bartholomew's Hospital, London.

The escape of diphtheria bacilli into the blood and tissues has now been so often demonstrated that it hardly requires further observations to establish the fact that in fatal cases of diphtheria the Klebs-Löffler bacillus may be found in the heart's blood, the lungs, spleen, lymphatic glands or kidneys. We need only allude to the studies of Frosch, Wright, and Kanthack, and Stephens, where numerous references to the works of others will be found. One of the most serious complications of diphtheria, and one which generally portends a fatal issue, is septicæmia or hæmic infection. In most cases when this occurs we have streptococcus infection. This has been especially insisted upon by Wright and Stokes and, since, by Nowack, who apparently is ignorant of the sound work of the American observers. Nowack in 22 cases of fatal diphtheria found the streptococcus 21 times, and 9 times together with the diphtheria bacillus, and once a bacillus resembling the diphtheria bacillus in almost all points, except in virulence. Howard has described a case of endocarditis in which he found an organism which he identified as the diphtheria bacillus, although it was not pathogenic. It is an acknowledged fact then, that in many, if not in most, fatal cases of diphtheria, pyococci, and more especially streptococci, are found in the blood, and this is also strongly brought out by observations made at St. Bartholomew's Hospital, where, in most cases, streptococci have been found after death in the heart's blood or spleen.

During the last two years we have had an opportunity of examining three cases of hæmorrhagic diphtheria, in two of which a complete examination could be made, while in the third the blood was examined during life, and after death the spleen was sent up for examination.

Hæmorrhagic diphtheria is almost always fatal, even with the anti-toxin treatment, and the disease is so eminently septic that *à priori* we should expect in such cases to find an infection of the blood. Austin and Cogill cite 58 cases, all being fatal with one doubtful exception. In 12 cases antitoxin was used. Goodall describes 6 cases—only one re-

covered. So far as we know, there are no complete bacteriological observations of such cases to be found in literature, and, therefore, we venture to place our own investigations on record, although we dispose of not more than three cases.

1. The first case we owe to the kindness of Dr. Richards, who sent us the spleen after death. A bacteriological examination revealed the presence of the diphtheria bacillus. The blood examined during life by one of us also showed diphtheria bacilli. These were found to be virulent to guinea-pigs.

2. The second case died at St. Bartholomew's Ho-pital.

#### ABSTRACTED REPORT.

*2nd Case.*—Child 13 months, admitted March 12th, 5th day of disease—Membrane on fauces and soft palate; discharge from the nose. Diphtheria bacilli found in throat. March 20th, general erythematous rash; gone by 23rd. On March 26th fresh erythema over buttocks, back, face and abdomen; next day purpuric; on 30th convulsions and death. Temperature had ranged from 100.4 to 103.8. The writers give evidence to show that the rash was not attributable to antitoxine.

Bacteriological examination of the throat during life. Gave *B. diphtherias-diplococi streptococci, strephylococci.*

Ear, during life, *B. diphtheria-diplococci.*

At autopsy a general pneumococcus infection was found, *B. diphtheria* being found only in ear and pharynx.

*3rd Case.*—Child 4 years. Admitted to hospital moribund, and died soon afterward.

Few purpuric spots on body.

Sloughing condition of throat extending slightly into the mouth.

*Post-mortem.*—Bacteriological examination: Heart's blood, kidneys and pharynx yielded *B. diphtheria* and streptococci; lungs, larynx and spleen, *B. diphtheria.*

This case is, therefore, one of hæmic infection—the infective agents being streptococci and diphtheria bacilli. In the spleen no streptococci were found, and in the bone marrow no diphtheria bacilli.

It appears, therefore, that here we are dealing with a double infection.

As objections might be raised in some quarters, as has been done on a former occasion, when Kanthack and Stephens described the constant presence of diphtheria bacilli in the lungs of children that died from diphtheria, that the bacilli found in the lungs were not true diphtheria bacilli, but belonged to the "pseudo varieties," we may answer all such objections by means of animal experiments. Forty-eight hours old broth cultures were fatal to guinea-pigs in doses of .5 c. c. in from 36 to 48 hours; but when mixed with 1 c. c. of antitoxin (Burroughs & Wellcome) they lost their virulence. The effects of broth cultures of the bacilli obtained from the heart's blood, injected in the same doses, were also neutralised by 1 c. c. of antitoxin. We take it that this is specific evidence that the bacillus obtained from the lungs (and blood) was a typical diphtheria bacillus.

We may mention here that at the Pathological Laboratory of St. Bartholomew's Hospital, hardly a fatal case of diphtheria is examined which does not show diphtheria bacilli in the lungs; the bacilli are almost always virulent, and, if so, their virulence is neutralized by diphtheria antitoxin. Microscopical examination of the lungs by paraffin sections invariably shows patches of broncho-pneumonia or capillary bronchitis and diphtheria bacilli in the bronchioles or diseased alveoli. The fact that diphtheria bacilli in fatal cases have escaped to the lungs, rests, therefore, on incontrovertible evidence.

Summing up, then, we have found that in our three cases of hæmorrhagic diphtheria, organisms were present in the blood, and that these were either the organisms of the primary infection, viz., diphtheria bacilli, or pyococci; or diphtheria bacilli combined with pyococci; and we believe that in most, if not in all, cases of purpuric diphtheria, micro-organisms will be found in the blood.

Hæmorrhagic eruptions, appearing during the course of infective lesions or fevers, are generally due to hæmic infections. We are permitted, by the kindness of Dr. Kanthack, to quote from his notes, in several cases, admitted or diagnosed as purpura, pyococci were found in the heart's blood, and in many of the viscera, as, for instance, the liver, spleen, and cardiac muscle; purpura complicates cases of infective endocarditis and traumatic septicæmia, typhoid fever, and even pneumonia; and in all these cases micro-organisms are found in the blood, generally pyococci, but occasionally also the organisms of the primary infection, should these not belong to the group of pyococci, as *e. g.*, the bacillus of typhoid fever.

In one case, examined by Dr. Kanthack together with one of us, the patient is said to have died of peliosis hæmorrhagica, *i. e.* a form of general purpura. After death, true diphtheria bacilli were found in the spleen, typical in every respect, and virulent. There was no history of diphtheria, and nothing was detected suspicious of diphtheria; it must be remarked, however, that diphtheria was not looked for.

We may ask, therefore, was this one of those cases alluded to by Dr. Gee, where the diphtheritic affection of the throat is so slight that the character of the disease is wholly overlooked, and the death of the patient is certified as due to purpura hæmorrhagica? If so, this was such a case of hæmorrhagic diphtheria where bacilli were found in the spleen, whither no doubt they had been carried by the blood.—*Journal of Pathology and Bacteriology.*

H. C. P.

DECIDUOMA MALIGNUM: METASTATIC DEPOSIT IN BRAIN.—Jurasovsky (*Vratschevnia Tupisky*, writes of a case of deciduoma malignum which developed two years after the expulsion of a vesicular mole. An operation proved fatal. The disease was disseminated. A mass of true deciduoma was found in the cerebrum; it was as large as a plum, and lay in the white substance of the right hemisphere under the parietal convolutions which were flattened, and the cerebral substance around the growth was somewhat softened. No previous case of secondary deciduoma in the cerebrum has been recorded.

### IS THERE A FATTY DEGENERATION ?

Rosenfeld (Fünfzehnte Kongress für innere Medicin, Berlin, June 9 to 12, 1897; *Centralblatt für innere Medicin*, June 26, 1897) has tried to solve, in an interesting manner, the question whether there is such a thing as fatty degeneration, and has arrived at the conclusion that there is no such process. The differentiation of fatty processes into two—infiltration and degeneration—was based on the hypothesis of the origin of fat from albumin, which hypothesis, the author tells us, has been disproved by Pflüger. He (Rosenfeld) has investigated many of the conditions in which fat is apparently formed from albumin, as the fatty liver of phloridzin- and phosphorus-poisoning, and the formation of milk. In fasting animals receiving phloridzin, fat to the amount of 75 per cent. is stored in the liver. But this fat cannot be derived from the albumins of the hepatic cells, for the quantity of albumin in the liver is not materially diminished.

The fat has been carried from the "fat-depots" to the liver, as may be observed in dogs that, having through long starvation become devoid of fat, are then fed with a foreign fat—*e.g.*, sheep-tallow. When such sheep-tallow dogs are given phloridzin, the sheep-fat is carried from the subcutaneous tissue to the liver, in which nearly 50 per cent. of such fat may then be found. In phosphorus-poisoning the fat is also only infiltrated, for in totally fat-free animals phosphorus-poisoning is not able to produce fatty liver, because the fat-depots are empty. If the fat originated from albumin, it is difficult to understand why it is not formed from the abundant albumins present. If the sheep-tallow dog is poisoned with phosphorus, the fat is carried from the depots to the liver, which may store as much as 40 per cent. of sheep-tallow. That the fat in the milk is not derived from albumins was shown by the following experiment: A sheep-tallow slut was allowed to become pregnant, and then received only the leanest meat. The fat in the milk was sheep-fat hence it cannot have been formed in the body of the animal, for then it would have been dog-fat, but must have been conveyed to the mammary glands from the fat-depots.

The theory of a fatty degeneration, the author insists, must be entirely relinquished; in its stead is to be placed that of an albuminous degeneration of the cell; this injury to the cell is followed by the infiltration of fat as a reparative attempt.

The fat of the organism consists of the fat of the food and that formed from the carbohydrates.

### SOME COMPLICATIONS AND TERMINATIONS OF INFLUENZA.

A. Fraenkel (*Berliner klinische Wochenschrift*, April 12 1897), in an address on this subject, gives a very good description of influenza-pneumonia. This form of pneumonia is characteristically lobular, the inflammatory process spreading from the bronchi to the alveolar passages and alveoli. Microscopically, these spaces are all densely and almost exclu-

sively filled with leucocytes. In the bronchi their number is so great that they not only penetrate between the epithelial cells, but even cause a partial detachment of the epithelial lining. As the interstitial connective tissue, especially the peribronchial, is often also infiltrated with round cells, the appearance is frequently such as to suggest that the process has already advanced to suppuration. The absence of fibrin is noteworthy, and is one of the reasons why the infiltration has to the naked eye a smooth appearance. The influenza bacillus can, however, produce a fibrinous pneumonia, although the author admits the possibility of a superadded pneumococcus infection in cases of fibrinous pneumonia developing in conjunction with influenza-pneumonia.

As a terminal stage of influenza, Fraenkel mentions, among others, pulmonary gangrene, which occurred in 7.5 per cent. of his cases of influenza-pneumonia. An occasional result of the rupture of a gangrenous area is putrid pleurisy, which may be interlobular, and is then difficult of diagnosis. The arterial and venous thromboses sometimes occurring during the course of influenza, the author ascribes to changes in the intima produced by the poison. Arterio-sclerosis may follow influenza.—*Univ. Med. Mag.*

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### DO DOCTORS CURE DISEASE?

The public should be educated up to the idea that disease is not altogether an evil; that it is simply a manifestation of morbid conditions present; and that if these are removed at all, it must be, as a rule, by the efforts of nature, through the natural forces of the body—the *vis medicatrix naturae*. To check these efforts without removing the cause of the difficulty is to interfere with the natural process and to make the patient worse rather than better. Physicians should continually instruct their patients that nature is the great physician and that if they are cured at all it must be by the recuperative powers of their own bodies, the duty of the physician being simply to aid nature in accomplishing this.—*Modern Medicine.*

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ETIOLOGY OF CHRONIC RHEUMATISM.—Chvostek, at the Congress für innere Medicin at Berlin (*Fortschritte der Medicin*, June 15th, 1897), stated that there was no ground for supposing chronic rheumatism to be a disease of bacterial origin. The great variability in the course of the disease is strongly opposed to any such view; the only two characteristic features of the disease are the joint swellings and the transitory duration of these. The most satisfactory explanation is to regard the symptoms as due to toxins, which are produced in the body but are not produced by micro-organisms. Bacterial invasion gives rise to a very different kind of joint inflammation, characterized chiefly by its long duration, and the large amount of swelling which accompanies it.—*Brit. Med. Jour.*



EXPULSION OF LIZARDS AND WORMS.—Dr. G. W. H. Frew of Paradise, Pa., writes that he had a rather unique case in which worms and lizards were passed by the bowels. There were eight lizards and quite a number of worms and none were vomited. "The young man," says Dr. Frew, "was 24 years old and had been suffering for six or seven months with all symptoms peculiar to dyspepsia, intestinal catarrh, etc., and had been treated for same, all to no avail. I treated him myself for the same trouble for one month. His appetite at times was good, and again poor, always a weight and a colicky pain after eating and often nausea and vomiting, sometimes diarrhoea, and again constipation, headache, vertigo, and greatly emaciated, losing at least twenty pounds in three or four weeks. The colicky pains would come on him at any time and would be quite severe at times. I came to the conclusion that there might be something foreign there and gave him anthelmintics only as an experiment, and in less than six hours passed three or four lizards and during the day passed the rest, and quite a number of worms. I kept him on anthelmintics for one week, but only a few came from him. He is improving very rapidly."—*Maryland Med. Journal*.

## FAVUS.

R Acid carbolie.  
 Bals. peruv.....āā 100  
 Petrol.  
 Glycerin.....āā 100.0

M. Sig.—For external use. The hair of scalp should be washed first with liquid soap, then shaved and painted daily with the above solution.—*Khrenitschek. (Pediatrics)*.

MACBETH UP TO DATE.—Our poetical friend of The *Jefferson Med.* Age gives way as follows:—

"Thyroid of a black-faced sheep  
 In the cauldron boil and steep;  
 Brain of pig and spine of dog,  
 Testes of lascivious hog,  
 Pancreas of white-faced calf  
 Plunge in the mysterious bath;  
 Double, double, toil and trouble,  
 Fire, burn, and cauldron, bubble!  
 Medulla of a rabid bitch,  
 Lain a fortnight in a ditch,  
 Bacillus of an anthrax rat,  
 Cocci grown in putrid blood  
 Will make the spell both strong and good  
 Double, double, toil and trouble,  
 Fire, burn, and cauldron, bubble!"

## NOSE AND THROAT.

IN CHARGE OF

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Laryngologist to St. Michael's Hospital. 32 Carlton Street.

D. J. GIBB WISHART, B.A., M.D.C.M., L.R.C.P.L.

Professor of Laryngology, etc., Ontario Medical College for Women; Lecturer in Laryngology and Rhinology, Trinity Medical College; Rhinologist and Laryngologist to the Hospital for Sick Children, St. Michael's Hospital, and the Girl's Home; Toronto General Hospital 47 Grosvenor Street.

### OXYGEN GAS

*As a Local Therapeutical Agent in Purulent Discharges from the Nose, Ear and Suppurative Surfaces.*

BY W. PEYRE PORCHER, M.D.

It was the good fortune of the writer while abroad last summer to have the opportunity of visiting a home, under the care of Dr. George Stoker, M.R.C.P.I., of London, for the treatment of old ulcers, burns, chronic otorrhœa, ozæna, and all suppurative surfaces by the local application of oxygen gas. It was clearly demonstrated, both with the microscope and clinically, that the action of the gas was strongly antiseptic, aseptic and analgetic. In addition to this it was highly stimulating, and by its rapid absorptive effect proved itself to be perhaps the greatest of tissue builders known to science. The aseptic and antiseptic influence of the gas is demonstrated because it is generated from chemicals under a high temperature, passed through strong caustic solutions, and finally through a solution of permanganate of potassium, so that it is absolutely free from bacteria.

Suppurative surfaces exposed to it were rapidly freed from all fœtor, and, strange to relate, pain was also abolished; cultures taken from the wound show that the *Staphylococcus albus aureus* and *citreus* rapidly increase, and all other bacteria disappear. It has been supposed either that the other bacteria are starved out by the gas, or that the above-mentioned germs feed upon the others. The wounds were therefore inoculated with a pure culture of these bacteria, and it was found that the healing process was greatly accelerated thereby. It was therefore clearly shown that these germs were really the prime agents in the process of repair, and that their growth should be cultivated and encouraged rather than retarded, as has been supposed heretofore. In spite of the well-proved antiseptic and stimulating influence of the gas, it has been urged that ulcers which were daily washed with warm water and the limb rested would have healed without the aid of the gas. This may be undoubtedly true in some instances, but in cases where the ulcerated surface completely encircled the limb, or covered an area extending from the knee

almost to the ankle, the above theory would be manifestly absurd. Again, in chronic otorrhœa, with polypous tumors in both ears, it would scarcely be likely that the tumors would dry up and fall out with the aid of warm water alone, but I can bear personal testimony to the fact that this has been accomplished under continuous exposure to the gas, and also that I have seen a burned surface ten inches in diameter healed, protruding bone made to exfoliate, and old and intractable ulcers of all kinds entirely healed in a very rapid and satisfactory manner.

Thus far I have confined my personal investigation almost entirely to the local influence of the gas in cases of ozæna and chronic otorrhœa, and the results in the limited time at my disposal have been exceedingly gratifying.

*Otorrhœa.*—The first case in which the gas was used was that of a child of seven years of age of a scrofulous diathesis, who had had a purulent discharge from the ear almost since infancy. About one year ago she was brought to me. Suspecting that the discharge might possibly be caused by poor nutrition, difficult respiration, chronic rhinitis, etc., I removed, under chloroform, quite a considerable mass of adenomatous growth from the vault of the pharynx. The general health of the child improved greatly after the operation, but with occasional intermissions the discharge from the ear continued to be more or less profuse. In January of this year the child was brought back to me and the following condition was found: There was an overpowering fœtor coming from the ear, and the meatus was entirely occluded by a hyperostosis with general hyperæmia of the walls. Wishing to test the effect of the gas alone upon the case, I confined myself entirely to washing the ear out from two to three times daily with warm water, and keeping it exposed to the action of the gas from four to six hours daily. Unfortunately, the parents of the child proved very intractable, and it was only with difficulty that I could carry out the treatment. After persevering, however, for a month or more, the condition of the ear was found to have changed greatly; there was no sign either of fœtor or discharge, and the general hyperæmia had lessened greatly. I then urged the parents to permit me to remove the hyperostosis, fearing a return of the condition. This unfortunately, however, they declined to permit, and the child was taken home, much to my regret. I have since learned that the operation has been successfully performed in another city.

*Otorrhœa.*—The next case was also a case of chronic otorrhœa of long standing in a child of six years. In this case, like the first, the external ear was so narrowed by the prolonged presence of the discharge that the child was almost completely deaf in that ear; the gas was applied here, as before, with daily washing of warm water; but in addition I made an application of nitrate of silver fused on a probe, in order, if possible, more rapidly to reduce the hyperæmic condition. After about six weeks this exact effect was obtained, in spite of the fact that the parents persisted in bringing it to my office through all the changes of climate, cold and damp weather, with constant intermissions, when the weather was so intolerable that to venture out was out of the question. However, when the boy left me there were no signs of discharge or odor. The ear had opened up greatly, and the hearing was somewhat improved.

*Ethmoid Disease.*—Miss M. P., aged sixteen years, was referred to me by Dr. J. A. Mood, of Sumter, for chronic catarrh. She first noticed the catarrh after an attack of measles in 1890. I found the right nostril filled with crusts which she could not remove without much difficulty. The left nostril was not at all involved, but she had suffered greatly from incessant and long-continued headaches. She had consulted many physicians, and among them had spent three weeks under the care of a specialist in New York, who had sent her home with the statement that no improvement could be hoped for in the case. After thoroughly cleaning the right nostril of large masses of accumulated crusts, I detected pus extending between the upper and middle turbinates, and almost complete adhesion of the upper turbinate to the sæptum—the lower turbinate having retracted so much on account of the prolonged presence of the disease that it almost seemed to have disappeared. I broke up the adhesions between the upper turbinate and the sæptum and drilled into the ethmoid cells with the burr drill and the electro-motor, so as to give as free an outlet to the pus as possible. A solution of peroxide of hydrogen was then injected into the opening and it was packed with a strip of iodoform gauze daily.

This operation, as indicated by other writers on ethmoid disease, has had to be repeated frequently, but with great care to avoid puncturing the orbital cavity, and the washing and packing have been removed daily. In order, in addition, to get the full antiseptic and stimulating effect the nasal mucosa has been exposed to the local action of oxygen gas from four to six hours daily. The result in this case has been perfect. She has absolutely no crust formation in the nose whatever, no fœtor of breath, and her headaches have stopped entirely. It is impossible for me to say just how much the oxygen gas was responsible for this improvement, but I am quite sure that I could never have hoped for so perfect a result without its aid. The patient left for her home feeling bright and cheerful, and entirely freed from the low, depressed condition in which she first came down.

It had been my intention especially to report the microscopical study of these cases, but, owing to some accidents and my inability to obtain exactly suitable apparatus, I have been unable to do so. I hope in future, however, to be able to show the micro-photography of each case, so as to demonstrate beyond question the accuracy of the observations made, as well as the results obtained.

The clinical results, however, as I said before, have been extremely gratifying. In each case of otorrhœa on which the gas was used there has been complete and prompt disappearance of the discharge and the fœtor likewise. In ozœna the crusts have ceased forming, the odor has stopped, and the nose has taken on a healthy appearance. Of course it must be said here also that I have not overlooked at the same time any other measures from which my patients might derive benefit. I have given as free outlet as possible to all pus cavities, and have given iodide of potassium internally for its alterative action upon the system and stimulating influence upon the excretory glands; but this did not in any

way interfere with the local influence of the gas upon the organs or change its effect.

The influence of the gas on old intractable ulcers and large raw surfaces was very thoroughly demonstrated to me while abroad at Dr. Stokes' home in London. The ulcers were daily washed with warm water and kept exposed to an atmosphere of oxygen gas. The leg or arm was kept in a box, which was closed by means of a rubber funnel, and there was a glass top on the box through which the process of healing might be observed. The surfaces of the ulcer could be daily seen to become smaller and smaller, until it was completely healed. All pain and fœtor would disappear very soon after the treatment began, and the cicatrices left would be perfectly smooth and filled with blood-vessels. There were none of the usual star-shaped indurations and hard ridges which usually remain after a burn or old ulcer has healed, but the spot would resemble the healthy skin as it appears in the palm of one's hand more than anything else to which I can compare it. The failure of the gas to produce any extremely marked results by inhalation has been supposed to be due to one of two causes: either that the patient failed to absorb enough of the gas to stop the progress of the disease, or else the destruction of lung tissue was so great that the absorption of gas was rendered impossible. However, I am now experimenting with the gas in laryngeal tuberculosis, and I will report the results obtained in a later paper.

NOTE.—Since the foregoing was written there has been under treatment for laryngeal tuberculosis a patient whose sputa were filled with bacilli, and who could only speak in a whisper. Her voice has been restored, the bacilli have disappeared, her cough has almost entirely stopped, and her temperature is normal. She has an excellent appetite and sleeps well. In her case I have also given creosote internally, and injected guaiacol with petroleum into the larynx.

#### FATAL HEMORRHAGE FROM THE REMOVAL OF ADENOID VEGETATIONS.

Schmiegelow (*Monatsschrift für Ohrenheilkunde*, 1897, No. 3; *Centralblatt für Chirurgie*, August 14, 1897) reports a case not his own, but occurring in the practice of a surgeon who had often done the operation without mishap. The patient was a boy, twelve years old, who showed nothing strikingly abnormal beyond a pronounced adenoid habitus and scrofulous glands in the neck. The operation was done without anæsthesia, and the ordinary Gottstein annular knife was used. Without any warning, a sudden gush of arterial blood issued from the mouth and nose. In spite of prompt tamponing and subcutaneous and intravenous saline injections, death occurred in a few minutes. The internal carotid artery was found to have been opened just in front of its point of entrance into the carotid canal of the pars petrosa ossis temporis. The author supposes that swollen glands had pushed the vessel forward, so that the pressure of the knife caused its rupture, for it was not cut.

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The *BERLINER KLINISCHE WOCHENSCHRIFT*, 22nd March, 1897, publishes a report upon some experiments that have been made under the direction of **PROFESSOR GERHARDT**, in his clinic at the Charité Hospital at **BERLIN**, demonstrating the value of **APENTA WATER** in the treatment of obesity and its influence on change of tissue.

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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—one-

fourth 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 antikamnia 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 antikamnia.



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

The above trace shows plainly that unlike other coal-tar products, antikamnia 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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| Number of deaths . . . . .                                                                | 161       |
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## Editorial.

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### MODERN METHODS IN MEDICAL TEACHING.

It may be of interest to many, and should be to all, to collate ideas on the changes that have occurred in the teaching of the medical sciences due to the modern advances in medical knowledge. The first thing that strikes even the least observant is the enormous increase in the extent of the ground to be covered by the student. Even in the past ten years this increase is perhaps little understood by either student or practitioner, as each is ignorant of either the new or the old conditions, and therefore not in a position to institute a comparison. The teacher of medical subjects who is trying, as best he can, to keep up in the race, is perhaps the only one who can form a correct judgment on the matter. The recent very general increase in the length of time to be spent on the curriculum in all English-speaking communities is abundant evidence that a change has taken place; for both in the United States, in England, and in Canada, the old requirements of at least four terms of six months have been lengthened out by summer sessions and such devices, till now from a period of often only eighteen months actual study, there has grown a course of at least forty-five months in Britain (five winter sessions of six months and as many summer sessions of three months) and in Ontario four six months winter sessions, one ten weeks summer session, and a fifth year of twelve months, or thirty-eight and one-half months. These remarks refer, of course, to medical schools of good reputation only, as there are still many schools, mostly outside the British Dominion, turning out half-baked "Doctors" to prey upon the public. From the point of view of the schools the change is not entirely, at first sight at any rate, in their interests. The staff has had to be not doubled only but often quadrupled, and with this, of course, expenses have run up very largely, much more rapidly than the fees of the students have increased.

This process has implied a good deal of interference with the ideas and with the emoluments of the men longest engaged in the colleges, and the manner in which the veterans of the schools have responded to the demand of the past ten years shows a measure of disinterested regard for

medical science, and of disregard for their own pockets and vested rights, which does them very great credit.

From the point of view of the student, the subject cannot be treated of within the space of one article. To refer first of all to the subjects taught in most British institutions as *primary* subjects, one may select as the most important the two "Institutes of Medicine," anatomy and physiology. The subsidiary ones of chemistry and *materia medica*, and the still less important ones of botany, zoology and embryology, will be referred to later on.

As to anatomy, it has come in the modern dissecting-room to be taught to every one in the class, not merely to the assiduous dissector who has always gotten the subject up with thoroughness, but to the tail of the class, with an abstract precision and plenitude of detail which seems sometimes to indicate that the teacher wishes to become the rival of the Professor of Mathematics. The subject, certainly, can be made to approach very close to one of the exact sciences, and from a disciplinary point of view, or as a piece of mental gymnastics, should be so taught to a class of students in natural science. For this purpose the anatomy of the cat, dog or rabbit, is quite as useful as that of the human animal. But it would seem sometimes that admitting all the usefulness and broadening intellectual effect of comparative anatomy and morphology, teachers of students who are to earn a hard living as medical practitioners sometimes exact too much of their classes, and forget not only the use to which the student is going to put his anatomical knowledge, but the fact that there are other subjects vitally important to the student. The more thoroughly any subject is taught the better, of course, but the balance between the subjects must be observed and the needs of the student borne in mind, not as a man of abstract science, but as the future surgeon or physician. We shall discuss the subject further in our next issue.

**THE X-RAY IN COURT.**—A Chicago judge has recently decided that the X-ray is not competent evidence, and has excluded it from his court as testimony. This seems strange, in view of the fact that on two occasions, in New York and once in Ohio, this agent has been admitted to be proper evidence.

In the case in question, a man employed in a printing office was injured about the ankle by a piece of machinery falling on it. He brought suit for damages, claiming the leg had been crushed. It would seem as if this was a very good case for the machinations of the ray. The injury might have been confined to the soft parts or involved the bones also.

The whole incident clearly shows the great difference between law and medicine. The former is governed by precedent, and seems centuries behind its sister profession. The doctor is at liberty to take advantage of each new development or discovery, and is quick to do so. The lawyer has to grope in the musty records of the past and ascertain what Blackstone, or Coke, or Lord Mansfield thought, or wrote, before he can make use of his knowledge.—*Railway Surgeon.*

**A. DUNDERHEAD FOOL, M.D., IN ACCOUNT WITH  
BAMBOOZLE LODGE.**

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3. Loss of good opinion of colleagues.
4. Inability to obtain good consultation.
5. Necessity of going into pot house politics.
6. The final ousting by a master politician.
7. Temptation to slight cases.
8. The loss of good pay patients.
9. The robbing of colleagues of their patients
10. The being at the mercy of worse than paupers.
11. The temptation of prescribing cheap medicines.
12. The temptation to prescribe unnecessary medicines when the druggist furnishes it, to get the commission thereon.
13. General dissatisfaction.

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—S. Calif. Practitioner.

**DIET IN TYPHOID FEVER.**—Frederick C. Shattuck, Professor of Clinical Medicine in Harvard, in a short article in the *Dietetic and Hygienic Gazette*, Aug., 1897, pleads for more liberal feeding of typhoid patients and a larger dietary than is usually allowed, stipulating that the food be nutritious, and one having a residue not mechanically irritating. The following is a suggestive and illustrative diet :

1. Milk, hot or cold, with or without salt, diluted with lime water, soda water, Apollinaris, Vichy, peptogenic and peptonized milk, cream with water (*i. e.*, less albumen) milk with white of egg, slip, buttermilk, Koumyss, matzoon, milk whey, milk with tea, coffee, cocoa.

2. Soups : beef, veal, chicken, tomato, potato, oyster, mutton, pea, bean, squash, carefully strained and thickened with rice (powdered), arrowroot, flour, milk or cream, egg, barley.

3. Horlick's food, Mellin's food, malted milk, carnipeptone, bovine-somatose. [We found in a recent severe case, trophonine most excellent —ED.]

4. Beef juice.

5. Gruels : strained cornmeal, crackers, barley water, toast water, albarrun, water with lemon juice.

6. Ice cream.

7. Eggs, soft boiled or raw, egg-nog.

8. Finely minced lean meat, scraped beef. The soft part of raw oysters. Soft crackers with milk or broth. Soft pudding without raisins. Soft toasts without crusts. Blanc mange, wine jelly, apple sauce and macaroni.

The various medical and surgical societies have resumed their winter sittings. The three important societies of the city are, of course, the Toronto Medical Society, the Clinical Society, and the Pathological Society. Of the Toronto Medical Society the officers for the current season are: President, T. F. McMahon; 1st Vice-President, Wm. Britton; 2nd Vice-President, J. Hunter; Corresponding Secretary, H. C. Parsons; Recording Secretary, J. N. E. Brown; Treasurer, G. H. Carveth; Council, W. J. Wilson, J. E. Graham, C. J. O. Hastings. The officials of the Clinical Society are: President, A. A. MacDonald; Vice-President, F. LeM. Grasett; Corresponding Secretary, F. Fenton; Recording Secretary, J. N. E. Brown; Treasurer, W. H. Pepler. The Pathological Society is officered as follows: President, H. B. Anderson; Vice-President, A. Primrose; Recording Secretary, H. C. Parsons; Corresponding Secretary, J. A. Amyot; Treasurer-Curator, J. J. McKenzie. There exist, also, several private reading or journal clubs, which do excellent work not only in the programmes submitted, but in the professional and social intercourse which they foster; for it is eminently true of medical circles that "as iron sharpeneth iron, so doth the countenance of a man his friend." We bespeak for all of these organizations a most prosperous winter's work.

TO CUT SHORT AN ERUPTION OF HERPES.—According to the *N.Y. Med. Jour.*, in the *Jour. des Praticiens* for June 26th, M. Leloir is cited as being of the opinion that it is possible to arrest the evolution of herpes by applying to the affected surface as soon as the initial redness shows itself a pledget of absorbent cotton soaked in a 1-to-50 alcoholic solution of resorcin, a 1-per-cent. solution of thymol, a 3-per-cent. solution of menthol, a 1-to-400 solution of carbolic acid, a 1-to-50 solution of tannin, or the following:

|   |                |               |
|---|----------------|---------------|
| R | Resorcin ..... | 3 parts.      |
|   | Cocaine .....  | 1 or 2 parts. |
|   | Alcohol .....  | 100 parts.    |

The cotton should be covered with an impermeable tissue to prevent evaporation.—*Am. Med.-Surg. Bull.*

We have employed an analogous preparation, and found it most effective in herpes progeneralis, one of the most trying and annoying affections which occur about the genitalia.—*St. Louis Med. Journal.*

A COSMETIC LAPAROTOMY.—(*Boston Med. and Surg. Journal.*) Küstner, of Breslau, has proposed a transverse skin incision in the fold of skin which often occurs at about the upper limit of the public hair in women. This superficial incision being well retracted, the ordinary median incision is made in the linea alba. The linear skin cicatrix is rendered almost invisible by the public hair and the natural crease in the skin.

An enquiry from far-off Japan for anything is somewhat interesting, but the LANCET is in receipt of a letter from a practitioner in Yokohama asking where he could procure Styra-Phenol. We gladly furnished him with all particulars.

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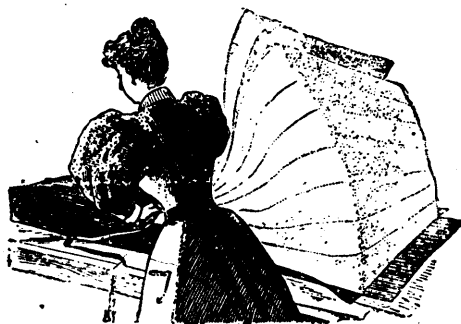
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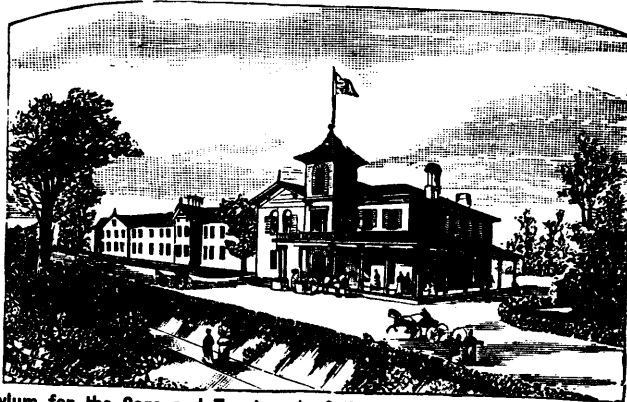
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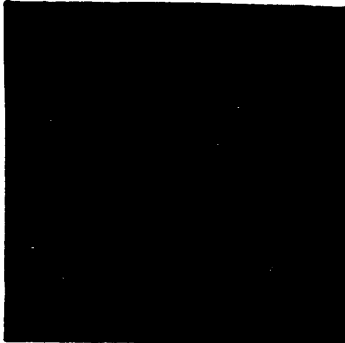
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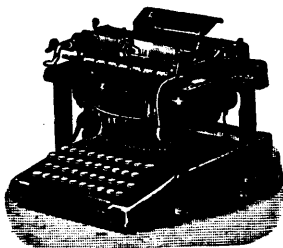
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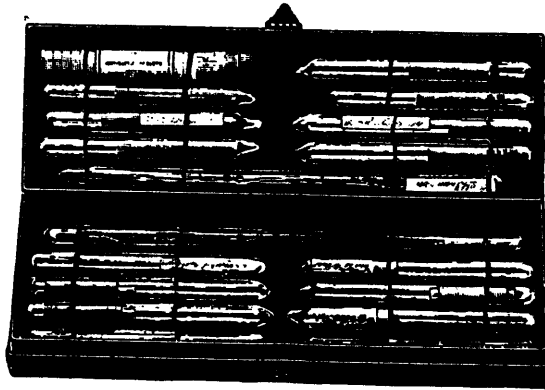
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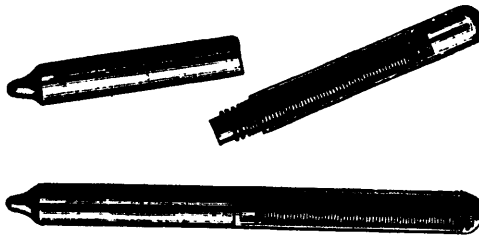


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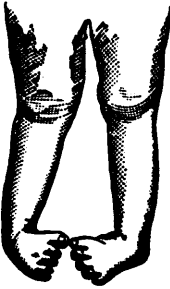
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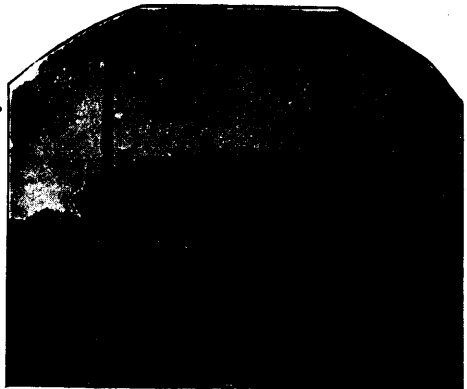
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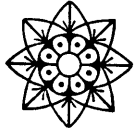
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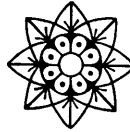
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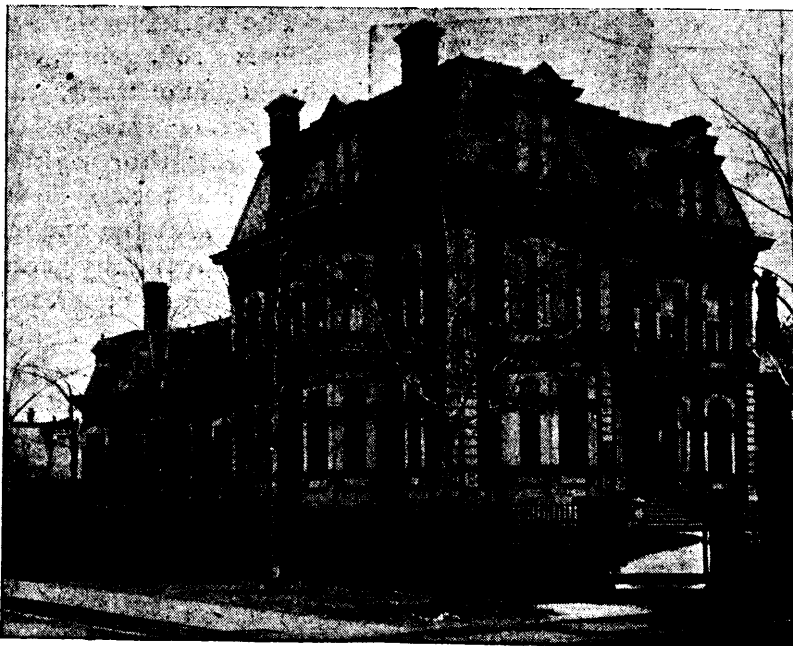
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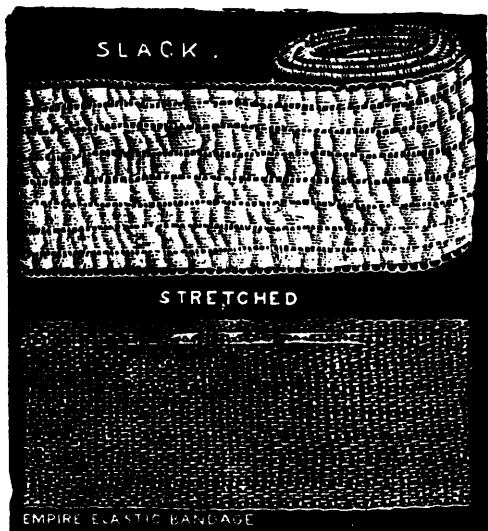
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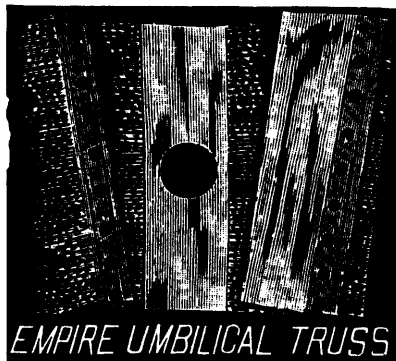
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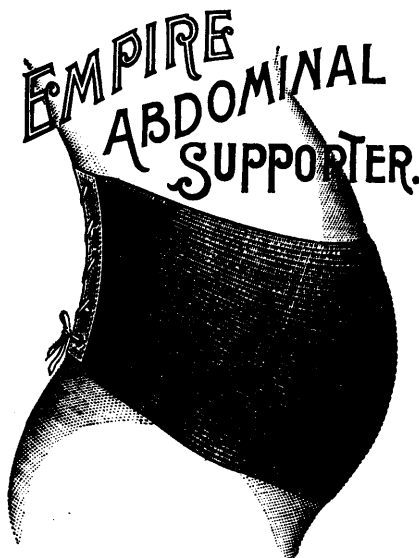


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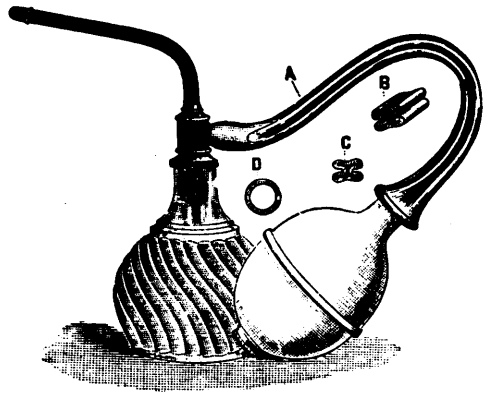
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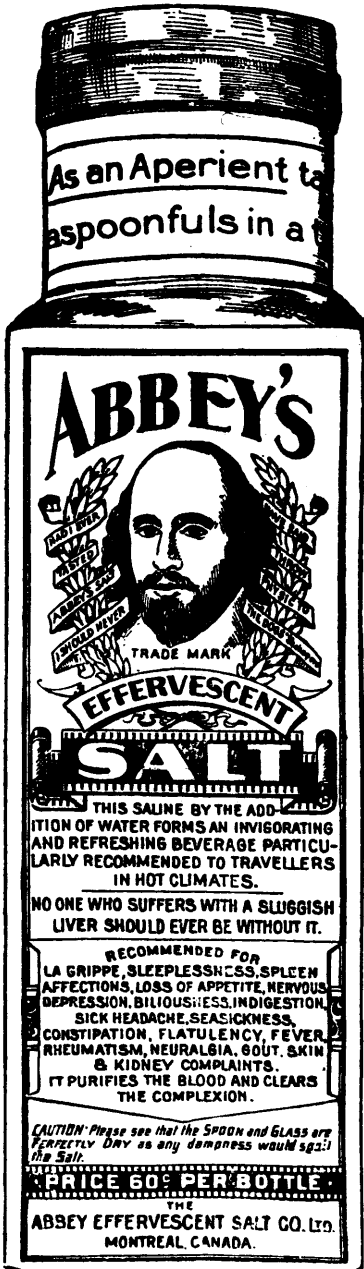
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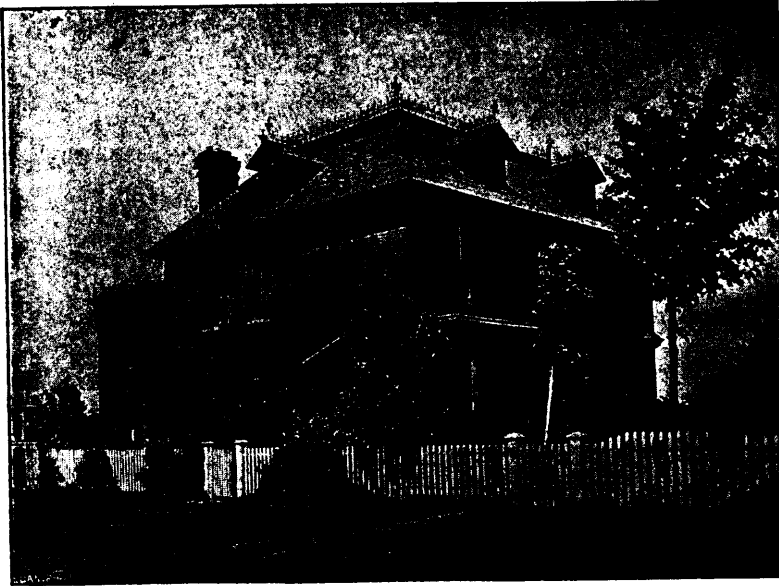
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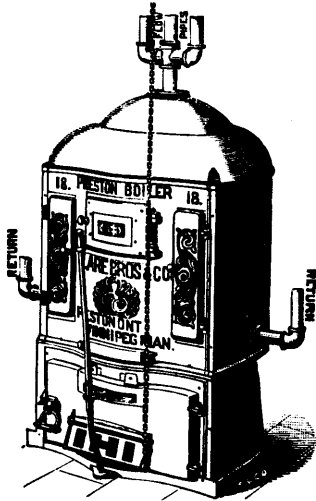
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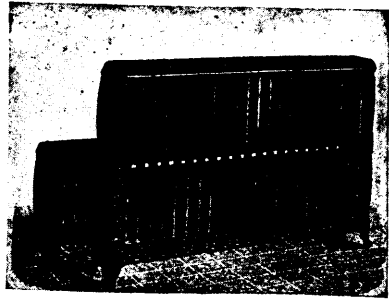
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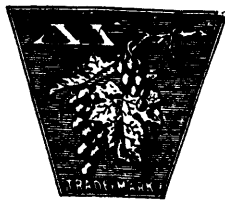
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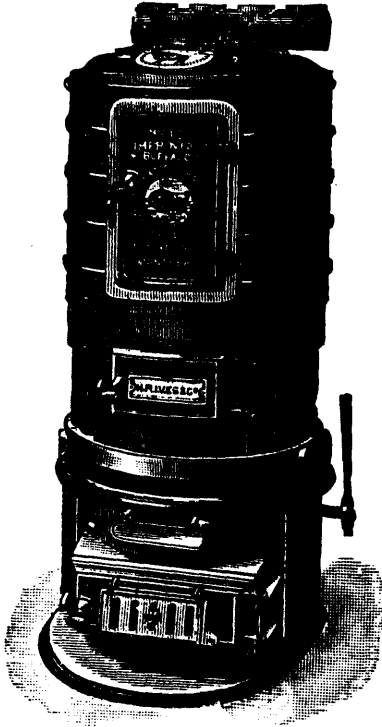
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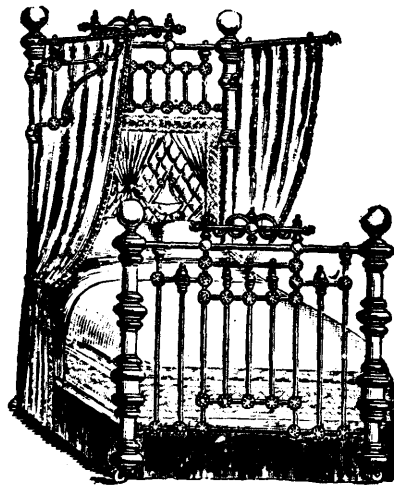
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“It Props the Heart Nicely.”

A physician speaks in this unique way of one of the therapeutic properties of **Kola-Cardinette**.

“The stimulant effect of this preparation upon the cardiac muscle is well marked. Unlike many heart stimulants, however, **Kola-Cardinette** does not induce a subsequent reactionary depression. While it is a prompt and reliable stimulant it is also a permanent systemic and nerve tonic. The Cereal Phosphates with which the Kola is combined, serve to fortify the muscular and nervous system and in this way retain the heart-strength which the Kola induces.”

**THE PALISADE M'FG CO.,
YONKERS, N. Y.**

Send for
“HOW IT CAME ABOUT.”

A Simple, Scientific and Successful Method of

Modifying Cows' Milk to the standard of normal Mothers' Milk, in physical properties, chemical composition and digestibility.

The original and only method strictly conforming to the accepted postulate that mothers' milk is the best food for an infant, and the only rational standard for an artificial food.

Peptogenic Milk Powder

FOR MODIFYING COWS' MILK

TO YIELD A FOOD FOR INFANTS

Which in Physiological, Chemical and Physical Properties is almost identical with human milk, affording a complete substitute therefor during the entire nursing period.

The indigestibility of caseine is now universally recognized as the chief obstacle to the employment of cows' milk as a food for infants. Modern investigation of the comparative composition and properties of cows' and human milk discloses the fact that cows' milk contains twice as much albuminoids, caseine, etc., and that these are for the greater part coagulable, and form firm masses of curd in the stomach; whilst most of the albuminoids of mothers' milk are soluble, and those coagulable form minute, soft, flocculent particles in the stomach. Thus science explains and confirms common experience. Further, there appear definite and significant differences in the relative proportion, as well as total amount of nutritive substances in the two milks, clearly in accordance with their destination.

By means of the Peptogenic Milk Powder and process, cows' milk is so modified as to conform remarkably in every particular to normal mothers' milk, thus affording a food for infants exactly suited to the functions of infant digestion, calling forth the natural digestive powers of the stomach and supplying every element of nutrition competent for the nutrition and development of the nursing infant.

DIRECTIONS.

Peptogenic Milk Powder	-	-	-	-	One Measure.
Cold Water	-	-	-	-	Half Pint.
Cold Fresh Milk	-	-	-	-	Half Pint.
Cream	-	-	-	-	Four Tablespoonfuls.

Heat the mixture with constant stirring until it comes to the boil in ten minutes.

	Water.	Fat.	Milk Sugar.	Albuminoids.	Ash.
<i>Average of Analyses 80 samples of Womans' Milk.</i>	86.73	4.13	6.94	2.	0.2
<i>Analysis of Milk pre- pared with Peptogenic Milk Powder.</i>	86.2	4.5	7.	2.	0.3

PEPTOGENIC MILK POWDER

Originated and Made Solely by **FAIRCHILD BROS. & FOSTER, New York.**