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THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.

VOL. XX.] TORONTO, JAN., 1887. [No. 5.

Original Communications.

ON THE NECESSITY FOR A MODIFICATION OF CERTAIN PHYSIOLOGICAL DOCTRINES REGARDING THE INTERRELATIONS OF NERVE AND MUSCLE.

BY THOMAS W. POOLE, M.D., LINDSAY, ONT. *

For some years past I have endeavored to bring to the notice of the profession a view of the interrelations of nerve and muscle—more especially of the vaso-motor nerves and the arterial muscles—which is entirely at variance with what is taught in our physiological text-books. I should be unable to find any excuse or apology for attempting so bold a task, were it not that the proofs which I have to advance are drawn entirely from the authentic storehouse of physiological research. While the facts to be here advanced are the results of observation by the great masters in this department of science, I hope to be able to show, conclusively, that the inferences or interpretations placed upon these facts are in some instances erroneous, and ought to be modified or reversed. In the examples now to be cited of an erroneous interpretation of authentic experiments, the idea evidently dominating the physiological mind was that a stimulus from nervous energy is necessary to induce muscular contraction. As a corrollary to this idea, of course, it followed that when the motor nerve supplying a muscle was cut, or paralyzed from any cause, the muscle thus deprived of nerve influence was rendered incapable of displaying its contractile power. That such an idea was apparently justified by the behaviour of the *voluntary* muscles is undoubtedly true; but not so in regard to the non-striated or involuntary muscles of organic life, which have been pronounced by physiologists to be paralyzed and powerless, at the very moment that the observers saw and recorded the palpable evidences of their more or less active contraction. In fact, so far from the current teaching of physiology being true, as regards the relations of motor nerves to involuntary muscles, the very reverse is true; the actual fact being that *muscles of the involuntary class, as a rule, contract, not when stimulated by their proper motor nerves, but when these nerves are cut, or are paralyzed, or dead.*

THE ŒSOPHAGEAL AND GASTRIC MUSCLES.

To come now to the facts. The statement continues to be repeated in each succeeding text-book on physiology, that section of the pneumogastric nerves (vagi) is followed by paralysis of the œsophagus and stomach. Now, on the theory uppermost in the minds of physiologists—referred to above—the œsophagus *ought* to be paralyzed here, and to be reduced to the condition of a mere flaccid tube. But that such is not the case, is evident from the fact that after the operation, food and drink fed to the animal, "in a few moments are suddenly rejected by a peculiar kind of regurgitation" (*a*). It needs no argument to prove that the sudden rejection of ingesta, in the manner stated, so far from being an evidence of paralysis, is really a proof of active contraction in the muscle. But it is said that sometimes the ingesta are detained in the œsophagus for a time, and, "owing to paralysis of this canal," are not conveyed into the stomach (*b*). Dr. W. B. Carpenter, F.R.S., refers to this by stating that "if the pneumogastric be divided in the rabbit, on each side, above the œsophageal plexus but below the pharyngeal branches, and the animal be then fed, the food is delayed in the œsophagus which becomes greatly distended" (*c*). Now the pharyngeal branches supply the upper part, and the œsophageal plexus, the lower extremity of this muscular tube. Mark what follows on section of the vagi between these two! The upper part of the œsophagus, whose nerves are intact admits the food and drink apparently in a normal manner, while the lower part of the tube, which has been deprived of nervous influence, contracts upon itself, and so lessens the calibre of the "canal" as to arrest the further passage of

* Read before the Physiological Section of the North International Medical Congress, held in Washington, September, 1887.

(*a*) Dr. Dalton's Phys., p. 473. (*b*) Ib.
(*c*) Hum. Phys., 5th Amer. Ed., p. 404.

the superimposed ingesta, as a consequence of which the œsophagus "becomes greatly distended." Whether the ingesta are thus forcibly detained or "forcibly ejected" would appear to depend on the point at which the vagi are cut. But in either case, the result, so far from being a proof of paralysis, really bears evidence of activity of the muscle. And this is confirmed by the observation of Dr. M. Hall, that "the simple contractility of the muscular fibre [of the œsophagus] occasions a distinct peristaltic movement along the tube *after its nerves have been divided*, causing it to discharge its contents when cut across." [Italics mine.] (*a*).

Dr. Burdon Sanderson expresses the idea uppermost in the physiological mind, in stating that after section of the vagi "the muscular fibres of the œsophagus are paralyzed, so that regurgitation of food from the stomach is apt to take place" (*b*). Dr. W. B. Carpenter seems to pass over this part of the subject lightly, and it is not till treating of the effects of section of the vagi on the gastric secretions that he plainly states that "the first obvious effects of this operation are vomiting (in animals that are capable of it) and loathing of food" (*c*). He also tells us, in another place, that the re-opening of the cardiac orifice, on pressure from within, is one of the first of that series of reverse actions which constitute vomiting (*d*). It is evident that the "pressure" referred to and the force necessarily required to eject the contents of the stomach and œsophagus could not come from "paralyzed" muscles, which the facts show to be really undergoing active contraction. That nerve force is actually in abeyance in the act of vomiting was fully recognized by Dr. Anstie, who places it among the effects of paralysis of the medulla oblongata in narcosis (*e*). While the vomiting of migraine, he says, "marks the lowest point of nervous depression." (*f*).

Had those eminent physiologists, Drs. Todd and Bowman, doubts of the truth of the physiological theory of the day, and a prescience of what the future had in store, when they wrote: "The office of the gastric branches of the vagi nerves appears, from Dr. Reid's experiments, to be chiefly to *control* the movements of the muscular coat of the stomach. [Italics mine.] (*g*). That is precisely what the scope of this paper is designed to show —that in so far as the involuntary muscles, at least, are concerned, the function of uerve force is not to stimulate, but to restrain and control muscular activity; which all physiologists regard as an inherent endowment of muscular tissue.

THE BRONCHIAL MUSCLES.

Dr. Burdon Sanderson informs the readers of the "Hand-Book," that after section of the vagi "the muscular fibres of the bronchial tubes are in a similar condition" to those of the œsophagus and stomach (*h*). Then it is evident that the muscular bands come under the rule or law laid down above, and contract, like other muscles of this class, when deprived of nervous influence.

THE NASAL MUSCLES.

It is a curious fact, that "owing to the great size of the vellum pendulum palati, the horse is unable to breathe through the mouth" (*i*). As a consequence, respiration is carried on in this animal exclusively through his nose; and when both the facial nerves are cut, or paralyzed, "the nostrils immediately collapse, and the animal dies by suffocation" (*j*). A result very similar, so far as the closure of the nostrils is concerned, has occur red in the human subject, during paralysis of the facial nerve. Thus, Sir Thomas Watson, reporting the case of the girl, Jane Smith, says: "When she tried to snuff in air through her nose, not being able to keep the right nostril stiff and open, its sides came together, and no air passed up that side" (*k*). A little reflection will show that this is necessarily due to muscular contraction. The effect produced is not to be accounted for by any filling up or stuffing of the nasal passage by relaxed or paralyzed muscles, because the muscles are on the exterior of the cartilages, and mucous membrane or fibrous tissue does not contract or respond to nerve action. The obstruction is caused by the cartilages of the nose coming together, for which the only adequate explanation is the action of the constricting muscles, which, as in other similar cases, assert their power when nervous restraint is removed.

(*a*) Dr. Carpenter's Hum. Phys., 5th Amer. Ed., p. 404.
(*b*) Hand-book for Phys. Lab., Amer. Ed., p. 318.
(*c*) Ib. p. 423. (*d*) Ib. p. 404.
(*e*) Stimulants and Narcotics, p. 168.
(*f*) Neuralgia, p. 39.
(*g*) Phys. Anat., p. 493.
(*h*) Ib. p. 318.
(*i*) Strangeway's Veterinary Anat., p. 209.
(*j*) Bernard, quoted by Dr. Dalton, Phys., p. 458.
(*k*) Lectures, Prac. Physic, p. 366.

SPASM OF THE GLOTTIS DUE TO NERVE PARALYSIS.

We now come to a still more striking illustration of the truth of the proposition laid down above. The aperature of the glottis is closed by one set of muscles and opened or dilated by another. The constricting muscles are the arytenoidei and crico-arytenoidei laterales, while the dilators of the glottis are the crico-arytenoidei postici.

Dr. Burdon Sanderson states that "the widening of the glottis is a condition of general muscular relaxation." He further states that the closing of the glottis is equally due to a general contraction of all the muscles; so that the glottis is closed, "not because the postici crico-arytenoidei muscles and the other dilating muscles * do not act with the rest, but because they are overpowered by the constricting muscles (*a*). The situation thus depicted becomes quite remarkable and full of interest, when it is remembered that the sole motor nervous supply to both these sets of muscles passes through the inferior laryngeal (or recurrent) nerves, a branch of the pneumogastric, and that when this nerve is cut or paralyzed, the closure of the glottis takes place, as a result of spasm of both of the antagonizing muscles, as just stated. On page 318 of the Hand-book the same eminent physiologist, describing the effects of section of the vagi, says: "The glottis is partially closed, just as it is in death." How the glottis is closed in death will appear from the fact, vouched for by Dr. Austin Flint, in the 5th edition of his "Practice of Medicine," when he says, the operation of passing a probang within the larynx, "is extremely difficult, if it be practicable, on the cadaver" (*b*).

There can be no doubt about the effect of the section referred to being of a paralyzing character, so far as the nerve is concerned, seeing that the simple section of the nerve during life, and the extinction of all nerve force in death, lead to precisely the same results as regards the closure of the glottal aperture. Dr. Burdon Sanderson adds that, "in animals with divided vagi, life may be prolonged by tracheotomy," showing how complete and fatal is the spasm thus produced. Other evidence of similar import is not lacking. Thus, Dr. Austin Flint, discussing the "danger of death from suffocation" in the "obstructed inspiration" occurring in nervous aphonia, says: "The condition is analogous to that after the physiological experiment of dividing both recurrent laryngeal nerves" (*c*). The same author has "reported a case in which the left recurrent nerve being situated betwen a calcareous deposit and an aneurismal tumor, spasm of the glottis occurred so frequently and to such an extent as to prove fatal" (*d*).

Now, since the recurrent nerve is the only motor nerve supplying these muscles, and since section or pressure on a nerve trunk cannot increase nerve activity—the nerve trunks being mere carriers and not producers of nerve force—it is evident that no other conclusion is possible than that the spasm here referred to is due to the absence of nerve force, and not to a stimulus from excited nerve action. And since nerve paralysis is thus shown to be directly the cause of spasm of the glottis, is it not necessary to infer that whatever is done by reflex action to cause spasm of the glottis must be of a paralyzing character to the nerve also? Thus, what is vaguely called "irritation," by which is usually meant an excitation or exaltation of nerve power, and which consists really in a perturbation of nerve force, must necessarily be an influence of a paralyzing character to the nerves it traverses. Such reflex "irritations" are usually attributed to brain lesions, to indigestible food, and other causes of a more or less debilitating character which may well arrest, rather than develop, the flow of nervous activity.

If it be true, that pain is "an expression of impeded and imperfect nerve energy, not of heightened nerve function," for which there is high authority (*e*), how much more is the perturbation of the nerve molecules, which constitutes "irritation," a disturbance of normal activities which is equivalent to paralysis.

RELATION OF VASO-MOTOR NERVES TO THE ARTERIAL MUSCLES.

I propose to show here, on the very best physiological authority, that what is known as "paralytic hyperæmia" is—contrary to the accepted opinion—venous and not arterial.

I need not delay to offer proof that the middle muscular coat of the arteries is under the control of the vaso-motor nerves of the sympathetic, which regulate the calibre of these tubes; or that the

* There are no "other dilating muscles" than the crico-arytenoidei postici.

(*a*) Hand-book, p. 308. (*b*) Ib., p. 294.

(*c*) Prac. of Med., 5th Ed., p. 309. (*d*) Ib., p. 371.

(*e*) Anstie, "Neuralgia," pp. 12 and 163.

chief vaso-motor centre is in the medulla oblongata, with probably lesser centres in the spinal cord. These are among the well-authenticated facts of recent physiology. It is in determining the action or play of this mechanism, that I have the temerity to claim that our physiologists have made an "unscientific use of the imagination." The theory of the text-books is that when the influence of the vaso-motor centre is cut off from the arterial muscle in any way, hyperæmia of the arteries results. Thus in destruction of the nervous centres by the operation of "pithing"—as a result of section of the spinal cord just below the medulla, and on section of the chief vaso-motor nerve trunks, in the body or viscera, it is claimed that the corresponding arteries are more or less dilated. Dr. Burdon Sanderson contents himself with stating that under these circumstances, "the arteries are relaxed," and again, that they "become permanently larger" (*a*). Other physiological teachers, such as Prof. Kuss, say that here the arteries are "dilated," while Dr. Sidney Ringer, in his excellent "Therapeutics," has it that "the arteries remain widely dilated" (*b*). We shall presently see how far these statements are justified by the facts.

SECTION OF THE CERVICAL SYMPATHETIC.

To M. Claude Bernard and Dr. Brown-Sequard we are largely indebted for what is known on this subject, as observed by them in the famous experiment on the cervical sympathetic. Dr. Brown-Sequard enters into the details at great length in his "Physiology and Pathology of the Central Nervous System." Yet nowhere in this work, in regard to this or any other section of cord or nerve, does he once assert that the arteries are dilated. In the pages devoted to it he refers to the contemporary experiments on this subject by Waller, Donders and his pupils, by Kussmaul and Tenner, Moritz and Schiff, yet he makes no mention of an allusion to dilated arteries by any of these eminent observers. This is surely significant. With him it was always "the blood vessels" which are "paralyzed" and "the blood vessels" which are "dilated." He says that "the hanging down of an animal, by holding it up by its hind legs, in producing a congestion of the brain, produces very nearly all the effects of this section" (*c*).

From these considerations it will be evident, first, that it was by no means apparent—was indeed a matter of great difficulty to determine accurately what particular "vessels" were enlarged, hidden as they mostly were beneath the skin and its subjacent tissues. Nay, it is not too much to say, that the statement that it is the arteries that are enlarged is purely hypothetical, and not based upon an actual demonstration of the facts. Secondly, it will be also evident from the statement just quoted from Dr. Brown-Sequard, that venous hyperæmia, the result of the blood being forced out of the arteries by their partial contraction, "very nearly accounts for all the effects of this section." The truth of this will not only appear from what is to follow now, but from the effect of other sections to be noted. Notwithstanding an increased afflux of blood, and consequently a relative elevation of temperature, with heightened sensibility, "the intimate acts of nutrition appear to be modified in nothing. . . . Nor does it appear that this hyperæmia, however intense or prolonged it may be, has ever the effect, save under exceptional circumstances, of determining by itself the development of inflammatory action" (*d*). This could hardly be the case if the hyperæmia were arterial.

Among the effects of this section on muscles, as recorded by Dr. Brown-Sequard, are contraction of the pupil, retraction of the eye-ball, partial closing of the eye-lids, contraction of "almost all the muscles of the eye," and also of the muscles of the angle of the mouth and nose; contraction of the erectile muscles of the ear, and others. Now, seeing that it is *contraction*, and not relaxation of all these muscles, which follows section of this nerve, the law of analogy would require that the muscles of the arteries supplied by this nerve be contracted also; otherwise the anomaly would exist of the same nerve producing contraction in a large number of muscles and relaxation in a single instance. Why should the arterial muscle be regarded as an exception among so many others, especially when all the facts of the case are compatible with arterial contraction and venous fullness?

As for the second part of the experiment, in which the hyperæmia is dissipated by faradization of the distal end of the cut nerve, that is easily accounted for. The terminal branches of the cut

(*a*) Hand-book, pp. 245-256.
(*b*) 6th Amer. Ed., p. 312. (*c*) Ib., p. 143.
(*d*) M. Charcot, Lect. Nerv. Sys., pp. 90-91.

sympathetic evidently influence the muscles of the the head and face over a wide area. As is well known, the effect of faradization is to set up a succession of rapid contractions and relaxations in muscular tissue. The pressure thus brought to bear on the swollen veins would amply suffice to force their contents onwards, and thus to dissipate the venous congestion. Examples of this very result are not lacking. Thus when Kolliker applied one pole to the umbilical artery and vein of a fresh human placenta, there followed contractions by which the veins forced out their contents and changed into bloodless strings" (*e*).

The following quotations from Rosenthal's "Diseases of the Nervous System," Vol. II., Wood's Library, have a peculiar fitness here; "Kussmaul and Tenner have shown in a series of experiments, by placing a watch-glass in the opening of a trephined skull, without allowing the air to enter (Donder's plan), that compression of the carotids causes capillary anæmia and venous hyperæmia of the brain and meninges" (*f*). "In Verneuill's patient, upon whom ligature of the carotid was performed for a tumor of the parotid gland, persistent contraction of the pupil developed shortly afterwards, with rise of temperature and vascular dilatation upon the temple and gums, and abundant perspiration upon the side of the face, corresponding to the operation. All these symptoms can be produced experimentally upon animals by dividing the cervical sympathetic" (*g*).

Here is a remarkable proof that the section referred to causes arterial contraction (and not dilatation), seeing that the other effects of the section are equivalent to those produced by ligature of the carotid.

(To be continued.)

CROUPOUS PNEUMONIA, AS FOUND IN VARIOUS PARTS OF THE DOMINION OF CANADA.*

BY WALTER B. GEIKIE, M.D., C.M., F.R.C.S.E., L.R.C.P.L.
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I do not for a moment propose to bring a subject so familiar as Pneumonia before the medical section of this International Medical Congress.

True, no disease attracts more attention, or is more widely known in both hemispheres, and on this account it occurred to me as desirable, in addition to my own observation, to obtain by correspondence, as far as lay in my power, some information regarding the prevalencc and peculiarities, if any, of croupous pneumonia, as found throughout Canada, from the Pacific on its western, to the Atlantic on its eastern shores. It further seemed more than likely that a short paper referring to a subject so practical and of such widespread interest as inflammation of the lungs, would be certain to elicit the views and experience of many members of the Congress, and in this way prove of great practical utility.

It would be out of the question to detain the section, by reading in detail either the queries submitted by me to various medical men throughout Canada, or the replies received to these.

The main point desired was to ascertain the *frequency* with which the disease was met with in different parts of the country, remote from each other—and the form or forms it is wont to assume under very varying climatic conditions.

From British Columbia on the western coast I learn—and may say that the information received so far has been chiefly from the New Westminster district—that pneumonia is *not* of very frequent occurrence. That when met with, especially in the larger towns, it is as an accompaniment of some other form of disease. In other words, that it is a *secondary* much oftener than a primary affection, and as the disease with which it is most frequently associated, is typhoid fever, many of the cases are prone to assume a very low form.

Acute cases, however, occur from time to time, but are said by my correspondents to be not nearly as common in that region, as the complicated low type just referred to.

Coming eastward into the as yet very partially known and exceedingly sparsely inhabited regions of Alberta and Assiniboia, pneumonia is said not to be common. Query—Is this not because settlers are as yet so few in these vast territories?

I am also informed that it has never appeared in those parts as epidemic, as it is reported and believed to do occasionally in some older and more fully settled localities. Practitioners there find it a purely primary disease, an acute inflammation of the lungs, pure and simple.

(*e*) Meyer's Elec. Hammond, p. 88. (*f*) Ib., p. 64.
(*g*) Ib., p. 26.

*Read at the International Medical Congress held at Washington, D.C., U.S., September, 1887.

It is important to bear in mind that in British Columbia, as well as over the entire Canadian North-West, reaching from the eastern side of the Rocky Mountains to the westerly limits of Ontario, *malaria*, which, wherever found, so largely influences every disease, is practically non-existent.

In all the vast tract just spoken of, pneumonia is met with more or less frequently in proportion to the number of people settled in *particular* localities. It is, as in *almost*, if not *every* other place, found to take the *acute* form in *scattered* settlements, and not seldom a *lower* form in towns and villages, particularly in those which are increasing very rapidly in population. The explanation of this, I take it, is not far to seek. Population in American and Canadian communities often increases with great rapidity, while the carrying out of efficient sanitary regulations takes much time, and what is more scarce than even time in all new places, a good deal of money. The fact, now happily becoming more and more familiar, that as sanitary measures are perfected, *low* forms of pneumonia, and of all other diseases, tend greatly to decrease, abundantly verifies this observation.

Coming still eastward through Ontario, pneumonia is found to occur frequently and in an acute form at certain seasons—chiefly towards and during spring, especially in rural districts.

As we would expect, many cases present themselves in which more or less blood-poisoning co-exists with the local inflammation, giving them often a somewhat asthenic character. As we pass into the more southerly portions of Ontario, malaria becomes a very important factor, not in pneumonia alone, but also in every other disease, modifying not the type only, but the entire course of the cases very considerably.

From districts more or less malarious I have received conflicting reports as to the frequency of pneumonia, but learn, that in a very large proportion, given by some as high as *two-thirds* of all the cases, the disease tends to assume a *low* form.

This is very markedly the case in some of our cities; in Toronto, for example, where, during the last winter and spring, pneumonia has been very prevalent. Owing to the particularly low form of many of the cases, an unfavorable termination has occurred in a much larger proportion than for several years past. It attacked not only the weak and broken down, but many young and middle-aged persons as well, who, prior to the attack, had been vigorous, and of ages varying from 15 to 35 years. Weakly and broken-down constitutions and persons advanced in life sank, in many instances, after only a few days' illness, in spite of every effort made to save them. *General* and excessive prostration was its principal feature. According to some of my correspondents who kept an accurate record, the cases were so numerous, that the disease, or as some under the circumstances would call it, the specific fever accompanying the pneumonia, appeared to be *contagious*. For example, one of our most experienced hospital authorities, speaking from his own observation, says, nearly all the cases he saw last winter and spring presented the same low type. He found several instances of two or three cases coming from one house—each case running just the same course—one often falling ill a short time after the other. It is a pity the exact periods at which the illness began were not observed. In every one of them the pneumonia was very marked as well as extensive.

From several other cities of considerable population a similar report might be given, especially of the pneumonia of last winter, as to its frequent occurrence and the low type it assumed.

The asthenic form prevalent from year to year in our Ontario cities, where we do not have the very low winter temperatures reached in Quebec and in the North-West, is very striking. I know that in Toronto, as in other cities on this side of the Atlantic, amongst the poorer classes, exhaustion from overwork or underfeeding may and does exist, but happily only to a comparatively slight extent. And I freely and sadly admit that prostration of the system to a *far greater* extent is due to alcoholic and other excesses; but making liberal allowance for all such cases, have *imperfect drainage, more or less impurity in the drinking water*, and malarial poisoning, not much more to do than all other causes combined in giving rise to this particular type of disease?

In the more northern portions of Ontario the pneumonia record from rural districts, villages and towns is just what might be anticipated. The disease is frequently in strictly rural parts, acute, but presents a much less active, and often even a *low form* in lesser, or greater centres of population. Coming to the Province of Quebec, we learn that

in Montreal, the most populous city in Canada, pneumonia is frequent, and is, as a rule, as my best correspondents inform me, *acute* in form. Unless in feeble persons, young or old, or amongst the intemperate, the asthenic forms of the disease are seldom met with. The *very* low form, thought by some to be contagious, on which some of my correspondents in Toronto and in some places west of that city have laid great stress, is said to be exceedingly rare in Montreal, and its presence there as an epidemic is strongly questioned.

As is the case throughout the entire North-West, so malaria is practically unknown in the Province of Quebec. The small amount of it met with, occurs in persons who have entered the province from malarious localities in the west or south.

There is little doubt in my mind that to this absence of malaria, as well as to a considerable similarity of climate, is due the fact that the pneumonia met with presents much the same characteristic features in these widely separated regions.

Coming still further eastward, and seaward, we notice very briefly the disease in Prince Edward Island. This little insular province, presents in summer in most parts, the very perfection of natural beauty, although perhaps the less said about it in winter, the better. Pneumonia of an *acute* type is reported as frequent, more so during some seasons than others Some of my esteemed correspondents refer to the cases being at times so numerous as almost to justify the view that it prevails epidemically.

As in type, course and frequency of occurrence, pneumonia is just the same as a rule in New Brunswick, Nova Scotia, and in the old colony of Newfoundland, with its appendage, Cape Breton, as in Prince Edward Island, it is needless to do more than mention that in *all* these provinces the form commonly seen in country parts, is the *acute*. *Now* and *then* due, as elsewhere, doubtless, largely to local causes, cases are seen in towns and cities of a very low form, which tax to the utmost the skill of the medical attendants.

In this paper I purposely omit any reference to the portions of the reports sent me, regarding the theories held as to the nature of the disease—whether it is a *local affection only*, attended with symptomatic fever, or a *specific form*, of which the local dicease is a mere accompaniment. Neither will I speak of the treatment of pneumonia adopted in different parts of Canada.

To enter on these topics would make this paper altogether too long—and long papers, like too long sermons, are not consistent with the brevity of human life, and nearly always make listeners sleepy, rather than interested.

I may, however, be permitted to say here, that many authors, some of whom are very justly esteemed and have great weight given to their views by the profession, are *on the one hand* rather too *brief* and *general* in their remarks on the *treatment* of this disease; and on the other, frequently do not, as it appears to me, bring into sufficiently bold relief the sound principles which underlie the largest measure of success. These are admirably laid down by Mr. Erichsen in his great work on surgery, where he treats of the management of inflammation in general (See Vol. I. last American Edition, p. 225). It seems unusual to refer to a work on surgery in a paper on a purely medical subject, but Mr. Erichsen's remarks are by no means seldom quoted approvingly by physicians. I will not detain you by giving the passage in full. The author strongly and very properly objects to all inflammatory diseases (and pneumonia is one of them) being treated on any *uniform* plan, whether by depressants or by stimulation. As regards management of cases of pneumonia, no remark can be more practical or valuable than this, that so far as successful treatment goes, "*it is of far greater importance to be able to estimate accurately the constitutional condition of the patient, than to be able to form a minute diagnosis of the precise extent and depth of the local mischief.*" We, therefore, in Canada, as elsewhere, use *repressive* means in one case of pneumonia and *stimulate* more or less freely in another. Or often, in the same case, after judiciously repressing existing vascular over-activity for a *short* time, we *may*—indeed, if it be called for, WE MUST support and stimulate to any required extent. This varying of the means to be adopted in particular cases at particular stages, calls for the exercise of the greatest judgment and all the knowledge we possess; but it is the only practice which can secure the best results to our patients, and at the same time most redound to the credit of medical science. Such practice is no mere routine, but a strict following of medical science, properly so-called.

For the many answers to my queries received from medical friends throughout Canada, I beg, without naming them, for that they might not like, to return my very sincere thanks.

I am fully aware of not having been able to gather anything new, or at all striking, from any quarter of the wide field gone over, and I did not expect to do so. But to make the enquiries and to get answers from so many parts of the Dominion interested me greatly, and I hope the subject may not prove altogether devoid of interest to those who have done me the honor of being present. I heartily thank the medical section of the Congress for their patient hearing of this paper. I have only to regret having had too little time at my disposal to make my researches as exhaustive as could have wished, over an area comprising many thousands of miles, stretching as it does across the western part of the American continent, and presenting climatic and other differences, great, in proportion to its vast extent.

TREATMENT OF POST PARTUM HEMORRHAGE—BY INTRA-UTERINE INJECTION OF BRANDY OR WHISKEY.

BY J. ALGERNON TEMPLE, M.D., TORONTO.

Post-partum hemorrhage is much less frequently met with to-day in practice than formerly, since the introduction of uterine compression during the latter part of the second and third stages of labor as the most powerful preventative against this alarming accident. Yet now and then, in spite of all our efforts, we will occasionally have to treat it. Some years ago I drew attention through the medical press of this country to the inestimable value of the intra-uterine injection of pure brandy or whiskey as being a most powerful and prompt uterine contractor, and far superior to any other agent I have ever used, hot water or iron not excepted, and free from the dangers attending the use of iron; it does not coagulate the blood in the mouths of the uterine vessels and expose the patient to the danger of death from embolism, but merely produces the most powerful and prompt uterine contraction. Within the last week it has been my misfortune to come across two very severe cases of post-partum hemorrhage. In both cases I tried hot water, as hot as I could use it, without producing the desired contraction, and in one case I treated only last night, I feel very sure had I not used brandy as an intra-uterine injection I would have lost the patient, a delicate woman, second child; who had been in labor about twelve hours, and after the birth of her child she seemed much exhausted and prostrated. The placenta came away shortly after the child's birth, but the uterus did not contract. I emptied it three times with my hand and injected copiously very hot water, without producing any effect whatever. I finally injected a tumbler full of pure brandy. The action of contraction was almost instantaneous; the uterus became hard and firm, and remained so. Not only does it produce rapid contraction, but its stimulating effect on the heart and pulse is generally noticed. I think undoubtedly it is also absorbed into the blood. In all cases in which I have used it, the patients express a sensation of warmth and comfort in the uterine region, so unlike the chilling effect after the use of ice.

Before its use the uterine cavity must be cleared out of all clots, and then inject a tumblerful of pure brandy—whiskey will answer as well. To those practitioners who have not tried this plan of treatment, I most heartily commend it.

Dec. 13th, 1887.

THE QUESTION OF ABSCISSION OF THE TONSILS.

BY G. STERLING RYERSON, M.D., C.M., L.R.C.S. EDIN.
Lecturer on the Eye, Ear, and Throat, in Trinity Medical School, Toronto.

An experience, ranging over a considerable number of years, has taught me that there is hardly any matter connected with the practice of medicine about which exists greater divergence of opinion among practitioners, and of which more superstitious fear is felt by the laity, than of the operation of removal of the tonsils. For an explanation of this feeling amongst the laity, I am inclined to believe that we must look to the ancient belief that the tonsils were, in some occult way, connected with the testes, just as the external ear was supposed to be; and hence, thieves were deprived of their auricular appendage partly as a mark of disgrace, but more probably with a view to preventing the propagation of their kind. The profession have perhaps, to some extent, inherited

this belief, which was incorporated by the early medical writers with other fanciful theories in their works. The questions before us are :—1st. When should the tonsils be abscissed? and 2nd. When is it safe to resort only to medicinal measures—local or constitutional?

1. To consider the first question, it is necessary to briefly recall what ill a hypertrophied tonsil can do.

The effect of enlarged tonsils on the *voice* is to render it "throaty" in quality, to impair its resonance, and to interfere with the production of the higher notes of the scale requiring lifting of the soft palate and closure of the naso-pharyngeal space. Hence, it is a serious matter for vocalists. The *hearing* is very apt to suffer by the extension by contiguity to the Eustachian tube, by enlargement also of the pharyngeal tonsil (gland of Luschka), actual pressure is occasionally exerted on the tubes. Irritation also of the tube tends to keep up purulent discharge, if already present. After a certain time organic change takes place in the tympanic cavity, which cannot be remedied. "Of all the evil results," says Sir Morell Mackenzie in his Treatise on the Throat, "attendant on hypertrophy of the tonsils, those due to interference of the diseased masses with free *respiration* are the most serious. The partial occlusion of the nasal channel posteriorly by the enlarged tonsils obliging the patient to keep his mouth almost constantly open, renders him unusually exposed to all the external influences which produce inflammatory affections of the respiratory tract, whilst the persistent obstruction to respiration leads to serious changes in the thoracic parietes. . . . In childhood the bones yield easily to such influences, and anyone who has witnessed the difficulty of breathing which occurs, especially during sleep, will readily understand how pernicious may be its effects on the respiratory apparatus. In addition to the organic alterations in the bones of the chest, other evils are brought about, and Chassaignac well observes that although increased efforts of the diaphragm, to a certain extent, neutralize the impediment to respiration, there are frequent intervals when the powers become temporarily exhausted and the *oxygenation of the blood* is very incompletely performed. The vital forces are in consequence very much lowered, the patient lives in a state of permanent ill-health, and easily succumbs to any acute attack of disease, particularly if affecting the respiratory organs."

The effect on the *physiognomy* is too well known to require any remark from me. It will be noticed that the ill effects of enlarged tonsils are mechanical in nature and due to interference with function by *mechanical obstruction* chiefly.

It may then be laid down as a rule that when enlarged tonsils are interfering with proper respiration or hearing, or are subject to relapsing acute inflammations, they should be removed. When the voice is impaired by them, it might be optional, depending on the patient's occupation. It should be borne in mind that, if long continued, the ill effects of enlarged tonsils are *permanent* in their nature.

The answer to the second question is then easy. When the general health is not impaired and there is no interference with important functions, the tonsils may be submitted to medicinal treatment. I may remark in passing, that the drug I have found most useful in causing tonsils to subside is Hydrastis Canadensis, applied in rather strong solution of the fluid extract. Astringents and iodine are often disappointing and uncertain.

As regards the mode of operation, the guillotine of Mathieu is the best in my experience. Mackenzie's guillotine has disadvantages which Mathieu's has not. Very large tonsils, and long, narrow tonsils, extending down almost to the larynx, must be removed by the vulcellum forceps and blunt pointed bistoury. I have never met with serious hemorrhage, and am inclined to think the danger much over-estimated. A mixture of one-third gallic and two-thirds tannic acid, applied dry with the finger, will stop any ordinary bleeding.

Correspondence

OUR LONDON LETTER.

(From Our Own Correspondent.)

London, Dec. 7th, 1887.

SOME METHODS OF TREATMENT.

At the Hospital for Women, Soho Square, during the past year, Dr. Oliver has been markedly successful in the treatment of uterine displacements by means of vaginal medication, having discarded

the use of pessaries in all cases except those of extreme prolapsus, where the original walls are past all hope of being restored to their normal tone. He claims that we have too long ignored the absorbent power of the mucous membrane of the vagina, and points out that the method of administration of remedies by vaginal suppositories is especially beneficial in pelvic derangements. In cases of retroversion, retroflexion, anteversion, anteflexion, and recent or partial prolapsus, no method of replacement is adopted, the following suppository being relied upon entirely :—

℞.—Quin. hydrochloras, ... grs. iij.
Digitalin, ... gr. $\frac{1}{60}$.
Strychniæ, ... gr. $\frac{1}{32}$.
Glycerine jelly, ... q.s.

Sig.—One to be used every night, per vagina, followed in the morning by a warm vaginal injection ; in bad cases two suppositories daily are used. In the great majority of cases, I have observed during the past three months, the distressing symptoms common in these conditions have been speedily relieved and the uterus has recovered its normal tone, and in many its position.

In cases of climacteric diabetes, etc., at the same hospital, I have seen the following pill used with marked success :—

℞.—Codeia, ... gr. $\frac{1}{4}$.
Conf. rosæ, ... q.s.
Sig.—One to be taken three times daily.

In those troublesome cases of severe pruritus of the vagina, the following gave relief after other remedies had failed :—

℞.—Cocaine, ... grs. x.
Chloral, ... grs. xij.
Glycerine, ... ℥j.
Sig.—To be applied three or four times daily.

In cases of general fibroid change of the uterus, the following is prescribed with beneficial results :

℞.—Ext. ergot liq., ...
Tr. ferri perchlor, ...
Spts. chloroform, ... āā ♏ x.
Aq. ad. . . . . ℥j.
Sig.—To be taken every four hours.

In cases of plastic pelvic-peritonitis, the following, together with warm vaginal injections, has proved to be a very effective treatment :—

℞.—Calcii chlorid, ... grs. x.
Glycerine, ... ℥ss.
Infus. quassiæ, ... ℥j.
Sig.—To be taken three times daily.

Iodol is becoming more largely used in several of the hospitals here, and is found to be an effective substitute for iodoform, having the additional advantages of being nearly odorless, tasteless, producing no constitutional effects, and of containing almost as large a percentage of iodine, which it parts with more freely. It has proved to be antiseptic, anesthetic, a promoter of granulation and healing, to check suppuration and deodorize foul secretions ; in fact it possesses all the therapeutical virtues of iodoform, without its unpleasant drawbacks. I have seen it used with prompt benefit in cases of atonic, syphilitic, and corneal ulcerations and other purulent conditions. It is an especially useful application in throat affections, such as phthisical laryngitis, and other ulcerations of the inter-arytenoid fold, the vocal cords, ventricular bands, and in almost all laryngeal, pharyngeal, nasal and aural cases where a catarrhal or ulcerative condition exists. Daily or tri-weekly insufflations of the pure powder of iodol may be used, freely covering the diseased surfaces. The best brush application is the following : Iodol, 1 part ; alcohol, 16 parts, and glycerine, 34 parts ; while the best for use as a spray is as follows : Iodol, 1 drachm ; ether, 1 ounce. This makes a light brownish mixture, the ether of which evaporates quickly, leaving the iodol upon the affected surface In all cases it is, of course, essential to first thoroughly cleanse the diseased surfaces, and for this purpose the following lotion is the most useful :—

℞.—Sodæ bi-carb., ... grs. xv.
Acid carbol., ... grs. jss.
Aq. . . . . ℥j.

Iodol pastiles, consisting of iodol, 1 grain ; glycerine, 1 minim, and glycogelatine, 18 grains, are very beneficial in chronic pharyngeal affections.

CANADIAN.

Selected Articles.

ADDRESS ON THE OPENING OF THE NEW YORK CANCER HOSPITAL.

BY FORDYCE BARKER, M.D., LL.D.

The opening of a new hospital in this city, the first in this country and the second only in the world, devoted exclusively to the treatment of cancer, is an event of such importance that I greatly regret that the selection of a person to give

e address had not fallen upon one more competent to do justice to the occasion. But some considerations have been forced upon me which seem to make it an imperative duty to accept the position, and throw myself on your kind indulgence. One inducement which had its weight on my mind is the fact that I do not profess to be a surgeon, and as the wonderful progress made within the past decade, in the successful cure of many cases of cancer which before would have been left to die a miserable death, have been in the domain of surgery and the result of surgical proceedings, I can speak of these without any imputation of self-laudation.

My purpose is simply to show the necessity for and the usefulness of such a hospital—to impar some knowledge of the nature of this terrible disease, cases of which will seek relief and cure within these walls, and to correct some popular errors in regard to it which seem to be almost universal, and which the profession well know have caused an incalculable amount of unnecessary misery and unhappiness in the world. It is to be confidently hoped that the good which this hospital will eventually accomplish in the relief of unhappiness and suffering will be represented only in a minor degree by its future inmates, but will extend to many thousands who will never be within its walls.

As preliminary to what I am about to say, I may be permitted to define some words which are in general use by the public in a sense quite different from their professional use. The word tumor, when applied to any abnormal enlargement in any part of the system, is one which carries terror to the minds of most patients, who often consult their physician because of an avowed apprehension that they have a tumor. The word tumor is nearly but not exactly identical with the word swelling, and carries to the professional mind no significance as necessarily implying danger to life. We speak of glandular tumors, fatty, cellular, or fibrous tumors as innocent or benign, meaning thereby that they are purely local growths having no tendency to extension by formation of other growths, and that if removed they are gone for ever. But we also have what are called malignant tumors, which involve a destructive degeneration and gradual invasion of adjacent tissue, and which may finally infect the general system and destroy life. Cancer, using the term in a generic sense, is a typical form of malignant tumor. It is probable that this was first observed and studied as an external disease. The name is said to have been given to this affection by Galen, who lived in Rome in the latter part of the second century and was a physician of great eminence, and one of the most accomplished and learned men of his age. From a fancied resemblance of the appearance of the disease as it extends itself into adjacent healthy tissue to the claws of a crab, he gave it the Latin name of crab—namely cancer. Since his day the name has been universally adopted both by the medical profession and the public, and is popularly applied to all forms of the so-called malignant growths, such as scirrhus or hard cancer, encephaloid or brain-like cancer, epithelioma, the rapidly growing infecting and recurrent forms of sarcoma, and other varieties, which may differ much in structure and in their clinical features. The malignancy which is the common characteristic of all, justifies the long-continued popular usage of the term cancer to cover all these diseases, and all come within the province of this hospital to treat. I will briefly refer to some of the peculiarities of this group of diseases which distinguish them from all others. They have for some years been gradually increasing in frequency and causing a larger proportion of deaths in those nations which are the most advanced in civilization.

In the "Forty-first Annual Report of the Register-General of England," published in 1880, it is asserted that the number of deaths from cancer was 5,218 in 1851, and 12,664 in 1878; but as the population had largely increased in this period, the increase in frequency will be more distinctly appreciated by the following quotation from this report: "The average annual mortality (from cancer) during the five years 1850-'54 was 304 in one million living. In the five years 1870-'74 it was 443, while in the year 1878 it was 512."

In New York city the proportion of deaths from cancer in 1875 was 400 to the million. In 1885 it was 530 to the million. According to the "Reports on Vital Statistics of the Census of the United States of 1880," the proportion of deaths from cancer to the total number of deaths reported from known causes was 36·68 to the thousand.

Cancer is a disease of advanced age. It is found in all ages, but in very unequal proportions. In 8,193 cases the proportion of deaths under five years of age was 15·95 in a thousand, while from five to ten it is only 2·82 in a thousand, and from ten to fifteen 1·60 in a thousand. From the age of fifteen the proportion gradually rises in each quinquennium, until, between the ages of fifty and fifty-five, it reaches 130·18 in a thousand. After this period the proportion gradually diminishes as the population who are living after this period of life diminishes. Mr. Jonathan Hutchinson, of London, whose opinion on all questions of pathology is considered authority by the profession in all parts of the learned world, in the most able discussion which has ever been held on this subject, that before the Pathological and Clinical Society of Glasgow in 1886, said: "Of the causes which underlie the proclivity to cancer, and which render some races and some families more prone than others, we as yet know but little. What little we do know would lead us to believe that it has no-

thing to do with diet or with climate. The herbivorous animals are liable to it as well as the carnivorous, and, so far as I know, it prevails in all parts of the world where the conditions are favorable to longevity. Wherever, from whatever cause, they are not so, there cancer beeomes relatively infrequent. It is almost unknown in those of our domestic animals which are used for food, for the simple reason that we never let them grow old, while in dogs, cats, horses and asses it is common."

Dr. Billings says: "The increase of mortality from cancer with advancing age may be explained either on the theory that the cause of cancer becomes more potential in advanced age at the period of physiological decay, or on the theory that the predisposition to cancer belongs to the strongest and longest lived." The fact is settled beyond question that in those populations where but few reach old age cancer is proportionately rare. There are some curious and interesting facts in regard to the geographical distribution of cancer which science as yet does not satisfactorily explain. The last census of the United States demonstrates that this disease is especially prevalent in the New England States and on the southern Pacific coast; that it is prevalent in New York, Pennsylvania, Ohio, and in the interior of Michigan and the southern part of Wisconsin; that it is least prevalent upon the Mississippi and in the South, and that the proportions are generally lower in the coast regions than in the interior. An examination of the reports of death from cancer in England and Wales made by Dr. Havilland led him to conclusions quite in accord with those derived from our own census. Both banks of the Tweed near Berwick, and of the Tyne at Newcastle, some parts of Yorkshire, and the whole of the beautiful Lake District, are fertile beds of cancer. The Isle of Wight is all but free from this disease, while it is common in Brighton, Folkestone, Dover, Ramsgate and Margate. Statistics also demonstrate, as other facts have seemed to prove, that density of population, poor living and laborious toil have very little to do with the development and appearance of cancer. Thus in London, in which, as a whole, cancer is very prevalent, the parish of St. Luke's, the neighborhood of Bishopsgate Street, crowded Bethnal Green, the Isle of Dog, Rothershithe and Bermondsey are almost exempt from this disease, but in the respectable part of the metropolis, about the Marylebone Road, Regents Park and Primrose Hill it is exceptionally frequent. Liverpool, which has a large mortality from other causes of death, as shown by the fact that, with a population of 552,000 in 1878, the number of deaths exeeeded those of the total number of its births by 1,000, the percentage of deaths from cancer was exceptionally small. In the future it may be discovered that the localities where the prevalence of this is most frequent have certain characteristics in common which science may overcome, and thus notably diminish this tendency in such localities.

In the "Report on the Vital Statistics of the United States of the Tenth Census in 1886," it is remarked that the peculiarities of the differences in the mortality from cancer in different localities may be in part explained by differences in the population of these localities as regards race and age. It is a disease which is much less frequent in the colored than in the white race, hence the mortality from it is greater in the North than in the South. It causes the greatest proportion of deaths where there are the greatest proportion of people of advanced age—that is to say, in the New England States. Hence in any given locality, a large proportion of deaths from cancer indicates to a certain extent that the locality is a healthful and a long-settled one, and has a large proportion of inhabitants of an advanced age. Cancer is not a disease due to misery, to poverty, to bad sanitary surroundings, to ignorance, or to bad habits. On the contrary, it is a disease of the most highly civilized, the most cultured, the wealthy, and of localities which are the most salubrious. One of the characteristics of cancer is that, unless the brain is involved, it leaves intellectual power and force unimpaired. Nay, it seems that in some cases it almost increases these qualities. No pathetic incident is more indelibly stamped on my memory than a visit made to a victim of this disease whom I found, as I often had before, seated at his writing table, his drawn, pallid face expressing fatigue and suffering, but still more expressive of will force and a remarkable power of endurance. "Excuse me," he said, as I entered the room, "until I finish a paragraph I have just begun." After a few moments he laid down his pen, saying, with a sad gleam of satisfaction, "There, since your visit yesterday I have written eight pages." After the commencement of his painful illness, stimulated by the hope of overcoming reverses and leaving his family in circumstance to which their former position entitled them, he succeeded in accomplishing a larger amount of work, and receiving a greater pecuniary reward for it, than in the history of the world was ever before attained for literary work in so short a period of time.

Census reports are to most persons uninteresting, and the value of the two large volumes of the last census which relate to the vital statistics of this country can be appreciated by but few persons; nevertheless, I wish to call your attention especially to the importance of these books, and to the remarks in which Dr. J. S. Billings, of the United States Army, under whose direction they were compiled, sums up the conclusions which may be drawn from them, and points out the way in which such statistics should be extended, improved, and made reliable as a means of increasing our knowledge of the causes of pain and death, and of

the means of destroying or of diminishing these causes.

The belief has been almost universal, both with the profession and the public, until within a comparatively recent period, that cancer has generally a hereditary origin. It is probable that no doctrine in regard to the cause of disease has given rise to so much and so causeless misery and unhappiness in the world as this. In those who have some symptoms which they suspect to indicate the beginning of this disease, suspicion becomes a conviction if any relative of a former generation has died of cancer. They may almost be said to begin the pangs of a moral death long before it is demonstrable that physical death is inevitable from this cause. If the patient has any family history of this disease, and is suffering from any acute or chronic affection, attended with symptoms which he has heard exist in cancer, the effect of this conviction is not only most depressing, but dangerously complicates conditions which otherwise might result in recovery. I have personally known many illustrations of the truth of both of my two last assertions. Again, I have more than once been asked, in those pathetic tones which tell of heart-breaking anxiety, "Are my children or is my daughter doomed to suffer as I now do?". The answer, given in no equivocal words, is, The probability of such a doom for any descendant of yours is extremely small. In all the statistics which I have been able to collect, where the antecedent family history seemed to be trustworthy, I have found the proportion of those who have had cancer, in whom some relative of a former generation is reported to have had some form of malignant disease, to be only 13·65 per cent. On the other hand, in regard to one family which has in the present generation the largest number of victims I have ever personally known, I have authoritative proof for asserting that no development of any form of malignant disease has ever existed in three previous generations, including collateral branches.

Before a professional audience I could give a list of names, which would be regarded as conclusive as to present belief of the profession on this point. More than a quarter of a century ago, Mr. Jonathan Hutchinson, whose opinions carry the greatest weight, expressed his disbelief in hereditary origin as an effective cause. Recently—that is, during the past year—in a notable and most able discussion of this subject, he said: "It is utterly useless to employ such a term as hereditary transmission of cancer in such a sense as we speak of the transmission of some other diseases." A proclivity to disease may result from the conjunction of certain parentage, but it can not be said to be inherited from ancestors in whom it did not exist. We may speak of cancer being hereditary as we speak of delirium tremens as hereditary, but in neither case is this transmission of the disease. Parents can not transmit to children disease which has no existence in their own system previous to the birth of the children, and then it is absurd to say that a daughter has inherited the disease which her mother first developed twenty-five years after the birth of the daughter.

A cancer bacillus is as yet unknown in science, and the most recent investigations have failed to find any. But I observe that Sir James Paget, in a lecture delivered on the 11th of November, expressess the belief that micro-parasites, or substances produced by them, will some day be found in essential relation with cancer and cancerous diseases. But as yet there are no ascertained facts which support this belief. In a paper read before the Academy of Medicine in 1870, I then avowed the opinion that cancer could not be regarded as a hereditary disease, but that a hereditary tendency to it often exists in those whose ancestry has been wholly exempt from it. In such it is probably developed by some local existing causes.

Cancer was regarded by Abernethy, a great authority in pathology and surgery during the early part of the present century, as being simply the local manifestations of a constitutional disease. Within the past few years a large number of the most eminent pathologists have become adherents to the doctrine that it is primarily a local disease, and that the constitutional affection is a secondary result. This is not the time or place to review the various able arguments which have been urged in favor of one or the other view, but it is a point of great importance, as affecting the question of the curability of the disease. In the first place, no medicine has yet been discovered which acts specifically in retarding or curing the disease, as quinine and mercury and other medicines do certain specific diseases. No man has the moral right to administer any drug without some well-defined view of the end which he wishes to accomplish, and a well-grounded belief that the drug he selects will probably effect this result. But in cancer we do not know what primary changes are necessary, in either tissue or function, to prolong life or cure the disease. Even if we did know this, no drug has yet been found which experience has proved will effect these changes. So it may be positively asserted that no case of cancer has ever been proved to have been cured by medical treatment, and, as after three years it is generally believed that the probability of recurrence is very slight, we have the right to say that many cases have been absolutely cured by total removal of the diseased tissues.

I think sufficient facts have been accumulated, especially within the past ten years, to justify the following assertions. Total removal of the whole diseased growth when it is found as a distinctly limited affection, the lymphatic glands not being involved, it is highly probable will be followed by a cure.

If the disease has involved the lymphatic vessels and glands, the chances of cure are materially diminished, but in many such cases an operation has proved to be of great service in relieving suffering and prolonging life for months, and in some cases from one to two or three years.

After the local disease has existed a sufficient length of time to contaminate the blood and infect the general system, a cure by an operation or by any other method is absolutely hopeless. Great progress has been made in successful surgery within the past few years by a resort to the operation at the earliest possible period—that is, so soon as the existence of the disease can be determined. The most recent and probably the most authoritative writer on this subject, Mr. Butlin, of London, asserts that every week of delay increases the danger of the contraction of various adhesions, of affection of the secondary glands, and of the formation of secondary growths. But duration alone is not a conclusive argument against the success of an operation, for, as the same author adds, "when long duration of a malignant tumor is associated with a very slow progress, small size, absence of serious adhesions, absence of affection of the neighbouring lymphatic glands and of secondary growths, so much the more favorable is the prospect of permanent relief from operation for its removal." The question of the locality of the growth is one of great importatnce in forming a decision as to the necessity and probable success of removal, and will always be carefully and conscientiously weighed before a decision is made. These malignant growths may appear in any tissue of the body, external or internal, and eminent surgeons of this city, as elsewhere, have removed them, with all the success anticipated, from muscles, bones, lymphatic glands, the eye, the face, the lower lip, the tongue, the breast, and other external organs.

If this were a fitting opportunity and time would permit, I am sure all present would be interested in hearing an account of such as I have personal knowledge of, either from my own observation or from a knowledge derived directly from the operations. But such details would be inappropriate on the present occasion, and I am compelled to deny myself the pleasure of paying a jnst tribute to the skill and sound judgment of surgeons that we have in our city.

Dr. S. W. Gross, of Philadelphia, asserts: "The convictions are steadily gaining ground that this disease in the breast is primarily a local affection and not a constitutional one, and that these views are supported by many of the most eminent men living; pathologists such as Virchow, of Berlin; Billroth, of Vienna; Fersche,of Breslau; Esmarch, of Kiel; Nussbaum, of Munich; Volkmann, of Halle; Erichsen, Hutchinson, Gull, Simon, Bryant, Green, and others, of London, and the late Dr. Goss and Dr. Parker, Dr. Peters, Dr. Moore, Dr. Richardson, and others, in the United States, have shown by the statistics of their own practice and that of others the usefulness and success of the surgical removal of the disease. But, as I have before said, removal of the disease by operation is not restricted to external organs, but many operations for removal of internal organs have been performed with all the success that could be anticipated, although, it must be added, there have been many failures. On November 14th, three weeks ago, I was present when one of the medical board of this hospital performed one of the most difficult operations ever attempted in surgery—viz: the entire removal of a most important internal organ. I had previously seen the patient, and concurred in the opinion that the operation was imperatively necessary, and that it offered a fair promise of success; I may add that the opinion of the operator and myself was given independently, each without the knowledge of the other. This patient, as I have learned within a few days, has had no unfavorable symptoms which have retarded her convalescence. It is possible that she may hereafter escape any return of the disease. It is certain that her life has been prolonged, and that she has been saved from months or perhaps years of suffering, which would have soon ended her days. A fair number of cases have been reported in which such results have been attained. And yet so late as fifteen years ago any proposal to attempt such an operation would have been condemned by the universal sentiment of the profession; and if it had been attempted and resulted in failure, the public would have denounced the operator as a reckless, unscrupulous butcher, who had no conscience as regards the result to his patient, but simply sought personal glory in the *éclat* of having performed a wonderful operation. All of us have before heard such language applied to surgeons.

The case which now commands the most universal sympathy and interest in all nations of the world, is that of the Crown Prince of Prussia. It is an unparalleled event in history that three men, two of whom had been at the head ef the government of their respective nations, and the third whose probable inheritance was an empire, should each have been victims to malignant disease, in contiguous localities differing only in some minor details, at the same period in the world's history. In the case of President Grant, the locality of the malignant growth was such that it was decided by most competent authority that from the beginning a successful removal by surgery was not practicable, as the danger from such an attempt would be much greater than the probability of any benefit. During the illness of General Grant I received a letter from the brother-in-law of Dom Ferdinand, ex-King of Portugal, and his attending sur-

geon, detailing the history and description of the case of the ex-King, in whom malignant disease had also appeared in the mouth, very near to but not exactly in the same site. From the description given, the conviction was irresistible to my mind that it would be impossible by any surgical procedure to remove the whole of the diseased tissue, and that any attempt of the kind would be attended with such danger as might be followed by immediate death and would undoubtedly shorten the duration of his life. His death followed within a few months that of our honored ex-president. As regards the probable future of the case of the Crown Prince, none but those able men who are in attendance upon him, and who must have a knowledge of many details which are essential elements, but which it is impossible to explain to the world, are competent to form or express any opinion of value. In general terms, I may say that his general health is reported to be very good —that the progress of the disease appears to be slow as compared with some cases, and I may add, if it be decided by his medical advisers that partial or entire excision of the larynx should be performed, we have abundant evidence that in a certain number of cases both of these operations have prolonged life to a period when the probability of recurrence is very small. In some cases entire excision has saved life for a length of time; that gives great encouragement for hoping that the ravages of this terrible disease have been arrested. Two such happy results have been reported in this country and several abroad. Dr. Roswell Park, of Buffalo, in June, 1885, removed the entire larynx on acconnt of the existence of this disease in a patient who was himself a medical man. In a letter, dated November 22nd, he writes to me: "The Dr. has a number of relatives in Buffalo, and, as I frequently see one or more of them, I am kept pretty well informed as to his condition. My latest news is so recent as last week, and to the effect that he is as well as ever."

It must be obvious that all new and important operations are followed by a progressive success in their results as the methods of operating are improved in their details and as the after-treatment necessary becomes better known. The percentage of successful results increases in a ratio in proportion to the experience acquired by the increasing number of the operations. Indeed, I may add that it is my conviction that the progressive number of cures of this terrible curse to humanity is in a more rapid ratio than the progressive increase of the frequency of the disease.

Need I say more in the light of the past to point out what may be hoped for in the future from such a hospital as this, under the devoted zeal of the active staff, whose ability, competency and faithfulness to their duty have already been demonstrated in other positions? Can any one have a doubt as to the probable service to humanity which will result from the careful observation and study by such competent men of details that can never be acquired except in a large hospital?

I question whether any, even the most sanguine, has more than a feeble conception of the benefit to the victims of the disease to be here treated, and to thousands of others, that will result from the opening of this hospital.—*New York Med. Jour.*

THE PSYCHOLOGY OF JOKING.

I think punning does not receive enough attention. In spite of Dr. Johnson's well-known dictum, we should not despise punning. Sydney Smith says that it is the foundation of all wit. Supposing three degrees of evolution, I submit that (1) punning is the least evolved system of joking, that (2) wit is evolved out of punning, and that (3) humor is evolved out of wit. Everybody has heard of Sydney Smith's remark—that it requires a surgical operation to get a joke into the head of a Scotchman. But he spoke without distinguishing. The Scotch have a great appreciation of those highly evolved jocosities displaying the humorous, although, no doubt, a scorn of simple, lowly evolved jocosities, such as plays on words. Is is difficult to form a conception of a Scotch punster; yet I have heard an Aberdonian, a physician of world-wide reputation, make a pun.

Punning is well worthy of the Psychologist's attention. I seriously mean that the analysis of puns is a simple way of beginning the methodical analysis of the process of normal and abnormal Mentation. This, I think, I can easily show.

Vision is stereoscopic; in a sense it is slightly diplopic, for there are two dissimilar images, although there seems to be but one external object, as we call it. To borrow the ophthalmological term. we can say that Mentation is "stereoscopic;" always subject-object, although, we often speak of it as single ("states of consciousness," etc). Just as there is visual diplopia so there is "mental diplopia," or, as it is commonly called, "double consciousness."

Now I come back to punning. We all have "mental diplopia," when hearing the answer to a riddle which depends on a pun—"When is a little girl not a little girl?" Answer: "When she is a little horse (hoarse)." The feeble amusement we have in the slightly morbid mental state thus induced is from the incongruous elements of a "mental diplopia." The word "hoarse" rouses in us the idea of a little girl who has taken cold, and the same sounding word "horse" rouses in us the idea of a well-known quadruped at the same time. We have the sensation of complete resemblance with the sense of vast difference. Here is, I submit, a caricature of the normal process of all mentation. The process of all thought is

"stereoscopic" or "diplopic," being the tracing of relations of resemblance and difference.

To call punning a slightly morbid mental state may be taken as a small joke. But I do not think it very extravagant to describe it so; it certainly is not if it be a caricature of normal mentation. A miser has been defined as an amateur pauper; the habitual drunkard is certainly an amateur lunatic. And in the same style of speaking we may say that—well, we will say that punning is playing at being foolish; it is only morbid in that slender sense.

The word "play," carries us on in a slightly different direction. Jocosities of all degrees of evolution (1) puns; (2) witticisms; and (3) humorous statements are the "play of mind,"—play in the sense in which the word has been used in the remark that the "æsthetic sentiments originate from the play impulse." A further definition of play, as thus used, is given in the following quotation from Spencer:—"The activities we call play are united with æsthetic activities, by the trait that neither subserve, in any direct way, the processes conducive to life" (*Prin. Psych.*, vol. ii, p. 627). There would be a great intellectual advance—due, I presume, to Internal Evolution—when man began to value things for their beauty apart from their use: one sign of his having "got above" his mere animal self. For it showed that over and above mind required for mere animal existence, he had some surplus mind for greater ends of life. So I contend that our race owes some respect to the first Punster. For the dawn of a sense of the merely ridiculous, as in punning and simplest jokes, shows the same thing as the dawn of æsthetic feeling—surplus mind, something over and above that required for getting food and for mere animal indulgence. All the more so if punning be that out of which wit and humor are evolved.

It is not a good sign if a man be deficient in humour, unless he have compensation, as Wordsworth had, in a sense of the sublime, or in great artistic feeling, or in metaphysical subtlety. The man who has no sense of humour, who takes things to be literally as distinct as they superficially appear, does not see fundamental similarities in the midst of great superficial differences, overlooks the transitions between great contrasts. I do not mean because he has no sense of humour, but because he has not the surplus intellect which sense of humour implies. Humour, being the "play" of mind, is tracing deep, fanciful resemblances in things known to be very different. This is "playing" at generalisation, and is only a caricature of the same kind of process which made Goethe declare that a skull is a modified part of a vertebral column.

Now I am about—not really digressing from what I have just said—to say something which sounds very paradoxical: that persons who are deficient in appreciation of jocosities in their degrees of evolution are, in corresponding degrees, deficiently realistic in their scientific conceptions. One would infer this *a priori*. Every child knows that a man born blind has no idea of light, but the educated adult knows, too, that the congenitally blind have no notion of darkness. And I think that observation confirms what *a priori* seems likely—that *pari passu* with the evolution of the sentiment of jocosity (playing at unreality) is the evolution of power of realistic scientific conception—from sense of the merely ridiculous with parallel realistic conception of simple things up to sense of humour, with parallel realistic conception of complex things. But we must be on our guard not to take commonplace realism about simple things to be realism when applied to very complex things. It seems at first glance more realistic to suppose that sourness is inherent in vinegar than that it is always a sensation in some percipient. But that the former hypothesis is very unrealistic is easily seen when we put such crude metaphysics in other words: the doctrine then is that part of the taster's own mind is outside himself. It is possible for the same person to be truly realistic in simple things, and to be intensely unrealistic in complex things. Thus, the really practical man who may tell us that he despises metaphysics, may be crudely metaphysical when he deals with complex things—"explaining," for example, that a man comatose does not move because he has lost consciousness. Surely the truly realistic conception is that the comatose patient does not move any of his limbs from some physical disability, for essentially the same reason that a hemiplegic man does not move his arm and leg.

I now go back to my small joke that punning is a slightly morbid mental state, a "mental diplopia," a caricature of the normal "diplopia" of healthy mentation. From this point I make the assertion that the "physiological insanity" of dreaming is diplopic—a caricature of that of waking mentation. A physician read in the day of the strained relations of European States; in his dream at night he is called in consultation by Bismarck, and advises a course of the iodide of potassium (directions for the application of the remedy were not given). Clearly, there are here two very dissimilar mental states "pretending" to be stereoscopic; manifestly a seeming fusion of ideas of prescribing for a patient with ideas of the hostile attitude of European States. I hope some time to be able to show that such diplopia has the same kind of mechanism as that of the pun—that the two elaborate dissimilar states are held together by two sane, or similar, simple mental states. I go on to remark that in some people there are beliefs as incongruously diplopic as some states in dreams; diplopic in that way to other people, at any rate.

Opinions of the Authorities on the Application of PAPOID (Carrica Papaia) in Diphtheria and Dyspepsia.*

PROFESSOR D. FINKLER, of the University of Bonn Rhein, Germany, has made an exhaustive study of Papoid. We quote a few extracts from his published writings on the subject:

"PAPOID is a digestive ferment made from the tropical fruit 'Carrica Papaia.' When taken into the stomach has the following action.—

"It converts five times as much albumen into peptone, bulk for bulk, as the best pepsin."

"It increases the flow of gastric juice, by stimulating the peptic glands."

"It prevents the decomposition and fermentation of the contents of the stomach by its antiseptic action."

"The action commenced in the stomach is continued after the food has passed into the intestines, as it acts in the presence of an acid or an alkali, or when the reaction is alkaline."

"It is perfectly harmless."

"It dissolves any unhealthy mucus sheathing the walls of the stomach and intestines, and,"

"It relieves pain, either caused by the presence of irritating ingesta, or due to local neuralgia."

"It is thus evident that the drug will prove useful in all cases where there is either deficient secretion of the peptic ferments, abnormal fermentation, or a combination of both conditions."

"In practice excellent results have been obtained in the following conditions—

"Gastric or intestinal pain."

"Vomiting, persistent, especially the morning sickness of chronic alcoholism, and that incidental to pregnancy."

"Anorexia, simple loss of appetite without other symptoms."

"Acid dyspepsia."

Gastric Catarrh.

5 George Street, Hanover Square,
LONDON, Aug. 4, 1887.

DEAR DR. HERSCHELL,—

Thank you for sending Mr. Hughes to me with his little girl. I ordered the child your favorite Papoid which I have found of the very greatest value in cases of Gastric Catarrh. It is really a wonderful medicine.

Yours very truly, EUSTACE SMITH,
Physician to First Children's Hospital.

Its Advantages in Diphtheria.

Dr. A. JACOBI, New York, before the Medical Society of New York, Feb. 2nd, 1886: "Diphtheritic membranes are dissolved in a few hours—in a few cases after a day only. Temperatures of 104 and 105 degrees would sink to the normal standard after the removal of the membranes."

Prof. CRONER, (im Vereine fur innere Medicin in Berlin) reports successful treatment of a boy eight years old with Papoid. A five per cent. solution brushed upon the parts every hour caused the entire disappearance of the membranes in about seven hours and the reduction of the temperature to normal. Recovery was rapid.

FLATOW, at the same meeting, mentioned a similar case treated with equal results, using a five per cent. solution.

Drs. FRAENTZEL and LEYDEN, at the same meeting, related similar successful cases.

Prof. OERTEL, in Respiratory Therapeutics (Ziemssen Handbuch der Allgameinen Therapie, p. 1751)—"A large piece of diphtheritic membrane expectorated by a child suffering from diphtheria of the trachea was dissolved in a five per cent. solution of Papoid in one hour's time."

KOHTS and ASCHE, (Zeitschrift fur Klinische Medicin, Vp. 558), "Diphtheritic membrane in the throat and nose as far as they can be reached are completely dissolved by a five per cent. solution."

Dr. A. F. GREEN, Cleveland, Ohio: On the morning of Aug. 16th, I was called to treat Willie Taylor, son of W. D. Taylor, of the firm of Geo. Worthington & Co., who was suffering with malignant diphtheria. A large surface on the right side of his throat was covered with diphtheritic fungus. I applied Papoid to the child's throat every 40 minutes for 18 hours, when the membrane was entirely removed. Thinking then, from the favorable symptoms, that the disease was abating, I applied the remedy at intervals of about three hours. About 36 hours after the fungus on the right side had been dissolved, it appeared in large patches on the left. I again treated the throat at short intervals, and met with the same success as before mentioned. After the sixth day the child made rapid and unimpeded progress to recovery.

Yours, A. F. GREEN.

* *PAPOID may be obtained from THOS. LEEMING & CO., 25 St. Peter Street, Montreal, who are sole Agents for the article in Canada.*

1. Killing a rabid dog to prevent people already bitten by it going mad. 2. Imagining it to be possible to study what are called "diseases of the mind" methodically, without distinguishing between the physical and the psychical. 3. A cleanly mother, from maternal solicitude, refraining from washing the top of her baby's head, lest it should come to have "water on the brain." 4. Imagining it to be possible to investigate complex subjects without the use of hypotheses; for instance, that Harvey could have made observations and experiments to *prove* the circulation of the blood, without *supposing* before hand that it did circulate. 5. Anointing a blade with healing salve to cure a wound inflicted by the blade.

Once more I go back to punning for a new start, trying to show again by very simple cases that punning is only a caricature of, and therefore, for the psychologist, a valuable experiment on, the process of normal mentation. I take first a case, which is almost, if not quite, a pun, but one made unwittingly. What is called the inelegance of using the same word in one sentence, or in two consecutive sentences, causes mental diplopia. For even if each of the two words has the same dictionary meaning, we must bear in mind that a word loses something of that kind of meaning when forming part of a proposition, losing and taking meaning from its context. Hence, the second time the word comes, there is a faint revival of the ideas it symbolised when used the first time; along with a vivid revival of other ideas it now symbolises; there is a trivial confusion from slight mental diplopia, like that from an ill-understood pun. I now give a more striking example, one in which there is manifest diplopia without confusion.

A smell, say, of roses, I now have makes me think of a room where I passed much of my time when a child. Here clearly is "mental diplopia," and the mechanism of it is quite similar to that of the pun, making allowance for caricature in the latter. For the true process is that the smell of roses, now having, develops what we call the same smell, but really another smell, that of roses once had in the old room. The two scents, linked together, hold together two dissimilar mental states (1) present, now narrowed, surroundings, and (2) certain vague quasi-former surroundings. When the scent of hay or the caw of rooks rouses in us vague pleasurable feelings, the mechanism is of the same kind, but the process is more complex. To further insist on the fact that mentation is stereoscopic, with more or less manifest diplopia, I give an example of mentation which is exceedingly common. Whilst writing I suddenly think of York Minster. Here is mental diplopia—(1) narrowed consciousness of my present surroundings and (2) cropping-up of consciousness of some quasi-former surroundings. Of course something, whether I can mentally seize it or not, in my present surroundings, has developed a similar something associated with York surroundings.

Recapitulating, I say that the process of all thought is double, in degrees from a stereoscopic unity of subject and object to manifest diplopia (two objective states for one subject). The process of all thought is tracing relations of resemblance and difference, from simplest perception—to say what a thing is, is to say what it resembles and differs from—up to most complex abstract reasoning. The formula of the caricature of the normal process of thought is the "pretence" of some resemblance between things vastly different—from punning, where the pretended resemblances and real differences are of a simple order, up to humour, where both are highly compound. We have the "play" of mind in three degrees of evolution, three stages of increasingly complex incongruousness.

If I had time I could, I think, show that this address on jokes is not itself, merely one big poor joke, but that what has been said applies closely to the study of "mental symptoms" in serious diseases. I should begin the new stage of the inquiry with the quasi-healthy feeling of "reminiscence," clearly an element in a mental diplopia. For my task would be an endeavor to show that all morbid mental states are departures from normal mental states in particular ways—that, for example, the process of mentation in the maniac is but a caricature of that in healthy people. Thus the reminiscence, although it is almost pedantic to call it morbid, is really a link between perfectly normal and decidedly abnormal mentation. For reminiscence occurs in slight attacks of a certain variety of epilepsy. as do other voluminous mental states ("intellectual aurae)," I call them all "dreamy states." These cases I should take next. There is clearly in them morbid mental diplopia, and yet this is traceably only a gross caricature of normal mental diplopia, being linked on to it by the reminiscence occurring in people we call healthy. And I think it could be shown that they have the same kind of mechanism as puns have. Next, taking these miniature and transient cases of insanity, and other cases commonly called insanity, I should try to show that the comparison of mentation with vision is of direct value.

In the symptomatology of a patient who has paralysis of an ocular muscle, there are many elements. There is morbid visual diplopia; in insanity there is morbid mental diplopia. The ophthalmologists "true," and "false" images have their analogues in the "true" and "false" mental states in the cases of epilepsy mentioned. In the former, when the divergence of the eyes is slight, there is more visual confusion; in the latter, when the dissolution of the highest centres is

shallow, there it more mental confusion. In the former, when the divergence is great, diplopia ceases (the patient, the opthalmologist says, "neglects" the false image): in cases of epilepsy, upon deeper dissolution than that with which there is the "dreamy state," the actions are considerably coherent. The "erroneous projections" of the former have their clear analogues in the hallucinations of many cases of insanity.

Believing that all diseases are to be looked on as flaws in different parts of one Evolutionary system, I urge the "Comparative study of Diseases of the Nervous System." I submit that, recognising the enormous difference between insanity and ocular paralysis, a profitable comparison and contrast may, nevertheless, be made, which will further a better knowledge of both. I do not mean simply that ocular paralysis may be taken as an illustration, to simplify explanation of a case of insanity, but also that, both being examples of Dissolution, the very same principles are displayed in each.—Dr. Hughlings Jackson, in the *Lancet*.

THE THERAPEUTICS OF THE URIC ACID DIATHESIS.

The treatment of the uric acid diathesis was made the subject of discussion before the Section of Pharmacology and Therapeutics at the Dublin meeting of the British Medical Association. The subject was introduced by Dr. Burney Yeo in an address which commanded the attention of a large auditory for nearly an hour (*Lancet*). He said he would endeavor to confine himself to the practicable aspects of the question. The pathology of the condition in which uric acid was present in excess in the organism was still doubtful. Murchison regarded the liver as primarily at fault, and with this view Professor Latham was disposed to concur. According to this theory, the essential condition present was the non metabolism of glycosin into urea. Garrod, on the other hand, regarded the kidney as the active producer of uric acid. Ebstein placed its production in the muscles and marrow of bones. Frerichs held that the essential point was the perverted metabolism of albuminoid substances into urea. Bouchard denied that the presence of uric acid in excess was the chief feature in the morbid condition in question. One thing appeared certain,—that the uric acid diathesis had its foundation in the imperfect metabolism of food, especially albuminoids. He (Dr. Yeo) would define it as "mainly a disturbed retrograde metamorphosis." Turning to therapeutics, he would point out that in all therapeutic questions three things had to be taken into account: 1, the pathogenic factor; 2, the constitutional factor; 3, the remedial factor. The two former were highly variable, and only the last had any claim to constancy. He would deal with the various remedies in detail. 1. Diet, regimen, and mode of life. There could be no doubt that, next to heredity, errors in eating and drinking were the most potent causes of the uric acid diathesis; but it was an error to assume that all gouty people had been intemperate. Ebstein regarded a tendency to obesity as a potent factor in the production of the condition, and advocated a dietary to check fat formation. He did not, however, entirely exclude fatty matters from the dietary. He allowed cabbage, peas, etc., but no turnips. He (Dr. Yeo) thought that no good results followed from prohibiting the moderate use of animal food. Senator advises a minimum of fats, and especially prohibits the yelk of egg. As regards alcohol, he thought it would be better for some persons, especially women, to abstain altogether; in others a moderate use of alcohol was not objectionable. Malt liquors and bad wines were to be carefully avoided. He regarded the cheap clarets in common use as particularly injurious. He held strongly that the *quality* rather than the *kind* of wine was the really important point. As a general rule, those wines were best which had a diuretic action. A small quantity of alkaline water might be advantageously added to the wine. Still Moselle was good, and was now much used. Exercise in moderation was important as tending to improve the general health, but it must be borne in mind that gout was very common in those who took a great deal of exercise, and that women, who led comparatively inactive lives, suffered far less than men. A warm, dry, equable climate was useful. All climatic conditions which interfered with the action of the skin were hurtful. He advised the regular use of considerable quantities of water, preferably hot water. Turning to drugs, colchicum had been much assailed of late years, but he had never observed the ill effects which some authorities attributed to its use. Garrod, Sir Thomas Watson, and Graves had all borne witness to its value. He believed that its chief action was upon the liver. It had also sometimes a diuretic and diaphoretic action.

As regarded the salicylates, he could not agree with Germain Sée that salicylate of sodium was the best remedy which we possessed. The benzoates had been highly recommended, but he was not convinced of their utility. Guaiacum, in spite of the high commendation of Garrod, seemed to be generally neglected. Iodide of potassium was very useful. Alkalies were in almost universal favor, but Dr. Latham did not think highly of them. There was a disposition at present to exalt unduly the merits of lithium, in comparison with sodium and potassium. He thought bicarbonate of potassium was the most certain diuretic of the group. Magnesia and lime had been largely lost sight of, but the success attending the administration of the waters

of Contrexéville (which contained large quantities of these salts) should direct our attention to them. He thought Bath was likely to be as useful as Contrexéville, and it was a much more attractive place. The mineral constituents of waters at these two resorts were similar.—*Therap. Gaz.*

LAPAROTOMY FOR TUBERCULAR PERITONITIS.

A most interesting discussion on the treatment of this affection took place at a meeting of the Clinical Society of London, October 28th, with papers by Mr. Barwell and others. The *crux medicorum*, which has long been given over by medicine, seems to have been taken up enthusiastically by the broad shoulders of surgery. The *Medical Press*, commenting on the discussion, says:

"The number of cases on record in which laparotomy has been performed for the relief of tubercular peritonitis is now sufficiently large to enable us to form some opinion as to its propriety and as to its effects. Mr. Treves quoted thirty-six cases, in only six of which recovery did not take place, and this alone would suffice to warrant further trials when we consider the intractable nature and fatal tendency of the malady. A series of ninety-six cases brought before the Congress of German Surgeons yields almost, if not quite, as favorable statistics. In view of these successes, it may almost be laid down as a rule of treatment that, whenever we detect symptoms of tubercular peritonitis, the proper course is to open the abdomen and cleanse the peritoneum. The extraordinary impunity with which the peritoneal cavity can be manipulated under these circumstances is not the least interesting feature of the operation. The fact has long been recognized that, when the membrane has been the seat of chronic inflammatory changes, it is less apt to resent interference than under normal conditions, and advantage is taken of this to subject it to treatment which would have inspired surgeons of but a few years since with unmitigated horror."

Evidence was presented in the discussion that concomitant tuberculosis of the lungs is often favorably influenced by the amelioration of the abdominal disease. The accuracy of the diagnosis in some of the cases of most marked benefit from surgical treatment was confirmed by microscopical examination of the granulations with which the peritoneum was covered.

In several of the cases alluded to, the ascites had been first treated by aspiration, which, though it relieved the mechanical distress, did not have the effect of the more daring operation which was subsequently performed. Most operators attach great importance to the use of the drainage-tube, which is generally brought out through the abdominal wound, but Mr. Barwell did not employ it in the case which he brought before the Society, and objected to it as unnecessary, and even useless, seeing that a tube from the front could not be reasonably expected to drain the abdominal cavity of a patient lying on the back. In any case, he maintained that it was preferable to give the patient a chance of doing without it for the first twenty-four hours, even if it had subsequently to be inserted. Although Mr. Treves was firm in his advocacy of the use of the tube, which he considered a principle of the treatment, one of his cases tended to prove the contrary, for, although the tube was inserted, subsequent accumulation took place, in spite of all the efforts made to obtain a free discharge. It is not without interest to note that in this particular case, the patient being a child, Mr. Treves went a step further, and injected a solution of iodine, again not only with no untoward result, but with positive advantage to the patient, whose temperature then and there fell to normal, and never after rose.—*Boston Med. and Surg. Jour.*

IRON AND SODIUM SALICYLATE IN RHEUMATISM AND RHEUMATIC AFFECTIONS.

For some four years I have been in the habit, in certain classes of rheumatic affections, usually chronic, of employing a combination of tincture of chloride of iron and sodium salicylate, prepared according to the following formula, which I have been informed by Dr. Rice, of Bellevue Hospital, New York, and other experienced pharmacists, is the first successful combination of these drugs in an eligible preparation. In the House Pharmacopeias of the Philadelphia Polyclinic, where it was first used in 1883, and of Jefferson Medical College Hospital, it is known as the Mistura Ferro-salicylata:

℞.	Sodii salicylatis,	℥ iv.
	Glycerini,	f ℥ ij.
	Ol. gaultherii,	♏ xx.
	Tinct. ferri chloridi,	f ℥ iv.
	Acidi citrici,	gr. x.
	Liq. ammonii citrat. (B.P.), q. s. ad	f ℥ iv. M.

The mixture is clear, and is not unpalatable. The usual dose is two fluidrachms in water, three or four times a day. The quantities and proportions of the active ingredients may, of course be varied according to the intended frequency of dosage and other circumstances. In cases which are rather subacute than chronic, it is sometimes given every second hour, until the physiological effects of the salicylate are produced, and then at longer intervals. I have also employed it, with apparently good results, in acute articular rheumatism, and in some cases of acute tonsilitis, especially in that group where the diagnosis is at

first in doubt between rheumatic angina and diphtheria. Some of my friends have reported to me good results in acute rheumatism. Its particular applicability is in that group of patients in whom Dr. Russell Reynolds strongly urges the iron treatment—a recommendation endorsed with equal earnestness by Bartholow—namely, anemic, delicate, poorly-nourished or broken-down individuals, usually old people, children or adolescents, but met with at all ages, whether the disease be acute, subacute or chronic. In adults, indeed, as a rule, and quite frequently in children, even when the disease is not plainly chronic, the patient will give a history of repeated acute attacks ; or there will seem to have been a long series of recurrences, with intermissions of doubtful health. Recognizing the weight of the testimony in favor of tonic, and especially ferric, treatment of such cases, and yet desiring to obtain also the specific action of the salicylic compounds, I succeeded, after several ineffectual trials, in obtaining a clear mixture by the use of the formula given above, and four years' experience, latterly with the ample material furnished by the out-patient department of Jefferson Medical College Hospital, has abundantly confirmed my expectations of its usefulness.—Solomon Solis-Cohen, M.D., in *Med. and Surg. Reporter.*

SOME POINTS IN THE CARE OF CHILDREN.

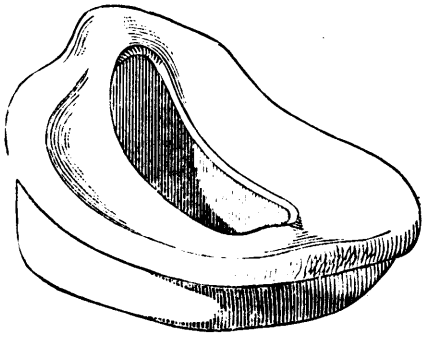
A writer in the St. Louis *Globe-Democrat*, evidently a discreet medical man, says some things so true and so important for physicians to appreciate, that we think it well to repeat certain of them for the benefit of our readers. In the first place, he dwells upon the value of putting children early to bed, and having them rise soon after they wake. He holds that it is not only cruel, but also mischievous, to compel children to lie awake in bed for hours to prevent them from disturbing older people, The morning sun is most essential to plant life. It is equally true that the morning sun is most valuable for animal vigor, and this includes human beings.

Again, this writer opposes study late in the afternoon, and much more in the evening, for young children ; and emphasizes, by a striking il lustration, the advantages of play for children, instead of straining their little brains. He also expresses what we regard as a wise disapproval of putting children to bed immediately after supper. Let them, he says, have a chance for light exercise and sport. Above all he depreciates the stormy season which often follows supper, when the parents wish a child to go to bed and the child does not want to. We appreciate, of course, the advantages of discipline and regular habits ; but we agree with the writer referred to in deprecating the practice of forcing a child te bed immediately after the last meal of the day.

One more point which we would refer to in this interesting article is that each child should, if possible, have a bed to itself. For physical and moral reasons we believe this to be desirable ; and we share the writer's convictions that the habit of sleeping alone is one which is advantageous to adults also. As those who have great opportunities for moulding the future of the children committed to their care, our readers will estimate at their proper worth the homely truths which we have just cited ; and no good physician, we are sure, will consider it beneath the dignity of his calling to study matters which are so important to the happiness and welfare of the "little ones." —*Med. and Surg. Reporter.*

A NEW BED PAN.

We notice with some satisfaction an attempt to break away from routine in the matter of bed pans, and to devise something more in accordance with comfort, convenience, and common sense. Such an effort has been succeeded by the production of what is known as the "Anatomical Bed-Pan," by Mr. C. F. Forshaw, a dentist, of Brad



ford, who would appear to have discarded for the nonce the upper molars for their resultants at the other end. It is modelled from the human nates, etc., and is very comfortable and easy of use. It is applicable to both sexes, and as the cover is movable, it admits of being thoroughly cleansed. We can strongly recommend it as a noteworthy improvement on the shapes hitherto supplied.—*Med. Press and Circular.*

POISONING BY ANTISEPTIC SOLUTIONS OF BICHLORIDE OF MERCURY.—Mr. J. A. Pepper calls attention (*Lancet*) to the source of danger to life from the use of bichoride of mercury in the form of very weak solutions—*e.g.*, one in 1,500 or 2,000. I understand, he says, that in midwifery practice it is not at all uncommon to employ injections of the strength just mentioned for cleansing purposes,

not only as a corrective against septic discharges, but also as a prophylactic. Where the patient is free from organic disease of the kidneys, one has little need to fear untoward consequences from the treatment under consideration. I am aware of two cases of death from acute inflammation of the bowels following closely on the injection of very weak mercurial solutions into the vagina shortly after parturition. As in each instance no other cause of the fatal complication could be discovered, there is little doubt that the acute irritative lesions in the intestines were due to the bichloride in the course of its elimination. The action of the salt was concentrated, so to speak, in this particular region by reason of grave renal affection. In one of the two cases I made a very exhaustive post-mortem examination. The whole of the small and large intestine was acutely inflamed. There were thousands of hemorrhagic patches, punctate and irregular in shape. There were a few minute recent ulcers. The catarrhal congestion was extreme. Lymph was effused into the substance and upon the surface of the mucous membrane. Slight general peritonitis seemed to have started at the middle of the colon, where the intestinal lesion was more marked than elsewhere. The stomach was not affected. The kidneys were in an advanced state of fatty degeneration. No aperients had been administered to the patient, but a solution of bichloride of mercury (1 in 2,000) had been injected into the vagina to prevent decomposition of the lochia. Profuse diarrhea ensued, and continued until death. The body temperature was never raised, and latterly it was subnormal. I was at a loss to account for the ultimate cause of the diarrhea and its fatal consequences, until the circumstances were explained to me by an obstetric physician who was present at the necropsy, and who had witnessed a precisely similar case in his own practice. The lesson to be learnt from the foregoing narrative is—that even a very attenuated solution of a mercurial salt should not be employed as a vaginal injection without first ascertaining the state of the kidneys by an examination of the urine.—*Med. News.*

CAUSE AND CURE OF A CERTAIN FORM OF BACKACHE.—Early in the year 1881, in a note which was published in a weekly professional journal, I asked the attention of my brethren to a form of backache which had not so far as I know, been described before. I desire now to refer to this subject again and to record that my further experience in practice has confirmed my previous remarks upon the point in question.

Subjective symptoms are always important diagnostic signs, and they are often clear therapeutic indications. Among such sensations backache is frequently a leading symptom, and also one which is pressingly dwelt upon by patients. Of backache there are divers forms. Dr. George Johnson, in an able clinical lecture, and Mr. William Squire, in a practical memorandum, have drawn the attention of the profession to many of these. But they have not mentioned a variety of backache in which the cause of the pain is traceable to the condition of the large bowel. I find that some patients complain of a pain, aching, dull and heavy in character, and extending "right across the back." When asked to point out its position, they indicate this by carrying a hand behind the trunk and drawing the extended thumb straight across the back, in a transverse line about half way between the inferior angels of the scapula and the renal region. This pain I venture to attribute to a loaded colon; I conclude I have correctly found its proximate cause in fecal accumulation in the large intestine. I have found it disappear after the exhibition of an efficient cathartic. This form of backache is a concomitant of habitual constipation, and is especially significant of the alvine sluggishness of sedentary persons. In such a condition as I have stated elsewhere, I find aloes, given in combination with iron, to yield the best results. We owe the valuable suggestion of combining iron with aloes, when aloes is given for laxative purposes, to the late Sir Robert Christinson. He showed that the cathartic property of aloes is much increased by its combination with sulphate of iron. Dr. Neligan, Dr. Kent Spender and Dr. David Bell have confirmed this experience. I prefer Socotrine aloes, and I give of it one, two or three grains in a pill, combined with a quarter of a grain of sulphate of iron and one grain of extract of hyoscyamus. This pill should be taken every night. We must aim at producing a full alvine evacuation after breakfast. When a saline cathartic is indicated, I usually employ the old-fashioned Rochelle salt. This "goes" well with tea, coffee or cocoa. One or two tablespoonfuls may be taken at breakfast, dissolved in a large cupful of one of these beverages.—Sir James Sawyer, in *Lancet.*

THE TREATMENT OF FACIAL NEURALGIA BY ANTIPYRINE.—One by one the non-inflammatory painful affections are wheeling into line as amenable to treatment by antipyrine. Germain Sée, in speaking of this subject, says: "To complete the series of painful affections of the head which have yielded to antipyrine, I must mention facial neuralgia. I have notes of seven cases of tic douloureux, all of a very grave kind, two of which were completely cured. One resisted antipyrine absolutely, while four have experienced marked amelioration and appear to be in the way to recovery. These patients had been suffering from tic douloureux from twelve to eighteen years During this long and frightful period of suffering, these patients had never been able, without pain,

to open their mouths, to speak, to chew their food, to swallow hot or cold liquids, to expose themselves to a current of air, or to enjoy the least respite, even under the influence of morphia or salicylate of soda. These four patients are enabled now, after two months of treatment, to enjoy that freedom from pain which they had not before known for years, and to live like the other members of the family. The treatment has consisted in the daily use of 75 grains of antipyrine (15 grains every four hours, till the entire quantity was taken). I have also relied very much on the subcutaneous injections of antipyrine—8 grains dissolved in the same weight of water, and the whole injected for one dose—but as these injections have sometimes been painful, I have lately modified my formula, as follows: I now dissolve my 8 grains of antipyrine in 22 grains of water, to which, in order to enhance the effect, I sometimes add $\frac{1}{6}$ grain of cocaine. These injections act with surprising rapidity and energy. I now rely on these hypodermic injections in all the inveterate cases, and during the painful paroxysms combine the hypodermic treatment with the internal administration of 75 grains a day. The results in this most grave and most intractable of painful disorders have been unprecedently gratifying and surprising."—*Medical Record.*

COLD WATER ENEMATA IN CATARRHAL JAUNDICE.—Ten years ago Krull recommended a method of treating catarrhal jaundice which had at any rate the merit of simplicity; it was to give daily large rectal injections of cold water. The water on the first day was to have a temperature of 59° F.: on the following days the temperature was gradually raised to about 72° F. Loewenthral and Eichorst have lately reported very good results from this treatment, and E. Kraus has found it equally successful in children, the quantity used in their case being as much as one litre ($1\frac{3}{4}$ pint). Dr. A. Chauffard, in a recent number of the *Revue de Médicine*, reports very favorably of the method. He states that the large injections are well borne, and are generally retained for five or ten minutes; they produce only slight colicky pain, and after the stool has been passed the patient feels considerably relieved. Improvement begins almost at once; pruritus and yellow vision disappear with great rapidity; the fæces resume their natural color, and the bile pigments disappear from the urine in from two to eight days. The mode or action of this method of treatment is not very clearly made out, but it seems to be proved that one effect is to cause forcible contractions of the gall bladder. The bile is secreted under very low pressure, and as the experiments with toluylendiamine have shown, deep jaundice may be produced if the bile becomes concentrated and thicker than usual. It is quite possible, therefore, that active contraction of the gall bladder might overcome the slight obstacle at the aperture of the ductus choledochus; such an effect would be doubtless favoured by increased peristalsis of the duodenum.—*Br. Med. Jr.*

THE ETIOLOGY OF PHTHISIS.—In an interesting article on the etiology of phthisis (*Philadelphia Med. Times*), Dr. R. W. Philip, of Edinburgh, Scotland, reaches the following conclusions:

1. In view of the work of Koch, it is impossible to avoid admitting that a casual relationship exists between the tubercle bacillus and the phthisical process. 2. The mere predication of this relationship is not sufficient in explanation of the clinical facts and the generally fatal termination of such cases. 3. The usually received explanations of the *modus moriendi* in phthisis are insufficient. 4. It appears probable that the lethal influence of the bacillus is due to the production thereby of certain poisonous products. 5. Clinical and experimental evidence appear to indicate that the morbid secretions from the respiratory surfaces afford a good medium for the growth of the tubercle bacillus and, presumably, for the elaboration of such products. 6. Such a product is separable from the carefully selected and prepared sputum. 7. This product is possessed of well-marked physiological properties, being eminently toxic to frogs, mice and other animals. 8. The toxic properties of the product are, speaking generally, depressant. 9. More particularly they include a marked depressant influence on the heart. 10. This depressant influence seems to be exerted through the medium of cardio-inhibitory mechanism. 11. The toxic action of the product is more or less completely opposed by atropine. 12. The amount of the product which may be separated appears to bear a distinct relation to the abundance of the bacillar elements present. 13. Absorption of the poisonous product most probably occurs by way of the lymphatic circulation.

WHAT THE MORPHINE HABIT WILL DO.—The ingenuity of morphine victims to hide their vice has never been better illustrated than in the case of a young girl at a fashionable young ladies' boarding school, near Philadelphia, as told by a contemporary.

The disclosure came about accidentally. When the young student returned to the school this fall she had periods of deep despondency, and often asked the privilege of going to the room in the seminary set apart as a hospital. There she would lie for a day at a time, only rousing herself when any one approached the table, on which stood an ink-bottle and a stylographic pen. The nurse having occasion to send a message to the doctor, attempted to write with this pen, the young girl at that time being asleep. The pen not only refused to write, but the practiced eye of the

nurse instantly recognized in the point the puncturing needle of a hypodermic syringe. This led to an examination of the ink-bottle. It was a four ounce bottle, but there was no ink in it. It was painted black on the outside, and contained Magendie's solution of morphia, enough for 128 one-half grain doses, or sufficient to last till the Christmas holidays. The principal of the school was summoned immediately, and the sleeping girl's arm bared. It was punctured from the shoulder almost to the hand, and the livid blue marks confirmed the suspicion, which was changed to absolute certainty, by the small abscess which had begun to form in the forearm just above the wrist. The habit had been formed about two months only, and there is a possibility that a cure can be effected.

INCUBATION OF THE INFECTION OF MEASLES.—Dr. Sevestre, in a thesis recently published, demonstrates the fact that the period of incubation in measles is almost invariable—between thirteen and fourteen days elapsing between the moment of infection and the appearance of the rash. The fever appears four days earlier, viz., between the ninth and tenth day. Another fact, and one of far greater importance, has been determined by Dr. Sevestre, and that is that the infective power of the disease commences with the first moment of prodromic manifestations, viz., of the appearance of fever, and continues with unabated virulence until the eruption, after which its infective power diminishes very rapidly, vanishing entirely on the fifth day thereof. In the analysis of many hundred cases, not one instance of infection after the fifth day of eruption (the eighteenth or nineteenth after exposure) could be found. The practical bearing of these facts are manifest. They furnish a sure and valuable guide on points upon which the profession and laity have strangely blundered hitherto, viz., the proper time for isolation of the patient. The habit of sending off the apparently unaffected members of a family, while the fever in an affected one is at its highest, is the surest method of transporting the infection and creating new foci of disease.—*St. Louis Med. Jour.*

INOCULATION AGAINST TYPHOID FEVER.—Inoculation against typhoid fever is the latest sanitary possibility. Brieger has discovered that typhoid bacilli secrete a ptomaic poison which he has called "typhotoxine," the injection of which into animals seems to have caused lesions very similar to those caused by typhoid fever in man. As a result of researches these conclusions appear: 1. The symptoms and alterations observed in animals in which culture of typhoid bacilli had been injected are due to the toxic substances secreted by these bacilli. 2. The noxious germs which secrete the typhotoxine are reproduced in the intestinal canal. From these the ptomaine is taken up by the circulation and carried to all the organs liable to be affected by this poison. 3. It is most probable that the same takes place in abdominal typhoid fever of man. 4. A first infection insures immunity against injurious effects of a later infection, even of large quantities of the toxic substance. 5. Further experiments and careful clinical investigations are necessary in order to establish a scientific support of the theory of immunity from injections of sterilized cultures containing not more than a determined quantity of typhotoxine. 6. In case this theory be an ascertained fact, the reproduction of the same immunity in man would be justified by commencing with very minute doses of typhotoxine, which would be gradually increased according to the results obtained.—*The Sanitary News.*

A READY METHOD OF REMOVING FOREIGN BODIES FROM THE ANTERIOR NARES.—Physicians are often called upon to remove peas, buttons and various substances from the nostrils of children who have themselves introduced them there. A ready method for removing such substances is described by Mr. T. Osborne-Walker, in the *Lancet*, where he states that recently a little boy was brought under his care with a button tightly impacted in the angle between the vomer and os nasi, at the bridge in the right nostril. Ineffectual attempts at extraction had evidently been made, as shown by blood oozing from the nostril, and some, coagulated, adherent to the button, partially concealing its outlines from view, and also by the button being fixedly jammed in. In such cases, to prevent struggles and interruption, the child's arms, hands and legs should be first confined, by folding tightly around these and the body a long, clean apron, and then placing the child on an attendant's lap, facing the window, while the operator stands behind the patient, and, bending over and depressing with two fingers of the left hand the apex of the nose, to admit as much light as possible upon the object to be removed, with the right hand very carefully to avoid its descent into the pharynx or larynx, the spoon end (with the concavity directed forward) of an ordinary pocket-case director should be introduced, with which at once with a simple lever movement or jerk the foreign body may be readily ejected.

By attention to the following points the removal is instantaneously effected: The close confinement of the hands, arms and legs by a shawl, blanket or apron; a good light; a reliable person to securely hold the child; the position of the operator behind the patient; depressing well the apex of the nose to obtain a good view of the object; and, lastly, getting the concave face of the spoon of a director fairly behind the body before making the forward lever movement.—*Amer. Med. Digest.*

OXYGEN IN PUERPERAL ECLAMPSIA.—A. Bompiani reports, in the *Osservatore*, September 25th, 1887, two cases of eclampsia with albuminuria, occurring during pregnancy and during confinement, in both of which he employed oxygen. In the first case, which was proceeding to a fatal termination, he endeavored by the use of oxygen to obviate the asphyxia, which transiently developed, and was dependent upon the condition of the lung; while in the second case, which survived, oxygen was employed as a last resource, and effected the disappearance of the anasarca, as well as of the convulsions.

The first patient, was a young woman twenty-seven years old, who, at the end of pregnancy, was seized with convulsions, which occurred every fifteen minutes. Bromide of potash, chloral hydrate, leeches, warm vaginal douches, subcutaneous injections of morphine were without effect, and coma and asphyxia were strongly developed. Inhalations of oxygen produced slight improvement; the child was delivered by forceps; but the patient died after nine inhalations.

The second patient was a young woman at the end of pregnancy, who was seized with violent convulsions. A living child was delivered by the forceps; but, after delivery, fresh paroxysms developed, against which inhalations of oxygen and injections of ether were successfully employed.—*Deutsche Medizinal-Zeitung.*

DURATION OF LIFE IN MODERATE DRINKERS.—The great insurance companies of Great Britain have, by their official action, pronounced the teetotalers longer lived than those who make even a moderate use of spirituous liquors. The companies in question have for a series of years kept separate registers of all their beneficiary members, the total abstainers being classed apart from the moderate drinkers. As a result of these records, they find the advantage in respect to longevity decidedly in favor of the teetotaler. One of the largest and oldest of these companies, which has kept separate registers for twenty years, declares that, among the strictly abstaining class, the real mortality has fallen short by thirty per cent. of the ordinary expectancy; while fully ninty-nine per cent. of moderate drinkers have attained this expectancy. Caine, a member of parliament, concludes, from a study of statistics, that the total abstainers have an average duration of life exceeding by six years that of moderate users of even the lighter beverages, such us wine and beer. There are now insurance companies and societies for mutual aid lesigned exclusively for total abstinence men; the taking of even an occasional glass of any intoxicant vitiates their policy.—*Med. and Surg. Rep.*

SOME OBSERVATIONS UPON PELVIC CELLULITIS.—Dr. Hardon concludes an article in the *Atlanta Med. and Surg. Jour.* as follows:—My object in writing this paper is to submit the following propositions: 1. Acute pelvic cellulitis in the stage of infiltration may frequently be aborted by aspiration. 2. Chronic pelvic cellulitis rarely, if ever, exists except as a sequence of a previous acute pelvic cellulitis. 3. Hardness and tenderness in the broad ligaments, as a result of pelvic venous engorgement, are commonly mistaken for chronic pelvic cellulitis. 4. The treatment of such engorgement by raising the womb in the pelvis relieves the constitutional as well as the local symptoms, and places the patient in a suitable condition for a radical operation more speedily than the methods of treatment commonly in vogue.

HOW TO KEEP ICE FROM MELTING.—It is often a most important matter to be able to preserve ice from melting quickly in the sick room. Various devices have been suggested for this purpose; but the most efficient seems to be one proposed by Dr. Julius Stumphf, in the *Allg. Med. Central-Zeitung.* Dr. Stumphf recommends the use of chaff—barley chaff. He says that a piece of ice placed in a bag, and then in a box or basket containing enough barley chaff to surround it with a layer of five or six inches thick, will not lose 25 per cent. of its weight in five or six days, in a room, the temperature of which is between 70° and 80°. This suggests an excellent way to preserve various articles of food and drink, as well as ice itself.—*Med. and Surg. Rep.*

A NEW DANGER FROM OLD RAGS.—A writer in the *Lancet* calls attention to an unsuspected danger from old rags, cloth and rubbish. A lady, the head of a school, found a miscellaneous mass of such stuff in a number of bolsters and pillows that had been in use in the school. It seems that the practice of stuffing bedding with such material is very common. It is possible that this may account for some of the mysterious outbreaks of of infectious diseases in schools and families.—*Jour. Am. Med Assoc.*

POISONING WITH CHLORATE OF POTASH.—Dr. George T. Welch reports in the *Transactions of the Medical Society of New Jersey*, for 1887, a case of poisoning with chlorate of potash. The subject was a woman, 28 years old, who took at one draught four fluid ounces of a saturated solution of this salt. She had great prostration, straining, vomiting and frequent micturition. Her stomach was emptied with an emetic, and nerve stimulants and opium were administered. The next day she was quite recovered.—*Med. and Surg. Reporter.*

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AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHLER, 23 Rue Richer, Paris.

TORONTO, JANUARY, 1888.

The LANCET *has the largest circulation of any Medical Journal in Canada.*

THE CANADA LANCET.

The CANADA LANCET with this issue appears under new management and proprietorship. Owing to the death of Dr. Fulton, this change has been rendered necessary, and henceforth the CANADA LANCET will be the care and property of Drs. J. L. Davison and C. Sheard, of Toronto, who are determined to make the journal, even more than in the past, one which shall take a foremost place among the standard medical journals of the day.

Arrangements are now being made to secure the assistance of many eminent physicians and surgeons in New York and Philadelphia, by whose aid we hope to be able to furnish a reasonable number of original articles in addition to those produced by Canadian medical men. Negotiations are also being made with many eminent European authorities for the same purpose. There will also be a regularly engaged staff correspondent in each important medical centre, whose special duty will be to report interesting matters occurring in hospital practice, and the new management confidently anticipates in the CANADA LANCET a production worthy the continued support and confidence of the medical profession of Canada.

It may be mentioned that Dr. Davison has had the entire control of the editorial department of the journal during the past two years. All matters of a business nature should be addressed to Charles Sheard, M.D., 314 Jarvis St., and all editorial matter to Dr. J. L. Davison, 12 Charles St., Toronto.

TREATMENT OF SCARLET FEVER.

This very serious disease has almost as many different modes of treatment as there are physicians in practice. Few specifics are vaunted for its cure, though there are not many diseases which have not had, at one time or another innumerable alleged specific remedies proposed and certified to by the profsssion. Mild cases are often the most troublesome, for the patients being mostly children are with difficulty kept in bed or even in one room, and as some of the most dangerous sequelæ only show themselves after the disease has been running for a number of days, this confinement does not always commend itself to the parents, who are with difficulty made to understand the necessity for it. Thus in a mild case, when the child has been playing about the house, as bright and animated as usual, and complaining of but little discomfort, the disease may not be diagnosed with certainty for some days; yet when the dangerous period approaches great care must be taken that the proper hygienic measures are carried out, or what at the outset appeared a simple case may end very unpleasantly or even fatally. Even in mild cases a certain amount of angina and blood deterioration are present, so that some medication is necessary. The old fashioned mixture containing pot. chlor., and tinct. ferri mur., with simple syrup, will prove perhaps as useful as any, by acting upon the throat and tending to prevent the anemia which so frequently follows scarlet fever. The amount of pot. chlor. should to be small, as it acts prejudicially upon the kidneys, producing in some cases uremia and suppression of urine.

For high temperatures the wet pack, or sponging, or a bath gradually cooled down is indicated; but though the profession generally recognizes the usefulness of this therapeutic measure, as also its complete safety, it is rarely resorted to in private practice, for the reason that the public hold still to the belief that the application of cold is dangerous.

in all fevers and especially in the exemthemata. Salicylate of sodium is said to be more efficient for the reduction of the high temperature than the older remedy, quinine, and besides is better borne than the large doses of the latter necessary to influence the heat production. Aconite is not much resorted to, owing to its depressant action. It should be used with great care, especially with children. The majority of physicians have recourse to local medication for the foul and offensive secretions, which in severe cases occur upon the faucial and nasal mucous membranes. Some antiseptic, as boracic acid, may be added to the regular mixture; or if the child be old enough to gargle, the same remedy may be used in this way, while the nasal passages may be kept sweet and clean, and much discomfort avoided by using a spray of some antiseptic solution. One half drachm of carbolic acid to two ounces of glycerine and six ounces of lime water is a very useful preparation. When the glandular symptoms are severe, most practitioners apply compresses of various degrees of heat and moisture to the neck.

As to the hygienic treatment, good ventilation and a uniform temperature is absolutely necessary. The temperature should be from 65° to 70° during the course of the fever, but when desquamation begins, it should be somewhat higher, so that there may be less danger of the patient being chilled at night when partially uncovered. The patient, even in the mildest cases, is no doubt safer if confined to his bed for three wecks, and then for a fortnight more to one room. By this means one of the most dangerous complications, namely, nephritis, is usually avoided. Henoch is not a believer in the theory that catching cold produces nephritis, but as Lewis Smith says, there is abundant evidence that kidney trouble is less frequent in those cases where the patients have been warmly clothed and protected from the vicissitudes of temperature.

The inunction of the whole surface except the face, night and morning, with carbolized oil, 1 in 40 to 1 in 20 is, highly spoken of as a measure which relieves the dryness and itching so irritating to the patient, and at the same time is prophylactic during the desquamation of the skin. Alcohol is an absolute necessity in grave cases, and may be pushed without fear of untoward results. At the same time nutrition must be attended to. Barley water with raw white of egg added, jellies, broths, milk, or some of the prepared foods may be tried according to circumstances.

For the great thirst which is so frequently complained of, ice, black currant water, or a little raspberry vinegar will be found grateful. The cerebral symptoms are perhaps best treated by the application of cold to the shaven head.

Tonic medication should be continued during and for some time after convalescence, to counteract the anemia which is usually present.

IRON IN ENTERIC FEVER.

The trend of modern therapeutics is to constantly seek after some new thing. A rivalry appears to exist among the profession as to who shall be the first "by whom the new is tried," to the great danger that older remedies of established virtue may not only be laid aside but wholly lost sight of. If, in every case, these novelties proved of equal or superior utility, their rapid introduction and frequent administration, by all who desire to advance with the age, might be justified. But it is against all experience that such results could be anticipated, or that more than a small percentage could even be equal to those older remedial agents which have been established by the critical test of time.

A strong probability, therefore, clearly exists, that many of the new and much vaunted remedies may supplant more valuable medicines, to the disadvantage of both patient and physicians, the possible retrogression of medical science and the discredit of the profession.

Among the great variety of remedies of alleged utility in typhoid fever, we trust with some confidence, born of experience, in iron, and especially to the tinct. of the muriate. From its well established therapeutical virtues in restoring to health those suffering from impoverishment of the blood, and evil effects resulting therefrom, and its undoubted potency in antagonizing the consequences of morbid alterations of the blood, and the dyscrasia produced by many diseases; we conclude that iron should be useful in that condition of the blood produced by enteric fever.

Hydrochloric acid has long been found useful in this malady, and by combining with iron, we are convinced that its virtues are greatly enhanced.

Tinct. of iron meets several of the indications, independent of its constitutional effects. It is an astringent, an antiseptic, and combined with quinine, a most potent stomachic tonic. By its administration, it is almost directly applied to the locality in which the disease is seated, and benefits the diarrhea, checks the tendency to hemorrhage, acts antiseptically on the contents of the bowels, and possibly on the ulcers, and, we have, found agrees with the stomach as well as most other remedies. We are aware that some recent authorities dispute the correctness of some of the views hitherto entertained in reference to the therapeutical qualities of iron, its mode of action, and effects. Yet we hold that its evident utility in many diseases where the blood is impoverished or morbidly altered, cannot be successfully disputed. Experience has taught us that it is eminently useful in enteric fever. We have employed it for over ten years, in addition to the usual approved remedies, and have made it the central remedial agent in this disease, around which other subordinate remedies were prescribed, as circumstances seemed to indicate. If permitted to found an opinion on the results attained, we can truthfully assert that it is actively serviceable. We admit it is possible that the very satisfactory results may not have been attributable to the iron; but this is not probable. We know that we have been more successful in the treatment of typhoid since we began its use than before. During the past year we havetreated no inconsiderable number of cases, without a single death. That it is destructive to, or prevents the multiplication of typhoid bacilli, we know not, nor are we in any sense assured as to what its manner of action is, bnt we believe firmly in its value in this disease. Of course we do not advocate its exclusive use in any case, but as it does not in any way interfere with the usual approved treatment, and can be administered without risk, we bespeak for it a trial at the hands of the profession, that fnrther experience may either establish its value in typhoid, or prove its worthlessness, and relegate it to the extensive list of useless remedial agents for that disease.

THERE are fifteen thousand nurses in Great Britain. Mr. Henry C. Burnett is now advocating the establishment of a national pension fund for them and for hospital officials.

CHIAN TURPENTINE IN THE TREATMENT OF UTERINE CANCER.

The question of the curability of this scourge by the use of Chian turpentine is still causing some debate. Mr. Clay, of Birmingham, was the first to speak well of the treatment. From time to time cases of cures have been published in the various medical journals. Mr. Clay, as late as 1881, wrote to the *Lancet* as follows:—

"An enlarged experience, however, has confirmed the statements made in my original paper, and I have now the satisfaction of being able to declare that I have nothing to withdraw or to qualify as regards the statements I then made as the result of observation as to the effects of Chian turpentine in uterine cancer."

Unfortunately the number of failures has been so far in excess of successes for this remedy, that few in the profession, in this country at any rate, have any faith in its power to check the morbid growth. We do not know that it has ever been sufficiently tried here to decide *pro* or *con* as to its value. In one case which came under our notice, the patient, who was the daughter of a medical man, was, or thonght she was greatly relieved by its use, but she eventually died of the disease.

The truth as to the value or worthlessness of the remedy is of such vast importance that it would be well if more light could be thrown on the subject. Mr. Elder, of Nottingham, makes an appeal (*Lancet*, Dec. 3) to the profession as follows:—

"From time to time he (Mr. Clay) has favored his professional brethren with repeated cures of cancer by this remedy, and even so recently as in your last week's issue three more examples are given. But what about the failures? In the interest of the public at large, such claims as Mr. Clay makes for Chian turpentine ought not to pass unchallenged by those who differ from him. Unfortunately, examples of cancerous disease are only too common upon whom this remedy (supplied, if necessary, by his own chemist) might be tested by a tribunal in whom the profession at large would have confidence, and the doubt once and for all resolved. If this drug came out of the ordeal triumphantly, then I feel sure there would not be a single dissentient to Mr. Clay occupying a position not inferior to Jenner or Harvey, as one of the greatest benefactors of our species; but if, on the contrary, it is wholly useless as a remedy, then let it drop into a well-merited, and not too premature oblivion."

The suggestion as to where the drug is to be

obtained is a valuable one. A drug which is not even mentioned in such text-books on Materia Medica as those of Lander, Brunton, and Bartholow, will not be likely to be obtained pure from the ordinary chemist. There seems to be something essentially unscientific in the treatment of such a pathological condition as a cancerous os, by the internal administration of medicine; but equally strange propositions as to the treatment of disease have proved beneficial to humanity, which, after all, is the great end for which we are working.

DISPOSAL OF SEWAGE.

From the excellent report of the Maryland State Board of Health, lately received by us, we take the following conclusions as to the disposal of sewage. They are clear and to the point, and deal with a matter which is becoming of greater interest every day. The whole profession both in the city and country should be aroused to the necessity of more attention being paid to sanitation. When we read of the scourges of epidemics of diphtheria, typhoid and other *preventible* diseases, and consider what they cost the country in cash, it is to be wondered at that the powers that be do not aid the various health organizations more generously, not only by placing adequate sums of money at their disposal for the carrying out of their *absolutely necessary* work, but also by so legislating as to give them the necessary power to make that work a success, not in theory or on paper, but in practice.

The conclusions are as follows:

"1. That the proper disposal of sewage involves the beneficial appropriation of refuse matters, so as to make them actually productive, avoiding interference with those domestic uses of inland waters for which they are properly adapted. 2. That sewage matters should be made available for agricultural purposes, and the results in this respect are limitable only by considerations of expense as weighed against the value of the result. 3. That the great importance of avoiding all sources of unhealthy and offensive effluvia, and of preserving the foundations of buildings and the sub-strata of towns and cities in a dry and clean condition, creates an absolute necessity for relinquishing cesspools and all receptacles for sewage connected with any building or other place, except such as are thoroughly water-tight and for the most part air-tight. 4. That all unhealthy putrescible matters should be removed at short intervals from within the limits of centres of population, either by means of air-tight pipes, or in vessels or tanks hermetically closed. 5. That privy-pits, unless they are perfectly water-tight, will infect, *(a)* the surrounding soil by transudation of their liquid contents; *(b)* the air by exhalations or gasecus emanations through a polluted soil; *(c)* the sources of domestic water supply by percolation through intervening strata of earth. 6. That the use of water from dug wells should be prohibited for drinking and culinary purposes in every instance where privy-pits not absolutely water-tight exist in proximity to or within 1,000 feet of such wells. 7. That there exists between the air of water-carriage sewers and the external atmosphere a constant interchange, and as is the air of the sewer, so will be the air of the street. 8. That without considerable fall or grade, flushing is utterly inefficient for cleansing sewers, except where the matter is carried by pneumatic pressure or aspiration, even in the case of small sewers with large quantities of water. 9. That the impermeability of brick sewers can never be absolute, and, therefore, should they convey excrementitious matters, the surrounding soil and the water of neighboring wells will be at all times liable to dangerous contamination. 10. That excrementitious matters ought to be rigidly excluded from all storm-water sewers. 11. That the epuration of sewage water by the soil alone is not efficient in a sanitary point of view, as has been demonstrated by both experience and chemical analysis. 12. That no system of sewage can be approved, which permits the pollution of either air, water or soil; and that, in order to fulfil the requirements of proper sanitation, all excrementitious matters and kitchen slops should be conveyed from towns by pipes absolutely air-tight, or in hermetically-closed vessels to a point sufficiently distant, where they may be manufactured into a dry manure powder without offence."

SUPERFETATION.—Dr. Godfrey, writing to the *Lancet*, gives the following account of an interesting case of superfetation: "I was called on August 17th of the present year to Mrs. H——, aged twenty-nine, to attend her in her fourth confinement. She stated she was seven and a half months gone and had been in pain all night, with considerable loss. On examination I found a three and a half months' fetus in the vagina, which came away without difficulty. The uterus was large, rising about two inches above the umbilicus, and I could distinctly feel the movement of another fetus. The placenta did not come away, and all pain ceased. I then left her, as there was no hemorrhage or pain, and returning in an hour and a

half found things *in statu quo*. This state of affairs continued for four days, when the pains returned, and the breech of a child was born before my arrival. I immediately removed the child, still-born, though the nurse informed me that the legs moved after their delivery. The child must have been quite seven months, as the nails were commencing to form and its weight was 4¼ lbs. The placenta of the second child came away naturally, but was followed by a great deal of hemorrhage; there was no sign of a second after-birth attached to it. Traction on the smaller cord failed to detach its placenta, so I introduced my hand into the uterus and removed it piecemeal; it was completely adherent and attached to the upper zone on the right side, measuring about three inches across; it was not putrid. All the bleeding immediately ceased, and my patient made an excellent recovery, without a drawback."

THE VOMITING CENTRE. — Professor Fremas, (*Lancet*) who has been investigating the subject of vomiting, finds that in dogs and cats, section of the medulla at the level of fourth ventricle does not prevent the induction of vomiting by hypodermic injections of apomorphia. By touching different parts of the medulla with a weak solution of apomorphia, so as to induce vomiting, he was able to localize with tolerable precision the situation and extent of the vomiting centre, which he says lies in a small space before and behind the calamus, and in the deeper layers of the medulla. He believes that the absence of vomiting, which is observed in ruminants, rodents, and some other classes of animals, is due to the absence in them of a vomiting centre, or to the very rudimentary condition in which it exists. In a rabbit on which he tried in every way to induce vomiting, no signs of gastric movement of that nature could be detected.

FRACTURE OF COCCYX, WITH SUBSEQUENT SPONTANEOUS REMOVAL.—Dr. W. J. Jolly writes to the *Atlanta Med. and Surg. Jour.* thus:—I was called to Mrs. M., November 1st, 1887, primiparæ, aged 21 years, who was in labor. Nothing unusual occurred until the head was pressed against the coccyx, which did not yield. I applied the forceps and delivered her without any trouble and without any laceration of perineum. Immediately after delivery she suffered intense pain in the region of the coccyx, for which I gave an opiate and examined the bone. Found some displacement which I corrected, supposing it to be fractured. The opiate soon relieved the pain; she did not suffer any more until the 9th day, except some tenderness in the region. She had some slight pain on that day. On the 10th she passed a bone per anum and sent it to me, stating that she thought she had passed a joint of her backbone. Upon examination I found it to be the lowest segment of the coccyx. She has had no trouble since. As I have not seen a similar case on record, I send it to you for publication.

THE BINIODIDE OF MERCURY IN GONORRHŒA. —Dr. C. K. Illingworth writes to *The Br. Med. Jour.* that he finds the biniodide of mercury very serviceable as an injection in gonorrhœa when used in solution with iodide of sodium. He combines it as follows:—

℞.—Sol. hydrarg. bichlor.,	℥ij.
Sodii iodidi,	ʒss.
Sol. morph. (B.P.)	℥ss.
Sodæ bicarb.,	ʒjss.
Zinci sulph.,	gr.x.
Aquam ad,	℥vj.

M. et solve. Ft. inject.

THE ACTION OF SALINE PURGATIVES.—The following are the conclusions arrived at by Lenbuscher (*Edin. Med. Jour.*), as to the action of saline purgatives:—"1. That an exaggeration of the peristaltic movement of the intestine only plays a secondary part in the action of saline purgatives. 2. In whatever manner saline purgatives may be introduced into the intestine, the intestine becomes the site of a great secretion of liquid, which is the principal cause of the purgative action. 3. It is impossible to claim for saline purgatives that they act as a barrier to re-absorption. 4. Saline purgatives introduced into the circulation in sufficient quantity produce constipation."

OUR NEW YORK LETTER.—We regret that owing to the sudden and unavoidable departure of our correspondent from New York, we have no communication from that city in this issue. We shall endeavor to make such arrangements as will ensure for February, and all subsequent numbers,

a regular letter from our own correspondent in that city, as well as from London and other great centres of medical learning. This will, we hope, place before our readers a useful digest of some of the latest ideas in medical science, with methods of treatment, new inventions, etc., all of which we fear not, will be appreciated by our patrons.

THE CARDIAC RELATIONS OF CHOREA. — Dr. William Osler has carefully re-examined (*Am. Jour. Med. Science*) 110 of the choreic cases treated at the Infirmary for Nervous Diseases between 1876 and 1885. In each case the patient was examined more than two years subsequent to the attack of chorea. He found 43 normal hearts, 53 with organic and 13 with functional troubles. He draws from his study the following conclusions :

1. That in a considerable proportion of cases of chorea—much larger than has hitherto been supposed — the complicating endocarditis lays the foundation of organic heart disease.

2. In a majority of the cases the cardiac affection is dependent on rheumatism, and cannot be regarded as in any way associated with it; unless, indeed, we hold with Bouillaud, that in the disease "*chez les jeunes sujets, le cœur se comporte comme une articulation.*"

3. As the presence of an apex systolic murmur in chorea is usually an indication of the existence of mitral valvulitis, as much care should be exercised in this condition as in the acute endocarditis of rheumatism. Rest, avoidance of excitement, and care in convalescence, may do much to limit a valvulitis, and obviate, possibly, the liability to those chronic nutritional changes in the valves wherein lies, after all, the main danger.

TURPENTINE IN DIPHTHERIA.—Not a few practitioners in this country have strong faith in the beneficial action of turpentine in diphtheria. It will, therefore, be interesting to know the results in fifty-eight cases treated by it by Röse, of Hamburg (*Therap. Monats.; Med. Prog.*). He had a mortality of five per cent. His treatment was as follows :—

He gave oil of turpentine three times a day in teaspoonful doses, mixed with spirits of ether. A teaspoonful of a 2 per cent. solution of sodium salicylate was also given every two hours. Externally an ice-bag was used, and gargles of a 1 per cent. warm solution of chlorate of potassium. This treatment gave the following results :

1. Rapid lessening of the pulse-rate and of the temperature. 2. Rapid alleviation of the subjective symptoms. 3. Shortening of the duration of the illness. 4. No exacerbation of the local process after the first dose of turpentine. 5. Only once was there danger of suffocation, and tracheotomy was done.

Röse thinks that pencilling the throat, as done in private practice, is generally useless. He uses great caution in pushing the turpentine in anemic cases, and in patients with weak hearts; and excessive cardiac action, from any cause, was carefully treated. The food given in his cases consisted of bouillon, old port wine and milk; and ice and aërated fruit juices were given to quench thirst. The turpentine was discontinued when the patient was free from fever. In ordinary cases doses of from 3 to 5 drachms were used, and no intoxication was seen. In one case paralysis occurred, but the patient recovered under the use of chlorate of potassium.

INFANTILE MARASMUS.—The following conclusions have been arrived at by Dr. Isaac N. Love (*St. Louis Courier of Medicine*) as to the cause of infantile marasmus :—

1. Infantile marasmus is dependent primarily on torpidity and inactivity of the glandular system; and is aggravated by unsuitable, over-abundant, or insufficient food and unsanitary surroundings. 2. It is of the first importance, in treatment, to arouse secretion and excretion, the best remedy being calomel in one-twentieth of a grain doses, with the free administration of water; both of these agents exciting glandular action, stimulating the secretion of the digestive juices, and promoting diuresis and intestinal secretion. 3. "In the matter of diet, mother's milk is the best, and some other mother's milk the next best." 4. In extreme cases, administer soluble foods in the forms of baths, and practise gentle friction and massage, with an occasional bath in water containing a diffusible stimulant.

SPARTEINE, THE NEW HEART TONIC.—The

following are suggested by Langgord (*Therap. Monats.*), as useful formulæ for the administration of sparteine in heart disease :—

℞.—Spartëin. sulph., ... gr. iij-vij.
Aq destil., ... ʒijss. Sol.
Sig.—Twenty drops from two to four times daily in sweetened water or wine.

℞.—Spartëin. sulph., ... gr. iij-vij.
Syr. aurant. cort., ... ʒxijss. Sol.
Sig.—A small teaspoonful in water from two to four times daily.

PHTHIRIASIS PUBIS.—We take the following from the *N. Y. Med. Jour.:* The treatment of phtheriasis pubis by the usnal blue ointment has so many inconveniences, with its disagreeable application and its after toxic effects, that I will speak of the use made of the well-known antiparasitic action of salicylic acid. The formula given is :—

Salicylic acid, ... 2 to 3 parts ;
Toilet vinegar, ... 25 parts ;
Alcohol (80 per cent.), . . 75 parts.

The parts are to be rubbed with a piece of flannel wet with the mixture. In most cases a single application will be enough to destroy the pediculi.

ECZEMA.—Dr. Crocker proposes (*Med. Age.*) to treat recurring eczema as follows : He applies a counter-irritant, not to the part affected, but to other parts of the body which have some connection with the nerve centres. The counter-irritant used is an ordinary mustard leaf, but when that is not sufficiently strong a blister is produced with liquor epispasticus. For the face alone the mustard leaf (or blister, as the case may be), is applied behind the ear ; for the face and forearms apply it to the nape, and for the leg the counter-irritant should be applied on the hip over the large sciatic nerve. In most cases this treatment has been followed by removal of the itching, and the relief lasts from one to several nights. The redness and swelling are also relieved. This does not interfere with local treatment.

HYPNOTISM is to be investigated by a committee appointed by the French Academy of Medicine, Among those on the committee are Charcot. Brouardel and Marey. Their reports will be full of interest to the world at large, but especially so to the medical profession, opening up, as it professes to do, new avenues for the amelioration and cure of many diseases hitherto intractable an incurable.

THE ADMINISTRATION OF PHOSPHORUS.—The following is a very convenient formula for phosphorus (*Therap. Gaz.*) :

℞.—Phosphori, ... gr. $\frac{1}{8}$.
Ol. amygdal, ... ʒiij.
Aq. dest., ... ℥iij.
Gummi arab., ... ʒiij. M. ft. Emuls.
Sig.—Dose, one teaspoonful.

TREATMENT OF TAPE WORM.—Bettleheim (*Centralbl. fur Klin. Med.*) recommends the following :

℞.—Ext. filicis maris æth., . . . gr. 150.
Ext. pumicæ granati, . . āā gr. 150.
Pulv. jalapa, ... gr. 45.M. et div. in pil. lxx., coat with keratin.

Take from 15 to 20 of these on the day of fasting, which is preceded by purgation, and the remainder on the following day, in two or three hours. When necessary, this treatment is followed by a purge. The pills are not dissolved until they have passed into the intestines, and so nausea, vomiting, and other discomforts and annoyances so often associated with the taking of vermifuges, are avoided.

CURE FOR DRUNKENNESS.—Another cure is reported by the *Med. World.* A half ounce of ground quassia is steeped in a pint of vinegar. A teaspoonful in a little water should be taken every time the liquor thirst is felt. It satisfies the cravings and produces a feeling of stimulation and strength.

CORONERS.—Dr. J. F. O'Keefe, of Tilbury Centre, has been appointed asociate coroner for Kent.

DR. SQUIRE reports (*Med. Rec.*) the following. "Mr. R——, fifty years of age, noticed, some eight or ten years ago, that his heart acted very slowly, and on being examined by a physician was told his pulse was but thirty-two to thirty-four per minute. He has kept close watch of it ever since. Each year it has lost one beat, until now it numbers but twenty-four pulsations per minute. His general health is tolerably good, but he has to guard against exertion and keep very quiet, or he is set to panting."

Books and Pamphlets.

THE PRACTICE OF MEDICINE AND SURGERY APPLIED TO THE DISEASES AND ACCIDENTS INCIDENT TO WOMEN. By Wm. H. Byford, A.M., M.D., Professor of Gynecology in Rush Medical College and the Woman's Medical College; Surgeon to the Women's Hospital, of Chicago, etc.; and by Henry T. Byford, M.D., Surgeon to the Women's Hospital, of Chicago, Gynecologist to St. Luke's Hospital, etc. Fourth edition, revised, re-written and very much enlarged, with over 300 illustrations. 8vo, pp. 800. Philadelphia: P. Blackiston, Son & Co. 1887.

This standard work has been so favorably known to the profession for so many years that, important as it is, we need only draw attention to some of the new and original matter which has been added to the preceding edition. The principal additions are the chapters upon the "Anatomy and Physiology of the Female Pelvic Organs"; "Examination of the Female Pelvic Organs"; "Displacements of the Uterus"; "Affections of the Ovaries" and "Fallopian Tubes"; and the paragraphs upon "Oöphorectomy," "Tumor of the Broad Ligament," etc. Many changes have been made in other chapters, others have been re-written, and now the work stands we believe for what its authors intended it, a complete and practical work, and one which will be a safe guide to the practitioner in this portion of the field of medical science. The illustrations are good and the publishers have done their part well, as indeed they always do. The book is a very valuable addition to gynecological literature, and we heartily commend it to the student and general practitioner, and believe it will be appreciated above all by the specialist in this department.

FUNCTIONAL NERVOUS DISEASES, THEIR CAUSES AND TREATMENT, with a Supplement on the anomalies of refraction and accommodation of the eye and of the ocular muscles, by George T. Stevens, M.D., Ph. D. New York: D. Appleton & Co. Toronto: Carveth & Co., 1887.

The above is a memoir which received from l'Académie Royale de Médicine of Belgium the highest honor awarded for competition in 1881-1883. The work is essentially the same as the memoir which was so favorably judged by the Academiy, with a supplemen tas above noted. This supplement is not intended for the expert ophthalmologist, but for the general practitioner "who would like to make such examinations of ocular conditions as will enable him intelligently to advise and treat his patients affected with nervous disease." The idea of the author is that difficulties attending the function of accommodation, and irritation arising from nerves involved in the various acts of vision are commonly the causes of functional nervous disturbances. The photogravures used to illustrate cases cited are very interesting and instructive.

THE AMERICAN NEWSPAPER ANNUAL FOR 1887. Philadelphia: N. W. Ayer & Son.

A valuable book for newspaper men, containing a catalogue of American newspapers both of the United States and Territories, and of the Dominion of Canada, with information concerning circulation, etc., names of editors and publishers. The above and much more useful information as to location, area, character of soil, manufacture of each State, Territory, and County, make it a very useful guide for the judicious placing of advertisements. The book contains 1170 pages, and is a perfect cyclopædia of facts useful to newspaper men.

DR. BROWN'S COMBINED PRESCRIPTION DAY BOOK. Watford Ont. William P. McLaren.

The above will be of use to physicians who do their own dispensing, combining as it does the functions of a prescription book and an ordinary blotter. It will thus be a handy reference to all prescriptions, short notes of cases, etc., matters of no small importance to the busy practitioner. The book is well bound; pp. 497.

WIDE AWAKE FOR DECEMBER, 1887.—Holiday Number. Boston: D. Lothrap Company. Twenty cents a number. $2.40 a year.

We have just received a copy of above. It is gotten up in a very artistic way, and is specially adapted to the young. We have great pleasure in recommending it.

THE MINERAL WATERS OF VICHY AND THE DISEASES IN WHICH THEY ARE INDICATED, by Dr. C. E. Cormack. London: J. & A. Churchill. 1887.

Births, Marriages and Deaths.

On the 29th December, Dr. Henry T. Wright of Ottawa, to Marion, eldest daughter of James Graham, Esq.

At London, December 27th, Dr. W. H. B. Aikens, of Toronto, to Augusta, daughter of the late Dr. Hawkesworth, of Invermay.

In Plainfield, N. J., Dec. 6th, D. B. Bascome, M D., of Turk's Island, W. I.