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MISSED ABORTION.

BY R. FERGUSON, M.D., LONDON.

Medical literature upon the subject of "Missed Abortion" is exceedingly scant. I presume this is accounted for by the comparative rarity of its occurrence. In my own practice of eighteen years I have had, to my knowledge, three cases. I do not know whether this is above or below the average frequency.

CASE 1.—The first of my cases dates back to 1895. The patient was a multipara, aet. 30 years. She menstruated regularly until October, when her menses, which should have recurred October 11th, did not appear. At Christmas (ten weeks after she missed her period) she had a sharp uterine hemorrhage, but did not call a doctor. The blighting of the ovum probably occurred at this time. After this she had a slight flow at irregular intervals, consisting, as she described it, of menstrual fluid (improbably so) and blood clots. On May 11th, about five months after the period of "missed abortion" probably began, she had another rather profuse hemorrhage, after which I was called in. I found the os dilated and only slight oozing of blood when I arrived. The following day, after removal of the vaginal gauze packing, a body could be seen presenting itself at the external os. It was easily removed with a pair of uterine dressing forceps. It consisted of a mass 2 1-2 inches in length, rolled upon itself. Unfolding it, in the centre, there was a small membrane, but the embryo had become absorbed or extruded. The patient made an uneventful recovery.

CASE 2.—Mrs. B., nullipara, 30 years of age, five years married, anaemic, menses regular, but scant; menstruated June 2, 1902, then

* Read at Ontario Medical Association, Hamilton, May, 1908.

menses ceased; during July and August she vomited persistently, after that the vomiting subsided, amenorrhoea continued, the tension and size of the breasts increased, colostrum was present, the nipple areola grew darker, and discoloration of the mucous membrane of the vagina and vulva were marked. October 1st, four months after menstruation ceased, after a heavy day's work, patient complained of feeling chilly and nervous, was nauseated and dizzy. I found the pulse rapid, but no elevation of temperature. Slight pain in the pelvic region, but not intermittent. Abdominal muscles were rigid, there was no bloating and no hemorrhage. I gave her a hypodermic of morphia sulph., and in a day or two she was up and around again. I think the death of the ovum occurred at this time. Thereafter she was not herself. She complained of anorexia and general malaise, while considerable despondency was apparent, and the former signs of pregnancy gradually disappeared. On February 3rd, eight months after the last menstrual period, and four months after the supposed death of the foetus, the patient sent for me, complaining of uterine pains, not severe or regular, however, and accompanied by nausea and ringing in the ears. She said she had a feeling of impending death, which she could not account for. On bimanual examination, I found the uterus only slightly enlarged, and the os neither dilated nor much softened. There was a slight sanious discharge from the uterus, but no hemorrhage. As there was no temperature, and no urgency, I waited for 48 hours, in expectation that the uterus might empty itself, if any foetal remains were retained. As no expulsion took place in the meantime, the patient was prepared, and under an anaesthetic the uterus was relieved of its contents, which consisted of an elongated mass, 3 inches in length and 1 inch in breadth. The decidual membranes were wrapped round a partly mummified foetus. The patient soon regained her usual health, none too rugged at the best, and fortunately has not become pregnant since.

CASE 3.—Mrs. H., aet. 28 years, mother of one child 2 years of age. No history of miscarriages or abortions. Well nourished. Last regular menstruation January 6th, 1907. Following this date she had the early symptoms of pregnancy. I visited her by request on March 13th, about ten weeks after menstruation ceased. She had passed a restless night, with nausea and dizziness, but no hemorrhage, and no uterine pains. At this time, and throughout the entire history of the case, the most persistent symptom complained of was a sensation simiar to the aura which so often precede an epileptic attack. I was next called May 4th, owing to a severe uterine hemorrhage, which alarmed the patient, four months

after her menses ceased. The uterus was enlarged and contained a fibro-myoma the size of an orange in the left antero-lateral wall, and another one-quarter that size more anteriorly. The cervix was soft and dilated. The vaginal and breast symptoms of pregnancy were quite marked. After a week's rest in bed the patient got about as usual. The death of the foetus apparently took place at this time, as there was no further enlargement of the abdomen, and the vaginal and breast symptoms disappeared. The aura continued as before, the abdomen felt distended at times, slight hemorrhage occurred at intervals. On August 30th, four months later, she had another rather copious hemorrhage, and I was again sent for. On September 2nd I had her taken to the hospital, and removed under anaesthesia what appeared to be a four months' placenta; no foetus was found, the membranes were ruptured, but only partially absorbed. The structures were undergoing maceration. The patient made a speedy recovery, and has menstruated regularly the last three months, without dysmenorrhoea or hemorrhages, although the flow is very profuse and recurs every three weeks, due, of course, to the presence of the fibro-myomata.

In reviewing the history of these cases, I observe that the period of "missed abortion" was of about the same duration in all three, viz., three to five months. In one case expulsion took place naturally, in the other two artificially.

The first and last cases had a history of uterine hemorrhage; the second case had no such history throughout. This case was a nullipara, the only case I have found recorded in which "missed abortion" took place in a nullipara. It was that of a patient with a debilitated constitution. Case 1 and 3 were patients ordinarily in robust health. Case 3 was complicated by a fibroid tumor, which, doubtless, was a factor in inducing the hemorrhage, which blighted the ovum. This case is still a problem on my hands. Notwithstanding the presence of a multiple fibroid, and the frequent and profuse menstruation, am I justified in letting the case alone while the health is not further impaired? She is a young woman, and I do not feel warranted in unsexing her, unless indications become more urgent than at present. Am I pursuing the best course? Further, in the event of her unfortunately becoming pregnant again, should pregnancy be interrupted early or allowed to go on? Although these questions are only incidental to my subject, I would like an expression of opinion upon them.

But to return in conclusion to the subject of "missed abortion," I am unable to throw much light upon its etiology. Lack of sensitiveness, or irritability of the uterus, to the dead ovum is a factor,

whether the only one or not I cannot say, in the causation of "missed abortion." This lack of uterine susceptibility is rare. The tendency of the average uterus is to part easily with its contents, especially at certain recurring periods during pregnancy.

The interference with the foetal circulation incidental to threatened abortion from hemorrhage I take to be the most frequent cause of the death of the ovum. The large majority of the cases which I have found recorded give a history of early pregnancy, then one or more hemorrhages, followed by the arrest of the symptoms and development of pregnancy—without expulsion of the uterine contents. The knotting of the umbilical cord or the coiling of the cord about the neck of the foetus may sometimes be a cause of its death. In one of my cases, and some of those which I found recorded, there is no history of hemorrhage, merely a history of feeble health, normally as well as during pregnancy. The maternal constitution is apparently unequal to the added task of sustaining the life of the foetus, and it dies from inanition. But, while these and various other reasons might be given to account for the death of the ovum, it is much more perplexing to account for its retention by the uterus, contrary to the normal habit of that organ. None of the authors to which I have had access discuss the etiology, much less give any satisfactory reason for its occurrence, and to myself the relative non-irritability of the uterus in exceptional cases is the only reason that appeals to me.

It is noticeable how generally no trace of the foetus is found, the ovum having either been absorbed or casually expelled. The placenta usually remains intact, and is found intimately adherent to the uterus. Mummification only takes place when the membranes have remained unruptured. If the membranes are ruptured or absorbed, maceration and latterly putrefaction takes place. This happens because the vernix caseosa is no longer secreted for the protection of the foetus.

I have not gone into the subject of differential diagnosis in this paper, and I have not made any distinction between "missed abortion" and "missed miscarriage," nor have I discussed that still rarer occurrence, "missed labor."

I am inclined to think "missed abortion" occurs oftener than is usually supposed, as doubtless many cases are not detected, since nature sometimes empties the uterus spontaneously in cases of "missed abortion," the expelled product never coming under the observation of doctor or nurse. As there is no known limit to the duration of "missed abortion," the subject is one not only of medical interest, but of moral and medico-legal importance as well.

Perhaps some of you may recall the case of the distinguished obstetrician and author, Playfair, who is said to have been mulcted in a fine of £5,000 for implicating inadvertently a family friend in a scandal, through the occurrence of an abortion ten months after her husband had left his home and wife for service in India. The case, I believe, was afterwards conceded to be a case of "missed abortion," but the occurrence is said to have blighted the after life of Dr. Playfair.

EXPERT MEDICAL TESTIMONY.*

By J. J. McEvoy, Barrister, London, Ont.

At the outset let me say that I am entirely at issue with the Western judge who divided witnesses into three classes, the liar, the damned liar and the expert witness. So far as my own experience goes, my deliberate judgment is that there is no class of witness more conscientious and reliable than the medical expert. One hears in loose talk, "If you get half a dozen doctors to swear one thing, I will get you half a dozen to swear the opposite." In my experience and reading I know of no such case, although I have been concerned in several cases in which I have known such statements to be made with a pretended knowledge of the facts. I particularly recall a celebrated murder trial, on account of which, it is said, a limit was put upon the number of experts who might be called in any case, and I venture to say that if I read to you gentlemen the cross-examination of the Crown doctors and the chief examination of the defence doctors, you would not be able to say which were witnesses for the defence and which were for the Crown, speaking from the substance of the answers given, though by the form you might detect a difference. In that case there was in the totality no difference of testimony on behalf of the medical witnesses for the Crown and the defence, although the press and the public almost made a scandal of it.

There is too much thoughtless, too much prejudiced and too much malicious abuse of the medical expert witness; and there is much more ignorant than well-informed criticism of him. This is true not only in our own country, but in many other countries. I speak more particularly of Anglo-Saxon communities, where the

* Read before the London, Ontario, Medical Association.

administration of justice is based upon the common law. So far as these are concerned, one never hears abuse of the medical expert from bench or bar, and one rarely hears unfavorable criticism from either of these quarters. In my experience I think the severest criticism of the medical expert which I have known came from the members of the medical profession, and this is oftenest heard under oath from the witness box. No medical man who has had a considerable experience will fail to recall trials where what was afterwards called by the press and the public contradictory expert testimony was passed over without a single word of attack or insinuation from either counsel or the court.

It is worth while to say at this point that the medical profession owes it to itself to treat with very great respect the opinions of its members given under oath. To begin with, it does not add weight to the evidence of a testifying medical expert to treat lightly or as ridiculous the opinion of his brother practitioner. On the contrary, much more weight is carried by the testifying witnesses recounting the circumstance that he has carefully considered the opinion of his fellow-witness, and, in spite of this and the recognized ability and standing of such fellow-witness, the testifying witness is compelled to differ. To begin with, this is polite and considerate. It predicates an understanding and thorough knowledge of the other professional brother's opinion. It eliminates all suggestion of rivalry or taking sides; it eliminates any suggestion of egotism on the part of the witness; it eliminates any suspicion of spleen or ill-will towards one whom a jury is likely to regard as a rival witness; and, lastly, it takes out of the mouth of an over-zealous cross-examining counsel many weapons of attack. Let me mention some of these last as they occur to a lawyer. To weaken a witness in the eyes of a jury it is important to show that the witness is capable of being unfair. No easier way of showing that the witness is capable of being unfair is possible than to show that he is unfair to his professional brother. He does not think his professional brother knows much, when, as often appears, he has had no opportunity of knowing of his brother's knowledge, and, therefore, allows himself to swear without much foundation; he does not think it is a very serious thing for another doctor to swear to what is, as this testifying witness puts it, plainly and evidently untrue, and, therefore, the jury will probably be led to reason that the witness himself does not consider it a matter about which a witness may very easily go wrong, and that it is not of very grave importance which way a doctor swears upon matters of the kind in hand. This is as likely to lead the tribunal to think neither witness is on safe

grounds, and that it is not safe to act on either opinion. It leaves both opinions open to ridicule as being uncertain, and in many cases, where the result of the litigation turns upon the case being made out by medical testimony, this leaving of all opinions open to ridicule is sufficient for the purpose of one of the parties to the litigation.

In my humble judgment, there is nothing which has a greater tendency to bring into disrepute expert medical testimony than the lack of consideration which some medical witnesses extend to the testimony of their fellow-practitioners. Indeed, so great is the sin of the profession in this matter that it has become absolutely distasteful for medical men of high mind and character to testify at all. This should not be. There should be no higher duty in the work of the medical man than the giving of expert testimony when called upon to do so. In its nature it should not be disagreeable. This leads me to a consideration of the nature and object of expert medical testimony.

Before entering upon this important branch of the matter in hand, let me raise for examination a matter which is claiming a good deal of attention by both medical men and lawyers. It is this question: Is it the part of wisdom to retain in our system of jurisprudence the time-honored custom of seeking to get at the best result in cases requiring the assistance of medical experts by the examination and cross-examination of medical men; or would it be better to refer the part of the case requiring such assistance to a board of physicians or surgeons appointed by the court, or in some suitable way, for a majority report on the medical side of the case? I know well that a great many medical men favor the report method; and this method is not without its supporters from the bench and bar. I state the matter here because I think its consideration can be most expediently carried on while examining the true nature and character of expert medical testimony.

A further matter I wish to state here by way of clearing the ground of what I deem a common error. It is often assumed in considering this question that in the trial of actions in courts of justice exact truth can, if not always, at least generally, be arrived at. It is not so. Exact truth is not known in any science, not even in mathematical science. What we call nothing mathematically is only something infinitesimally small, but not absolutely nonexistent. Both legal science and medical science are far from being exact, yet this question is often discussed as if there was an absolute point or place which could be arrived at in each case by some process of reasoning not understood or appreciated by judge or

jury or litigants, and that such point ought to be reached by such a process and accepted by the tribunal and the litigants.

Every system of jurisprudence consists in its ultimate analysis of machinery fit to determine the respective rights of citizens who cannot agree of themselves as to what their respective rights are. A law, in the sense of a law being a legal rule, is only for those who dispute. Law in this sense has no application to those who are agreed as to their rights; such are free from the law in the apostolic sense, and, while it is my settled judgment that the developed Anglo-Saxon jurisprudence as we have it now is the best means yet devised by the wit of man for settling disputes among citizens, I am also only too well convinced that it is at best only a rough machine, and its work is very, very far from being perfect. No man gets justice in our courts as the Omniscient sees justice, and no man will get such justice until we see "even as we are seen." Our scales are too crude. Justice at the most in human courts is a relative term. It is justice according to the weight or bulk of present-day enlightened opinion; and in that enlightenment of opinion I include all the Divine enlightenment we have received, no matter how communicated, whether by what is usually called Divine revelation or the slower revelation of hard human experience, which is equally Divine. The crucifixion of the "Stirrer up of Sedition" was, no doubt, "justice" in the eyes of many inhabitants of Jerusalem. Two thieves were crucified at the same time, and the world to this moment has not been shocked at the injustice, though we don't now crucify thieves. Although Divine justice is what is aimed at, let us remember these three things: That justice as administered in the work-a-day courts is justice as understood and sanctioned by the community in which we live; that Divine justice is beyond our ken; and that we can approach towards Divine justice just in as far as we get the community in which we live to understand and sanction as justice that which nearer and ever nearer approaches the Divine ideal.

If we hold in our minds these three truths they will enable us to see that, for the true good of any community, while it is important that justice should be done in her courts, that it is equally important that the justice done shall be justice that is understood and sanctioned by the community, else it is not justice to that community, and there is no hope of leading that community on to the higher and truer conceptions of justice.

Let me assume, then, that you accept the proposition that it is of very great importance in the proper and beneficial administration of justice that the litigants, or, if not the litigants, at least the

disinterested members of the community, are agreed that that which is ordered by the court is justice.

Then, in the light of all this, let me come back to the discussion of the true nature and object of expert medical testimony. Its object is to enable the court, be it judge, or judge and jury, to do justice in the sense in which I have defined it—that is, justice according to the enlightened opinion of the community—and to do it in such a way as to secure the concurrence of the community that justice is done.

To enable this to be done in cases involving obscure matters not generally understood by judge, jury or community, not only must the judge and jury be enlightened, but the litigants and the community must be enlightened. If a God could be secured to decide with absolute justice every dispute as to rights between citizens, to draw in the night's darkness with unseen hand, if you will, the true dividing line along the boundary in dispute, it would not be for the betterment of that community that disputes should be so settled. Providence is all-wise and knows the true way to final right and justice.

The true function of the expert medical witness is to lay bare to the court, the litigant and the world (if the world should wish to see) those things which affect the matter in dispute, but which are not apparent to the ordinary observer; and let him do it with humility, for when he has laid bare all that even his trained perception can grasp and bring into the light, be sure that there is much more not apparent to even him that does affect the matter *in abstract justice* as seen by the Great Judge, which will never be appreciated by any human judge.

There are certain things about which there never should be any difference in any given case as between medical experts. There should always be, in substance, agreement as to what is found. There ought always to be among medical experts agreement as to what are the functions of the involved part, and there ought always to be substantial agreement as to the manner in which the functions and usefulness of the involved parts are interfered with. The only place where there is much room for difference is as to degree or extent of injury and as to probability of recovery; upon these two last points it would be strange if several medical men should agree even substantially.

A physician who proposes to give expert evidence upon any case should know his work in reference to the particular matter in hand. If he has not time or opportunity to prepare himself, he ought to refuse to testify as an expert, because it is not fair to

himself, nor to the litigants, nor to the court that he should propose to speak of matters concerning which he has not taken the trouble to thoroughly inform himself. His own manhood is at stake.

Be able to give your process of reasoning. By this I mean be able to show with as much exactness as possible the very bone, muscle, nerve or organ which is injured or involved and the nature of the injury. Be prepared to explain how such muscle, bone, nerve or organ in its normal condition performs its function; and be able to explain how it is and why it is that the particular injury interferes with the proper performance of the function, in the way and with the results which all agree are present in the case.

Do not think that there is no use in explaining, "the court will not understand anyway." The court will understand all that you properly explain, and you can properly explain all that you actually know about the case. Of course, if you don't know, if what you desire to explain is still in the realm of speculation in medical science, it will not carry home. And it ought not to carry home.

The reason that many experts feel that they have not been properly understood often is that they tried to weigh in the rough scales of a human court gas, professional gas, that pours upwards —it will never tip the beam.

Sometimes one hears complaint of the rigors of cross-examination, and it is said that a court room with many unfavorable surroundings is not the place for scientific investigation. That, perhaps, is true, but a court house for trials of actions is not concerned about scientific investigation. So long as the facts or opinions to be given are still in the realm of scientific investigation, they are still too little understood to be made the basis for taking money from one person and giving it to another, or for punishing a person at the instigation of the State.

What is well established medical science can be told upon cross-examination. It can be told in a way that any intelligent man who listens can form a fair opinion of the result of the evidence of the testifying witness, and, while cross-examination is not a perfect way of sifting evidence, yet it is a great preventative of reckless testimony.

There are many witnesses, both expert and ordinary, who feel the necessity of keeping within the mark because of cross-examination. And many counsel prominent at the bar are daily convinced that there is still a "kind" that "cometh not out, except by much prayer and fasting."

SQUINT.*

By E. Pardee Bucke, M.D., London, Ont.

Mr. President and Gentlemen: I have been asked to prepare a short paper discussing the subject of "Squint." While this is not a subject perhaps directly affecting the general practitioner, for he will not be called upon and would probably not care to undertake the treatment of this condition, it is a subject of which he should possess an intelligent conception in the interests of his clientele, as it is through the early treatment of the case that one expects the ideal result. Too often, perhaps, because of the failure of the family physician to advise wisely, the little victim of a strabismus is, through delayed treatment, doomed to years of ugly deformity, and, what is worse, to the deterioration and practical loss of a formerly good eye. I shall hope, therefore, through the consideration of the subject as it is at present understood to interest you for a few minutes, and perhaps the time required will not be altogether unprofitably spent.

A few words first, by way of introduction, regarding the attitude of the profession on the subject from the earliest times of which we possess a record: Hippocrates makes mention of deviation of the eyes, and considered it a result of epilepsy in childhood. He recognized it as an hereditary condition, but with Celsus, who makes mention of the subject, doesn't offer any suggestion as to treatment. Both evidently considered the deformity as irremediable. It is not until the seventh century that we find a celebrated Greek physician, Paulus Ægineta, suggesting a method for its treatment. He recommended that a mask be applied over the eyes of those afflicted, with two little openings therein, one for each eye to look through. He hoped thus to induce the crooked eyes to become straight.

Ambroise Paré, the pioneer scientific surgeon of France, who lived in the latter half of the sixteenth century, describes the condition and attributes it to the child's turning its eyes toward the light, while lying in its cradle, or to its imitating its nurse, who, perhaps, looked "cross-eyed" to tease or amuse it.

Other theories advanced from this period on included disease or malposition of the lens, influence of visual spirits over the position of the eyes, and defective cornea as being at the basis of the condition.

* Read before the London, Ont., Medical Association.

Erasmus Darwin, in a treatise published in 1801, asserts that squinting is caused by one eye being less perfect than the other, and he recommends that a piece of gauze stretched on a ring of whalebone be placed over the better eye for several hours every day, so as to reduce its vision to an equality with that of the poorer. We have in this suggestion a foreshadowing of the modern method of treatment.

Although as early as 1806 Tenon had published a description of the parts within the orbit, a description which is still classic, and though Sir Charles Bell had published the result of his investigations on the actions of the external ocular muscles in 1823, in which, though he failed in his deductions, the observations were distinctly original and epoch-making, it was not for some years that any operative procedure was undertaken for the correction of deviating eyes. During the first half of the nineteenth century the theory gained ground that squint was due to a contraction of an ocular muscle, and there was instituted then the procedure known as tenotomy. To the Germans we must give the credit of introducing this operation.

It was first described by Stromeyer, of the University of Erlanger, in 1838, and the first operation was performed by Dieffenbach in Berlin the following year. One of the earliest English surgeons to perform Dieffenbach's operation was P. Bennett Lucas, and he describes the procedure (which is a simple tenotomy of the internal rectus, done as close to the scleral attachment as possible), in the *Provincial Medical and Surgical Journal* of October, 1840. Like many other surgical operations, tenotomy for a few years was much overdone. It came to be a great show operation, the newspapers teemed with descriptions thereof, and surgeons surrounded themselves with admiring crowds to witness the performance of their marvellous "cures." In their enthusiastic desire to obtain astonishing results, the tendon was severed farther and farther back from its anterior attachment, and the muscle itself was very frequently cut through, needless to say, often with very dire results. In many cases the whole four recti were myotomized, and their connective tissue surroundings cut into freely, with an ultimate result such as you can readily appreciate.

From this system of charlatanism the profession was rescued by Von Graefe, who, when the operation was being decried and repudiated by conservative surgeons, restored confidence in it by insisting on a return to the original policy, that of performing the tenotomy as close as possible to the globe.

With the return to more moderate surgical treatment the pre-

vention and cure of these cases without operation came to be considered, and it became recognized that the accommodation and refraction of the eyes had some bearing on the etiology of the condition, a theory which was formulated in the dictum of Donders that:

1. Strabismus convergens almost always depends on hypermetropia.

2. Strabismus divergens is usually dependent on myopia;

a dictum, which, if it does not embody the whole truth, was a great advance in our conception of the subject, and has paved the way for more recent investigation, and the development of the modern method of treatment, which is sane in its conception and brilliant in its results.

In order to understand the cause and treatment of squint it will first be necessary to consider binocular vision—what it is and how it is accomplished. When the normal eyes are looking at a distant object the rays entering them are practically parallel, and the image of the object is impressed on each retina simultaneously. These images overlap (with the exception of a sector of about 35 per cent. on each temporal side) and are blended in the brain and perceived as *one* image. This *blending* of the two separate images constitutes binocular vision, and you will notice that it is purely a psychical act and has nothing whatever to do with refraction. In those cases which do not possess this faculty of binocular vision or who, in other words, do not possess the *fusion faculty,* either of two conditions must be present: Either the images from both eyes will be perceived separately, that is, diplopia will exist, or else the image of one eye will be suppressed and that of the other only be perceived.

The fusion faculty varies in its intensity in different persons. In the highest expression of it we have the sense of perspective, which is, happily, the prevalent condition, but there *are* cases in which it is very feeble, and, indeed, occasionally, entirely wanting.

It is normally a development of the first few years of life. Within two or three weeks after birth one notices that the infant has some feeble power of fixation. He is able to "fix" for a few moments only with one or other eye, but does not employ both in unison until he is about six weeks of age. These facts are simply demonstrated by reflecting a candle light into the child's eyes by means of an ophthalmoscopic mirror. The baby is readily attracted by this light, and as he looks at it you will notice a bright spot on the cornea, a reflection from the mirror. If the eye is "fixing" or engaging the light this "reflex" is seen practically in the centre of the pupil—as a matter of fact, it is slightly to the

nasal side of the centre, due, of course, to the fact that the true axis and the visual axis of an eye are not identical.

As I have just said, it can be readily demonstrated that in a normal case there is some power of binocular vision as early as the sixth week. It is necessarily very feeble, and the faculty is indeed quite unstable during the first few months of life. No doubt we have all noticed a young child squint on occasions, often due to a trifling disorder of the stomach and bowels.

However, while this faculty of fusion is absent at birth, it comes into evidence, as I have said, quite early in life, and gradually increases in intensity for months; indeed, it does not come to its highest development, and, therefore, its most stable condition, until about the sixth year.

Now this faculty, while it is a normal possession of the race, is wanting or deficient in a certain small minority of persons. It is this *lack of the fusion sense* that is the basic cause of squint. In those cases of alternating refractive errors, especially hypermetropia, may contribute to produce squint, but they are never essential to its appearance. In those cases of alternating strabismus in which we find sometimes one eye turning in and sometimes the other, it is quite usual to find the refraction of the eyes normal, and each eye being used in turn, the vision of each is preserved and is usually normal also. These cases are, however, much the worst from the standpoint of treatment, as it is in them that the fusion sense is quite wanting and incapable of development.

Because constant convergent squint greatly preponderates over the other varieties, I think it will be well to devote the most of our time to a consideration of its phenomena, causes and treatment. We will thereby avoid confusion, and the main purpose of our paper will be served if we succeed in obtaining a clear conception of this condition.

The term squint implies, besides the deviation of the eye (which is only the outward and visible sign of the anomaly), four other factors as being present, namely:

2. Deficiency of the fusion sense, as already mentioned.
3. Suppression of vision of the squinting eye.
4. Greatly diminished vision of this squinting eye; and
5. There is usually present a refractive error, hypermetropia most often, which is present in both eyes.

Let us first consider the deficiency of the fusion faculty. The instrument employed for the investigation and treatment of this anomaly is known as the amblyoscope, and was devised by Claud Worth, of Moorfields Eye Hospital, London.

It is essentially a stereoscope made in the form of two tubes of about an inch and a half diameter, which are hinged at the proximal end and supplied with convex lenses, to render unnecessary any effort of accommodation in order to focus the image in the object-slides, which are at the distal end of the tubes. These tubes, instead of being straight, are in reality composed of a very short tube at the proximal end joined at an angle of 120 degrees with a longer tube, and at the junction of the two is situated a mirror.

Now, if a person with normal fusion faculty looks into this instrument and suitable object-slides be placed in position, it will be found by adjusting the direction of the tubes that a position will readily be found in which he can fuse the two images, seen separately with either eye. Moreover, it will be found that the tubes can be approximated and separated to the extent of several degrees, while fusion is still maintained. In a case of developing squint, however, it will be found that the degree to which the direction of the tubes can be changed is extremely limited. This is a very short sketch of the method employed, but will probably be sufficient to give you an idea of it. Worth has found by this means that in all his cases of squint the faculty of fusion is limited. Moreover, another point which is very convincing as to the causal retention of this defect. He was enabled to examine a considerable number of younger brothers and sisters of his squinting patients, and in some of these was able to observe their cases at later periods. Of 157 children he found the fusion faculty well developed in 106. None of these have subsequently squinted. Of 37 cases which he considered doubtful, 6 have since squinted, and of 41 whom he considered very deficient 9 afterwards developed squint. Which data goes strongly to show the importance of the relation of deficiency of fusion sense to squint.

Now as to the rationale of the development of the inward deviation:

If we look at a distant object, the rays entering are parallel and the axes of our eyes are straight ahead, our accommodation being at rest. If, however, we now fix our gaze on a near object, say a book at reading distance, we have to make use of our accommodation, and at the same time we have to converge our visual axes. These two functions of accommodation and convergence have been always so closely associated that they are practically indissoluble, and it is next to impossible to perform either act without the other.

This effort of accommodation, which is equal to 3 dioptres in a case with natural refraction, means, of course, a stronger effort in hypermetropes.

In a case in which the fusion faculty is normally developed, this tendency to undue convergence induced by abnormal accommodation is kept in check, but if the fusion faculty be deficient or, as in some cases, absent, the relative directions of the eyes are to a lesser or greater extent dependent merely on their motor co-ordinating. The result is that we find in these cases, first of all, a squint manifesting itself when the child accommodates. In many of these cases, provided there is some fusion faculty present, it is found that correction of their refractive error will, by ridding the patient of the associated tendency to over-convergence, entirely correct the deviation.

The deformity, which is at first present only when the child is looking at near objects, gradually is more often seen—(a child, as a matter of fact, spends most of his waking hours playing with objects at near range)—and if the case remains untreated it will be found that after a time it persists even in distant vision.

Now, this abnormal condition existing, the two eyes looking in different directions, it naturally occurs to one that the child must be seeing double, and if we could obtain an intelligent report from him we would probably discover that such was the case, but he will not long accept the discomfort and annoyance of this state of things, and what occurs is that he in time unconsciously refuses to perceive the image of the deviating eye—what is technically known as "suppression of the vision" of this eye occurs.

It is easy to appreciate what will now happen. If the arm of a child during this early period of development were to be strapped to his side it would not be many months before wasting of the member would be very apparent. So in the case in question, the deviating eye can do only one thing—gradually lose its power of vision. And this is what occurs. We find in all cases a greatly diminished acuity in these cases.

These more or less blind eyes are, however, if their training is taken in hand sufficiently early, capable of restoration, and this brings us to a consideration of the method of treatment.

In all cases the first thing to do is to thoroughly atropinize both eyes and measure their refraction. It will usually be found that hypermetropia, with or without astigmatism, is present, and this refractive error should be fully corrected with glasses. No child is too young to wear glasses, and, contrary to popular belief, injuries to the eyes from their breaking are extremely rare. In a certain proportion of cases, as already stated (about 30 per cent.) the deviation is corrected thereby; in any case the fusion sense is probably defective and the child will be benefitted by fusion training by

means of the amblyoscope. In the majority of the cases, however, it will be found that even with these refractive errors corrected the child still squints. It will also be found that the squinting eye possesses very defective vision. Now, before anything can be done directly to correct the deviation, we must first restore the squinting eye to an equality of vision with the fixing one. There are a couple of methods commonly employed to accomplish this. One of these consists in daily bandaging the good eye for several hours, thus forcing the poorer one to exercise what function it possesses. With continued treatment over a period of several weeks or months, depending on the degree of blindness present, we will find that normal vision in this eye is regained. A child does not like a bandage, however, and most mothers do not like the responsibility of seeing that it is kept on, so that a better method to employ is the daily instillation of a drop of atropine solution into the good eye only. The child is now unable to see near objects with this eye, and the deviating eye, therefore, takes on the work of near vision, and by reason of the enforced exercise of its functions gradually returns to a normal degree of acuity. The atropinized eye is, moreover, not so subject to loss of function as though it were entirely occluded by a bandage.

We now reach a point where we have normal vision in each eye, but the deviation still exists. It is now time to undertake fusion training. Although the vision in the deviating eye may be perfect, there is usually "suppression" by it. It is, therefore, necessary in using the amblyoscope to have a separate lighting arrangement for each half of the instrument. By increasing the illumination behind the unperceived image, therefore, the squinting eye can be forced to see it.

The images used are pictures drawn on thin paper and pasted on a piece of glass which slips into the object-slides. The images used on each side are different; they are commonly two different portions of a complete picture, such as a man with a hat on his head and a stick in his hand. One slide will contain the man minus perhaps one arm, one leg and the hat and stick. The other slide will have the complementary portions. Another favorite device used is a bird on one slide and a cage on the other. Suppose the bird and the cage be put in position, the child is seated on the surgeon's knee and the instrument placed before the child's eyes. He will probably say that he sees either the bird or cage, depending on which is in front of his fixing eye. The illumination is, therefore, suppressed behind this image and increased behind the other, until he sees both the bird and the cage. The two halves of the

instrument are now approximated until the child sees the bird *in* the cage. By alternately separating and approximating the tubes it will be found that the bird is now in, now out of the cage. The child is striving to keep the bird in, and after a time one finds that the two halves can be moved out and in several degrees and the bird still remain in. These treatments are given at intervals of several days for several weeks, and each time it is found that one can commence with the two halves of the instrument further apart, until finally the eyes assume their normal axes.

Sometimes, probably because the treatment has been undertaken too late, we find after improving the deformity considerably it remains stationary. In these cases a shortening of the external rectus of this eye, with or without a tenotomy of the internal rectus, will overcome the still existing deviation, and the patient will then take on binocular visions.

Of course, we see cases every day, in older children and in adults, for which nothing remains but operation, and the operation suitable will depend on the judgment of the surgeon. Either tenotomy or advancement of the muscles of the deviating eye or of both eyes are indicated, according to the degree of deformity. Advancement of the external rectus is undoubtedly preferable to tenotomy of the internal, and is suitable in cases of as high as 25 degrees. In cases of greater deviation than this, a tenotomy will be required in order to obviate retraction of the globe. In any case one expects nothing but a cosmetic effect from either procedure.

But what I want to suggest to you particularly this evening is the comparative innecessity of these operative measures if the case is appreciated early. Children from three to five years of age are the best subjects for fusion training; in the sixth year they are amenable to it, but with more difficulty, and after that it is very difficult often to accomplish much.

It may, perhaps, as I have described it, appear a long and tedious method of treatment, but surely the saving of an eye and the avoidance of such an ugly deformity is worth a much more difficult regime.

But remember, to get ideal results, one must have these cases young in life. The laity have no conception of the meaning of squint, therefore let every physician be a preacher when the occasion arises, and let him preach

1st. That squint is curable, if treatment be undertaken young.

2nd. That it is the exception for children to "grow out of" squints, and

3rd. Whether they "grow out of" it or not, there will always remain to the patient the heritage of a blind eye.

INCOMPLETE MYXEDEMA-HYPOTHYROIDEA.*

By J. McWilliams, M.D., London, Ont.

The object of this short paper is to bring before this Society what I think may fairly be termed one of the more recent steps in the differentiation of disease.

Fully-developed cases of myxedema are now fairly well understood and would be recognized by most of us, though many men will have had a large experience and not meet with a case, or fail to recognize it if they should see it.

Myxedema is admitted to be due to a lack of proper secretion of the thyroid gland, and this lack of secretion may be complete or partial. If complete, we have a completely-developed case of myxedema, with all its subjective and objective signs and symptoms. If, on the other hand, the failure in secretion is only partial, we have an incomplete set of symptoms and signs, and I believe we have many cases of this kind which have been variously diagnosed in the past, most of the cases having been relegated to that haven of rest so often taken advantage of by all of us when we do not know, viz., hysteria—and the unfortunate patient lived a miserable life, accused of having an affection which they could avoid by the exercise of will power, and in other cases the long-continued existence of the peculiar symptoms have produced a state of mind diagnosed as insanity, and I believe that many cases now confined in our asylums are cases of incomplete myxedema.

Signs and Symptoms.—As in the complete form, the skin and mucus membranes, and their appendages, the hair and the teeth, are the organs that show the ill-effects of the disease first, or at least most prominently.

Premature old age is the first thing that ought to lead one in the right direction in examining a case. The hair is thin on the temples, and on the occiput, and baldness may exist in patches. This thinning of the hair on the temples, in women especially, has been the beacon light that led me in the right way on several occasions recently. The hair is dry and fluffy and untidy. Dandruff is always present. The eyebrows and eyelashes are thin, and a scruffy condition exists at the external angle of the eyebrows. The teeth are decayed, especially the molars. Tartar of a green or black color is always present; a general condition of nasal and pharangyeal catarrh is always present; the tongue is swollen and

* Read before the London, Ont., Medical Association.

has the marks of the teeth on its edges, and this marking of the tongue ought to lead the physician to consider the possibility of hypothyroidea. How often we have been consulted about a case of catarrh and the expression added that the patient had a poor memory and was unable to think. Such complaint on the part of a patient or his friends ought to lead us to look for this disease. Morning headache is a prominent symptom. I believe it has its origin in disease changes in the mucus membrane of the sinusus. The skin is not thickened, but there is puffing under the eyes. The expression of the face is one of sorrowful fatigue, and the whole complaint is that, "though I eat plenty I am so tired and weak." Morning pain between the shoulders is also a common symptom and comes on in the night and prevents sleep. Constipation is a predominating symptom, with all the evils that it brings. The skin has a lemon tint or dirty copper color.

There are many other signs and symptoms not so constant, such as buzzing in the ears and sound of bells, hallucinations of sight, seeing rats and mice running through the room; in females, dysmenorrhea or amenorrhea, displacement of uterus; loss of sexual appetite in both sexes; improvement in the health of the female during gestation, owing to increased activity of the thyroid gland during that period; feebleness of the heart's action, a tendency to bleed easily owing to increased tension of the arteries and reduced coagulability of the blood, and many other symptoms. But the object of this paper is not so much a full and minute description of every detail of the symptoms and signs, but rather to bring before you some of the more prominent and constant signs, so that with these in our minds we may be able to recognize the disease.

When a patient complains of constant constipation, continuous nasal and pharyngeal catarrh, constant desire to rest, loss of interest in life, being often accused of laziness by the friends, has a muddy complexion, morning headache, morning and night pain in the back between the shoulders, marks of the teeth on the sides of the tongue, lost or much-diminished sexual power, the hair on the head being very thin and unhealthy, then treatment for hypothyroidea will help to cure, no difference what else may be necessary.

A word as to treatment. Thyroid extract is, of course, the main medicament, and if dementia has not arrived it will do much for the patient, but it often fails because it is not absorbed, and it is not absorbed because the stomach and intestines are too acid, as the result of putrefactive changes, the result of the long-continued constipation. Soda bicarbonate and soda sulphate, in small doses

before meals, corrects this, and the thyroid extract will then have a chance to act beneficially. The dose of the extract recommended by the men of most experience is small, beginning in the case of an adult with one grain three times daily, and gradually increasing to three grains. I think this is important, as an overdose brings on a mild form of Graves' disease, and the drug is said not to agree with the patient, and useful treatment may be abandoned when, to succeed, it only required to be modified, and there is no other treatment of any value as against the lack of gland secretion. Arsenic, strychnia and other tonics and alteratives have a good effect, but the principles which guide us in their administration are the same as in other asthmic conditions.

Clinical Department.

A Case of Gastric-Enterostomy with Complications. T. J. CAREY EVANS, M.D., (BRUX.), M.R.C.S. (ENG.), L.R.C.P. (LON.), in *The Lancet.*

The patient, a man aged 44 years, was admitted to the Royal Southern Hospital under the care of Mr. Newbolt on July 14th, 1907. The history he gave was as follows. For 18 months he had been suffering from indigestion. Pain of a very severe nature would come on two or three hours after meals and sometimes was so severe that he was actually doubled up with it. The pain started in the epigastrium, extended round the right side, and ended at a corresponding point behind. The patient had never vomited any blood nor had he noticed any in his stools. He had been during this time much troubled with hyperacidity and flatulence. All solid food brought on the pain, pastry in particular. A little hot milk or hot water eased the pain for the time being, but it would soon return. He had had some very severe attacks; on several occasions he had had to remain in bed, once for a week and another time for six weeks. He had been carefully dieted, but the pain still persisted and kept him from his work. A day's history is as follows: Supper would be partaken of at 8 p.m., and at 10 p.m. the patient would retire to bed. The pain would come on at about 11.30 p.m. and would awaken him. He would be forced to get up and to take some hot milk or hot water. He would fall asleep again until awakened once more by the pain in three of four hours' time, when he would have again to take some hot milk. This went on every night with painful regularity. He was in the medical wards of this hospital for six weeks and was much better when he left. It is only six weeks since he was discharged.

On examination the patient appeared to be in a fairly good condition and by no means thin and wasted. The heart, the lungs, and the nervous system were normal. There was slight tenderness over the epigastrium, otherwise nothing abnormal was to be detected. He weighed 10 stones. The specific gravity of the urine varied from 1015 to 1030 and albumin was absent. The quantity of urine voided in 24 hours varied from 40 to 55 ounces. Sugar was present, usually five grains to the ounce.

At 2.30 p.m. on July 16th operation was proceeded with. The patient having been prepared as usual was anæsthetised with ether first, but as he took it badly chloroform was substituted later with little better result. His abdominal muscles were never completely relaxed during the operation. The usual incision was made in the middle line above the umbilicus. The tissues were infiltrated with fat and were very friable. The perigastric adhesions were very troublesome and the stomach could not be drawn up at all well into the wound. The transverse mesocolon was torn through and the posterior surface of the stomach was pulled through this opening with some difficulty. The upper part of the jejunum was easily found and was clamped. An incision one and a half inches long was made in the bowel (the antimesenteric border) and continuous silk sutures were used in the usual way. The abdominal wound was stitched up in layers with catgut and silkworm gut. This was the most difficult part of the operation on account of the rigidity of the abdominal muscles. The operation took one hour and the pulse at the end of the operation was 112. On the 17th the patient was troubled with acid eructations and he vomited very acid fluid, dark in color. The pulse was 130. The stomach was washed out on the same evening with a solution of bicarbonate of sodium. This gave relief. On the 18th the pulse was still very rapid, ranging from 130 to 140. The patient felt quite comfortable but was vomiting. At 5.30 p.m. the stomach was again washed out when the bile returned. The patient looked very blanched; his pulse was regular but rapid, counting 130. It was decided to open the wound, a vicious circle or obstruction from some cause or other being suspected. At 6.30 p.m. the wound was opened under chloroform and a coil of small intestine was found gripped by the muscles in the lower part of the wound. Below this point the intestine was empty; above it it was very distended. The coil was returned and the gastro-enterostomy was examined and was found to be perfect. The abdominal wall was stitched with through and through silk sutures and with a continuous skin suture. The operation lasted for 20 minutes. On the same evening the patient felt much relieved and the vomiting ceased. The pulse was 140 and the temperature was 99·5°F. On the 20th the pulse was 110 and the temperature was 99°. On the 21st the patient was seized with pain in his right chest. The respirations went up to 48 and the temperature to 101·5°. There was slight dullness over the right base and very fine crepitus or friction could be heard. During the next few days the temperature remained at about 101° and the pulse at 110. On August 4th, the dullness being now more marked and the other

clinical signs of fluid being present, an exploring needle was introduced but no fluid was obtained. No improvement having taken place in the lung condition, although there was no abdominal discomfort at all and the wound had healed perfectly, an exploratory puncture was made on the 9th and pus was obtained. The skin was rendered anæsthetic with eucaine and adrenalin and a large trocar and cannula were introduced into the eighth interspace a little in front of the scapular line. A pint of pus was obtained. The cavity was drained with a rubber tube passed through the cannula, the patient being too ill to stand further operative treatment at this stage. On the 13th under chloroform an incision was made over the old puncture and a big rubber tube was put in. The patient was very feeble and was much exhausted. After this improvement was very rapid. The temperature, pulse, and respirations all improved. The patient began to take feedings well and had no abdominal discomfort at all. He was discharged on Sept. 11th feeling very well. The gastro-enterostomy has been perfectly successful and the empyema has closed up. The sugar has also disappeared from the urine.

I am indebted to Mr. Newbolt for permission to publish the case and for the following remarks by him.

Remarks by Mr. Newbolt.—The interest of this case lies in the fact that the patient had glycosuria to begin with. This was probably of a temporary nature and due to his digestive disorders. The operation was difficult on account of the perigastric adhesions and the rigidity of the abdominal muscles. The pylorus was found to be thickened and constricted. It was evident on the morning after the operation that something was wrong but the wound looked perfect. The symptoms were not definitely those of a vicious circle. As, however, there was no improvement the wound was opened and hernia of the small intestine was discovered and replaced. The empyema which followed was doubtless due to an infection of bacillus coli and the pus had a foul smell. The operation quite relieved the symptoms and all the sugar disappeared from the urine some days after the operation. The latest reports are quite satisfactory.

Proceedings of Societies.

BRITISH COLUMBIA MEDICAL ASSOCIATION.

The Ninth Annual Meeting of the British Columbia Medical Association was held in Vancouver on August 20th and 21st. The President, Dr. J. M. Pearson, of Vancouver, presided.

The meeting was very well attended, some seventy-five in all signing the register. A large number of visitors were also present, including Dr. Joseph Price, of Philadelphia; Dr. G. S. Ryerson, of Toronto, and Drs. J. B. Eagleson, A. E. Burns, Canfield, Peterkin, of Seattle, and Dr. A. H. Coleman, of Tacoma.

A very interesting programme was presented and fully discussed. Dr. Joseph Price read an interesting paper on the advancement in abdominal and pelvic surgery, which was much appreciated by all present. The Special Committee appointed at the last meeting to report on school inspection and hygiene, particularly with regard to the manner in which it is taught in our public schools, presented an exhaustive and valuable report. Much credit is due to Dr. W. D. Brydone-Jack and the other members of the committee for their valuable contributions to this subject.

The question of the formation of a Western Canada Medical Association was fully discussed, and the following resolution was passed: "Resolved, That, in the opinion of this Association, the formation of a Western Canada Medical Association is inadvisable, and the Secretary be instructed to notify the promoters of the scheme to this effect, the feeling of the meeting being that the affiliation of this society with the Canada Medical Association was desirable, and that the multiplicity of the inter-Provincial societies might interfere with the Dominion Association."

A letter was also read from Dr. Lafferty, of Calgary, of the College of Physicians and Surgeons of Alberta. Subject: The formation of a joint Board of Examination for the four Western Provinces of the Dominion, whereby candidates for license to practise will be able to register in the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia, on passing the one examination.

The folowing resolution was adopted: "Resolved, That this Association does not approve of the scheme of reciprocity with regard to registration with the Provinces of Manitoba, Saskatchewan and Alberta."

The question of affiliation with the Canada Medical Association was also discussed, and the idea was indorsed by the Association, and the Executive Committee was given power to work out the details and to carry it into effect.

Under the head of School Hygiene, it was decided to memorialize the Government and request them to appoint a medical adviser for the Education Department, so that the question of hygiene and its teaching in our public schools might be carried out under the supervision of a person specially qualified on this subject.

A special committee which was appointed at our last meeting to revise the constitution and by-laws, presented their report. The only important change was the making of the membership fees permanent; that is, members to continue in good standing, must pay their fees annually whether in attendance at the meeting or not.

The following were elected officers of the Association: President, Dr. C. J. Fagan, Victoria; Vice-President, Dr. Glenn Campbell, Vancouver; Treasurer (re-elected), Dr. J. D. Helmcken, Victoria; Secretary (re-elected), Dr. R. Eden Walker, New Westminster.

In response to a pressing invitation to hold the next annual meeting in conjunction with the State Associations of Washington, Oregon and Idaho, the next meeting place will be Seattle, where a joint meeting of the above Associations will be held, the exact date to be fixed later, probably some time in August, 1909.

Physician's Library.

Husband's Practice of Medicine. Designed for the use of students and practitioners. Sixth edition, rewritten and enlarged. By ROBERT F. C. LEITH, M.A., M.Sc., M.B., C.M., F.R.C.P. (Ed.), Professor of Pathology and Bacteriology, Birmingham, and ROBERT A. FLEMING, M.A., M.D., F.R.C.P. (Ed.), Lecturer on the Principles and Practice of Medicine, School of Medicine of the Royal College of Edinburgh; Assistant Physician, Royal Infirmary, Edinburgh. Edinburgh: E. & S. Livingstone.

This book will provide medical students with a concise, reliable and modern text-book of medicine. The book is not illustrated, but it is very complete as a text-book goes.

It is provided with a very full index, which will be appreciated. Treatment and the diseases of the nerves have been written by Dr. Fleming, while Dr. Leith has written the balance.

Hygiene for Nurses. By ISABEL MCISAAC, author of "Primary Nursing Technique," graduate of the Illinois Training School for Nurses; formerly Superintendent of the Illinois Training School for Nurses, etc., etc. Price, $1.25. Toronto: The MacMillan Company of Canada, Limited.

We find in this little book a text-book on hygiene for the young nurse of a rather practical character. There is just enough knowledge herein for the young nurse to assimilate. Its text is nicely arranged and unnecessary subjects are omitted.

Pulmonary Tuberculosis and Its Complications. By SHERMAN G. BONNEY, A.M., M.D., Professor of Medicine, Denver and Gross College of Medicine, Medical Department of the University of Denver, etc. With 189 original illustrations, including 20 in colors and 60 X-ray photographs. Philadelphia and London: W. B. Saunders Company. 1908. Canadian agents: J. A. Carveth & Co., Toronto.

This is a complete treatise on the subject of pulmonary tuberculosis and the many complications and secondary involvements. The book has been designed especially for the general practitioner, and in the text Dr. Bonney gives the observations of a large practical experience.

The section on physical signs of pulmonary tuberculosis is particularly thorough, a character which is necessary in a work of this kind. Special attention is also given to treatment. There are chapters on prophylaxis, open-air treatment, diet, sanitarium and climatic treatment, drug and vaccine therapeutics.

The work is particularly well illustrated, the sections on open-air treatment and on the use of X-rays in the diagnosis of pulmonary tuberculosis being especially commendable in this regard.

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enroll themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only $3.00 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

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COMMENT FROM MONTH TO MONTH.

The Outlook for the Medical Student is a grave one. Before entering upon the study of medicine, the candidate should pause and think deeply. The medical colleges are again opening in Canada, and at this moment it is impossible to say what the number in attendance will be, nor yet what the first year classes will total up to. It would be interesting to tabulate the various reasons which induce these young men, many of them fresh from the high schools of the country, with practically no training in life of any sort, to enter upon the medical career as the one most roseate which offers itself as a fitting vocation for their lifework. Have they a "call"? If they have and can combine therewith a natural aptitude for the laboriously anxious life they will hereafter lead in prosecuting their profession, then it may be all very well with them. But, on the contrary, if they are looking for an easy mode of making a living and some money, as well as becoming members of a respectable calling, then there is in store for many of them keen disappointments. Of course, it is understood by all that not all who enter upon the study of medicine ever finish. Various and

sundry are the reasons which will deplete the ranks of every freshmen class as it proceeds to the final year. It is on every hand manifest to many who are already in the medical profession that particularly in this country is that profession far overcrowded. Toronto is said to be the second city in the world whose medical population is more in proportion to the civic population than any other city in the world, Madrid alone excepted. It is almost as bad in other cities of Canada, and also in the country. The last great West ever offers an alluring field; but even there, with a foreign population constantly pouring in, conditions for the medical practitioner are said to be burdensome, and that, although far-off pastures look green, only a few are actually eating the succulent morsel of success. When this is true and known to all, particularly to the professors in the different teaching faculties, why should there be any extra efforts put forth to entice young men into a profession which can gain only for its members a scant livelihood? Why should the paths of entrance be paved so smoothly? Why should entrance piecemeal be continued on the curriculum of the licensing bodies? Why should the standards not be raised? Why should the age entrance not be raised? Are the feelings and judgments of a boy of sixteen or seventeen years of age ripe for choice of a career? Is a young man of twenty-one years of age capable of employing that calm judgment and deliberation required in many emergencies with which the practice of medicine is hedged in, and in which often the life of an individual hangs in the balance? Has he at the age of twenty-one even more than acquired that good preliminary knowledge in general education which all ought to possess ere he embarks upon such a tempestuous sea as the study and the practice of medicine? As year after year goes by the medical profession takes a higher standing in the community at large; and, if this be so, does it not appeal to most men that granting licenses to practice the most noble and exacting of callings to young men who have but attained their majority is hardly apace with the advancement of the scientific and practical side of medicine? At least study up to that age of a general character should be demanded before any single student should be allowed to enter upon the study of medicine. It is "up to" the professoriate to do a little discouragement rather than encouragement to the ever-increasing tide which annually surges into the medical colleges of the land. One would think this specially incumbent upon those professors of a state-aided enterprise, as there can possibly not accrue any private gain. And it would also be but just to the poor student himself that a view of his future life-work should, as far

as possible, be placed before him. Let any young man sit calmly down and think good and deep before embarking on medicine as a life career. Let him add it up in dollars and cents what it is going to cost him in board, books and fees; let him add to this the amount he has been earning per annum or could earn per annum. Let him take this sum total at the end of the five years he has devoted to the study of medicine, less his cost of living, and he will have a capital of an earning possibility far in advance of an M.D. This will apply to the average student, and possibly to more than the average student. But the difficulty will be in getting him to believe it.

The Medical Student's life has greatly changed within the last two decades. Gradually the "rush," the "haze," and "elevation" has died out as popular introductories. The annual dinners or banquets have been almost done away with, and along with them have gone the beer and the booze. It is doubtful if in many of the colleges there is ever heard, " 'Tis wine that makes you feel so fine." The Hallowe'en escapades are things of the past. There is no more pelting of professors with split peas or shelled corn. There is no hideous nightmares like the suspending of cadavers on butchers' hooks. Smoking in most of the dissecting rooms is a practice fast going into oblivion; in fact, that practice would not be tolerated in a well-conducted institution. Teas and assemblies and light amusements have superseded those thrilling episodes of vanishing days. But how the old 'un loves to tell his reminiscences and chuckle over the gapes of the present youngster. It is the day now for sober determination to work and get the best that is going in the progress of the medical course.

Statistics regarding the foreign-born insane in Ontario, as given by the Hon. Mr. Hanna at a political meeting in Nova Scotia, are somewhat alarming, and they would certainly call for more rigid inspection at the hands of the immigration authorities of the Federal Government. Mr. Hanna says that some two years ago his department began to trace the history as far as possible of those already in the various hospitals for the insane in Ontario. He is reported as having spoken as follows: The result of our investigation shows an alarming increase in the proportion of foreigners committed to these institutions since 1903. The foreign-born popu-

lation in our hospitals for the insane was 90 per cent. more admitted in 1907 than in 1903, the exact figures being: in 1903, 180 foreign-born admissions; while in 1907 we had 346 foreign-born insane dumped into the institutions of our Province, at a cost of $200.00 each per year for the remainder of their days, which statistics show will average thirty years. This means an outlay of $6,000 per patient, or a total charge in future payments in respect of the admissions of 1907 alone, of upwards of $2,000,000. Reverting to the Toronto institution, he went on to say that the proportion of people born outside of Canada, according to the census returns, is 20 per cent., yet in the year 1907, out of 262 admissions to the above institution, 134 were foreign-born, that is, born outside of Canada, while but 128 were Canadians. That is, the foreign-born contributed 134 instead of 32, which would have been their proper proportion. They contributed over four times their proportion. Of this 134, 77 were very recent arrivals—some of them being admitted almost from the port of landing to the institution and made a charge upon the people of Ontario. This means that in that institution alone there has been imposed upon the people of Ontario a charge of $804,000. Two years ago the Province of Ontario began to deport, and since that time upwards of two hundred have been deported.

Criminal Abortion has been much in evidence not only in Canada, but in the United States. That it is a subject which vitally concerns the medical profession on both sides of the line has been forcibly brought home to us by a lay paper here and a professional paper there. In his address as chairman of the section on obstetrics and diseases of women of the American Medical Association, Dr. Walter B. Dorsett, St. Louis, Mo., dealt with this subject under the following title: Criminal Abortion in Its Broadest Sense. He considers it is high time that medical men should have a heart-to-heart talk on this matter; and, in view of the position of affairs in certain places in Canada, this might advantageously be done. He tersely puts these questions: Does it concern us as physicians? Does it concern us as members of the American Medical Association and of this section? Does it concern us as citizens of this, our beloved country? These can likewise apply in Canada. If the abdominal surgeon and obstetrician can see the results of interference with conception, can we afford to be blind to it? The paramount question, however, is that of the criminality of the woman herself—and he discusses it fully. All know that these unfortunate

girls and women come to the doctors inciting them to crime. If the operation is undertaken by unprincipled men or women, who have their moral senses blunted, the woman herself is an active participant in the crime, although passive in the operation. Should she be punished? So far as our knowledge of the Criminal Code of Canada goes—and we are informed that it is so—there is no punishment for the one who first incites to this crime and who subsequently participates in it. The doctors do not go chasing after this, as they certainly do not after other medical or surgical work. It comes to them. If they or any other man or woman undertakes it they are the only ones punishable. The woman goes scot free in the eyes of the law and only bears the odium of her immorality, which is a good lot,—but is it enough? In nine States of the American Union a woman who solicits, submits to, or performs an abortion on herself is guilty of a felony. In seven States the above offence is a misdemeanor, and in the remaining States and Territories, namely, thirty-five, the woman is guilty of no crime. Does this show that in Canada our Criminal Code is inefficient and inadequate in connection with the crime of criminal abortion, as well as in the thirty-five States of the United States referred to? The answer that the victim has already suffered enough and run enough danger cannot be considered a sufficient one; and it appears to us that our laws are not good enough nor sufficient enough against the crime of criminal abortion. In three ways can good work be performed: Education of mothers to the fact that they should educate their daughters that conception means life and not quickening; that medical faculties do their duty in the matter of teaching medical ethics; that the provincial and national medical bodies work towards securing the enactment of laws applicable to the inciters of these crimes.

News Items

LT.-COL. WM. NATTRESS, M.D., died recently in Toronto, in his 59th year.

DR. G. W. RACEY has purchased the medical practice of Dr. Cawthrope, Parkhill.

DR. CALLAGHAN, who comes from Port Arthur, has started a practice at Chepstow.

DR. TOM MCCRAE, Baltimore, Md., was married recently to Miss Gwynne, of Dundas, Ont.

DR. CHARLES R. DICKSON has returned to Toronto from the meeting of the electropeutists.

DR. JOHN CLARK, Smithport, Pa., was recently visiting in Hamilton and vicinity, his old home.

THE Montreal General Hospital will receive $5,000 under the will of the late Alderman Carter of that city.

DR. CHAS. E. HICKEY, Medical Superintendent of the Hospital for the Insane, Cobourg, died September 19th, aged 68 years.

DR. J. MCCULLOUGH, late of Blackstock, leaves shortly for Edinburgh to spend some time in the principal hospitals there.

DR. WADE, of Cobourg, has been appointed surgeon of the 40th Regiment. Dr. McCoun, of Campbellford, is the senior surgeon.

DR. C. H. BRERETON, of Bethany, a well-known physician, died at the residence of his son, Dr. T. C. Brereton, at Carnduff, Sask.

DR. VICTOR ROSS, of Barrie, has returned from Edinburgh and London, where he spent the past several months walking the hospitals.

DR. W. BRODDY, Uxbridge, leaves shortly for England to take a position as surgeon on a vessel plying between England and South Africa.

DR. E. A. E. HOWARD, who has severed his connection with St. Michael's Hospital, has been appointed ship's surgeon on the Empress of India.

DR. DAVIDSON has taken the place of Dr. Racey as assistant to Dr. C. W. Holmes, of Oshweken, Ont. Dr. Racey has gone to Parkhill to practice.

TYPHOID FEVER CASES in the Montreal hospitals during the last week in September were as follows: Hotel Dieu, 30; Royal Victoria, 50; General, 41; Notre Dame, 20.

DR. T. ALEXANDER DAVIES, Toronto, desires to announce to the members of the profession that he is confining his practice exclusively to the eye, ear, nose and throat.

To the endowment fund of the Montreal General Hospital $40,000 has recently been donated under the will of the late Mrs. Hope and by Mrs. George R. Hooper.

DRS. GRAHAM CHAMBERS and Walter McKeown, editors of this journal, have been made Associate Professors in Medicine and Surgery respectively in the University of Toronto.

DR. ADAM H. MILLER, who spent the holiday season at the home of his father, ex-Warden John Miller, J.P., of Haldimand Township, has returned to Toronto, where he will spend a year as assistant to Dr. Caven.

DR. HENRY, son of the late Andrew Henry, formerly Clerk of Mono Township, is now practising his profession at Estevan, Sask. Dr. Henry purchased a new residence in that town recently and intends remaining there.

DR. CHARLES M. STEWART, who has been doing post-graduate work in London this last six years, has returned to Toronto and opened an office at 142 Carlton Street. He will confine his practice to diseases of the ear, nose and throat.

DR. HAMILL, medical broker, Janes Building, Toronto, who conducts the Canadian Medical Exchange, for the purchase and sale of medical practices and properties, desires us to say to physicians thinking of disposing of their practices or properties that this is an unusually desirable time for them to list their offers with him, as he has the best list of buyers registered with him that he has had for many months, and is in a position to quickly and quietly sell any inviting medical practice anywhere in Canada.

DR. O. A. CANNON, honor graduate and medalist of Toronto University, and house surgeon for a year at Grace Hospital, Toronto, has gone to Stratford to enter partnership with Dr. J. P. Rankin, who, it is well known, is one of Stratford's most experienced and successful practitioners. The medical firm will be known as Rankin & Cannon. Dr. Cannon's brilliant success in his course and in his hospital work augurs well for his career in Stratford, and Dr. Rankin is to be congratulated upon having secured so able an associate.

THE American Hospital Association met in Toronto in tenth annual session during the week ending the 3rd of October. Its membership now reaches 500. The treasurer's statement shows a balance of $1,268.64. Canada made 25 applications for membership during the past year. Canadian young women are appreciated as nurses in the United States. Mr. John Ross Robertson was offered the presidency, but declined. The next annual meeting will be held in Washington, D.C., from the 22nd to the 29th September, 1909. Dr. John M. Peters, of the Rhode Island Hospital, Providence, R.I., was elected President; Dr. J. N. E. Brown, Toronto General Hospital, one of the Vice-Presidents, and Dr. W. L. Babcock, Detroit, Secretary. Dr. Donald McIntosh, of the Western Infirmary, Glasgow, Scotland, was elected an honorary member.

THE INTERNATIONAL MEDICAL CONGRESS AT BUDAPEST.—The Sixteenth International Medical Congress will be held at Budapest, Hungary, under the distinguished patronage of the aged Emperor of Austria, from the 29th of August to the 4th of September, inclusive, 1909. A strong Canadian committee has been formed to represent the medical profession of Canada at this conference. The following is the committee: Drs. W. H. B. Aikins, A. H. Garratt, E. E. King, J. S. MacCallum, G. R. McDonagh, A. McPhedran, G. S. Ryerson and A. H. Wright, of Toronto; Drs. H. S. Birkett and F. Shepherd, of Montreal; Dr. Courtenay, of Ottawa; Dr. J. D.

Third, of Kingston; Dr. Ingersoll Olmsted, of Hamilton; Dr. J. D. Wilson, of London; Dr. Halpenny, of Winnipeg; Dr. S. J. Tunstall, of Vancouver, and Dr. O. M. Jones, of Victoria. The secretary of the committee is Dr. W. H. B. Aikins, 50 College Street, Toronto.

A COMPLETE reorganization of the medical staff of St. Michael's Hospital has been announced. There are a number of reasons for the changes, chief among which may be mentioned the fact that when the General Hospital was reorganized a rule was passed allowing no medical man on the special or department staffs of that institution who was connected with those of another hospital. This rule, however, does not apply to consulting staffs. Another reason is that St. Michael's has a great amount of clinical work, of which Toronto University wished to have the benefit. A system which will work in with these conditions has been adopted. There will now be two services in surgery, of which the chiefs are Dr. I. H. Cameron and Dr. Walter McKeown, and two services in medicine, with Dr. R. J. Dwyer and Dr. H. B. Anderson presiding. The heads of the department of obstetrics and gynaecology are Dr. F. Fenton, Dr. A. H. Garratt and Dr. M. Crawford, while Dr. G. H. Burnham is chief of the department having to do with diseases of the eye. A list of the complete staff will shortly be announced. Doctors who are debarred, by the new rule referred to, from acting on department staffs, are still retained upon the consulting staff. Plans are partly ready for a large addition to St. Michael's Hospital, to be built on the property directly to the north of the present building.

FRENCH DOCTORS IN TORONTO.—A distinguished party of twenty-two French professors and doctors were in Toronto on the 18th of September, and were entertained all day by local medical men. They arrived at 7 o'clock in the morning and left next day to attend the International Tuberculosis Congress, which met in Washington last week. The party included: Prof. Landouzy, Prof. Arloing, Dr. Pierre Teissier, Dr. Courmont, Dr. Leon Bernard, M. Piot Bey, M. Augustin Rey, M. Beaumevieille, M. Braine, Dr. Calmette, Dr. F. Cornudet, Dr. Chaboux, Dr. Paul Gallot, Dr. Guirauden, Dr. R. Hirschberg, Dr. de Kerdrel, Dr. Kaufmann, Dr. Mignon, Dr. Sargiron, Dr. Servant, M. Andre Servant, Dr. Triboulet. Prof. Landouzy is Dean of the Medical Faculty of Paris and President of the French committee in connection with the Tuberculosis Congress. Prof. Arloing belongs to the medical faculty of Lyons. Most of the visitors have made some specialty of

the study of the white plague. They were given a motor drive around the city by the Academy of Medicine shortly after their arrival, Prof. Landouzy remaining with Dr. W. H. B. Aikins, at 50 College Street. At noon Dean Reeve of the Medical Faculty of the University of Toronto entertained them at luncheon in the Medical Building. There were three toasts only: "The King," "The President of France," and "The Visitors." Afterwards a reception was tendered at the Academy of Medicine at Queen's Park. Mrs. Aikins entertained the ladies of the party, Mesdames Landouzy, Eugene Lambert, Courmont and Piot. In the evening a dinner was given at the Toronto Club, presided over by Dr. J. F. W. Ross, President of the Academy of Medicine. Among those invited were: Dr. J. G. Wishart, Dr. E. E. King, Dr. A. A. Macdonald, Dr. H. J. Hamilton, Dr. A. McPhedran, Dr. R. A. Reeve, Dr. F. N. G. Starr, Dr. C. Lusk, Dr. C. J. Hastings, Dr. William Goldie, Dr. N. A. Powell, Dr. J. A. Amyot, Dr. T. McMahon, Dr. R. J. Dwyer, Prof. Ramsay Wright, Dr. A. H. Wright, Dr. G. S. Ryerson, Dr. W. P. Caven, Dr. Allan Baines, Dr. A. H. Garratt, Dr. J. Ferguson, Dr. W. A. Young, Dr. George Elliott, Mr. J. A. Macdonald, Mr. J. S. Willison, Dr. A. J. Johnson, Dr. W. Oldwright, Dr. G. A. Bingham, Dr. J. O. Orr, Sir Mortimer Clark, and Major Macdonald.

KEPHYR.—The City Dairy Co., Limited, Toronto, is placing this product before the medical profession. They have issued a booklet entitled The Therapeutic Indications of Kephyr, a Clinical Lecture from the International Clinics, 1905. By G. Hayem, M.D., Professor in the Paris Faculty of Medicine. They will gladly send this to physicians on application. Many Toronto physicians are using this preparation with pronounced success.

Publishers' Department.

CATARRHAL DISEASES OF THE NASO-PHARYNX.—As the season is now fast approaching when this class of diseases takes up most of the physician's time, and is the cause of more suffering among more people than almost all other diseases combined, I wish to say something in regard to a simple and effective treatment in this class of diseases. In this climate this is the commonest of all diseases, there being very few who do not suffer from it in some of its various forms. Chronic nasal catarrh is in most cases a result of repeated attacks of acute catarrh or "common colds." In this short article it is not necessary to go into details or take up time or space with causes and symptoms; everyone is familiar with them. My object here is to simply give my plan of treatment, plain and simple, yet eminently successful. In the treatment of these cases every physician is well aware of the fact that cleanliness is in most cases all that is necessary for a cure. Every physician also knows that in order to have a perfect cleansing agent it must be both alkaline and antiseptic. My success in treating these diseases, viz., acute and chronic nasal catarrh, including ozena, acute and chronic tonsilitis, pharyngitis, catarrhal deafness, etc., has been due almost entirely to the systematic and thorough cleansing of the mucous surfaces with Glyco-Thymoline. I have been using this ideal alkaline antiseptic in my practice for years, and have never been disappointed in it. A few cases from my note-book will better explain my method of treating these cases: George C., boy, aged six. Was called early one morning to see him. Found him with a severe attack of acute tonsilitis. Temperature, 104½ three hours after a hard chill in the night, both tonsils inflamed and badly swollen, one covered with the characteristic patches. I at once ordered Glyco-Thymoline and hot water, equal parts, and instructed him how to gargle and hold his mouth and throat full by lying on his back. In this way he could retain it in contact with his throat for some time, this to be kept up *ad lib* all day. I gave 1-10 drop tr. aconite every two hours. When I visited him at night I found him much improved. I kept him on the same treatment during the night and discharged him well on the morning of the second day. This is my way of treating acute tonsilitis, and I want to affirm here that it will cure almost every case if begun early and used persistently. I always use the Glyco-Thymoline and water as hot as possible. In

chronic follicular tonsilitis I use Glyco-Thymoline, frequently pure with an atomizer, spraying with force directly against the tonsil every day. In this way you can clean out the crypts thoroughly, and it has been the most successful treatment I have ever used in this *hard to cure* disease. In chronic pharyngitis, ministers' and singers' sore throat, I use alternate hot and cold sprays with success. In the ulcerated throats of scarlet fever I find nothing so soothing and effective as Glyco-Thymoline used in the same way. One other case I will report was a case of ozena of several years' standing. Young lady, aged eighteen years, was brought to me. She had been a sufferer for several years, having been treated by several physicians at home and by one specialist, who had operated upon her, removing the turbinates, and cauterized with no success. I found her in a most pitiable condition from the ulceration. Discharge profuse, greenish yellow, and of the most offensive odor. Frequent nosebleed, hearing badly impaired in the right ear, flesh very much reduced, general health bad, and with a tubercular history, making the prognosis very unfavorable. I ordered her to use locally Glyco-Thymoline, 50 per cent. solution, treating her at my office with an atomizer every other day, and having her use it at home with the K. & O. douche. I also put her on tonic treatment. While treating her at the office the third time she blew from the nostril a mass of decomposed flesh, containing pieces of dead bone, which was expelled with difficulty, followed by a severe hemorrhage. After this her improvement was rapid and continuous, resulting in her complete recovery in less than two months. I have used this treatment in numerous cases, and always with eminent success. I have no reason to change. Glyco-Thymoline is certainly the ideal alkaline antiseptic, and I am glad to recommend it to all my fellows in the treatment of all catarrhal diseases.—H. M. Marsh, M.D., Auburn, Ky.

PUBERAL ANEMIA.—Broad clinical experience certainly tends to support the opinion of many medical men that chlorosis is practically limited to the female sex, and to these during the child-bearing period. As is well known, chlorosis is hardly a true anemia, inasmuch as it consists rather of a decrease of hemoglobin than any marked on constant diminution in either the corpuscles or mass of the blood. There is a true anemia, however, which occurs at or about puberty and is common to both sexes. This may properly be spoken of as a puberal anemia, and manifests itself by both oligocythemia and oligemia. Young men as well as young women are

attacked, and the cause seems to rest on actual structural deficiencies rather than on emotional influences, as is generally believed to be the case in chlorosis. It is slow and insidious in its onset and is characterized by a pallor or bloodless appearance quite different from the greenish color of chlorosis. Examination of the blood shows a greater or less decrease of hemoglobin, but, unlike chlorosis, the red cells and total quantity of the blood are lowered very markedly. Strange to say, however, the specific gravity is usually raised in puberal anemia, while in chlorosis it is generally lowered. One pronounced clinical symptom referable to the pulse, according to a prominent English authority, will moreover be found in puberal anemia which is not common in chlorosis. In anemias of failing quantity, such as puberal anemia, the pulse is almost invariably feeble and empty, while in chlorosis it is often dull and even of quite excessive pressure. The type of anemia under discussion is probably due to: (1) Excessive demands on, or actual destruction of the blood elements; (2) deficient renewal of its elements; (3) or both. The first is a sequence of some disease like fever or toxemia; the second of inanition or malnutrition; and the third of some wasting process, which not only depreciates the blood, but, by lowering functional activity, militates against any physiological tendency to restoration. In any instance the paramount need is to stimulate hematopoiesis, and for immediate and satisfactory effect in this direction Pepto-Mangan (Gude) has been found of very great value. Under its administration, the hematogenic function is actively increased and the appetite and general nutrition rapidly raised. The digestion is improved and never embarrassed—a statement that can be made of none of the inorganic preparations of iron. It goes without saying that the best of hygiene, good food and as much outdoor life as possible should also be prescribed in the treatment of puberal anemia. The condition, if allowed to continue, is always dangerous, principally because of its predisposing tendencies to graver disease; but the results of the treatment recommended are usually so prompt and decisive that there is rarely any excuse for its not being controlled. At any rate, "It is the stitch in time" that saves serious trouble, and Pepto-Mangan (Gude) in this class of cases will be found a very dependable stitch.

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laid up in bed with a painful rheumatic affection of one of her feet, which, after bathing and wrapping with Ecthol, to my surprise was about the house again the next day. She swears by it, and will not allow me to be without it. I have also found it excellent in pruritus ani and erysipelas. I prescribe it through a druggist in Newburg, and have bought three bottles for myself. I am now using it in a case of ulcer in an old man, on the bottom of his foot, which is healing.—G. A. Gorse, M.D., Meadowbrook, N.Y.

Laxative Properties of Phenolphthalein.—Phenolphthalein (dioxytriphenylphthalide), C20H14O4, is obtained by causing concentrated sulphuric acid to act upon phthalic anhydride. In the pure state, it occurs as a white or faintly yellowish crystalline powder, devoid of taste, readily soluble in alcohol, but sparingly soluble in water. Up to a few years ago it was known to pharmacists only as an indicator. In 1902 the laxative properties of phenolphthalein were discovered, and accidentally at that. The substance was used as a means of distinguishing a certain wine, and it was found that this wine caused diarrhea. Phenolphthalein was then examined and found to have a laxative action when administered in small doses. Since that time it has been introduced by enterprising firms under various fanciful names . . . . . As regards its fate in the system, it has been maintained that the drug remains unchanged in the acid stomach, but probably in the alkaline intestinal fluid forms a sodium compound—a very indiffusible salt of high osmotic pressure, which leads to the accumulation of much fluid in the bowels. Phenolphthalein appears to be absorbed only to a very slight degree, and to that extent to be excreted by the kidneys. According to Dr. Oscar Schwartz (*Munch. med. Wochenschr.*, 26, 1903), out of 3 grammes given to a dog, 2.55 grammes were recovered from the excreta; 10-gramme doses had no distinct effect on the elimination of sulphates in the animal, so there can be little or no decomposition with elimination of phenol in the system. When the urine is acid, as in health, the administration of phenolphthalein causes no coloration of that excretion, but when the urine is alkaline or neutral, it produces a deep crimson-red color. Tunicliffe (*Brit. Med. Journ.*, October 18, 1902), Vamossy (*Munch. med. Wochenschr.*, 26, 1903), and others laud the laxative action of phenolphthalein. They claim that it never causes any violent diarrhea or colic, that it does not irritate the kidneys, and that its depressant action on the circulation is less than that of magnesium