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THERAPEUTICS.—This pill is specially applicable in **Atonic Dyspepsia**, depression, and in exhaustion from overwork, or fatigue of the mind. **Phosphorus** and **Nux Vomica** are **Sexual Stimulants**, but their use requires circumspection as to the dose which should be given. As a general rule they should not be continued for more than two or three weeks at a time, one or two pills being taken three times a day.

Pil: Phosphori cum Ferri et Nuc. Vom. (Wm. R. Warner & Co.)

Phosphori, 1-100 gr.; Ferri Carb. 1 gr.; Ext. Nucis Vomicæ, ¼ gr.

DOSE.—One or two pills may be taken two or three times a day, at meals.

THERAPEUTICS.—This pill is applicable to conditions referred to in the previous paragraphs, as well as to anæmic conditions generally, to sexual weakness, neuralgia in dissipated patients, etc.

Pil: Phosphori cum Ferra et Quinia. (Wm. R. Warner & Co.)

℞ Phosphori, 1-100 gr.; Ferri Carb. 1 gr.; Quiniæ Sulph., 1 gr.

DOSE.—One pill, to be taken three times a day, at meals.

THERAPEUTICS.—Phosphorus increases the tonic action of the iron and quinine, in addition to its specific action on the nervous system. In general debility, cerebral anæmia, and spinal irritation, this combination is especially indicated.

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DOSE.—One pill, to be taken three times a day, at meals.

THERAPEUTICS.—The therapeutic action of this combination of tonics, augmented by the specific effect of phosphorus on the nervous system, may readily be appreciated.

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℞ Phosph., 1-50 gr.; Quin. Sulph., ½ gr.; Pulv. Digitalis, ½ gr.; Pulv. Opii, ¼ gr.; Pulv. Ipecac, ¼ gr.

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THERAPEUTICS.—This combination may be prescribad in cases of consumption, accompanied daily with periodical febrile symptoms, quinine and digitalis exerting a specific action in reducing animal heat. Patients should, however, be cautioned as to the use of digitalis, except under the advice of a physician.

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℞ Phosphori 1-50 gr; Pulv. Digitalis, 1 gr; Ext. Hyoscyami, 1 gr.

DOSE.—One pill may be taken three or four times in twenty-four hours.

THERAPEUTICS.—The effect of digitalis as a cardiac tonic renders it particularly applicable, in combination with phosphorus, in cases of overwork attended with derangement of the heart's action. In excessive irritability of the nervous system, in palpitation of the heart, valvular disease, aneurism, etc., it may be employed beneficially, while the duretic action of digitalis renders it applicable to various forms of dropsy. The same caution in regard to the use of digitalis may be repeated here.

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Soluble Hypodermic Tablets	Bottle 100 Tab.	Tube 20 Tab.
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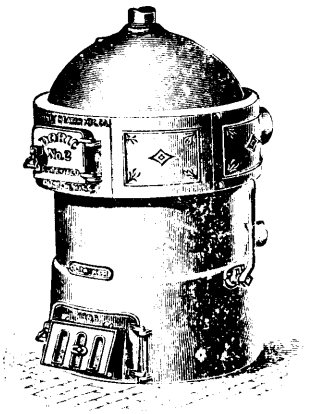
APOMORPHINE MURIATE, 1-8 gr.	1.10	26
APOMORPHINE MURIATE, 1-12 gr.	85	19
ATROPHINE SULPH., 1-150 and 1-200 gr.	30	10
ATROPHINE SULPH., 1-120 gr.	35	11
COCAINE HYDROCHLOR., 1-8 gr.	50	14
CODEINE SULPHATE, 1-8 gr.	70	18
CONIINE HYDROBROMATE, 1-100 gr.	30	10
DIGITALINE, Pure, 1-100 gr.	30	10
DUBOISINE SULPHATE, 1-100 gr.	50	14
ERGOTIN, 1-6 gr.	60	18
ESERINE SULPHATE, 1-60 gr.	80	20
ESERINE SULPHATE, 1-100 gr.	45	13
HYOSCINE HYDROBROM., 1-100 gr.	75	19
HYOSCYAMINE SULPH., 1-100 gr.	40	12
MERCURY CORROSIVE CHLORODIN, 1-60, 1-150, 1-40 gr.	30	10
MORPHINE MURIATE, 1-8 gr.	35	11
MORPHINE MURIATE, 1-6 gr.	45	13
MORPHINE NITRATE, 1-6 gr.	70	18
MORPHINE NITRATE, 1-8 gr.	55	15
MORPHINE NITRATE, 1-12 gr.	50	14
MORPHINE SULPHATE, 1-8 gr.	80	10
MORPHINE SULPHATE, 1-6 gr.	35	11
MORPHINE SULPHATE, 1-3 gr.	50	14

Soluble Hypodermic Tablets	Bottle 100 Tab.	Tube 20 Tab.
MORPH. 1-8 & ATROP., 1-200 gr., No. 1,	$0.45	13
" 1-6 " 1-180 gr., No. 2,	45	13
" 1-4 " 1-150 gr., No. 3,	50	14
" 1-4 " 1-100 gr., No. 4,	60	16
" 1-8 " 1-150 gr., No. 5,	45	13
" 1-8 " 1-100 gr., No. 6,	50	14
" 1-6 " 1-150 gr., No 7,	50	14
" 1-6 " 1-120 gr., No. 8,	55	15
" 1-4 " 1-200 gr., No. 9,	50	14
" 1-4 " 1-120 gr., No. 10,	55	15
" 1-4 " 1-60 gr., No. 11,	60	16
" 1-3 " 1-120 gr., No. 12,	75	19
" 1-2 " 1-150 gr., No. 13,	75	19
" 1-2 " 1-120 gr., No. 14,	75	19
" 1-2 " 1-100 gr., No. 15,	75	19
" 1-2 " 1-240 gr., No. 16,	75	19
NITROGLY. 1-50, 1-100, 1-150, 1-200 gr.	40	12
SODIUM ARSENIATE, 1-30 gr.	30	10
STRYCHNINE NITRATE, 1-150 gr.	50	14
STRYCHNINE NITRATE. 1-60 gr.	40	12
STRYCH. SUL., 1-120, 1-100, 1-60, 1-150 gr.	30	10
STRYCH. SUL., 1-80, 1-30 gr.	30	10
STRYCH. & ATROP., No. 1, 1-50, 1-150 gr.	50	14
STRYCH. & ATROP., No. 2, 1-30, 1-120 gr.	50	14
STRYCH. & ATROP., No. 3, 1-60, 1-150 gr.	50	14



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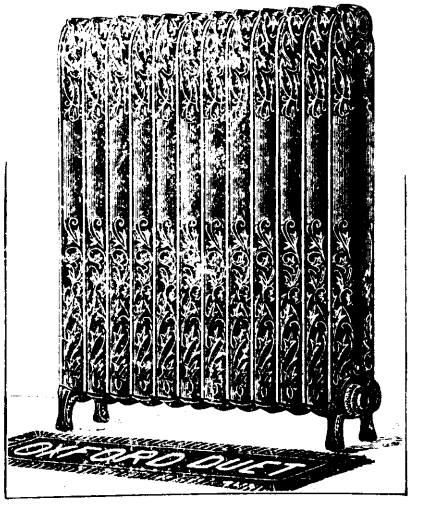

The Gurney Foundry Co., Ltd., Toronto.

The Canada Lancet.

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TWO INTERESTING CASES OF ECTOPIC GESTATION.

BY DR. NORMAN ALLEN, M.R.C.S. ENG., TORONTO.

FIRST CASE.

On March 25th, 1896, I was called to see a lady with the following history:—Age 24; married five years; one child four years; had never been pregnant since the birth of this child; menstrual functions since confinement regular, but profuse, lasting usually a week or more. During the past six weeks had suffered from constant nausea and almost entire inability to retain food; had been treated for this condition without any improvement resulting; breasts presented no characteristic symptoms of pregnancy; she was weak and greatly emaciated. During the last two weeks she had suffered from gushes of blood, lasting about an hour and then ceasing. For five or six weeks she had suffered sharp, lancinating pains referred to the left iliac region, and constant distention of the abdomen. Twelve hours before I saw her, after a paroxysm of pain, she felt something suddenly give in the iliac region; since which the pain had ceased. Bimanual examination disclosed the uterus enlarged and os patulos, and a semi-solid mass about the size of a child's head occupying the pelvis high up and to the left. The patient was suffering from considerable collapse, evidently due to loss of blood. I diagnosed pelvic hæmatocele, probably resulting from a ruptured tubal pregnancy, and advised immediate operation, to which neither my patient nor her friends would consent, though the almost inevitable result of non-interference was pointed out to them. As predicted, general septic peritonitis ensued. The pulse became small and wiry, running from 100 to 140; temperature

usually 101°, then suddenly darting up to 106°; constant vomiting of dark, greenish fluid; was restless and apprehensive; abdomen distended and tympanitic. May 10th, drowsy and weak; mind wandering; sleepy; pulse 170; temperature 102$\frac{3}{5}$°, when death ensued. Post-mortem examination made in the presence of several physicians revealed pus in large quantities in the peritoneal cavity; the pelvic organs had undergone almost complete disorganization, and could only with difficulty be separated or recognized. Some thickened, disintegrating masses of decidual tissue were found, corresponding to the left broad ligament. No disease of other organs was found. All present concurred in the opinion that a correct diagnosis had been made, and that rupture of a tubal pregnancy into the peritoneum had occurred about the 11th week.

Left Tubal Pregnancy, rear view, ovary and placenta at left, foetus and sac at right, about 2½ mos. Aug 1, '96.

SECOND CASE.

On July 26th, accompanied by Dr. D. W. McPherson, I was called to see Mrs. S., aged 31; had borne two children; six years since date of last confinement. Since that time, she stated, she had never been well. She suffered from menorrhagia, always lasting a week or more, and continued leucorrheal discharge, backache, etc. Last unwell June 7th; discharge slight, lasting only three days. After this menstrual period suffered acute pains, accompanied by nausea and faintness, referred to the left ovarian region. These pains continued to increase in severity, as well as the nausea, which gave place to occasional severe paroxysms of vomiting, succeeded by periods of relief, which might last for several hours or days. Breasts sore and enlarged. Early in July noticed a

lump in the left iliac region, rapidly growing very painful to the touch, making her scream out at times. Suffered occasional discharges of blood in small quantities; frequent desire to micturate. Towards the middle of July, when in her physician's office, sharp pain, accompanied by a uterine hæmorrhage, occurred, followed by great faintness and vomiting. She was removed to her home in a carriage, where she was seen by two physicians, who suspected miscarriage. Two weeks later, when seen by me, though weak and suffering some pain, she was able to walk about without much difficulty. On digital examination a mass could be made out, extending from the uterine attachment of the broad ligament well up into the left iliac region. It was sensitive to the touch, and large, distinct pulsating vessels could be felt. The uterus was enlarged and high up to

Left Tubal Pregnancy, rear view, sac opened, foetus about 2½ mos. seen at extreme right, about size of a large bean. Aug. 1, '96.

the right. I again suspected extra-uterine gestation, and, after consultation with Dr. McPherson, recommended immediate removal to the hospital and operation. This was consented to.

On August 1st, assisted by Dr. McPherson, I opened the abdomen, which disclosed a mass occupying the left side of the pelvis, involving the left broad ligament, and adherent to the mesentery and some coils of the small intestine. A considerable quantity of dark clot was removed, evidently a hæmatocele, the result of rupture of the Fallopian tube, which, I infer, occurred at the time when she was suddenly taken ill in her physician's office. After separating the adherent intestine and other adhesions, the tumor was removed without difficulty, though considerable hæmorrhage and oozing occurred. The pelvis was well washed out with hot boracic solution and closed. During the first 48 hours following

operation the patient suffered the usual nausea, and complained of great pain in the right side, opposite the side from which the mass was removed. August 3rd, bowels moved freely three times, as a result of calomel and saline. Pulse usually 70° to 80°; temperature never exceeding 100°. On the 9th the stitches were removed, and the wound found perfectly healed. On the 10th the patient was on full diet, and on the 18th day was able to be out of bed. She made an uninterruptedly good recovery.

Illustration No. 1 shows the tube, ovary and ovum, as removed, being the left tube, as seen from behind; the ovary is seen to the left of the ovum. The rest of the illustration is composed of the placenta attached to the tube, being apparently on the upper and posterior part of it.

Illustration No. 2. shows ovum opened, and on examination proved to be about the 10th week of development, the fœtus being seen at the extreme right. Patient has steadily improved and now enjoys good health.

The history of these two cases leads me to believe that early surgical measures are the safest treatment whenever ectopic gestation is suspected. Had electrolysis been used in the second case it could hardly have prevented peritoneal sepsis resulting, when there was such a large amount of blood-clot found; and had operation been agreed to in the first case I have no doubt that the patient would have recovered. Both were suffering from cervical laceration and endometritis. These cases, in my opinion, add additional evidence to the view that resulting stenosis of the uterine opening of the Fallopian tube due to endometritis is the most probable explanation of ectopic gestation, especially when the rapid growth of the ovum during the first few days of pregnancy is considered, and, to my mind, constitutes an additional indication for the early restoration of lacerations of the cervix uteri.

ORAL AND NASAL BREATHING, WITH EXHIBITION OF PATIENTS.*

BY PRICE-BROWN, M.D., TORONTO.

That nasal respiration is the only normal method of breathing is exemplified by observation of the habits of the ordinary animals around us. When in a state of rest, and not unduly excited by fatigue or heat, they invariably breathe through their noses. Waking or sleeping their mouths are shut. Observers tell us that this applies to all the races of mammalia. Nowhere do we find them, provided that they are in a healthy condition, addicted to the habit of mouth-breathing.

The same rule applies very largely to the aborigines of the human race. The primal natives, whether in Africa, America or Australia are all nose breathers. They follow out the bidding of the physiological law that nasal breathing is the only natural one.

Catlin tells us that the Indians of North America, among whom he travelled, all had patent noses. The women of the different tribes,

* Read before the Toronto Medical Society, December, 1896.

according to his idea, were more familiar with nature's law than their civilized sisters, inasmuch as they carefully closed the mouths of their children, and forced them to breathe through their noses. The probability, however, is that nasal breathing was so universal among them, that the keenly observant squaws noticed any exception to the general rule, and hastened to correct it.

It seems like a strange thing that the only mouth-breathers among all the mammalia are the civilized races of men, and that the higher the type of cultured nationality, the more frequently does the law of nasal respiration seem to be broken. I do not mean to say that among civilized whites mouth-breathing is the rule; but that a much larger proportion of the Circassian race are addicted to this method of respiration, than can be said of the other branches of the human family.

There are many factors required to produce the sum total of causes which lead to mouth-breathing, but prominent above all others in adult life is intra-nasal deformity. Why Europeans and their descendants in America should monopolize so large a share of these obstructive lesions, it is difficult to realize. Still, extensive examinations have proved it to be a fact; and one rhinologist was so struck with it, that he facetiously remarked to his confreres:—"We might look forward to the day when noses, having ceased to perform their function, would disappear like shadows and finally pass away."

In the museum of the Royal College of Surgeons there are 2,152 skulls. It is reported on reliable authority that of these 1,657, or 77 per cent, have deflections or irregularities of the septum or turbinateds; and out of 2,000 others examined in America and on the continent of Europe, the same percentage of abnormalities in the osseous framework has been repeated.

On the other hand, Sir Morrell Mackenzie and Zuckerkandl report that after careful examination of the crania of a large number of the aborigines of America, Africa and Australia, only 20 per cent. of the nasal cavities were found to possess any abnormality. Allen examined the skulls of 93 negroes and found deflections and irregularities in only 21 per cent. These statistics all refer to the skulls of adults.

Then, in the living state, out of 1,050 adult patients examined indiscriminately at the North West London Hospital by Collier, only 110, or about 10 per cent., had normal noses. In children up to the ages of 8 or 10 years, he usually found the septa and turbinateds normal; and obstructed breathing, which occurred frequently, was almost always due to lesions other than bony.

These remarks of Collier's are borne out by the experience of most observers. The septum during infancy is straight and the turbinateds are neither deformed nor hypertrophied. The nasal stenosis, from which children so frequently suffer, is almost invariably due to the presence of adenoids in the pharyngeal vault, or hypertrophy of the faucial tonsils; and when the exception does occur, it may usually be traced to traumatism, or hereditary tendency.

These data seem to bear out the following conclusions:—

1st. Bony irregularities of the nasal fossæ are seldom present in child-

ren before the age of ten years. 2nd. Bony irregularities of the nasal fossæ become frequent after childhood, 70 to 80 per cent. of civilized adults being affected by them. 3rd. Bony irregularities of the nasal fossæ are not frequent among uncivilized races, only about 20 per cent. being affected by them.

Of course irregularities of the intra-nasal bones alone, would not produce nasal stenosis; but these bones are the foundations upon which the tissues rest, and it is through the latter in great measure that the irregularities are transmitted.

The question of the causes producing these intra-nasal lesions is a vexed one; but of the many observers who have carefully investigated the subject, Mayo Collier in his painstaking researches has probably come the nearest to the truth. He claims that they are largely due to the effects of atmospheric pressure, badly equalized, within the nasal cavities.

Collier's theory was largely founded upon experiments upon young animals previously made by Zeim, who proved that any obstruction of the nose produced serious consequences in the development of the skull. In several instances, he completely blocked one nostril of a young animal for a long time, effectually stoppingrespiration on that side. The result in each case was arrest of development on that side, falling in of the septum toward the same side, deviation of the intermaxillary and palate and frontal bones toward that side, producing a general collapse of the walls; while the unobstructed fossæ would be larger than natural, and more fully developed.

The reason of this is the rarifaction of the air in the closed nostril, caused by the rush of the inspired air through the open one, with the consequent air pressure on all sides of the cavity.

It is a well-known fact that the septum, which should be a perpendicular plane, is more frequently affected with irregularities than any other intra-nasal structure. It averages in the adult between 2½ and 3 inches in length and height, making a superficies in each nasal cavity of from 6 to 9 square inches, and during the early years of life is both thin and flexible.

Collier illustrates it in this way: Take a bent piece of glass tube, with mercury in the bend, connect this with a fairly thick piece of rubber tubing, and insert the free end of the rubber into one nostril. Then inspire air through the open nostril and at once the mercury will fall in one limb of the tube about an inch and rise to the same height in the other. This proves that the air inspired through one nasal cavity exhausts the air in the other, to the extent-pressure of about an inch of mercury. Now the weight of the atmosphere at sea level equals about 29 inches of mercury, and has a pressure of 15 lbs. to the square inch. An inch of mercury, therefore, will equal a pressure of half-a-pound to the square inch; and as the septum on the closed side has an area of from 6 to 9 square inches. this would make the pressure on the septum of the closed cavity equal to 3 or 4 lbs. on each inspiration. Of course this would be in a case of complete unilateral stenosis In the majority of cases the stenosis is only partial, but granting that the rarifaction was only one-half, or even one-tenth, we can easily see how great an injury the 1,000 inspirations per hour would have on the affected side.

During sleep more harm is done than while awake, owing to the prolonged period during which the sleeper occupies the one position. This applies particularly to persons who habitually sleep on one side, owing to the effect which gravitation always has upon the tissues of the lower nasal fossa.

Collier very reasonably argues that when one-sided nasal obstruction occurs from any cause, this pressure from rarifaction not only acts upon the septum, but also upon the turbinateds, arch of the palate and other structures, producing the general collapse of the fossa, similar to the condition already described by Zeim in his account of experiments on animals.

Of course, before the effects of rarifaction could occur, there must be, from some cause or other, partial closure of one nasal cavity; then in due time the results indicated are likely to follow. In children this obstruction sometimes arises from neglected colds, and particularly from the habit of allowing the child to sleep too much on one side. It should be remembered, however, that in children the obstruction is rarely unilateral, as it is caused in the majority of instances by the pressure of adenoids, affecting equally the respiration through both posterior choanæ.

Many observers believe that a tendency to the formation of septal deviations is hereditary, while others think that this tendency rarely or ever occurs. From my own personal observations I believe that heredity is a serious factor in the history of obstructive lesions of the nose; just as it is a potent element in producing types of feature and of form. I have known many instances where different members of the same family have been affected by similar nasal lesions, particularly in regard to deviations of the septum. One of my patients in the city, a boy of nine years, has curve of the septum to the left. There is no indication whatever of traumatic injury. His father likewise had curve to the left, with spur enchondroma so large as to produce complete stenosis on that side, with deafness in the corresponding ear. On enquiry about the grandfather the only information I could get was that he was a snuff-taker, and that he always took it through the one side. The conclusion is obvious. No doubt he transmitted the hereditary tendency to his son and grandson

Very many cases of nasal stenosis arise from traumatism. Bosworth believes that the majority do, particularly when occurring in early life—the septum at that period being more easily bent or broken from its normal position.

Then we have obstructions caused by the presence of hypertrophies of the turbinateds, the existence of polypi, new growths, etc., and the occurrence of frequent colds. From whatever cause the difficulty in respiration through one side may occur, it is always likely to be magnified by the addition of Collier's rarifaction.

The opposite effects of nasal and mouth-breathing upon the general health has been very carefully observed by medical men during recent years, with the result that it is now acknowledged by all that habitual respiration is physiological, while habitual oral respiration is pathological.

In the former the air is cleased from impurities, heated and saturated

during its passage through the nasal fossæ, being thus specially prepared for admittance to the air-cells by the time it reaches the throat. In the latter the air is neither cleansed, heated nor saturated when it enters the throat; and, when foul, it loads the pharynx and larynx with impurities, while it absorbs any little moisture present on the mucus membrane, leaving it in an irritable and parched condition.

In respiration there is very little mutual accommodation between mouth and nose. As a rule it is either all one or all the other. If the nasal fossæ are sufficiently patulous to allow a fair share of air to pass in and out, the breathing will be nasal; but let the stenosis be marked enough to render the nasal breathing labored, the mouth will immediately drop open and undertake the whole duty, no matter how much the throat or bronchial tubes may suffer as a result. This is invariably the case during sleep, and it is during the somnolent period that the most damage is done.

The effects of mouth-breathing are very numerous. Scheck says that, while injurious to all, it is far more serious and dangerous to the young than the middle-aged or old. Besides the cooling and drying effects upon the mouth and throat, it produces diminished sensibility to touch and taste, and affords a greater tendency to catarrhal conditions of the pharynx, larynx, trachea and bronchial tubes. Children who are sickly and cross all the year round, with constant catarrhal symptoms, become better natured and healthier as soon as the stenosis is removed.

Mouth-breathing in young children has a marked effect upon facial expression, and also upon the development of the bones and muscles of the face. By it the features acquire that indolent, sleepy, gaping expression so often noticed. To use Scheck's words: "The muscles of mastication become stretched and atrophied, while the retractors of the lower jaw become hypertrophied, and a part of the facial muscles enormously relaxed; another part, on the other hand, becomes permanently overstrained. The unequal tension of the facial muscles has extremely frequently, as a result, disturbances of articulation and serious faults of speech, to wit, oral stuttering."

Aprosexia is one of the most serious results of mouth-breathing. Guye gives this term to the lack of power of concentration, together with inability to remember what has already been acquired. This is supposed to arise from brain exhaustion, due to defective elimination of metabolic products.

Enuresis nocturna has been found to arise from the same cause. Major, of Montreal, was the first to draw attention to this and point out its frequency. He claims that it is due to the retention in the blood of carbon dioxide, arising from defective respiration during sleep. Zeim and Groubeck both support this view, while all claim that with the removal of the naso-pharyngeal obstruction the enuresis ceases.

Aural diseases frequently owe their origin entirely to naso-pharyngeal obstruction; and these cases, particularly in young subjects, are frequently followed by deafness. Milligan and McNaughton Jones both lay great stress upon their experience in this matter; and the latter, after giving a long category of diseases which might be enumerated as

arising from defective nasal respiration, naively used the familiar expression, that he did not know but every disease of the body except housemaid's knee had its origin in an obstructed nose.

Be that as it may, it can at least be affirmed that nasal respiration is too essential a factor in the maintenance of good health to allow the impairment of it to be ignored. Its effects extend beyond the face, and in some instances even seriously influence thoracic development, the result being very noticeable. From this two peculiar forms of chest irregularity can be traced. These are flat chest and pigeon chest. Both are said to be the result of rachitis, added to mouth-breathing. I do not think, however, that rachitis is at all an essential factor in producing them. If present it may aid in developing deformity, but in the cases I have to show to-night it certainly did not exist.

Through the kindness of two of my patients I am able to show you to-night one example of each kind of unusual formation, both due to obstructed nasal breathing during all the earlier years of life.

The 1st is that of a young lady, well developed in every way but that of the upper thorax, which is markedly pigeon-chested in shape. She came to me over a year ago suffering from nasal stenosis, which she had been troubled with all her life. This arose from the presence of adenoids, and hypertrophy of the faucial tonsils. There was also nasal obstruction from spurs. These I removed with satisfactory results. The chest malformation, however, has remained permanent. You will notice in her case the prominence of the sternum and front ends of the ribs, with the lateral flattening of the latter toward the axillae. You may notice also the present perfect freedom of nasal breathing.

The 2nd is the case of a young gentleman, aged 15, height 5 ft. 11 inches, weight 140 lbs. He is now like a healthy, overgrown youth. When he came to me first, 2½ years ago, he was a thin and delicate boy, 5 feet high and weighing 90 lbs. He had almost complete nasal stenosis, owing to enlarged turbinateds, adenoids, and hypertrophic tonsils. His chest was very flat, and in one place, which you will notice, even concave on its anterior surface. The complete removal of these impediments to normal respiration have had a good result, as you will see, upon his physical system. He has developed in every way, with the single exception of the thoracic wall, which retains its flattened and concave outline.

The question may be asked, the cause being the same in each of these cases, why the result should be so diverse. The reply is simply that the deformity would be in the direction of the least resistance. In nasopharyngeal stenosis inspiration is always more labored than expiration, necessitating the powerful action of the diaphragm to accomplish the inward breathing.

The young lady orginally had a round, full chest, and the sternum standing prominently forward would not yield so readily as the ribs to the inner pressure, produced by every breath drawn, and this repeated with every breath during all her young life could easily mould the flexible ribs into their present irredeemable position.

In the youth the opposite was the case. He comes of a flat-chested family. The short sternum, lying on the same plane as the anterior ends

of the ribs, could offer no resistance to the repeated traction of the diaphragm, and the centre being without the arch support, which saved the sternum in the 1st case, would yield to the repeated acts of rarifaction. It is to this I attribute the concavity of the chest wall, produced no doubt on the same principle that Zeim collapsed the nasal fossæ of his animals, and Collier twisted and curved the septa of his many patients!!

"GONOCOCCUS" PYEMIA.—Under this title, a paper by Dr. E. Finger appeared in the *Wiener Wochenschrift*, 1896. It is generally acknowledged that many complications of gonorrhea, such as arthritis, tenosynovitis, bursitis, periostitis, endocarditis, and pleuritis, are dependent upon the presence of gonococci, the organisms being carried from the point of local infection to distant parts. Yet it is not generally accepted as proved that the gonococcus rarely excites superficial inflammation of the mucous membranes, the micro-organism acting far more frequently as an exciter of metastatic inflammation and suppuration in company with pyogenic cocci, streptococci, and staphylococci. Nevertheless, Shon and Schlaginhaufer have shown that the morbid processes produced by the gonococcus are not at all dissimilar in some respects to those caused by the pus-cocci. The behavior of the gonococci in and towards the affected tissues is, however, somewhat different from that of the pus-cocci, in that the latter rapidly permeate the tissues and cause rapid breaking down of the same, whilst the gonococcus is least active and takes only paths of least resistance through the fissures and lacunæ of the epithelium and connective tissue. Again, the reaction of the tissues is somewhat different. The inflammation caused by the gonococcus is entirely purulent; the formation of granulation tissue is early and abundant. All facts go to show that the gonorrheic process tends to the formation of connective tissue and scars,—in the urethra as stricture, in the prostate as destruction of the gland, in the suprarenals as thickening of the organs, and in the joints as ankylosis. Finally, the gonococcus is destroyed when exposed to a temperature of 103° or 104° F. for several hours, whilst the pus-cocci are far less susceptible to such a temperature. From these considerations it follows, as has been already known clinically, that the gonococcus is less energetic in its action and is more easily destroyed than the pus-cocci, and that the lesions produced by the former tend to run towards recovery more readily than those produced by the latter.—*Univ. Med. Mag.*

ENURESIS NOCTURNA.—Dr. A. S. Wilson, Buffalo, N.Y., writing, says: "This was a case of a girl nineteen years of age suffering from irritable bladder, and who had wet the bed nightly from childhood. She was compelled to avoid company and the usual social life, on account of frequent micturition. One bottle of Sanmetto overcame the irritation to such a degree that for the first time in fifteen years she passed a night without wetting the bed. She is still using the remedy in hopes of complete recovery."

SURGERY.

IN CHARGE OF

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FISSURE OF THE ANUS.

Dr. Dundore *(Illinois Medical Journal)* writes:

Fully two decades have passed since diseases of the rectum first received recognition and proper treatment at the hands of the regular profession; but although, at the present time, surgeons acknowledge the importance of these cases, and their demand for active and more modern treatment, still the general practitioner, for some undeterminable reason, seems loath to give them the attention which their importance demands. That they do need more careful attention and treatment is amply shown by the intense suffering and misery which they cause to so large a proportion of humanity. It is plainly evident, to every conscientious physician, how futile it is to expect beneficial results from the treatment of any case whatever, without first thoroughly examining the patient, in order to make a correct diagnosis, and yet, in dealing with a case of rectal disease, many physicians simply listen to a description of symptoms by the patient, and as a result are, in the majority of cases, entirely in the dark as to diagnosis; the symptoms enumerated being common to fissure, fistula, hemmorrhoids and proctitis.

Again, in many instances in which inspection of the parts is resorted to, it is quite superficial and hurried; and, the malady appearing to be a trifling one, the physician merely prescribes some routine formula; and with what result? The disease is not cured, perhaps not even ameliorated, and dissatisfaction is experienced by both the patient and the medical attendant.

If there is one rectal disease that is slighted more than another it is fissure of the anus, and it is this subject that I wish particularly to refer to; it causes an untold amount of suffering in many cases, is often treated with little or no success, and yet there is no affection of the anus more amenable to rational treatment. In brief, the anatomy of the parts involved is as follows: The anal canal averages about an inch in length, the direction of its long axis being downward and backward; the upper boundary of the canal is formed by the white line of Hilton, above which the mucous membrane of the rectum commences, and is here thrown into vertical folds called the columns of Morgagni; the upper border of the anus is surrounded by the anal valves, which have no fixed size or number and are frequently absent.

Dr. Charles B. Ball, of Dublin, has examined a large number of rectums with reference to these valves, and finds them present, so as to be easily detected, in ninety per cent. of normal rectums, varying in size from having a free margin of one-fourth of an inch to such small dimensions that they cannot be detected; they are distributed very irregularly around the anus, and have no fixed relation to the columns of Morgagni; their extreme irregularity suggests that they are remnants of a developmental process, rather than structures of definite functional significance.

Dr. Ball, to whom belongs the credit of having first lucidly described the cause of fissure, says: *"Many authors have noted that painful fissures apparently commenced in the rectal sinuses, and also that at the lower portion of it there was what is called a small external pile, and have stated that for the cure to be complete this pile must be removed in addition to the usual operation for the cure of the fissure.

"These authors consider that the first cause is the longitudinal split from over-distention during the passage of a hard motion, or an abrasion from some particularly hard fragment of feces, and that the presence of a pile or little cutaneous tag at its lower portion is only an incidental complication. I believe, in a larger number of cases, what happens is as follows: During the passage of a motion one of these little valves is caught by some projection in the fecal mass and its lateral attachments torn; at each subsequent motion the little sore thus made is reopened and possibly extended; the repeated interference with the attempts at healing ends in the production of an ulcer, and the torn-down valve becomes swollen and edematous, constituting the so-called pile, or, as it is called, the 'sentinel' pile of the fissure.

"Most of us have experienced the little bits of skin torn down at the sides of the finger-nails, popularly called 'torments,' and how painful they are when dragged upon. Now, the torn-down anal valve resembles closely this condition of the finger, except that in the former it is situated at the acutely sensitive anal margin, and subjected to the periodic strain of a passing motion; it is, therefore, not to be wondered at that the pain should be so excessive as to seriously affect the general health, and render life miserable."

There are, of course, many cases in which a small ulcer is situated wholly on the mucous membrane, and also superficial marginal cracks due to eczema or constipation; but these are *not* true fissures in any sense of the word: they are trivial ulcerations which reply very readily to simple treatment, and in many cases get well spontaneously.

The chief symptom of fissure is excruciating pain, commencing during a motion of the bowels and continuing sometimes for hours or even a day without cessation, causing profuse perspiration, a weak pulse, and collapse. Patients very often have such dread of having the bowels moved that defecation is postponed as long as possible, and as a consequence the suffering is much more acute, due to the hardened feces. Retention of urine occurs very frequently in men, and serious disorders of menstruation in women; finally the general health gives way, and

* *Mathew's Medical Quarterly*, Vol. 1, No. 2.

dyspepsia, anemia, and an almost continuous pain in the back and loins adds to the patient's misery.

The diagnosis seldom presents any difficulty; no other rectal disease causes such excruciating pain; neuralgia of the rectum might at first be mistaken for it, but the pain is of a different character.

A blood stain may be very often noticed in the stools; if there is any cause for doubt, it will promptly be dispelled upon inspection of the parts; the anus being contracted and the sphincter exceedingly hard and tense; examination by the finger being entirely too painful, the patient should be etherized and the anal canal dilated, when the characteristic small ulcer with the accompanying torn-down valve, pile-like in appearance, become plainly visible. The methods of treatment which have for many years given the best results are forcible dilatation of the anus and partial or total division of the sphincter; the first named, dilatation, has proved successful in many cases, not merely because it paralyzed the anal muscle and gave the parts the required rest to facilitate healing, but because the distention has torn completely through the torn-down valve and thereby prevented all further tearing and irritation during the subsequent actions of the bowels.

It can be readily understood that spontaneous cure may take place in the same manner, due to overdistention during a difficult passage, the feces tearing completely through this tag of tissue.

Partial or total division of the sphincter, when the incision is carried, not only through the fissure, but also through the so-called pile, acts in the same way by relaxing the sides of the tag and preventing the feces, in future motions of the bowels, from catching in it and reopening the wound.

But numerous cases so treated recurred sooner or later, owing to only partial or incomplete tearing through the tag, and it then became generally understood that in most of these cases there was present, at the base of the fissure, what was supposed to be a complicating pile which it was imperative to remove, at the same time that dilatation or division of the sphincter was practised, to bring about a positive cure; and thus the profession adopts the correct method of treatment without at the time having a proper conception of the cause of the misnamed pile.

With the knowledge of the cause and pathology of fissure which we possess at the present time, it is obvious that the removal of the torn-down valve is all that is necessary to bring about a cure, and that dilatation and division of the sphincter are superfluous measures.

For the past two years I have habitually treated these cases as follows: After having the patient's bowels relieved by an efficient laxative, and an enema when occasion demands, administer ether and dilate the anus with the thumbs sufficiently to obtain a perfect view of the parts; the small ulcer is readily perceived, with the torn-down valve at its base, which is often hypertrophied; catch the tag in a pair of forceps and remove it by means of a V-shaped incision having its base toward the ulcer. This is all that is absolutely necessary; but, as a rule, I scrape the ulcer thoroughly if it appears unhealthy; trim its edges if they are thickened, and dust the wound with iodoform or acetanilid, thus

producing healthy granulations, and thereby accelerating the rapidity of convalescence. It is also wise to examine all the anal valves, and if any project or are of such size that they are likely to be torn down and form other fissures, they should be cut off with the scissors.—*Med. and Surg. Reporter.*

SECONDARY ABDOMINAL SECTION FOR INTERNAL HÆMORRHAGE; RECOVERY*

BY JOHN OSBORNE POLAK, M.D.

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Successful abdominal section for the arrest of internal hæmorrhage following oöphorectomy is of sufficiently rare occurrence to warrant the report which I am about to make:

Mrs. L. C., aged 23, entered my service December 8, 1895. She had been married two years, but had never been pregnant. Since marriage patient had suffered from severe dysmenorrhea and intermenstrual pain located in the back and right iliac regions. Examination revealed an ovarian cyst of the size of a child's head, which displaced the uterus downward and backward in the pelvis. There were also an enlarged tube and ovary on the left side. December 10, after a preliminary curettage, a section was made in the median line, exposing an unfilled cyst of the right ovary firmly adherent to the vesico-uterine space, with extensive intestinal attachments. The left ovary was found to be as large as an orange, and the tube contained pus. A double salpingo-oöphorectomy was made. Intestinal and parietal adhesions complicated the enucleation of these tumors, and the parietal peritoneum was torn for a distance of some three inches near the bifurcation of the right iliac artery, which rent was closed with a running suture. The pedicles were tied off with large catgut, and the stumps covered in by peritoneum. It should be mentioned that a small quantity of pus escaped into the cul-de-sac while peeling out the left tube. This leakage was removed by sponging, and the abdomen closed with a small drainage wick placed in the lower angle of the wound, the patient still being in the Trendelenberg posture.

The patient had a pulse of 80 when replaced in bed. She continued to do well until 3.30, two and one-half hours after the completion of the operation, when the nurse discovered the dressings to be soaked with blood. Within ten minutes the pulse had risen from 88 to 130. The foot of the bed was elevated, and half a grain of morphia administered. This immediately relieved the patient's anxiety and somewhat improved the character of the pulse. The house surgeon, until my arrival, controlled further hæmorrhage by compression of the abdominal aorta through the parietes. At 3.30 the pulse was imperceptible at the wrist, but counted 160 at the heart. The surface was covered with cold perspiration, the respirations sighing and irregular, the pupils dilated,

* Report Department for Women, Brooklyn Throat Hospital, 1895. Celiotomies, No. 18.

and delirium was present. In this condition the patient was placed in the Trendelenberg posture and the abdomen reopened; the whole pelvis was filled with free blood and clots; these were hastily removed, and the cavity sponged dry. The bleeding was seen to come from the left ovarian artery and broad ligament of the same side. The bleeding points were secured, and two quarts of hot saline solution left in the belly. The wound was again closed in the usual manner, and the pelvis drained by small wick in the lower angle of the incision. It was necessary to use a partial narcosis to reopen the wound, thus increasing the shock, though our patient was comatose from acute anemia. She was kept on the operating table in an elevated position for twelve hours, during which time enemata of normal salt solution with stimulants and opium were administered hourly until the vessels began to fill up, when strychnia was used hypodermatically. Her convalescence was prompt and uninterrupted, except for a few superficial abscesses at the site of the hypodermics.

The writer ventures to make this report: (1) That he may call attention to the fact that the abdomen should never be closed with the patient in an inverted position, for after this position has been maintained for any length of time the blood pressure in the pelvis is so lowered that small bleeding points may escape the operator's attention; (2) to call attention to the happy result in this case, from prompt reopening of the belly, and to the rapid reaction from saline infusion, giving the heart fluid to work upon, thus combating the acute anemia.

THE EARLY MANAGEMENT OF CONGENITAL CLUB-FOOT.

In a paper on this subject, Dr. Lewis A. Sayre stated that whether the case be one of varus or valgus, calcaneus or equinus, or plantaris, or any of their various combinations, the same general principles of treatment are applicable, and the time to commence their application is immediately after the birth of the child, or, if not present at the birth, as soon after as the case is seen.

There is a prevalent idea among the profession that the treatment of club-foot must not be commenced "until the child is old enough to stand it." This false teaching has produced such an effect upon the laity at large that they do not bring their children with crooked feet to the orthopædic surgeon for treatment until some months after birth. He enters a most solemn protest against this false teaching and urges the profession at large to attempt the rectification of these deformed feet immediately after birth, or, if they have not the time or inclination to qualify themselves to treat the case properly, they should at once advise that the child be placed under the care of some one who will treat it properly.

The method of procedure is for the operator to take the foot in his two hands and gradually, but very gently, press it around toward the normal position. As this is done the toes and front part of the foot will become blanched as white as snow and apparently perfectly bloodless. If retained in this position too long sloughing necessarily follows the obstruction to

the circulation. Therefore, after holding the foot in this improved position for a few seconds only, the hold upon the foot should be relaxed, when it will immediately recede toward its former deformed position, and the gradual return of the pink color and the natural circulation to the foot and toes will be seen.

If both feet are deformed (as is generally the case), the other foot must be treated in the same manner as the first, while the first is being restored to its previously deformed condition.

These various manœuvres must be repeated a number of times and the nurse instructed how to do the same properly every few hours day and night.

In addition to the improvement gained by frequent manipulation of the foot or feet, great advantage may be gained by covering the foot and leg with a very soft flannel bandage (leaving the toes exposed for observation), then applying a strip of adhesive plaster partly around the foot and drawing it as far in the right direction as can be borne without interfering with the circulation, which can be judged by watching the color of the toes, and then securing the plaster by a snugly-applied roller-bandage. This plan is to be followed up day by day until the foot can be retained in the normal position without interference with its circulation.

To retain it in this improved position frequently requires artificial aid, and the best that can be adopted is the plaster-of-Paris bandage over a snugly-fitting flannel roller-bandage. It fits with perfect accuracy, and, therefore, there is no danger of galling or chafing, and the child cannot kick it off, as it will any kind of a shoe that has ever been invented (even Sayre's own, which he has now abandoned for five years or more). If the feet are very much inverted and the gastrocnemius much contracted, the plaster-of-Paris bandage may be continued above the knee, flexing it a little to shorten the gastrocnemius and strongly everting the foot or feet just before the plaster sets.

In the majority of cases, by adopting the plan here suggested, the child will have his foot facing the floor by the time he is old enough to stand, and then he will cure himself by exercise—sometimes, of course, requiring the slight aid of an elastic to invert or evert the toes, as the case may be. In some cases, however, there is a structural shortening or contracture of the tissues, and the contractured tissues must here be subcutaneously divided and the foot immediately restored to its normal position, the wound hermetically sealed, and the parts retained absolutely immovable by a plaster-of-Paris bandage for from fourteen to sixteen days, when the wound will have healed and the exudate between the severed ends of the tendon will have become firmly united and of sufficient strength to be of practical utility in moving the foot. Dr. Sayre emphasized (1) the necessity of commencing treatment at birth; (2) that there is no instrument that can be compared with the human hand in rectifying the deformity; (3) that there is no means of retaining the parts in position equal to plaster-of-Paris properly applied. If the profession at large will recognize these facts, there will be very few cases of hideously-deformed club-foot requiring tarsectomy, cuneiform osteotomy, or any of the other serious operations now in vogue.—*Medical Record*, April 11, 1896.

THE TREATMENT OF CARBUNCLES.

BY THOMAS PAGE GRANT, M.D., LOUISVILLE, KY.

On Thursday afternoon Mr. L——— came to my office suffering with a carbuncle on his neck, which he said had been coming for three days and that he "waited for it to get ripe" before consulting me. Having suffered from this worst of all furunculous tumors, he was not a little anxious and somewhat depressed, as he had an important business trip arranged for the next week and he was especially anxious for a speedy recovery. On removing the dressings from his neck I found an induration about two inches in diameter covered witn pus; on cleaning it off there were brought to view six pustules in a space about three-quarters of an inch in diameter; these pustules were oozing a thick pus, and I was satisfied that my patient was in for a siege with one or more carbuncles, as there were a number of other pustules on his neck which looked bad, to say the least.

Taking a knife I made a free incision across the top of the carbuncle; after evacuating as well as I could, I washed it out with a solution of carbolic acid about three to five per cent. After this with a pair of dressing forceps I removed all the broken-down tissue I could, a plan which I have found to be of great service in many cases of carbuncles, as thereby whole colonies of micro-organisms are taken out that otherwise would increase and multiply until thrown off by suppuration. Having cleansed the wound thoroughly, I packed it with dry protonuclein special; after which I applied a poultice of flaxseed meal, on which was a teaspoonful of fluid extract of eucalyptus globulus.

As a tonic I ordered:

℞

Elix. Ferri, Quiniæ, et Strych. Phosphat., ℥ jv

Sig. A teaspoonful three times a day.

The local treatment was repeated for two days, when the poultice was left off and instead this ointment was used:

℞

Sebi ovis) aa	℥ ij
Ol. oliv. ,)	
Ceræ flava,	℥ ss
Zinc. oxid.,	℥ iij
Ext. eucalypt. glob.	℥ j
Acid carbolic	grs. c

M. Fiat. unguent. Sig. Grant's Comp. Zinc Ointment.

I continued to wash the wound with the dilute carbolic acid and pack it with the protonuclin; this dressing was renewed twice daily. So rapid was the recovery that on the following Monday evening the wound was healed, and the induration was almost entirely gone, and I dismissed the case with directions that he keep a dressing of the ointment on the seat of the carbuncle for several days to protect the tender skin.

In an extensive and moderately successful experience—both personal and professional—with carbuncles, I have never seen a more threatening outlook for a serious carbuncle, nor one so quickly and satisfactorily cut short as in this case; and I am of the opinion that the results in this case are far ahead of the old-fashion treatment of poultices alone, or the more modern injection of methyl violet, or the treatment much, extolled of late, of total extirpation and curetting, which leaves a great gaping wound to be filled up by granulations and skin grafts, or to become an open ulcer followed by ugly scars. I am free to say that I am convinced that the success in this case is largely due the use of protonuclein, as with the same general line of treatment, which has been the very best I could find, I was never able to cure a carbuncle under two weeks, whereas in this case it was cured as quickly as a simple wound would have been.

THE PASSING OF THE OVARY.

"The times have changed," the ovary said;
"I am hopelessly out of date.
I have dropped from out the zenith of fame,
I have nothing left but a blasted name,
For Battey is dead, and Keith is dead,
And what has become of Tait?

My place in the alcohol jar is ta'en
By a blind, malicious worm.
It is hard for a lady of parts to be cut
By a mere cedilla under a gut!
But I'm out of the fashion and on the wane,
And you now triumphantly squirm.
So Appendix, adieu,
It is time I withdrew--
You may hear from me again."

—*Southern Medical Record.*

THE TREATMENT OF HEMORRHOIDS.—A novel procedure for the treatment of hemorrhoids is recommended in a German publication. It consists in painting the nodules once daily with a 2-per-cent. solution of nitrate of silver, which causes a gradual reduction in size without the least pain. In the cases reported the tumors had entirely disappeared in the course of one or two weeks.

I would remind you of Sir James Paget's too often neglected statement, that we ought to examine patients for operation with fully as much care as we do for life insurance; and add to it, that if this examination be so conducted we shall often find that which will make us hesitate and prepare them before subjecting them to enhanced risk of what may, in other respects, seem for their good.—*Roswell Park.*

MEDICINE.

IN CHARGE OF

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THE MODERN TREATMENT OF DIPHTHERIA IN PRIVATE PRACTICE.

BY W. A. WALKER, M.D., NEW YORK.

On the evening of September 14th, a little girl called at my office with a request that I should visit her sick brother. The public schools opened their doors on that day, and Johnny McD, although complaining of feeling sick, was sent to mingle with the hundreds of other school children.

An inspection of the case showed all the clinical symptoms of diphtheria, with a muco-purulent discharge from the nostrils so fetid that the odor filled the room. The examination completed, the mother anxiously inquired: "What is it?" "It is a case of diphtheria," I said; and her face blanched, her voice trembled, as she said quietly: "I know what that means—I have buried two children with that."

On the 19th the father called at the office to say that Johnny could not be kept in bed, and they thought he was well.

In a skeleton way this illustrates the results of treatment with antidiphtheritic serum, and stands in bold contrast with the drug treatment with the bottles of medicine, the cruel swab, the sleepless nights, the futile attempt to force food and medicine, the onset of secondary infection, and death or a tardy convalescence.

The uniform success which I have observed, and had in my own practice, has convinced me that the treatment of diphtheria with antitoxin is a great advance in therapeutics, and it is my impression that critics who have condemned this treatment have in most instances either observed only hospital patients, or have not persisted in the treatment, or perhaps have not had a fresh and reliable serum, or have not used it early enough.

From the standpoint of a general practitioner I confidently expect to cure any case of diphtheria in private practice seen within forty-eight hours of the onset of the disease.

Take, for instance, a typical case: a previously healthy child, six years of age. The family physician is called in and finds the following conditions: general depression, face pale, pulse accelerated, temperature about 101° F. Inspection of throat shows general diffuse redness, with the characteristic deposit on one or both tonsils. This peculiar deposit once seen is not readily forgotten; the high fever, flushed face, the rapid pulse usually seen in pseudo-membranous tonsillitis are absent; the margin of

the inflammatory process is usually sharply defined in diphtheria and not in tonsillitis. In follicular tonsillitis the leading symptoms are: intense congestion of the tonsils, with small discrete white patches, pulse and temperature high.

If, however, the symptoms are not well defined and the differential diagnosis cannot be clearly made, we should give the patient the benefit of the doubt and a dose of anti-diphtheritic serum administered at once. Then a culture should be made to verify the diagnosis. If I believe the case to be diphtheria, or have a reasonable doubt as to the diagnosis, I use the antitoxin whilst waiting for the report from the bacteriologist. If the case turns out to be tonsillitis, no harm has been done, as I consider a fresh, reliable serum, properly administered, devoid of danger.

Given, then, a case where the diagnosis of diphtheria is clear, I give as quickly as possible either 1000 units or 1500 units of the serum. The attendant is instructed to keep the throat clean with a bichloride solution of 1 to 5000; or a solution of permanganate of potash may be used, 1 to 4,000, if the attendant is not a trained nurse. With a young child, difficult to manage, it is best to inject the solution into the nostrils; in older children, a spray can be used in both the nostrils and throat more advantageously.

At the end of twenty-four hours I expect to find the membrane beginning to shrivel and curl up at the edges. In any event, however, I administer a second injection at this stage of the disease, and in a majority of instances this is sufficient. I advise very strongly that the second injection be given in all cases where the diagnosis of diphtheria is clear. I do not expect a cure from one injection, and rarely omit the second. If the symptoms do not indicate the beginning of convalescence at the end of forty-eight hours, I give a third injection. In fact, I would use a fourth injection if it seemed advisable at the end of another twenty-four hours, but I think this will rarely be found necessary.

I have not used anti-streptococcic serum, but I am convinced that in cases in which the treatment has been delayed, or in cases showing the streptococcic infection, proven by bacteriological investigation or from peculiar red zone of inflammation which begins to spread from the margin of the diphtheritic process, the anti-streptococcic serum should promptly be used. Not only would I do this, but in cases of severe acute disease in the throat, which present all the symptoms of diphtheria, but where the bacteriological report does not confirm the diagnosis, I would resort to the anti-streptococcic serum. In fact, if I should have a case of diphtheria in which the membrane does not begin to peel up by the end of the twenty-four hours following, say, the second injection of antitoxin, I will use the anti-streptococcic serum.

The importance of a fresh, reliable, highly-concentrated serum must not be lost sight of, and as I have full confidence in our American products, I do not use imported serums. I have used several serums, but have been best satisfied with the effects of that sent out from the biological department of Parke, Davis & Co. I heartily approve of the way this firm now puts up the serum, in bulbs instead of in bottles. It is not only highly-concentrated, but, being hermetically sealed, should keep in-

definitely. It is put up in bulbs of so many units, 250, 500, 1000, 1500; and, each bulb being a dose, there is no temptation to use a serum that has been exposed to the atmosphere. I append a table giving a report in detail of the last seven cases treated in private families:

TABULAR REPORT OF CASES.

	1	2	3	4	5	6	7
Age of patie t	8 years.	2 Years.	2 Years.	11 years.	3 years.	3 years.	8 years.
Other cases in family	.....	...	....	.....	.....	Yes.	.....
Bacteriological cultures	Yes.	Yes.	....	Yes.	Yes.	.....	Yes.
After first appearance of the disease antitoxin was given	1st day.	1st day.	3d day.	2d day.	2d day.	2d day.	3d day.
Doses of antitoxin given	3	2	2	3	3	2	3
Units in each injection	1500 1000 1000	1500	1500	1000	1500	1500	1500
Total number of units in each case	3500	3000	3000	3000	4500	3000	4500
Antitoxin used	Gibier	B of H.	B of H.	P D & Co	P D & Co.	P D & Co.	P D & Co.
Intubation	1st day.	....	....	....	2d day	.....	.....
Tube retained	3½ days	....	....	.. ..	2½ days.	.....	.....
Recovery	Yes.	Yes.	Yes.	Yes.	Yes.	Yes.	Yes.

As to the medicinal treatment, I do not give any drug with the idea of influencing the course of the disease. I treat the conditions as they arise symptomatically. If I have evidence of the absorption of poisonous secretions, and a coated tongue, I give calomel tablet triturates, ¼ grain every hour, until the bowels move freely. Alcohol is rarely needed in cases receiving the serum treatment, especially if it is used early enough, whereas, under the old treatment, when we were so apt to find profound toxic symptoms, alcohol was more often needed. It is perhaps well to state here that I prefer fluid nourishment, principally milk, during the course of the disease.—*Pediatrics, Oct.* 15th, 1896.

THE PASSING OF ANTI-TOXIN.

A Paris correspondent of the *Cincinnati Lancet-Clinic* writes under the above caption that it seems that the enthusiasm manifested last year for Behring's anti-toxin serum has commenced to diminish. Official statistics published by Bertillon give 33 deaths as the enormous weekly mortality from diphtheria, figures that have never been attained during any preceding year before the discovery of this celebrated so-called specific. Like the rest of serious maladies to-day treated by serum therapy, it is necessary to recognize the fact that such medication no longer keeps the promises made in its name. Besides, Drs. Sevestra, Gaucher and Legendre have been courageous enough to make known to the Societé Medicale des Hopitaux the serious and frequent accidents to which the anti-diphtheretic serum gives rise even when applied to very simple cases of angina. But all this does not discourage the Pasteur Institute and its purblind disciples.—*New York Medical Record.*

OBSTETRICS AND GYNAECOLOGY.

IN CHARGE OF

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THE TREATMENT OF APPENDICITIS.

BY CHARLES M'BURNEY, M.D., OF NEW YORK.

I intend to give you an informal talk to-night, dwelling especially upon certain questions of treatment of appendicitis. It is a singular fact that inflammation of the appendix vermiformis as a separate disease had not been identified nor described by pathologists previous to 1886. In that year a paper upon pericecitis appeared by Dr. Reginald H. Fitz, of Boston. This gave the true pathology of a disease which is now so well known. In the development of our present knowledge of the pathology and treatment of appendicitis there have been three well-marked stages. The first stage began when Willard Parker first practised opening the so-called perityphlitic abscesses. This was in 1866 or 1867. Dr. Henry B. Sands was at that time Dr. Parker's partner, and I was a student in Dr. Parker's office. Dr. Parker deserved great credit for his boldness and originality. At first he opened only large, dull, and clearly-defined abscesses, letting the smaller and less plainly-marked ones go. After Dr. Parker's retirement from active practice, Dr. Sands carried on the work which the former had so well begun. As said above, however, the true pathology of the condition was not known until the appearance of Dr. Fitz' paper in 1886, which explained the lesion so accurately that no material addition has since been made to the pathogenesis of the disease. The proper surgical treatment was not determined for some time after this. This period of the development of the treatment was the second stage. Dr. Sands was constantly working at this surgical problem, and to him is due the whole credit for bringing the operation to a state of perfection. Thus the third stage of the development of the surgical treatment of appendicitis was reached. Dr. Sands first successfully removed the diseased appendix from a young boy, a patient of Dr Simon Baruch. It is a matter of surprise that the name of this operator is so seldom met with in the literature of the subject at the present day. Certainly one would expect that he would receive more general acknowledgment for this brilliant surgical achievement.

The obstinate resistance which Dr. Sands' operation called forth in many quarters seems laughable as we look at it now. In that day nearly every one agreed that the disease, in common with general peritonitis, should be treated with opium. Even progressive surgeons shivered at

the thought of an operation which proposed to invade the abdominal cavity so freely. Only six years ago a surgeon of large experience decided against operation in a case of appendicitis because, as he alleged, all of his cases had recovered without operation. Another surgeon, in a paper published five years ago, claimed that twenty other diseases might be confounded with appendicitis. It was alleged in a paper that appeared in a recent number of a prominent medical journal that the cause of the disease is rheumatism, and the treatment should therefore be antirheumatic. Such suggestions may be, and no doubt have been, productive of much harm by inducing practitioners to dally with cases of appendicitis expecting the administration of salicylates, salol, etc, to do good. Is there any purely medical measure which may be relied on to cure this disease? I know of none. Perhaps it is as well that we should know that there is no remedy of a medical nature, because while we are searching for some drug to cure the patient we may be doing him irreparable damage by delay. Appendicitis must logically, I think, be placed among the surgical diseases. This does not mean, of course, that every case must be operated upon, nor, on the other hand, does it follow that because certain cases recover without surgical interference the complaint is to be taken out of the list of surgical diseases. I would not be understood as saying that many purely medical men are not as clever as any surgeon in making the diagnosis of appendicitis, and as anxious to have the case treated on the best surgical principles. There are two classes of medical men who take different views of the treatment of the disease; one I have just mentioned; the other looks upon all cases as really medical in character, seldom requiring any surgical measures for their relief. These practitioners approach the subject from totally different standpoints, and too often prejudge a case without studying the conditions with sufficient care. The disease is, therefore, not so well studied or handled as it might be. This state of things is, however, gradually being cleared up, and in time the disease will surely be placed in its proper category.

As illustrating the evils of an improperly handled case, I might cite one which has recently occurred to me, and which was one of the worst cases I have seen. A young lady of good family, under the care of a medical man, who, I am glad to say, was not a regular practitioner, was suffering from her ninth attack of appendicitis, which she and her family were assured was enterocolitis. The patient herself recognized the nature of her ailment, and demanded an operation. I was called in after the patient had been ill eight days, and while recognizing the extreme gravity of the situation yielded to the solicitations of the patient and her friends to give her the only chance which, in my judgment, remained, viz., an operation. The first incision gave vent to a quart of pus, which spurted to the height of a foot. This was an aggravated case of septic peritonitis due to appendicitis, and naturally terminated fatally.

We are very far from possessing any exact knowledge as to the primary cause of appendicitis. My whole thought has run toward a stoppage of the drainage from the appendix into the colon as the true cause of the disease. There may be an interference with the emptying of the con-

tents of this little tube, due to several lesions; as, for instance, a concretion in the appendix itself, or a stricture, or accumulations of fat causing displacements, or there may be a kink or twist, either in the appendix itself or in a fold of the colon. I have never seen a case in which there was no interference with the drainage, and I am inclined to the opinion that this cause may account for all the cases. If the appendix be examined *in situ* before its relations have been disturbed, in quite a number of cases the obstruction will be discovered; in others, on the other hand, the cause of the interference with the drainage may have been swept away. If we have a patient not susceptible to sepsis, there may have been only temporary obstruction of the appendix, and only slight constitutional symptoms; while in another, with a similar obstruction, there may have been marked sepsis and great depression from the first, and the case may become rapidly fatal unless relieved by operation. In most cases of stricture no benefit can be expected from preliminary measures of treatment.

I think that the preliminary treatment is often worse than useless, and that the measures adopted in the very beginning are of extreme importance as regards the prognosis. A common procedure is the administration of a large dose of morphine, which quiets the pain and relieves the distress of the patient, but masks all symptoms. This prevents the proper study of the early stage of the complaint, the stage which is the most important both as regards diagnosis and treatment. The question of the rapid or gradual increase in severity and the advent of sepsis are obscured by the opium treatment. A patient presenting himself with severe abdominal pain, whether he has fever, nausea, vomiting, prostration, and constipation, or not, should be *suspected* of having appendicitis. The most probable cause of sudden, severe, and not otherwise easily explained intra-abdominal pain, is appendicitis. Such a patient should be put to bed and thoroughly examined; very little opium or other anodyne should be given, but the patient must be kept at rest and most carefully watched. If the diagnosis can be made during the first six hours, and the patient can be kept under observation for six hours longer, the progress of the disease may tell the whole story. Certainly, in twenty-four hours from the beginning of the attack, we may be able to decide not only as to the diagnosis, but as to the probable course and result of the case. In my opinion many of the casualties in this disease are due to neglect of the precautions which I have just recommended. The earlier the choice can be made between operative and palliative procedures the better for the patient.

The question of the proper time to operate in an acute attack of appendicitis would call for a week's discussion, and cannot be answered dogmatically for every case. Indeed, no two cases are alike, and each must be treated according to the indications. Certain well-marked symptoms must be watched for and their value carefully determined in each instance. Let us suppose an average case. The patient has had one or two attacks of vomiting; the pulse is only moderately accelerated, and is of good volume and strength; the temperature is about 100° F.; there is abdominal pain, perhaps quite severe, at first diffused, then settling

into one point about half-way between the anterior-superior spine of the ilium on the right side and the umbilicus. If in five or six hours there is no increase in urgency, the patient is not in immediate danger; if in twelve hours there is still no increase in the severity of the symptoms, the patient should soon begin to improve. On the other hand, if the urgency of the case has steadily increased in twelve hours from the time when we were able to make the diagnosis, an operation will probably be called for. If I can safely allow a patient to get over an acute attack before operating, I always prefer to do so. If in twenty-four hours from the beginning of the attack the symptoms lessen in severity, I usually feel sure that I can leave the case to nature for the time being, and defer my operation to a more favorable period. Such an attack ought to subside in from forty-eight to seventy-two hours. If, however, during the second twenty four hours of the attack I am doubtful of the outcome, I always advise an operation. This is, of course, only an imperfect answer to the question, when to operate.

In a given case, one practitioner gets his idea of the course of the attack in one way, and another in another; one relies more upon the facies, another upon the pulse, and a third upon the patient's strength. Here, of course, experience is of the greatest value. Just as soon, however, as the conclusion is reached that the disease is progressing, the time has come to operate.

I have been asked if I operate on all cases of appendicitis in which the symptoms have practically disappeared, and I have replied that my feelings have changed so much of late that I feel quite willing to do so. Treves lays down the rule that when attacks have been very numerous, and when they have been increasingly severe and threaten life, operation should be done. My own view is that after two attacks a patient will as surely have the third as that after ten attacks he will have the eleventh. There is no rule which applies to the severity of the succeeding attacks. We know, however, that each attack renders an operation more and more difficult, and that it requires a larger incision and involves greater injury to the abdominal wall.

As to the success of the operation itself, all the advantages lie with the operation that is done between the acute exacerbations of the disease. In such an operation we may look for a convalescence of from two to three weeks, unaccompanied by danger from sepsis, or the occurrence of a ventral hernia, and the mortality is almost nothing. In an operation during an acute attack, on the other hand, the prognosis is more grave. The period of convalescence will probably last for about six weeks, and there is decided danger of sepsis and of a subsequent hernia.

The decision of this question, namely, whether or not we can safely allow an attack to go on, and defer the operation, calls for the best possible judgment and experience. In operating between the attacks there is, moreover, a safe time and a bad time. No matter how favorable the patient's condition may seem to be, it is rarely safe to undertake an operation in less than two weeks after an acute attack, for the reason that although the subjective symptoms may be favorable, the local septic condition may not have been entirely removed. After the lapse of two

weeks or more all congestion, inflammatory thickening, and danger of sepsis will have disappeared.

I always use a gauze-drain except in cases of general septic peritonitis; then, in addition to abundant gauze-drainage, I use a long glass tube, which extends down to the floor of the pelvis. I use a ten-per-cent. iodoform-gauze. I have never seen iodoform-poisoning after packing the abdominal cavity with iodoform-gauze.

Formerly I was more willing to operate during the attack than I am now. My feelings have changed, because now we can offer the patient an operation without danger of hernia, if done between the attacks, and this, in addition to the other advantages of the intermediate operation, has led me to prefer it, and to always endeavor to obtain it.

What is the cause of death in appendicitis? In the acute cases, in which operation is done as soon as the diagnosis is made, it is very rare that the result is fatal. This is true of operations in the hands of all operators who have reported their cases. Also when done in the intervals of attacks operations are enormously successful. Judging from the results, this operation seems like a light and easy thing. Operations done on patients after two or three, or even four, attacks are very successful. When an operation is undertaken on a patient who has suffered from very numerous attacks of inflammation, when there are adhesions and broken-down tissue to embarrass the surgeon, and to increase the risk of sepsis, we get an occasional bad result.

The chief cause of death is, therefore, delay of one sort or another. If the cause of death be general septic peritonitis, this comes late in the attack, and after the time when a good diagnostician should have recognized the disease; therefore, had there been no delay, there would have been no septic peritonitis, which is, as you know, one of the principal causes of death in appendicitis. In the cases which have gone on to the formation of abscess, each day's delay increases the difficulty and the danger of an operation which at first might have been easy and safe, so that finally it may become an impossibility. Again, then, *delay* is the principal cause of death.

After an abscess has formed, the proper time to operate has given rise to considerable discussion. Treves, for instance, maintains the view that when suppuration has been walled in, the longer one waits before operating the nearer the pus will come to the surface. This is, in my opinion, an unscientific and unwarranted statement, because instead of approaching the surface the pus may be traveling upward toward the liver or downward into the pelvis. My own opinion is, as I said before, that in abscess-cases the sooner the operation is done the better. In such cases, if the appendix has not yet softened and broken down, and where only a small area of the peritoneum has become involved, the organ can be easily removed in most instances; but in older cases, where we meet with more advanced peritonitis, with adhesions and formation of much pus, the softened and broken-down appendix may be unrecognizable, or if recognized it cannot be safely handled or removed. An abscess opening into the gut results in one of two ways: either the disease is cured, or the appendix remains and another abscess is set up, which may discharge in

the same way. I would not operate in such cases unless the abscess recurred.

This brings us to the question of the removal of the appendix in every case. A discussion upon this point has been carried on in Philadelphia, and many operators hold that the organ should always be searched for until found and then removed. In point of fact, in some cases the appendix cannot be found; it may be hidden by a thick and more or less impenetrable wall of inflammatory tissue, and when this happens, it is frequently better to give up the search for fear of making an opening into the intestines. In many cases, too, the search will consume too much valuable time, and may lead to needless and dangerous enlargement of the wound. If the wound is thoroughly cleansed and free drainage established, little is to be feared from remnants of the appendix left in the body. If such a piece of tissue gives rise to trouble and sets up an abscess it can be operated upon secondarily. I remember a case in which death followed an ill-advised search for the appendix. An abscess-cavity about three inches in diameter had been opened, but the general peritoneal cavity was intact. As the operator did not discover the appendix, he took a sponge and so vigorously wiped the abscess-wall that he broke it, and through this rent a loop of intestine protruded and immediately drew back into the abdomen, but in that instant it had become infected, and it gave rise to a fatal septic peritonitis.

As to the sequelæ of the operation. I have not found fecal fistula so serious a complication as I feared it would be. Nearly all of these fistulæ close spontaneously. The escape of a little feces is not usually dangerous. Where these fistulæ will not close, if anything is to be done it should be done very deliberately and carefully. The only safe procedure is to enter the peritoneal cavity at some other point than through the fistula. If the fistulous opening is enlarged the intestine is pretty sure to be wounded, but an opening, say a little above the fistula, is safe and easy.—*Medical News.*

A Report of 105 Deliveries of Women with Contracted Pelves.—As a result of the study of the labor in 105 cases of contracted pelvis among a total of 4,289 cases of all kinds under observation at the German Obstetric Clinic of the University of Prague, between the years 1891 and 1895, Knapp (*Archiv für Gynökologie*, B. 51, H. 3, p. 483) has reached the following conclusions: In proportion to the reports of other clinics the number of contracted pelves has been small. Flat and generally contracted pelves, without demonstrable evidences of rachitis, appear to preponderate over deformities due to rachitis; although it is not to be denied that at least one-half of all pelvic deformities can be attributed to rachitis, as this affection is by no means uncommon among Bohemian women. Among the whole number of cases osteomalacia was observed in but five; all happened to occur in one year (1895), but there was no relation between this fact and place of residence. Bohemian women, in general robust, usually presented with contracted pelves, slender skeletons—especially was this so of primiparæ. The uterine contractions were, with individual exceptions, commensurate. Premature

rupture of the amnion protracted the labor in most cases, and occurred more commonly in connection with contracted pelves than with normal. Expectant treatment was generally sufficient in most cases, both for mother and child. In regard to morbidity, operative interference yielded for the mothers more favorable results than expectancy, and the reverse for the children. The complete results among the 105 cases were exceedingly favorable among the mothers—a mortality of 0.95 per cent.; but not so among the children—31.43 per cent. These results are attributable to the rule observed to place the greater importance upon the life of the mother.

THE QUESTION OF PUERPERAL SELF-INFECTION.—Jewet (*American Gynecological and Obstetrical Journal*, 1896,) refers in particular to the relation of pus-producing germs primarily present in the body of the pregnant woman to childbed sepsis, and draws the following conclusions:

(1) There is no clinical proof that puerperal infection can occur from normal vaginal secretions.

(2) All childbed infection in women previously healthy is by contact.

(3) Prophylactic vaginal disinfection as a routine measure is unnecessary, and even in skilled hands is probably injurious.

(4) Its general adoption in private practice could scarcely fail to be mischievous.

(5) In healthy puerperæ, delivered aseptically, post-partum douching is also contraindicated.

(6) A purulent vaginal secretion exposes the woman to puerperal infection.

(7) In the presence of such discharges at the beginning of labor the vagina should be rendered as nearly sterile as possible.

(8) Concentrated antiseptic solutions should not be used, and the process should be conducted with the least possible mechanical injury to the mucous surfaces.

(9) In case of highly infectious secretions, the preliminary disinfection should be followed by douching at intervals of two or three hours during the labor.

(10) The safest and most efficient means for correcting vicious secretions is a mild antiseptic douche, repeated once or more daily for several days during the last weeks of pregnancy.

(11) Clinically, the amount of discharge, its gross appearance, and that of the mucous and adjacent cutaneous surfaces, usually furnish a sufficient guide to its treatment.

(12) Probably unclean contact within twenty-four or forty-eight hours is an indication for prophylactic disinfection.

NERVOUS DISEASES AND ELECTRO-THERAPEUTICS.

IN CHARGE OF
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NERVOUS SLEEPLESSNESS.

Although sulfonal has proved one of the most serviceable hypnotics in the materia medica, it has been objected to because its effect is sometimes slow in developing. This feature, however, is a distinct advantage in a certain class of cases where the patients quickly fall asleep when they first go to bed, but wake in a short time and keep wakeful for the greater part of the night.

As has been pointed out by Dr. Webber, of Boston, sulfonal acts exceedingly well in this class of patients, as it does not interfere with the first early sleep of the night, and acts later, so that the patient does not wake at night as usual. In other cases where a more rapid effect from Sulfonal is desired, it is recommended by Dr. Kinnaird (*Daily Lancet*, March 11, 1896,) that the time of the administration be so arranged as to obtain this effect at the proper time. Thus, it should be taken early in the evening if wanted to produce profound sleep at nine or ten o'clock at night. This author has found the drug an excellent substitute for opium and other dangerous anodynes, and especially emphasizes its utility in insomnia from overwork and neurasthenia, in which he considers it the remedy *par excellence*. He reports a number of cases of overworked school teachers, troubled with marked insomnia and nervousness, who were greatly benefited by the administration of sulfonal, and also recommends its use for the relief of pains if not of sufficient severity to require the employment of morphia.

THE USE OF SILVER IN GASTRIC AFFECTIONS.

Dr. D. D. Stewart (J. M. C., 1879) states that he employs silver very largely in gastric affections and with very great success, especially in cases of chronic catarrh associated with painful digestion, and in cases of nervous dyspepsia characterized by hyperchlorydria. In whatever form of stomach disorder it is employed, for its local effects, he always first thoroughly cleanses the stomach by aid of the tube, first removing all food and adherent mucus. The stomach is then preferably sprayed through the double stomach tube with the silver solution in strength of 1-1000 to 1-2000 and then subsequently washed with plain water until the washings show no colorations of silver chloride. It is interesting to

note in most cases how rapidly decomposition of silver occurs through the action of hydrochloric acid in the cells of the mucous membrane. However thoroughly the stomach is cleansed, whether with an alkali or not, almost immediately when the return water appears it is of opaque hue, showing the formation of silver chloride. In cases of achlorhydria (with atrophy of the secretory glands), in which silver is also sometimes employed, it is interesting to note the absence of the decomposition of the silver in this manner. Dr. Stewart states that he has not for years employed silver nitrate in the treatment of diseases of the stomach in any other manner than through the stomach tube. He regards its use, so common with practitioners generally, in pill form, either alone or with opium and belladonna, as most unscientific, stating that if its decomposition does not occur in process of dispensing or in keeping, it does so rapidly on reaching the stomach. Here a small portion of the stomach only can be reached by a minute mass of silver chloride or oxidized silver formed by the action of the gastric secretion on the food already in the stomach.

MANY NERVOUS DISEASES CAUSED BY A TORNADO.

Speaking in regard to the loss of voice by persons who passed through the late storm at St. Louis, I may mention the interesting case of a mother, who rushed to her child immediately after the disaster, and, taking it in her arms, saw its lips moving, but could hear no sound. She at once surmised that the child had lost its voice, and it was some time before she could be brought to the realization of the fact that she had lost the sense of hearing, and that her child was all right. Many instances can be related where, owing to the intense fright, all the special senses were involved. I have seen two cases where the nervous system was so affected that the gait or carriage was materially changed. Both of these were from purely hysterical causes. Neither of these persons was injured externally in the least, but after the storm they walked with bent back, a dragging leg, and much trembling.

In many instances insomnia was the constant attendant of the other maladies. The loss of memory was not infrequent. This was undoubtedly due to the weakened condition of the brain incidental to the fear caused by the tornado. However, it is well known that the memory exists in such cases to an extent sufficient to permit the sufferer to give dates and incidents concerning the accident, but there is always a plain inability to concentrate the attention on any other subject; hence their conversation is not only halting, but sometimes they refuse to talk at all.

A prominent doctor told me that when the storm came he was at a clinic directly opposite the City Hospital. He saw the hospital building wrecked, and then started for home as fast as he could go. After much difficulty he reached his own street and expected to find his home in ruins, and, perhaps, his family dead. He found his house and his friends safe, but when he was welcomed home he was unable to speak, and burst into tears. He says he has not yet entirely recovered from the shock.

Thousands of similar instances could be related. I know it to be a fact that the doctors in the southern portion of the city have prescribed for an unusual number of vague and indefinite pains, all of which might be attributed by the patients to biliousness, but which are plainly due to the effects of the nervous shock. The tornado produced mental wounds which have been manifested in the various conditions as shown in hysteria and neurasthenia.

In many cases of persons who have been afflicted ever since the tornado, there is not a single disease of the part involved, the disease being entirely in the mind. Some of these shocks may be so violent as to lead to insanity and further complications, which may terminate in death. The papers have already recorded two cases of suicide plainly produced in consequence of mental derangement incidental to the tornado. I have records of four cases which occurred on account of extreme fright engendered under these conditions. However, the old, old saying, that "it's an ill wind that blows no man good," is even true of the tornado. I have records of several cases where bedridden individuals, who had not been able to move about for years, were so frightened that they were able to get out of bed, and have since moved about, enjoying all the muscular functions.

The immediate effects of the tornado can now be seen in many cases, but its ultimate effects are as yet an unknown quantity. I candidly believe that the full effects are not yet manifest. Psychic shock, trauma, exposure, and fatigue will be productive of many cases of well-defined hysteria and neurasthenia. The permanency of their effects can only be determined by time.

TUBERCULAR MENINGITIS ENDING IN RECOVERY.

Dr. Jenssen, in the *Deut. Med. Woch.*, reports a case of the above description. The writer adverts to the rarity of recovery in this disease. In a few cases the diagnosis has been established by finding evidence of a past tuberculous meningitis, the patient having died of some other cause. In Freyhan's case of recovery, tubercle bacilli were found in the fluid drawn off by spinal puncture. The author then records the following case: A man, aged 19, was admitted in May, 1892, with headache, stupor, vomiting and constipation. The temperature was raised and at one time the pulse only numbered forty-two per minute. Later there was ocular paralysis and retraction of the head. Some fourteen days after admission the patient began to improve and he was discharged well a month afterward. Three years later he was again admitted into the hospital with early phthisis. The disease ran a rapid course and he died four months later. At the necropsy a yellow mass, composed of minute tubercles, and measuring four centimeters long and two centimeters wide, was found running along each side of the longitudinal fissure. The pia mater was of a milk white color in several places over the convexity of the brain; there minute tubercles were also seen. The first named tubercles consisted of detritus, fat and a few cells, but no fibrous tissue; and the last named of fibrous tissue and a few cells. In no instance were

tubercle bacilli found. At the base of the brain the same white spots containing tubercles were seen about the chiasms and Sylvian fissures. In these white areas the pia mater and arachnoid were adherent to the underlying brain tissue. As regards the treatment of this attack of tuberculous meningitis, the head was shaved and iodide of potassium was given in large doses; 80 g. were at first administered in the day, but this quantity was rapidly increased. The patient took as much as 950 g. during the illness. There was a slight coryza but no other unpleasant symptom. All the secretions and excretions gave a marked iodin reaction. The author thinks that iodin had undoubtedly a favorable effect on the disease. This treatment is not new, but these large doses of iodide have not within the author's knowledge been used before.—*Jour. Amer. Med. Assoc.*

APHASIA.—Miraille, *These de Paris*, 1896 (Abstr. in *Gaz. Hebd.*, May 31st) The memoir of M. Miraille is a careful study of sensory as compared with other types of aphasia. Sixty-two cases, many of them heretofore unpublished, form its text. The principal aim of the author is to prove, as previously in publications made in collaboration with M. Dejerine, that agraphia, which often complicates aphasia, is not localized in a special centre, as others claim, and that neither clinical obervation nor pathological anatomy demonstrates a centre for graphic images.

The paper gives the main points in regard to aphasia, and the distinction of its various forms. Together with Broca's aphasia, there exists a sensory form, the sensorial aphasia of Wernicke, of which the verbal blindness and deafness of Kussmaul are only varieties. The centres of language images (visual, auditory, and motor) are grouped in the convulsions inclosed by the fissure of Sylvius, forming the language zone. Every lesion of this region affects internal speech (Dejerine), and in consequence manifest or latent lesions of all the forms of language (speech, hearing, reading, writing), with troubles predominating in the functions of images directly destroyed. Agraphia is always present. These are the true aphasias. The pure aphasias (sub-cortical, motor aphasia, pure verbal blindness and deafness of Dejerine) are located outside the language zone and leave the internal language intact. They never cause agraphia, and affect only one phase of speech, constituting a group apart from the true aphasia. Nothing authorizes the admission of a motor centre for graphic images, and a pure agraphia remains yet to be demonstrated.

LEMON IN OPHTHALMIA NEONATORUM.—Jozef Szawelski (*Gazeta Lekarska*, No. 38, 1896) fully endorses Pinard's statement that instillation of a few drops of fresh lemon juice into a new-born infant's eyes, immediately after birth, is an excellent means of preventing purulent ophthalmia. The instillation is said to be quite painless. As a rule, the juice does not cause any conjunctival irritation. Only now and then there may appear slight catarrhal phenomena, which, however, quickly subside without any treatment. The writer emphasizes such advantages of the method as its simplicity, harmlessness, etc.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

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OBSERVATIONS ON THE SERUM REACTION IN TYPHOID FEVER AND EXPERIMENTAL CHOLERA BY THE DRIED BLOOD METHOD.

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THE METHOD AND ITS APPLICATION.

We wish to record the result of 290 blood examinations made by the method already described by one of us.[1] Instead of employing fluid blood serum as recommended by Widal, a large drop of blood is allowed to dry upon a folded piece of sterilised, non-absorbent paper, and is examined by moistening with a drop of sterilised water, mixing the solutions with a drop of pure broth culture of the typhoid bacillus, and examining the mixture as a hanging drop preparation under a dry lens of medium power. Instead of using the hollow-ground glass slide one may employ the simple old method suggested to us by Dr. Adami, of cutting a hole out of the centre of a piece of thick blotting-paper, laying this moistened on an ordinary slide, and inverting the cover glass.

This method gave good results for diagnostic purposes. The preliminary drying of the blood did not appear to interfere with the production of the reaction, and enabled the sample to be taken more easily, and transmitted more readily, especially when received from a distance. Several of our samples came by mail from points from 500 to 700 miles distant. There is always difficulty in sending fluids by mail. There is none in forwarding an ordinary envelope containing a slip of paper.

A gratuitous public service of serum diagnosis was introduced last September by the Board of Health in the Province of Quebec. Suitable outfits for taking samples, consisting of pieces of sterilised paper enclosed in envelopes, with printed directions and blank spaces for information to be filled in, have been placed at those depôts (chemists' shops) which already keep and supply outfits for diphtheria diagnosis. In case a negative result is obtained, and the suspicions of typhoid continue, a glass tube is furnished in which a duplicate sample of fresh blood is also required to be sent.

The dried blood method was selected more on account of the great facility it afforded for the collection and transmission by post to the laboratory of samples in proper condition for examination, than in the expectation of any greater delicacy over the fresh serum method as used in ordinary hospital work. In fact, we had anticipated a somewhat less delicate reaction by the dried blood method. Widal [2] has recorded the results of five blood examinations in which, for comparison, typhoid blood and typhoid serum were dried for forty-eight hours on sponges, and examined at the end of that time. The typhoid serum gave the reaction typically when in a dilution of 1 to 10 with typhoid broth culture, while the dried blood also gave the reaction somewhat less promptly in dilution of 1 to 5. This shows under these conditions a lesser delicacy with dried blood than dried serum, but the fact remains that, according to Widal, a positive reaction was obtained by the dried blood in all 5 cases. Previous to learning of these experiments of Widal, we had used with success absorbent cotton-wool swabs used in our diphtheria outfits; but we discarded these, and adopted the collections of the blood on non-absorbent surfaces as being more efficient.

We have not yet fully decided as to the relative merits of the dry and moist methods of collection, which is a matter depending chiefly on the conditions under which the samples have to be transmitted and collected. We anticipated that the dried blood would be less delicate than the fresh serum, and that though the positive results would be equally reliable in either case, the negative would have less weight. On the other hand, with the fluid method the after-growth of contaminating bacteria during transmission might obscure a positive reaction if these were motile forms. Fluid samples received by us in a state of decomposition were found difficult to examine, though in some cases the heating of the sample to 65° C. to destroy the bacteria previous to mixing with the typhoid culture enabled the reaction to be obtained. Decomposition does not in itself destroy the specific substance which produces the reaction, nor does a heat of 65° C.

In view of the assumed superior delicacy of the fresh serum, we obtained whenever possible duplicate samples of fresh and dried blood for re-examination when the first result was negative. To our surprise, when a negative result was obtained by the dry method, the result by the fluid serum was also negative, and where we obtained a positive result on re-examination with the fluid serum without exception the duplicate sample of dried blood also gave a positive result.

We would explain this apparent deviation from what one would theoretically expect by the fact that there seems to exist in typhoid serum an intensity of reaction beyond what is ordinarily necessary for the test, so that dilutions of 1 to 10, or even 1 to 100, may be practised in a case showing well-marked reaction, without interfering with the result. By our method we use a concentrated solution, which may explain the fact that our results appear to be, so far, quite as good as those already recorded by the Widal method, although Widal and others record almost uniform success with the reaction in suitable cases.

Theolen and Mills [3] report that by the Widal method the blood serum

taken between the sixth and twenty-second days only gave the reaction six times out of twelve re-examinations, in cases which had been shown to be typhoid by the positive result of the test.

In addition to the samples obtained through the Board of Health, we examined a number of hospital cases to see what percentage of pos tive results could be obtained under favorable conditions, and at a period of the disease when the reaction could be expected with certainty. This was the more necessary as a great many of the samples sent to the Board of Health were taken at periods prior to the fifth day, a date at which, according to the statements of the best authorities, the reaction would not yet be present.

In public health laboratory work in which samples are largely obtained from obscure and doubtful cases, the proportion of positive results is less than when samples are taken indiscriminately from ordinary cases of typhoid, which form the basis of hospital observations. The effect of this circumstance upon the statistics of diphtheria has been pointed out by Welch,[4] who says: "We attribute the special differences in the reported statistics of results of different investigators mainly to the class of cases selected for investigation. If only typical and characteristic cases of diphtheria be selected, the proportion of cases in which the diphtheria bacilli are missed will certainly be small, and may be *nil*. If, however, the less characteristic cases of diphtheria, concerning which, in many cases, no one can be sure without a bacteriological examination, whether these are genuine diphtheria or not be included, there may be a relatively large percentage of negative results." This applies equally to typhoid.

It seems self-evident that where samples have to be taken by persons without special training, the same degree of accuracy cannot be expected as where a personal supervision can be exercised over all stages of the work by the bacteriologist himself. Thus in organizing our public diagnosis, preliminary sterilisation of the skin previous to taking the sample had to be omitted, lest an accidental inclusion of some of the disinfectant might disturb the result.

As we found that about 90 per cent. of the cases could be diagnosed by means of the dry method at the first examination, we thought it better to leave the more refined and careful study of the negative result to be dealt with by re-examination, as this would only be necessary then in 10 per cent. of the cases.

We may sum up by saying that nine cases of typhoid out of ten can readily be diagnosed by the serum methods. The fresh serum might give a clearer reaction in the tenth case, but in the other nine, unless the examinations be made without delay, the fresh serum or fluid method is more likely to cause confusion than the dry blood method.

APPEARANCE OF THE REACTION.

When a drop of sterilised water is added to a drop of dried typhoid blood, a solution is obtained in a minute or two which is mixed with a drop of actively motile typhoid culture, preferably not over twenty-four hours old. The motion rapidly stops and bacilli run together into loose coils or clumps. This takes place usually in a few minutes, but some-

times may require three to four hours, or even twenty-four hours. On the other hand, the stoppage of motion may be instantaneous, and as this will delay rather than aid the formation of clumps, it is better to make a second sample, in which the serum is less concentrated. As a rule a slow reaction gives larger clumps than a quick one.

In a small portion of cases, in which the clumping proceeds in an atypical manner, a certain number of motile forms can be seen even after several hours. This partial or incomplete reaction we have met with chiefly (1) in the very early stages, (2) or late in convalescence, (3) in relapsing cases, and (4) in very mild cases. The gradual and progressive loss of the motion, and the slow but steady growth of the clumps, together with the fact that the motion never becomes considerable, enables this incomplete reaction to be distinguished without much difficulty from the brusque stoppage followed by the prompt reappearance and increased activity of motion occasionally seen when normal serum in concentrated form is mixed with a typhoid culture. Although aseptic precautions are not required when the action is complete within a few minutes, the occasional occurrence of this slowly developing reaction makes it necessary to guard as far as possible against the development of extraneous motile forms in the blood. As these might be present upon any odd piece of paper employed, special slips of non-absorbent paper are provided in well-made envelopes, which together have undergone sterilisation. We sterilise our paper by exposing it, first to formaldehyde gas followed by ammonia vapour, following the method successfully used by Kinyoun in sterilising books. It is essential that the drop of blood, however small, be thick enough to form a slight crust on the paper, as an imperceptible film will not yield a strong solution when moistened.

Heating the paper by holding it over the lamp will also sterilise it in a few moments. In case malaria is suspected, the sending of a thin film dried on glass as an additional sample would permit of this being examined for the plasmodium.

A capillary pipette filled with typhoid culture, and another filled with sterilised water, will suffice for as many examinations as can be made in one day, and save a great deal of manipulation of small glass ware, sterilising in the flame, etc. Twenty specimens, on the average, can be examined in one hour by this method.

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(To be Continued.)

NOSE AND THROAT.

IN CHARGE OF

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TREATMENT OF ACUTE CORYZA.

Now that the damp, chilly season has arrived when colds in the head are very prevalent, it is well to recall some of the favorite prescriptions for this complaint.

Capitan, in *Médecine Moderne*, recommends the following powder, which, he says, arrests generally, almost immediately, a commencing coryza; if from the very onset the patient takes pains to snuff up a pinch into each nostril and draw it in deeply:

℞ Salol..... 1 gramme.
Salicylic acid.....20 centigrammes.
Tannin.....10 centigrammes.
Powdered boric acid..... 4 grammes M.

Take a pinch every hour for half a day, and then discontinue the use of this snuff, for, if it be persevered with, it may cause an eczematous eruption on the margins of the nostrils from the action of the phenic acid resulting from decomposition of the salol.

Another snuff-powder by the same writer is recommended as being similar in its action to the preceding, but less powerful:

℞ Powder of talc..... 5 grammes.
Antipyrine..... 1 gramme.
Pulv. boracic acid..... 2 grammes.
Salicylic acid.....25 centigrammes. M.

This powder may be snuffed up the nostrils without fear of irritation.

M. Tessier, in the *Annales de Médecine*, indicates several formulæ for the treatment of this affection. The following is a mixture for inhalation:

℞ Acid carbolic fort..... 5 grammes.
Liquor ammon. fort..... 5 grammes.
Water.....15 grammes.
Alcohol.....15 grammes. M.

Pour a few drops on blotting-paper and inhale a few seconds. In some cases chloroform or tincture of camphor may be advantageously substituted for the water in the above.

Dobson, in the *Lancet*, advises respiration of camphor coarsely powdered and placed in a jug of boiling water as an effective remedy against coryza. "About one drachm of camphor should be added to half a pint of fluid and the steam thus impregnated should be inhaled slowly ten minutes every hour, repeating it three or four times, when the nasal inflammation will be much relieved. The jug containing the water as well as the face of the patient must be surrounded with a paper cone during the period of inhalation."

The following formulæ is recommended by Dr. Beverley Robinson:

℞ Pulv. fol. belladonnæ..... ℈ i.
Pulv. morph. sulph..... gr. ij.
Pulv. gum accaciæ, ad..... ʒ ss. M.
Sig. Use with the powder-blower for anterior and posterior nares.

This powder should be blown through the nose both anteriorly and posteriorly so as to coat over the mucous membrane lining the nasal passages very thoroughly. "Its most noticeable action is to diminish the congested condition of the interior of the nose, so as to permit freer passage of the inspired and expired current of air. This it does, doubtless, by contracting the small blood-vessels and lessening the amount of watery fluid which exudes from them into the cellular structure. Besides all three agents, morphia, belladonna and gum are decidedly antiphlogistic in their action upon the inflamed pituitary."

Dr. Morrell Mackenzie advises the following snuff, which is to be used from the commencement of the cold, but never longer than twenty-four hours.

℞ Morph. sulph..... 12 centigrammes.
Subnitrate of bismuth..... 3 gr. 50. M.

To conclude: A person who is conscious of having taken a cold in the head should take his room and resort for relief to some one of the measures of local treatment above given. For internal medication we do not think that much confidence is to be placed in the small doses of atrophine or the large doses of quinine advised by some authorities. If there be a furred tongue and a deranged state of the *primæ viæ*, a saline laxative, a full dose of rhubarb and soda, or even a cholagogue cathartic, may be indicated. Hourly doses (one drop) of tincture of aconite may be given, or two or three five-grain doses of acetanilid two hours apart, or two ten-grain doses of phenacetine at the same or a longer interval, if there be considerable fever and headache. It is worse than useless to take any other nourishment than a little hot liquid food till the acute symptoms have somewhat subsided. General diaphoresis will seldom be advisable for a simple coryza. Dover's powder is apt to disturb the stomach and constipate, and can seldom be required. Antimonials: jaborandi and pilocarpine are not to be thought of. A teaspoonful every two hours of aromatic spirits of ammonia can do no harm; or two or three drops of the liquor morph. sulph. along with two and a half grains of ammonium carbonate every hour for six hours, and afterwards every hour and a half. According to Phillips, a few drops of the tincture

of euphrasia officinalis (eye-bright) taken at the beginning of the attack of acute coryza, and repeated every two or three hours, will often abort it, and this treatment is endorsed by Dr. G. M. Garland in a former number of this journal.—*The Boston Medical and Surgical Journal.*

HÆMORRHAGE AFTER REMOVAL OF THE TONSILS.

The amygdalotome, or tonsil guillotine, in one or another of its multifarious forms, is to be found in almost every general practitioner's armamentarium, and it is to be feared that few who possess it feel any hesitation about resorting to its use, no matter what may be the features of the enlarged tonsil or the peculiarities of the patient. There seems to be a general impression that ablation of the tonsil by means of the guillotine is free from danger. It is in consequence of this impression perhaps that, as Dr. William H. Daly, of Pittsburgh, said in a recent discussion of the subject before the American Laryngological Association, a report of which we publish in this issue of the *Journal*, there has been "more bad surgery done upon the tonsils than upon any other part of the human body."

This discussion followed the reading of a paper by Dr. John W. Farlow, of Boston, entitled "Some Remarks on Removal of the Tonsils," which we printed in the *Journal* for November 9th. Dr. Farlow made a particular point of the danger of hæmorrhage after the use of the guillotine, especially in adults and in cases in which the tonsil was large and tough. Dr. Farlow's statement that "very many cases of troublesome bleeding occur which are never reported" should not pass unheeded, or his other statement that "in delicate children every drop of blood may be valuable." Dr. Farlow was supported by every speaker who took part in the discussion. Dr. Bosworth, of New York, after citing Guersant's statement that in five thousand amygdalotomies he had never seen severe hæmorrhage, added the significant comment that Guersant's cases had all been in children. Dr Ingals, of Chicago, said that he was well aware of the danger from bleeding when the amygdalotome was used, for he had seen a number of trying instances of the kind. Dr. Daly placed himself on record as saying that "the man who pinned his faith to the statement that there was no danger of hæmorrhage in amygdalotomy would sooner or later meet his Waterloo," and added that he deserved to meet such a fate for relying upon worthless statistics. He himself had met with several cases of alarming hæmorrhage, and gave a striking sketch of a case in which he had made an appointment to remove the tonsils from a farmer's son, but had learned on his arrival at the house that the boy was out on the farm, whereupon he had gone out and met the boy in the woods and done the operation then and there, with the result that he had "had to spend several hours with his fingers in the patient's throat to arrest the hæmorrhage." Dr. Casselberry had had enough cases of serious hæmorrhage to make him "cautious and somewhat anxious" about every patient operated upon with the amygdalotome, and he was not sure that such hæmorrhages might not occur in

children; indeed, he knew of a fatal case in a child, three years old, whom there had been no reason to regard as a "bleeder." Dr. Shurly had had two very serious cases of tonsillar hæmorrhage in children. Dr. Murray mentioned an instance in which the patient had nearly bled to death.

If this is what skilled laryngologists have to say of the tonsil guillotine, the general practitioner may well be cautious in its use. If the tonsil must still be subjected to surgical procedures as often as it has been in the past, at least let those procedures be made as free from danger as possible, either by substituting a crushing for a cutting instrument, as advocated by Dr. Farlow, or by taking away "only enough of the projecting portion to relieve the mechanical obstruction and the pressure and irritation produced," which Dr. Shurly has found sufficient.—*New York Medical Journal.*

RHINITIS AS A FACTOR IN PHLYCTÆNULAR OPHTHALMIA, WITH ITS THERAPEUTIC CONSEQUENCES.—At a recent meeting of the College of Physicians of Philadelphia, Dr. B. Alexander Randall read a paper on this subject, in which he said that among the many causative factors of phlyctænular conjunctivitis and keratitis, inflammatory inflections of the nose must not be ignored; for they could frequently be demonstrated to be of prime importance. In the great majority of cases, hyperæmia and oversecretion of the nasal mucous membrane would be found more constant than eczema or any other of the more incidental accompaniments; and treatment limited to this alone would often bring about a cure quicker than could be effected by any local measures without it. Elaborate apparatus and skill were uncalled for. Mere illumination of the nares would usually show the condition, and simple sprays of alkaline and of oily solutions could do much to relieve it. Calomel insufflation could be more valuable than in the conjunctiva, and, instead of the iodine being a bar to its use, its combination with mopping the pharyngeal vault with iodine could be especially efficacious. Dr. Randall said that the ophthalmologist must not neglect this field, which used to be his; and, unless he had some one at hand better prepared than himself to give it due care, he should stand ready to study and treat in his patients these simpler nasal affections.

In the discussion which followed the reading of this paper, Dr. Ring stated that he had for nearly two years referred nearly all cases of phlyctænular conjunctivitis treated in his clinic at the Episcopal Hospital to the throat and nose department for nasal treatment.

Dr. Risley had been well satisfied with the results of rhinological treatment of obstinate cases.

Dr. de Schweinitz considered that in all these cases attention should be drawn to the condition of the nares. In his public clinics, when immediate nasal treatment had been impracticable, he had sterilized the nose as well as the eye by the simple remedies that he kept on hand for the purpose, and the results had been the happiest.—*New York Medical Journal.*

EYE AND EAR.

IN CHARGE OF

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SUPPURATIVE OTITIS MEDIA WITH MASTOIDITIS.

Any sharp separation of these subjects must always be theoretical, and especially so since the rapid increase in the methods of treatment for both the aural cavities involved at the same time.

Since the introduction of Stakie's surgical method for opening the autrum and middle ear into one cavity and the modification of this method by the more thorough procedure of Schwartze, these operations have been generally adopted for a class of cases in which the aurist was formerly content to cleanse the tympanum, with its accessory cavities, by medication, a surgical operation through the external auditory canal, or at most by resorting to the old classical method of opening the mastoid cells. Stakie's and Schwartze's methods have been so generally accepted in Europe, and are so favorably regarded in America, that they are now well-established surgical procedures, and will undoubtedly become more and more universally adopted, to the exclusion of the older forms of treatment.

With regard to the proper treatment of an acute inflammation of the middle ear, the general admonition of Burnett holds good: non-irritation of the inflamed parts, with loose, light antiseptic dressings, introduced by surgically clean instruments and hands.

The proper treatment of an acute otitis media is largely negative, after either spontaneous or artificial opening of the membrane, and onset of a discharge.

The inflammation of the middle ear being due to pathogenic germs (streptococci) in the middle ear, entering through the naso-pharynx, nature's effort is to afford them an exit through the spontaneous rupture of the membrane. Thus a siphonic action is established which empties the mastoid antrum and saves the mastoid cavity, if this siphonic current is not stopped by irritative interference.

For the above reasons all forms of inflation of the tympanum should be carefully avoided in acute otitis media, not only for the welfare of the ear already infected with pathogenic germs, but also to avoid forcing similar germs into the as yet unaffected ear.

As soon as perforation occurs, naturally, or after paracentesis, Burnett inserts a strip of iodoform gauze or carbolic acid gauze, one inch and a

half long by half an inch wide, into the auditory canal, for antiseptic drainage purposes, places a tuft of the same in the concha, and leaves the ear alone for 24 hours, when the dressing is renewed, if it be moist, or left in situ if dry. At no time is the acutely inflamed ear syringed or anything put into it except the dressing referred to.

McBride, of Glasgow, favors all natural efforts at free drainage. The auditory function in many cases of mastoid disease is so far injured that any danger of making it worse may be ignored. The facial nerve may be injured in any mastoid operation, but it runs most risk of suffering when the bridge of bone left after the posterior wall has been removed and the mastoid autrum exposed is attacked. In these cases intensely septic cavities are being dealt with, and unless there is reason to believe in the existence of intra-cranial suppuration nothing should be done by the removal of healthy bone to bring them into communication with the cerebral structures. Diseased bone is septic and must be freely removed.

When the middle ear and its surrounding cavities have been thoroughly opened, McBride syringes thoroughly with 1 to 2,000 perchloride solution at the time of operation, then dries out carefully, fills the cavity with a mixture of boric acid and iodoform, and plugs the wound and meatus with sterilized iodoform gauze. If the posterior walls of the meatus have been removed the meatus must be plugged first to avoid stenosis. There is often a good deal of oozing within the first 24 hours, so that a change of dressing may be necessary. After this the frequency of the dressing must depend upon the time the parts remain sweet. Irrigation is best not employed so long as there is no smell from the dressings.

McBride's experience is that complete cure is the exception, although the discharge may be reduced to a minimum. For this reason he is inclined to make free use of the lead nail, which can be worn without discomfort, and which permits of thorough cleansing with antiseptic liquids when the dry method of dressing has failed.

Condensed from *Sajous Univ. An. Med. Sciences.*

EUCAINE A SUBSTITUTE FOR COCAINE.—De Mets has made comparative trials of eucaine and cocaine upon healthy eyes, using a 2 per cent. solution of the hydrochlorate in each case. Eucaine is a derivative of cocaine, and occurs as a white neutral bitter powder, soluble in water, and not decomposed on boiling. Hence its solutions can be sterilized, an advantage which cocaine does not possess, since its solutions are modified and rendered less active by this treatment. The instillation of it is a little more disagreeable than that of cocaine, the smarting is greater and lasts longer. It does not produce the marked vasoconstriction of cocaine; thus the eye, instead of becoming white, as if frozen, is usually slightly injected. When with cocaine the ocular conjunctiva becomes exsanguine and the eyeball is projected forward, the pupils being widely dilated through suppression, at any rate to some degree, of the lid reflex, anæsthesia is at its maximum and the moment for operation has arrived. With eucaine the eye preserves its normal aspect, and the palpebral chink remains invariable without forward protrusion of the eyeball; anæsthesia to pain is produced at least as strongly with eucaine when

tactile sensibility appears less affected. Its action is first manifested seven minutes after instillation; it lasts twenty to thirty minutes, the maximum being reached at about fifteen minutes. The author considers its anæsthetic action strong and sure. It does not produce mydriasis; hence it is valuable in cases of operation for glaucoma, where the mydriasis of cocaine is inconvenient. De Mets finds a mixture of 3 parts eucaine to 1 part cocaine, of whatever strength, very useful. It is superior to cocaine in affections of the throat and nose, it being far less toxic as regards the heart and circulation; and it is indicated in dentistry because it does not produce an infiltration and œdema like those of cocaine. This absence of toxicity must also be considered as regards ophthalmic surgery. Besides corneal ulcerations other more grave and even fatal sequelæ have been recorded after cocaine instillations.—*Belg. Med.; trans. for Br. Med. Jr.*

THE DIAGNOSIS OF TUBERCULOSIS FROM THE MORPHOLOGY OF THE BLOOD.—Holmes (*New York Medical Record*, Vol. ix, No. 5, 1896) sums up an apparently careful article as follows:

That the diagnosis of tuberculosis, from the morphological appearance of the blood, rests with the hypothesis that each individual has a biological prototype in the leucocytes of his own blood.

That the leucocytes are independent organisms with functions analogous to the larger organisms.

That they pass through the stages of growth and decay.

That disintegration may occur at any age.

That they are tissue-formers.

That tuberculosis is characterized by tissue disintegration.

That in tuberculous blood there is an abundant cell-disintegration, premature development, premature decay, and more or less deviation from the normal percentages of the various types of cells.

If there is marked disintegration of the leucocytes, we can predict a similar condition of the larger organism.

A diagnosis of tuberculosis can be made from the blood earlier than by any other means we now possess.

A diagnosis may be made from the blood alone in a well-marked case.

Thus far no other pathological condition has been found which presents the similar blood appearances.

EMULSION OF BROMOFORM.—

Bromoform	48 drops
Expressed oil of almond	20 gm.
Powdered tragacanth	2 gm.
Powdered acacia	4 gm.
Cherry laurel water	4 gm.
Distilled water	120 ccm.

Add the bromoform to the oil of almond and emulsify with the gums after the usual method. This affords a good method of administering bromoform in a palatable form.—*Am. Druggist*, 1896, *xxviii.*, 326.

PAEDIATRICS.

IN CHARGE OF

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In *Archives of Pœdiatrics* for December Dr. H. Koplik of New York has a very interesting paper on the importance of certain changes in the mucous membrane of the mouth as diagnostic of measles. It seems, as he says, "indeed very late in the day to describe something connected with the diagnosis of the exanthemata." But if what he says is true, he has certainly made an original and valuable contribution to the subject. After detailing references to it, more or less fragmentary, from Baginsky, Osler, Henoch, and others, he goes on to say that examination of the mouth, not later than the first twenty-four or forty-eight hours, will show "a redness of the fauces; perhaps, not in all cases, a few spots on the soft palate. On the buccal mucous membrane and the inside of the lips we invariably see a distinct eruption. It consists of small, irregular spots, of a bright red color. In the centre of each spot there is noted, in strong daylight, a minute bluish white speck. These red spots, with accompanying specks of a bluish white color, are absolutely pathognomonic of beginning measles, and when seen can be relied upon as the forerunner of the skin eruption. These bluish white specks have, I believe, been described by French writers, though the author has described them to students before he has seen mention of them elsewhere. No one, however, has to my knowledge called attention to the pathognomonic nature of these small bluish white specks, and their background of red irregular shaped spots. They cannot be mistaken for sprue, because they are not as large nor as white as sprue spots. These specks of bluish white, surrounded by a red area, are seen on the buccal mucous membrane and on the inside of the lips, not on the soft or hard palate. Sometimes only a few red spots, with the central bluish point, may exist, six or more, and in marked cases they may cover the whole inside of the buccal mucous membrane. If these bluish white specks, on a red spotted background, are at the height of their development, they never become white opaque as sprue, and in this respect, when once seen, are diagnostic, nor do they ever coalesce to become plaque-like in form. They retain the punctate character. I have no ed and demonstrated these spots on the buccal mucous membrane when the other symptoms were so slight that physicians have doubted the diagnosis. I have been invariably confirmed in my diagnosis by the subsequent appearance of the skin eruption."

A gain of two days in the diagnosis of measles would be most valuable, especially from the point of view of Preventive Medicine. F.

CONSTIPATION IN INFANCY.—Constipation may have many causes. When due to deficient or too viscid intestinal mucus, correct the cause—usually a febrile condition, or a chronic intestinal catarrh—and give the infant a large quantity of water to drink.

In rickets, chronic peritonitis, intestinal atrophy and hydrocephalus, the constipation may be due to incomplete peristalsis; and in tumors, intussusception, volvulus, undue length of the descending colon, and imperforation, it may be due to mechanical obstruction.

An apparent constipation may result from insufficient amount of nutriment. This is easily corrected, as well as the constipation due to a superabundance of starch or of casein, or to a lack of sugar in the food.

In infants oatmeal should be substituted for other starchy food. A lack of sugar can be corrected by giving, previously to every feeding or nursing, some tepid water or oatmeal water, in which a piece of loaf-sugar has been dissolved. Older children will take honey to advantage. Regular doses of cod-liver oil, given two or three times daily, will obviate or relieve constipation besides fulfilling other indications.

Rectal injections, friction and kneading of the abdomen, and electricity are often useful. Calcined magnesia (five to ten grains a day), either alone or combined with rhubarb, is indicated when there is an excess of acid in the gastric and intestinal contents. Nux vomica, to which may be added some purgative extract, is indicated in insufficient muscular action of the intestine. As an occasional purgative, for the purpose of relieving the intestinal tract of indigestible and injurious masses, castor oil is probably the best and mildest. Calomel or compound licorice powder, or the fluid extract of rhamnus frangula, are valuable for this purpose.—A. JACOBI.

Constipation can usually be cured by strict attention to the diet, by the use of fruits, vegetables and cereals. In young infants an increase of the fat in the milk will in quite a number of cases relieve it. Variation in the percentage of sugar is occasionally found to be efficient. Many drugs have been employed in the treatment of constipation, but as a rule they are very apt to be only temporary in their action. In connection with the diet, place most reliance upon enemata and laxative suppositories, such as those made of glycerine or of gluten.—T. M. ROTCH, *Pædiatrics*, Dec 1, 1896.

In Annals of *Gynæcology and Pædiatry* for Dec., 1896, Mrs. Rorer, principal of the Philadelphia School for Cooking, closes a good paper on "The Care of Children," as follows, and we beg leave to add an unctuous Amen thereto:

"Just a word in parting regarding the dabbling in doctoring and medicines. A mother or a guardian has no right whatever to prescribe even the simplest dose of medicine to a child unless she has studied medicine. It is common sense to suppose that a man or woman who has given four or five years to the careful study of this great science knows more about it and the use of medicines than a person who has never studied for a

moment. More children are killed by home doctoring than perhaps any other cause. When the child is ill consult a physician, allowing him to do the practising, and I only wish for his sake as well as for the community at large that he might drop his drugs and become a counsellor; but this change can never be brought about until the community are educated to it. Let us pay our physicians a yearly fee for keeping us well, healthy and happy. Under our present system we pay him only to keep us ill, and then we too often forget to pay him after he has pulled us through a serious illness. In all the pharmacopœias there is not a single active medicine which has not the power to derange more or less the gastric digestion, and for this reason we call it a medicine. It really is not a food. The family medicine-chest should be condemned unless it is kept locked and the family physician carries the key."

THE BACTERIA OF THE GASTRO-INTESTINAL TRACT.—The rôle played by bacteria in the alimentary canal has been much discussed of late. It has been maintained that certain forms of bacteria are so important to digestive processes that animal life could not be maintained in their absence. To settle the biological problem as to whether the microbes always present in the intestinal canal are to be looked upon as parasites or symbioten, and what rôle they may play in the digestive process, Methol and Theerfelder have made a most interesting and painstaking series of observations which they have reported in the *Archives für Kinderheilkunde.*

The authors, in order to solve this problem, had first to find a sterile animal to work upon. This they accomplished in performing Cæsarian section on a full term guinea-pig in a sterile atmosphere. They thus obtained an animal which was "sterile born." The little pig was placed in a sterile apparatus, and was furnished with sterile air and sterile food. Feeding was necessary every hour day and night. The pig was killed in eight days. During the time it had taken 330 cm. of milk, and had gained 10 grams in weight.

The bacteriological examination showed the entire intestinal tract to be germ free as well as the excrement. It was thus proved that in guinea-pigs the assimilation of animal food is not dependent upon the presence of bacteria in the gastro-intestinal tract, and the inference is strong that the same would be true of other animals.—*Archives of Pædiatrics*—Dec., 1896.

PRESCRIPTIONS.—[From "Diseases of Children," by Hatfield, 1896.]:—

℞ Sodii bromid..... 4.
Syr. rhei aromat. .....
Tinct. opii camp., aa..... 8.
Aquæ anisi, *ad* ..... 60.

M. Sig. One tablespoonful every two to four hours to check greenish dejections.

℞ Lactic acid..... 2.
Simple syrup..... 98.
Lemon juice .....q. s.

M. Sig. One teaspoonful every three hours to check greenish dejections.

... SEASONABLE THERAPEUTICS ...

The Treatment of Influenza or La Grippe

It is quite refreshing these days to read of a clearly defined treatment for Influenza or La Grippe. In an article in the *Lancet-Clinic*, December 28th, 1895, Dr. James Hervey Bell, 251 East 32d Street, New York City, says he is convinced that too much medication is both unnecessary and injurious.

When called to a case of influenza, the patient is usually seen when the fever is present, as the chill, which occasionally ushers in the disease, has generally passed away. Dr. Bell then orders that the bowels be opened freely by some saline draught, as hunyadi water or effervescing citrate of magnesia.

For the high fever, severe headache, pain, and general soreness, the following is ordered:

℞ Antikamnia Tablets (5 gr. each), No. xxx
Sig. One tablet every two hours.

If the pain is extremely severe, the dose is doubled until relief is obtained. Often this single dose of ten grains of antikamnia is followed with almost complete relief from the suffering. Antikamnia is preferred to the hypodermic use of morphia because it leaves no bad after-effects; and also because it has such marked power to control pain and reduce fever. The author says that unless the attack is a very severe one, the above treatment is sufficient.

After the fever has subsided, the pain, muscular soreness and nervousness, generally continue for some time. To relieve these and to meet the indication for a tonic, the following is prescribed:

℞ Antikamnia & Quinine Tablets, No. xxx
Sig. One tablet three times a day.

This tablet contains two and one-half grains of each of the drugs, and answers every purpose until health is restored.

Occasionally the muscular soreness is the most prominent symptom. In such cases the following combination is preferred to antikamnia alone:

℞ Antikamnia & Salol Tablets, No. xxx
Sig. One tablet every two hours.

This tablet contains two and one-half grains of each drug.

Then again it occurs that the most prominent symptom is an irritative cough. A useful prescription for this is one-fourth of a grain sulphate codeine and four and three-fourths grains antikamnia. Thus:

℞ Antikamnia & Codeine Tablets, No. xxx
Sig. One tablet every four hours.

Dr. Bell also says that in antikamnia alone, we have a remedy sufficient for the treatment of nearly every case, but occasionally one of its combinations meets special conditions. He always instructs patients to crush tablets before taking.

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Editorial.

TORONTO BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

At a meeting of the members of the British Medical Association resident in Toronto, it was decided to revive the Toronto Branch formed here some time ago, but which subsequently lapsed. In view of the approaching meeting of the British Medical Association in Montreal next year, it was thought that the formation of a branch in Toronto would greatly assist the Montreal Branch in making the Association meeting a success. In order to take part in the Montreal meeting it will be necessary to become a member of the British Medical Association. The existence of a branch organization here will greatly facilitate the election of members. Without the branch organization, membership could only be secured by making application to the general secretary in London, which would require at least a fortnight.

The President and Council of the Toronto Branch are anxious to secure the co-operation of those who are already members of the British Medical Association in their endeavor to extend the membership in Toronto and the vicinity, and to assure a good attendance at next year's meeting in Montreal. Gentlemen who are already members of the British Medical Association, and who are desirous of joining the Toronto Branch, are requested to send in their names to the Branch secretary.

Applications for membership in the Association will be received by the secretary and forms furnished. These forms are to be returned to the secretary, when the candidate's election will be proceeded with. The annual membership fee is one guinea, and the member receives the *British Medical Journal* weekly.

The officers of the Toronto Branch are:—President, I. H. Cameron, M.B.; Vice-President, W. J. Wilson, M.D.; Treasurer, H. Machell, M.D.; Secretary, W. B. Thistle, M.D., 160 McCaul St., Toronto; Council: J. E. Graham, M.D.; Chas Sheard, M.D.; Alex. MacPhedran, M.B.; Allan Baines, M.D,; John Caven, M.D.

WILDCAT MEDICAL COLLEGES.

In Canada, thanks to wise legislation and the watchfulness of the various governing bodies who have to do with the regulation of medical practice, we are pretty free from the out-and-out quack. We have quite enough to contend against, in the way of over-supply in the ranks, proprietary medicines which the people go and buy without consulting a physician, hard times, small fees, *et. al.*

But ours is a land of milk and honey compared with the one to the south of us. Here the quack flourisheth. We have before us the prospectus of the "Wisconsin Eclectic Medical College;" a *fac simile* copy of its charter, its diploma, and an examination blank. The diploma is in Latin, the others in English. The office of this institution is at 1,001 W. Congress St., Chicago. The prospectus gives the names of the president and director, the treasurer, secretary, vice-president and another director; but says nothing about professors or lecturers.

It would seem that the College is legally authorized to grant degrees, as is seen by the following, taken from its prospectus:

"They shall have power to teach students the science of medicine, of preparing them to practise as physicians, and conferring upon them, they having been examined and having succeeded in passing such examination as to their knowledge of said science, the degree of DOCTOR OF MEDICINE, or such other degree as may be proper according to the knowledge exhibited on such examination."

Attendance at the College is not necessary, as candidates may be examined at their own homes, an examination blank being sent to them we suppose to be written upon at leisure, and if the applicant is up to their "standard" the degree of Doctor of Medicine can be conferred at any time. The total fees for matriculation, examination and graduation are $35.00.

That such a fraud can be perpetrated upon the people of the United States seems almost incredible, and yet we believe there are hundreds—nay—thousands, of "medical men" practising in that land of freedom who have no better qualification than the one referred to above.

It is well understood by the profession, and to a great extent out of it, that people like to be humbugged.

The conscientious physician, who through a liberal education obtained by years of toil knows how little he does know, is often sorely tempted to cater to this love of the mysterious and supernatural which the mass of the people have in regard to matters connected with the use of medicine. He sees the Indian herb doctor, or the negro wench in her cabin, curing various diseases with her herbs; he has to deal with hysterics and neurasthenics who delight in consulting clairvoyants and fortune-tellers, and he knows that it is the appeal to the supernatural, and the strong psychical impression which works the cure. When in addition the State steps in and legislates in favor of patent frauds, as was done by the State of Wisconsin in the case noted above, the practitioner would need to be more than human who would not try to get even by practising just as

much fraud as would go, and gulling the people to the fullest extent of his powers.

Let us be thankful that in Canada we are protected as a profession, and that the people are able to get a *quid pro quo* for the money they pay for the services of a medical man.

BRITISH MEDICAL ASSOCIATION.

MONTREAL MEETING, AUGUST 31st, 1897.

Active steps are now being taken in Montreal in connection with the forthcoming meeting. All the necessary local committees have been appointed, and are busily at work.

None but members of the Association or specially invited guests are allowed to be present at the meetings and to take part in the discussions.

All properly qualified British subjects can become candidates for membership.

There is a unanimous desire on the part of the members of the Montreal Branch of the Association that the coming meeting shall be regarded not as a local event, but as a welcome to the Association from the whole Dominion. To this end, not only the Presidents of the various branches of the Association, but also the Presidents of the Dominion and Provincial Medical Associations have been placed upon the Executive Committee. Further signs of this desire to make this in no sense a local affair will be forthcoming shortly.

With reference to the presence of American practitioners at the meeting of the Montreal Branch, the branch finds itself in a position of some little delicacy. Members would very willingly invite practitioners across the border to become members of the Association, but, unfortunately, there is a recent by-law to the effect that none but British subjects can gain membership. The hope to have the by-law amended is destroyed by the occurrence this year of the International Medical Congress at Moscow. To amend the by-law would throw the Association open to the charge of attempting to promote a rival international meeting. It is to be understood that, in the present condition of politics, it would be a grave mistake for the Association to throw itself open to this charge. It has, however, been the custom in previous years to invite a series of guests to the meetings, and, acting on this precedent, the leading American authorities in the various branches of medicine will undoubtedly be asked to attend at Montreal.

SYPHILODERMATA.

A careful consideration and trial of the various methods of treating the syphilodermata has led me to the following conclusions: (Wm. S. Gottheil. M.D.)

1. In the primary stage, when only the chancre is present, no general treatment; calomel locally.

2. As soon as the secondary period sets in, as shown by the general adenopathy, angina, cephalalgia, and eruption, the internal treatment for mild cases should be $\frac{1}{4}$ to $\frac{3}{4}$ of a grain of the proto-iodide of mercury, t.d., continued for three months, or until the symptoms disappear. In severer cases, with pustular eruptions, severe anginas, persistent headaches, etc., a course of 6 to 10 intra-muscular injections of 10% calomel-albolene suspension, 5 to 10 minims at intervals of 5 to 15 days, should be employed.

3. After completion of the course and cessation of the symptoms, employ tonics, etc., without specific treatment, for three months.

4. Thereupon a second calomel course as above, plus a small dose (15 grains) of iodide of potassium, in milk, after meals. This to be given whether later secondary symptoms of the skin and mucosæ appear or not.

5. Second intermission of treatment, lasting 3 to 6 months, according to the presence or absence of symptoms.

6. In the second year, if tertiary lesions marked by deeper and more localized ulceration are present, give the iodide of potassium in increasing doses (60 to 600 grains daily), as may be necessary. Combine with it occasional courses of calomel injections. If no lesions appear, give a mild course of both.

The best local treatment of the syphilodermata is with the mercurial plaster-mull.

THE TREATMENT OF WARTY GROWTH OF THE GENITALS.—William S. Gottheil, in a paper on Epithalions of the Penis, read before the Society for Medical Progress, November 14th, 1896, concludes as follows: (*International Journal of Surgery.*)

1. Warty growths of the genitals, more especially in the male, are always to be suspected of malignancy, no matter how innocent they seem.

2. They should either be left entirely alone, or be thoroughly removed by knife or cautery.

3. Imperfect attempts at destruction, as with nitrate of silver, carbolic acid, etc., are especially to be avoided, there being many cases recorded in which they have apparently stimulated a benign growth into malignant action.

CONTAGIOUS IMPETIGO: By William S. Gottheil, M.D. (*Pædiatrics*).—This is a self-limited contagious disease of children appearing in localized epidemics, and first described by Tilbury Fox in 1864. Accompanied by a moderate fever and some gastric disturbance, there appear on the face and hands groups of flat vesicles filled with transparent or cloudy serum. These dry up into characteristic golden-yellow crusts, which fall off in two or three weeks, leaving circular, reddened, non-ulcerated areas behind. Successive crops of vesicles may prolong the disease for two months or more. It is undoubtedly parasitic; but, though Kaposi claims

to have found it, the etiological factor is still unknown. The treatment consists in removal of the crusts with olive oil compresses, cleansing the skin with hot water and soap, boric acid solution, etc., followed by the use of Lassar's paste:

℞. Acid, salicylic.....30 grains.
Petrolati..... 1 ounce.
Zinci oxidi.....
Amyli.....a. a. ½ ounce.

VINEGAR AS AN ANTIDOTE TO CARBOLIC ACID.—Applied to the skin or mucous membrane burnt by carbolic acid, vinegar causes a rapid disappearance of the characteristic whiteness, as well as the numbness produced by the acid; it also prevents the formation of a slough. Vinegar also neutralises carbolic acid introduced into the stomach. In cases where carbolic acid has been swallowed, therefore, Professor Carleton suggests, the patient should be made to drink vinegar diluted with an equal quantity of water, and the stomach should then be washed out.—*Practitioner.*

THE MICROBE PATHOLOGY.—*Phila. Ledger.* It is a sad time for medical art and for the sick when physicians turn from the study of individual patients to the investigation of disease as an abstract condition, forgetting that every disease is profoundly modified in its type and issue by the peculiarities of the persons in whom it occurs. Of the many evils begotten of this error, a very serious one is that it tends to impair a physician's sense of responsibility, and, therefore, lessen that anxious vigilance which he should never suspend while the issues of life and death are in his hands. At the same time the patients of a physician who appears to have little faith in his own powers soon tend to lose their faith in him. It is through faith alone that innumerable cures are wrought, cures that have even been called miraculous.

We desire to draw special attention to the high encomiums of Dr. Playter's recent book, from the medical press and eminent physicians; and also to his Sanatorium for cases of incipient phthisis, heart disease, rheumatism, neuroses, etc., on page xx of advertisements, etc.

The American Association of Obstetricians and Gynecologists at its ninth annual meeting held at Richmond, Va., elected the following-named officers for the ensuing year, namely:—President, James F. W. Ross, M.D., Toronto; vice-presidents, George Ben Johnson, M.D., Richmond, and John C. Sexton, M.D., Rushville, Ind.; secretary, William Warren Potter, M.D., Buffalo; treasurer, Xavier O. Werder, M.D., Pittsburg; executive council, Charles A. L. Reed, M.D., Cincinnatti; Lewis S. McMurtry, M.D., Louisville; A. Vander Veer, M.D., Albany; J. Henry Carstens, M.D., Detroit; and William E. B. Davis, M.D., Birmingham.

The next annual meeting was appointed to be held at the Cataract House, Niagara Falls, N.Y., Tuesday, Wednesday, Thursday and Friday, August 17th, 18th, 19th and 20th, 1897.

Book Reviews.

AN ATLAS ON OPHTHALMOSCOPY, WITH AN INTRODUCTION TO THE USE OF THE OPHTHALMOSCOPE. BY DR. O. HAAB, Professor of Ophthalmology, University of Zurich. Translated and Edited by Ernest Clark, M.D.B.S., London. William Wood & Co., New York.

This admirable work forms a small and convenient volume, containing over fifty pages of text and a slightly larger number of plates, a description of each being placed opposite the plates.

The first part of the work gives us the principles of ophthalmoscopy in a concise way, and is not too technical even for a student.

The drawings for the plates are original and depict the normal as well as the diseased fundus, and are, as a rule, exceedingly well executed. Messrs. Wood & Co. intend publishing a series of atlases.

A MANUAL OF THE PRACTICE OF MEDICINE. By DR. GEO. ROE LOCKWOOD, with illustrations and colored plates. Philadelphia, W. B. Saunders, 1896.

Standing midway between the regular text-books upon medicine and the "student aid" and "quiz compend" series, we find a class of books of which this is an exceptionally good example.

The present position of medical practice is tersely but clearly portrayed, and the work possesses usefulness for more than one class of readers. It can be studied with advantage by students who have read the larger systems conscientiously; and to that large constituency, the general practitioners, who have grown a trifle rusty, and who wish to note the advances of recent years without taking the time to wade through much literature, it is likely to prove a valuable acquisition.

The classification is, in the main, that of Osler, and is, consequently, admirable. In treating of diseases of the kidney, Delafield and Prudden have been followed, and no more scientifically accurate division of this group of diseases is before the profession.

The writer does not appear to strive for originality, but it would be unfair to consider his production as a mere compilation. It is something more and something better than that, and can be commended as a reliable epitome of modern medicine.

ANATOMY, DESCRIPTIVE AND SURGICAL.—By HENRY GRAY, F.R.S., Lecturer on Anatomy at St. George's Hospital, London. New and thoroughly revised American edition, much enlarged in text, and in engravings both colored and black. In one imperial octavo volume of 1,239 pages, with 772 large and elaborate engravings on wood. Price of edition with illustrations in colors: Cloth, $7 00; leather, $8.00. Price of edition with illustrations in black: Cloth, $6.00; leather, $7.00. Lea Brothers & Co., publishers, Philadelphia and New York, 1896.

For the first time in its long history, "Gray" has been revised exclusively by American anatomists, and their aim to adapt it thoroughly to the most modern teaching methods and the requirements of American students has been no less strenuous than that it should record the latest advances of anatomical science. There has therefore been effected, not only a general revision of the work as a whole, but also entire changes in certain departments in which investigation has been especially active during recent years. The sections which have been rewritten are those on the Brain, the Teeth, and the Abdominal Viscera, exclusive of the Genito-Urinary Tract, while those on Histology and Development—a feature peculiar to Gray, and of obvious value—have been remodeled. The splendid series of illustrations which have always distinguished Gray has been enriched in this new edition by no less than one hundred and thirty-five additional engravings. These illustrations have long been known as the most effective and intelligible presentations of anatomical structures, and in the present issue this supremacy is fully maintained. The practical application of anatomical facts in medicine and surgery has always been a prominent feature of the work, and this distinctive characteristic has again received the especial care of the editors.

TRANSACTIONS OF THE AMERICAN CLIMATOLOGICAL ASSOCIATION. Vol. XII, 1896.

TRANSACTIONS OF THE FIRST PAN-AMERICAN CONGRESS, held in the City of Washington, D.C., Sept. 5, 6, 7, 8, 1893. In three parts. Vol. III.

THE MEDICAL RECORD VISITING LIST, or Physician's Diary, for 1897. New York: Wm Wood & Company.

This edition of the "Medical Record Visiting List" has been revised to increase the amount of matter calculated to be useful in emergencies, and eliminate such as might better be referred to in the physician's library. The most important change is in the list of remedies and their maximum doses in both apothecaries' and decimal systems, and the indication of such as are official in the United States of America.

ESSENTIALS OF PHYSICAL DIAGNOSIS OF THE THORAX By ARTHUR M. CORWIN, A.M., M.D., Demonstrator of Physical Diagnosis in Rush Medical College; Attending Physician to the Central Free Dispensary, Department of Rhinology, Laryngology, and diseases of the Chest, &c. Second edition, revised and enlarged. Philadelphia: W. B. Saunders, 925 Walnut Street.

A valuable guide to both students and practitioners of medicine who are reading the scientific medicine of the present day. The editor has an added section setting forth the signs found in each disease of the chest.

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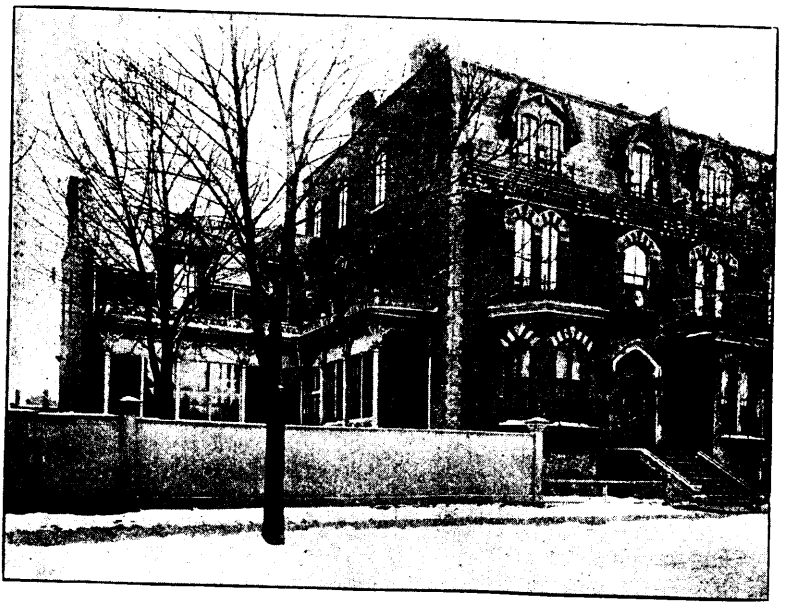

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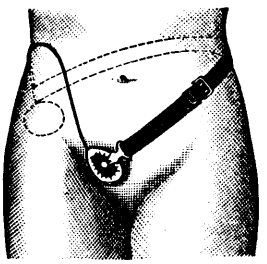

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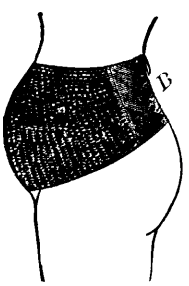

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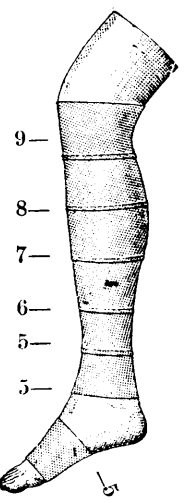

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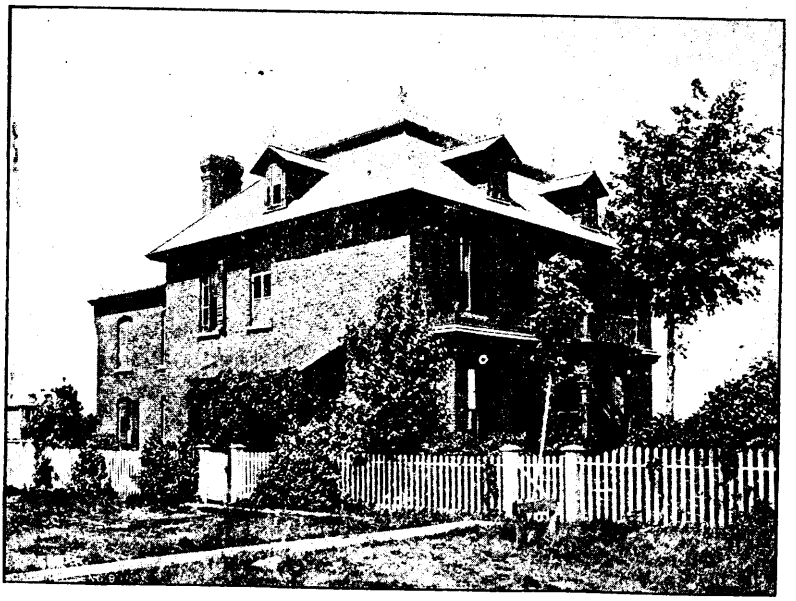

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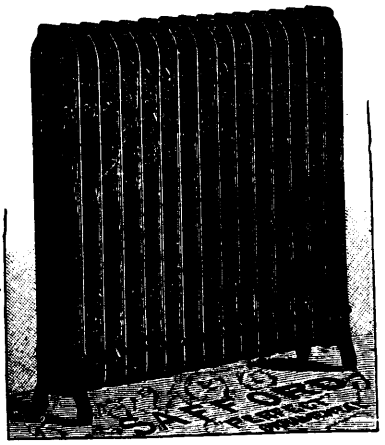

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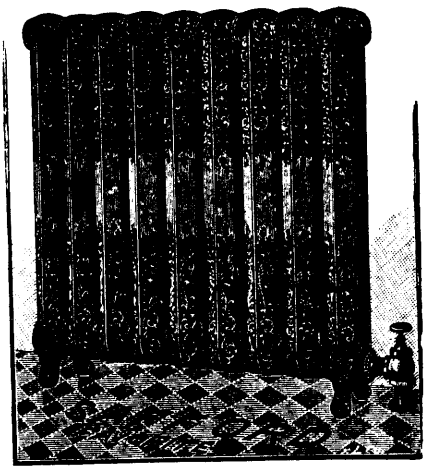

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