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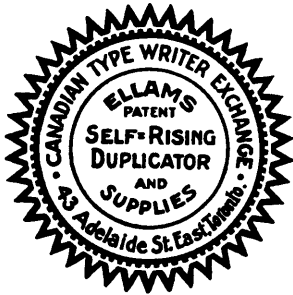
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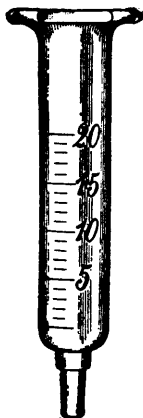
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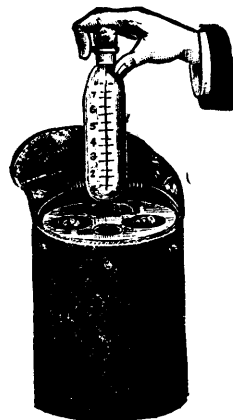
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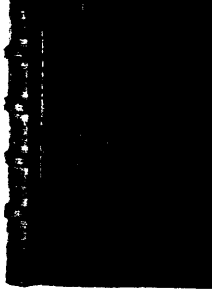
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THE CANADA LANCET.

VOL. XXXII.

TORONTO, NOVEMBER, 1899.

No. 3.

NON-SPECIFIC URETHRITIS.

N. E. ARONSTAM, M.D. PH. G.

Clinical Assistant of Dermatology and Venereal Diseases, Michigan College of Medicine and Surgery.
418 Hastings Street, Detroit, Mich.

In the present paper I will attempt to demonstrate the non-specific nature of some cases of urethritis, together with the treatment of the same. No doubt, every practitioner is aware of the fact, that in a number of instances, urethritis may be due to a legion of causes, other than the infection by the gonococci of Neisser.

There are however a class of physicians who obstinately adhere to the false presumption, that every case of urethritis is caused by the latter factor and it is therefore my aim to prove that in a number of cases, we have to deal with a so-called "innocent or non-merited" form of urethritis.

To begin with, I will cite three cases, occurring in my private practice, which will strongly affirm my statement.

Case I. L. D. male, four years of age. Patient's mother stated, that for two or three days she noticed a discharge from the urethra, together with a swollen and inflamed condition of the organ. On examination I found a muco-purulent urethral discharge together with a balanoposthitis. Interrogation as regards cause revealed nothing. The family and previous history of the boy is good. I prescribed an alkaline diuretic and told her to report in three days. After that time she returned and was pleased to state that patient is improving. I once more examined his genitalia and by closer inspection I noticed something projecting from the meatus urethral, evidently a foreign body. After extracting and washing the latter it proved to be a hay or straw stalk, the fibres of which underwent maceration but still sufficiently intact, to reveal the true cause of the malady. Treatment was continued for two weeks longer and patient fully recovered.

In this case we find the clinical picture of an acute urethritis, due undoubtedly to a foreign body, introduced into the urethra in some way still just as severe as an ordinary gonorrhoea.

Case II. Mr. McB, 28 years of age, bookkeeper, Russian by nationality with a good past and family history, presented himself to me with the symptoms of a severe form of urethritis of about two days' duration. This poor fellow seemed to be greatly embarrassed, being recently married,

and unaware of any immoral sexual transgression, he was much perplexed to find himself attacked by such a malady. He admitted however, that he indulged in venere with his wife. I am satisfied to take the latter, as the real cause of the affection. I prescribed an alkaline diuretic and forbade all sexual intercourse and in less than two weeks patient was well. This case satisfactorily proves, that an indulgence in venere, may bring about a severe urethral inflammation, simulating specific urethritis.

Case III. B. W., 45 years of age, laborer, German by nationality, married, was attacked—rather suddenly—by an acute urethritis. The family and past history of patient showed nothing abnormal. He was a robust, plethoric looking man. On examination I found a urethral discharge with a considerable degree of posthiles. He bitterly complained of pain in the testicles and in the groin, of a lancinating character and periodic in nature. No specific cause could be detected and patient denies of having had any improper sexual intercourse. Occasionally he is molested by headaches. I prescribed an alkaline diuretic and directed him to bring me a sample of his urine. The latter had a milky appearance and upon treating it with a solution of ferric $(OH)_2$ hydrate a very heavy precipitate of Ferric $Fe_3 (PO_4)_2$ phosphate was thrown down, showing an abundance of triple phosphates. I continued the alkaline treatment, with the addition of H. Extr. of Pichi. and put the patient upon a strict dietary regime, forbidding him, for the time being, alcoholics and all farinaceous and phosphatic food. The pain gradually declined, the urethral discharge diminished and the urine became clearer and patient is feeling much better now.

This case in its turn shows, that a phosphatic abundance in the urine, may by virtue of the irritating properties of the triple phosphates, set up a urethral inflammation and a reflex testicular neuralgia. If space would permit, I could cite a number of similar cases.

To summarize then: it is evident from the above, that urethritis is due to divers causes, others than the microbic.

"The etiology of urethritis,"—says Hayden in his excellent manual of venereal diseases—is not as yet an absolutely settled question and the physician should therefore exercise the greatest care and precaution, before giving his opinion as to its origin, for on his decision may rest the honor and happiness of wife, husband and family. Many men contract typical gonorrhoea from women either during or immediately after the menstrual epoch, the women being free from gonorrhoea. These cases are usually severe in character. It is also possible for a man to contract gonorrhoea from the secretions of the uterus, a lacerated cervix and perineum and vulvo-vaginal secretions due to uncleanliness. Bearing in mind the foregoing facts, which have been demonstrated by most careful observers, the physician will do well to remember, that gonorrhoea in the male does not necessarily mean gonorrhoea in the female, and that a man can contract gonorrhoea from a women, who is true and virtuous, but who is suffering from some disease of the uterus, cervix, etc., which give rise to irritating discharges: it is also well to bear in mind, that the menstrual secretion is very acrid in character and can and does produce urethral inflammation in the male."

Owing to my experience in venereal diseases both in hospital and private practice, it would seem that a differentiation between the specific and non-specific forms could arbitrarily be arranged. There is no diagnostic value attached to this differentiation, nor is it my wish to put the same down as a clinical factum. It may, however, be useful to some extent and in time may afford an available means for diagnosis.

Specific.	Non-Specific.
(1) Etiological : Gonococci of Neisser.	(1) Etiological : other micro-organisms, notably the trichomaines vaginalis ; foreign bodies ; hyper-acidity of urine ; calculi ; excessive venery ; on exclusive albuminous diet ; uric acid, Diathesis, etc. etc.
(2) Period of incubation 2-7 days.	(2) No definite period of incubation.
(3) Of longer duration and apt to become chronic in character.	(3) Duration from 2-4 weeks ; does not tend to become chronic.
(4) Complications, Aspec, Adenitis, Orchites, etc. apt to be present.	(4) Usually no complications.
(5) Does not yield readily to treatment.	(5) Yields readily to alkaline treatment.
(6) General condition of patient more or less involved, i. e. fever, malaise, etc.	(6) Seldom so.
(7) Predominating between the ages of 20 and 30.	(7) May occur at any age.

Although the foregoing chart is of slight clinical importance, it may, as I mentioned, prove the means of a better understanding of the question under consideration.

A word about the treatment. I rely mostly upon the alkalies, as Pot. citrat., acet., or bicarbonat., in combination with a mild sedative as Hyoscyamus, to allay the urinary tenesmus. The diet shall be light, easily digested and non-albuminous, with the exception of milk, which the patient is allowed to drink *ad libitum*. Highly seasoned dishes shall be forbidden. Green vegetables are not to be recommended, but patient may partake of fruits, as apples, peaches, etc. The mineral waters, as Seltzer, Vichy, Appolinaris are an adequate beverage. Alcoholics, in any form, shall strongly be prohibited, as well as tea, coffee and cocoa. Direct the patient to abstain from sexual intercourse and sleep on a hard mattress but lightly covered. The bowels should be kept freely open by some mild laxative, as saline purgatives are apt to produce urethral irritation when the severity of the inflammation is in its decline. I add Fl. Extr. of Pichi. to the alkaline mixture. This drug seems to exert a sedative influence upon the urethral mucosa and augments the process of healing. Under the same category may be included the Fl. Extr. of Saw Palmetto. I condemn the use of injections in this stage and form of

urethritis and discard the various urethral irritants, as Copaiba, Buchu, etc. Cleanliness of the genital organs is imperative and patient should therefore bath his genitalia in hot water once or twice a day.

This is the routine treatment I adopted ; but as every case is a study by itself, I must say, don't forget to remove the cause and the latter is by no means uniform.

DIAGNOSTIC CURETTAGE.

BY J. RILUS EASTMAN, M.D., INDIANAPOLIS, IND.

In spite of the boasted brilliancy of recent microscopic technique, the pathologic friends of diagnostic curettage have not been able to lift this procedure to the plane of scientific acceptation. Even in cases of suspected malignant uterine disease digital exploration still has approval as the best of pertinent diagnostic measures.

Curettement as a means of diagnosis can count a few sporadic friends. Its foes are legionary. They may be classified for contemplation into two groups. The first is made up of these gynecologic routinists who, in deference to an over-refined sense of delicacy, or from sheer indifference to the less salient details of diagnosis, prefer not to explore the malodorous and unsightly matter vented from the diseased uterus or vagina, and who turn likewise unmindfully from the examination of feces, pus and sputum.

Hyrthl, the Viennese anatomist, discoursing upon the physiology of excretion, observes: "These functions, from foolish expectoration to natural defecation, are ugly and revolting; therefore, despite their indispensableness, few persons excepting physicians and patients speak of them.

"The grateful impression which the beholding of a beautifully developed human form tends to make upon one, is lost immediately one connects the form in fancy with excretion. Then all illusions cease. Think of Zeus Olympus upon the cloud throne, in his hand a cuspidor replacing the thunder-bolt; of sweet-eyed Juno blowing her nose; of a belching Ganymede; of Adonis surrounded with expelled intestinal gas; of a sweating Vulcan; of Achilles wrestling with a hard, unyielding stool; of a sleeping Endymion *cum profluvio seminis nocturno*; of a laboring Pallas Athene with flabby, pendulous paunch; of the virgin Queen of the Night in parturient bed with streaming lochia; of Venus Anadyomene with shame parts bestreaked with menstrual discharge. It were, perhaps, more e-thetic had these functions been left apart from the make-up of God's image, but their creation came to pass, and we have no other recourse than to thank God if they continue to operate in healthful harmony."

Some of the most prized of scientific riches, riches surpassing those of Ormuz or of Ind., have been gleaned in exploration of the unpicturesque excreta. The modern medicine, of which we haughtily own ourselves disciples, has bulwarked itself with facts picked up on excursions of research in sputum, pus, and urine. In the feces new worlds of scientific

wealth await a heroic Columbus; and in uterine curettings, however homely they may appear to barbarian eyes, are pathologic pictures which charm the appreciative seeker, and which are of incalculable worth since they indicate the way to rational therapy.

The second class embraces those who use the utmost pains to gather diagnostic evidence, but who deem the examination of curetted material to this end a matter of small importance, preferring to contemplate the clinical symptoms and to examine locally with the speculum and finger.

Preliminary dilatation of the cervical canal sufficient to allow passage of an exploring finger is not unaccompanied by danger; indeed, fatal shock has been reported as its result. Curettement is the less heroic method, even with the possible attendant risk of perforation and peritonitis. Anesthesia is unnecessary, and with the aid of a rapid method of sectioning and staining like that of Thomas S. Cullen, of Johns Hopkins, the diagnosis may be made at a single sitting. Under some circumstances, as in the case of virgins, narrow senile vagina, elongatio colli, or fibroid uterus, digital intrauterine exploration may be impossible. The finger cannot always distinguish benign from malignant neoplasms, but the removal of tissue with the curette leads to positive decision.

Without introducing the finger into the cavum uteri, fragments of endometrium may be removed by the sharp spoon, and a decision, at least as to the character of the piece examined, may be made; and with practice the condition of the entire endometrium may be determined with the microscope.

The procedure is indisputably indicated whenever suspicion of carcinoma or sarcoma exists; and this suspicion, it will be conceded, is well grounded whenever, in spite of well-directed treatment, recurring hemorrhages from the uterus present themselves at or near the time of the menopause.

In removing tissue by the curette for examination, it should be remembered that malignant disease generally has its beginning in the mucosa and that its indication is indicated by unevenness of the surface. The pieces therefore, should be taken from these roughened areas. Wherever allowable the cervical canal should be dilated to a diameter of about five millimetres. The curette or sharp spoon glides in easily, and with short, vigorous movements scrapings may be taken from the suspicious spot or from the entire endometrium as desired.

The manner of preparation for the microscope which has proved most useful is Ludwig Pick's modification of the method of Thomas S. Cullen, of Johns Hopkins University. The technique is as practicable in any physician's office as in an expensively equipped laboratory. The procedure has already been described in this Journal and is briefly as follows: The piece of tissue to be examined is brought directly from the operator's knife or curette on to the table of the Jungs-Höbel freezing microtome. This instrument is the "simplest cutting apparatus imaginable." It consists of a steel cylinder through which an ether spray plays on the under surface of a metal platform of about the diameter and thickness of a half-dollar piece. The knife, the exact counterpart of a car-

penner's plane, is set at right angles to the cylinder, in the short arm of a lever. In placing the tissue upon the microtome care should be taken that the knife cut vertically to the surface of the mucosa. (The microtome costs, in Germany, seven dollars.)

After cutting, each section is wiped off the knife blade with the finger tip and floated into a four per cent. formalin solution. After hardening for four minutes in the formalin, the sections are rinsed in water and brought for four minutes into four per cent. alum carmine. Then, after again rinsing with water, they are placed successively in eighty per cent. alcohol, absolute alcohol, and xylol, remaining four minutes in each. The sections are then ready to mount in Canada balsam.

By the employment of the four per cent. aqueous formalin solution, the difficulties otherwise incident to the management and study of frozen preparations (such as shrivelling, friability, falling out of important parts of tissue rich in cells, and imperfect translucency) are done away with at a single stroke. The formalin hardens the sections and gives the desired toughness without shrinking.

Specimens prepared according to Pick's technique render for diagnostic purposes very satisfactory service—for example, in the diagnosis of neoplasms, inflammations, and erosions. Although treated with but one stain, the alum carmine, the sections show in the different tissues different shades of color, so that in point of distinctness they are hardly inferior to the more elaborately and tediously prepared electively stained specimens. The preparations are so durable that they may be kept for years.

The most appreciated service of diagnostic curettement, as was stated, consists in the distinguishing of benign from malignant conditions. In benign diseases we find the normal elements of the endometrium, intercellular substance, connective-tissue cells of round and fusiform shape, and glands with a single layer of epithelium.

Abortus is characterized by the large decidua cells and the general spongy structure, the sponginess being due to the presence of the large lymph spaces. Absence of connective tissue or epithelial infiltration of the same, metamorphosis of the cylindrical epithelium of the glands, the presence of giant cells or of other complex elements and the appearance of cancer pearls, the concentrically arranged masses of flat epithelium, indicate malignancy.

Veit has said that in rendering an opinion, for example, to the surgeon who has sent for examination a piece of tissue, one of three expressions may be chosen—benign, doubtful, or malignant.

Every man who approaches the examination of curetted matter must lay it upon his conscience to strive to give consistently one of these opinions. If the opinion be that it is malignant, then clinical evidence must help to locate the point of origin and the extension of the malignant disease. The method described serves only for qualitative diagnosis. After the microscopist's positive answer, "malignancy," it becomes the duty of the surgeon to remove all the involved tissue, is this still be possible. The opinion "doubtful" means the procuring of new material

for examination and further clinical observations. The diagnosis "doubtful" will be given, however, by a careful pathologist only after all of the accessible material for examination has been exhausted. The diagnosis "benign" is given when the normal characteristic tissue elements of the endometrium and underlying structures are preserved. It is to be remembered that it is the duty of him who takes the tissue from the uterus for examination to see that it comes from the most malignant or suspicious spot, since the pathologist can only answer for that tissue which he has examined.

Some information may be gathered from examination of the curetted matter in the gross specimen. Color, consistence, odor, quantity, and the character of the surface should all be recorded. The cellular composition of the tissue, however, and its deviations from the normal, cannot be accurately determined without the microscope.

No intelligent examination of curetted specimens is possible without a thorough understanding of the histology of the standard of comparison, the normal uterine mucosa; therefore the following salient histologic facts must be borne prominently in mind: The cervical mucosa is covered with delicate cylindrical epithelium. The surface is thrown into inundations. Indigitations of this mucosa from the crypts and glands, some acinous, some bottle shaped, all lined with beautiful decorative epithelium. A third variety of glands, the tubular glands, are single or double, or sometimes branching like deer antlers. The epithelium in these glands is tall and narrow. Upon the surface mucosa the cells are somewhat shorter. The nuclei occupy a basal position and take up the aniline dyes greedily. After the menopause the mucosa here is somewhat less corrugated, and many of the gland-forming indigitations are obliterated by occlusion of the neck, the cavity of the gland persisting as a cyst. The point of union of this cylindrical epithelium with the flat epithelium of the vaginal portio varies with age, but in ripe sexual life it generally occurs at the orificium externum. The so-called pitcher-shaped cells, which are sometimes counted among the normal elements of the cervical mucosa, represent pathologic metamorphosis of the ordinary cervical epithelium and are not to be considered as normal cells.

The mucosa of the corpus uteri presents a more smooth surface, covered everywhere with a single layer of shorter epithelium. The cells here are almost cuboid. The nucleus is oval in contour and occupies the middle of the cell. The glands of the corpus penetrate almost to the muscularis. They are like those of the cervix, except perhaps more worm-like and turtuous. The mucosa of both corpus and cervix lies upon a connective-tissue stroma in which the blood vessels and nerves ramify. The connective-tissue cells are round or fusiform, with great nuclei almost filling the cell bodies.

The round connective-tissue cells resemble lymph corpuscles, which resemblance has led to the designation of this stroma as lymphoid tissue. The intercellular substance is made up of a homogeneous material containing delicate fibres. During menstruation this stroma is markedly edematous. The muscularis is made up of smooth muscle tissue.

The pathologic deviations from this normal structure which diagnostic curettage may reveal may be enumerated as follows: endometritis interstitialis, endometritis decidualis, remnants of abortion, endometritis tuberculosa, endometritis gonorrhoeica, endometritis glandularis, glandular polyp, adenoma benignum, adenoma malignum, carcinoma, adenoma carcinomatosum, carcinoma adenomatodes, sarcoma, deciduoma malignum, and echinococcus. Not every endometrial pathologic condition is included in this list. Mention of some is omitted because the contraindicate curettement—for example, endometritis acuta septica; and of others—for example, endometritis dysmenorrhoeica, hemorrhagica, and exfoliativa—because they present in examination of fragments no distinguishing peculiarities.

The characteristic changes in interstitial endometritis take place in the stroma, in the subepithelial layer. We find in this condition the connective-tissue cells increased in number and the stroma infiltrated with leucocytes. The acute form may terminate by resorption of the round-celled infiltration (*restitutio ad integrum*); or may become chronic, in which case the glands of this layer are compressed out of existence, the connective-tissue elements are increased, the round connective-tissue cells metamorphosing to the spindle form, and instead of the loose reticulated subepithelial layer we find nothing between epithelium and muscularis but quite dense connective tissue, through which are sprinkled a few glands. In time this connective-tissue layer may become thinner and still more cicatricial or cirrhotic. This is the endometritis of old age, or endometritis interstitialis atrophicans.

Decidual endometritis is always found after an abortion in the early months. The spaces between the large decidua cells show infiltration with polymorphonuclear leucocytes. The diagnosis of remnants of abortion may be made upon the discovery of the chorionic epithelium, the inner layer of which is made up of cuboidal cells, the outer of a homogeneous line of protoplasm dotted with nuclei. This outer layer is known as the syncytium. The interior of a villus is made up of mucoid tissue and is richly supplied with blood vessels. It is not hard to recognize these villi in the curetted mass, as the finger-like prolongations of vascular mucoid tissue covered with the two layers of cells are unlike any other structures.

Diagnosis of tuberculosis of the endometrium is practically impossible without curettement. The usual symptoms—disturbed menstruation, discharge, and enlargement of the uterus—are quite inconstant, and a certain diagnosis can be made only by microscopic examination of curetted matter or exercised fragments. The typical tubercles, consisting of giant cells surrounded by epithelioid cells and lymphocytes, are most in evidence in the superficial layers of the stroma, immediately under a pale but intact layer of epithelium. Uterine tuberculosis generally begins high up in the fundus and secondary to a tuberculous tube—a fact to be borne in mind in removing the tissue for examination.

Endometritis gonorrhoeica is easily diagnosed, since its specific germ will be stained with the rest of the section. Its unusual size, its coffee-bean form, and its intercellular grouping are characteristic.

In endometritis glandularis or hyperplastic endometritis, sometimes ridiculously called fungoid endometritis, the investigator finds upon examination a symmetrical hyperplasia of all parts of the mucous membrane. The glands are always increased in number and dilated, as during menstruation. The glands in many cases may be regarded as the sole cause of the hypertrophy of the membrane. In some preparations they are not only dilated, but also elongated. The cross, slanting, and longitudinal sections of these glands fill the field encompassed by the lens. The arrangement of the glands is always typical.

If a circumscribed area of mucosa is much thickened by glandular hyperplasia, we speak of the thickening as a polyp. Now, if this polyp assume proportions entitling it to the dignity of a place among the neoplasms, we speak of it as a benign adenoma, or an adenoma benignum. In a section of adenoma benignum and glandular polyp we discover, therefore, practically the same changes from the normal as in glandular endometritis, all representing simple overgrowths of normal gland tissue, the only difference of kind being that in the last named there is more copious round-celled infiltration. In the case of adenoma malignum an atypical growth of glands is present. The gland lumina wind about in a tortuous, fish-worm-like manner, anastomosing everywhere. In the case of adenoma benignum we distinctly see the basement membrane of each gland supporting a ring of intact epithelium. The single layer of epithelium can be traced from any given point of beginning around the wall of the gland tubule and back to the starting point. If in the adenoma malignum we were to attempt to follow the cross-section ring of the epithelial lining of any gland, tubular or acinous, the eye would be led curling, zig-zagging all over the field, for the reason that the gland lumina anastomose very freely and irregularly.

The adenoma malignum presents a maze of gland cavities lined with several layers of cells. The epithelium is also polymorphous and quite unlike the clean-cut cells of the benign adenoma.

In the case of carcinoma of the uterine mucosa we may find the well-known "figura typica" of carcinoma, showing the thin or thick connective-tissue septa—thin if the carcinoma be medullary, thick if it be scirrhus—these septa enclosing alveoli in which are scattered the polymorphous epithelium cells. In carcinoma which has developed from the flat epithelium of the portio vaginalis, we encounter the finger-like prolongations of flat cells dipping down between the papillæ of the epidermis-like covering of the vaginal portio and invading connective-tissue structures in which epithelium does not belong. We will be sure of our diagnosis of flat-celled portio carcinoma if we find the little bodies so familiar to all students of pathology—the concentrically arranged clumps of flat epithelial cells, the cancer pearls or cancer onions. The peculiar hyaline cells, which closely resemble budding yeast forms or blastomycetæ, and which Roncali, Sanfelice, Park, and others regard as the etiologic parasites of cancer, may be brought to light by the more or less complicated staining methods developed for this purpose by the investigators named. It remains to be proved, however, that

these structureless bodies do not represent mere degeneration of classical cancer cells. There is reason to believe that the significance which the Italians have placed upon the presence of these bodies in tumors will be lost, as was the case with the various cocci, bacilli, gregarinæ, coccidia, hematozoa, and amebosporidia which have been presented at different times as the specific etiologic parasites of tumors.

The "figura typica" of carcinoma of the corporeal or cervical mucosa and the cancer pearls of flat-celled uterine carcinoma will not escape the detection of the pathologist of even small experience. They are discoverable in the very early stages of the disease, when there is still hope that surgery can save life. What may be done in the way of microscopic diagnosis of uterine carcinoma has been perhaps fairly exemplified in the laboratory of Professor Orth, in Göttingen, where in twenty years some 2,300 specimens from suspected cancer of the uterus have been examined, with error in diagnosis in only three instances. In the language of Roswell Park, "What this all means to a given patient may be easily left to the imagination."

If in a neoplasm, the tissue of which is mostly that of the adenoma, a focus is found which is undergoing true carcinomatous degeneration, or where the alveolar "figura typica" is demonstrable, the growth is denominated an adenoma carcinomatosum.

It sometimes happens that the polymorphous epithelium which almost entirely fills the alveoli in carcinoma may be removed from the centre of a few of the cavities by necrosis or by mechanical violence; and because of the resemblance to the gland tissue which this dropping-out of the central epithelium of the alveoli imparts to the carcinoma picture, we speak of such a cancer as a carcinoma adenomatodes.

The diagnosis of sarcoma is difficult to frame from simple examination of curetted fragments; the simple small round celled sarcoma presents a picture so much like that of granulation tissue that it is sometimes impossible to differentiate the one from the other. The perfectly alveolated sarcoma likewise cannot be distinguished from carcinoma.

If, however, we meet a growth made up for the most part of fusiform connective-tissue cells or giant cells, or both, we may be almost certain of the diagnosis sarcoma. Clinical evidence is, as a rule, more valuable than microscopic disclosure in pointing out uterine sarcoma, yet many times the microscope has given early diagnosis when the clinical manifestations had not made appearance, as was true in the following well-known case: In the clinic of Professor Landau, in Berlin, a patient was recently anesthetized for the purpose of making a celiomyomectomy. During the course of the operation the uterus was curetted. The professor removed some granular, brittle material of suspicious appearance, which was handed to Dr. Pick for examination. Dr. Pick examined the material by his rapid method and found the microscopic picture of deciduoma malignum, and the uterus was extirpated forthwith under the same anesthesia. This deciduoma malignum is a peculiar malignant neoplasm of the uterus, described first a few years ago by Sanger. It appears during or immediately following pregnancy. It has been

regarded as a growth from the decidua, partaking of the character of both sarcoma and carcinoma, and has been designated as deciduoma malignum. Its place in pathology, however, is not quite certain. Later investigations have indicated that it is not a neoplasm of the decidua, but of the chorionic villi, and that the syncytium, or the outer of the two layers of epithelial cells which cover the chorion, presents the soil from which it grows. Being developed from epithelium, and composed of maternal cells from the syncytial layer and of fetal cells from the inner of the two layers of villous epithelium (Langhan's cells), and merely accidentally enveloping a few decidual cells being therefore an epithelial growth, it should be regarded as a carcinoma and not as a sarcoma. Without pregnancy the neoplasm is not possible. The presence of ribbons of homogeneous matter dotted with nuclei, or, in other words, the presence of syncytial cells, is characteristic of the syncytioma malignum, deciduoma malignum, or chorio-carcinoma, as it has been variously called.

In curetted matter from a uterus harboring the echinococcus there can be found the peculiar vesicles and hooks and succinic acid.

It is probable that a method of examination like diagnostic curettage, which demands of the examiner somewhat more than usual care in the technique of curettement and in the use of the microscope, will not be universally applied; nor need we be hypercritical if, after application of the method by a skillful man, some uncertainties of diagnosis still remain. It may still be said with truth that of all clinically undiagnosed cases the majority may be elucidated with the microscope by one who regularly embraces every opportunity to examine the normal and diseased endometrium. The practice which one receives in examining normal and mildly pathologic conditions will certainly be of great service when one is called to investigate obscure conditions. The diagnostic curettement is not more than an auxiliary to clinic and anatomic diagnosis; therefore, he who takes the tissue from the living woman for examination, as well as he who uses the microscope, must have mastered the other and more universally powerful means of diagnosis. The gynecologist and the gynecologic pathologist should, if possible, be represented by one man.

In the language of G Veit, the pathologic anatomy of the organs peculiar to women is not playfully inserted into the text books of gynecology. A man cannot be regarded as a gynecologist because he knows enough to insert his finger into the vagina or apply through the speculum this or that remedy. It cannot be denied that if he would meet the universal demand he must be competent to grasp the knife and operate at least as well as the general surgeon; and, just so, if any gynecologist would be regarded as something more than a routinist, he must know the pathology of the organs with which he deals, at least as well as the general pathologist. — *Journal of Obstetrics.*

CHRISTIAN SCIENCE DEMONSTRATION WITH COMMENTS,

BY J. H. R., TORONTO.

Boy Ran Over by a Wagon and was not Hurt.

"A neighbour came running in and exclaimed, 'Oh! Mrs. George, I wish you would treat Freddy, he has been run over by a large wagon loaded with stone, and he is in great pain.' I at once realized how impossible it was for God's spiritual idea to be run over or injured in any way. I quickly but calmly *finished my work*, and dressed myself, declaring the truth all the time. When I reached their home the mother told me he had stopped crying in a very few minutes after she entered the house and was sleeping. On awakening there was nothing the matter with him.

Query 1. Did such never happen before?

Query 2. Have not children been run over by wagons and trollies and been *killed*? Oh! I see—they were not "God's Spiritual Ideas," their parents were not Christian Scientists. That explains.

Query 3. No, I am wrong "Gods' spiritual idea" *cannot* be ever run over.

Query 4. Then Freddy's mother must have told "a high attenuation of truth."

Lame Hen Cured.

"I am a little girl 12 years old, I treated a sick hen once of being lame, by our little prayer and the Lord's prayer. She kept getting better every day, and at last she was healed. —*Washington News*, May 31, 1899.

Frog Cut Open, Healed by Christian Science.

"A boy in the street found a frog and cut him open with a rusty knife so that his lungs were exposed. A boy named Herbert in C.S.S.S. got some cotton and laid it in it. *He talked* Christian Science to it at times. He kept it up next day and evening, the third day it hopped away."—*Washington News*, May 31, 1899.

Woman treated by Ch. Sc. for three months not cured of anything. Reading S. & H. cured her.

A woman had toothache, dyspepsia, *Brights disease* for 25 years.—In fact her whole "cistem" was out of order. Tried everything—heard of Ch. Sc.; took a *treatment*; that night slept; bought S. & H. and says, 'I have not taken a dose of medicine from that day.' "Well," some may say, "If I had all these things healed I would believe in Ch. Sc. too." "My friend, I took three month's treatment, paid weekly, and at the expiration of that time *was not cured of one thing*. I took the case in my own hands."

Moral.—Buy Sc. & H.; that will cure everything.

Ch. Sc. healers are no more good than N. Y. ward healers.

Climate has no Intelligence.

Woman—from childhood had been full of disease—tried everything—no good. "I then went west, but soon found climate had no intelligence."

Finger cut—did not even bleed—next day was healed.

"An adjustable chair fell down, taking a piece out of my little finger *clear down to the bone*. It *did* not bleed at all. The next morning it was all healed over." None but those who believe that "locomotion does not depend on material organization," will believe that. (S. & H., p. 251.)

Fracture of the forearm.

After two years—all right.

What a wonderful, nay, miraculous, cure by Ch. Sc! The woman goes on to say—"I was a Presbyterian for over twenty years, but I never realized what religion and the love of God was until I came into Ch. Sc. *Now* I am trusting in truth; I can see how I can love my neighbors and my enemies."

What surgeon, I would ask, has not seen many cases of fracture of the arm which have quite recovered after *two years*, without the aid of Ch. Sc.?

Twenty years a Presbyterian and yet had to learn the Truth and see how she could love her neighbour and her enemies from Ch. Sc.!

Child mortification had set in.

"A child lay at the point of death—a scientist entered the room—the child began to improve *at once*, though mortification had set in."

Tell that to the marines, also Ch. Scientists.

16. Ch. Sc. Journal, Sept., p. 426.

This is a puzzler:

A woman—says she had "kidney complaint during a period of 25 years, until it reached Bright's disease in its most aggravated form. Then eyesight failed and I had to use glasses. Used doctor's, patent medicines, and home remedies. Several times I was raised, as if by miracle, from what seemed to be a bed of death." This was before she took to Ch. Sc., however.

Boy shot—bullet lodged in nose—after 8 months dropped out—Ch. Sc. cured him.

27. "A boy, while out hunting with a small rifle, was shot in the mouth while blowing the smoke out of the barrel of the gun. The bullet penetrated the roof of the mouth.

"About 8 months have elapsed since the accident, and the boy has suffered intensely at times."

The boy was put under C. S. treatment—eight days after the bullet fell down, the boy coughed and out came the bullet.

Observations.—1. There was a gun and a bullet—the gun was discharged—the bullet went through the roof of the boy's mouth, and after 8 months dropped out.

Query. If the boy had been a Ch. Sc. boy, would "denial" of any of these *facts* have prevented the bullet from dropping out?

2 Q. What had Ch. Sc. to do with the dropping out?

"Casting out a dumb Devil."

31. A young man was stricken with paralysis one Monday morning. The following Thursday Ch. Sc. was called for. During this time the man had not spoken, and lay motionless on the bed. Two physicians had been in attendance, but from the first had utterly failed to reach the case. After the treatment " (i.e., looking at the man and arguing mentally and silently) the healer went up to the bed and said, 'I know you are better.' *He opened his eyes, looked up, and replied, 'You have been casting out a dumb devil.'* Truth had done its work, and *while the patient was unconscious and knew nothing of Ch. Sc., he felt the power of the spoken word, (this is contrary to Mrs. Eddy's 'instructions')* and realized that the dumb devil had been cast out."

Querry. How did the young man *know that he had not spoken* if he was "unconscious"? A man in that condition would not even know anything which had transpired.

The young man was right. They had been "casting out a dumb devil." The young rascal

Woman tried to read S. & H. Could not understand a word.

42. Woman—dyspepsia for 6 years—seems to have bought S. & H., but does not say so. "*I tried to read the book, but found, to my disappointment, I could scarcely understand a sentence, and after struggling through the first chapter, laid it aside.*" Went to a healer—in 8 weeks was well, "*and able to read the book.*" (Ch. Sc. Sentinel, May 25, '99.)

Bridge of nose broken—lecture—nose wriggled—nose all right.

43. "Eight or more years ago, the bridge of my nose was broken—*the lower part of the nose could be moved.*" He went to a lecture on Ch. Sc. "For some days this passage of Scripture kept recurring to my attention: 'I shall be satisfied, *when I awake, with thy likeness;*' when finally settled for the night, *the bridge of my nose seemed to wriggle.* No possible volition of mine could move it without hands. When I awoke the nose was all right." (Ch. S. Sentinel, July 13, '99.)

Man hurled 20 feet by an iron wedge flying up, hitting him on side of head—not hurt.

44. Man struck while hewing logs in the woods. "He had an iron wedge under his side of the log, and in some way it *flew up*, and struck him on the side of the head, *landing him some twenty feet away!*" Was unconscious—carried home—Ch. Scientist sent for. "*About the time the Ch. Sc. received word, he fell into a quiet sleep—at noon he was able to eat a hearty dinner.*" (Ch. Sc. Sentinel, July 13, '99.)

Telegram sent—baby healed.

45 "Several months ago I *received* a telegram from a *distant* part of this State, to treat a 2½ year old baby for flux. *Just one hour after I received the telegram, baby was healed and at her play*" (Ch. Sc. Sentinel, April 6, '99.)

TORONTO CLINICAL SOCIETY.

The first meeting of the year—the fifty-fifth regular meeting of the above society was held in the Society's parlors, St. George's Hall, Elm St. on Wednesday evening, the 4th day of Oct. at 8.30 p.m.

In the unavoidable absence of the President, Dr. George A. Bingham, the Vice-President, Dr. W. H. B. Aikins occupied the chair.

Fellows present: Geoffrey Boyd; W. H. B. Aikins; F. LeM, Grasett; J. A. Temple; G. S. Ryerson; Fred. Fenton; H. J. Hamilton; A. A. Small Graham Chambers; G. W. Badgerow; E. F. King; J. O. Orr; A. A. Macdonald; Allen Baines; Adam Wright; A. J. Harrington; W. B. Thistle; Charles O'Reilly; H. B. Anderson; W. H. Pepler; K. McIlwraith; H. A. Bruce; G. Silverthorn, and George Elliott.

Nominations for membership: Dr. D. J. Gibb Wishart by Drs. Elliott and Pepler.

Dr. J. A. Temple drew the attention of the society to the fact that this was the first meeting since the death of one of the Fellows, the late lamented Dr. J. E. Graham, and moved that the following committee be appointed to draft a letter of sympathy to the widow and family of the deceased member: Drs. Grasett, Ryerson, Baines, Macdonald and Temple. Carried.

Dr. Boyd announced at the time of the death of Dr. Graham that, on instructions received from the president of the society, he had then written a letter of sympathy to the family.

The use of Peptones in Typhoid Fever.

Dr. Fred. Fenton read a paper with this title and reported the results obtained with this plan of treatment in two cases. The first case was that of a man aged 21 years, a patient in the T. G. H. in 1892. The patient had just passed through a severe attack when a relapse supervened. There were high temperature, low muttering delirium and uncontrollable vomiting which was a very marked feature of the case. The pulse was almost imperceptible, and the patient had a tendency to slip down into the bed. Swallowing became difficult or almost impossible and it was then decided to feed the patient per rectum. Ten hard-boiled eggs (the whites alone) were finely minced and mixed with milk and peptonized, and this quantity was administered every 24 hours, about a pint being used every four hours. When the rectum became irritable, liquor opii sedativus was employed. The patient got no nourishment by the mouth for nine days, and during that time he put on flesh. The disease terminated in about three weeks, the patient even putting on flesh during the period of fever.

The second case was that of a boy of about 11 years. This was also a very severe case and it was impossible to get him to take more than a few ounces of milk per day. He developed a troublesome hacking cough a few days after admission and there was marked consolidation of the base of the right lung, with attacks of cyanosis. He developed pneumonia, which condition was also present in the first case. Nutrient enemata—

were ordered for him every four hours, the mixture being peptonized some hours before being given. After this, there were no more attacks of cyanosis and there was considerable improvement. Both the whites and the yolks of the eggs were used in preparing the mixture in the latter case. To digest the milk in the first case, pepsin and HC₁ were used; in the latter, pancreatin. The pepsin and HC₁ mass was better than the other, because in the boy the rectum became very irritable quickly, so that it had to be washed out in order to ensure the enema being retained.

Dr. W. B. Thistle in discussing the paper stated that he has not had much experience with nutrient enemata in typhoid fever, because he has not had cases in which they could not be fed by the mouth. He favors the employment of the peptogenic milk powder in preparing the milk for ordinary feeding in typhoid cases. Here you get the peptonized milk and you also get the excess of sugar and he thinks this much better than the ordinary peptonized milk.

Drs. Baines, O'Reilly and Chambers further discussed the cases.

Microscopical Specimens.

(a) *Microsporon Andonini*.

(b) *Trichophyton Migale*—Sporon.

Dr. Graham Chambers demonstrated these specimens of the small spore and the large spore ringworm fungus under the microscope. The *microsporon andonini* was the cause of 70 or 80 per cent. of ringworm in the scalp of children and they never affect the surface of the body. The *microsporon* was not a *trichophyton* at all. Of the *trichophyton* there were two kinds, the small spore and the large spore. Some grew outside the hair and some inside. The speaker described the condition of the scalp and hairs in these cases and said that under the microscope, the large spores will be found in chains, joined, while the small spores are never in chains. In treating cases due to the large spores, there is hope of improvement in two or three months; but in the small spore variety, a cure will probably take you a couple of years.

Friedreich's Ataxia.

Dr. W. B. Thistle reported this case and read notes on the disease. He stated he was unable to present the patient because he lived out of town. The patient was a boy aged 10 years who was brought to the hospital on account of an attack of difficulty of walking. This was noticed from the time he was 4 years of age, and it progressively got worse. The father was healthy and never had syphilis or private disease. His mother died of phthisis and her family were free from any nervous diseases. No history of the grandparents could be obtained. The father, a German, came to this country while young and knows nothing about grandparents. The patient has two aunts, sisters of the father, and they were afflicted somewhat the same way as this boy. There is also in the family an elder brother who was afflicted in the same way. In the elder brother, the disease came on at the age of 7 years, and now at 14 years of age is quite unable to walk and has marked ataxia. As regards the previous history

of the patient, there was no difficulty at birth, and the boy was perfectly well until about 4 years of age. Then it was noticed he was somewhat uncertain in his gait and frequently stumbled while walking. The condition has increased gradually but not very rapidly. He has that peculiar lack of facial expression and holds his head on one side. One side is markedly different from the other; and at first glance, he looked somewhat like a case of birth palsy. There was no nystagmus in this case and no abnormal condition noted in the eyes. The doctor sought closely for nystagmus and did not obtain that symptom; the pupils were equal and reacted normally to light. With the eyes closed, the patient swayed and would have fallen. Speech slow and difficult, so that he stumbled over words and halted or hesitated. Sight was good; hearing quite normal. Locomotor system: had moderately marked ataxia, worse on excitement. Inco-ordination was also marked in both hands but not to the same degree as in the feet and legs. The inco-ordination was shown when he was asked to button his coat. There was no paralysis and no indication of muscular weakness. Sensory system: there was no abnormality with reference to sensation. Tactile sensation perfect for testing heat and cold and testing painful impressions, but located impression gradually. Reflexes: knee jerks; are gone absolutely on both sides; plantar also absent; cremasteric, quite normal. Nutrition: skin was healthy looking; no atrophy and no evidences of atrophic disturbance. The rectal and bladder functions were quite normal. With reference to the feet: he had the characteristic clubbing of both feet, that is, shortening of the plantar arch and condition of hammer toe, particularly noticed in the big toe. The arch of the foot was lifted very much and the ball of the great toe was approximated to the heel; and the great toe itself was flexed and stood up almost at a right angle from the dorsum of the foot. In the family history, this condition of inco-ordination coming on in this way in childhood, gradually getting worse, made it quite clear that it was ataxia of spinal type as distinct from the cerebellar type. In the cerebellar type, he would likely have had some palsy, particularly of the tongue and other muscles. The lesion affects the posterior columns crossed pyramidal tracts, direct cerebellar tract, and anterior lateral tract, with the probability that it is more extensive in the posterior columns. These cases have been studied fairly well and an abundant examinations of cords made, and the pathology seems to be pretty well worked out. It is generally considered to be of the nature of a developmental defect, that is hereditary and congenital; and the occurrence of an infectious disease precipitates the occurrence of the symptoms and intensifies them. There is no reason however, in this case, to attribute anything to infectious disease. Unfortunately, there was nothing that could be done to remove the condition and the prognosis is unfortunately rather bad, that is in reference to the recovery. These patients live a long time—the longest on record being about 46 years after the appearance of the symptoms; but sometimes the condition becomes extreme in a very short time and the patient may last only two years. This is the shortest period; very likely to last between 15 and 30 years. The prognosis as to length of life is not good. Coming on at 4 years of age, it would not be likely that he would

live much after twenty. Then there is the off-chance, that the condition might become stationary; this has been noticed in these cases. They may become stationary for long periods and then they may take on further development. Intelligence does not suffer much, but in the later stage the intellectual functions do become somewhat impaired; but in this boy's case he was quite bright, perhaps more than ordinarily so. There are several conditions which might easily be mistaken for Friedreich's ataxia, if you do not have a very clear family history; but in this case with a brother and two aunts afflicted, there was no difficulty in the diagnosis. But if the case had come under observation during the advanced period it would be rather difficult to distinguish it from ataxic paraplegia and this affects about the same regions as ataxic paraplegia. However, in ataxic paraplegia you are very likely to have some involvement of the sphincters and involvement of the sensory functions. There is now a case in ward five at the Toronto General Hospital, who has difficulty in speech. There are no eye symptoms; but marked ataxia and increase of the reflexes instead of loss as in this case. Cerebellar tumor might look like the cerebellar type of Friedreich's disease, but in addition you would get the constant headache and vomiting; and the duration of the condition is very much shorter than cerebellar tumor. Primary lateral sclerosis occurs also as a congenital defect. That condition occurs also in early life and would have a very close resemblance to Friedreich's disease; however, if you had the nystagmus present, it would be strongly in favor of Friedreich's disease. In primary lateral sclerosis, there is a more spastic condition, without so much inco-ordination. It is easily distinguished from the birth palsies, because you have marked cerebellar symptoms there.

Dr. H. J. Hamilton asked Dr. Thistle whether there was any tendency whatever to swaying movements of the head or any scoliosis present, as Dr. Thistle had spoken of the tendency of the head to lie upon one shoulder.

Dr. Thistle: There was no rotatory movement. You do get that in the cerebellar form, but this was a typical spinal type. There was no scoliosis whatever.

Fracture of Femur.

Dr. A. J. Harrington exhibited a fractured femur from an old lady of 76 years as the result of a slight injury. In a scuffle she was shoved over and struck her thigh on a hat-rack and then fell on the floor. It showed the great friability that these bones possess at this time of life, and it is really wonderful with that extreme condition, how she could walk about with the bone in such a weak state. Delirium had set in on the second day and she died thirteen days afterwards.

Refreshments were served; then adjournment.

GEORGE ELLIOTT,
Recording Secretary.

Outline of the proposed plan for the economic treatment of pauper inebriates, with suggestions with regard to some of the details.

The appointment of an Inspector by the Government who might be called "Inspector of Hospitals."

2. The Inspector, under the authority of the Provincial Secretary, will organize cottage hospitals where practicable and will confer with hospital authorities with a view of organizing an inebriate department in the general hospitals of Ontario.

3. In organizing either cottage hospitals or inebriate department in general hospitals he will visit the locality and make all the arrangements necessary, including, (a) making arrangements with hospital trustees and hospital staff for the reception and treatment of patients, (b) conferring with the Mayor and city authorities, firstly, with regard to an extra per diem rate for city patients, and secondly, with regard to giving employment on public works to men subsequent to treatment, thirdly, with regard to making a grant to help pay a local agent. He will also confer with local philanthropic societies with regard to the appointment of a local agent, who, it may be suggested, might be either a truancy agent, an agent of the Childrens' Aid Society or an officer of the Y.M.C.A. The duties of the local agent will be firstly, to induce inebriates to undergo treatment, secondly, to visit and encourage them while under treatment, thirdly, to make provision for their employment, and fourthly, to endeavor to change their environment and to place them in a higher plane of life and living.

4. The Government should make a grant to cover the following expenses: (a) salary of inspector, (b) office expenses of inspector, (c) travelling expenses of inspector, (d) grant for aiding discharged inebriate patients. This grant should be disbursed either by an inspector or by the Prisoners' Aid Association and the amount for each hospital should be determined by the amount contributed locally for the same purpose, and the Government grant should in no case exceed the amount contributed by the former.

5. The Government should formulate the terms upon which aid should be granted to hospitals to promote the treatment of inebriates. This grant should be given only when all the conditions are complied with. One might suggest the following: Namely, for the first ten days, twenty cents a day extra; for the second ten days, ten cents a day extra; subsequent time, the ordinary hospital per capita grant.

6. The conditions upon which extra per capita grant should be made to hospitals are suggested as follows: (a) the hospital to provide a reception ward altogether apart from other patients and where they should be detained for a few days before being admitted to the hospital wards proper; (b) medical treatment to be arranged between the inspector and the medical superintendent; (c) all cases shall be reported to the inspector on reception and the report shall be according to a special form designed for this purpose; (d) the hospital authorities shall co-operate in every possible way in the work of reformation of inebriates both during and subsequent to treatment in the hospital.

7. It may become necessary to extend the Inebriate Act of Ontario to include general hospitals so that patients may be compulsorily detained when necessary.

8. In dealing with police cases, it might be well in many cases, instead of sending the inebriate to the hospital direct, to have the man

remanded by the magistrate for a week, and in the meantime afford him an opportunity, in the county jail, of recovering from his last debauch. At the end of the week the magistrate could give the man the option of either going to jail for a month at hard labor or of entering the hospital for two or three weeks for treatment. In the latter case the co-operation and sympathy of the police magistrate and the jail surgeon should be secured, if possible, in behalf of this reformatory effort.

9. According to a careful estimate fully 30% of inebriates receiving medical treatment and having a helping hand extended subsequent to treatment (as above outlined) may be restored to society. If not more than one half of this number can be reformed, the effort will surely not have been in vain.

10. It is also suggested that it be made a criminal offence to offer intoxicating liquors to a person who is known to have received treatment for inebriety at public expense.

Approved by the Toronto Medical So.

(Sgd.) D. GILBERT GORDON,
President.

October 24th, 1899.

THE TREATMENT OF PRURITUS.

In treating pruritus it should be remembered that it may be both primary and secondary. In the primary cases it is simply due to some local irritation of the skin; in the secondary cases it arises from Bright's disease, jaundice, diabetes, acid dyspepsia, and similar conditions. Pruritus can also be divided into generalized itching and local itching. The generalized form often comes on periodically, and its onset is often produced by disturbance, of the emotions, severe intellectual disturbances, marked alterations in diet, sudden variations in temperature, and particularly the development of heat of the skin when the patient gets into a warm bed after undressing in a cold room.

Besides these forms we also have that generalized form of pruritus which is seen in old persons, and apparently depends upon malnutrition of the skin and upon gouty tendencies. In the way of localized pruritus we have that form which invades the neighborhood of the anus and is most frequently aroused at night, affecting often the coccyx and scrotum, and often aggravated by the presence of hemorrhoids.

In women we frequently have pruritus of the vulva produced by pregnancy, the menopause, and local irritation. Pruritus of the prepuce in males is often due to the passage of the diabetic urine. Very rarely indeed pruritus of the palms and plantar surface is met with. This affection, although rare, is usually persistent.

In making a diagnosis of pruritus it must be remembered that anal pruritus may be due to the presence of seat-worms, and that itching of the skin in other portions of the body may be due to various parasites, such as pediculi and scabies.

The treatment of pruritus depends very much upon the condition which produces it. In cases of jaundice, the use of phosphate of sodium and similar substances will often be advantageous. Dietetics will perhaps do the most good in cases of diabetic pruritus; taking care of the skin and the use of diuretic drugs may be of advantage in cases of renal disease.

As rule in diabetic cases, articles capable of undergoing fermentation in the alimentary canal should be avoided, particularly rich, greasy foods, and only small quantities of alcohol should be allowed, the patient living largely on green vegetables and roast and broiled meats. In many instances, particularly in those of gouty tendency, weak alkaline mineral water may be employed with advantage. Internally a prescription such as the following may be used to allay nervous irritation :

Valerianate of ammonia, 30 grains ;
Tincture of valerian, 2 drachms ;
Peppermint water, 3 ounces.

Two teaspoonfuls of this in a wineglassful of infusion of chamomile flower may be given three times a day.

In other instances where there seems to be intestinal fermentation a pill composed of carbolic acid 1 grain, extract of valerian 4 grains, given three times a day, may be useful.

Locally the treatment should consist in hot douches applied daily for the period of a minute, particularly over the vertebral column. In other instances full baths in which almond meal or starch-water has been added may be employed with advantage. In still other cases the addition of a quart of vinegar to the bath may be useful ; and in still others the parts may be locally enveloped in a cloth wet in an infusion of cocoa leaves in the strength of one per cent. In the way of sedative lotions the following may be employed :

Carbolic acid, 15 grains ;
Glycerin, 1 ounce ;
Water, 3 ounces.

Or,

Vinegar, 1 ounce ;
Hot water, 3 ounces.

Or,

Hydrate of chloral, 30 grains ;
Glycerin,
Alcohol, of each 3 drachms ;
Water, 3 ounces.

In other cases hot water alone is of advantage, and finally may be used a lotion composed of

Corrosive sublimate, 2 grains ;
Alcohol,
Cherry-laurel water, of each 1 drachm ;
Water, 3 ounces.

In the way of ointments the following are useful :

Menthol, 15 grains ;
Vaselin, 3 ounces ;
Carbolic acid, 15 grains ;
Oxide of zinc, 2 drachms.

Or,

Talc,
Oxide of zinc, of each 1 drachm ;
Powdered camphor, 15 grains ;
Vaselin, 3 ounces.

In some cases a dusting powder may be useful, as for example :

Talc, 2 ounces ;
Subnitrate of bismuth, 2 ounces ;
Oxide of zinc, $\frac{1}{2}$ ounce ;
Powdered camphor, 30 grains.

Orthoform has been employed in powder or ointment in some of these cases with temporary benefit, but it sometimes causes local irritation of the skin.

In some instances the application of the continuous galvanic current to the skin is of advantage, the positive pole being placed over the itching part and the negative pole at some distant point.

In very malignant cases good results have followed linear scarifications or the use of superficial cauterization with the thermocautery or with the electrocautery.

Of course, these methods are only useful in cases in which the affection is localized.—*Journal des Praticiens*, June, 1899.

CHRYSAROBIN A SPECIFIC FOR WARTS.

G. M. Fitz. in the *Boston Medical and Surgical Journal* of June 29, 1899, says that since 1895, when Dubreuilh called attention to the presence of warts on the feet, the characteristic differences between warts and corns have been more or less generally recognized. Warts on the feet are readily distinguished by their location (usually upon the plantar aspect of the foot) and by their bleeding from a central, vertical bundle of papillæ arranged like a pepper-box and ordinarily projecting somewhat above the pared surface. This central bundle of papillæ is surrounded by a thickened area of skin penetrating to a greater or less depth and an outer painful zone of inflamed skin.

In 1891 Dr. Fitz. saw for the first time a wart in this situation and attempted to cure it with salicylic acid in collodion. He found after a trial of three weeks that this was not effective. He was then led from its superficial resemblance to the lesion of psoriasis (bleeding points) to try a solution of chrysarobin in gutta-percha. The wart was thoroughly pared until there was profuse bleeding, and the solution applied to the denuded surface. The patient was directed to cut the surface every night and apply the chrysarobin. In a few days the pain disappeared, and the wart seemed diminished in size. In two weeks' time the wart was practically gone and the surface restored to its normal condition.

Since that time he has been able to apply chrysarobin in eight cases of warts similarly located. Some were apparently due to stone bruises; others to the irritation of defects in the boot; and of others, again, no history could be obtained. In one case there were three warts on the ball and two upon the heel of the same foot. Several of the cases came to him after having been treated for months by salicylic acid without success, even though the physician in charge had made the application himself each week.

In most cases the chrysarobin produced little effect before the end of the first week, except that the pain became less and the wart did not increase. In the second week change was rapid in most of the cases, although in a few cases there was still little effect. In the third week the majority were cured.

In the series of eight cases there have been no failures. Two apparent failures were traced to difficulty in paring the wart, and as soon as this was remedied by sandpapering the cure progressed favorably. On the whole, careful thinning of the surface with a sharp, fine glass-paper gives better results than paring with a knife, as the patient is less afraid of injuring himself and can more conveniently handle the paper.

Dr. Fitz's experience has been that chrysarobin may be applied either in a ten per cent. solution of the ordinary gutta percha solution or in a ten per cent. ether solution. It is best to apply the chrysarobin at night, and to advise the patient to put on an old stocking, to prevent soiling the bedclothing. Application once a day in this way seemed ordinarily to be sufficient, but in obstinate cases it should be applied both night and morning.

The influence of the chrysarobin seems to be not only upon the keratinized portion of the skin, but also upon the proliferated blood-vessels in the papillary central part, for both disappear and true skin is formed over the surface. No scab was thrown off, but a considerable thickness of the surface was removed in each case by cutting and sandpapering.

A correspondent has reported two additional cases of cure with chrysarobin, making the total number of cases ten. The attempt to try the effect of chrysarobin on warts on other parts of the body has been possible in but one case (warts on the hand), where it had the same favorable effect.

Experiments with chrysarobin on corns show that it has practically no effect.

The claims of chrysarobin as a specific for warts may be summed up as follows :

1. Success in a series of ten cases of warts on the sole of the foot in which the diagnosis was perfectly clear.
 2. Similar success in one case of warts on the hands.
 3. No failure in any case where the application was made repeatedly on the denuded surface of the wart.
 4. No subsequent recurrence of the wart.
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THE IMPORTANCE OF THE PRESERVATION OF BODY TEMPERATURE DURING RESUSCITATION OF THE NEW-BORN CHILD.

With the exception of a faintly beating heart, the infant born asphyxiated has all its organs in a state of rest. Functional activity is almost at zero. An infant born dead will have the temperature of the mother. Lying in a room heated to 70° F. uncovered, it will lose ten degrees of temperature in fifteen minutes. Swung through the air, it will lose from twelve to fifteen degrees in as many minutes, depending somewhat upon its plumpness,

An adult exposed to cold that proves fatal is dead before any such loss of temperature prevails. Infant asphyxiation may be due to maternally administered anesthetics, or narcotics, to pressure on the head by forceps or molding, to tonic spasm of the uterus, to intracranial blood-pressure, to pressure on the cord, to shock from manipulations of the cord, to distortion of fetal attitude, and various other causes. In many of these varieties, conspicuously those of anesthesia and narcosis, voluntary resuscitation will ensue if simply the loss of animal heat is prevented for about fifteen minutes.

In a thousand cases of resuscitation the "safety point" will be reached in ten minutes with sixty per cent.; in fifteen minutes with twenty-five per cent.; in twenty minutes with ten per cent.; in twenty-five minutes with three per cent.; and the remaining two per cent. through a period of an hour and more.

So long as the fetal heart action continues resuscitation is possible, and this automatic, rhythmical action continues much longer than is generally supposed, Neugebauer reported in the *Centralblatt für Gynäkologie* of November 26, 1898 (see *Obstetrics*, January, p. 21), the continued contractions of the heart of a fourteen weeks' old embryo for three hours, pulsations occurring every two to three minutes. Opitz (see *Obstetrics*, p. 150) reported in the same journal two cases of fetus at term with the heart beating for thirty minutes, and capable of further contractions after removal under stimulation of a needle. Much longer cases of postpartum heart beating with no respirations have been reported, and no doubt many a still-born child has been laid aside as dead whose heart was still contracting. The ideal method of resuscitation will use the best combination of all aids to respiration, vascular and cardiac circulation, and equilibrium. Blood communication between child and placenta should remain unimpeded; the uterus should not be handled, unless it is bleeding; alternate compression and expansion of the chest should be achieved with freedom; insufflation should be available if required; alternate application of heat and cold, spanking, throat cleansing, etc., etc., should be ready at hand, which may include stretching of the sphincter ani, traction of the tongue, and use of the now ubiquitous electric current; but, above all, should be included the preservation of the body heat up to normal temperature.

The following method of resuscitation has been employed for over a dozen years with growing favor: A vessel one a half by two feet and six

inches deep is half filled with water, as hot as the hand can comfortably bear, and brought close enough to the mother to receive the child without causing traction on the cord. The child is held with the back of the neck resting in one hand and the posterior knee and thigh surfaces in the other. It is then immersed in the hot water, and artificial chest action secured by alternately bringing the knees and head together and apart (Dew's method), the mouth being kept above water. At intervals of ten to fifteen seconds it is dipped once in very cold water in another bowl, then immediately returned to its hot-water bath. When first placed in the hot water it will turn quite "blue," due to temporary paralysis and expansion of the skin capillaries. All other adjuvants to resuscitation can be applied with the hot-water immersion kept up practically all the time. In the asphyxia of narcosis, anesthesia and cerebral congestion, more time is given for the restoration of equilibrium in the circulation by sustaining the body temperature, and in the asphyxia of anemia (pallida) the hot baths wards off the most imminent danger—cold—and sustains the flagging heart. The cord must not be handled. We know that moderate manipulation of it *in utero* causes heart shock and death. The uterus must not be "Crédéed." If we compress the fundus we might as well sever the cord. The foramen ovale may not close while the blood runs from placenta to child, nor the respiration start up promptly as our anxieties might foolishly desire; but we should not wish to have them do so, for while the mother still breathes for her child its circulation is gaining the equilibrium of its equable surroundings.

Let us condemn and do away for all time with the aerial gyrations of Schultze's method. It is spectacular, but chilling. It is resuscitating to the operator, but deadly to the fetal heart. It is efficient in lung expansion and compression, but no better than Dew's. It gives the stimulation of cold air, but prevents the use of heat, which should be used in the proportion of ten to one in favor of heat. It robs the child in its direst need of its second mother—the placenta—and must succeed promptly or fail altogether. It was conceived with an eye single to lung expansion, and reminds one in its narrowness of wisdom of the bear in the fable which was appointed to keep off the flies from his master who slept. He killed one, which had alighted upon his master's nose, with a large stone, thrown with wonderful accuracy of aim, and wondered why his master did not awake and thank him. Editorial in *Obstetrics* for June, 1899.

A PRESCRIPTION FOR A HEMOSTATIC-ANESTHETIC SOLUTION.

Legrand employs the following solution, particularly in lesions of the mouth, where it is desired to produce anesthesia and arrest small hemorrhages :

Pure gelatine, 30 grains ;
 Chloride of sodium, 8 grains ;
 Carbolic acid, 2 grains ;
 Hydrochlorate of eucaïne B, 8 grains ;
 Hydrochlorate of cocaine B, 2 grains ;
 Distilled water, 3½ ounces,

—*Journal des Praticiens*, May 13, 1899.

THE TREATMENT OF WHOOPING-COUGH.

The *Journal des Praticiens* of May 13, 1899, after pointing out the necessity that the child should live in a room at the proper temperature and have plenty of fresh air, and should be given easily digested food frequently, suggests the following internal treatment for use as soon as it is decided that the child is suffering from the disease :

Externally the chest is rubbed morning and night with a liniment composed of essence of turpentine and oil of sweet almonds, equal parts. Care must be taken that the pure turpentine is employed, and if the child's skin is irritated by it the strength should be decreased. The object is to produce slight reddening but no further irritation of the skin. It is thought that the counter irritation and the inhalation of the turpentine exercise a favorable influence upon the respiratory passages.

In regard to internal treatment, a good many remedies are employed, but nearly all of them have disadvantages. Acenite is too depressing ; belladonna and codeine are too powerful, and check secretions. Antipyrin is apt to interfere with the functions of the kidneys, but inhalations of oxygen are advantageous, and bromoform is recommended by Marfan as distinctly useful. The prescription for bromoform may be as follows :

Chemically pure bromoform, 10 drops ;
 Alcohol (90 per cent), sufficient quantity to hold the bromoform in suspension ;
 Syrup of orange flowers, 1 ounce ;
 Simple syrup, 2 ounces.

This prescription may be given in the dose of one to five teaspoonfuls each twenty-four hours. To a child as young as six years a teaspoonful at seven in the morning, at midday, and at five at night is about the proper dose. It must be remembered that bromoform is a remedy of very great power and that it must be used with some caution.

THE TREATMENT OF DIABETES.

Guiranna (*La Clinica Medica*, An. 5, n. 19) speaks very highly of a diet of fresh vegetables in the treatment of diabetes. In bad cases he finds that much benefit is derived from an exclusive diet of fresh vegetables for a few days, but in ordinary cases a mixed diet is sufficient. The vegetables recommended are endive, cabbage, French beans, artichokes, and in general all green vegetables. Peas and beans, provided they be fresh, may be taken in small quantities ($\frac{1}{4}$ kilogramme). The author also allows fruits in moderation. The only saccharine substance allowable is levulose, from 50 to 200 grains a day. Probably the reason why green vegetables are tolerated so well is because the starch is converted into levulose and not dextrose. The objection to saccharin and dulcein for sweetening is that they do not represent a food, but a foreign body, in the organism, and being of the aromatic series, and as such non-assimilable, only increase the amount, already copious enough, of waste products in the body. The author has no great faith in drugs, but thinks certain mineral waters, alkalies, massage, and baths more useful.—*British Medical Journal*, June 24, 1899.

IN MEMORY OF DR. ROLPH.

PROPOSAL TO ERECT A MONUMENT OVER HIS GRAVE.

A bust of the late Hon. Dr. John Rolph, has recently been placed in the Museum of the Education Department in this city. Dr. Rolph was one of the most energetic and ablest of the Reformers during the old "Family compact" days, when this meant a great struggle for years—a struggle as often apparently hopeless as it was thankless. But after many years it brought about responsible government in Canada, to which she owes her present proud position, as at once practically a self-governing nation, and a most loyal part of the great British Empire.

Dr. Rolph was also the founder of medical education in Ontario, and an abler or more zealous teacher could not be. His remains lie in Mount Pleasant cemetery without, as yet, a stone to mark the spot. It has been suggested that it would be a graceful and well-deserved tribute to his memory for his friends still living amongst the old Reformers, and the great number of medical men scattered over Canada and the States, whom he educated, to send in subscriptions for this purpose, so that a modest, yet appropriate monument might mark the spot where his dust lies.

Dr. Geikie, dean of Trinity Medical College, Toronto, would be glad to receive such contributions, and to see that the desire of those sending them was suitably carried out.

SERUM THEROPY IN CANADA IN 1863.

THE TREATMENT OF SKIN DISEASES.

To the Editor of the Medical Times and Gazette.

SIR,—Knowing the extensive circulation of your valuable journal, I take this opportunity of placing before the members of the Profession, through its columns, certain facts, in order that those whose province it may be to treat cutaneous diseases may have an opportunity of testing the correctness of the statements, and reporting accordingly.

Case 1.—Psoriasis Palmaris, of five year's duration, cured by Vaccination, November, 1861.—A B., aged 25 years, robust conformation of body; temperate habit; not the subject of scrofula; has had psoriasis palmaris for a period of five years, subject to occasional improvement of the disease under various methods of treatment, but never entirely free from the disease, which presented the annulated character,—red, dry, cracked and exfoliating, and extending from the wrists to the fingers. During a sojourn in the Sourthern States, the action of various alteratives, such as iodide of potassium, bichloride of mercury, iodide of iron, as well as the triple solution of mercury, iron and arsenic had been well tested. As a *derneir ressort*, I resolved upon vaccination, in order to observe the alterative effect of the vaccine virus upon his system, not without previous consideration, but with a firm conviction that under certain circumstances, vaccine introduced into the system is one of the most powerful blood purifiers we possess. The operation was successfully performed, the pustule passing through the various stages from incubation to its separation. Having carefully observed its progress, I found that, as it advanced from the third to the seventeenth day, the disease on the hands and fingers gradually receded, and on the twentieth day from the date of the vaccination, the parts recovered the natural appearance and continued so. Was successfully vaccinated when a child.

Case 2.—Tinea Nummularis seated on the right fore-arm; boy, aged 13 years, of florid complexion, vigorous habits of body, and healthy parentage. This disease existed over two months, and covered a space about two square inches near the front aspect of wrist-joint. Vaccinated on the opposite arm; operation successful. About the seventeenth day the disease disappeared, no other treatment having been adopted. Was previously vaccinated when one year old.

Case 3.—J. S., aged 25 years, a somewhat stout man, with fair skin, temperate habits, and non-scrofulous aspect. States that three months ago he had an indurated chancre, and eight weeks afterwards observed an eruption on the face, and more or less over the entire body. December 15, 1862, came under my charge, when the case was well marked "tubercula syphilitica," round, small and a copper colour, and possessing more or less density and elevation. Vaccinated on the arm successfully, and on the fourteenth day afterwards the tubercles over the whole body flattened down, and at the end of four weeks only a slight discoloration of the skin, at several points where the eruptions were worst, could be observed. From this date he went on gradually improving in general health under the influence of tonics.

Case 4.—Psoriasis Lapræformis.—S. G., aged 24 years, married, and the mother of four healthy children. July, 1862, first observed what was termed a "rash" on the elbow joints, subsequently on the knee-joint, from which points, within a period of three months, it extended more or less over the entire body, even to the roots of the hair. November, 10, 1862, I was first consulted, and placed her under the action of the usual alteratives for three weeks without any marked improvement. January 2, 1863 vaccinated successfully over a clear part of the skin on left arm. As the pustule passed through the successive stages, the eruption gradually disappeared, and the skin recovered its previously healthy aspect, about four weeks having elapsed from the date of vaccination to the disappearance of the disease *in toto*.

Various other cases illustrative of the effect which vaccine produces upon the system, as an alterative, may be cited. However, on the present occasion I consider the above cases sufficient evidence that the simple process of vaccination should not be confined alone to its protective influence against small-pox, but *al-o extended to the treatment of many cutaneous diseases not of parasitic origin, but arising from irritant poison, generated in the organism or in that vital fluid the blood.* Over such existing impurities, vaccination, beyond a doubt possesses a powerful influence. Such facts prove nothing unfavorable to the claims of vaccination as a protective agent against small-pox; they prove only that which each day's experience tends to corroborate, namely, "*that man has still much to learn.*"

Trusting that this point may merit the attention of the leading dermatologists, to whom we Canadians look forward for an expression of opinion such as can alone be formed from an enlarged experience,

I am, &c.,

JAMES A. GRANT, M.D.

Ottawa City, Capital of Canada, February 20.

(Re-printed from *The Canada Lancet*, March, 1891, page 221.)

INOCULATIVE TREATMENT OF TUBERCULOSIS.

The Koch treatment still continues to be a matter of interest and speculation among the members of the medical profession throughout the world. The enthusiastic assurances of success, made rather upon a knowledge of the discoverer of the remedy than upon the results of its use, have, in a measure, abated, and all are waiting for tabulated results to pronounce the success or failure of the remedy. It would at present be unwise to hazard an opinion upon the matter, but the report of relapses in some of the cases of lupus are somewhat discouraging, and in the cases of pulmonary tuberculosis, the time elapsed has not yet been sufficient to state anything definite. It may reasonably be inferred that inasmuch as the remedy is an extract of the tubercle bacillus, its injection in large and repeated doses would, in certain cases, induce acute miliary tuberculosis. It has been asserted that in the event of failure of the treatment the idea

of treating diseases by inoculation of the products of bacteria is a valuable suggestion to the practical therapist. But this is in no sense a new idea, for in the *London Medical Times and Gazette* of March 14, 1863, Sir James A. Grant, of Ottawa, showed the possibility of *vaccination* proving curative in many forms of contagious affections, and his communication of that date forms a very interesting item in the light of the discoveries of Dr. Koch.

(Reprinted from the *Montreal Medical Journal*, January, 1891, page 556.)

In these days when cure by injections or inoculations is attracting such widespread attention, it may be of interest to note that so far back as 1863, Dr. James Grant, of Ottawa, (now Sir James Grant), applied ordinary vaccination for the cure of skin disease, and with evidence of success. His paper on the subject may be found in the *Medical Times and Gazette*, London, for the year above mentioned. In some of the cases various remedies had been administered as alterative with apparently little benefit, but after vaccination the disease disappeared in a comparatively short time. In other cases no remedy other than the vaccination was tried and healing followed. From all the conclusion is drawn that the vaccination acted as an alterative on the nutrition. Apparently this is just what Koch's lymph does, though it would seem that it is peculiar in selecting the tissues that are the site of the specific disease.

CONSTITUTIONAL RIGHTS OF CHRISTIAN SCIENTISTS.

The relation of Christian science to the public health is one that may be fraught with consequences of a grave character. There is no question as to the constitutional right of an individual to have his diseases treated in any manner that he sees fit. If he chooses to employ some one to sit with his back toward him and to think or pray his disease away, that is an inalienable right, guaranteed under the general provision of the constitution, which holds that any one has a right to make a fool of himself if he wants to. This, however, is subject to some restrictions, which are generally classed under the police power. Thus the law holds that every man's house is his castle, and every one is allowed the freest possible use of his own property; yet in the application of this rule the law will not permit a man to maintain upon his own premises a private conflagration or epidemic, nor will it permit him to maintain a nuisance that interferes with the free enjoyment by others of *their* property or jeopardizes *their* health. In speaking of the practice of Christian Science, Mr. Barnes, attorney for the State Board of Health, says these people will go into a room where a child lies ill with diphtheria or scarlet fever, pray for a long time, get their clothing full of the germs of contagion, and then, without any precautions, go to the sick room of some other person suffering from some other trouble. Clearly such practices are illegal and can be suppressed under the police power in the interests of the public health.

THYROID EXTRACT IN DEFECTIVE CHILDREN.

There is no more brilliant chapter in therapeutics than that which deals with the treatment of cretins. The term cretin is applied to idiocy associated with goitre or enlargement of the thyroid glands. A later extension of the term applies it to those cases in which there is an appreciable atrophy of the gland. The relation of disorders of the thyroid to developed mental defects in children is so important that every case should be carefully investigated. Unfortunately, the means by which a diagnosis is made, the difference by which cretinism and other forms of idiocy, is by no means clear, and oftentimes it is impossible to make an accurate distinction. In all such cases it will be wise to give thyroid extract, as it is found to improve the nutrition and mental development of many defective children, even though their troubles cannot be directly traced to anomalies of the thyroid, and they cannot be clinically classed as cretins.

The thyroids should be given in the desiccated form, a fresh preparation invariably employed, and preferably in the form of capsules rather than tablets. The latter contain more than three-fifths their weight of excipient, and if strongly compressed, or if kept in stock for a considerable time, may be so hard as to pass the alimentary tract without solution. The desiccated thyroid, given in capsules, is readily absorbed and exercises its full physiologic activity promptly after its administration. In the best preparation, one grain of the desiccated product equals about eight grains of the fresh gland stripped of its envelopes. The dose should be about two grains for a child from three to five years of age, repeated twice each day. So far as we know, the substance is devoid of deleterious effects, though its administration must be watched to see that it is not carried to the point of disturbing the heart's action.

FEIGNED ERUPTION.

The careful study of all phases of human nature, as well as disease, is generally rewarded by results. The Engman-Schwab case in our last issue is an example. It seems by persistent observation and close study of this remarkable case they were able to bring forward a new idea in feigned eruptions. This is certainly a unique case and one that will add another etiological factor to the causation of feigned eruptions, namely, that of sexual perversion, which the aforesaid gentlemen undoubtedly mean in their foot note. The latter fact it seems was gleaned from the patient at a subsequent visit to the writing of the article.

It is very probable that this fact of sexual perversion in feigned eruptions is often a factor in their production, and many cases that are relegated to the full closet of hysteria are cases of this type. Flagellation, scratching, pinching and other forms of dermal irritation are common in sexual perversion, as pointed out by Kraft-Ebing and others; therefore why should we not have in the physically abnormal other means employed to excite the sexual functions, as the production of eruptions by the use of irritative agents.

We also believe that the neurologist and the dermatologist, by their united efforts, could unravel many a knotty point in the mysterious dermato-neuroses, and we are glad to see a step forward in this direction.

The great objection to limitation to one branch of medicine is the fact that it is prone to render narrow the scientific vision of these specialists, they wrapping themselves up, as it were, in the narrow garments of their respective specialties. This is unfortunate, as these scientists should mingle freely with one another, study their cases from every standpoint, and co-operate in their work. Of course this is done to some extent, but the method of study used by Drs. Engman and Schwab should be more widely employed, and the efficacy of the results will speak for the method. —*Medical Review.*

PNEUMATIC CURE FOR BALDNESS.

There has recently been advertised a pneumatic cure for baldness. This is based on the old, old theory that the loss of hair is caused by a diminished blood supply, with resulting atrophy of the hair bulbs. Positively the last thing in the treatment of this affection is what is known as a "capillary chalice." We trust that our denominational friends will not be shocked at this use of the word, but will take the broader view that is derived from the Latin *calix*, meaning a cup, and that it is only within the last dozen centuries that the word has been specifically used to designate the communion cup. Besides, to what more noble purpose could an instrument with any name be applied than in the relief of baldness, the deformity of youth, and scarcely to be borne with equanimity in old age? The mechanism of this treatment is simply the old one of cupping. The chalice is nothing but a hollow rubber pad from which the air can be exhausted, and in this way the circulation of the scalp stimulated so as to produce healthy hair follicles and stimulate the normal growth of the hair. We are left in no doubt as to the efficacy of the treatment, for the advertisement of the company selling the instrument contains a number of illustrations of "before" and "after" treatment. A number of men are shown with remarkably smooth pates, and later we see the same heads covered with hair that would be the envy of any barber in the land. We are informed that the "chalice" does not aim to produce a perfect vacuum, which, of course, nature abhors, but that it is only a partial one. We are gratified at this conservatism on the part of the makers of the cup, because a perfect vacuum might result in the loss of a portion of the scalp, and there would be little hope of restoration, as even with this method of stimulating the circulation it could hardly be hoped that the denuded cranium could produce a luxuriant growth of hair.

EPITOME OF CURRENT MEDICAL LITERATURE.

BACTERIOLOGY AND HYGIENE.

Contribution to Our Knowledge of the Spontaneous Milk Coagulation.

Y. KOZAI* concludes his researches on this subject as follows: 1. The lactic acid formed in spontaneously coagulated milk is either pure dextro-lactic acid or inactive lactic acid, or a mixture of both of them. 2. The appearance of the one or of the other form is determined by the temperature; at room-temperature, usually pure dextro-lactic acid; at the temperature of the incubator, inactive acid is formed. 3. The causative agents of these phenomena are three distinct bacteria: *Bacillus acidi paralactici*, *bac. acidi levo-lactici* and *micrococcus acidi paralactici liquefaciens Halensis*. The first and the third furnish dextro-lactic acid; the second, levo-lactic acid. 4. The most frequent and important form is *bacillus acidi paralactici*, not identical with Heuppe's *bacillus acidi lactici*. 5. At ordinary temperature the fermentation of milk is mainly caused by *bacillus acidi paralactici*. At higher temperatures the two other forms combine in their action with it. 6. The production of inactive lactic acid in spontaneously coagulated milk is not caused by the combined activity of other bacteria and of the dextro-lactic acid formers, but only by the simultaneous activity of the *bacillus acidi levo-lactici*. 7. The general and particular conditions under which these three forms of lactic-acid producers live have no influence on the nature of acid formed by each of them.

The Climatology of Nudity; Light, Heat, Atmosphere.

W. D. ROBINSON.† Though the use of direct sunlight on the diseased human body is advancing, some of the otherwise best papers on the subject of tuberculosis are defective in not giving special accent to sunlight, while pure air and altitude are largely dwelt upon. Without light these fail, while with light they succeed in curing this disease in its earlier stages. A theory of light now generally accepted is that it is identical with electricity. Knowing what we do of electricity, we can more readily comprehend and theorize as to the probable action of light on our bodies in health and disease. Can it not be that the rash in measles, scarlet fever, and erysipelas is nature's effort toward securing light, energy, and effective oxygen compounds in the blood in the greatest quantities? Quinine in solution, as it must be in the blood, absorbs ultra-violet and violet waves of light and speedily emits them in colors. Can quinine carrying light thus bring death to the malarial plasmodium and destruction to its

*Zeitschrift für Hygiene u. Infektionskrankheiten, Vol. 31, No. 2.

† Phila. Med. Jour., August 26, 1899.

toxins? As to the skin itself, its muscular, fat and connective tissue substance are all too deficient and defective for our greatest welfare and comfort. By excessive covering peripheral nerves are too intensely impressed by caloric changes, the capillary blood system too feebly and incompletely developed to battle most successfully with heat disease and traumatic impressions. All its functional powers have been reduced. The trend should be toward development of the skin rather than toward the employment of substitutes which supplant it in function.

The Etiology of Scarlet Fever.

W. J. CLASS,* from the results of experiments in cultivating scales, throat secretions, and blood from scarlet fever patients, reaches the conclusion that he has found the specific causative factor of the disease. The germ is a diplococcus, polymorphous in character, but resembling, as ordinary seen in slides made from fresh cultures, a very large gonococcus. The biscuit-shaped appearance is best seen in specimens that have been lightly stained. With a watery solution of methylene blue very pretty pictures were obtained; carbol fuchsin and Bismarck-brown also stain the germ. They are discolored by Gram's stain, though not to the same extent as the gonococcus. The culture medium in glycerin agar-agar, to which about five per cent. by weight of black garden earth has been added, the medium being rendered sterile by discontinuous heating. The biological characters, control experiments and pathogenesis are fully given, together with some of the differential points between this germ and similar organisms that have here been found in the skin and naso-pharynx.



EYE, EAR, NOSE AND THROAT.

Is the so-called American Voice due to Catarrhal or other Pathological Conditions of the Nose?

J. W. FARLOW† thinks that it is the exaggerated nasal quality, the production of the voice in the nose, the twang, which is the most noticeable characteristic, and that we can omit consideration of the larynx and fauces as factors. In a general way, he believes that the condition of the nose is not the important factor in determining this nasal voice. In many cases the manner of speaking can be improved without medical or surgical treatment of the nose, even though some defects or abnormal conditions are present in the anterior nares. Examples are cited of marked improvement in the voice after a course of exercises in the proper manner of placing and raising the voice and upon mere removal from the society of companions who spoke in a nasal voice. The anterior obstructions in the nose are common in all civilized races, and there is no reason for thinking that any peculiarity in the American voice is due to what is possessed by others equally with

* N. Y. Med. Rec., Sept. 2, 1899.

† N. Y. Med. Jour., Sept. 2, 1899.

ourselves. In our old country villages the voices of the natives are well known to have the nasal twang without regard to the condition of the inside of their noses. The parts of our country where are the oldest centers of civilization and education should be the places where most attention is paid to the singing and the speaking voice, and this is probably the case. Training of the voice, especially in childhood, will do more to improve speech than treatment of the nose.

The use of Gelato-Glycerine Bougies in the treatment of Earache.

G. L. RICHARDS * claims great benefit from the use of gelato-glycerine bougies, which are prepared after the following formula :

- R. Acid carbol. ℥ viij.
- Ext. opii fluid. ℥ vj.
- Cocain gr. iij.
- Atropin sulphat. gr. iij.
- Aquæ ℥ liij.
- Gelatin. gr. xvij.
- Glycerin gr. clvij.

M. Int. Cap. No. XLII.

In size, they should be no larger than will readily slip into the external canal. There is no doubt that if the bougies are used early enough paracentesis will often be obviated.

The treatment of Hay Fever.

B. DOUGLAS † divides hay fever cases into two grand divisions—those who have nasal lesions and those who have none. The times of suffering are about the same, the severity of the symptoms is equal, the sequelæ are alike, and the difference is mainly one of condition of the nasal cavities. The cases in which there are no discoverable nasal lesions are in the minority. The treatment is considered under four different divisions, to wit : 1. A treatment of the cause; (a) local irritant, (b) vicarious elimination, (c) vasomotor sensitiveness, (d) neurasthenic conditions, (e) uric-acid diathesis. 2. A treatment of the attack; (a) local, (b) general. 3. A treatment of general symptoms. Quinine and Warburg's tincture. 4. A treatment between the attacks. The local desiderata in the office treatment are : 1, to cleanse the membrane of irritating pollen or mucous and pus; 2, to relieve the hyper-sensitiveness of the over-irritated nerves; 3, to restore the tone of the over-distended blood-vessels and cause their shrinking and the shrinking of the mucous membrane. The home treatment of the local condition should be directed to keeping down the irritation, restoring the blood-vessel tone, and protecting the nasal membrane. The constitutional treatment of the attack consists of preventing the vasomotor dilatation and combating the unfavorable general symptoms. We may expect to

* Laryngoscope, August, 1899.

† N. Y. Med. Jour., Sept. 2, 1899.

cure the majority of patients permanently of attacks of hay fever by surgical work on the nasal interior. When heredity plays a role in causation, the cure is hopeless, although in these cases the attack may be rendered less severe.

INTERNAL MEDICINE.

About the Genesis of the Proteins in Albuminuria.

According to M. CLOETTA,* in cases of albuminuria mainly three kinds of proteins are found in the urine: serumalbumin, serumglobulin, and nuclealbumin, the proportions of which vary considerably in the single cases. The author tried to determine the conditions, why in one urine much and in another only little globulin and nuclealbumin are found. By means of comparative investigations of the blood serum and of the urine of eclamptic and nephritic rabbits he could show that the percentage of albumin and globulin in the serum is not of any influence on the proportions of these substances in the urine. By means of membranes of varying permeability, Cloetta demonstrated that more porous membranes allowed the transfusion of much albumin together with much globulin, while in case of less porous membranes little or no globulin goes through. Correspondingly he found in artificial nephritis in rabbits during the period of restitution little globulin or none at all. The nuclealbumin originates in the kidneys and its occurrence in the urine demonstrates an extensive disintegration of tubular parenchyma.

Subcutaneous Rupture of the Intestines.

H. C. KEENAO† divides the forces producing rupture into two classes: Sudden, sharp blows, as kicks or heavy objects thrown; this causes about 70 per cent. of all ruptures; and heavy lacerating forces, as being caught between buffers of cars or run over by wagons; this causes 30 per cent. The first class produces a single tear, while the heavy force produces usually more than one tear, and generally separation of the torn ends. The portions of intestine most frequently injured are the upper end of the jejunum near the duodenum, and the lower end of the ileum near the colon—places where a movable portion of gut is attached to one more fixed. A bruise to the gut may result, or the blood supply separated from a part so that it becomes gangrenous, and perforation occurs as late as six days after the original accident. The principal symptoms occurring early are shock, abdominal pain—either localized or general—vomiting—possibly of blood—local tenderness, rigidity of the abdominal wall and absence of liver-dullness. The later symptoms usually found are constipation, absence of flatus, retention of urine, thirst, anxiety and restlessness, tympanitis, tenesmus, vomiting, and symptoms directly due to peritonitis. The value of early diagnosis cannot be over estimated. The life of the patient depends upon a diagnosis of his condition before peritonitis has developed. The best plan to follow is to operate rather on the history than to wait for a certain diagnosis.

* Archiv für experimentelle Pathologie und Pharmacologie, Vol. 42, Nos. 5 and 6.

† Phila. Med. Jour., September 2, 1899.

Experimental Researches about the Nature of the Tophi in Gout.

In order to decide the question, whether the deposits of urates in the tophi form the primary lesion, or whether they are (according to Ehstein and others) secondarily deposited in the injured necrotic tissue, FREUDWEILER* made numerous injections of sodium biurate. He could demonstrate that the deposit used acts injuriously on the tissue, leading to an extensive reactionary inflammation. The inflammatory foci thus produced experimentally differ histologically in no way from the tophi. Based on these results Freudweiler does not believe it probable that the uric acid deposition is preceded by a tissue necrosis; he agrees with the explanation first given by Garrod, that the tissue lesions are caused by the deposition of urates.

A Case of Intrauterine Epidemic Cerebro Spinal Meningitis.

R. B. H. GRADWOHL† reports a case of a woman of 31 years, who died of cerebro-spinal meningitis; she was seven months pregnant. At the necropsy typical meningitis was found on opening the cranium; there was great injection of the piaarachnoid and an abundant purulent exudation scattered here and there over the entire meningeal surfaces, particularly at the base. The same condition was found upon the cord. An exact counterpart of the condition of the maternal meninges was found in the fetus, with perhaps more of a sero-purulent than a purely purulent exudation, as found in the mother. Bacteriologic examination of fluid from both the maternal and fetal meninges revealed the presence of the diplococcus intracellularis meningitidis. Pathologically the meninges exhibited about the same condition of inflammation and degeneration, such as is found in epidemic cerebro-spinal meningitis. In whatever way the specific micro-organism may gain access to the fetal tissues from the mother, it can be said that in a disease like typhoid, or epidemic cerebro-spinal meningitis there must surely be some selective affinity on the part of the micro-organism for some tissues.

A Case of Fibrinous Peritonitis in a Child two and a half years old.

CUMSTON and HASTINGS ‡ One month before the child was brought to the dispensary it suffered from an attack of diarrhea, which lasted for several weeks. After this attack the mother noticed the child's abdomen was swollen, but otherwise it presented no symptoms. At the first examination no positive diagnosis was made, but it was thought to be a case of indigestion, so frequently accompanying dentition. A few days later the child had not improved, but the treatment, which consisted of calomel 1-10 gr. twice daily, was continued. After an examination some days later the diagnosis of fibrinous tubercular peritonitis was made. The entire lower half of the abdomen gave a complete percussion dull:

* Deutsches Archiv für klinische Medicin, 63, Nos. 3 and 4.

† Phila. Med. Jour., Sept., 2, 1899.

‡ Medicine, September, 1899.

ness. The child was operated upon twice, and in both cases the bowel was perforated. The second operation was made for the purpose of closing the fistula, as a result of the first one. The child survived about five weeks. The autopsy revealed a complete absence of fluid in the abdominal cavity, but the lower half of the parietal peritoneum was covered by a layer of fibrinous exudate, at least half a centimeter in thickness. Coils of intestine were embedded in his and could not be detached without rupturing, which accounts for the two unsuccessful operations. From the cecum to the transverse colon a number of ulcerations were found, and also a small ulceration at end of appendix, which would certainly have perforated in a short time. A few tubercles were found scattered over the parietal peritoneum, and the kidneys presented a few miliary tubercles in their cortices and some amyloid change. The other viscera appeared perfectly normal.

A Case of Colocynth Poisoning.

W. E. JENNINGS* reports a case occurring in a woman 29 years old. An improvised tincture was swallowed, with a view of producing abortion. One hour afterwards, faintness, giddiness; vomiting, retching, and pain in the epigastrium developed. Three hours after taking the drug there was a large, watery, blood tinged stool, and shortly afterwards a convulsion. Vomiting and retching, delirium, epigastric pain and blood-stained evacuations from the bowels, were the prominent symptoms for three days. Abdominal pain then developed, with a continuation of the passage of bloody stools, but improvement in the general condition. There was no rise of temperature at any time, though the pulse respiration ratio was much disturbed for several days. Medication consisted of morphine and atropine, hypodermically, for three days, together with a mixture containing bismuth subnitrate, cocaine hydrochloride and lime water; fomentations were applied to the epigastrium and abdomen. Abortion did not occur.

Periosteal Caries From Bacterial Origin.

M. H. FLETCHER† reports three cases, in which severe paroxysmal pains, resembling tic douloureux, was found to originate in an abnormal condition of the periosteum of the jaw. In the first case a large pocket was found reaching from the alveolar ridge to the inferior border of the jaw; the surface of the bone had the feel of being eburnated and without periosteum. Similar conditions were found in the other cases. Recovery followed after sterilization of the pockets with escharotics. If a suitable culture of bacteria or cocci has been started in the bony-like fibres of the periosteum, they can produce continuous destruction of the membrane. The study of the periosteum shows it to be a very compact membrane of connective tissue fibres, and, histologically, much more of the nature of the hard tissues than of the soft. In one of its layers it carries arterioles in great numbers, but having very few, if any, capillaries anywhere in its substance,

*N. Y. Med. Jour., September 2, 1899.

†Jour. Am. M. A., September 2, 1899.

and no blood-vessels as all in one of its layers. It therefore seems rational to hold that this membrane can and does form a good pabulum for the growth of bacteria, and this to its own destruction. The exceedingly slow recovery of these cases, under germicidal and stimulating treatment, would also tend to support the hypothesis of the death of the periosteum by bacteria. Similar conditions, in cases of amputation or compound fracture, may be the cause of the persistent pain so often complained of. In lesions of the peritoneum, whether traumatic or otherwise, regardless of what bone of the body it may be on, progressive destruction of that membrane could occur, as in these cases of tic douloureux.

Hydrotherapy in the treatment of Insomnia.

HANCE.* In cases afflicted with neurasthenia, and especially insomnia, the author suggests special attention to the environments of the patient, his diet, exercise, bowels, digestion, etc. This being done, the most satisfactory therapeutic measures for producing normal sleep is the employment of the bath and static electricity. He reports a number of pronounced cases of insomnia cured by the use of the hot-air bath, a needle spray, a jet douche along the spine, and the application of electricity each evening before retiring. By this means the cutaneous circulation is improved, the secretory organs stimulated, and the nervous system toned up.

Demonstration of Tubercle Bacilli in the Feces.

ROSENBLATT.† In pronounced cases of tuberculosis of the intestines the feces are almost invariably fluid. As a result, the bacilli are thoroughly mixed with the stools and are found with the greatest difficulty. The author, through the use of tincture of opium, produces hard well-formed stools. On the surface of the scybalæ, especially in the muco-purulent particles, the bacilli are usually found without any difficulty. The hard scybalæ in passing over the ulcer carries with it, on its surface, the bacilli.

OBSTETRICS AND GYNECOLOGY.

Prophylaxis of Uterine Cancer.

W. W. GRANT.‡ The only safe course in all cases of injury to the cervix is to repair every appreciable lesion without waiting and looking for evidence of either benign or malignant disease. It is the only certain way to anticipate, with reasonable assurance, a constant danger to the lives of many women. Regardless of the existence of a cervical lesion, the necessity for unusual vigilance and care as a preparation for and during the climacteric must be conceded. The influence of a persistent, chronic irritant in ultimately causing malignant disease is well known. Trachelorrhaphy should be early performed to remove all cicatricial and diseased

*Therapeutic Gazette, July 15, 1899.

†Centralblatt für innere Medicine, July 22, 1899.

tissue; if there is a predisposition to malignant action, cicatricial tissue invites it; if there is no such tendency, it often excites it. The operation for laceration of the cervix should be performed before the climacteric is concluded if no indication exists for it during the child-bearing period.

Conservative Operative Treatment of Chronic Puerperal Inversion of the Uterus.

The case reported by J. BARELIUS* is a most interesting one. After repeated and various attempts to replace the uterus he was obliged to resort to the operative method which is original with him. An incision was made through the posterior vaginal wall and with one finger in the uterus an unsuccessful attempt at reposition made; then the incision was carried through os and neck, but with no better success. Finally, however, after the posterior uterine wall had been divided clear to the fundus, the organ could be returned to its original position. The patient was well and at work in just one month from date of the operation.

Movable Kidney.

HALSTEAD,† after reviewing the various theories as to the causation of movable kidney, concludes that the principal factor, as well as the explanation of its frequency in the female sex, is to be found in the variations from the normal configuration of the paravertebral fossa. The frequency of movable kidney on the right side is explained by the shallowness of the right fossa as compared with the left. Fixation of the kidney should be done in all cases, when, after a fair trial of the palliative measures, the symptoms still persist; immediately in all cases where the occupation or habits of the patient precludes the possibility of benefit being derived from the abdominal supports. In these cases no time should be lost in temporizing, but operative treatment resorted to at once.

Gangrenous Mastitis.

H. ROGER and M. GARNIER† report the following case: Patient, 17 years old, was delivered on March 1st of a full term baby, which died two days later. On the 7th of March she complained of general malaise and sore throat, and two days afterward a typical scarlatinal eruption appeared all over her body. She was then admitted to the hospital, and in addition it was found that her left breast was greatly swollen, of an intense red color, specially marked on the interior and inferior parts. Here there were two circular ulcers, the largest one the size of a silver dollar, the other one-half that size. The floors of the ulcers were of a grayish color, gangrenous, and covered with pus. Borders were red and undermined. A very abundant and very fetid discharge was present. Around the areola there were developed a number

† *Medicine*, September, 1899.

‡ *Jour. Amer. Med. Assn.*, September 2, 1899.

* *Centralblatt für Gynakologie*, July 29, 1899.

of small ulcers of the same character. The gland itself was swollen and very painful to the touch, especially around the interior and inferior portions. Wet dressing applied constantly did not modify the process at all, and the smell of the discharge soon became gangrenous. Under appropriate treatment patient recovered from the attack of scarlatina; but the process around the breast continued, and the ulcerations became blackish in color. Finally a large piece of mortified tissue, including part of the gland, came away. From this time on patient began to improve, and was discharged cured in three weeks. In the pus many microbes, that seemed to belong to two different species, were found. The more numerous one was a micrococcus perfectly rounded in shape, generally found by itself, sometimes associated in pairs; rarely three were united together. This micrococcus was easily stained by methyl blue, but was not discolored by Gram's method. It was free in the fluid, and was not found inside of the leucocytes. Besides this microbe there were some streptococci, although in very small number, while the microscopic field was covered by the micrococcus; one, or at most two, streptococci could be found. Cultures of the micrococcus presented the following features: ordinary bouillon became turbid throughout. At the bottom of the tube there was a more or less abundant deposit that at the least agitation spread itself all over the tube. In the first cultures the bouillon had a peculiar putrid smell, like the one noticed in the patient, but this disappeared in the later cultures. The reaction of the bouillon remained alkaline. In sweetened media the microbe did not develop as well. Bouillon with glucose, lactose and glycerine was used. In the first, the culture was not as abundant as in simple bouillon; but it became turbid throughout. In the second, the development was very slow; liquid remained clear, but is turbid at the bottom. In the third one turbidity is slightly marked. In agar the microbe forms small round, fine colonies; they appear like grains of sand. Milk is rapidly coagulated by it, and becomes acid in reaction. In potatoes the cultures developed very slowly; a white line appeared all along the place of inoculation. Rabbits inoculated with this microbe developed serious suppurative lesions.

The Use of Protargol Instead of Silver Nitrate in Crede's Instillation.

DR. ENGELMANN* employed in 100 new-born infants protargol, in a 20 per cent. solution, and found it to be superior to nitrate of silver, by the complete absence of irritative action and by its reliable bactericidal effect; while according to CRAMER the instillation of nitrate of silver caused in 90 per cent. more or less a profuse secretion (lasting sometimes five days), 80 per cent. of the protargol cases did not show any or only a very moderate (one to one-and-a-half days) secretion. Even through the absence of secondary catarrh the results prove to be very favorable.

*Centralblatt für Gynaekologie, 1899. No. 30.

†La Presse Medicale, July 22, 1899.

Interstitial Pregnancy with Report of a Case Operated upon Thirteen Months after Conception.

MACLAREN † Interstitial pregnancy, as the statistics show, is a rare thing, and to find one that has gone to full term is indeed rare. The case presented is one of a lady 30 years of age, primipara. During the first three months of pregnancy history was negative; no unusual symptoms being present. Patient was suddenly taken with a pain in lower abdomen; slight collapse, with nausea, vomiting, and a slight hemorrhage from vagina. From this time on there was a progressive enlargement of the abdomen which was marked in the earlier months on the right side. There was no attempted labor until over ten months after the last menstruation. Pains were regular and quite severe for about eight hours. About three days after this missed labor the fetal movements ceased. After one month there was a decrease in size of abdomen, and descent of uterus. It was now nearly thirteen months and patient was commencing to show signs of exhaustion. Bougie could only be passed about four inches when it was met by a solid obstruction. Laparotomy was performed and a gangrenous twelve-pound, perfectly-developed child was delivered. Placenta was hard and leathery and so strongly adherent that it could not be removed. After forty-eight hours bovine was used upon the placenta with the best possible results. Upon examination of sac, muscle fibres were detected and a free opening into the upper part of the true uterine cavity was demonstrated.

ANTIPYRIN IN THE TREATMENT OF CHOREA.

This treatment was first urged by Eskridge, and it has met with a considerable degree of success. His method of giving it was to begin with a dose of one grain for each year of the child's age. This was to be increased a grain each day until the movements ceased. In severe cases the child was kept in bed, and in those less marked it was allowed to be about the fore part of the day. After the movements ceased the antipyrin was suspended and iron or arsenic or both substituted. Antipyrin used in this way undoubtedly gives a large proportion of successes, but it is to be remembered that this is true of any form of treatment, as mild cases naturally tend toward recovery. It is difficult to say whether this form of treatment would cure in a less time than that by simple arsenic or other method of treatment; in other words, does it have any distinct advantages? Only a prolonged statistic study of a large number of cases would enable us to say positively that it did. There is no question that it and the arsenic treatment, and possibly the quinine treatment, somewhat lessens the duration of the disease, particularly if it is combined with rest and such hygienic and dietetic measures as tend to the building up of the general nervous system.

†Amer. Gynec. and Obstet. Jour., August, 1899.

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Dr. LANCEREAUX,

Professeur à la Faculté de Médecine, Paris; Médecin honoraire des Hôpitaux; Membre de l'Académie de Médecine.

PARIS, 4th February, 1899.

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EDITORIAL.

THE ROLE OF INSECTS AS CARRIERS, IN THE SPREAD OF BACTERIAL AND INFECTIOUS DISEASES, IN MAN AND ANIMALS.

In the last number of the Johns Hopkins' Hospital Reports, Dr H. F. Nuttall contributes a critical and historical study on this subject, reviewing the rather meagre literature, and showing that many of the opinions commonly held are based on insufficient and unsatisfactory data. He then gives the results of his own experimental work, and the brilliant researches conducted by Manson, Ross, Smith and others. Particularly in reference to the causation of anthrax, by the bites of flies infected from animals dead of the disease, has there been a great deal of assumption and theorizing, with little actual observation or experimental proof. Too much credence has been placed on the statements of patients infected with anthrax, who have attributed the subjective stinging sensations at the seat of infection, to the bite of an insect. Nuttall's own experiments go to show that while insects, feeding on the bodies of animals dead of anthrax, may take the bacilli into their bodies and retain them in a virulent form for some time, their *bites* do not produce infection in susceptible animals. Crushing of the infected insect on the body, however, may produce infection in a wound already existing.

In Plague, Cholera and Typhoid fever, flies and other insects feeding on dead bodies or on infected excreta, take the virulent germs into their alimentary canals, and so may contaminate food used for human consumption, thus indirectly spreading the disease. The practical application of these facts in reference to the careful disposal of dead bodies and excreta, as well as to the care required in the protection of food, is of the greatest importance in prophylaxis.

In Tuberculosis and Yellow fever, insects have not been proven to play any role, and in Leprosy their importance is doubtful.

Fleas and dog lice have been shown to contain the larval stage of *Taenia Cucumerina*, the adult worm being found in dogs, cats and other animals and occasionally in man.

In lower animals, the Texas fever of cattle has been conclusively proven by Smith and Kilborne to be due to an infective agent, carried by the Cattle-tick, and inoculated into animals by their bites.

Bruce and others have proved that the ravages among both domestic and wild animals in certain parts of central and southern Africa, destroying large numbers each year, are due to a hæmatozoon, inoculated by the bite of the Tsetse fly.

Coming to the mosquito, the role played by this insect in the filarial infections of the tropics, has been so well worked out by Manson, as merely to require mention.

Of more recent date and of even greater interest to us, are the investigations of Surg.-Maj. Ronald Ross and others, as to the relationship of the mosquito to the etiology of Malaria. The common people in different countries have long believed mosquitoes to be the carriers of this disease, and again Science substantiates the truth of a widely diffused common opinion. This theory was first mentioned in 1883 by King, an American, who brought forward strong proof to sustain his idea. It was lost sight of for a number of years until new interest was awakened in it by the investigation of Manson, Koch, Laveran, Pfeiffer, Grassi, and particularly Ross. The mosquital origin of malaria fits in with, and explains many conditions long known to be associated with the disease, as damp climates, low altitudes, wet seasons, recent turning of the soil, and greater liability to acquire the disease at night. It also explains the protection afforded by the wearing of mosquito nets, the comparative freedom of towns from the disease, and its disappearance following proper drainage. Only a few species of mosquito appear able to serve as the intermediate host of the Malarial parasite, which Ross has traced into their stomachs and studied, after they had been fed on the blood of malarial patients. The immature parasites afterwards enter the salivary glands of the mosquito, thus explaining how the *bites* of the insect produce infection in man. As prophylactic measures against Malaria, would be included all the means that can be used to destroy the mosquito or their breeding grounds, and means to prevent being bitten by them.

It is hard to appreciate the far-reaching importance of these discoveries when applied to the prevention of disease and to the reclaiming of large fertile areas of the globe, now rendered uninhabitable owing to the prevalence of virulent forms of Malaria.

The discoveries of the important role played by insects as carriers of disease, will take rank with the most brilliant advances made in medicine during the closing years of a century that has revolutionized the art, and placed it on a scientific foundation. The great general interest awakened by these discoveries is shown by the fact that both the British and American Governments have now scientific commissions abroad following up the investigations, and supplying them liberally with the necessary funds.

PERSONAL.

Dr. Ernest Hall, late of Victoria, B. C., has removed to Vancouver.

We are pleased to learn that Dr. Cavan is convalescing rapidly from a recent attack of typhoid and will resume work soon.

Dr. Geikie returned last month after spending the summer in Europe. The doctor, from this out, will devote his attention to college work and consultations.

Sir. Jos. Grant, of Ottawa, was the guest of Dr. Murphy, of Chicago and delivered an address at the University of Chicago and also to the Medical Society of Chicago. The banquet given Dr. Grant at the Auditorium was attended by many of the leading physicians and Surgeons of the city.

THE POST-GRADUATE SOCIETY OF TORONTO.

A meeting of this Society was held in the House Surgeons' Quarters Toronto General Hospital, on Wednesday evening, Oct. 18, for reorganization. The following officers were elected:—

Honorary Pres.....	Dr. H. B. Anderson.
“ Vice-Pres	Dr. H. A. Bruce.
President	Dr. A. D. Stewart.
Vice-President.....	Dr. Colin A. Campbell.
Secretary	Dr. H. C. Wrinch.

Pathological Committee..Dr. C. A. Page and Dr. A. W. Tanner.

This Society was organized a year ago, at the suggestion and by the efforts of the late Dr. J. E. Graham, for the purpose of stimulating clinical and pathological research among the House Surgeons of the hospitals in Toronto, and the recent graduates working in the laboratories of the city. Dr. Graham was selected first Honorary President, and had the satisfaction of seeing the Society in successful operation before his death.

A good representation of members was present at the initial meeting is year, and much interest manifested in arranging the programme of work.

THE UPLAND OR ROCKY MOUNTAIN CLIMATE OF CANADA.

In quite a number of incipient cases of consumption, not so far advanced in the disease as to need more than a constant outdoor life and need not incur the expense of residence in a Sanitarium, which seems to be mainly for providing an outdoor life, the climate of the upland region about Calgary, McLeod and Lethbridge, and particularly the district about Maple Creek offers tempting inducements, especially for men; while many women too, accompanied by a male friend, may make arrangements for an outdoor life there. Of this region, the Secretary of the Provincial Board of Health, Dr. Bryce, says:—Whatever the physiological explanation, it is certain that the effects of the climatic qualities already mentioned are to so promote nutrition and reconstruction of tissue that tuberculous cattle transported thereto from the lower levels and moister climates of old Canada have rapidly regained flesh, and remained for years in seemingly perfect health, while many a consumptive has found that in this climate his disease has been stayed, and recovery in not a few instances has taken place. Probably no better illustration of the peculiarly health-giving qualities of the climate could be given than the remark recently made by a traveller: “that it was no wonder the Calgary ranchers are jubilant over their commercial prospects, for not only are they obtaining exceptionally good prices, *but their milch cows seem to grow as big as oxen!*” In the occupations of outdoor life, such as that on the great ranches, rather than in those of the towns, are we to look for such benefits to the sick as we have a right to expect from this climate of the foothills. Once let the invalid so improve as to be able to ride his broncho over these measureless plains, and enjoy the exercise in breathing the rarefied and oxonized air of absolute purity, and his recovery is almost assured. And it is just as certain, and he ought to know it, in order that the cure be permanent, that continued residence in the climate for perhaps many years is essential. And indeed in few places can existence become a more real pleasure than in this life of perfect freedom, removed far from the exacting conventionalities of society, and in touch with nature in her ever-changing moods.

Then there is the Mountain Sanitarium at Banff, an admirable institution for those who prefer it or can afford to take this course.

ABSTRACTS.

Acute Nephritis in Children.

Dupeu (*Jour. de Med.*) has collected a large number of cases of acute nephritis in children. He finds that the affection is in reality more common than is supposed, but, fortunately, the disease is much more hopeful in its prognosis than in adults. The author looks upon measles as a more frequent cause than is supposed by some authors, for it is definitely stated by some that it is extremely rare in this condition. Irritation and absorption from the skin would seem to be a cause of acute nephritis; thus, blistering, the application of turpentine, carbolic acid, etc., may produce nephritis, and it has been known to follow burns, severe electrization, too hot baths, and inflammatory conditions, as eczema, erysipelas, impetigo. Chicken-pox has also been observed to cause nephritis, as first pointed out by Hensch. Others consider it exceptional, but the author quotes Descroizille as stating that the most frequent complication of varicella is nephritis. These cases all seem to terminate favorably. Post-vaccinal nephritis is also described, and acute inflammation of the kidney may even follow tonsillitis, and a case is quoted in which a re-current tonsillitis was always accompanied by acute nephritis. Lastly, the author states that nephritis may be the result of ordinary gastro-intestinal intoxication, more particularly when there is dilatation of the stomach. This has been observed in children as young as eleven to sixteen months old fed by the bottle, and in whom vomiting and diarrhea were prominent symptoms. In these cases there is very marked abnormal fermentation taking place with the production of more or less toxic products, which, when absorbed, are competent to produce nephritis. The duration of these varies from two to four weeks, and may be accompanied by all the usual signs of Bright's disease.—*Archives of Pediatrics.*

Gonorrhoeal Salpingitis.

Taylor (*The Scalpel*) has found that many women suffering from tubal disease have at some time been exposed to the infection of syphilis, as well as gonorrhoea. These cases show, as a rule, marked improvement after a prolonged course of mercury and iodides; it is usually the case that the gross physical signs of the disease will slowly and permanently disappear. More than that, many cases in which there is no history of syphilis, but undoubted evidence of gonorrhoea get entirely well under the same treatment. Cases of pyosalpinx, whenever possible, should be treated by free incision of the posterior vaginal fornix, by thorough exploration and emptying of all pus-cavities from the pouch of Douglas, and by iodoform gauze drainage. This is far preferable to the older operation of removal of the appendages which is not only much more dangerous, but is peculiarly liable to be followed by faecal fistula, an operation sequel sometimes worse than death itself. Such cases of mixed infection and acute suppuration treated by operative evacuation of the pus with or without removal of the appendages, do sometimes not only recover but remain permanently well without further treatment, the acuteness of the infection appearing to terminate the process of infec-

tion. In other cases, recovery is not so complete or relapses are met with, and these cases should be followed up by a course of specific treatment, the beneficial result of this being often immediately manifest when the wound tissues are unhealthy and the healing is delayed.—*The Med. Stand.*

Alcohol as an Antiseptic.

Two papers, that of Braatz (of Königsberg), and that of Sanger (of Krefeld), remind us of the great difference between the theoretic and the practical value of alcohol as a medium for rendering the hands—surgically clean. Both refer to the fact that alcohol is, in the test tube, only a feeble germicide at best, but neither attempts to explain why it is, that we obtain better results through its use. Sanger maintains, that absolute alcohol fails to destroy the staphylococcus aureus in 20 minutes, and he found, furthermore, that its germicidal power increased with dilution until 40 per cent. was reached. Still, at that strength, it does not, with absolute certainty, kill the above mentioned germs. The critic gives these gentlemen little credit for originality in this matter, for Minervini taught us substantially the same thing years ago, although the results of the latter differed from those just quoted. He found alcohol most powerful in 50 to 70 per cent. dilution. The various chemicals, when dissolved in alcohol, have considerably less effect upon germs, he affirms, than have aqueous solutions of the same strength. He could demonstrate further, that boiling in alcohol was the more effective the more water it contained. Thus Minervini was the first to show us, that the school to which we have pinned our faith, can scarcely be dignified by the name of antiseptic. The instructive point in Sanger's article is, that certain disinfections antagonize each other, viz., the effect of a carbolic solution, used upon the hands after alcohol, is much less than that of alcohol alone. His results with carbolic acid, dissolved in alcohol, were practically the same as those which I have quoted from Minervini, in his use of the different chemical antiseptics. Sanger says, that of all chemicals, chlorine is the most powerful disinfectant. To make the use of the same practicable, he applies a 2 to 5 per cent. solution of hydrochloric acid for two minutes, than $\frac{1}{2}$ to 2 per cent. solution of potassium permanganate for one minute. The brown discoloration of the skin is removed in a few seconds, by the use of sulphurous acid. In this way, he brings about the liberation of nascent chlorine, oxygen and sulphuric acid, and insures a disinfection which is, he concludes, not to be attained by any other method. What the effect upon the skin might be, we are only left to surmise.—*Courier of Medicine.*

Carcinoma of the Larynx Following Syphilis of that Organ.

In a paper presented to the Seventieth Reunion of German Naturalists and Physicians, Dr. Keimer reports two cases of cancer of the larynx consecutive to syphilis. The first patient was under treatment for tertiary manifestations on the side of the nose and in the naso-pharynx. He followed the treatment in a very irregular fashion and never ceased to make an excessive use of tobacco and alcohol. One day he presented himself with a hoarse voice. There was found a smooth swelling of a

reddish-yellow color on the right aryteno-epiglottidean fold adjacent to the epiglottis and entrance to the larynx. The whole resembled a gumma. Potassium iodide was again prescribed, with rest for the larynx. After some time the voice was more clear and the symptoms was considerably lessened. Some time subsequently a small ulcer of the right pyriform sinus and the posterior wall of the larynx was found. The patient was still irregular in obeying instructions and drank and smoked to excess. The ulcer enlarged, commenced to proliferate and assumed the aspect of a growth. Potassium iodide produced no more effect. A first microscopical examination yielded no result, but later the disease was shown to be cancerous. An operation could not be immediately performed and when it became possible there was failure in removing the entire larynx. The patient died three weeks later from an infectious bronchitis.

The second case resembled the first in all points, The treatment was interrupted, there was abuse of tobacco and alcohol, an immoderate strain upon the voice. The patient declined operation.

The author does not think that any relationship between tertiary syphilis and carcinoma should be predicated from these two cases. MM. Hopmann, Flatau and Heymann were of the same opinion. M. Lieven, on the contrary, believed that the cases illustrated the occasional appearance of cancer in a syphilitic. *Revue Hebdomadaire de Laryngologie, etc.*

Overcrowding in the Nursing Profession: a Remedy.

The profession of trained nursing is scarcely out of its teens, and yet one already hears the cry that the field is overcrowded, a cry which the city physician, besieged by nurses in search of work, knows is only too true. Various remedies are proposed to relieve the condition for which the rapid increase in the number of hospitals is responsible, an increase which has worked ill to the physician as well as to the nurse.

A reduction in the number of training schools by the union of those connected with small hospitals, will be a wise change, both because it will lessen the supply of nurses and because it will afford better instruction to those who now graduate from special hospitals with but inadequate training. The lengthening of the course of training to three instead of two years is also desirable. So, too, would be the change from a school in which the pupil nurse is paid for her work to one in which she pays for her tuition.

Yet, with all these checks to lessen the number of trained nurses, the profession will remain overcrowded so long as graduate nurses remain in the city and demand \$20.00 a week for their services. There is, however, an almost limitless field for those women willing to go into the country and take for their services what their patients can afford to pay. To the woman who, in addition to earning her living, would like to feel that she is doing some good in the world, the country town ought especially to appeal. The need for trained nursing there is great, and the demand for the work will grow as its worth becomes known.

A physician in a village of 1,000 inhabitants gets from one-third to one-half the fee for a given service which the city physician, practicing among the well-to-do, receives. The nurse in a country town of this size could command from \$7.00 to \$10.00 a week. Living expenses will be much lower than in the city, and the diminished income will be more than offset by the lessened outgo. The social position of a nurse in a small town may, and usually will, be superior to that which she holds in the city, where nurses live almost as a class apart.

It was the fortune of the writer not long ago to be called to the sick bed of a friend in a country town remote from the city. The attempt was made to find a nurse to relieve the tired-out sister who had acted as such. The only women in the village who did nursing, neither of whom could be had, were two, who during the lulls in business did washing and scrubbing. As nurses they received \$1.00 a day. To those who are accustomed to the tender ministrations of the trained nurse, a sponge bath given by their laundress would at least seem rather unseemly. This town supported four physicians, and the one in charge of the case said that he alone much of the time keep one nurse employed.

The woman to succeed in the country, and success surely awaits the right woman, must be one possessed of great adaptability, of good judgment, able to hold her tongue, willing sometimes to do work outside the usual line, and above all a woman of common sense. The country doctor will welcome her coming, for he will recognize in her an ally for want of whom he has fought many a losing battle.—*Buffalo Med. Jour.*

Dullness over Apex of Lungs Without Pathological Changes Being Present.

W. Kernig (*Zeitsch. f. Klim. Med.*), during many years of repeated investigations, found in marasmic patients an equal apex dullness over both lungs, without marked symptoms on auscultation, except diminished respiratory murmurs. On making post-mortem examinations of such cases, many of which had been mistaken for tuberculosis, the lungs were found entirely normal. The difficulty of percussing such patients, together with the presence of other symptoms, makes the error in diagnosis a pardonable one. The author explains this peculiar position by the relaxed muscles and by the fact that the long lying of the patient in bed causes a diminution of elasticity and a contraction of the air spaces within the lungs, together with a retraction on the part of the lungs themselves. Numerous experiments were also made by the author on the cadaver, and he has by this means obtained much valuable information.—*Ex.*

Cerebral and Meningeal Syphilis Treated by Intramuscular Injection of Insoluble Salts of Mercury.

J. C. Stinson (*N. Y. Med. Jour.*) reports a case illustrating the value of this method of treatment in a severe case of tertiary syphilis with marked cerebral symptoms. Treatment consisted of the intramuscular injection of two grains of salicylate of mercury suspended in sterilized almond oil, and later ten grains of iodide of potassium were given three times daily, increasing two grains each day. As to technique, if the sali-

cylate of mercury is used and two grains can be tolerated at each injection, two injections should be given a week till nine or ten are given. Forty per cent of the cases can take two grains; forty per cent. more cannot stand this amount, as it produces diarrhoea, painful colic, sometimes considerable pain locally; these patients can be given a grain and a third at each injection, given three times a week. The remaining twenty per cent. will not submit to injections on account of the pain. Between the series of injections, which should be given for three years or longer, four series each year, iodide of potassium is given. The syringe used is an aspirating syringe, with a needle two inches long. The site for injection is a point about one quarter to half an inch above the junction of the inner and middle thirds of a line carried from the upper border of the great trochanter to meet the cleft of the buttock at right angles. The needle is withdrawn slowly, a little aristol or other antiseptic powder dusted on and covered with a few drops of collodion.—*Med. Rev.*

The Causes of Bronchitis.

In this year's Lumleian lectures, delivered by Dr. Samuel Gee at the Royal College of Physicians in London, the following closing remarks were made: "We have found it to be highly probable that most catarrhs are due to a specific infection, and they often depend upon contagion spreading from man to man. This doctrine has very important bearings upon medical practice. It leads us to believe that the means by which we can prevent catarrh are to be found in ventilation and cleanliness, if, indeed, ventilation be not a kind of cleanliness. Experience confirms this belief. When epidemic catarrh prevails, where do we find most of our patients? In those houses which are obviously the worst ventilated, even they may be the spacious houses of the rich. And where do our patients catch their catarrh? Either in houses of the kind I have mentioned or in buildings where men most do congregate, especially in offices, shops and churches. Large shops and stores, public museums and libraries, are ventilated as little as possible for fear of their contents being spoilt by smoke and dust. Many churches, both in town and country, are never properly aired for another reason—namely, because their architecture does not admit of it. Those 'rich windows which exclude the light' do worse than this—they exclude fresh air. The revival of Gothic architecture has been, from the sanitary point of view, a great mistake. Our despised forefathers of the eighteenth century erected plain and simple buildings which could at least be well aired, well lighted and kept warm and comfortable; nay, even the much ridiculed churchwarden, with his brush and pail of whitewash, was a praiseworthy minister of health. Modern dwellings are no better than the churches. In the matter of domestic sanitation people have fixed their attention too exclusively upon the drainage and water supply; light and air are not reckoned. Many of the large red-brick houses which have been built in great numbers at the west end of London and elsewhere during the last twenty-five years cannot be properly ventilated. The well of the staircase ought in every house to be a reservoir of pure air, and to have an independent supply from without. But in many houses the staircase cannot be ventilated

except through the rooms, and, in fact, it never is ventilated. Nor are the rooms themselves much better off; their heavily mullioned windows are designed with small regard to the transmission of light and air. The subsidiary and merely ornamental arts, which do no more than please the eye, are studied to the neglect of that far greater art which promotes the happiness and welfare of the whole man—the art of preserving health.”—*Med. Rev.*

Insomnia in the Failing Heart of Mitral Insufficiency.

Agents for producing sleep or calming nervous agitation are of high importance in the treatment of the failing heart of mitral insufficiency. In some cases chloralamid has been useful as it is always a harmless hypnotic. It may be given in doses of from 20 to 50 grains in wafer cachet or in weak spirituous or acidulated solutions. Each draught should be made up separately. I prefer a combination of 20 to 30 grains of chloralamid with 30 minims of dilute hydrobromic acid with a dram of syrup of orange flowers and an ounce of pure water, administered at bed-time. Another harmless agent is urethane (ethyl carbonate), which is freely soluble in water, the solution having a saline but by no means unpleasant taste. In doses of from 15 to 20 grains at bed-time I have found it induces a calm, natural sleep, lasting in a case of severe cardiac failure for more than five hours, the patient being manifestly refreshed on waking. Paraldehyd is perhaps a little stronger as a hypnotic. It may be administered in doses of from 30 to 90 minims in diluted syrup or in almond mixture, or in capsules (each containing 40 minims); it has a powerful and unpleasant taste.

In a considerable number of cases of manifestly distressful symptoms of dyspnea and insomnia no agent succeeded as well as morphia. By far the best way of administering it in case of cardiac disease is by hypodermic injection. The solution of the acetate or the hydrochlorate or the solution of morphia or atropia may be used. The first dose should be small—one-sixth or one-fourth of a grain—but this may be increased subsequently to half a grain. Care should be taken that the administration shall not become habitual.—*Sansom in Allbutt's System of Medicines. Philadelphia Medical Journal.*

Disinfection of Sleeping Rooms.

Professor Konig, of Gottingen, in a recent article on this subject says that at one time while he was practising medicine in Hanau, he suddenly discovered that his bedroom was thickly inhabited by obnoxious insects. A friend assured him that he could easily get rid of the pests, and proceeded to fumigate the apartment with corrosive sublimate. The success of this measure was most gratifying, and when the room was opened the dead bodies of various kinds of insects were seen strewn about the floor. This incident led the professor to hope that the same means would be effectual in destroying the infectious elements of contagious diseases and a trial in private houses after scarlet fever or measles and in hospitals after erysipelas or pyæmia, gave most satisfactory results. Since

adopting this method he has never seen a second case of a contagious disease which could be attributed to infection remaining in the room in which the patient had been confined.

The mode of procedure is very simple. From one and a half to two ounces of corrosive sublimate are put on a plate over a chafing dish and then the windows and doors of the room are closed. After the expiration of three or four hours the windows are opened and the apartment is thoroughly aired. The person entering the room should take the precaution to hold a sponge or cloth over the mouth and nose in order not to inhale the vapor. The following day the windows are again closed, and some sulphur is burned, in order to neutralize any of the mercurial fumes which may linger about the furniture and other articles. The room should then be again aired and cleaned, when it will be ready for occupancy.—*Massachusetts Med. Jour.*

Nosology of the So-Called Functional Diseases.

Drs. Joseph Collins and Joseph Fraenkel, of New York, in *Med. Record*, claim that these diseases are due to disturbances in the sympathetic nervous system, either as centrally represented in the brain and cord, in its ganglia, or in the peripheral nerves. The diseases that they include under the term functional for the purposes of this paper, are insanity without gross lesion, epilepsy in all its varieties, hysteria and allied conditions, the neurasthenic state, migraine, angio-neurotic edema, asthma, non pancreatic diabetes mellitus and insipidus, Graves' disease, rheumatism, rheumatoid arthritis, arthritis deformans, arterio capillary fibrosis, pathological obesity. They contend that these diseases are better explained on the basis of disease or derangement of the sympathetic nervous system than any other assumption. They all have a common feature of heredity, degenerating and influenced by surroundings. A striking feature of the functional diseases is their mode of onset. This is almost invariably insidious. The patient can give but little information as to the initial phenomena. In the case of organic, the reverse is the case. In these, the patient can tell in most cases the very day the trouble began, and point out the initial phenomena. In the case of functional disorders the patient's language is inadequate to describe all his ills; whereas, in the organic diseases, the patient states the case in a few words and usually makes light of his trouble. Then again, in the matter of treatment there is a feature in common to all the functional diseases. The patient's strength must be improved in all cases. The vegetative system must be attacked. This does not mean that the acidity of the blood in rheumatism should not be lessened, or that the nasal membrane should receive no attention in asthma; but behind all these there lies a weakness that requires long-continued toning.—*Ex.*

Dermoid Cyst in Three-Year-Old Girl.

Dr. H. Huttel (*Ugar. Med. Presse*) reports a case of operative embryoma ovarii in a 3-year-old girl. She complained of severe abdominal pain of several weeks' duration. Examination under anesthesia

revealed a dense, movable mass the size of an orange located in the right inguinal region. Kidneys, liver and spleen normal; no temperature; urine and passages normal.

Laparotomy was performed and an ovarian tumor removed, together with right tube. Tumor weighed 133 grains and consisted of two large cysts, the lower one containing a small walnut-sized mass, which was partially covered with reddish, curly hair, and immediately beneath this a small portion of normal bone.—*The Med. Stand.*

Hypodermic Injection of Silver Nitrate over the Course of the Vagi in the Treatment of Pulmonary Consumption.

Mays (*Boston Med. and Surg. Jour.*; *N. Y. Med. Jour.*) has followed practically his belief, often announced, that the lesions of pulmonary consumption are the result of a defect of nervous tone, in which the vagi are seriously implicated. A suggestion was afforded by the operation of vagus stretching in severe cough associated with exophthalmic goitre and in epilepsy, and the same principle was sought to be carried out in the counter irritation resulting from the injection of nitrate of silver immediately over the course of the nerves in the neck. It was found that from four to seven minims of a 2½ per cent. solution of pure silver nitrate answered the purpose best. The local visible effects of the injections show themselves in nodular, sometimes in diffuse, swelling and in redness and pain. The number of injections necessary depends on circumstances. As a rule it is a good plan to begin by one injection on the side of the neck on which the affected lung is situated. In a week or ten days this is to be repeated and in urgent cases it may be continued at intervals of three or four days. The deductions which may be drawn from this plan of treatment are:

1. That the best results are obtained in incipient cases, both in regard to the symptoms and physical signs of phthisis.
2. That in most of the advanced cases of this disease the injections have a good and in some instances an exceptional effect on the symptoms and physical signs.
3. That in the great majority of the far advanced cases they ameliorate the cough, expectoration and some other symptoms temporarily, but have little or no influence on the local condition of the lungs—*Albany Med. Annals.*

Green Stools in Enteric Fever.

The occurrence of green stools in enteric fever which has recently given rise to some discussion in the *British Medical Journal*, is dealt with in an article in the *St. Bartholomew's Hospital Reports*, by Drs. A. E. Garrod and Drysdale, and the late Professor Kanthack. They describe the character of this kind of stool in three cases of enteric fever. The stools consisted of particles resembling chopped parsley suspended in a liquid, which on filtration was turbid but almost colorless. They were acid in reaction and devoid of offensive odor. Chemical examination of the solid particles showed the absence of urobilin or its chromogen, to

which the normal color of stools is due, and the presence of biliverdin; and this the authors believe to be the coloring matter present in all green typhoid stools. The biliverdin probably exists in combination, since it can only be extracted by the use of acid alcohol. This view as to the causation of the green color was held by older writers, but lately Lesage and others have asserted that the pigment is frequently of bacterial origin. In consequence of these statements the authors made cultures of organisms from these stools, and obtained as the predominant organism the bacterium coli commune or some member of an allied group. *Proteus vulgaris* was found in two cases, but no organism capable of forming a green pigment when grown in artificial media. Presence of unchanged bile pigment in the stools may be due to hastened peristalsis associated with extensive ulceration or catarrh about the lower end of the ileum and the colon, that is, at that portion of the bowel where the normal conversion process of the bile pigment into urobilin takes place. Possibly, however, bacterial action may be concerned in some way or other with the absence of the usual processes of transformation of the biliverdin into urobilin — *Brit. Med. Jour.*

The Roentgen Rays in Thoracic Diagnosis.

The Roentgen rays are steadily coming into more constant use by the great experts in physical diagnosis, in the recognition and differentiation of intrathoracic conditions. Last year at the meeting of the German Medical Congress, Dr. Schott, of Nauheim, demonstrated by a series of most careful skiagrams that even our knowledge of so delicate a subject as heart dilatation could be greatly aided by this new diagnostic method. In the proceedings of this year's German Medical Congress, an abstract of which appeared recently in the *Medical News*, it will be seen that the distinguished heads of German clinics frequently turn to the X-rays for help in conditions that were formerly supposed to be fully revealed by older methods of physical diagnosis.

In the diagnosis of aneurism practically all authorities are agreed that the Roentgen skiagrams are of the greatest service. In cases in which there are suspicious symptoms in the thorax, and especially if there is any, even the slightest, reason to suspect aneurism of the descending aorta, the X-rays are a most reliable adjuvant.

There are heart conditions in which a series of skiagrams furnish information that is of the greatest value for prognostic as well as diagnostic purposes. This to be sure, is the more exact and delicate side of the application of the Roentgen rays, and one that requires special training, but the time spent in acquiring the technic for thoracic diagnosis cannot fail to be profitably expended—a fact that will become more and more apparent in the near future.—*Med. News.*

Edema in Bright's Disease.

Reichel (*Centralblatt für innere Medicin*) states that several years ago he expressed the opinion that impaired functional activity of the kidney led to a physical alteration in the tissues owing to the retention

of toxic substances in the blood; this produces the edema and also cardiac hypertrophy, as a result of the increased arterial tension. Reichel has undertaken a series of experiments to support this view. He has compared the power of absorption in renal patients with that in patients with cardiac disease, as well as with that in healthy subjects. After the injection of fifty cubic centimetres of saline solution in these cases, he found that absorption occupied a much longer time (sometimes eight or ten days) in renal patients. The normal transudation and resorption of the tissue fluids depend on metabolism and the functional activity of the kidneys. Reichel claims that the dropsy of renal disease is due to an alteration in the power of absorption.—*Ex.*

Relative Toxicity of Cocain and Eucaïn.

A. H. Peck, M.D., D.D.S., Professor of Materia Medica, Therapeutics and Special Pathology in Northwestern University Dental School, Chicago, in a paper entitled "Relative Toxicity of Cocain and Eucaïn," read before the Section of Stomatology at the 50th Annual Meeting of the American Medical Association, Columbus, June, 1890, arrived at the following conclusions:—

1. The action of cocain is inconstant; one never knows whether the symptoms occasioned by like quantities of the drug, in animals or individuals, under like circumstances, will be similar or dissimilar.

2. The action of eucaïn is constant. The symptoms occasioned by the use of like quantities in animals under like circumstances, and so far as my experiments have gone, in different individuals also, are the same.

3. The first action of cocain on the heart is that of a depressant, and on the respiration that of a mild stimulant; the after-effects being, on the heart, that of a decided stimulant, and on the respiration that of a decided depressant.

4. The first action of eucaïn on both the heart and respiration is that of a stimulant, the after-effects being that of a decided depressant.

5. Cocain causes death in animals by paralyzing the muscles of the respiratory apparatus, the heart's action continuing in a feeble way for a brief period after breathing ceases.

6. Eucaïn causes death in animals by paralyzing the muscles of the heart and of the respiratory apparatus, they ceasing to operate simultaneously.

7. Eucaïn in toxic doses nearly always causes nausea, and occasionally vomiting.

8. Cocain is much less nauseating and scarcely ever causes vomiting.

9. Eucaïn is decidedly a diuretic, causing vesical discharge in a majority of instances in which a toxic dose is used.

10. Cocain is not a diuretic to any appreciable extent, vesical discharge having occurred in only one instance in connection with all my experiments.

11. The pupils of the eyes, in nearly all cases of cocain poisoning, do not respond to light, and the eyeballs bulge more or less from their sockets.

12. The pupils of the eyes in most cases of eucain poisoning do respond feebly to light, and the eyeballs rarely bulge from their sockets.

13. The action of the toxic doses of eucain is more like that of a paralyzing, tetanoiding, convulsion-producing agent, than it is like an anæsthetizing one, the plantar and cremasteric reflexes nearly always remaining active.

14. Toxic doses of cocain cause general anæsthesia in connection with the other symptoms in the majority of cases.

15. True tetanus of all striped muscles of the limbs, and Cheyne-Stokes' breathing nearly always occur with the use of cocain; but either occurs seldom when eucain is used.

16. Cocain is at least three times more toxic than Beta-eucain, and Alpha-eucain is as toxic as cocain.

17. Boiling does not destroy the efficacy of cocain, but it does modify it; and boiling in no degree lessens the efficacy of eucain.

The above deductions have been made only after many experiments in connection with each individual point. I have observed many interesting features in connection with the relative worth of these drugs as local anæsthetics, but this paper is not meant to treat of this phase of the work. There is much experimental work yet to be done in this connection, the results of which I shall be pleased to present at some future meeting.

Peculiar Ringworm of the Hands.

Pringle (*British Journal of Dermatology*), at a meeting of the Dermatological Society of London, exhibited a patient, a man 28 years old, suffering from an eruption on the backs of both hands of six weeks' duration. The eruption consisted of numerous scaly patches of dermatitis, marginate in character, distributed over the dorsal surface of both hands and of all the fingers as far as the roots of the nails. One patch, situated over the metacarpo-phalangeal joint of the right index finger, was eczematous and discharging. The hair, which was unusually abundant over the sound skin, was scanty over the diseased patches. Micro-copical examination of the hairs demonstrated the presence of abundant mycelium. The case recovered in a few days under the use of an ointment of salicylic acid and ammoniated mercury.—*Ex.*

Inversion of the Uterus.

H. E. Marion, in the *Boston Med. and Surg. Jour.*, reports two cases of this rare accident. Both were primipara. In one there was apparently no cause for the accident; in the other, in the third stage, it is stated that "the uterus did not contract quickly, and I stimulated it by manipulation. After fifteen minutes, when there had been apparent contraction of the uterus, I made slight but not continuous traction of the

cord, at the same time keeping one hand on the uterus." After the removal of the placenta flowing was considerable, and it was noticed that there was nearly complete inversion. In both these cases reposition was established without much difficulty, and both patients made an uninterrupted recovery.

In discussing the etiology of the affection, the writer states that no satisfactory explanation has yet been given, but that undue tension of the cord and a paralytic condition of the uterine muscles are important factors. The most fruitful source of inversion is traction of the funis in order to remove the placenta. A vulnerable condition in the patient, on the one hand, and a faulty technique of the obstetrician on the other, or a combination of these two with perhaps associated factors, are chiefly responsible for the accident.—*Ex.*

A Case of Intrauterine Epidemic Cerebro-Spinal Meningitis.

R. B. H. Gradwohl (*Phila. Med. Jour.*) reports a case of a woman of 31 years, who died of cerebro spinal meningitis; she was seven months pregnant. At the necropsy typical meningitis was found on opening the cranium; there was great injection of the pia-arachnoid and an abundant purulent exudation scattered here and there over the entire meningeal surfaces, particularly at the base. The same condition was found upon the cord. An exact counterpart of the condition of the maternal meninges was found in the fetus, with perhaps more of a sero-purulent than a purely purulent exudation, as found in the mother. Bacteriologic examination of fluid from both the maternal and fetal meninges revealed the presence of the diplococcus intracellularis meningitidis. Pathologically the meninges exhibited about the same condition of inflammation and degeneration such as is found in epidemic cerebro-spinal meningitis. In whatever way the specific micro-organism may gain access to the fetal tissues from the mother, it can be said that in a disease like typhoid, or epidemic cerebro-spinal meningitis, there must surely be some selective affinity on the part of the micro-organism for some tissues.—*Med. Rec.*

Tubercular Peritonitis.

Holmes (*Annals of Gynecology*) concludes:

1. That tubercular peritonitis is a relatively common disease.
2. It is never a primary disease, though it is usually impossible to find the initial focus.
3. Recovery follows laparotomy, as a general rule, unless there is an initial focus to keep up the disease.
4. This disease appears in three different forms—the exudative form, the dry form and the ulcerative form and they are recognizable in the order named.
5. Microscopical examination of the peritoneum is sufficient for a positive diagnosis. The demonstration of microscopical tubercles, or the recognition of the bacilli are only confirmatory.
6. Puncture of the abdominal wall for diagnosis or for the removal of ascites and injection of air, fluid, or iodoform, is dangerous and should not be practised.—*The Med. Stand.*

The Operative Treatment of Pulmonary Cavities.

Wiener (*Münchener medicinische Wochenschrift*) describes a case of gangrene of the lower left lobe, which he treated by pneumotomy. He turned back a flap of skin and muscles eight inches long, and after resecting ribs rather freely, came upon the pleura. As the parietal and visceral layers were adherent he was able to proceed to the pneumotomy at once. With a knife of a Paquelin cautery he penetrated the lung for about two inches, when the cavity was opened. It was found to contain a large slough of pulmonary tissue as big as a fist; this was removed and the cavity packed with iodoform gauze. Five days later another cavity was found, which communicated with the first by a narrow opening, and resembled it in also containing a large slough. This was treated in the same way. The quantity of expectoration at once diminished, and became simply purulent instead of fetid. Six weeks later the cavity had completely closed. There was not even a sinus left, and the patient went out of hospital having gained over thirty pounds in weight. The writer considers that such cavities should be opened freely.—*Ex.*

Intravenous Injections of Mercury in the Treatment of Syphilis.

Dudley Tait (*Occidental Med. Times*) claims to have had good results in a number of cases in which other methods of administration of the mercurials had failed. The most practical solutions used for injection are the cyanide $\text{r}\delta\delta$ to $\text{z}\delta\delta$, and the sublimate $\text{z}\delta\delta$ to $\text{r}\delta\delta\delta$. Amount injected daily varies from 1 to 3 cc. This method of administration is based upon the fact that mercury has no effect on the organism until it enters the blood. Mercury can be detected in the urine in ten minutes after injection and will have all disappeared within thirty six hours. The intravenous injections should be used where other methods have failed and in cases demanding rapid action or early and intense mercurialization. No ill results need be feared if one employ an ordinary amount of skill and care. A small needle should be used.—*Med. Rev.*

The firm of Parke, Davies & Co., of Detroit have shown their liberality in donating \$100 worth of their famous antiseptic preparation to the medical stores of the Canadian Contingent just gone to the Transvaal, and have also given leave of absence to two of their men with a guarantee of re-instatement to their positions upon their return. We congratulate the firm on their liberality and the kindly feeling expressed to British success and welfare.

BOOK REVIEW.

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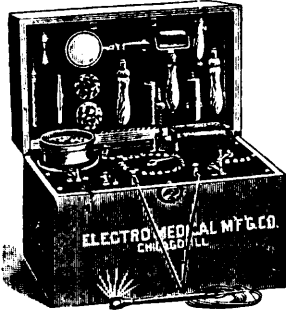
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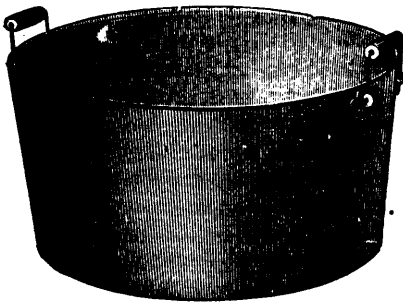
BY GUSTAVUS M. BLECH, A. B., M. D., CHICAGO.



Electricity as a therapeutic agent, while quite popular with a few specialists and wealthy practitioners, is employed by the majority of general practitioners with no scientific precision, because of lack of suitable apparatus. The results are poor, for to obtain good results good apparatus is necessary. It is therefore for this reason that electricity is decried by many as a valueless agent, while in reality it is a very valuable means of curing a large number of nervous and muscular affections. The idea prevails among many practitioners that electricity can be administered scientifically only by means of large stationary and expensive "machines." The price and impossibility of moving the batteries from the office to the bedside of the patient have proven objectionable features, preventing the general introduction and practice electrotherapeutics. It is perhaps of interest to know that the most renowned specialists in Europe, for example Dr. Erb, who has become famous through his lectures and writings on electrotherapy, use, in their private practice, small portable batteries. Of course the term "small portable" is not to be confounded with the so-called family batteries, for self-treatment, which, as a rule are not worth the material used on them.

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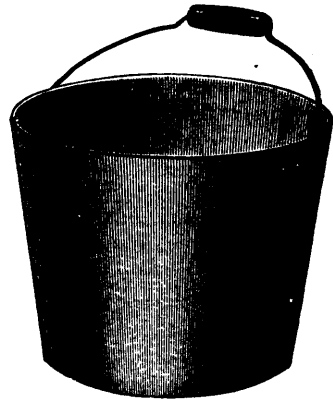
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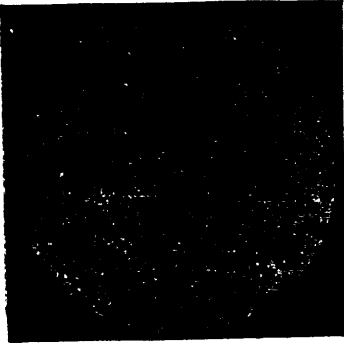
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Showing the Blood-corpuscles Intact.



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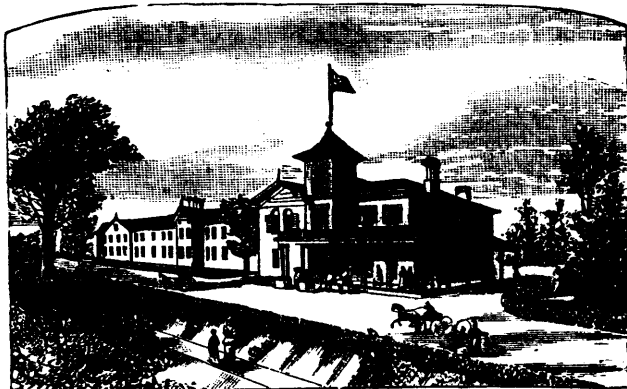
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R Sulphite Soda, 1 gr.
Salicylic Acid, 1 gr.
Nux Vomica, $\frac{1}{8}$ gr.
Powd. Capsicum, 1-10 gr.
Concentrated Pepsin, 1 gr.

DOSE—1 to 3.

PIL. Antiseptic Comp. is serviceable in atonic dyspepsia, nervous dyspepsia—in fact, all forms of this disease, because it strengthens the lowered digestive vitality.

The Nux Vomica and Capsicum, besides promoting involuntary contraction of muscular fibre, relieve flatulence and constipation.

The digestive properties of the Pepsin, assisted by the action of the Salicylic Acid and Sulphite of Sodium, in addition to the above, make this an effective remedy.

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A Most Satisfactory Method for Prescribing Iron as Indicated in

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R Ferri Sulph.
Potass. Carb., aa $1\frac{1}{2}$ grs.
DOSE—1 to 2.

PIL. Chalybeate produces Ferrous Carbonate in the stomach, and mingling with the gastric juices is more quickly assimilated than any other preparation of iron.

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The same formula as Pil. Chalybeate with $\frac{1}{8}$ gr. Nux Vomica added for its tonic effect.

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A SOLUBLE ACTIVE PILL.

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Renews Peristalsis.

Relieves Hepatic Torpidity.

Mild in Action.

An Intestinal Tonic.

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(W. R. WARNER & Co.)

R Acid Salicylic. Ext. Phytolacca.
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Res. Podophyl. Pv. Capsici.

DOSE—1 to 2.

AN ANTIDOTE FOR

..RHEUMATISM AND GOUT..

PIL. Arthrosia combines pure drugs, accurately subdivided, scientifically compounded, a quickly soluble coating (hermetically sealing and protecting contents indefinitely). Upon administration, Pil. Arthrosia will disintegrate rapidly and release a combination of remedies whose known therapeutic properties at once recommend this pill to the profession.

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(W. R. WARNER & Co.)

R Nerve-tonic properties of Sumbul.
Blood-making " Iron.
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Acid Phosphates.
Aromatics, Sherry Wine, q. s.

Sig. Tablespoonful to be taken before meals.

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(W. R. WARNER & Co.)

An active, palatable form of Sodium Phosphate, which, on account of its bland, gentle action and efficacy as a cholagogue, has become a widely prescribed preparation.

It is useful in

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Its refrigerant saline action recommends Eff. Sodium Phosphate (W. R. W. & Co.) in all exanthematous fevers.

Used to advantage in all Nervous Diseases where the system is sub-normal.

DOSE.—One or two dessertspoonfuls. As a purgative, two dessertspoonfuls. As an alterative, one dessertspoonful. It is more efficient taken before breakfast or at bedtime.

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For Sick Headache caused by indigestion and over-indulgence.

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Bromo Soda will quickly relieve Neuralgic and Rheumatic Headache.

Where nervous depression follows deprivation of alcoholic stimulants, opium, etc., when habituated to their use, BROMO SODA is recommended with the utmost confidence as a prompt and certain remedy.

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AND

Eff. Vichy

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DOSE.—Heaping teaspoonful Eff. Kissingen, after meals, alternating every other day with same doses of Eff. Vichy.

We also put these remedies up in the form of an Effervescent Tablet, two tablets being one dose. To be taken after meals.

“SPECIFY WARNER’S.”

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(W. R. WARNER & Co.)

R Lithia Citrate, 5 grs.
Potass. Bicarb., 15 grs.
Soda Bicarb., 10 grs.
Acetanilid, 3 grs.
In each dose or two teaspoonfuls.

Lithia Salt Alkaline affords a most excellent means of ridding the blood of an excess of those acids upon which the above diseases depend.

The physician is cautioned not to confuse this remedy with those of similar sounding names, and in prescribing it would be well to specify “Warner & Co.”

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(W. R. WARNER & Co.)

FOR CONSTIPATION BILIOUS DISORDERS

SMALL
EFFECTIVE
EFFICACIOUS
NO GRIPING
NON-IRRITATING TO
HEMORRHOIDS

R Aloin, $\frac{1}{4}$ gr.
Ext. Bellad., $\frac{1}{8}$ gr.
Strychnine, 1-60 gr.
Ipecac., 1-16 gr.

DOSE—1 to 2.

Pil. Peristaltic Mercurial

(W. R. WARNER & Co.)

Same formula as Pil. Peristaltic,
with 1-10 grain Calomel added.

Liquid Pancreopepsine

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THIS preparation (sometimes termed "Digestive Fluid") contains in an agreeable form the natural assimilable principles of the digestive fluids of the stomach, comprising Pancreatine, Pepsin, Lactic and Muriatic Acids.

The best means of re-establishing digestion in enfeebled stomachs, where the power to assimilate and digest food is impaired, is to administer remedies capable of communicating the elements necessary to convert the food into nutriment.

SEE THAT YOU GET THE ORIGINAL.

Nervitone Tablets

(W. R. WARNER & Co.)

R Phosphorus, 1-100 gr.
Ferri Carb., 1 $\frac{1}{2}$ grs.
Asafetida, $\frac{1}{2}$ gr.
Ext. Sumbul, $\frac{1}{2}$ gr.
Ext. Nux Vomica, 1-10 gr.

DOSE—2 tablets before meals for adults.

BY glancing at the above it will be seen that in Nervitone Tablets we offer a combination of well-known nerve tonics and stimulants. It is a tablet that will cover a wide field of usefulness in physicians' prescribing. When the indications are for a prescription to correct conditions due to asthenia, neurasthenia or nerve exhaustion, whether the result of debilitating diseases or excesses, we have in Nervitone Tablets a remedy which will give satisfactory results.

The drugs used in the manufacture of this pill are pure and active.

Pil. Digestiva

(W. R. WARNER & Co.)

COMPRISES a combination of remedies for the treatment of all forms of indigestion, whether due to an enfeebled digestive tract, faulty secretion of gastric juices, or indiscretion in matter of diet or stimulants.

R Pepsin Concentrated, 1 gr.
Pv. Nux Vom., $\frac{1}{4}$ gr.
Gingerine, 1-16 gr.
Sulphur, $\frac{1}{2}$ gr.

DOSE—1 to 2.

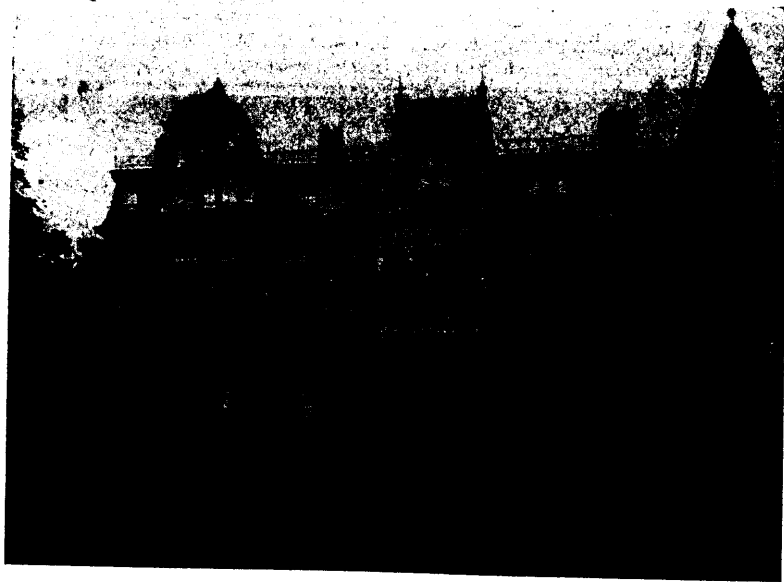
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Dr. Meyers devotes his entire attention to Nervous Diseases, having prepared himself especially for this work by several years' study both in England and on the continent.

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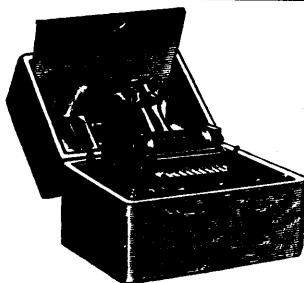
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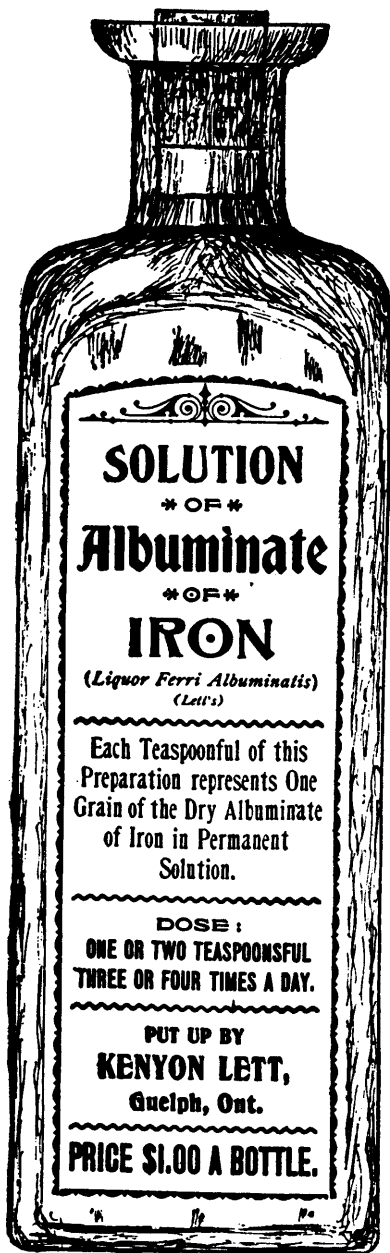
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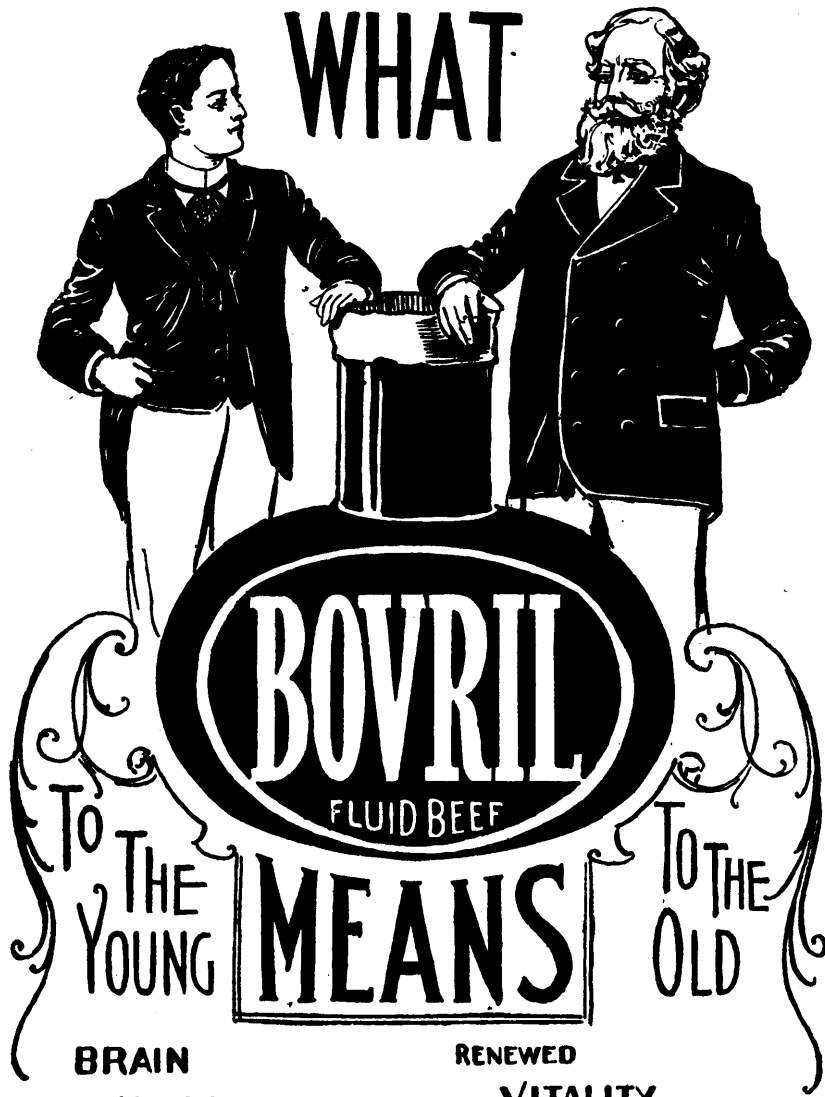
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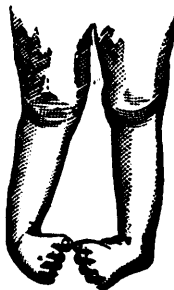
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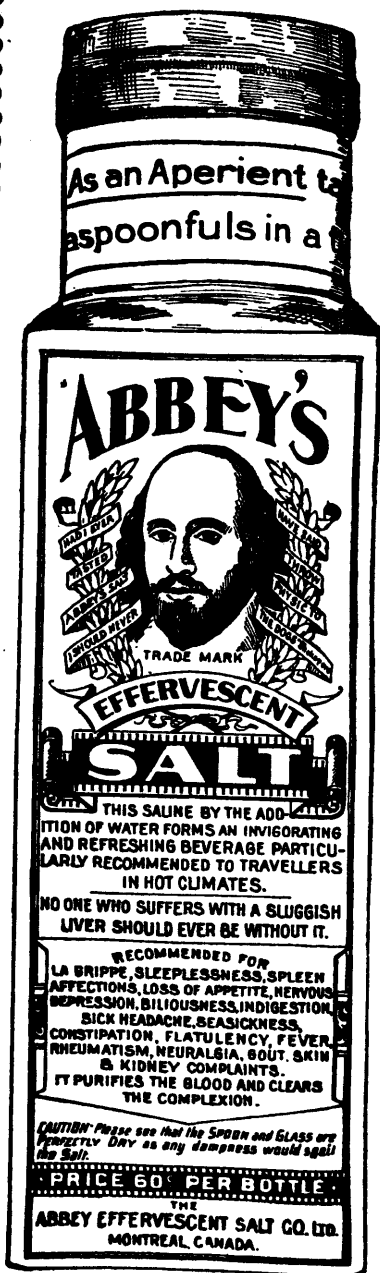
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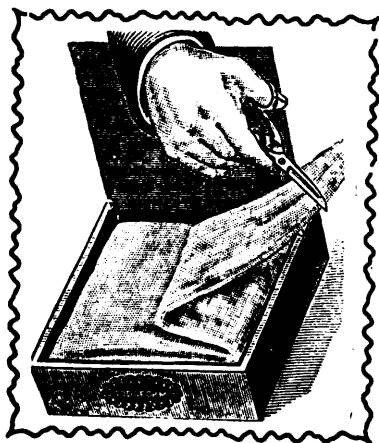
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LOSOPHAN (Triiodometacresol). Particularly efficacious in the treatment of all kinds of cutaneous disorders caused by animal parasites.

TANNIGEN (Triacetyl of Tannin). An almost tasteless intestinal astringent. Most efficacious in Chronic, Acute and Summer Diarrhœas. Adult dose: 8 grains every three hours.

TANNOPINE (A new intestinal astringent). (Formerly "Tannone"). Special indications: Tuberculous and non-tuberculous Enteritis, Typhus. Dose: 15 grains, three or four times daily.

SALOPHEN (Acetyl of Para-Amidosalol). Specific for Influenza, Headache, Migraine, Acute Articular Rheumatism, Chorea, Sciatica. Dose: 15 grains, four to six times daily. In powders, etc.

ANALGEN (Ortho-Ethoxy-ana-Monobenzoylamidoquinoline). A specific for Malaria. Highly recommended in Acute Rheumatism of the Muscles, Sciatica, Facial Neuralgia, etc. Malaria: before the paroxysm of fever 20 to 30 grains; between the fevers 15 grains every 3 hours. Rheumatic affection and Sciatica: 15 grains, 4 to 5 times daily. The use of **ANALGEN** is accompanied by a reddish coloration of the urine, which, however, is not produced by the presence of blood corpuscles. The red color of the urine may be avoided by taking alkaline waters.

PHENACETINE-BAYER (Acetyl of Para-Phenetidin).

PIPERAZINE-BAYER (Diethylene-diamine).

HEROIN (Di-acetic ester of morphine). An excellent substitute for codeine. In doses of 0.005 gramme, 3 to 4 times daily, it has given excellent results in cases of Bronchitis, Pharyngitis, Laryngitis, Catarrh of the Lungs in phthisical persons, and in Asthma Bronchiale. In the latter two cases, the dose may be increased to 0.01 gramme.

CREOSOTAL (Creosotum carbonas puriss). A mixture of the phenol carbonates of creosote. Most valuable in tuberculosis of the lungs. Doses of $\frac{1}{2}$ to 5 drachms per day, in wine, brandy, or cod liver oil.

DUOTAL (Guaiaecolum carbonas puriss). Great success in cases of Pulmonary Phthisis. Doses of 8 to 96 grains per day.

SULFONAL-BAYER (Diethylsulfondimethylmethan).

SALOL-BAYER (Phenyl Ether of Salicylic Acid).

Samples and literature may be had on application to the

DOMINION DYEWOOD & CHEMICAL CO., TORONTO.

Sole Agency and Depot in Canada for all "BAYER'S" Pharmaceutical Products. (Wholesale only.)