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## *Original Contributions.*

### THE BALTIMORE TUBERCULOSIS EXPOSITION.

BY J. H. ELLIOTT, M.B.,

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ONE of the most successful efforts thus far made to popularize the present scientific crusade against tuberculosis was that made in Baltimore during the week of January 25th, under the above name, the result of the combined actions of the Tuberculosis Commission of Maryland, the State Board of Health, and the Maryland Public Health Association. It was "An objective presentation to the people of Maryland of the history, distribution, varieties, causes, cost, prevention and cure of tuberculosis." The presentation was a most exhaustive one, with every phase of the study well represented, and by such graphic methods as to show the important features of each department at a glance, and in such a way as to leave a lasting impression.

Each evening lectures were given by some of the most prominent men in America dealing with some aspect of the tuberculosis problem, arousing public interest to such an extent that McCoy Hall was utterly inadequate to accommodate those who came from day to day. The attendance increased until on Saturday it was estimated that between 6,000 and 7,000 people passed through the hall during the day. On this account the Exposition, which was only to have lasted one week, was kept open three days longer.

To write any detailed account of the exhibits would require a volume, for one day was quite insufficient to even get a fair idea of the details, while several days could be well spent in a thorough study of all that had been collected. As an example, one only need mention the cases containing the literature on tuberculosis collected by Dr. Osler, from Hippocrates and Celsus to the present day, every volume of which was intensely interesting. Thou-

sands of square feet of wall space were covered by the various charts and statistical tables, showing the prevalence of tuberculosis, its comparative mortality, its incidence in various trades and professions, the economic aspects of the disease, its foothold in tenements, and the work being done there, photographs, elevations, and floor plans of various sanatoria, studies of the results of sanatorium treatment, models of various buildings, especially tents, the various means used to prevent dissemination of the disease, and the various articles for the patient's comfort while following an out-of-door life in all climates and all weathers. Some of the most striking charts seen on entering the hall were those prepared by Dr. Fulton and Dr. Price, of Baltimore "Sputistics." These charts forcibly impressed the people with the utter disregard of their antisputting ordinance. To quote one will be sufficient, the following appearing under a photograph of the new Court-House:

*Court-House Sputistics.*—In nine walks around the Court-House on nine different days between the hours of 10 a.m. and 2 p.m. there were counted: Separate deposits of sputum, 3,793; highest count, December 31st, 1903, 560; lowest count, December 26th, 1903 (a bitter cold day), 235. Average, 421.5. Filthiest spot, St. Paul St. entrance. In the second degree disgusting, Calvert Street entrance. Only fresh deposits of sputa were counted. The dried up tobacco juice, with which the pavements of Baltimore were bespattered, were passed over. And these findings in face of the fact that the police headquarters are in the Court-House.

Similar tables showed the conditions existing about other public buildings and in the street cars, where the observations showed that the conductors and motormen were amongst the greatest violators of the antisputting by-laws.

A large collection of charts showed the incidence of the disease in various occupations; another series, the relation of tuberculosis to life insurance; another the percentage of cures and arrests in the German sanatoria; others the after histories of discharged patients. At the Friederichsheim Sanatorium, of 541 patients (in all stages) discharged in 1900, there were (in 1903) 164 fully able, 100 partly able, 60 unable, 161 dead, 11 untraced, 45 returned for treatment.

Results in the various stages as follows:

	1st Stage	2nd Stage	3rd Stage
Fully able.....	112	88	64
Partly.....	10	13	37
Dead.....	5	18	138
Untraced.....	4	4	3
Returned for second treatment..	17	18	10
Total	148	141	252

The photographs of the tenement houses, sweat shops, etc., of New York and Baltimore, showed the terrible conditions there prevalent, and in conjunction with this the work being done to alleviate these conditions, and the organization of the Visiting Nurses' Associations to care for the patients at their homes, furnishing them with sputum flasks, literature, bedding and good food, all impressed one with the possibilities of the treatment of the consumptive, under the most adverse conditions, with proper organization, willing self-sacrificing workers and sufficient funds to secure the necessities for each patient. The exhibit of the New York Board of Health showed a most complete collection of all the forms used by them in reporting cases of tuberculosis, following these up, and the disinfection of houses after removal or death, the forms and mailing boxes for pathological specimens, and all pertaining to the excellent work of their department, which has made such enormous advances in the municipal control of these cases. Dr. A. J. Richer, of Montreal, presented a most interesting collection of various city ordinances, antispitting laws, notification of cases, and of various reports and publications.

To one interested in Sanatorium work, nothing in the whole Exposition was more attractive than a framed picture, exhibited by Dr. S. A. Knopf, of New York, amongst a large collection of photographs of foreign sanatoria and tuberculosis literature—one which will attract more and more attention as modern methods of combatting this disease are better recognized, bearing this inscription, "The Three Pioneers of Sanatorium Treatment." The photographs and autographs of Brehmer, Dettweiler, and Trudeau. The pathological exhibit occupied a small room apart from the main exhibit. This was particularly the domain of the physician and student, though the public paid a great deal of attention to it, showing especial interest in the microscopic preparations of bacilli, and in the large collections of cultures. On the tables were specimens of tuberculosis of all organs, in all stages of the disease, as well as specimens showing healed lesions, a splendid museum of tuberculosis. The Bacteriological Exhibit contained contributions from de Schweinitz, Ravenel and Trudeau. The list of the Saranac specimens will give an idea how complete it was: (1) Crude tuberculin, Koch; (2) tubercle bacilli dried; (3) tubercle bacilli—extracted in preparation of tuberculin; (4) pulverized bacilli—extracted; (5*a*) crude wax—extracted from tubercle bacilli. (5*b*) purified wax—extracted from tubercle bacilli; (6) emulsion of tubercle bacilli for agglutination test; (7) Precipitated tuberculin; (8) pulverized tubercle bacilli—wax extracted; (9) glycogen—extracted from tubercle bacilli (Levene); (10) pigment from tubercle bacilli—in alcohol; (11) tuberculinic acid—from tuberculin bacilli (Levene); (12) copper

salt of tuberculinic acid (Levene); (13) bacillus tuberculosis hominis, non-virulent, direct descendant of Koch's original culture, 1882; (14) bacillus tuberculosis hominis, non-virulent on broth, isolated 1892; (15) bacillus tub. hom.—virulent culture on agar from sputum; (16) bacillus tub. hom.—virulent culture on sheep serum; (17) bacillus tub., bovis—virulent culture on sheep serum.

In the Department of Sanatoria there was a very extensive collection of photographs, elevations, floor plans and models of many of the institutions of North America, particularly those of the North Eastern States. A large space was devoted to models of the various tents used in different parts of the country in carrying out the fresh-air treatment, varying to suit local climatic conditions.

My own presence at the Exposition was due to an invitation to make an exhibit of the institutions and work of the National Sanitarium Association in Canada. With the assistance of Dr. C. D. Parfitt, a very creditable exhibit was prepared of the two Muskoka institutions—the Muskoka Cottage Sanatorium and the Muskoka Free Hospital for Consumptives; and much interest was evinced by the visitors to the Exposition, most of whom had no adequate idea of the work this association is carrying on in Canada. During the past six years over 1,000 cases have been treated in these two sanatoria, and the results of treatment, and the charts showing the present condition of patients discharged proved very interesting to all who saw them. In addition to charts and diagrams showing economic data, climatological data, results, etc., there was a large collection of photographs, blue prints of floor plans, bills of fare, record blanks, reports, etc., models of interior structure, sputum flasks, and a model to scale of the roofed tent now extensively in use, suitable for both winter and summer occupation. The success which has attended the efforts of the National Sanitarium Association in their work was a matter of constant congratulation, and those who previously had but little conception of the magnitude of its work seemed pleased to learn that Canada is so far ahead of many of the leading States of the Union in this regard. There are now available in the two sanatoria of the association in Muskoka, seventy-five beds for paying patients, and fifty for poor patients, all of which are occupied, and it is hoped that appeals at present being made to the public will allow of the addition of twenty-five more free beds, making in all 150 beds.

The addresses made each evening by men who are moulding scientific and public opinion in the anti-tuberculosis crusade, were full of interest, and touched upon almost every aspect of the problem. To attempt any *resumé* is out of the question; most of

the addresses will, moreover, appear in print, and will thus be available. The week's programme was as follows: Monday, January 25th—Formal opening by His Excellency Edwin Warfield, Governor of Maryland; Hon. Robt. McLane, Mayor of Baltimore; Dr. Wm. Osler—Address; Mr. Frederick Hoffman—"The Statistical Laws of Tuberculosis." Tuesday—Dr. Lawrence F. Flick, of Philadelphia—"House Infection in Tuberculosis." Wednesday—Dr. Mazyck P. Ravenel, of Philadelphia—"Bovine Tuberculosis, a Factor in Human Tuberculosis"; Dr. D. E. Salmon, of Washington—"Some Observations in the Tuberculin of Animals." Thursday—Dr. S. A. Knopf, of New York—"Pulmonary Consumption and the Possibilities of Its Eradication through the Combined Action of a Wise Government, Well-Trained Physicians and an Intelligent People." Friday—Dr. George J. Adami, of Montreal—"Facts, Half-Truths, and the Truth about Tuberculosis." Saturday—Dr. Wm. H. Welch; afternoon, Dr. Chas. H. Porter—Lantern Demonstration; evening, Dr. Huber, New York—Lantern Demonstration. Monday—Dr. Wm. Osler—"The History of Tuberculosis."

The Exposition, both in attendance and enthusiasm, was a great success; far beyond the fondest hopes of its organizers, who deserve great credit for the work they did, particularly Dr. John S. Fulton, and Dr. Marshall L. Price, who practically lived in McCoy Hall during Exposition week, and were unremitting in their endeavors to have every visitor thoroughly understand the various exhibits. Dr. Thayer, Dr. Jacobs, Dr. Osler and Dr. Welch, amongst many others who should be mentioned, were most kind, and to them, with their associates, must be attributed the signal success of the Exposition.

All visitors to Baltimore are loud in their praises of the treatment accorded them there. Those who were in Baltimore during the week of January 25th are particularly so. For myself the whole week was full of pleasure and profit, and I much regret that more of our Canadian physicians had not the good fortune to be present. It is needless to say that I shall look forward with most pleasurable anticipation to my next visit to the city which possesses the Johns Hopkins University and Hospital, and trust that it may be in the very near future.

Let me also add as a postscript a suggestion that, though the jotting of these few notes has given me pleasure, the next time the editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY visits such an important meeting as this was he should not make the excuse of urgent business in Washington, leaving the work of note-making to an interested and partizan individual.

Gravenhurst, February 9th, 1904.

### NÆVUS LIPOMATODES.

BY A. PRIMROSE, M.B., C.M. (EDIN.), M.R.C.S. (ENG.)

Professor of Anatomy and Associate Professor of Clinical Surgery in the University of Toronto,  
Surgeon to the Hospital for Sick Children, etc.

THE case which I here record is one of congenital tumor of a type somewhat unusual. The term "Nævus Lipomatodes" has been used by Hyde\* to describe conditions which appear to be similar to those found in my patient, and the term is a suitable



FIG. 1. Nævus Lipomatodes.  
(Showing pigmentation.)

one, as the tissue of which the tumor is composed is made up largely of nævoid material and fat; it includes also, no doubt, a considerable amount of fibrous tissue. Under the title of "Nævus Pigmentosus," Hyde describes abnormal pigmentations of

\*"A Practical Treatise on Diseases of the Skin," Hyde and Montgomery, p. 461.

the skin, which vary in color from a light yellow or chocolate-brown to a blackish hue, either single or multiple, and very numerous. "They vary in size from that of a pin head to that of tumors of large volume, and are either ovoid or circular in contour, or are so irregularly shaped as to present a fanciful resemblance to lower animals, whence the popular belief as to their origin from maternal impressions." Under this general classification of "Nævus Pigmentosus," Hyde includes the soft or firm



FIG. 2. Nævus Lipomatodes.  
(View from the side.)

more or less elevated and projecting tumors, which he calls "Nævus Mullusciformis, or Lipomatodes."

The record of the case is as follows:

M. S., aet. 2 years. When the child was born she had an enlargement of the abdomen on the left side, the skin over it was extremely thin like parchment, and the movement of the bowel below it was said to have been quite visible. A second protrusion was noted too in the hypogastrium, and one on the inner aspect

of the left thigh. The one on the thigh has always been hard and firm, and dark pigmented spots were visible on the surface.

The family history throws no light on the etiology of the condition. There is no history of tuberculosis or syphilis. There is one other child in the family, a boy aged  $\frac{1}{2}$  years, healthy and well developed. The parts were said to have been inflamed for about six months after birth. They have been growing steadily since birth, but slowly, and the color of the surfaces has always

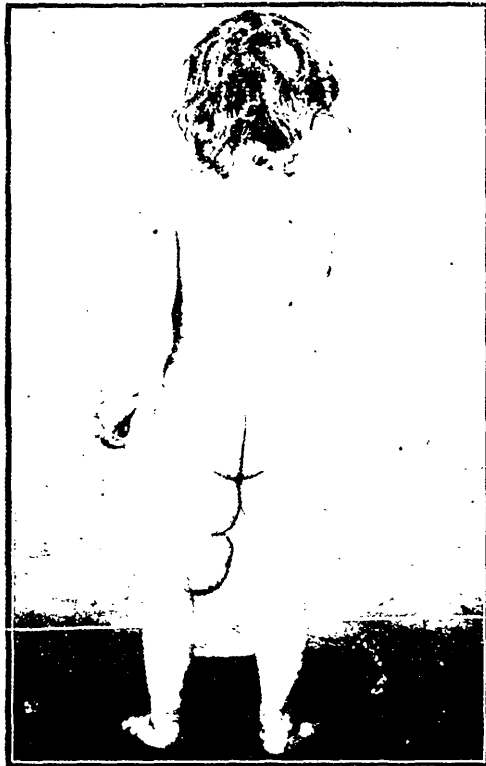


FIG. 3. *Nævus Lipomatodes.*  
(View from behind.)

been the same. There has never been any discharge from the tumor.

At the level of the umbilicus and a little in front of the anterior axillary line, is a small subcutaneous, fairly hard tumor, and below it a more diffuse mass of a similar nature. The upper one is partly covered by a number of dark, hemorrhagic spots a little larger than a pin's head. The color resembles very much that of venous blood. Just below, on the more diffuse mass,



are a number of smaller spots, lighter in color, giving a more general hemorrhagic appearance. The first spots thus described were such as might have been produced by a recurrence of small thrombi producing a more or less beaded appearance along the course of certain superficial vessels. The second spots described, however, had less defined margins, and more closely resembled hemorrhages into the areolar tissue. In the pubic region is a soft tumor, more evident towards the left side; this is of considerable size, and was thought at one time to be a hernia, but it is obviously in the superficial part of the belly wall, and has no deep connections. There is no hemorrhagic appearance about it. On the inner, anterior and outer aspect of the upper two-thirds of the left thigh is a large mass which is soft on the inner side, but quite hard on the greater part of its anterior and outer surfaces. There is a somewhat diffuse area on its upper and outer parts approaching close to the tumor on the abdomen. The pigmented spots which exist in this area are smaller and less distinct than those on the abdomen, presenting a more diffuse appearance. Just below the inner part of this tumor, on the lower part of the inner side of the thigh, and on the inner side of the knee is another comparatively hard tumor, separated from the one above by a sulcus. It extends to the level of the lower margin of the patella. There is a small hemorrhagic area on the inner side of it similar to the one on the larger tumor above.

All the hard parts rest on a layer of soft tissue, which evidently forms a deeper part of the tumor growth. The consistence of the hard parts is very firm, resembling that of dense fibrous tissue, that of the soft parts has the consistence of fat. According to the father's statement, the consistence has always been such as it is at present.

**UTERINE FIBRO-MYOMA WITH PYOSALPINX.**

BY W. H. PEPLER, M.D., L.R.C.P. (LOND.), TORONTO.

Mrs. A. B., aged thirty-five years, came to me in November last, complaining of a steady, dull pain and tenderness in the right pelvic and iliac regions which had commenced the day before. She gave an unimportant family history. Had been pregnant twice; one full-term child stillborn fifteen years ago, labor natural, and one miscarriage at three months twelve years ago. She had enjoyed excellent health up to this time, when she began to suffer from a profuse leucorrhœa, accompanied by general malaise. It was then discovered that she had a fibroid of the uterus, removal of which was advised but refused. Patient's general condition soon improved, however, and she had no further ill effects from the growth until Aug., 1903, when a metrorrhagia and menorrhagia appeared, which have persisted up to the time she came to me. Her present attack came on suddenly with a dull pain, increased on movement, referred to the right pelvic and iliac regions; some elevation of temperature, about 100 degrees F.; pulse rate, 105. Examination of abdomen revealed a large, solid, globular mass, occupying the central portion of abdominal cavity from pubis up to 1 1-2 inches above umbilicus, quite movable, but tender over right and lower areas. Thinking that I had a large uterine fibroid, plus an inflammatory action occurring in one of its attachments, I advised rest counter-irritants, opiates, etc., hoping that the acute symptoms would subside, when I strongly urged operation, but my hopes were not to be realized, for her condition became more serious—temperature gradually rising to 103 and 104; pulse, 120 to 130; pain and tenderness increasing—while the patient herself became anxious. There had been no gastric symptoms, and the bowels had been relieved regularly throughout the acute attack. No signs of peritonitis present. Immediate operation was advised as the only hope of relief, and on November 10th, six days from the onset of the acute attack, an abdominal section was performed under chloroform, and the growth with uterus and all appendages removed. On separating the growth from its attachments on the right side, a long, thickened, inflamed mass with gangrenous end was found adherent to the posterior and right side of the tumor. This elongated mass was removed with the growth, every possible care being taken to prevent general sepsis. No difficulty arose during the operation. The appendix was found normal. Patient rallied from the operation, and remained in fair condition for thirty-six hours, when

symptoms of a general infection appeared, from which she rapidly sank.

The growth, with uterus and appendages, weighed twelve pounds, and was the size and shape of an eight months' pregnant uterus; it was interstitial, growing from the posterior wall just above the cervix; had involved the greater portion of the uterus and left appendages. The uterine canal was stretched, measuring 4 1-2 inches, but patulous. The utero-tubal openings could not be made out on either side. Attached to the right side of the fibroid, and somewhat posteriorly, was the right Fallopian tube, enormously thickened, elongated and measuring five inches, showing signs of intense acute inflammation; its canal was much dilated and contained a dark, grumous-looking fluid. Its uterine opening was obliterated. Its abdominal end was replaced by a large gangrenous mass the size of a walnut, no remains of the fimbriæ or ovary could be made out. Microscopical examination of the growth revealed an ordinary myo-fibromatous tissue, non-cystic, composed of smooth muscle fibres, and fibrous tissue arranged in bundles and layers. No secondary changes had apparently taken place.


Sections of the pus tube showed mucous membrane swollen, hyperemic, infiltrated with polymorphonuclear leucocyte, and covered with a muco-purulent discharge; in places showing signs of coagulation necrosis, and great thickening of all the other layers with round-celled infiltration even to the serous coat.

*Bacteriological Examination.*—Smears were taken from pus in the tube, and stained by the simple methylene blue process. Examination showed polymorphonuclear leucocytes, many of which contained the well-known kidney-shaped diplococci, some of these diplococci being also seen outside the pus cells. Unfortunately no other method of staining was employed, therefore no absolute certainty as to the true nature of this organism.

*Remarks.*—One point of interest in this case was the difficulty of diagnosis. Here we had a large, regular, hard tumor occupying the greater part of the abdominal cavity complicated by an acute inflammatory condition going on apparently behind it. The question arose, Had we an appendicitis, or some inflamed attachment complicating the fibroid? Prior to the operation the latter was thought to be condition. The possibility of pus tube was never entertained.

A question arises—What is the proper course to pursue in cases of uterine fibroids complicated by a secondary inflammatory process? Is it advisable to operate at once, or wait for the acute condition to subside?

If this pyosalpinx was gonorrhœal in origin, how and when did the gonococci get in?

Pharmacology and  Therapeutics.

IN CHARGE OF  
A. J. HARRINGTON, M.D., M.R.C.S.(Eng.)

LABORATORY WORK IN ITS DIRECT RELATION TO  
SCIENCE.

THE stitch in time that saved nine of our grandmother's day has broadened and deepened its meaning, and, in its twentieth-century comprehensiveness, the precept has applied itself to preventive medicine, and science, armed with antiseptics, scalpel and microscope, is carrying on her crusade against disease in centres of population, large and small.

Glibly now we speak of serums, and dexterously do we inoculate our patients with vaccine and the other anti-toxins, and await results.

It is always a pleasure for a busy physician to pause in his daily occupation of the application of curatives, and accept gratefully an opportunity to watch the process of manufacturing the agents with which he has so often and successfully battled against disease. Lately, we received the "open sesame"—an invitation to visit the new vaccine and anti-toxine stables a short distance from that paradise of cities—Washington, D.C. This concern is owned by the National Vaccine and Anti-toxine Company, of that city.

Stables, used for the propagation of this important work, are situated in the country, in a healthful locality, upon slightly rising ground, in order that perfect drainage may easily be attainable, and are some little distance from heavily-travelled roads, so that they are free as possible from dust contamination. The surrounding tract of land consists of from ten to twenty acres, and by that means avoids any near crowding of buildings upon adjoining property, where the sanitation cannot be controlled. An abundant supply of good water is within easy reach.

The buildings are of substantial construction, well heated by a hot-water plant. Good ventilation and drainage is provided in accordance with the best methods of modern sanitary science. Closets and urinals are excluded from these buildings. The attendants are provided with suitable quarters, having separate drainage at a proper distance from the stables. The interior



VACCINE LABORATORY.

finish is such as is provided in the most modern hospital construction. The floors are well laid in cement, the best attainable both in quality and workmanship, top dressed with some material which renders it non-absorbing, and slightly sloping from every side to properly-placed traps for drainage.

The walls and ceilings are of smooth hard plaster, with sanitary corners and with a non-absorbing finish, so that they can be thoroughly flushed and washed with water from the hose, whenever desirable. The woodwork is hard finished with rounded corners, and free from beading or other ornamentation. The stanchions for the calves are of iron and are exceedingly simple in construction, and so made that every part is readily accessible for cleaning. Care is taken that in each stable the number of calves provided for shall not exceed the proper proportion to the number of cubic feet of air space which the room contains. All doors and windows are provided with screens, so that flies and other insects may be excluded.

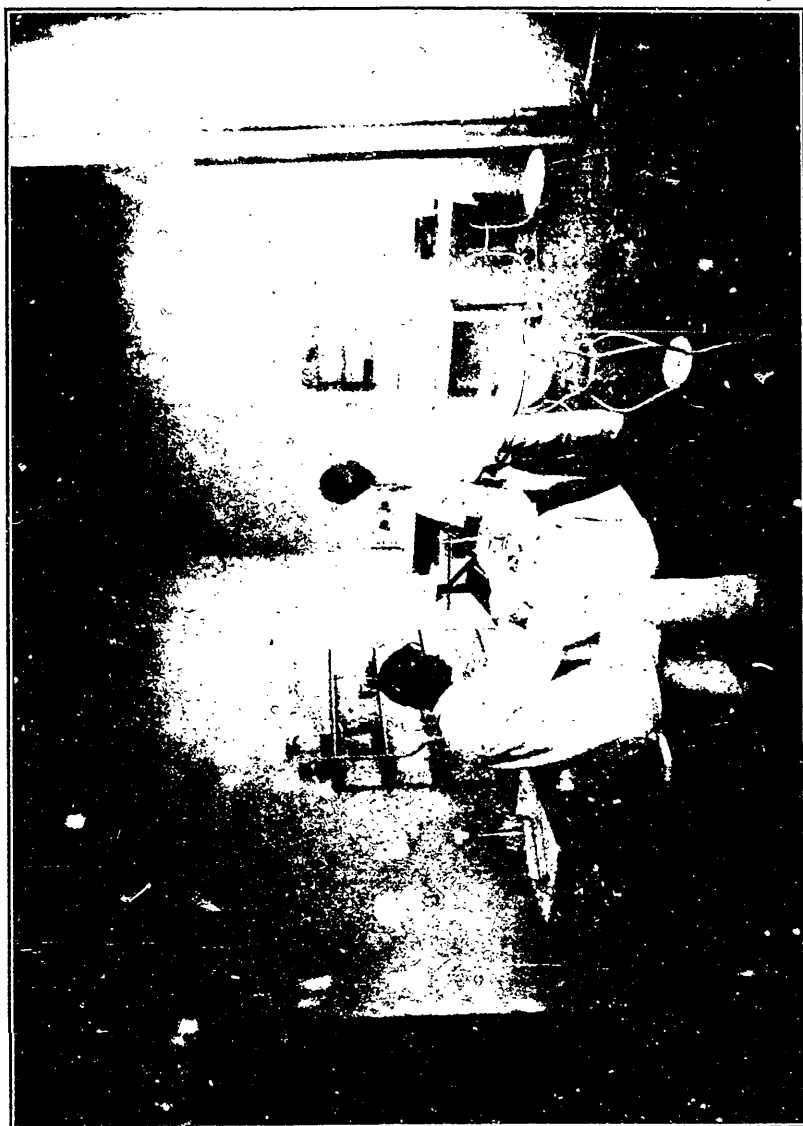
The plan of the buildings is such as to provide for three distinct parts, it being always desirable that these should be separated from each other by a passage or corridor which is freely open to the air: (1) The reception or quarantine stable, where the animals are received and kept until it is definitely determined that they are in perfect health. (2) The operating and other work rooms. (3) The incubating stable, where the calves are kept after they have been vaccinated, until the vesicles have matured.

The receiving stable contains, in addition to the large stable, a room where the calves are clipped and washed at the time of admission, and one where they can be shaved and prepared for vaccination.

In the second part of the building are the operating rooms, where the calves are vaccinated, and where the "lymph" is removed from them when the vesicles have matured. It also contains a sterilizing room, a milk room, where there are refrigerators for keeping the milk cool, and also appliances for rapidly warming a sufficient quantity of milk at feeding time. A dressing-room for the attendants, and a room where, if desired, the "lymph" or vesicular pulp can be ground and prepared is also present.

The incubating stable is so arranged that direct sunlight can be excluded at least from striking upon the vaccinated animals, and special care is taken in the arrangements for ventilation and drainage.

*The Laboratories.*—In another building in the city of Washington there is a thoroughly equipped bacteriological laboratory, a sterilizing room, and rooms where the "lymph," when ready



OPERATING ROOM, VACCINE STABLES.

for the market, can be filled and sealed in capillary tubes, or upon points under strict aseptic precautions by employees specially trained for the purpose. These, with the business offices, complete the plant. The calves are all carefully selected from the best source of supply available. If they are purchased in the open market, they are kept under observation for at least a week before they are to be used.

Female calves are used because of the less liability that the vaccinated area will be soiled by the urine. Young animals from four to eight weeks old are preferred. They are fed exclusively upon milk. When received, each animal is clipped, and subjected to a thorough washing and grooming, and is placed in the reception stable, which is maintained at an even temperature. Under each calf at his stanchion is placed a movable platform, or grating, made with transverse slats of hard wood, raised about two inches above the cement floor, and so arranged that the animal's hind feet rest near the rear edge of the platform, in order that the dejecta may always fall free from it.

In the records which are kept, the card system is employed. A temperature chart, and such other notes as are from time to time added, is suspended upon the stanchion above each animal. These notes at this period include the following: date, source from which obtained, sex, approximate age, weight, color, and markings, and any special marks or tags.

Under "general conditions" is noted the appetite, whether well nourished or not, alertness or lassitude, temperature, pulse, respiration, presence or absence of cough, and any abnormal discharges from mouth, nose, or genitals. (The navel in very young animals may be occasionally found unhealed and suppurating.) Of course, any marked departure from the normal in these points, or those that follow, should occasion the animal's rejection before it is brought into the stable. Such departures from the normal as are observed, therefore, will be of slight degree, or such as have been overlooked at the time of admission, or have developed after the animal was received.

The skin is carefully examined for any lesions, eruptions, or discolorations, also for parasites that may be present. The condition of the coat is also noted, and also the condition of the dejecta, the frequency of movements, consistence, whether hard, soft or liquid; the odor, whether normal or offensive, and the color of the feces, not only at the time of admission, but from day to day during the time the calf is in the stables. A microscopic examination of feces or any parasites that may possibly be present, and a culture in bouillon under anaerobic conditions, in order to exclude the possibility of the tetanus bacillus, is always made. Careful examination is also made for any





BOTTLING DEPARTMENT COD LIVER OIL AND FORMOLID, ETC.—SECOND FLOOR.

enlarged lymphatic glands. The tuberculin test is also applied. The temperature is taken and recorded twice daily, and such other notes made as may be required.

*Vaccination of Calves.*—The preparation for vaccination consists in shaving the area to be vaccinated, usually the abdomen inner side of the thighs, and part of the buttocks. The skin is then thoroughly cleansed, first with soap and water, with a thorough scrubbing afterwards with hot sterile water, and sterile sponges, and finally carefully dried with sterile sponges, or a soft towel, the final preparation being made in the operating-room, to which the animal is taken and placed upon a specially constructed table of glass and iron. The clean skin is again carefully examined for any lesions or eruption, the animal being rejected if the skin is not found in a perfectly healthy condition. The area to be vaccinated is now surrounded with sterile towels, and the whole procedure carried out with practically the same technique as that used in a surgical operating-room. The operation consists in making linear incisions, or scratches upon the skin, each about three or four inches long, and about half an inch apart. They are of such a depth as to penetrate the epidermal, and enter the malpighian layer, preferably without drawing blood, since if the incisions are too deep, even after bleeding has ceased, quite a free exudation of serum will continue for some time, and will tend to wash away the vaccine lymph from the incisions. The number of such incisions will amount to, perhaps, a hundred; the number, length and direction of them being of no special importance, and depending rather on the caprice of the operator. Into these incisions is then introduced a sufficient amount of vaccine lymph, which has been rendered as free from extraneous organisms as possible, either by glycerinization or by one of the other methods now in use. A certain amount of time is required in the "rubbing in" process in order to insure a successful "take" in all the incisions.

Notes are usually made at this time, including the weight of the animal, the date and hour of the vaccination, preparation and area vaccinated, the number of incisions, character of the scarifications, and the laboratory number and date of the seed lymph used.

The calf is then removed to the incubating stable, which, in its arrangement and fitting, should be similar to the stable already described. Here the calves remain until the vesicles have matured. An employee is in constant attendance to see that all the droppings are immediately cleaned up, and the most perfect cleanliness possible is maintained. The gratings or platforms under the calf are changed twice daily, a clean, sterile grating taking the place of the one removed. The temperature of the

stable is kept as nearly as possible at about 68 to 70 degrees F., a self-registering thermometer showing any variation from this that may occur. The condition of feces, including the presence or absence of diarrhea, any other functional disturbance which may occur, as well as any departure from the usual range of temperature, are carefully observed and recorded during this period.

*Collecting the Lymph.*—At the end usually of five days (120 hours), the calf is again brought to the operating-room, and placed upon the table. Under the same precautions as before, the vaccinated area is thoroughly cleansed, washed and dried. If a typical success has been obtained, each incision should then appear as a line of continuous vesicles. The skin between the incisions should be clear and free from any redness or induration, the time at which the vaccine material is taken being that at which the vesicles have reached their full maturity, but before they have become purulent.

The material obtained consists of the entire contents of the vesicles, commonly called the pulp. It is removed by a sharp spoon curette, which is drawn firmly along each line of vesicles, removing everything down to the firm tissue underneath. This is done with a single motion, in order to avoid the admixture of blood. The vesicular pulp so removed is received in a sterile glass vessel of known weight, and provided with a cover. When all has been removed it is carefully weighed.

Notes are made of the result in each case, giving the date and hour of collecting the lymph, the condition of the skin in the vaccinated area, the character of the vesicles, and the weight of the vesicular pulp in grains. The weight of the animal is also recorded for comparison with that at the time of admission and vaccination.

The next step in the procedure consists in converting this material into a finely divided emulsion, in a mixture of water, with some other material which has the property of more or less rapidly destroying the very numerous bacteria, which are always present, while at the same time it is comparatively non-injurious to the specific virus of vaccinia. Since Monckton Copeman demonstrated, in 1891, the fact that glycerinated lymph became practically sterile at the end of about four weeks, and still retains its potency often for many months, glycerine has been the material largely used for this purpose. Other materials, notably chloroform and a weak carbolic acid solution, have recently been used to some extent, but their practical value has not yet been fully demonstrated. Glycerine diluted with from 30 to 50 per cent. sterile distilled water is the mixture usually employed. With this, the vesicular pulp is ground up by means of one of

several machines specially devised for the purpose. The proportion of "pulp" to the glycerine and water mixture varies widely at different propagating stations in this country and abroad, one part of pulp by weight to from six to ten parts of the glycerine water mixture being a common proportion.

The emulsion so prepared is the "glycerinized lymph," which is the form of vaccine virus most widely used at the present time.

It is as yet, however, far from being ready for use. It must be stored from four to six weeks in a cool, dark place, and before it is given out for use it is subjected to the most rigid bacteriological and physiological tests.

Agar plate cultures are prepared, and account made of the number of colonies which develop in them, both at the time of mixing, and later, from time to time, until all the extraneous organisms have disappeared. An absolutely germ-free lymph, to be obtained in the open market, in unlimited quantity, and at any time, is as yet an unrealized ideal. While this should be the aim, it must never be forgotten that the one and only essential value in vaccine is its potency, *i.e.*, that it shall yield a high percentage of successful "takes," and that the vesicles so produced shall give full protection against smallpox. It would be a most unfortunate result of the efforts made to secure a so-called sterile or aseptic vaccine, if, while succeeding in this, we should produce a deteriorated virus, having an impaired protective value.

The fact that tetanus has, in rare instances, followed vaccination, renders it necessary that rigid tests should be made for this organism before vaccine is placed upon the market.

This is best done by inoculating a large tube of bouillon with a considerable quantity (at least 1 c.c.) of vaccine lymph. This is grown under anaerobic conditions for four or five days. Unfortunately, most of the organisms which usually contaminate vaccine lymph, grow freely under anaerobic conditions, so that there will be always in these tubes an abundant growth.

To make the test sure, the culture is very carefully examined for end-spore bacilli. A portion of the culture is then passed through a porcelain filter and a guinea-pig inoculated with 1 c.c. of the filtered material. The remaining portion of the culture is then heated to 80 degrees C. for an hour, and 1 c.c. of this introduced into a fresh tube of glucose bouillon. This should then be incubated under strict anaerobic conditions for three or four days. If then no end-spore bacilli are found, and the inoculated animal has developed no symptoms of tetanus, and if, in the second culture, there has appeared no cloudiness, and no formation of gas, we may exclude the presence of tetanus bacillus.

Tests of the potency of the lymph should be made, either on

animals or children, as near the time it is to be sent out as possible. Ordinarily glycerinized vaccine may be relied upon to remain potent for at least three or four months.

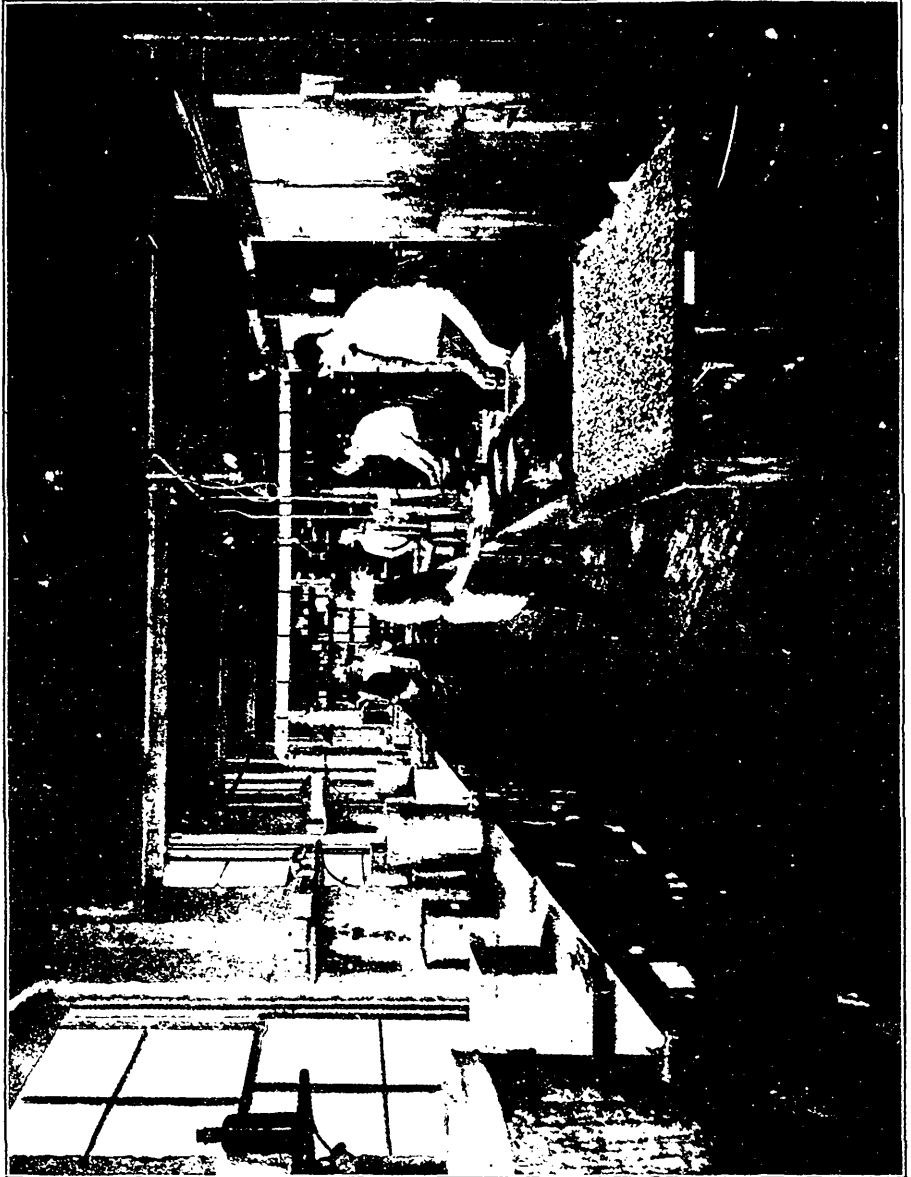
Finally, in filling capillary tubes, or charging points ready for the market, the strictest precautions are observed. Doubtless contamination of vaccine can easily occur at this time, where a sudden and very large demand taxes to its utmost the resources of the establishment.

It can, therefore, be seen that the National Vaccine and Anti-toxine Company not only have installed the best kind of a plant obtainable for the propagation of vaccine, but follow out in every minutia scientific details.

On our way home a most interesting visit was paid to the laboratories of H. K. Wampole & Co., in the "City of Brotherly Love," who, we may say, are sole selling agents for the National Vaccine and Anti-toxine Company, whose buildings and methods we have just described.

We first visited the counting-room, also the packing and shipping departments. Leaving these departments, we visited the fifth floor of the Fairmount Avenue Building, and commenced with the pill-coating department. This department is given over entirely to the coating of pills and tablets, and their polishing. In coating pills, they are placed in large metal cylinders, kept warm by a series of tubes carrying steam encircling their outside diameter. A pipe leads to the mouth of the pill-coating drum, supplying a strong stream of dry, moderately cool air. The pills to be coated are placed in the drum, and the solution with which they are to be coated poured over them. The rotation of the drum moves the mass, causing each pill or tablet to receive its proper share of the coating material. This coating solution is applied from time to time until the proper degree of thickness of the outside covering has been reached. After a thorough drying, the pills or tablets, as the case may be, are placed in polishing drums in the presence of dummies or heavier pills, which cause them to freely rotate, or run each upon the other, during the rotation of the polishing drum. The tablets or pills are thus polished to a great degree of brightness by simple friction.

From this point, we visited the mass pill department, where the pills are made by mixing the ingredient in a soft, pasty mass, and then run through a machine, the first set of belts of which roll the mass into a long solid cylinder, this cylinder being divided into sections by circular knives. These sections are then rotated between two sets of belts, which, in addition to their motion from the front to the back of the machine, have at the same time a lateral horizontal motion, serving to roll each section into a perfect sphere. These spheres are then passed through a



CAPSULE DEPARTMENT, PART I.

set of rollers, the spiral screw on the outside diameter of which is so placed and nicely adjusted as to drop all irregular shaped pills, or those either deficient or exaggerated in size, allowing only the perfect ones to pass down a little chute, which carries them to a revolving plate, in which they are made oval in shape, if so desired.

From there we visited the powder room, given up entirely to the preparation of seidlitz powders, tooth and face powders.

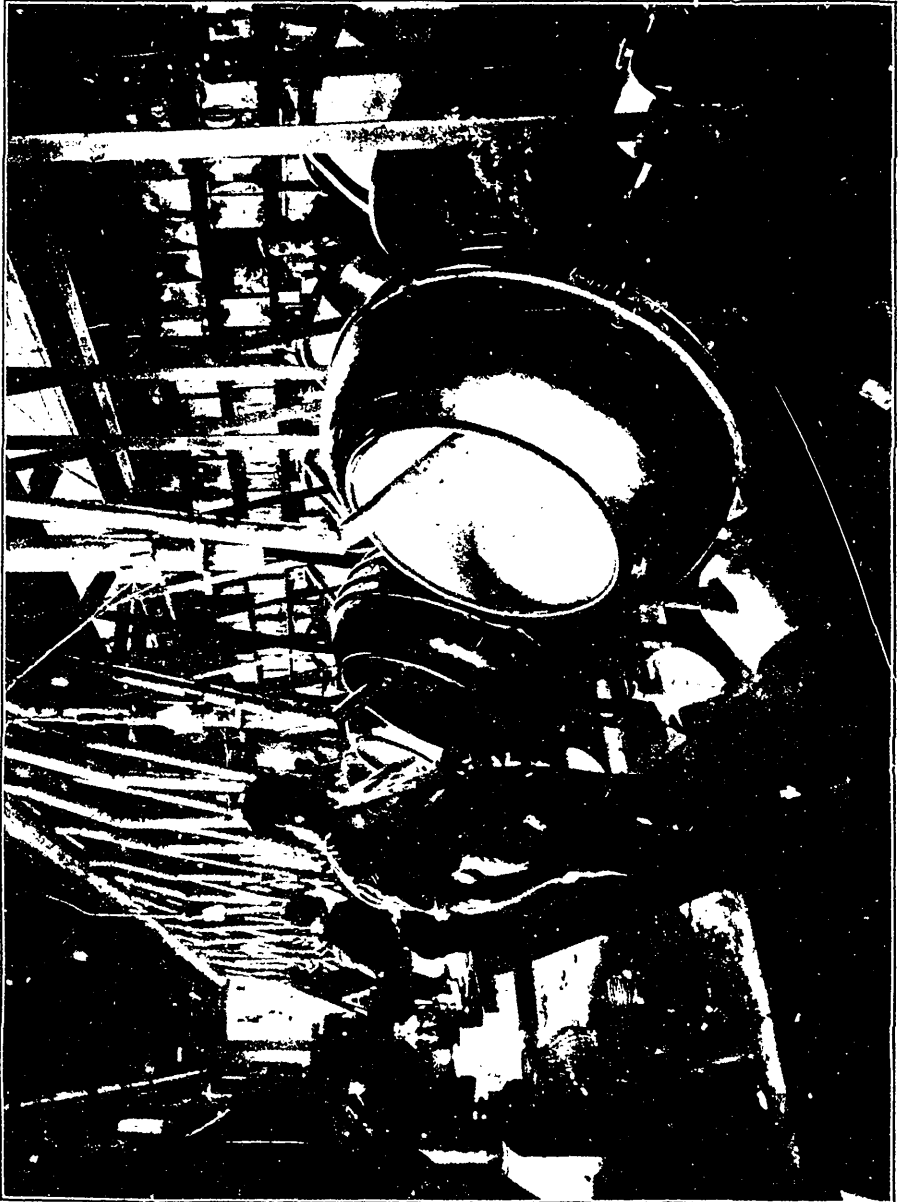
Next the capsule department, in which we were interested in the manufacture of both hard and soft elastic gelatine capsules. In the manufacture of soft, elastic gelatine capsules, filled either with an oil or with a powder, the bottom perforated plate is covered with a sheet of gelatine which has been previously prepared by being poured over a brightly polished metal plate, the requisite liquid or powder is then poured evenly over this bottom sheet of gelatine, covered with a top layer of gelatine, prepared as are all of the gelatine sheets, the top perforated plate placed over all, and the whole subjected to pressure, the capacity of the compressing rams being able to reach the tremendous pressure of three hundred tons. The ingredient used is intended to fill the capsules at the points of perforation, top and bottom plates, the pressure so compressing the two layers of gelatine as to make them appear continuous. After removal from the press, the top plate being removed from the bottom, these capsules separate out readily, one capsule corresponding to each perforation in the top and bottom plates, leaving a net-work of gelatine between the capsules, called a net.

In the hard gelatine capsules, the ingredient is simply embodied with the gelatine, and the whole compressed under great pressure so as to form a solid spheroid.

In the gelatine capsule department, the capsules are not only made by machine, but are also filled by hand. These hand-made capsules are made by dipping metal forms of the proper shape and size into heated gelatine, and then allowing the gelatine to dry on said form, until it becomes sufficiently hardened to be removed, exactly like an elastic rubber covering. These are then filled with the proper ingredient, and the open end sealed by a hot iron dipped in fluid gelatine.

From the gelatine capsule department, we next visited the room where the elixirs and fluid extracts are bottled, corked and labelled, and passed from there into the analytical laboratory, in which chemicals are analyzed, and all physiological experiments establishing the therapeutic action and strength of the preparations are performed.

This analytical laboratory is equipped with microscopes, kymographs, cameras, hemocytometers, hemoglobinometers, and all other instruments required in physiological or clinical work.



PILL AND TABLET COATING DEPARTMENT.



From there we visited the pulverous pill department, where all of the pills are made and finished, with the exception of the coating. Pulverous pills contain various substances in a dry powder, enclosed within a thin and soluble coating, which is a mixture of gelatine and sugar.

The powder for these pills is prepared in the mixing room, where all of the ingredients are mixed together in revolving drums, carrying heavy steel balls. Of course, this has very much the effect of a mortar and pestle, but in addition to being mechanical, is capable of a much greater amount of pressure and pulverization, and a more thorough and perfect mixing than could be accomplished by other means.

The gelatine pill-coating department is largely given up to the coating of quinine pills, most of which are oval in shape. These pills are run through a perforated plate, each perforation corresponding to the end of a tube, from which there is a sufficient suction supplied by vacuum pumps to hold it fast. The plate carrying the pills can be readily dipped in gelatine, and then placed in a dryer. The pills may be dipped a second time if a heavier coating is necessary.

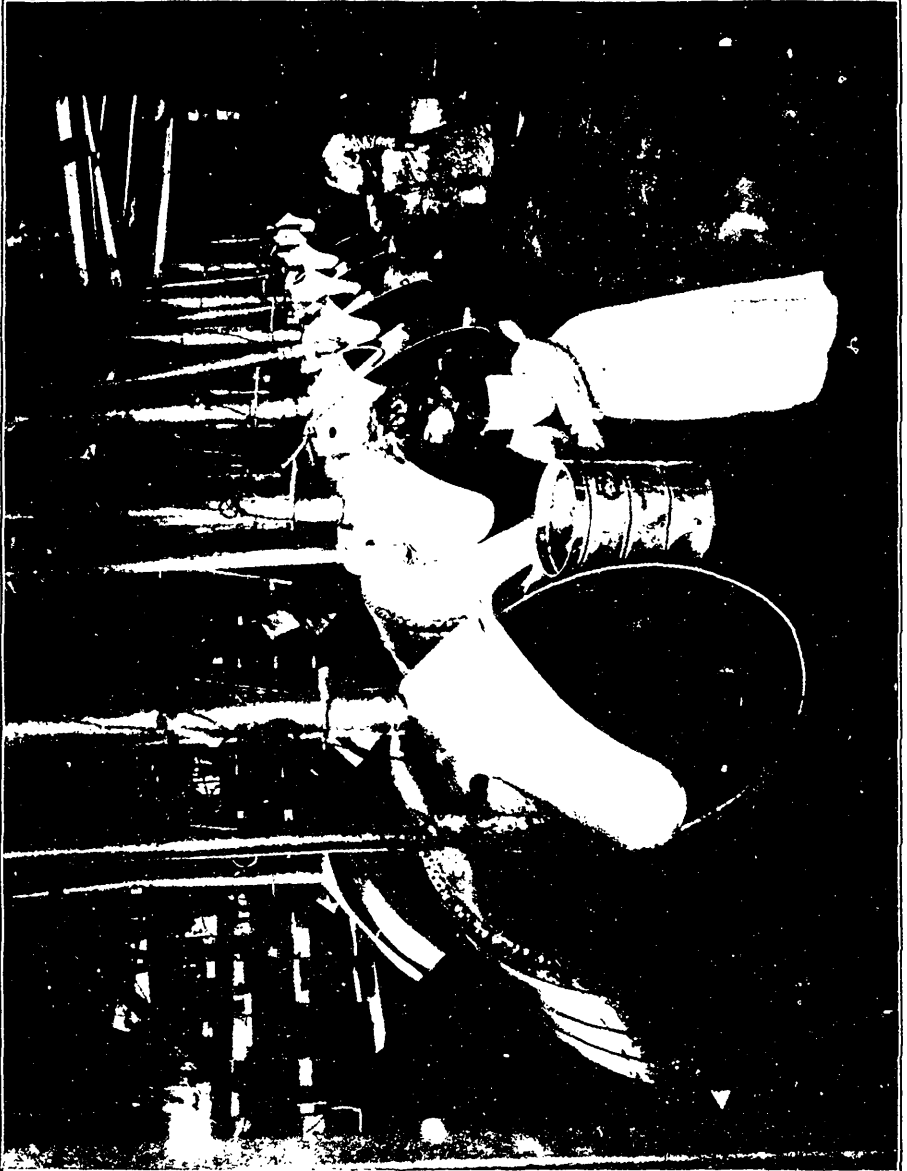
We were also taken through the granulating and drying department, where powders are granulated and thoroughly freed from all moisture before being fed to the tablet machines we noticed in the room adjoining. At the extreme end of this tablet department is situated the hypodermic tablet department, an isolated room where these latter tablets, requiring great care and accuracy in their preparation, are made and finished.

We also looked into the cone room for a moment, where vaginal cones and urethral bougies are made of gelatine, glycerine, and the proper medicaments, by pouring the melted mass into brass moulds, which are then placed on ice until cold.

We next visited the department in which all perfumes and toilet articles are bottled and properly prepared for placing on the market.

From there we went to the pill-finishing, and then the tablet-finishing, departments, where the pills and tablets undergo a final inspection as to any possible imperfections in their coating, surface, or appearance, and are counted and placed in properly labelled bottles. Great care is exercised in this department that no product be allowed to pass, to which the slightest exceptions could be taken as to any imperfection in weight, size, or even in shade of color.

We found that bottles labelled as containing a thousand pills or tablets do not contain nine hundred and ninety-nine or a thousand and one, but contain one thousand exactly. This is done by means of a board with perforations of the proper size



PULVERER'S PILL DEPARTMENT.

numbering five hundred. This perforated plate being slid up into a quantity of pills or tablets—whichever the case may be—each perforation is filled with a pill or tablet; the plate being slid down, exactly five hundred pills are dropped into the funnel leading to the bottles; two of such drops of the plate filling the bottles with one thousand. Boards are also used which count five thousand at one operation.

We next visited the room where elixirs, fluid extracts and syrups are prepared.

From there we passed to the assembly room, where a general stock of all preparations is kept, to be drawn upon to fill miscellaneous orders, and from there downstairs through the packing room and shipping department again to the office.

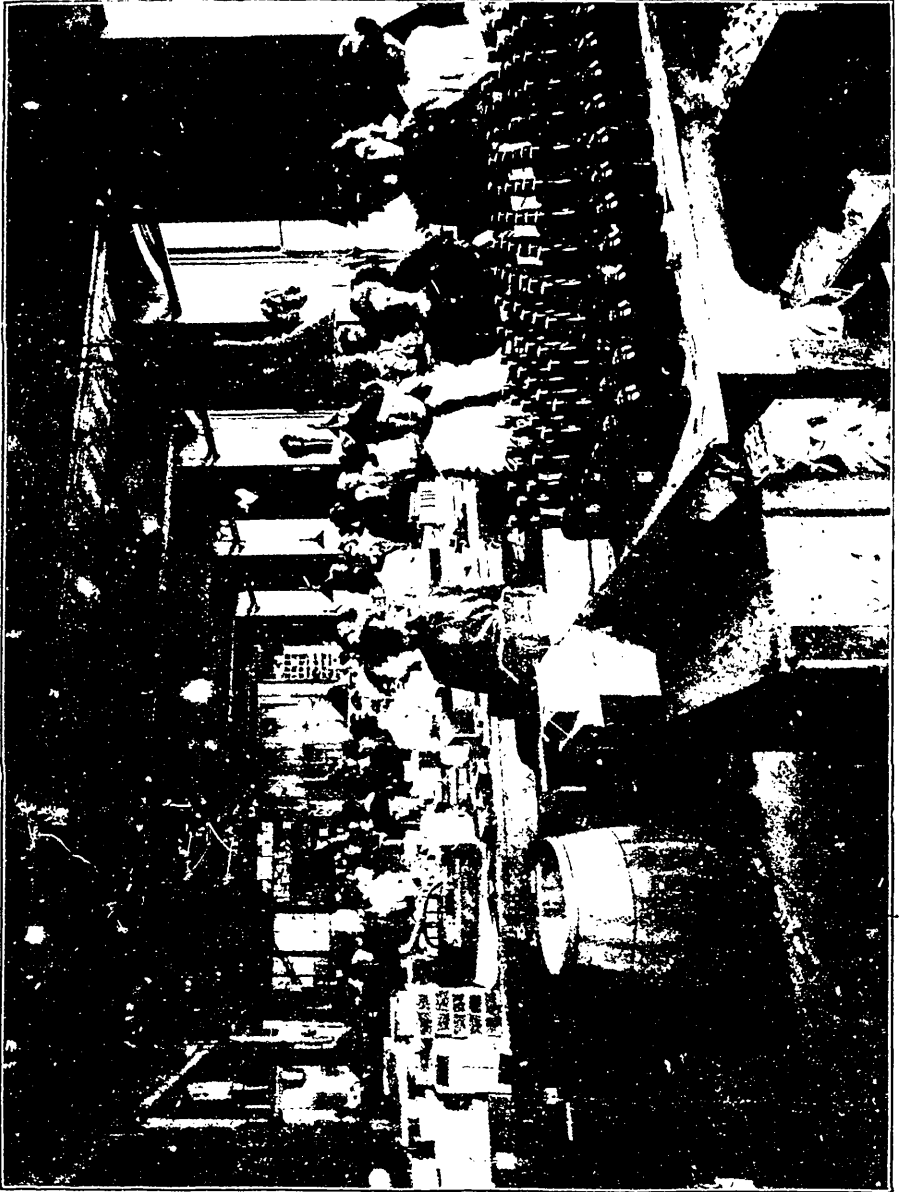
There are several departments which we did not have the time to go through. One is that on the sixth floor, where are kept all of the cartons, labels, general circulars, pasteboard boxes, etc., the other the department in which fluid extracts and other liquids are kept in large bulk, where mixing is done by machinery in large pans, and also where the evaporators and vacuum pans are in use. Another department is where pharmaceutical specialties are made, mixed and finished—all but the bottling and labeling.

Still another department is that in which is manufactured peroxide of hydrogen. This in itself is a complete building, being occupied otherwise only by a grinding machine and a presser for grinding crude drugs or the extraction of their juices.

There is also the effervescent salt room, in which the salts of phosphate of sodium, alka lithia, citrate of magnesia, etc., are finished, bottled and labelled.

Finally, there has just been installed a very good nucleus for their own printing plant. This has become necessary on account of the large and constantly growing increase in that line of expenditure, and the demand for expediency in the firm's business.

The growing regard in which the products of this firm are held by the medical profession led us to think that a visit to their Canadian laboratory in Toronto and a description of such visit would be of interest to our readers. We communicated with the firm defining our object, and met with a hearty invitation, and of the many interesting sights and matters we saw and learned of, we now give a brief account; but as full justice cannot be given the firm in this article, we hope that all our readers will take the first opportunity to go and see the laboratory for themselves. An open invitation is extended to all, and we can but say that the time spent in looking over the large plant, and listening to the explanations given, will prove of value and assistance, particularly to medical, pharmaceutical, and dental students.



PHARMACEUTICAL FINISHING DEPARTMENT.

For some years this firm's specialties only were exploited here. The increasing sales and the abundant evidence of a still further successful expansion caused this firm to look into the matter of establishing a laboratory in Canada. The encouraging nature of the report on this field convinced them of the feasibility of this scheme, and steps were promptly taken in that direction: Toronto from its geographical position being the city chosen.

Almost four years have elapsed since the inauguration of the Toronto laboratory, during which period further branches have been opened, viz., at Montreal, P.Q., and Winnipeg, Manitoba, under the control of the Toronto House, which in itself is evidence of the great foresight exercised in coming to Canada. The commencement of operations called for the use of a portion of the basement and first floor of the present premises, and the growth of the business was followed with increased accommodation, the whole pile of buildings, Nos. 36, 38, 40 and 42, facing Lombard Street, now being occupied by the firm.

The laboratory and offices initially employed three hands and one travelling salesman—to-day their help numbers one hundred and sixty-eight in laboratory, fifteen travelling salesmen, and twenty-two in the offices. This increase in four years speaks volumes for the management. It is wonderful to think of the push and energy that must have been exercised to show such splendid success in the developing of the business.

Our attention was called to the basement, whither we were conducted, and we found this portion devoted to the manufacture of all kinds of toilet waters, tooth pastes, powders, creams, medicinal elixirs, syrups, fluid extracts, etc.

The different machines used, therefore, are of peculiar interest—steam-jacketed kettles, percolators, mixers, and stationary tubs, with the latest sanitary steam attachments for cleansing bottles. The engine and boilers are located here also, and form quite a study in themselves. Stocked in the basement are large drums of glycerine, and many other goods used in manufacture, all in bulk quantities, inclusive of bottles of all shapes, sizes and kinds.

The first floor comprises the offices where the large staff (including no less than seven stenographers) actively pursue their duties; a commodious sample and travelling representatives' writing room, where elegant show-cases display the handsomely packaged products put out by the firm. Writing tables fully equipped with stationery are provided for the travelling salesmen.

The packing and shipping department takes up the remaining portion of this floor, and here you will find an object lesson. Few have any idea of the care and attention given to the despatch of

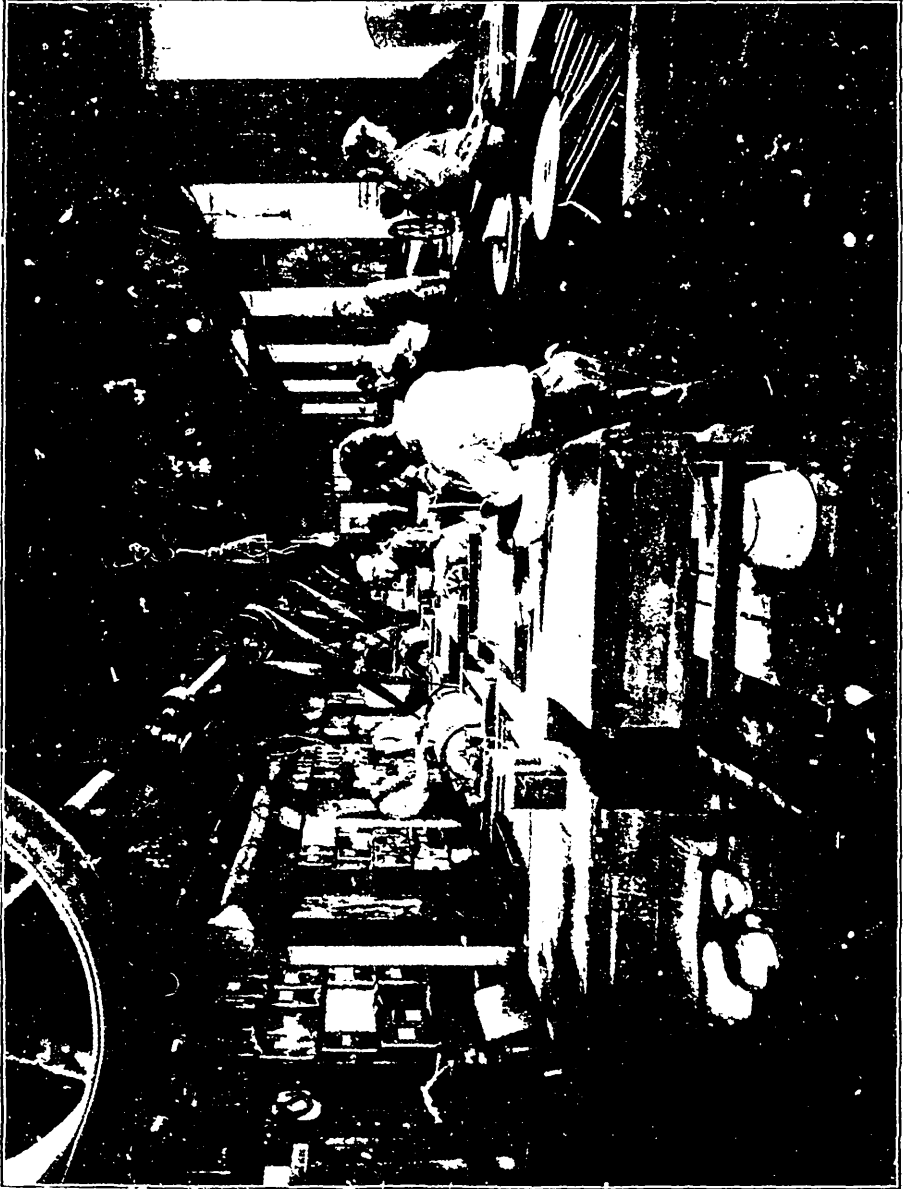


ANALYTICAL LABORATORY.

goods by this firm. A system has been arranged allowing a double check on the making up of each package, and there is no possible chance of the wrong goods being packed for delivery. The actual packing itself is carried out by experienced men, and the Wampole Company's claim to perfection in this department is, we think, fully established by the results, and their exceedingly prompt city delivery is generally spoken of in the drug trade.

On the second floor is located the chief chemist's offices and private laboratory for analytical and research purposes. The perfumery department is to be seen here. The first room you enter is the work and stock room, where the finished perfumes are shelved ready for bottling and putting up, which is also carried out in this room, the large stock of all sizes and shapes of bottles, labels, and fixings, and the pretty boxes being all neatly packed in the spacious shelving provided for that purpose. The Inland Revenue Department License, hung over the door-way adjoining, denotes the bonded manufacturing room. Mixing and blending are carried on here under the supervision of an Inland Revenue Officer, at certain fixed hours of the day under locked doors, and on the completion of each day's work, this officer locks and places the Customs seal on the door. We were privileged to sample many of the perfumes and colognes, and must congratulate Messrs. Wampole & Company on the exquisite products of this department, which we learn is of recent introduction. The major portion of this floor is devoted to the putting up of many preparations made throughout the laboratory, also the manufacture of the tasteless cod liver oil preparation, which process is extremely interesting, the clever automatic device for holding and filling the bottles particularly so. The neat and rapid manner in which the various processes of putting up are carried out, viz., labeling, capping, tissing, cartoning, and packing in cardboard boxes, calls for an expression of admiration. The finished stock ready for the supplying of customers' orders is kept in commodious shelving, so divisioned and arranged in alphabetical order that any one item may be located immediately. In passing, our attention was directed to an electrical contrivance, by means of which the whole of the machinery throughout the entire laboratory can be kept running should any breakdown of the steam power eventuate. Could anything demonstrate more clearly the business-like management of this large concern?

Still another floor, we were informed, and mounting the stairs were ushered into the pulverous pill department. Messrs. Wampole & Company were the originators of the pulverous pill, which, in other words, is a coated powder. Close by is the compressed tablet department, and an inspection of all to be seen in both these



GRANULATING DEPARTMENT.



places convinced us of the peculiarly unique processes adopted in the manufacture of these commodities. The pill-coating and polishing machinery was next under our attention, and a demonstration made, which we appreciated. The manufacture of effervescent salts is carried on here also, and is not without its interesting features. The bottling and putting up of all the manufactures on this floor is attended to in a department near at hand, and the finished goods are stocked in shelving, divisioned and arranged as on the floor below.

One important factor in connection with this business, and which we deem worthy of mention, is the label department. No one has any conception of the quantities used, and of the care and attention required in handling them. The system shown us was, indeed, complete, and overcomes any possibility of a wrong label being placed on a bottle or package.

System reigns right through this modernly equipped laboratory, and the marked progress and development of the business of this firm is due entirely to the capable and aggressive management of Mr. H. W. Brick, combined with the excellence and high standard maintained in the manufacture of their products. Their success has been well merited, and the strict adherence given to their motto, "Quality first, price next," places them on a pedestal hard to excel.

Our universities and medical schools constantly are sending out the call, "More room for research work." The large pharmaceutical houses, in their department of work, seem, in a measure, to echo the cry by erecting such magnificently equipped laboratories, which ought to, and do undoubtedly, possess for all medical practitioners an ever-increasing interest, as day by day improvement after improvement creeps into the method of manufacture, until each ivory point, capillary tube, capsule, pill or powder seems stamped indelibly with the word "Excelsior."

W. A. Y.

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## ON THE ACTION OF VERONAL.

BY DR. W. FISCHER,  
Volunteer Physician to the Clinic.

DURING the winter term 1902-03, eighty-three patients received veronal at the psychiatric clinic here—sixty-seven women, including a girl of 14 years, and sixteen men.

Veronal (diethylmalonylurea) is a faintly bitter, colorless substance which is soluble in about 12 parts of boiling water and 145 parts of water at 20 degrees C.

The diseases in which veronal was used as a hypnotic were the following:

1. Simple insomnia (1 case). After 0.5 gm. (7 1-2 grn.) veronal, quiet sleep lasting six to seven hours set in without by-effects.

2. Trophoneurosis of the skin with violent itching (1 case). After 1 gm. (15 grn.) regularly, quiet sleep without accessory effects.

3. Morphine withdrawal treatment (1 case). The medication was given regularly for six weeks. After four days' use of 1 gm. a distinct cumulative action developed, consisting in considerable sleepiness during the whole day. In consequence hereof the patient received on three successive nights 0.5 gm. with perfectly satisfactory result, and the 1gm. again for four nights, and so on. The result was persistently good; by-effects of any kind did not show themselves.

4. Cerebral syphilis (1 case). As 0.5 gm. was without any effect, no further trials of veronal were made.

5. Sclerosis disseminata (1 case). For eight days the patient received three times daily 0.5 or 1 gm. veronal. The ensuing sleep was good, but not without interruptions.

6. Chronic alcoholism (1 case). Once 1 gm. and then 0.5 gm. was given for fourteen days. The sleep was good, but the patient the next day complained of dulness in the head.

7. Epilepsy (1 case). After 0.5 gm. good sleep without accessory symptoms.

8. Hysteria, common form (5 cases). Three of the patients received per dose 0.5, one 1 and 0.5, and one 1 gm. veronal. The last-mentioned patient slept quietly for six hours, but vomited on the following morning. The patient who received interchangeably 1 and 0.5 gm., and that thrice within four weeks, always had a very good sound sleep after taking the drug, and without by-effects. In the remaining three patients only 0.5 gm. was given at a dose; in one with good result; in the second quiet but interrupted sleep was produced; and in the third the effect was slight. The last two patients received veronal twice within five days. Untoward by-effects were entirely wanting in all three cases.

9. Imperfect perception and understanding of hysterical nature (1 case). After 0.5 Gm. no result was seen.

10. Hysterical psychosis (11 cases). The doses were generally 1 and 0.5 gm.; in one case, with violent excitation, up to 2 gm. was given repeatedly. In the latter case good sleep was always produced, but the next morning there was regularly a sick feeling regardless of the size of the dose. The patient received veronal twelve times within a period of seven weeks. In eight patients the action was very good, and without accessory phenomena; in most cases the drug was at intervals of four or five

days; one patient took in eight days four times 0.5 gm. In ninth patient the effect diminished on continued use of drug; at first 0.5 gm. brought on good sleep, but after a while the effect was not perfectly satisfactory; and one night the patient had a paroxysm, though she had taken veronal. In consequence, the dose was increased to 1 gm., and good results attained without by-effects. The patient received the medicament eight times in six weeks. The result was variable also in another patient, but still always without unpleasant accessory effects. This woman, too, received 0.5 and 1 gm. interchangeably six times in two months; the result was variable with either dosage.

11. Neurasthenia (10 cases). The doses were 0.5 and 1 gm. at two to five-day intervals. In eight cases the veronal acted well and without any accessory symptoms; and among these was a patient in whom all other hypnotics failed while veronal had an excellent effect. In the ninth case the action was also a good one, but the patient complained the next morning of dullness in the head. In the tenth case little success was had.

12. Exhaustion psychosis (3 cases). A twelve-year-old girl got within a week twice 0.25 gm. The ensuing sleep was good, by-effects did not manifest themselves. Two other patients, elderly women, obtained good, quiet sleep from doses of 0.5 and 1 gm. without by-effects.

13. Insanity from compulsory ideas (2 cases). In both after 0.5 and 1 gm. good results were obtained; no by-effects.

14. Cyclic insanity (3 cases). Good sleep was produced in all three cases. One patient complained of tiredness the next day; other unpleasant by-effects were wanting.

15. Acute hallucination (3 cases). Intense motor excitation in the three patients. The single doses of veronal were 0.5 to 1.5 gm. The result was always good, and there were no disagreeable accessory symptoms.

16. Senile depression (1 case). The patient slept quietly and without interruption after 1 gm.

17. Acute mania (5 cases). In two patients at first 1.5 gm. was given on account of violent excitation; the result was good. Later 1 and 0.5 gm. gave similar results. The third patient (sixteen-year-old girl) received only 0.5 gm. and slept well, but awoke several times during the night. In the fourth case the effect from 1 gm. was insufficient, but after 1.5 gm. excellent. The fifth case was in a man; he obtained quiet sleep from 1 gm. veronal.

18. Acute melancholy (11 cases). Doses 0.5 and 1 gm. In seven cases the result was very good. In the eighth case after 1 gm. the patient slept not only through the night, but also the next day; after 0.5 gm. the effect was excellent; good, quiet sleep

at night and in good condition during the day. During three months the patient received veronal thirteen times. In the ninth case (a woman) 0.5 gm. had little effect, 1 gm. very good effect; so the dose remained at 1 gm. In the tenth case (a woman) the result was unreliable, and in the eleventh case (a woman) it was wholly wanting. In all the eleven cases unpleasant by-effects were not manifested.

19. Periodic melancholy (1 case). After 0.5 gm. there was quiet, refreshing sleep, without accessory phenomena.

20. Paranoia simplex (1 case). The patient within ten days received two doses, 1 gm. each, with good result in every respect.

21. Acute hallucinatory paranoia (3 cases). Doses 0.5 to 1.5 gm.; no by-effects. Two of the patients were young girls, the third a young woman. In the latter patient, who in seven weeks received veronal, 1 and 0.5 gm., five times, the result was partly good, partly insufficient, independently of the size of the dose. In one of the girls the action was entirely wanting, whilst in the other good, quiet sleep resulted regularly.

22. Chronic hallucinatory paranoia (7 cases). In six cases good, sound sleep was produced by the usual doses. In the seventh case (an older girl) 0.5 gm. was insufficient, whilst 1 gm. always brought on quiet sleep for about six hours. There were no untoward by-effects.

23. Dementia precox (1 case). The patient received in eight weeks seven 1 gm. doses of veronal, and always with good result and without unpleasant accessory phenomena.

24. Dementia paralytica (5 cases). By-effects were wanting. In all five cases (men) only 1 gm. doses were given. In four patients the result was good; in the fifth, an intensely excited man, 1 gm. was given on three nights in succession. The first time the resulting sleep was good; in the other two nights there was insufficient sleep, but the patient was at least quiet.

25. Senile dementia (3 cases). The first patient (a man) received in the beginning 1 gm. Inasmuch as he complained of dullness in the head the next morning, only 0.5 gm. was given thereafter. The sleep was just as good after this quantity as after double the dose, and there were no unpleasant after-effects. During two months the patient received once 1 and four times 0.5 gm. The two remaining patients (women) received 0.5 and 1 gm., with uniformly good results and no untoward by-effects.

In these eighty-three cases the results attained with veronal may be designated as very good. Grave by-effects were not observed at all; unpleasant accessory effects, consisting of a sick feeling or vomiting, dullness in the head and sleepiness the next day occurred only exceptionally, and the number of patients in whom insufficient or no effect was produced is very small.

The veronal acted well in sixty cases, accumulatively in one case, and not at all in five cases, and slightly in six cases. Good sleep with interruptions was produced in four cases.

In these seventy-six cases there were absolutely no by-effects. Unpleasant symptoms the next day were noted in seven cases in all, and consisted of dullness in the head three times, twice in sleepiness, once in a sick feeling and once in vomiting.

Aside from the sixteen cases in which the result was insufficient or entirely wanting, and the seven cases in which disagreeable by-effects manifested themselves, the action of the veronal in sixty cases was very good. In almost all of these a quiet, generally dreamless sleep resulted lasting from six to ten hours, and after which the patients felt perfectly well and refreshed the following morning.

The single doses were usually 0.5 or 1 gm. (7 1-2 or 15 grn.); seldom 1.5 or 2 gm. (22 1-2 or 30 grn.). The drug is best given in warm milk, tea, or the like, or it may be administered in wafers.

According to the observations made thus far, the action set in as a rule within half to one hour after the administration; hence, the medicament was generally given between 8 and 9 o'clock in the evening.

Many patients repeatedly expressed their extreme satisfaction with veronal, and again and again begged for it, as the sleep after it was exactly like natural sleep, and just as refreshing.—*Therapeutische Monatshefte*, August, 1903.

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**To Fight Tuberculosis in British Columbia.**—A largely attended public meeting was held in Victoria, B.C., January 20th, for the purpose of forming a provincial association to be called the British Columbia Association for the Prevention and Treatment of Tuberculosis. Dr. C. J. Fagan, Secretary of the Provincial Board of Health, presented the question at considerable length, and moved the resolution establishing the Association. He referred to the need of such an organization, as British Columbia was not abreast of the times in the respect of dealing with her tuberculous citizens, and then there were annually lost to the province 200 lives through consumption. He considered that Kamloops was an ideal spot for a sanitarium and stated that Mr. Gage, of Toronto, the treasurer of the National Sanitarium Association, had promised aid. Financial assistance will also be sought from the local government of the province as well as from the Federal Government. The Lieutenant-Governor, Sir Henri Joly, was elected Hon. President; Dr. Proctor, of Kamloops, secretary, and on the executive, Dr. J. C. Davie, of Victoria, and Dr. R. E. Walker, of New Westminster.—*Med. News*.

### AN ADVANCE TOWARDS BETTER HOUSEHOLD SANITATION.

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DR. A. C. ABBOTT says that hygiene is the science that deals with the laws of health in the widest sense. Practical hygiene, or sanitary science, is the art of preserving health, and includes a consideration of the methods that are employed in investigating the manifold phases of the subject. It is obvious that the fundamental points to be considered in the study of hygiene are those bearing upon the conditions under which we live. Hygiene is not so much a study of man, as a study of man's surroundings, with a view to determining in how far these are conducive or detrimental to his well-being.

Why should a physician, trained to cure the sick, equip himself with a knowledge that he is to employ in preventing sickness? Why should a physician practise preventive medicine, and follow the precepts of hygienic teaching? Laying aside the question concerning his functions as a physician, there is every moral reason why he, as a man, should use his best endeavors to lessen suffering and to save life, in so far as it lies in his power to do so, and this, too, regardless of whether it is to be of direct profit to him or not. There are material reasons for a physician's having a fairly accurate knowledge of the advances in preventive medicine. His patients demand it. With the universal progress in general education the public is no longer satisfied that a physician enter the house, prescribe his medicines, and depart. They desire more; they wish to know the nature, the origin, and the cause of the sickness, the most likely channel or channels through which the disease was contracted, and the most reliable means of preventing its recurrence or spread. If the doctor cannot supply reasonable answers to these questions, he need not be surprised if his employment be given to someone else who can. For his own enlightenment and personal welfare, if for no other reason, the physician should be familiar with sanitary laws, especially those concerning the causation and spread of disease, and the means of prevention. He should be familiar with the modes of infection, the methods of disinfection, the means for the isolation of the sick, and the general rules of prophylaxis in the management of contagious diseases. He should be familiar with the channels through which he himself may become infected, or the means by which he may serve as a carrier of infection, and the proper precautions for preventing such accidents. As an educated physician, he should know, and as a conscientious physician he should practise, these precepts, for the good, not only of his own patients, but of the community of which he forms a part. The medicine of the

period tends more and more in the direction of prevention, and, if the physician proposes to keep himself abreast of the times, it is imperative that he be in touch with the advances along these lines. While ignoring the subject, a new medicine grows up about him, and he is suddenly aware of his presence in an atmosphere unfamiliar and wholly uncongenial—an atmosphere that he does not appreciate, and with which he experiences no intelligent sympathy.

There has been recently introduced into Toronto a new system of house-cleaning by compressed air which must, of necessity almost, interest physicians. It is an advance in the right direction and, we venture to think, will be found to be in accordance with the theories of preventive medicine. By it the entire internal house fixings are thoroughly and quickly cleaned of everything in the way of dust or dirt, by compressed air, which collects and removes everything of that kind without it being allowed to mix with the air of the room or permeate the entire house. The walls are cleansed and the carpets thoroughly renovated by collecting the dirt, not only in their fabric, but between the carpet and the floor, without removing them or disturbing the furniture. Draperies, tapestries, decorations, and ceilings are also cleansed without in any way dismantling the rooms and without creating dust, the bane of the good housekeeper.

A point about this system that will interest our readers is that, by this method, a room or house can be disinfected after a case of contagious disease. The current of compressed air is charged with disinfectants, which penetrate every nook and corner, leaving little opportunity for the spread of disease and yet proving harmless to any fabric with which the air comes into contact.

By the compressed air method, one man can easily cleanse six or eight rooms in half a day, including not only the walls and ceilings, but the entire contents even to the bedding.

Compared with the old system of house-cleaning, the new system is certainly an immense improvement, and, for no other reason perhaps than that it is healthy, it will take but a very short time for the compressed air method to be adopted generally, judging from the number of times in passing along our best residential streets last spring, and in the early autumn, we saw the "hose and reel" quietly at work, rendering the house ornamental; a great service in causing it to become also the house healthful.

Not in private dwellings alone, but more especially in hospitals and public institutions, do we deem this new system necessary. It discovers dirt that would, perhaps, remain unseen, and removes it by a sort of Roentgen ray penetration, restoring

the appearance and color of fabrics and making them look bright and fresh. We venture to think that such an equipment is a necessary adjunct, and should be installed in every hospital, thus removing all chance of accumulated dirt which might add to the cases of sickness present in the institution. On every side the alarm is sounded about the spread of tuberculosis, and, as so many unfortunate victims of that dread disease are constantly seeking change of climate and travelling to and fro upon trains, it certainly would prove a great boon to the travelling public if the Pullman and sleeping cars were subjected frequently to this cleansing process, added to their present daily disinfecting and cleaning rules, which, if carried out, are excellent. Still, in conjunction with this "application of the microscope," if we may apply the term to the compressed air system, the public would gain an increased feeling of security against the possible invasion of bacilli.

It is not Christian Science treatment, in which you have to have faith in order that any good may be accomplished; but, on the contrary, a moment's examination of the actual dirt that can, by the system, be "pulled right through a carpet by the neck, and landed on the street," whence it is removed, can only convince one that this "absent" method for the dirt cure is worth a careful examination on the part of the medical profession, as "seeing is believing." "Cleanliness is next to godliness."

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**To Isolate Consumptives.**—The feature of the meeting of the Insurance Institute on March 10th was the lecture by Dr. John L. Davison on tuberculosis in connection with life insurance. A very large number of members and medical examiners for life assurance companies were present. It was pointed out that about 12 per cent. of all deaths are due to tuberculosis, and in selected risks the mortality is about 8 per cent. Of all the exciting causes, by far the most important is light weight. Thin people are very much more likely to develop tuberculosis than stout people. The doctor recommended legislation to compel isolation and disinfection. He feared it is too soon to hope that the law will regulate marriages. Companies should send literature to every policy-holder, giving in the simplest and plainest terms the danger from contagion, some of the early symptoms and setting forth the fact that it is in most cases a curable disease in its incipency. Life insurance companies should pay a capable man to go through the community holding institutes for medical examiners to educate the examiners along life insurance lines.



# The Canadian Journal of Medicine and Surgery

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## Editorials.

### THE TORONTO CONSUMPTION HOSPITAL.

THE city of Toronto has passed a by-law providing fifty thousand dollars for the construction of a consumption hospital. When one considers that there are over thirteen hundred consumptives in different stages of the disease, in Toronto, and that the sum voted in the by-law would build and equip a hospital capable of accommodating fifty patients, our civic appropriation for tuberculosis seems small. All classes of con-

sumptives, however, need not be sent to the civic consumption hospital. Patients in the early stages of the disease might go to the Gravenhurst Sanitarium, those who are past cure being allowed to spend the remainder of their days at home or at the civic hospital. A consumption clinic is also contemplated. If installed, it will be used for the diagnosis and treatment of consumption. Apart from treatment, a great deal can be said in favor of an early diagnosis in consumption. All admit that great benefit results to consumptives, who are made to take proper nourishment, and breathe fresh air. Efforts should, therefore, be made to inaugurate the successful treatment as soon as possible, and this presupposes an early diagnosis.

A practitioner often finds that consumption has made rapid advances in a patient, who consults him for lung disease; and, in reply to the stereotyped question, "Can you cure me?" is forced to give a regretful "No."

The dilatory patient may afterwards try another physician, or several physicians. He may also drop into the hands of the patent medicine venders. He may proclaim that he has been "given up by the faculty," and, with an optimism quite characteristic of his disease, may continue absorbing sure cures, and "getting better," until he draws his last breath.

Unlike acute infectious diseases, consumption retains its hold for years, leading its victim very gently to the grave. During these years of breakdown, the patient has to live, and, if not rich, the necessary money is often earned with difficulty.

It is surprising, but none the less true, that women suffering from pulmonary consumption will continue to do light work. It is equally surprising how they manage to avoid the tell-tale expectoration. Men, of course, are given to expectorate for trivial causes; women rarely for any reason. In the experience of the writer of this article, several consumptives of the female sex have continued to do light work up to a short time before death, and such efforts were necessary in order to eke out an existence. Sanitarium life is to be recommended to patients in the early stage of tuberculosis, who are going to make an effort to conquer the disease. To continue such a mode of living for a year or more calls for a considerable expenditure of money. If the patient is poor, or in moderate cir-

circumstances, and the disease has become chronic, he should be allowed to work at some occupation sufficient to support life, or relieve the tedium of existence, care being taken that expectoration is practised in the proper way, and that the sputa are destroyed. If the sputa are conveyed to a spit-cup and afterwards burned, there is little danger in allowing a consumptive to remain in a house occupied by healthy people.

One of the chief reforms in the hygiene of tuberculosis which will quite naturally flow from the establishment of sanatoria in Ontario, will be that consumptive patients will be taught how to dispose of their sputa. If this function is properly attended to, the treatment of the consumptive will largely depend on his means. If he can migrate to scenes where the warm sun shines, and where he can sit in the open air, at a season when the people of Ontario are closing every crevice in their window frames; if the succulent steak, the fresh egg, the rich cream, and the fattening malt can be freely absorbed, then the chances of prolonging life are good. If the reverse is the case; if poverty weighs down the victim's efforts, then private benevolence, State or municipal subsidy must supply the deficiency, and come to the rescue of one whose disease calls for a regimen which his purse is unable to procure.

The notification of pulmonary consumption is excellent in principle, and, if carried out, would aid the health department of a city in securing the destruction of tubercular sputa in dwellings, places in which, by long odds, sputa are likely to do more injury to the well than when ejected on sidewalks, streets and public places. However, if notification is made law, we fear that a consumptive would go great lengths to avoid exposure, and would shun a consultation with a physician, rather than reveal an infirmity which would debar him from profitable employment. This fear of discovery is also an argument against the establishment of a public clinic, in connection with the city consumption hospital. In our opinion, all that a municipality has a right to demand of a consumptive is, that he do not expectorate, in public or private, so as to injure others. To assist him, the municipality may establish a hospital, in which he may be treated *gratís*, if he is poor. Instruction may be given to rich and poor, by leaflet or lecture, on the hygiene of ex-

peccoration, proper method of dieting, etc. As the bacteriological test of sputum is made gratis at the laboratory of the Provincial Board of Health, any person who suspects that he has consumption may have a diagnosis of his disease made in forty-eight hours by consulting a physician. If he cannot pay for the consultation, he can have the work done at a public hospital for nothing. Therefore there is no occasion to establish an expensive clinic for consumption in Toronto. J. J. O.

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#### THE "BUSINESS ASSESSMENT."

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SOME Toronto physicians have complained of the new method of raising municipal taxes, contained in an Act introduced at the last session of the Ontario Legislature. This Act provides for a "business assessment," as follows: "Irrespective of any assessment for land under this Act, in cities, towns and villages, every person occupying or using land in the municipality, for the purpose of any business mentioned or described in this section, shall be assessed for a sum to be called a 'business assessment,' to be computed by reference to the assessed value of the land so occupied or used by him as follows:

"(e) Every person practising or carrying on business as a barrister, solicitor, notary public, conveyancer, physician, surgeon, oculist, aurist, medical electrician, dentist, veterinarian, civil or mining or consulting or mechanical or electrical engineer, surveyor or architect, for a sum equal to 25 per cent. of the said assessed value."

Our medical readers will understand that Clause (e) is selected and quoted because it particularly refers to physicians and surgeons, showing the rate of business assessment which they will have to pay.

The practical meaning of this legislation is that, with the exception to be noticed presently, every physician in Ontario occupying an office in a dwelling, will be obliged to pay a business assessment, based on one-fourth of the value of the dwelling and the land. For instance, if the house and land are assessed for \$4,000, then the physician, whose office is situate in the said house, provided that he is the owner or tenant of the said pro-

perty, shall have to pay a "business assessment" on \$1,000, which, being computed at a tax rate of 20 mills on the dollar, would be \$20 a year.

If he is an unmarried man, and rents one or two rooms in a dwelling or office building, in which he has no interest as owner, he shall pay the business assessment on a minimum valuation of \$250.

Section 4 hits the physician who has grounds attached to his residence. It reads: "Where any person mentioned in Sub-section 1 occupies or uses land, partly for the purpose of his business, and partly for the purpose of a residence, he shall be assessed in respect of the part occupied for the purpose of his business only, but this provision shall not apply to persons assessed under Clause (e) of Sub-section 1." Clause (e) includes physicians and surgeons.

Section 6 reads as follows: "Every person liable to assessment in respect of a business under Sub-section 1 shall not be subject to assessment in respect of income derived from such business."

"(7) Every person assessed for business assessment shall be personally liable for the payment of the tax thereon, and the same shall not constitute a charge upon the land occupied or used."

With the new method of taxing doctors, we are rather favorably impressed. It increases our municipal taxes, of course, probably doubles them, but then it clears away some rubbish from our field. By all means, let us have a "business assessment," and let us practise medicine on a business basis. Some time ago, a man in our hearing boasted that he could secure the services of any one of five reputable physicians of Toronto, inasmuch as he was a member, in good standing, of five different "sick-benefit" societies. The business end of medical practice looked rather small after hearing that speech. Neither was the horizon of clinical medicine enlarged thereby. If attacked by lobar pneumonia, the man of the five societies may, with great satisfaction and little expense, try Dr. A. for two days, Dr. B. for the next two days, Dr. C. for the fifth and sixth days, Dr. D. for the seventh and eighth days, and about the hour the crisis is due may call in Dr. E. Thirty years ago, it was the

proper thing for a Toronto physician to own, and pay taxes for, a good corner residence. He got his share of family practice, and had a big share of the accident surgery. All the latter goes to the down-town hospitals now. And that manifest injustice suggests a question. Do hospitals pay business assessments? No. They are not mentioned in any of the sub-sections of the tax law. Why not? They do not keep patients for nothing. Misanthropy is narrow; philanthropy is often silly; let us have business methods in medical practice.

We think that Dr. A. Macdonald and Dr. E. King, who represent the medical profession of Toronto in the College of Physicians and Surgeons of Ontario, have done well in bringing the "business assessment" before their constituents for discussion. We hope also that our representatives, together with other conferees, will continue their labors, and look further into the business interests of the Ontario medical profession. J. J. C.

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#### FIRE PROTECTION IN HOSPITALS.

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EVEN when sound in mind, well in body, and with the fleetness of foot of youth, the cry of "fire" is apt to strike terror to the stoutest heart. Not until one has heard that shrill cry float up six stories to a bedroom window, in one of Gotham's "Jacob's ladders," called hotels, and has participated in the scene that followed, can one realize in a measure the awfulness of a fire in one of our large hospitals, where helpless humanity has to lie and await assistance to make its escape to a place of safety. Since the horrifying disaster in Chicago recently, we as citizens have been awakening in regard to the fire protection we ought to have provided, and insisted upon by law, in all our public buildings, especially schools, churches, theatres, hospitals, and in our music hall and other places where people are crowded together. So far, the "powers that be" seem "fussily" idle, or idly busy about inspecting our theatres. As week after week passes, their intentions are good, but they are like the devout Methodist who, being frequently entreated by his creditors to pay up, said he always intended to do so, but the Lord kept hedging up his way. As physicians, let us arouse ourselves, and occupy our time removing the beam from our own eye ere we ask for the removal of the mote in

our brother's eye, by seeing to it that the hospitals, where we so gladly send our patients, are properly equipped with all appliances in case of fire, and, in the meantime, to be strictly truthful in telling of their present imperfections, in order that the public may have abiding confidence in our Institutions.

For years, the General Hospital has been alive to this awful danger, and has a system, if carried out, of good arrangements. The following details have been furnished us by Dr. Chas. O'Reilly:

"In Toronto General Hospital on every flat and in every corridor, from the basement to the attic, fire hose is kept, ready for instant use. Fire extinguishers and dozens of pails of water are also on every flat. A separate city fire alarm box is in the main hall, with speaking tubes and direct telephonic communication with every building and with every flat. Every official in the Hospital has a lantern at his bedside, and one of the engineers is always on duty, day and night, winter and summer. Coal oil is not used in the wards; only old-fashioned candlesticks being used by night-nurses, which from their shape and size, cannot be upset. The Hospital being, as it were, always awake, night as well as day, nurses like sentries pass on and off duty. The buildings are heated by steam and hot water. The Chief and his foremen frequently visit and inspect the Hospital and fire appliances, and pronounce it one of the best fire protected public institutions in the city. In the main hall lanterns, hose-keys, wrenches, crowbars, axes, ropes, pails and chemical fire kings are always ready, and it will be found impossible within the walls of the Hospital to hide yourself where a stream of water from a nozzle of a hose will not drive you out. The partitions, in the main building are built of brick, and the corridors are large and wide, opening on open verandahs to east and west wings. The wide main centre stairways afford ample exit, and the two outside enclosed tower stairways from basement to attic in the main Hospital, although not noticed from the outside, are perhaps the best fire escapes the Hospital could possibly have.

"There is now on every side of the hospital block, a large double-headed hydrant, and the Wilton Avenue fire station is less than three blocks away, and connected directly with the institution by the special alarm signal box."

St. Michael's Hospital is also provided with fairly good facilities, but, after the visit of City Architect McCallum, will no doubt add a few improvements. (We may say that our two letters to the Hospital asking for detailed information still remain unanswered.)

Grace Hospital intends adding to its building, and putting in the latest inventions to render it fireproof. At present a direct fire alarm box, fire escapes on both sides of the building, pails of water, hose (which, we trust, is frequently examined) through the corridors, and chemical extinguishers, with a fire drill, said to be frequently practised by the nurses and employees, constitute the sum-total of this hospital's readiness in time of need.

The Western Hospital has a very poor outfit of fire "extinguishers," so far. It goes to one's heart to tell it, but with the shades of Washington's birthday still around us, and a souvenir hatchet in view, we dare not sign our christian name to a fairy tale, and really, as far as the sight of man goes, no fire escapes are visible on the outside of the old building. While we were told the nurses had ropes, and could easily convey the patients to verandah roofs, we fear the record would be: "The operation (of carrying them out, and tying them to ropes and letting them down) was highly successful, but the patients died shortly afterwards of heart failure." (Pity we do not live in Bible times.) This state of affairs at the Western Hospital is not the ideal state of things at all desired by the staff and management. It is simply owing to lack of funds, we understand. Will not some one of our sudden millionaires come to the rescue, and perhaps, in a golden to-morrow, when he knocks at the door of the Home of Everlasting Health, St. Peter may let him in.

W. A. Y.

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#### INSUFFICIENT REPORTING OF TYPHOID FEVER.

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At the first quarterly meeting for the present year, of the Provincial Board of Health, the ex-Deputy Registrar-General for Ontario, Dr. Bryce, in reply to a question, acknowledged that the morbidity and mortality figures of typhoid fever, published in Monthly Bulletin No. 10, for December, 1903, were misleading. For instance, the cases of typhoid fever reported for Ontario in December were 120, and the deaths from that dis-



case 24, or an estimated mortality of 20 per cent. The total cases of typhoid fever reported during the year 1903 were 1,012, and the deaths 298, or a mortality of about 30 per cent. If correct, these figures would indicate that the typhoid fever reported in Ontario was of a peculiarly deadly character. But the figures are not correct, that is to say, Ontario physicians do not report their typhoid fever cases, and the published number for the year, viz., 1,012, is absurdly below the number of cases which actually occurred in the Province during the time mentioned. Assuming that the published mortality, 298, represents 10 per cent. of the cases of typhoid fever occurring in Ontario during 1903, then there were 2,980 cases, instead of 1,012.

Why are cases of typhoid fever not reported in Ontario? We do not undertake to answer the question, and would leave it to our readers. One thing seems quite evident; if a physician does not report his cases of typhoid fever, in common justice to others, he should give minute instructions regarding the disposal of the excreta of his typhoid patients, and should endeavor to enforce his own rules. The water-borne origin of typhoid fever is now generally received. Dr. Schuder, who publishes a table of 650 cases of epidemic typhoid fever, shows that in 70 per cent. the vehicle of the disease was water, in 17 per cent. milk, in 3 1-2 per cent. foods of all kinds, and in 9 1-2 per cent. other factors. The two important factors are drinking water and milk, amounting together to 87 per cent. of all the etiological factors. Why do not the Ontario physicians report their cases of typhoid fever?

J. J. C.

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#### EDITORIAL NOTES.

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**No Anti-Spitting By-law in Toronto.**—An anti-spitting by-law has been discussed in the Toronto Council, but has not been passed. Aside from the disgusting appearance of deposits of sputum in public places, the strongest argument against indiscriminate expectoration on the streets or public places is the danger to the public health from the sputa of some 1,300 consumptives in this city. There is much to be said in favor of protecting people from the microbes of tuberculosis and it is quite reasonable to ask that every person known to have pulmonary or laryngeal tuberculosis should use a spit-cup. Viewed in the light of preventive medi-

cine, a consumptive patient who does not use a spit-cup ought to be quarantined as one whose presence is dangerous to the public health. The use of the spit-cup, in public and in private, should also be obligatory on persons affected with diseases of the air passages, like la grippe and pneumonia, because the infection of such a disease is propagated to others by the expectoration. For other than scientific reasons, efforts should be made to secure the enactment of an anti-spitting by-law; but we need not be surprised if the efforts should prove vain. In New York it is reported that magistrates fine the spitters when brought before them; but in most American cities there is no law against expectorating in public places, or no attempt is made at enforcing the law. Naturally the police are responsible for the carrying into effect of such a law. A policeman may, with propriety, hand out warning cards to first offenders against the anti-spitting by-law, if he does not offend against it himself. If he be given to the use of tobacco, or if he have a cold, his efforts to provide hygienic information will be likely to provoke a smile.

**Useful Scientific Drudgery.**—A medical practitioner, who is possessed of good powers of observation, and also of comparison, will, for the most part, form accurate conclusions about the diseases he is called upon to treat. Cases do occur, however, in which an off-hand diagnosis cannot be made with certainty from clinical evidence, and it may be that in some of these cases a prompt diagnosis is needed. For instance: A clinician well acquainted with the physical features of tonsillar disease will, in the majority of instances, correctly diagnose a disease of the tonsil after inspection. In some instances he will be in doubt. Now, can he consistently remain in doubt, and yet continue to treat a case of tonsillar disease just as though it were lacunar tonsillitis, when he is dissatisfied with his own opinion and fears that the disease in question may be diphtheria, modified by appearing in an individual (a young man, for instance) who has a large power of resistance? Certainly not. A typical, grayish-white membrane may not be present at the stage when a practitioner looks into a patient's throat, and yet a swab, taken from that very throat, may reveal diphtheria. The membrane may be clean gone and nought suspicious remain, after ten days' illness, but a slightly puffed, edematous condition of the epithelial sur-

face of the fauces. There may not be soreness, ulceration or enlarged cervical glands, and yet a swab, taken from such a throat, would reveal diphtheria. Scientific medical work may be drudgery; but the medicine of to-day could not raise its head and honestly look mankind in the eyes without it.

**To Snatch or Not to Snatch.**—The topic of docking the supply of “anatomical subjects for the medical colleges” was discussed in the Ontario Legislature, Feb. 26th, '04, on the second reading of the bill of Mr. Hislop, of East Huron, leaving it to the discretion of a warden of a municipality as to whether an unclaimed body of a deceased inmate of a house of refuge or house of industry shall be turned over to the Inspector of Anatomy. The present Anatomy Act provides that, if a dead body is not claimed within twenty-four hours, it is the duty of the authorities to hand it over to the Inspector of Anatomy to be used by the medical colleges for dissecting purposes. Mr. Hislop condemned this action. If an inmate of an institution had some friends outside, his body was given decent burial; if he had no friends, his body was turned over to the medical colleges. Dr. Willoughby characterised Mr. Hislop's objection as sentimental. The medical colleges, he said, required anatomical material, and if it were not provided legally, the medical students would be compelled to rob the graveyards. Drs. Barr and Reaume agreed that Mr. Hislop's bill would result in a return to body-snatching. The bill was then read a second time. We may, therefore, conclude that henceforth, as the undertaker follows the medical profession in Ontario, so the medical student will follow the undertaker.

**Instruction of School Teachers in Physiology and Hygiene.**—School teachers of the present era, in addition to a scholastic training, are expected to have a fairly good elementary knowledge of the indispensable truths of physiology and hygiene, which they should apply in practice, and also impart to their pupils. Among other bits of useful knowledge, teachers should be taught by a physician how to suspect that a child has adenoid vegetations (open mouth, deafness, nasal obstruction). Teachers should show their pupils the dangers of thrusting pencils or penholders into the ears of their com-

panions. They should be aware of the risk of violently pulling a pupil's ears, and they should instruct pupils how to blow the nose, using only one nostril at a time. An idle, inattentive, backward pupil is sometimes a sick child, whose hearing is defective, because he has adenoid vegetations, which would be revealed by a rhinoscopic examination. He is a candidate for repeated attacks of otitis and deafness, with their consequences, from which a timely intervention by an aurist would save him. The teacher who recognizes defective hearing in a pupil should advise his parents to take him to an aurist.

**The Curative Effects of X-rays in Cancer.**—According to Dr. Von Bruns, of Tübingen, the curative effects of X-rays in cancer are simply due to the fact that these rays assist and intensify the spontaneous tendency to degeneration, which is naturally present in cancer cells. Virchow said: "In itself a cancer is not a durable tumor. Its cells are endowed with weak and fragile characteristics which reduce the duration of their vitality to a very limited period, and soon cause them to undergo a series of regressive changes. If we could succeed in extending, at the very first, these changes to all parts of a cancer, and in preventing the formation of accessory nodules, we would certainly obtain a positive cure of cancer."

**Absorption of Fat from the Small Intestine.**—Drs. Ramond and Flandrin reported to the Society of Biology, Paris (Jan. 23rd, 1904), on the much-discussed question of intestinal absorption. The current opinion among physiologists is that fats are first saponified and then absorbed. These reporters appear to confirm the truth of this opinion by showing that glycerin, which is formed by the breaking up of fats, is found in a notable quantity in the small intestine of a dog after a meal. This glycerin is absorbed by the vena portæ, and partly retained in the liver, in which it forms combinations with fatty acids, or is changed into another compound. On the one hand, therefore, it seems that the portal circulation is a much more considerable route for absorption than is generally believed, and on the other hand, that the liver plays a considerable part in the making of fat.

J. J. C.

PERSONALS.

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DR. R. D. RUDOLF, of Bloor St. West, has received the appointment of Surgeon to the Toronto Light Horse.

DR. DANIEL H. MUIR, one of the best known members of the medical profession in Nova Scotia, died at his home in Truro, on March 11th.

CLARK—At the Asylum residence, on the 12th March, Jennie E. Gissing, aged sixty years, wife of Dr. Daniel Clark, Superintendent of the Asylum.

THE foreign editors of *The American Practitioner and News* say "Adieu" to its readers in the January issue, and greet with enthusiasm those upon whom their mantle is to fall.

DR. MITCHELL, of the Toronto Asylum staff, who has been appointed to take charge of the new asylum for epileptics at Woodstock, and who left last month for England to look over the institutions there preparatory to assuming his new duties, was tendered a farewell by the staff of the Queen Street institution. The affair took the form of a dance, and a very pleasant evening was spent.

DR. M. T. BRENNAN, gynecologist of Notre Dame Hospital and a professor of Laval University, Montreal, died on March 12th, of pneumonia. Dr. Brennan was a native of Montreal and a graduate of Laval, with which he was identified as a professor for fourteen years. He was connected with Notre Dame Hospital for twenty-two years. He leaves a wife and five children. Three weeks ago two of his children died. Dr. Brennan was forty-two years of age.

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**His Yearn.**—Poor Feebles (about to be operated on for appendicitis): "Doctor, before you begin I wish you would send and have our pastor, the Reverend Mr. Harps, come over." Dr. Cutter: "Certainly, if you wish it, but ah!—" Feebles: "I'd like to be opened with prayer."—*Life*.

## News of the Month.

### A MUNICIPAL TUBERCULOSIS CLINIC.

THE consensus of opinion among the profession as to the Municipal Tuberculosis Clinic about to be opened in New York City by the Health Department of that city, seems to be that the idea is a splendid one, and, with some modifications, just what we ought to have in Toronto.

The clinic is for the diagnosing and treatment of pulmonary tuberculosis. At the last meeting of the Board of Health, Dr. Sheard recommended the City Council to utilize the \$50,000 voted by the ratepayers on January 1st for the establishment here of a somewhat similar, though not so extensive, institution.

The New York institution is described as follows in the *New York Times*:

“It will occupy a building immediately adjoining the headquarters of the health department, and will include a registration office, two waiting rooms, an X-ray room, a throat department and two clinics with examination rooms.

“The object of this institution is to aid in the most practical of ways the effort to check the spread of the great white plague, which everywhere in this and most northern countries contributes most to the death-rate, and most heavily handicaps the living by swelling the multitude of helpless and dependent invalids. It is now admitted by all whose views are entitled to respectful consideration that pulmonary tuberculosis is curable and eradicable, and that under favoring conditions nature will usually effect a cure in incipient cases. The first object of the Board of Health clinic is early recognition and correct diagnosis of cases of consumption. This is often an impossibility for the poor, who can afford only casual medical advice, and that not always the most skilful. At the clinic the work will be directed by experts. Not only will careful physical examinations be made, with sputum cultures, but X-ray tests will assist in early and correct diagnosis.

“Patients applying for treatment will not only receive it, but will be given circulars of information in whatever language they can best read, containing exact and intelligible instructions as to precaution necessary to be taken to prevent the infection of

others. Sputum cups and proper food for the upbuilding of the system will be supplied without charge to needy patients. Indigent and ambulatory patients discharged from the public institutions of the city will be looked after at their homes and places of occupation by trained nurses constituting a special corps, and the co-operation of charitable organizations has been secured to supply food, fuel, ices, etc., where needed. One of the chief duties of these nurses will be to look after the children in the homes of consumptives, and do all that can be done to prevent their infection. When necessary those unable to remain at home will be provided for in hospitals and those promising recovery will be sent to out-of-town sanatoria."

There is little doubt that the ablest practitioners in the city would be glad to give their services to such a clinic in Toronto. This city should not attempt to treat patients in their homes; that would be too great an undertaking. Dr. Sheard thinks that the municipality should treat the disease from a sanitary standpoint, and should hand over to the Gravenhurst sanitarium cases that needed sanitarium treatment. In that way much could be done to prevent and control the disease. The city should erect the necessary building in Riverdale Park, near the Isolation Hospital. The \$50,000 would erect and equip a building capable of accommodating 50 patients.

Such an institution would be valuable also in furnishing the best advice and necessary assistance to persons in the initiatory stages of the disease, or persons with an inherent tendency towards pulmonary trouble, who, on account of the cost, could not at present secure such advice.

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#### A COURSE FOR TRAINING NURSES AT TORONTO TECHNICAL SCHOOL.

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THE Toronto General Hospital and the Toronto Technical School have entered into an arrangement by which young women intending to become nurses can qualify themselves for securing an entrance into the training school of the Toronto General Hospital by first undergoing a course of preliminary training in the Technical School. To quote the words of a circular which has been issued by the Toronto General Hospital on behalf of its training school: "Intending applicants to the Training School for Nurses are notified that, after this date preference will be given to candidates who hold a certificate of the preparatory course, provided they are otherwise eligible." The preparatory course referred to consists of two terms of three months each, beginning this year on the 4th of January, and ending June 15th. The classes are held from nine in the morning till 3.30 in the afternoon, daily,

in the Technical School, and the various branches in which intending nurses receive instruction are anatomy, physiology, medical chemistry, hygiene, bacteriology, dietetics, cookery, household economics, English language and vocal expression. Miss Davidson, the head of the domestic science branch of the Technical School, is a graduate of the Pratt Institute, Brooklyn, and the new course of training in the Technical School in household economics generally, is modelled after the course of training in the Pratt Institute.

This is the first course of preliminary instruction for nurses undertaken in Canada. Preliminary training for nurses, however, is now firmly established in both Great Britain and the United States. As a rule, the instruction is given in connection with the training schools, but not in the same building. This is true of the Royal Infirmary, Glasgow, which has an admirable preparatory course, not, however, conducted in the Infirmary itself. In Boston and Rochester the preliminary training is given outside of the hospital, and the same is the case in Philadelphia, where the instruction is given in the Drexel Institute. For New York the same work is done in the Blackwell Island Training School for Nurses, and in Chicago the Presbyterian Hospital, like the Toronto General, is at the present time beginning its course of preliminary training. The course for the Toronto General follows that adopted by Boston and Philadelphia. The one exception to the general rule of a course in preliminary training taken outside of the hospital is at Johns Hopkins, Baltimore, where the nurses enter first on a six months' preparatory course, during which they are not allowed to enter any of the wards, but receive a thorough training in the chemistry and preparation of foods, and in the art and science of keeping a hospital clean, using the word in its highest medical meaning. The special advantage of a preliminary course for nurses is that by the time they arrive at the work of nursing proper they understand not only the terms employed, but know how to perform such of their duties as are related to the proper diet of the sick. The question of the success of preliminary training for nurses in Toronto has already been answered to a certain extent, for already there are six nurses in training at the Technical School, applicants for the class in the Toronto General Hospital, which enters into training there next fall.

The Association of Superintendents of Nurses' Training Schools in the United States and Canada intend ultimately to establish a college for preparatory and post-graduate work among nurses, which will be entirely under their own direction, to be established in some part of the United States, but open to nurses trained in Canada. The association has already applied for incorporation with this object in view.



### FIFTY THOUSAND DOLLARS FOR SANITARIUM PURPOSES.

DR. SHEARD will advise that the \$50,000 to be provided by the city for sanitarium purposes be spent in the promoting of the work of the association that can give the city the best guarantee regarding the accommodation of patients.

"Now that the Board of Control have left this matter to me," said Dr. Sheard, in an interview on the subject, "I will leave no stone unturned to find out which of the anti-consumptive associations can do the very best for the city. As a principle, I am not in favor of the city building hospitals and then maintaining them, but I make an exception when it comes to hospitals for the treatment of contagious diseases. I am satisfied with the management of our Isolation Hospital, and think that from the economic standpoint there is no better managed institution.

"If the National Sanitarium Association can provide accommodation for a sufficient number of patients by the expenditure of this \$50,000 and grant the city the power to say who shall go into the wards set apart for the city's cases, then we are prepared to consider their representations to the city, but one condition I will insist upon, and that is this, that the Medical Health Officer shall not be dictated to by anyone as to who shall occupy the wards set apart for city patients.

"If the Anti-Consumption League can guarantee to the city a better return for the \$50,000 than the National Sanitarium Association, they will receive greater consideration from me, but it must be clearly understood that this is a matter of business with me, and it is the city's interest that must take first place in considering this question.

"Unless I receive a guarantee from one of these associations that is entirely satisfactory to myself, I will not recommend that the Board place the \$50,000 at the disposal of either of them, but I will recommend other means whereby this money can be spent to the best advantage to the city."

"Would you favor a municipal sanitarium?" the doctor was asked.

"I am not prepared to say whether that would be my recommendation just now," replied the doctor.

"How many patients would you want accommodation for?"

"Somewhere between fifty and seventy-five, but I would not state the number definitely now, for good and sufficient reasons."

"What would the city pay for their patients?"

"\$2.80 per week."

"Would the city have anything to do with the management of the institution getting the \$50,000?"

"Not any more than having the authority to say who the patients are that shall be admitted into the city's wards."

"How do you intend to proceed now?"

"I will give the representatives of both the National Sanitarium Association and the Anti-Consumption League an opportunity of appearing before me and stating what they will do for the \$50,000, and upon their guarantees I shall base my report to the Board of Control."

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#### **BURROUGHS WELLCOME & CO. v. THOMPSON AND CAPPER.**

Mr. Justice BYRNE delivered judgment on December 14th in an action of some interest to medical men brought by Mr. H. S. Wellcome, trading as Burroughs Wellcome & Co., against the firm of Thompson & Capper, druggists. The object of the action was to restrain the defendants from passing off goods as of the manufacture of Burroughs Wellcome & Co., which had not been manufactured by them, and particularly from selling, or offering for sale, any such goods under the name "tabloid" or "tabloids" and from infringing these the registered trade-marks of the plaintiffs. Evidence was given in the course of the trial of the selling of goods not of the manufacture of Burroughs Wellcome & Co. to persons asking for tabloids, and bearing prescriptions in which further specification of the manufacture demanded was afforded by the use of the initials B. W. & Co. by the prescriber. As to this being wholly unjustifiable no question could arise, but the real claim of the plaintiffs was for the declaration of their exclusive right to the use of the words "tabloid" and "tabloids," without any addition, as indicating goods of their manufacture. The establishment of such a right by them was denied by the defendants, and behind this lay the question whether the words "tabloid" and "tabloids," registered by the plaintiffs as their trade-marks, were to remain upon the Trade-marks Register or were to be struck off in accordance with the defendants' cross-action to that effect. The judgment of Mr. Justice Byrne was in favor of the plaintiffs on all points. He granted them an injunction against the defendants independently of the question of registered trade-mark. With regard to the trade-marks he refused to order their removal from the register, and he granted the plaintiff firm a certificate to that effect. The case has some important professional bearings. One of the main grounds of attack on the trade-mark "tabloid" was the allegation that a proportion of the public did not know that the word was the property of a firm. It was shown in evidence by the defendants that Burroughs Wellcome & Co. advertised only to the medical pro-

profession and pharmaceutical trade, no facilities therefore being given to the public for gaining knowledge of the trade name in its proprietary connection. It was also shown that some dispensers, when supplying "tabloids," have removed the makers' label and affixed their own—a still more obvious reason for the ignorance of the public as to the property of Burroughs Wellcome & Co. in the word "tabloid." There are few circumstances in which the dispenser is entitled to exercise his judgment concerning a prescription, but the substitution of one drug for another, or of imitations for proprietary articles of accepted reputation, is not one of those circumstances. The medical man is accustomed to depend upon the pharmacist for a faithful discharge of the obligations of the written prescription, a consideration which no doubt determined the attitude of certain leading members of the pharmaceutical profession, and the President, Vice-President, and several members of the Council of the Pharmaceutical Society appeared to give evidence in favor of Burroughs Wellcome & Co. For the reasons implied above we congratulate Burroughs Wellcome & Co. upon the result of the action. Their intent to approach the public through the medical profession only was used against them in a manner which could but enlist for them the sympathies of all practitioners.—Editorial Note in *The Lancet*, December 19th, 1903.

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#### MR. W. M. GRANT'S PROMOTION.

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WE beg to congratulate Mr. W. M. Grant, who for years has represented the firm of Parke, Davis & Co. in Toronto, and has done exceptionally good work in forwarding the interests of their preparations among the profession in Ontario, on his promotion to the position of manager of the Canadian laboratories at Walkerville, Ont. We feel that the Detroit office has made a good choice in appointing Mr. Grant to be chief of their Canadian business, as not only is he fitted for the work, and well thought of by the profession, but we feel that he will prove a worthy successor to Mr. Swift.

Mr. Grant was born in the village of Waterdown, Ont. He is the son of Rev. R. M. Grant, D.D., now of Orillia, and has brothers, Mr. Geo. D. Grant, a lawyer in Orillia, recently elected in his thirty-first year to represent North Ontario in the House of Commons, and Mr. R. A. Grant, of the law firm of Kerr, Davidson, Paterson & Grant, Toronto.

Mr. W. M. Grant's education was begun in the common schools, and completed in the High Schools of Ingersoll and Orillia. His apprenticeship to pharmacy was served with Mr.

H. Cooke, of Orillia, which he began in 1882, and graduated in the fall term of 1886, after which he accepted a situation with Mr. J. D. Matheson, of Toronto, with whom he stayed for some three years, and then went with the firm of Lyman Bros. & Co. in 1890, taking the position of city traveller for two years, afterwards covering the ground of Eastern Ontario for another period of two years.

On the 1st of April, 1894, he accepted a position with Parke, Davis & Co.

During the time since that date to the present he has represented the house in almost every part of Canada east of Walkerville, and filled every position with such efficiency and satisfaction to the firm that on the selection of Mr. W. F. Whelan to take charge of the British sales department, he was advanced to the position of senior travelling representative for Canada, headquarters in Toronto, with the cities of Toronto, Hamilton and London as his special sphere of labor.

In the adjustment of the affairs consequent on the removal of Mr. Swift to the general manager's chair in Detroit, it was decided to divide the work and responsibility of his late position.

This was accomplished by placing Mr. Grant in charge of the business department, and advancing Mr. R. H. Revell from the position of laboratory superintendent, which he held under Mr. Swift, to that of laboratory manager, in complete control of the manufacturing department.

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#### SUPPURATING APPENDICITIS OPENING INTO THE BLADDER.

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JUAN G., a Spanish merchant, 37 years old, with evident syphilitic antecedents, began to suffer about two months ago acute pains in the right iliac pit, while a tumefaction was observed in that region. He became an inmate of a clinic of this city, where his case was diagnosed as malignant neoplasm. After remaining about twenty days in said clinic, the patient decided to leave for Spain; in the meantime, he stopped at a hotel here. While there he was taken with violent fever and ague, with a temperature of about 41 degrees C., and the first micturition following this attack did show the presence of a great quantity of pus.

Dr. Parra, who was attending the patient, did me the honor to ask me to assist him. I called on him the night after the evacuation of pus had occurred.

The first symptom to which my attention was called upon examination was the dimension and hardness of the liver, with swellings, the massiveness of which continued uninterruptedly in

connection with the massiveness of the iliac pit, in which region (the right iliac pit) an accentuated muscular resistance was observed, though that region instead of being swollen presented a depression, at the bottom of which the rim of the hepatic gland could be felt by the hand. The temperature was 38 degrees, the pulse beat between 80 and 90, and the general condition of the patient was rather satisfactory.

The diagnosis offered no doubt in our opinion: Suppurating appendicitis with evacuation into the bladder (the urine which was shown to us was extremely fetid and mingled, and it did contain a large quantity of pus) and syphilitic cirrhosis of the liver.

We advised the patient to consent to be operated upon, which he did. On the following day an incision of about seven centimetres was made into the middle of the depression observed in the iliac pit. We rapidly reached a perfectly defined cavity, which contained a little pus mixed with mucosities. We washed out the cavity with Hydrozone and plugged it with iodoform gauze. On the following day, when we dressed the wound, upon careful examination of the cavity, we did not find any connection with the bladder, but we could extract the appendix which was affected by feces.

A complete cure was accomplished in a month, and during that time the liver decreased considerably in volume. Since the third day of the operation antisyphilitic treatment was followed.

The communication between the cavity of the abscess and the bladder healed after twelve days of treatment.—*Exchange.*

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### INTERNATIONAL ELECTRICAL CONGRESS.

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ESPECIAL efforts are being put forth to make the department of electricity the most striking and attractive feature of the Universal Exposition of St. Louis. In furtherance of this idea an International Electrical Congress is to be held from September 12th to 17th, the week preceding the session of the International Congress of the Arts and Sciences.

The last International Electrical Congress was held in 1900, in conjunction with the Universal Exposition at Paris.

The Congress will be divided into the following sections:

*General Theory.*—Section A, Mathematical, Experimental.

*Applications.*—Section B, General Applications; Section C, Electrochemistry; Section D, Electric Power Transmission; Section E, Electric Light and Distribution; Section F, Electric Transportation; Section G, Electric Communication: Section II, Electrotherapeutics.

It is proposed to invite prominent men in various parts of the world to contribute special papers on subjects represented in the various sections and their subdivisions.

Conventions will be simultaneously held, in connection with the Congress by various electrical organizations in the United States. It is proposed that each section of the Congress may be able to hold its meeting under some plan of conjunction with the organization or organizations devoted to the progress of the work selected by that section. Steps have already been taken to enlist the sympathy of the various organizations, with a view to perfecting the details of co-operation at a later date. Prominent among the organizations from whom co-operation is expected are: The American Institute of Electrical Engineers, the American Electrochemical Society, the National Electric Light Association, the Association of Edison Illuminating Companies, the Pacific Coast Transmission Association, the American Electrotherapeutic Association. It is also hoped to secure the participation of American scientific societies.

The Universal Exposition at St. Louis has signified its intention of affording ample facilities for the accommodation of the Congress in its halls on the grounds of the Exposition.

Elihu Thomson, A.M., Ph.D., of Lynn, Mass., is President of the Committee of Organization; A. E. Kennelly, Sc.D., F.R.A.S., of Harvard University, is General Secretary, and William J. Morton, A.B., M.D., of New York, Chairman of the Electrotherapeutic Section.

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### “CLEANLINESS IS NEXT TO GODLINESS”

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HYGIEIA, the goddess of health, was on March 8th in the ascendant at the Normal School, when Dr. E. Lelia Skinner delivered an extremely interesting address on the wholesomeness of water, air and sunshine, and their kinship to godliness.

Getting right to the heart of her subject from the beginning, Dr. Skinner divided hygiene into three parts, applicable, namely, to the home, the person and the dietary. Paying a friendly tribute to the excellence of the work done by municipal authorities in promoting the virtue of cleanliness, Dr. Skinner felt bound, however, to confess that much yet remained to be done in the matter of housing the poorer inhabitants of the poor districts. Those who lived in comfort could hardly realize what she, in the course of her professional avocations, had learned to her sorrow, and there were yet districts in our environs where fresh air and sunshine were, to say the least, minus quantities to many a poor family.

But it was not only in the home that the science of hygiene, or its evidence, was absent. Even the street car, the meeting hall, the church and chapel came under the ban of the priestess of Hygeia, and much might still be done for the greatest happiness to the greatest number in this respect. And going deeper into the ramifications of her subject, Dr. Skinner became the unconscious apologist of spring cleaning, as necessary a process in the routine of domestic life as the morning tub to the man who wants to feel that he lives.

It is with the mother that it rests to see that her child early learns to love pure water and the golden sunshine, so necessary to its budding growth; but, and it was a cogent point, the aspect of moral sunshine in the child's life was as much to be considered as the cosmic.

The doctor did not spare her own sex in the matter of dress, and her condemnation of the trailing skirt, that vehicle of a multitude of diseases mankind is heir to, was as wholesale as it was wholesome. Clearly, according to Dr. Skinner, the best practical *summum bonum* for the masses is the philosophy of cleanliness in person, home and dietary.

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#### A DISPENSARY IN QUEEN'S PARK FOR THE TREATMENT OF CONSUMPTIVES.

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At Government House, on March 14th, plans were begun for furnishing the Toronto Free Hospital for Consumptives, now almost completed at Weston. His Honor the Lieutenant-Governor presided, and there was a fair attendance. Addresses were delivered by Messrs. W. J. Gage, Chairman of the Executive Committee of the National Sanitarium Association; Rev. P. C. Parker, the travelling secretary; Dr. J. H. Elliott, of the Muskoka Cottage Sanitarium, and Dr. C. D. Parfitt, of the Muskoka Free Hospital.

The most important announcement made was that a site had been selected near the university for a dispensary building. From this building free medicine will be dispensed for consumptives. A staff of nurses will be maintained. Clinics for students will also be held in it.

The reports showed that the Association has spent \$400,000 on its work, of which \$180,000 has gone into the building fund. One thousand patients had been treated, and the remarkable fact that of thirty-two consumptives who were cured five years ago, thirty-one were living to-day, was greeted with applause. The Toronto Home will be under a separate board of trustees.

It was decided that steps should be taken immediately to

raise funds for furnishing the Toronto hospital, which will be used for the care of advanced cases of consumption. Hon. W. A. Charlton was named as convener of a large committee appointed. Mr. H. C. Hammond was elected as Treasurer, and Mr. J. L. Hughes as Secretary.

A resolution, moved by Mrs. Torrington and Mrs. Blewett, expressed approval of the undertaking, and promised aid in support of the furnishing and equipment. Another resolution, moved by Messrs. J. L. Hughes and H. P. Dwight, recommended the holding of a bazaar to secure funds for the work.

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### FALLACIES IN MEDICINE.

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THE final meeting of the Medical Society of the University of Toronto for the current university year was held on February 20th, in the college building. The chief items on the programme were addresses by Drs. Fotheringham, Primrose and D. J. Sweney. Dr. Fotheringham dealt with some of the fallacies of ancient and modern medicine. He noted some of the absurdities of old-time medical lore, when necromancy and witchcraft of various kinds were the stock-in-trade of the healers of disease. Even down to the time of the Stuarts and Queen Anne it was believed that some diseases could be healed merely by the touch of the sovereign's hand. Over 100,000 subjects of Charles II. were thus "healed" of physical ills. Dr. Fotheringham also referred to some fallacies of homeopathy, and to the evils of relying on patent medicines to effect cures. The medicines themselves might be all right, he said, but nine times out of ten the man who took them made a wrong diagnosis of his case.

Dr. Sweney spoke on the subject of the student's relation to the university. He urged that university students should take a larger interest in political life, thus making themselves and the university a much greater power in the land. He referred to the fact that while the Government was willing to spend many thousands of dollars in hunting down a single murderer, yet it was unwilling to spend a few thousands to equip research laboratories to discover means of saving life.

Dr. Primrose's address was connected with anatomical subjects, and was illustrated with lantern slides. The president of the society, Mr. F. J. Sheahan, presided, and musical selections were interspersed by Messrs. Schlichter, Clark and Rutley.



## ITEMS OF INTEREST.

**Tour of Health Inspection in Mexico.**—Early in February a party of health officers from Louisiana and Texas will start on a two weeks' trip of inspection through Mexico.—*Med. Record.*

**Walkerville Honored Him.**—On the 8th of March the people of the town of Walkerville presented ex-Mayor E. G. Swift with a magnificent \$400 hall clock as a mark of recognition of services rendered the town in the capacity of Chief Magistrate. Mr. Swift has just moved across the river to Detroit to assume the management of the American laboratory of Parke, Davis & Co.

**International Electrical Congress.**—An International Electrical Congress is to be held in St. Louis in conjunction with the Universal Exposition. All the papers to be read at the Congress are to be specially invited from well-known writers in various parts of the world. The Committee of Organization has extended an invitation to Dr. Charles R. Dickson, of Toronto, to contribute a paper to be read in the Electrotherapeutic Section of the Congress.

**Detroit the Centre of the Pill Industry.**—According to Leslie's *Monthly* Detroit is the centre of the pill industry. About 1,700 varieties and 4,000,000,000 pills are made there annually, and this is 60 per cent of the national output. The annual consumption averages forty pills for every person in the United States, and the business is growing rapidly. Next year we are booked to take forty-eight. Who says that the pill is going out of fashion?—*Medical Standard.*

**Disinfection for German Libraries.**—The Berlin municipal authorities have decided to make an attempt to exterminate the microbes in the public libraries, Prof. Koch having called attention to the danger of spreading infectious diseases through books loaned indiscriminately from libraries. A plan for attacking the microbes will be submitted to the Library Committee of the Municipal Council on February 2nd. It is intended to adopt some method of disinfecting books after their use.—*Med. News.*

**Convalescent Home for the Orthopedic Hospital.**—Through the benefaction of Miss Emily A. Watson, the New York Orthopedic Hospital will soon open a \$100,000 branch at White Plains, which will be both a home for convalescent crippled children and a school for their industrial education. Miss Watson has also promised to endow the new home with a fund of \$250,000, so that the entire amount of her gift will be \$350,000. The institution will be known as the Country Branch and Industrial School.

**A Remarkable Case of Zoophilia.**—A millionaire farmer of New Brunswick is having her live stock killed by anesthetics duly administered under the direction of a veterinarian. She is prominent in the Society for the Prevention of Cruelty to Animals, is a vegetarian and fond of all animals. Fearing that the animals belonging to her at present might fall into the hands of inconsiderate people, she has decided to put an end to the existence of her live stock in a gentle and scientific manner, as stated.—*Journal of Mental Path.*

**A Private Ambulance.**—With commendable business foresight, the F. W. Matthews Co., 457 Queen Street West, Toronto, have installed a private ambulance, which they place at the disposal of the profession. The company are prepared to answer calls at any hour, day or night, for the removal of cases (any but contagious) from the home to the hospital, or *vice versa*. So long as they are within the city limits the charge is but \$2.00 per call, and for outside the city limits the charge is in proportion. The ambulance is very handsome and is in every respect up-to-date. It runs on rubber tires, is electrically lighted, carries an emergency kit, and is furnished with a pneumatic mattress.

**Anatomy at "Queen's."**—Queen's medical faculty has practically decided to place the subject of anatomy on the same basis as those of biology and bacteriology, by appointing a demonstrator, who will give his whole time to the subject and not enter into general practice. This matter was brought before the faculty by the Dean, Dr. J. C. Connell. A notice has been posted at the medical college regarding the faculty's intention, and applications are invited for the position from final year students, one of whom will be chosen and expected to continue the study of anatomy as a specialty, particularly along comparative lines. Such demonstrator would have the standing of lecturer, and in time would be given the professional chair.

**The Original Sherlock Holmes.**—The original Sherlock Holmes, so says Dr. Harold Emery Jones, in *Collier's*, was a medical man and, stranger yet, a medical editor. Dr. Jones was a classmate and friend of Dr. Conan Doyle in the University of Edinburgh, and while both were students in that institution they often wondered at the remarkable powers of deduction possessed by Dr. Joseph Bell, who as surgeon at the Edinburgh Royal Infirmary, was one of the students' idols. For twenty-three years Dr. Bell was editor of the *Edinburgh Medical Journal*. The way in which he could at the first interview and almost at a glance unfold to his astonished patients their habits, their occupations, nationalities—even their names, seemed decidedly uncanny, until he explained his methods, which were those of Doyle's

great detective. His perceptive powers were only less remarkable than his capacity for deduction.

**Antitoxin Plant in Chicago.**—It is said that a municipal antitoxin plant will soon be established in Chicago. Dr. Preble, President of the Chicago Medical Society, has urged that the matter be laid before the City Council. Some of the members of the City Council who have been interviewed in regard to the matter have expressed their interest in the establishment of such a plant, and it is believed that something will be done. Dr. Ludwig Hektoen, Secretary of the Memorial Institute for Infectious Diseases, has been authorized to say that if a fund should become available, the institute will furnish space for a laboratory and grounds for stables, provided it is not attempted to furnish serum for any State other than Illinois.—*Med. Record.*

**A Psychiatric Institute in Paris.**—The Ecole de Médecine of Paris has under its auspices a new teaching department, in which theoretical and practical instruction will be given in psychiatry. Advanced students and physicians, attending regularly the courses of legal medicine and psychiatry, and passing successfully in the same, will be granted special diplomas. The name of such a diploma is *Diplome universitaire de médecine legale et psychiatrie*. Attendance of lectures and clinics is obligatory during two semestres. Candidates for this diploma are examined in medico-legale medicine, properly speaking, and in medico-legal psychiatry. Professors Joffroy, Brouardel, Dr. Paul Garnier and their associates are in charge of the various branches of teaching in the Institute. Medical persons attending the above-mentioned course of study, but unwilling to submit to examinations, will be granted certificates of attendance.—*Journal of Mental Pathology.*

**A Cure for Rheumatism.**—The editor of the *Gazette Medical de Paris* says: "When we were an interne in the Hotel-Dieu at Nantes we used to see the janitor in charge of the amphitheatre and autopsy-room take some of the fat from the cadavers and melt it down into loaves. We asked him why he undertook this work. He replied that he sold this 'mummy fat' (*graisse de momie*) quite dear, to old women of the city, this substance being employed by them in the cure of rheumatism. This custom is well known in France. The country people in some sections use the fat of criminals, bought of the executioner, for rheumatism and *ecronelles* (suppurating tubercular glands of the neck). A Vacquerie tells that during the St. Bartholomew massacre, at Lyons the apothecaries advertised for the bodies of six protestants—the fattest—from which to extract the fat. Laisnel de la Salle wrote that 'Christian fat' was a sovereign remedy in certain sores and divers pains."—*Medical Standard.*

# The Physician's Library.

## BOOK REVIEWS.

*International Clinics.* A Quarterly of Illustrated Clinical Lectures and especially-prepared Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otolology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and medical practitioners, by leading members of the medical profession throughout the world. Edited by A. O. J. KELLY, A.M., M.D., Philadelphia, U.S.A., with the collaboration of Wm. Osler, M.D., Baltimore; John H. Musser, M.D., Philadelphia; James Stewart, M.D., Montreal; J. B. Murphy, M.D., Chicago; A. McPhedran, M.D., Toronto; Thos. M. Rotch, M.D., Boston; John G. Clark, M.D., Philadelphia; James J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Edmund Landolt, M.D., Paris; Richard Kretz, M.D., Vienna. Vols. III and IV, Thirteenth Series. 1903. Philadelphia: J. B. Lippincott Company. Sole Canadian agent: Chas. Roberts, Montreal.

With the appearance of these two volumes, the thirteenth series of this valuable publication is brought to a close, and fifty well-known writers have contributed articles, on a variety of subjects. Amongst the writers are such well-known men as D. W. Finlay, Professor of Medicine in the University of Aberdeen; R. Murray Leslie, of the Royal Hospital for Diseases of the Chest, London; C. G. Stockton, of the University of Buffalo, N.Y.; J. Chalmers DaCosta, of Philadelphia; Sir Dyce Duckworth, of St. Bartholomew's Hospital, London; W. W. Keene, of Philadelphia; A. Pinard, Professor of Obstetrics in Paris Faculty of Medicine; F. J. Poynton, University College Hospital, London; T. E. Satterthwaite, Professor of Medicine, New York Post-Graduate Hospital; Nicholas Senn, University of Chicago; J. Tyson, of Philadelphia; Casey Wood, of Chicago, as well as many other well-known writers.

Volume III opens with six articles on diseases of the gall bladder and gall duct, and the whole subject is pretty well threshed out therein. The first article is one by John H. Musser, President-Elect of the American Medical Association, an able

article that no one who is in any way interested in diseases of the bile-producing and bile-conducting organs can afford to overlook. Dr. Musser goes thoroughly into the subject, both from the standpoint of the physician and the surgeon. The history of his cases is most lucid, and whether treatment has been successful or not, the reader has the opportunity of following its history to the end. The reader is led by these clear writers through the consideration of the question as to when and in what cases operation should be done, and the subject is brought to a close by a paper on the surgical and post-operative treatment of chronic gall-stone disease by Dr. John B. Deaver, Surgeon-in-Chief to the German Hospital at Philadelphia.

Many of the same writers have contributed articles to the fourth volume, all the material of which may be said to be of a very high class. It is almost impossible in a short review of this character to do justice to, or even to consider shortly, the majority of the valuable articles that these volumes contain.

One, however, on the "Treatment of Pneumonia," by D. W. Finlay, Professor of Medicine in the University of Aberdeen, will be of particular interest to most readers at the present time. Pneumonia, in this country at least, has been so prevalent recently that every medical man feels naturally anxious either to find something new on the subject, or, if he has been fortunate enough to have got through with his pneumonia cases, he will be doubly pleased in reading this article for the purpose of comparing what his treatment recently has been with what is suggested by this writer. Dr. Finlay takes up the treatment of pneumonia for the purpose of comparison, and gives a brief summary of the teaching of the most able physicians of the sixth decade of the last century with regard to the elements of treatment. He discusses thoroughly the old treatment of blood-letting and tartar-emetic, and leaves the reader with the impression that there are still cases in which this old treatment may be of value. For the distressing stitch-like pain in the side, he still advises the use of leeches, followed by hot or cold applications. He objects strongly to the use of opium in diseases of the lungs, except in hemoptysis, and declares himself in favor of the hydro-therapeutic method of treatment which gives better promise of success than almost any other. "Theoretically," he says, "the inhalation of oxygen ought to do good. I have, however, never seen any permanent benefit resulting from its use. Possibly, the reason for this may lie in the fact that one only thinks of it in the very worst cases, and as a last resort." Unfortunately, we are not told what the practical effect of the use of oxygen has been in this writer's experience. The chief points in the article may be summarized in the following propositions:

1. No routine drug treatment is of any practical value.
2. All depressants and antipyretic drugs are to be especially avoided, as also all nauseating drugs, and even digitalis, which he looks upon as a depressant.
3. Supporting and stimulating lines of treatment give the best result.
4. Refrigeration of the surface locally or generally is desirable, particularly if delirium be a complication.
5. Alcohol should be used in those cases in which it is clearly required. It should not be given in a routine way.

Although, perhaps, there is nothing very new in this article, it is refreshing to feel that at least we have some treatment which, when carefully carried out, will prove of undoubted value in the majority of cases.

In an article by Thomas J. Máys, A.M., M.D., of Philadelphia, on "Sudden Death due to Respiratory Disorder," the writer draws attention to the fact of the number of cases of sudden death in which certificate of heart failure is given as the cause of death. The article would lead one to think that in the majority of these sudden deaths which are attributed to heart failure, some brain lesion may in reality be the starting point of the difficulty. Of course, there is no doubt that certain pulmonary conditions do occur very constantly as a result of brain injuries. These pulmonary conditions would, and do, account for a certain number of sudden deaths, but with all that, there must be a certain number, as the writer points out, of sudden deaths which are not accounted for satisfactorily, or at least without the possibility of question after the most careful autopsy. The article is one that should be read, as it certainly has a tendency to draw attention to a class of case that, whether through carelessness or want of experience, does not seem to be detected as often as perhaps it ought to be.

The article leaves one with the unpleasant feeling that if we thought as much about this subject as the writer has, there would not be so many certificates bearing on their face that palpable absurdity, "Death from heart failure," which, while it is probably quite true in a certain sense, evidently does not convey always the same meaning.

A. J. J.

*The American Year-Book of Medicine and Surgery for 1904. A Yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of GEORGE M. GOULD, A.M., M.D.*

In two volumes. Volume I, including General Medicine. Octavo, 673 pages, fully illustrated; Volume II, General Surgery. Octavo, 680 pages, fully illustrated. Per volume: cloth, \$3.00 net; half morocco, \$3.75 net. Philadelphia, New York, London: W. B. Saunders & Company. 1904. Canadian agents: J. A. Carveth & Co., Toronto.

The Saunders' American Year-Book for 1904, is published under the general editorial charge of Dr. Geo. M. Gould. A good deal of the literary work has come from such well-known writers as Drs. S. W. Abbott, Archibald Church, L. A. Duhring, D. L. Edsall, J. C. Gittings, J. P. C. Griffith, Reid Hunt, Walter Jones, A. O. J. Kelly, John Marshall, J. H. W. Rhein, David Riesman, Alfred Stengel, A. A. Stevens, G. N. Stewart, R. W. Wilcox, J. N. Baldy, S. H. Brown, J. Chalmers Da Costa, W. A. N. Dorland, G. Fetterolf, J. H. Gibbon, V. P. Gibney, C. H. Hamann, B. C. Hirst, B. B. Kyle, W. L. Py'e, and J. Hilton Waterman.

The general excellence of Saunders' Year-Book in the past is quite sufficient guarantee of its being fully up to past standards. This year, however, the two volumes are still better, and contain a larger amount of information than before, certain more or less needless material having been discarded.

To attempt to review once a year the progress made in both medicine and surgery is no small task for any body of men to undertake. This year a most valuable change has been made in the character of the book, viz., at the beginning of each chapter will be found a general summary of the advances and discoveries made in that department during the year. By this means, it is possible for one to get at a glance, or at most in a few minutes, a digest of what appears in the section that follows. It seems to us, that this might serve as a hint to other authors; but, in case of incurring the displeasure of the publishers of the Year-Book—*nuf sed*. Dr. Gould and his collaborators have a wonderful faculty of bringing to a focus the almost innumerable advances and improvements made in many branches of medicine, and are to be heartily congratulated in being able to present their readers each year with so excellent a work as the American Year-Book of Medicine and Surgery.

W. A. Y.

*The Story of New Zealand.* By Prof. FRANK PARSONS. Edited by C. F. Taylor. Illustrated. Equity Series. Philadelphia: 1520 Chestnut Street. 1904.

A handsome volume of 837 pages, containing a vast amount of information on the social and economic questions of New Zealand. The book abounds in phraseology as felicitous as the conditions of life in New Zealand; e.g., "America aims at the

dollar; New Zealand at the man. America has been too busy gathering wealth to give due thought to the social, political and moral effects of the various methods of its production and distribution. New Zealand's attention has been focussed on these effects, and she has tried to arrange her laws and institutions so that the creation, division, possession and expenditure of wealth may proceed on lines that shall make them an unmixed blessing to the community."

Writing of the lawyers, who constitute 60 per cent. of the representatives in the American Congress, the author says: "Most of them who get to Congress are attorneys for giant corporate interests, more or less opposed to the public interest, and about all of them are subject to the psychology of their profession, which means that their advocacy is for sale—that is a lawyer's training and profession to sell his abilities as an advocate."

In the New Zealand House the lawyers form but 12 per cent. of the representatives. Nothing is said in the book of the physicians of New Zealand, so that we may infer that their psychology and training, as in less favored lands, would lead them to advocate what they believe to be right and nothing else. A most entertaining, instructive and well-written book. J. J. C.

*The Treatment of Fractures.* With Notes upon a Few Common Dislocations. By CHAS. L. SCUDDER, M.D., Surgeon to the Massachusetts General Hospital. Fourth Edition, thoroughly revised, enlarged and reset. Octavo volume of 534 pages, with nearly 700 original illustrations. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Polished buckram, \$5.00 net; sheep or half morocco, \$6.00 net.

This work on fractures, which has now reached its fourth edition, has become widely and favorably known. It embodies good, sound principles for the treatment of this class of injuries. The book, as a whole, commends itself as a thoroughly reliable guide for the practising surgeon, but in some details it proves a little disappointing. Thus the author disposes of the treatment of fracture of the lower jaw by handing his patients over to the dentist for the application of an aluminium or hard rubber splint. We agree that the procedure suggested would be advantageous to the patient in the majority of instances, but surely the surgeon should have some method to fall back upon other than is afforded by a choice between the old "four-tailed bandage" and the splint, which must be manufactured by the dentist. The author quite rightly condemns the four-tailed bandage, except as a mere temporary measure, and thus the choice is in reality restricted to the dental splint. With some experience in these cases, one finds that in many instances the so-called "interdental splint" may be



applied without the aid of a dental expert, and every student should be trained so that he is able to manipulate a piece of wire so as to form, when adjusted to the fractured jaw, a most efficient splint. In justice to the author, however, one must agree that occasionally it is extremely difficult to reduce and hold the fracture in good position, and, in such cases, one gladly resorts to the aid that is afforded by an expert dentist, who can fashion a splint of much more general application than can be provided by the general surgeon.

The author's pronouncement upon the treatment of fractures of the vertebræ is thoroughly in accord with the views of those who have had experience in such cases. We fully endorse the views which he expresses by saying: "In almost all complete lesions, operations are contra-indicated." On page 77, figure 72 is far from being helpful, as it conveys a misleading and erroneous impression. The shading on the figure of a man is purported to indicate the height of anesthesia in a case in which the second lumbar nerve is involved, whilst, as a fact, the shading is carried high enough to involve the eleventh dorsal.

The sections dealing with the fractures of the bones of the extremities are handled in a masterly manner, and many most useful hints are given which should prove of great value to the surgeon who has the advantage of being able to consult this author. The book throughout is illustrated lavishly, X-ray photographs have been utilized in an effective fashion, and excellent diagrams of anatomical relations and apparatus form one of the most valuable parts of this thoroughly up-to-date treatise on fractures.

It is always a treat to find, as one does in this book, good paper, good illustrations and good printing, the publishers having certainly done their work well in this respect. Messrs J. A. Carveth & Co., Limited, 413 Parliament Street, Toronto, are the Canadian agents.

A. P.

*The Practical Medicine Series of Year-Books.* Comprising ten volumes on the year's progress in medicine and surgery. Issued monthly under the general editorial charge of GUSTAVUS P. HEAD, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Chicago: The Year-Book Publishers, 40 Dearborn Street.

This is the third year for the Practical Medicine Series, and we are glad to report a steady improvement in the work, due, no doubt, to the increased experience of the editors. The volumes are uniform in size and binding with the previous years, but we notice the price is lowered from \$7.50 in advance to \$5.50 for the ten volumes.

Volume I for October, '03, on General Medicine. Edited by Frank Billings, M.S., M.D., Head of Medical Department and Dean of the Faculty of Rush Medical College, Chicago; and J. H. Salisbury, M.D., Professor of Medicine, Chicago Clinical School. This volume deals with the year's work in diseases of the respiratory, circulatory and blood-making organs, general infectious diseases, metabolic diseases, and diseases of the ductless glands and kidneys.

Volume II, November, '03, on General Surgery, is edited by John B. Murphy, M.D., Professor of Surgery, Northwestern University Medical School, Chicago. This volume covers the year's work in surgery. It contains 556 pages and a number of illustrations.

Volume III, December, '03, The Eye, Ear, Throat and Nose. Edited by Cassey A. Wood, C.M., M.D., D.C.L., Albert H. Andrews, M.D., and Gustavus P. Head, M.D. This volume is rather smaller than the surgical number. It has 332 pages and several illustrations. It is up to the standard of the other volumes, and will be found of interest, alike to the general practitioner and the specialist. We are much pleased with these volumes and can freely recommend them to our friends.

W. J. W.

*Preventive Medicine.* Two Prize Essays—"The General Principles of Preventive Medicine," by W. WAYNE BABCOCK, M.D., and "The Medical Inspection of Schools—a Problem in Preventive Medicine," by LEWIS S. SOMERS, M.D. Published for gratuitous distribution to the medical profession by the Maltine Co., Brooklyn, N.Y.

Apart from the fact that these two essays proceed from the pens of men of the standing in the profession attained to by Drs. W. W. Babcock, Lecturer on Pathology, Medico-Chirurgical College, Philadelphia, and Lewis S. Somers, we consider that it will repay well any member of the profession to send his personal card to the Maltine Co., of Brooklyn, N.Y., or their Canadian representative, Mr. R. L. Gibson, 88 Wellington St. W., Toronto, and receive a copy of the two essays on "Preventive Medicine," for which the company offered and paid over two cash prizes amounting to \$1,500. They are written by gentlemen who are masters of the subject, and it does not take the reader long to realize the true value of their contributions.

Such a course as has, in this instance, been pursued by the Maltine Company cannot but have one effect, namely, to cause a more widespread interest to be taken in the subject of preventive medicine, and when it is borne in mind that the most important condition imposed in connection with the competition was that their preparation, Maltine, or any of its combinations, "must

not be mentioned, or even indirectly alluded to, in the essay," shows that no spirit of commercialism was permitted to be a factor in connection with the work done.

*Uterine and Tubal Gestation.* A study of the embedding of the human ovum, the early growth of the embryo, and the development of the syncytium and placental gland. By SAMUEL WYLLIS BANDLER, M.D., Instructor in Gynecology, N. Y. Post-Graduate Medical School. Illustrated by 93 drawings. New York: William Wood & Company.

This very able work represents assiduous study and careful and thoughtful investigation by its gifted author. Full credit is given to Spee, Minot, Wall, and other pioneer workers in the same field, but many original views and observations are graphically brought forward and enunciated in this interesting book. The work is judiciously divided into three parts: I, The Essentials of Uterine Gestation; II, The Essentials of Tubal Gestation; III, Ovarian and Placental Secretion. The book is copiously illustrated, rendering the difficult and intricate subject treated much more clear and understandable than it otherwise would be. Many of the chapters have appeared in the *American Journal of Obstetrics and Gynecology*, under the title, "On the Etiology, Histology, and Usual Course of Ectopic Gestation." The processes antedating and accompanying uterine gestation have been added in this work, making the subject additionally interesting, complete, and up-to-date. All students of medicine will be interested in this somewhat experimental, but purely scientific and thorough, consideration of a practical subject, and it is a work that should be read and studied carefully by every practitioner who is specially devoted to pelvic surgery. G. T. M'K.

*The Physiognomy of Mental Diseases and Degeneracy.* By JAMES SHAW, M.D., Member of the Medico-Psychological Asylum Workers and British Medical Associations; Author of "Epitome of Mental Diseases," "Golden Rules of Psychiatry," etc.; formerly Medical Superintendent and Co-Licentiate, Haydock Lodge Asylum, Lancashire; Assistant Medical Officer, Norfolk County Asylum; Assistant Medical Officer, Grove Hall Asylum, London, etc. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co. 1903.

In this little volume of less than one hundred pages, Dr. Shaw has reproduced thirty-five photographs of former patients, illustrating various types of the leading forms of mental diseases, and accompanying them he has given such brief and lucid descrip-

tions that the student and busy practitioner will find the work both interesting and instructive. He includes in his observations:

"1st.—Facial color, fine and course facial movements.

"2nd.—Bodily movements, gestures, gait and attitude.

"3rd.—Permanent characteristics, such as stature, shape of body, head, face and conformation of features."

To every sympathetic visitor of an asylum the physiognomy of the inmates is a constant reminder of the mental disaster which has overtaken them; and the observation of the lamentable change of facial expression is attended with a regret similar to, but deeper than, that which is experienced in viewing a mutilated painting of great beauty or a broken statue of priceless worth. To anyone interested in the study of the working of those marvellously innervated muscles of the face which, in health, portray the thoughts and emotions, this unpretentious little volume will be especially welcome.

N. H. B.

*The Blues (Splanchnic Neurasthenia). Causes and Cure.* By ALBERT ABRAMS, A.M., M.D. (Heidelberg), F.R.M.S. New York: E. B. Treat & Co.

We are not much impressed from a perusal of this work. The title is not prepossessing from a professional point of view, and had it been entitled "The Dumps" it would possibly have been more typically Western than it is. The author describes Dowicism as suggestion, plus prayer and holy terror. Homeopathy as suggestion plus nothing, allopathy as suggestion plus tubfuls of medicine, which may either kill or cure, while he describes regular or rational medicine (which he presumably practises) as suggestion plus the best common horse-sense available, leaving one to examine the necessary qualifications for such a practice.

We consider it a serious mistake to attempt to discuss scientifically so serious a malady as neurasthenia under so light a title, simply because some of the laity may make use of it.

*Subjective Sensations of Sight and Sound, Abiotrophy, and other Lectures.* By SIR WILLIAM R. GOWERS, M.D., F.R.C.P., F.R.S., Hon. Fellow Royal College of Physicians, Ireland; Member of the Soc. Medicins Russes of St. Petersburg, and of the Royal Soc. of Science of Upsala, etc. Philadelphia: P. Blakiston's Son & Co., Limited. Canadian agents: Chandler & Massey Limited, Toronto, Montreal and Winnipeg.

In this handsome volume of 250 octavo pages, the author has presented ten of his charming lectures to the profession, and each one is an absorbing study in itself.

The first lecture on "Subjective Visual Sensations" is the Bowman Lecture of 1895, and the second on "Subjective Sensations of Sound" is the Bradshaw Lecture of 1896, and the subject-matter of both is adorned by the author's well-known elegance and lucidity of thought and expression. The chapter on Abiotrophy alone is of sufficient interest to repay one for the acquisition of the volume; the term is employed to denote "a degeneration or decay in consequence of a defect of vital endurance," and when elaborated in its application to the skin, muscles, and nervous system, its examples which come under the daily observation of the physician, acquire a new and engrossing importance. The chapters on saturnine, arsenical and syphilitic poisoning are replete with practical observations, and the last one of the work on the use of drugs displays the philosophic acumen of a mind possessed of the highest technical attainments and enriched with a long and varied experience.

N. H. B.

*Introduction a l'Etude de la Medecine.* Par G. H. ROGER, Professeur agrege a la Faculte de Medecine, de Paris, Medecin de l'hopital de la Porte d'Aubervilliers. Deuxieme Edition. Revue et considerablement augmentee. Paris: C. Naud, Editeur, 3 rue Racine. 1904.

As the first edition of Dr. Roger's book, which appeared in 1899, was speedily exhausted, a second edition has been placed on the market. Some changes and a considerable number of additions appear in the new volume, which is a bulky octavo of 731 pages. We confess that the portable shape of the volume in the first edition was more to our liking, but in such a matter the publisher is no doubt the better judge. Of the composition of the work, its literary style, and scientific value to the class for whom it is written, one cannot speak too highly.

J. J. C.

*Biographic Clinics, Vol. II.* By GEO. M. GOULD, M.D., Editor of *American Medicine*. Philadelphia: P. Blakiston's Son & Co. 1904. Canadian agents: Chandler & Massey Limited, Toronto, Montreal and Winnipeg.

In *Biographic Clinics, Vol. II*, Dr. Gould follows up his analysis of the ill-health of De Quincey, Carlyle, Darwin, Huxley and Browning, by a study of excerpts from the biographies, letters and writings of George Eliot, Lewes, Richard Wagner, Parkman, Mrs. Carlyle, Herbert Spencer, Whittier, Ossoli and Nietzsche, demonstrating the origin of their ill-health in eyestrain during the course of their literary work.

With two addresses incorporated in the work, "Eyestrain in the Literary Life," and "Eyestrain and Civilization," the vol-

ume makes a very forcible presentation of the various evils resulting from uncorrected astigmatism, presbyopia, and other faults of vision.

Volume I created much adverse criticism, many reviewers refusing to accept as serious Dr. Gould's conclusions from his studies, but the role of eyestrain in modern life is becoming more recognized, and the present volume cannot help but have its influence in awakening the profession to this much-neglected source of reflex ailments. It is fascinating even to one who doubts the accuracy of his observations and deductions. J. H. E.

*Diseases of Metabolism and Nutrition.* By DR. CARL VON NOORDEN, Physician-in-Chief to the City Hospital, Frankford a.M. Translated under direction of Boardman Reed, M.D. New York: E. B. Treat & Company.

This is a most interesting little monograph, and is well worth a careful study.

Physicians who treat chronic disease successfully must keep a close and intelligent watch upon the digestion, excretion and assimilation of their patients, and this work of Von Noorden's will help them to a more complete realization of the numerous forms of self-poisoning, and further, that the acid forms are among the gravest. F. N. G. S.

**March *Cosmopolitan.***—There are several important articles in the March *Cosmopolitan*, which is even more profusely illustrated than usual. The table of contents bears such names as Max Nordau, Edmund Gosse, Cyrus Townsend Brady, H. G. Wells and Clara Morris. In the leading article the editor, Mr. Walker, deals in a striking and prophetic manner with the question of aerial flight, predicting that within a year the airship will be a practical success, and that within a quarter of a century aerial navigation will be the safest means of transportation. The illustrations form a pictorial history of the development of balloons and flying machines. Max Nordau contributes a paper on "Socialism in Europe," and Edmund Gosse a delightful essay on "Immortality and Fame." Gertrude Lynch discusses the "Art of Coquetry," and William R. Stewart contributes an illustrated article on public banquets; Clara Morris gives her reminiscences of the late Justice Lamar. Fiction is contributed by H. G. Wells, Howard Markle Hoke, Clinton Dangerfield and Cosmo Hamilton. The popular "Captains of Industry" series is continued with W. K. Vanderbilt and Peter Cooper Hewitt.