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CANADA MEDICAL · RECORD

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Vol. XXIV.

JANUARY, 1896.

No. 4.

Original Communications.

ARTIFICIAL LIGHTING OF PUBLIC BUILDINGS AND PRIVATE HOUSES, AND ITS EFFECTS UPON THE HUMAN EYE.

In three parts, with Illustrations.

(Continued.)

II. VISUAL DIFFICULTIES.

By CASEY A. WOOD, M.D.,

Professor of Ophthalmology in the Chicago Post Graduate Medical School; Oculist to the Passavant Memorial Hospital, Chicago.

Those who did me the honor of reading the first of these articles will understand that the use of the eyes for near work involves uninterrupted efforts at accommodation, and means the expenditure of a considerable amount of muscular and nervous force. Efforts of this sort, tiring as they are for the eyes and the nervous system, should be seconded by every appliance known to science, unless weak eyes and the near work are always to go hand in hand. From investigations of the subject I find that about one-third (rather more than less) of all bookkeepers, stenographers, clerks,

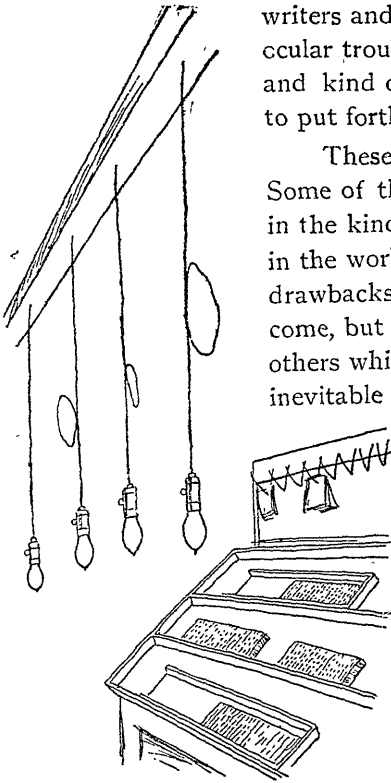


FIG. 1.

writers and other "near" workers suffer from ocular troubles brought about by the amount and kind of visual effort they are called upon to put forth.

These difficulties of vision are many. Some of them inhere in the eye itself, some in the kind of work undertaken, and others in the worker's surroundings. Most of these drawbacks may, with ordinary care, be overcome, but it is to be confessed that there are others which must be regarded in the light of inevitable evils. For example, as long as the

morning paper flourishes, just so long is it in the nature of things impossible to avoid the necessity of doing continuous near work on the part of printers requiring sharp vision, by means of artificial light. And yet even when this illumination is of the best, both as to quality, source and position, it never can equal natural light. For it must be remembered that the retina and choroid are adapt-

ed to the peculiar rays of sunlight. The sun's rays are, indeed, the natural and proper accompaniment of normal vision. The absorbing powers of the dark pigmented choroidal coat and the average sensibility of the retina are adjusted, so to speak, to the diffused white rays from the sun. Fatigue of the retina, with all its evil consequences, may be equally induced by too much or too little light. One should neither look at the naked sun nor read fine print in a cellar. The writer well remembers a case of acute inflammation of the eyes produced upon a companion, who, unaccustomed to light reflected from snow, crossed the Mer de Glace on a bright summer day without the ocular assistance of tinted glasses. On the other hand, the small German schoolboy acquires most of his knowledge—and his myopia—by that (to us Americans) "light of former days," the "penny-dip." It is not too much to say that thousands of clerks, students, typewriters, compositors, proof-readers and other near workers on this continent persist in doing or are obliged to do their work in the presence of lights which are almost as hurtful to the vision as these. One may take as the standard of normal illumination diffused or indirect white sunlight

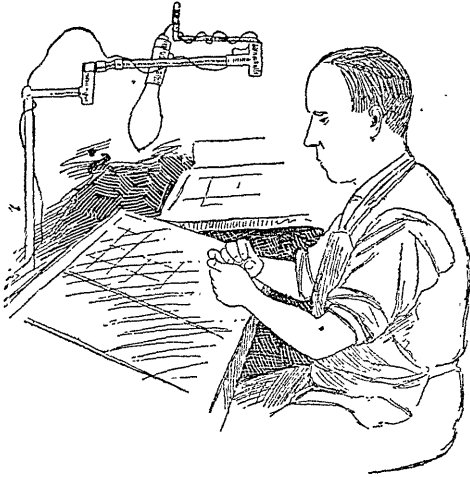


FIG 2.

shining *not into the eyes*, but upon the work from over the head or either shoulder. Lights that approach this condition are the most valuable and least hurtful, while those sources of illumination are likely to induce retinal fatigue, weak eyes, headaches, inflamed lids and other ocular troubles to the extent that they deviate from it. Apart from sunlight, the illumination best adapted to the needs of the printing room is by all odds that produced by the incandescent electric lamp. Its light is white, steady and sufficiently intense. It gives out no disagreeable odors that foul the atmosphere, or unburnt carbon that besmirches the lamp chimneys like kerosene; it does not flicker nor flare and overheat the room in summer and the worker at all times like gas; it does not splutter and vary in intensity every few seconds like the arc light; and, finally, unlike any of the foregoing, is capable of ready adjustment to any position at will.

The illustration (Fig. 1) shows how they manage it in one of the newspaper composing rooms in this city. Another printing house has naked gas jets liberally supplied to the top of the frame. These jets probably do a smaller amount of harm than the electric lamps, simply because they "worry" the choroid and retina less. I was tempted to advise a compositor working at a case lighted by a "converted" gas jet (see Fig. 2) to straighten out the latter so as to carry the light behind his head; but he was the

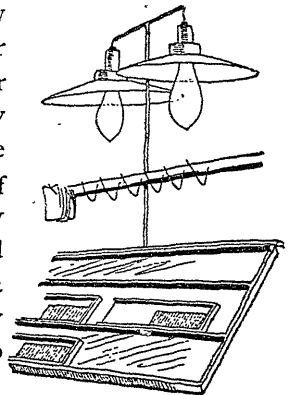


FIG. 3.

owner, evidently, of those priceless possessions, a youthful retina, a powerful accommodation, a strong constitution and healthy eyes, and might not have thanked me. When he has looked naked lights "in the eye" for a few more years, he may find that even these advantages do not always insure against weak eyes. Figure 3 shows a not uncommon form of light well adapted to illuminate the case or desk below it, but particularly damaging to the worker's eyes. Not only the direct rays from the lamp but the indirect rays from the reflector are thrown upon the case, but they are

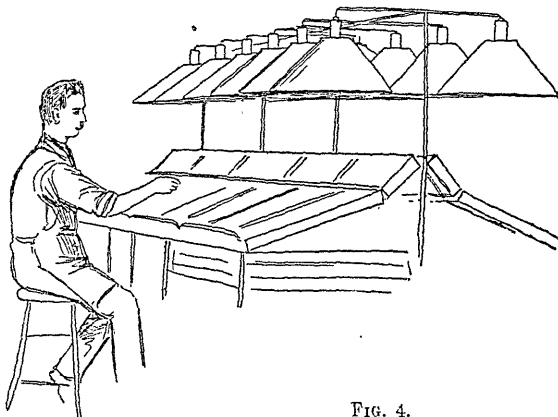


FIG. 4.

with equal certainty, always assuming he does not wear a shade, thrown into the compositor's eyes.

It sometimes happens that the same light may be injurious to one man and innocuous to another. This is often a question of stature, posture or height of stool or chair, and so on. Well marked examples of this may be seen in an office in this city. A medium sized clerk does not complain of his vision as long as he does his work on a high stool (Fig. 4), where, incidentally, he is out of reach of the bright electric lamps in front of him, but when he stands up and continues his work, the lights shine into his face and soon compel him to put on his cardboard shade.

In the next and concluding paper it is proposed to suggest some remedies for the foregoing state of things, and among other matters will be discussed that of eye-shades. Just here, however, it may be pointed out that these are only partially remediable agents in the presence of badly placed lights. It is a fundamental law of optics that *the angle of reflection is equal to the angle of incidence*. That is to say, for example, if a ray from the light A fall upon a plane surface, E B F, at B, it would make with a perpen-

dicular line, $B D$, the angle (of incidence) $A B D$, which is equal to the angle (of reflection) $D B C$. In other words, a light placed at A would be reflected from the surface $E B F$ toward C . Making allowances for the imperfect drawing of Fig. 6, it is easy to understand how a paper placed in front of the compositor, and resting upon the upper case, may act as an annoying reflector, throwing

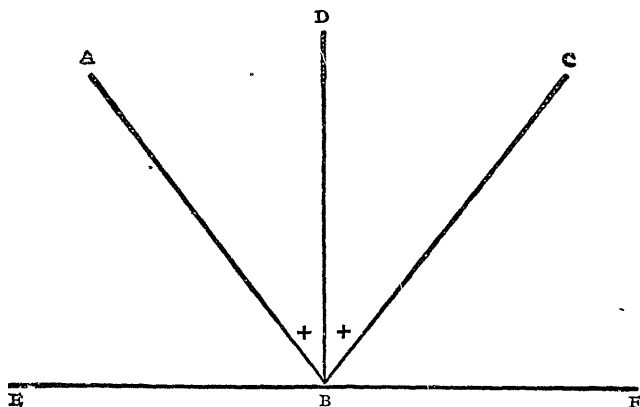


FIG. 5.

the rays directly into his eyes in spite of his eye-shade. But this is not all. The point of reflection on the manuscript or other document often covers or partially covers the particular line of the copy that is being set up, and makes it difficult to see, thus adding to the worker's troubles.

While on this subject of printing I cannot help thinking that the type-setter's eyes are not improved by the necessity for seeing almost instantly the shallow nicks on the side of the type. At any rate it must be very difficult for him to distinguish the first of the series shown in Fig. 7. The second is a little better, but it is a pity that every type cannot have nicks as plainly marked as are indicated in the lower samples. Another visual difficulty is illegible, or rather "dyslegible," copy. This arises not only from "bad" writing, but from the use of pale ink, glazed and colored paper, lead pencil, colored inks, thin paper, and, worst of all, from the employment of a combination of two or more of these.

However, the greatest obstacle the sufferer from ocular troubles has to deal with may reside in his own eyes. Aside from acute or chronic disease of the organ, the worst form of weak eyes is *hypermetropia*, or hypermetropia combined with astigmatism. This is a very common kind of ametropia, and the possessor of it sooner or later finds his eyes give out, even when his surroundings are favor-

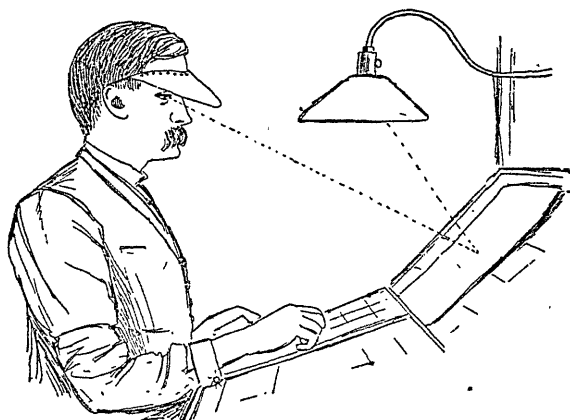


FIG. 6.

able to the preservation of sight. It makes his powers of accommodation less effective, and soon induces eye-strain with all its evil consequences. Myopia is perhaps not so hurtful to the printer, but as it, too, is often associated with astigmatism, it is frequently a great source of annoyance. When young myopes persist in using their eyes in a printing house, their original shortsightedness is often increased thereby. This is especially likely to be the case when the lights are insufficient or badly placed. Myopia is often associated with structural disease of the interior of the eye, and although the myopic eye does not need convex glasses to see close at hand as soon as the emmetropic and hyperopic organ, yet this advantage is largely counterbalanced by its constant liability to serious choroidal, vitreous and retinal disease.

At about forty or forty-five the emmetrope's (earlier for the hyperope) accommodative power fails, and the individual needs glasses to see distinctly at 10-14 inches. It may be, however, that he can distinguish the type in the upper case long after his lower case has become dim and misty, and it often requires all the oculist's care to fit him with glasses that will give him a sufficient "range" of accommodation so that the contents of both cases are fairly distinct. After fifty-five most compositors feel this difficulty

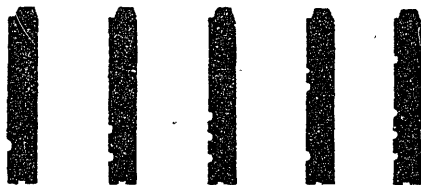


FIG. 7.

of vision acutely. At that age no glasses will enable them to keep their heads in one position in front of both cases and see *all* parts of the field with anything approaching distinct vision. They are obliged to approach and withdraw the head from time to time in their search for diphthongs and other unusual characters. For them more than for any others should spectacles, illumination, shades, manuscript, etc., be so arranged as to conserve the failing visual power.

(To be continued.)

Clinical Lecture.

CATARRHAL JAUNDICE.

A Clinical Lecture delivered at the Western Hospital, Nov., 1895.

By J. BRADFORD McCONNELL, M.D.

Associate Professor of Medicine and Neurology, and Lecturer on Clinical Medicine, University of Bishop's College, Montreal.

LADIES AND GENTLEMEN,

We have before us for consideration to-day a case of jaundice, which, as you are aware, is not a disease in itself, but a symptom, present in a number of distinct affections pertaining to the liver and its ducts, and their surroundings. Hence a correct diagnosis in any case of jaundice is of the first importance, and before coming to a conclusion, all the principal organs of the body must be interrogated. And I would here reiterate what I have not infrequently endeavored to impress upon you: on taking charge of any case of illness, make a thorough examination of every organ in the body before making and declaring your diagnosis. By doing so, you will do much to avoid mistakes, and often discover an unexpected condition, the early recognition of which may be of the greatest moment to the patient. This young man was admitted to the hospital about a week ago, and had been ill about a week before coming in. From the clinical report taken on Nov. 6th, we learn that the patient is 19 years of age, and has been occupied as a school teacher, has always been temperate, and takes good care of himself. He complains of a feeling of weight and soreness in the region of the stomach, with pains there at intervals which last sometimes for several hours; there is nausea and a sensation of dizziness on standing; he is dull and dejected, and feels in a condition of general malaise. Before coming in he had attacks of vomiting each time after taking food. These symptoms were accompanied by chilliness, frontal headache and anorexia, and jaundice appeared some 4 or 5 days before entering the hospital. The patient has always been healthy, not having

had any illness except measles and nasal catarrh. His father is living, but not in good health, has had growths of some kind removed from his neck a year and a half ago, and three times since; mother died of cancer, aged 54; two brothers and two sisters died in childhood, one brother and two sisters are living and healthy.

If we now inspect the patient, we notice the yellowish tinge of the skin, conjunctiva and mucous membranes. He is fairly well nourished, his temperature is subnormal, and has been so since he came in; pulse 60, skin is moist, and he complains of irritation and an itching sensation, and is very thirsty. There is a diffuse rash on the skin of the neck, upper part of the chest, and axillary region, on each side. This has appeared during the last week. Dr. Foley, Dermatologist to the hospital, states that it is erythema-papulatum, and hence will likely disappear spontaneously within a short time. The papules are somewhat large and flat, here and there aggregated together, others isolated. This is a somewhat unusual form of rash, the skin affections most commonly met with, usually only in chronic cases, are pruritis, lichen, urticaria and xanthasemia, the latter characterized by flat yellowish patches on the eyelids, and tubercles or raised masses elsewhere.

We do not find anything abnormal in the lymphatic, locomotor, vascular, respiratory or nervous systems.

The tongue has a brownish coating, there is tenderness over the stomach, liver is slightly enlarged, extending about an inch below the costal margin. Parkin's method of examining the liver is one which enables you to make a more certain diagnosis of its size and condition; the patient is in a sitting posture, with the body flexed as much as possible, so as to relax the abdominal muscles. The examiner sits behind him, and with one hand around either side is able more readily than in the prone position to make out in detail the condition of the gall bladder and surfaces of the liver. In examining the liver, be sure that a coil of intestine is not lying over its lower border, as sometimes happens in cases of enlargement. We find he still has occasional attacks of vomiting after food, indicating a certain amount of gastro-duodenitis; bowels are regular, stools slate gray in color, and contain undigested fat; splenic dulness is normal; urine from 35 to 40 oz. daily. The last specimen examined was acid in reaction, brownish in color, specific gravity 1008; contains four grains of urea to the ounce; no albumen nor sugar; a few granular hyalin casts were

observed, thrown down by the centrifuge ; no leucin nor tyrosin. If we now shake some of the urine in a test tube with chloroform, you notice as the chloroform settles to the bottom that it is tinged yellow,—a proof that bile pigment, which is soluble in this reagent, was present. A common test for bile in the urine is Gmelin's. If we pour some urine on this white slab, and near it some fuming nitric acid, you will observe that as they come together a play of colors is produced—green, blue, violet, red, and various shades of yellow from the point of contact outwards in this order, each change representing progressive degrees of oxidation of the bilirubin. Other tests for bile pigment, such as those of Huppert and Ultzman, are sometimes employed. It is well to remember that bile can be detected in the urine some time before obstruction to its outflow into the duodenum is evidenced by the yellow coloration of the skin.

Jaundice, as already stated, is only a symptom, and may result from any cause which obstructs the flow of bile into the duodenum, when it is designated hepatogenous ; but it sometimes depends on destruction of the liver cells and suppression of their functions where no obstruction exists, as in acute yellow atrophy of the liver and certain forms of hypertrophic cirrhosis, and in malaria, pernicious anæmia, yellow fever, typhoid fever, epidemic jaundice, pyæmia, and such toxic influences on the blood as are exercised by snake-bites, phosphorus, mercury, chloroform, ether, etc., here more red blood corpuscles are destroyed than the liver, spleen and kidneys can dispose of, and hence their hæmoglobin changed into bilirubin accumulates in the tissues. The jaundice in such cases is said to be hæmatogenous.

Now, if we compare the history of this patient's case with that of any of this latter group, we will find that the symptoms do not correspond. In acute yellow atrophy, the disease is observed most commonly in the pregnant female ; there is an acute parenchymatous hepatitis, with rapid diminution in the size of the liver, the urine contains leucin and tyrosin, there is maniacal delirium and extreme prostration, death occurring usually inside of a week. In that variety of hypertrophic cirrhosis accompanied by jaundice, the cirrhosis being primary, the liver is very much enlarged, and the jaundice lasts for years, and the stools are normal in color, as obtains in most of this group. The color of the skin in all these cases is much lighter than in the obstructive form, being of a light lemon tint. The list of toxic influences are easily

eliminated, as possible causes of this attack of jaundice. Passive congestion cannot be a cause, as heart and lungs are in a normal condition.

Hence it belongs to the hepatogenous group, and depends on some form of obstruction.

This may be some form of foreign body in the common duct, such as gallstones, parasites, inspissated bile, ulceration of the common bile ducts, or duodenum, tumors, impacted fæces, pregnant uterus, enlargement of kidneys, aneurism of hepatic artery, etc. The passage of a gallstone usually means a sudden attack of biliary colic, followed by an attack of jaundice, which becomes permanent if there is impaction; and, moreover, it is usually an affection of middle or late adult life, and is apt to run in families, and especially those of gouty tendencies who lead a sedentary life, live high, consume much sugar, carbohydrates or hydro-carbonaceous food, and take little exercise. Cancer of the bile passage or of the head of the pancreas or the pylorus, or when secondary in the lymph glands, and pressing from without, is a more or less chronic painful disease of late adult life.

Lumbricoid worms, liver flukes and echinococci are very rare causes, and might be considered if the case proved to be one of persistent jaundice and enlarging liver. There are no enlarged glands or tumors to be made out which by pressure on the duct would stop the flow of bile.

We must therefore regard this case as one of catarrhal jaundice, the variety you will most commonly meet with. This affection is usually the result of an attack of acute gastro-duodenitis, which closes the opening of the ductus communis choledochus in the duodenum by swelling of the parts, or by a plug of inspissated mucus in the diverticulum of Vater, and brought on by some error in diet, or possibly the result of exposure to cold, or, as some authorities have suggested, a specific pathogenic cause may act in some cases, especially when it occurs in epidemic or endemic proportions; but it must be distinguished from Weil's disease, an affection known only during the last few years, and which is supposed to be undoubtedly a specific disease; it occurs in the summer months, attacks mostly young and middle-aged men, and especially butchers. It begins suddenly with chills, fever, and headache, with jaundice on the third day, sometimes stupor and delirium, enlargement of the liver and spleen, albuminuria, diarrhoea and violent pain in the muscles, especially of the calves; recovery occurs in from one to

two weeks. Sometimes emotional disturbances, such as a passionate outburst of temper, will lead to this form of jaundice. A sudden shock or fright is supposed to act as a cause by lessening the blood pressure in the blood vessels, to such an extent that the tension is greater in the bile ducts.

The symptoms of this affection are simply those of gastritis with jaundice, the latter occurring from the accumulation of bile in the ducts of the liver, which, when the tension becomes sufficient, is absorbed by the lymph vessels of the liver, and get into the blood from the thoracic duct, and is deposited in all the tissues of the body, except the cornea, peripheral nerves, and cartilages, and showing outwardly first in the conjunctiva.

The perspiration and urine contain the pigment and sometimes the milk. Dr. Dyce Duckworth states that he has squeezed milk as yellow as gamboge from the breast of a young mother; the tears, saliva and gastric juice are not discolored.

The slowing of the pulse seen in most cases is supposed to be due to the action of the cholate of sodium on the nervous supply of the heart.

The circulation of the bile acids in the blood accounts for the headache, muscular weakness and depression. In the grave nervous phenomena (cholæmia) observed mostly in chronic biliary retention, where there is delirium, convulsions, coma, and hemorrhage. Frerichs, who uses the name Acholia to represent this group of symptoms, believes they are greatly the result of the accumulation in the system of the substances which are usually transformed by the liver.

The formation of the clay-colored stools is interesting, and by recalling to your minds the physiological functions and character of bile, you will more readily understand how the modification is brought about. Bile is separated from the portal blood supply in the liver by the hepatic cells, and entering the intercellular biliary passages, passes along the minute channels and ducts to the gall bladder, and when needed in the intestines the gall bladder forces it through the cystic and common duct of the liver and pancreas to the duodenum, where it mixes with the chyme which has just left the stomach. The bile is made up of bile salts (taurocholate and glychocholate of sodium), cholesterin mucin fats and soaps. The yellowish red color is due to bilirubin, which when oxidized becomes the green bilivordin. Bile precipitates pepsin as well as peptone, parapeptone and bile salts, emulsifies fat, stimulates peristalsis, and

is to a certain extent antiseptic. Hence, when it is prevented from entering the intestine, we find symptoms arise corresponding to what we would expect to result from abolishment of the bile functions in the intestinal canal. Its aid in fat digestion is proved by the occurrence of the substance unchanged in abundance in the stools, giving to them their characteristic clay color; the constipation which is apt to be present in jaundice is a result of the loss of the bile stimulus, which, however, may be offset by the loss of the antiseptic functions, and owing to excessive fermentation and putrefaction, irritation of bowels, offensive stools, and looseness result. As soon as bile precipitates the pepsin, the action of the latter ceases, and the proteolytic action of trypsin begins. According to Kuhn, pepsin destroys pancreatin, which largely digests fat, so that even in cases where the pancreatic duct is not obstructed we have an explanation of the fatty stools.

Once you have excluded all the more serious causes of jaundice, such as gallstones, malignant disease, acute yellow atrophy, hypertrophic cirrhosis, etc., the prognosis of a speedy favorable termination can be given, catarrhal jaundice lasting only from three to six weeks. When jaundice persists for over three months, a more serious condition must be suspected. The first indication of recovery will be the change in the color of the stools, which on the passage of bile into the intestinal canal resume their normal yellowish tint, and lose their offensiveness.

The treatment required in these cases is not active. The cause has been some error in diet, hence the gastro duodenitis must be attended to. The patient should remain in the house and in bed, and be kept warm for four or five days at least; and a calomel purge given, and the bowels kept free by prosofate of soda. Any treatment that will draw the blood to the surface and extremities will prove beneficial, such as a hot bath, the Turkish bath, hot stupes or mustard poultices to the right hypochondrium and epigastrium. Light food only should be allowed; as fat cannot be assimilated, and undergoes decomposition, skimmed milk, buttermilk or whey may be given, and broth, tamarind water or lemonade. As the attack subsides, more solid food may be allowed,—fowl, oysters, steaks, soups, sweat-bread and succulent vegetables. Symptoms requiring treatment in the earlier part of the attack are nausea and vomiting, for which 1-10 gr. calomel triturates every hour, or a teaspoonful of the effervescent citrate of magnesia every hour or two, or bismuth. Then the alkaline mineral waters, Vichy or

Carlsbad water or salts, or the phosphate benzoate or bicarbonate of soda may be given in liberal quantities of warm water. The stomachic tonics, taraxacum or hydrastis may be added, or quinine in the malarial form, colchicum in gouty subjects, and pot. iod. if of syphilitic origin. An emetic in the beginning will sometimes remove the inspissated obstructing plug of mucus. Other hepatic stimulants, such as ipecacuanha, nitro-muriatic acid, the acid pack, etc. Kroll's method of forcing the obstruction by giving large enemata of cold water, 60° to 70° F., once daily, one to four pints, retained as long as possible, is highly recommended by some; it stimulates the peristaltic action of the duct, increases the secretion of the bile, and improves the general condition of the patient; and in a few days the stools indicate that recovery has set in. Gerhardt advises compression of the gall bladder; cases are recorded where the obstruction was thus suddenly overcome. In long continued biliary stasis, Alivia states that the secretion of the biliary acids is greatly diminished, and also the gastric hydrochloric acid secretion, and there is little or no loss of carbonate of sodium, the reaction of the contents of the stomach being usually alkaline, as is also the urine, in which the chlorides are increased, urea is diminished, and the aromatic products increased; and the more marked these characteristics the graver the affection. Hence the use of alkalis for this state is deprecated, and the effects of an acid treatment said to be very satisfactory as regards the restoration of these faulty conditions.

(The patient was discharged from the hospital on the 21st November, the duct became pervious two weeks after admission.)

Selected Articles.

RELATION BETWEEN THE INTESTINE AND THE LIVER IN PATHOLOGICAL CONDITIONS.

At the Congrès Français de Médecine Interne, Bordeaux, M. V. Hanot of Paris read a paper on the above subject.

In a complete exposition of the pathology of the liver, drawn from his own experience and the researches of his pupils, he offered the following conclusions : Physiologically, intimate relations exist between the liver and the intestines, through the nerves and the circulation. The liver is one of the fundamental wheels of the general nutrition, feeding all organic activity and defending against poisons. By creating the bile it maintains the nutritive equilibrium of the intestine, neutralizing the poisons which reach it or form in it during its action, and also aiding in the special work of digestion. The physiological services rendered to the liver by the intestine are more restricted ; it appears to be the vestibule of all toxic and infectious agents, alimentary poisons such as alcohol, digestive poisons such as acetic, lactic, or butyric acid, and microbes and their toxins. An injurious influence is exercised upon the liver by the intestine only when the former permits it. It is from these relations between the two organs that the doctrine of intestinal antiseptics springs ; and it will be easily understood that the term must not mean merely a direct action exercised on the intestine, but also an indirect action exercised on the liver. While the intestinal poisons are neutralized in the intestine itself, the antitoxic power of the liver must be maintained or strengthened, in order that it may contribute its part toward the destruction of the intestinal poisons, and at the same time defend itself from the poisons which enter it by other channels. In short, intestinal antiseptics is not really efficacious unless it is hepato-intestinal.

In the discussion of this paper, Teissier described some experiments made with Guinard upon dogs, which demonstrated that certain microbial toxins, probably those with great diastasic power, when introduced through the portal vein, acquired an increased virulence in the liver, and, although retained there for a certain time, produced symptoms much more rapidly fatal than if the same toxins had been introduced in equal amounts into the peripheral venous system. Contrary to what has hitherto been supposed, therefore, the liver would appear to be capable, under certain circumstances, of aggravating the action of such toxins as those of the pneumobacillus and the diphtheria bacillus, by increasing their

virulence and not by the addition of symptoms due to the destruction of the hepatic cells in which no marked alterations could be observed. This new function of the liver would explain the suddenness and gravity of certain intestinal affections, as dysentery and cholera.—*Universal Medical Journal*.

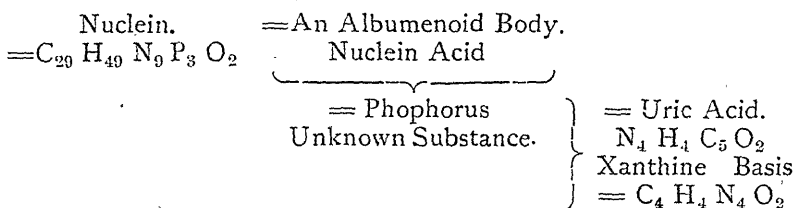
THE NATURE AND TREATMENT OF GOUT.

By PROF. KOLISH, M.D.,

UNIVERSITY OF VIENNA.

(From our Austrian Correspondent.)

This is a problem that may be properly placed under the head of pathology, and to which Claude Bernard has contributed much by his normal physiology which has been demonstrated by him in his laboratory experiments. It is now generally acknowledged that any disturbance in the physiological function of nutrition is a potent factor in the disease. A large number of theories, such as abnormally diminished alkalinity of the blood, high acidity of the urine, a morbid condition of the kidneys, or a disturbed state of the nerve system have all been in turn accused of the morbid condition. It is undeniable that a urate diathesis exists in the gouty condition, but the preceding morbid changes in the physiological disturbance appear to be due to the breaking up of nucleïn ($C_{29} H_{49} N_9 P_3 O_2$) and the formation of alloxurine bodies ($C_4 N_2 H_2 O_4$). This complex chemical change may be briefly sketched in the following manner:



This chemical diagram shows the final products of nucleïn to be uric acid ($C_5 H_4 N_4 O_2$), and xanthine bases ($C_4 H_4 N_4 O_2$), which are comprehended under the term alloxurine bodies, and which has been shown by earlier investigation that a disease of the kidneys and a combination of uric acid increases the elimination of these alloxurine bases. It has been shown that when these bases are found in the urine in other morbid conditions they are characteristic of a nervine inflammation. It would appear from closer examination, however, that in every one of these urate diatheses a greater amount of nucleïn is broken up or decomposed, which increases the fragmentary products or lower bodies of the series. We may therefore look on nucleïn and its decomposition as the chemical body that produces the characteristic symptoms in gout from a diseased kidney.

Levison first drew attention to this affection of the kidney, and was so convinced of its connection with gout that his explanation was at once accepted ; but it was shown by other observers that there was a reduction in the uric acid elimination in all cases of nephritis. We have now arrived at a point when a clearer hypothesis can be put forward by experimental proof in showing the analogy between this and the lead kidney.

It has been clearly demonstrated that the gouty kidney and the lead-poisoning kidney are both laboring to eliminate poisonous substances, and have morbid changes in common. For experiment, the poison of gout was selected from the alloxurine bases, which was the probable cause of the urate diathesis. Tandler injected 0.01 gramme of xanthine, which produced in animals changes in the kidneys, and which Prof. Paltauf and Dr. Albrecht declared to be identical with the lesion of the kidney familiar in gout. The alloxurine bases, therefore, appear to be the problematic poison that produces the renal lesion which bears a close relation to lead-poisoning in experimental demonstrations. Instead of the present uratic diathesis applied to the gouty condition, it would be more appropriate to call it the alloxurine diathesis.

The lecturer is of opinion that different authors have established names in accordance with the stage at which the gout was presented to them. Each one found a different quantity of uric acid, which he elucidated according to the theory he had most at heart. It is clear to the casual observer that the alloxurine bodies would vary according to the stage of disease, and constantly change the quantity of uric acid eliminated, which is the characteristic symptom of the disease. The proportion of uric acid would alter according to the base with which it combined. As long as the kidneys performed their function in a normal manner, they would produce more uric acid in proportion to the nucleïn reduced. In this we have an explanation of Neusser's perinuclear granulation kidney, which appears at one of the stages of the disease. After a certain point is reached, the kidney appears to become exhausted, the uric acid is reduced in the urine, while the decomposition of the nucleïn remains normal. At this stage, if the urine be carefully examined, it will exhibit the gouty acid character with increased alloxurine bases in the usual gouty symptoms. By the lesion of the kidney, the transudation of the poisonous basis reduces the elimination of uric acid. This *circulus vitiosus* still proceeds till the uric acid almost disappears, giving all the appearance of a shrunken kidney.

The development of the urate diathesis may also assume the following disposition :—Increased nucleïn decomposition in a congenital condition ; it is expressed in the appearance of perinuclear basophil granulations and increased elimination of alloxurine bodies:

In the beginning, the increased destruction of the nucleïn in the organism produces intermediate substances which assists to

form the poisonous agent of the kidney. In the course of time the abnormal transposition seriously injures the function of the organ till the circulus vitiosus is formed, which may be described as a typical example of auto-intoxication. From this idea, all the symptoms of gout may be explained in the chronic condition, while the acute attacks cannot be accepted as a new disease, but rather an outburst of the chronic process with the acute phenomena and a large decomposition of nucleïn. The outcome of this is increased elimination of alloxurine bodies, and the appearance of albumen and leuco-cycthosis in the urine.

The therapeutic treatment of gout, according to this view, would not encourage us in entertaining an application of specific drugs. On the other hand, the therapist should endeavor to increase the breaking up of the nucleïn, and favor, as far as possible, the transformation of the decomposed products to uric acid. The latter part points to the use of alkaline therapeutics, because it promotes the formation of uric acid, which encourages the innocuous function of the kidney. In cases where the kidneys are already functionally injured, guiding must be our care. With regard to the diet, the excess of albuminoid food must be carefully guided against, as this form of diet rapidly increases the leuco-cytosis in the alimentary canal that finally augments the nucleïn product. A moderate use of albumen is not contra-indicated, yet tissues rich in cellular matter, such as nucleïn, should be avoided. Boiled meat may be allowed, as the kidneys eliminate the noxious extractive material, but the soup prepared from the liquid it has been boiled in should not be used. Carbohydrates are innocuous, and as a substitute for albumen fat may be prescribed. Milk and egg in some form is also good, because the nucleïn does not split up into alloxurine bases. Of the vegetable kingdom, all may be allowed except asparagus, which should be strictly forbidden. Alcohol should be also prohibited. In daily exercise of the body, over-exertion should not be encouraged, but carefully guarded against, as this greatly increases the splitting up of the nucleïn. An early diagnosis of the disease is essentially necessary before a satisfactory therapy can be established. To accomplish this the blood should be examined, and the increased elimination of the corpuscles with an outbreak of the usual symptoms may enable the observer to check its progress or correct the morbid process.

—*Medical Press and Circular.*

Progress of Medical Science.

MEDICINE AND NEUROLOGY

IN CHARGE OF

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SEXUAL CRIMES BY INEBRIATES.

By T. D. CROTHERS, M.D.,
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Dr. Crothers relates a number of instances of sexual crimes committed by chronic and periodical inebriates while under the influence of alcohol, in all of which he clearly recognizes and points out the existence of a form of insanity. The following are the facts brought out by a study of these cases:—

1. The use of alcohol on the brain centers, by paralyzing and disturbing their harmonious action, is most likely to be followed by manias and delusions.

2. The several nerve centers may suffer by irritation and exaltation, or depression and paralysis.

3. In the former case, they dominate all other centers, and either act explosively or by continuous irritation and demand for relief.

4. The facts of using spirits, coupled with wild sexual conduct, is strong evidence of mental weakness and disease.

5. Sexual crime in an inebriate is always some form of insanity. The want of control, and the absence of rational judgment of the effect of the act, and the consequence from it, are usually very clear in every case.

6. Reasoning and cunning to conceal the crime never implies sanity by itself, or preparation to commit the crime; both are the workings of an abnormal mind, dominated by a morbid impulse.

7. Acts of any kind showing these impulses, or in a case of sexual mania, are open to question, unless they are rational and along lines of reasonable motive and conduct.

8. The explosive character of sexual crime, at its final culmination after a series of acts that lead up to it, should always receive the closest medical study.

9. Sexual crime and questions of legal dispute among inebriates should receive careful medical study before they come into court, and the facts of the crime and criminal be brought out clearly before any legal decision of the final disposition of the case be made.

Medical & Surgical Reporter, December 21, 1895.

THE CIGARETTE HABIT.

Dr. J. C. Mulhall, of St. Louis, read a paper on this subject at the 1895 meeting of the American Laryngological Association, which appears in the *Medical & Surgical Reporter*, Dec. 14th, 1895.

He has been a cigarette smoker himself for 25 years. Different methods of using tobacco, he states, produce a distinct form of pleasure. The cigarette smokers are divided into those who inhale the smoke—which is drawn in as far as the large bronchi—and those who do not.

The pleasure in cigarette smoking, therefore, as compared with other tobacco habits, may be said to be a pleasurable irritation of the laryngeal and tracheal sensory branches of the pneumogastric nerve. The increased surface exposed to the smoke means increased absorption of nicotine, hence the danger. He could not himself smoke three cigarettes inhaled without nausea or vertigo, or a rapid pulse. The constitutional effects are quite the same as those produced by tobacco, as they are not adulterated by the addition of any other narcotic. The result of their general use is to impair the health in the young, and up to 21 years of age it tends to handicap those who use it in all intellectual and physical efforts. Smoked without inhaling, the cigarette is mild, hence its capacity for doing harm in that it teaches the use of more injurious methods. This mildness explains its fast-spreading use among young women. The local effects upon the upper respiratory organs are as a rule not injurious, at most it produces only a slight hyperæmia, or insignificant catarrh. Owing to efforts made by manufacturers, this habit is spreading widely, and as the inhabitants of this Northern Continent have now a greater proportion of nervous and mental diseases than formerly. If the pernicious nerve-destroying effect of the cigarette habit is added, great solicitude may wisely be shown for the youth of this country.

SURGERY.

IN CHARGE OF

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SEVENTEEN CASES OF CHRONIC RELAPSING APPENDICITIS TREATED BY OPERATION.

By HUNTER MCGUIRE, M.D., LL.D.

Virginia Medical Monthly, Dec., 1895.

Dr. Hunter McGuire is a man of large experience, and his views regarding so important a disease as appendicitis, all should be familiar with. His method of dealing with these cases is clearly and fearlessly stated in the series of cases reported.

Operations were performed in the interval between the attacks, when all or nearly all of the inflammatory symptoms had disappeared. The only fatal case was operated on in a private house. Dr. McGuire thinks the death might have been avoided had the operation been done in a modern hospital.

As a rule, Dr. McGuire is not in a great hurry to operate; he is inclined to wait for the more acute symptoms to pass off, and operate, if at all, after suppuration has taken place, or during the quiescent stage, between the attacks, as advised years ago by Frederick Treves.

He says there are cases of appendicitis so slight that they belong to the doctor and not to the surgeon, that very often they are not recognized as appendicular trouble, but put down to bilious colic, kidney colic, etc.

Under rest, purgation, local application and opium, these cases recover, and in many instances stay well, and are therefore not cases for operation. In his own words he says: "A man's usefulness is not impaired, nor his life usually shortened by it; indeed, he often gets on through life better than the man with a crippled leg, or the poor fellow who lives for years with a crippled heart. I wish my voice was strong enough, just here, to call a halt to the men who say 'Operate at once—not this afternoon or to-morrow, but now,' in all cases where the disease is recognized." In cases where pus has formed, Dr. McGuire says even now, "I am not in all cases in a hurry to operate," because he has seen such cases recover without operation. They have usually lasted for some time. It is true that delay in operating may end in a rupture of the abscess, and general septic peritonitis result, but he has never seen this occur after the 3rd day, though the matter may burrow down towards the pelvis and upwards towards the liver. These abscesses are often attached to the parietics, where to operate is only to open an

abscess, the general peritoneal cavity is not opened, the finger is carefully introduced, the appendix felt for, and if found, and free, it is to be removed; if attached by adhesions, let it alone. Drain the abscess cavity with rubber tube and gauze.

In cases of *acute perforating appendicitis*, he says one cannot operate too soon to prevent diffuse septic peritonitis. These are frightful cases, and an early operation alone gives a chance for life. In these cases, the appendix is to be removed, the peritoneal cavity washed out with warm normal salt solution, and free drainage secured with gauze or tubes, or both.

Dr. McGuire says of these desperate cases of so-called *fulminating appendicitis*, the whole tale is told usually in forty-eight hours; nevertheless, he denounces the doctrine held by so many surgeons advocating immediate operation in all cases of appendicitis.

Dr. McGuire holds that it has been almost conclusively demonstrated that the *Bacillus Coli Communis* is the essential cause of a large number of cases of appendicitis; that these microbes undoubtedly become more virulent and hurtful when certain morbid conditions of the bowel exist,—constipation, inflammation, obstruction, strangulation, diarrhoea; constipation existing in a large proportion of the cases of all kinds of appendicitis.

Medicines, from the pathological conditions found, can be expected to help but little if at all.

Persulphate of iron is recommended to prevent reunion of separated adhesions.

The operation, incision over the prominent part of tumor, if any, or beginning near anterior superior spine of ileum, and carried inwards and slightly downwards towards the inner border of the rectus: the incision is not more than two inches long. After the abdomen is opened, Trendelenburg's position is of great assistance. The general cavity is protected, the adhesions separated, the appendix freed and removed with all infected omentum; iodoform dusted freely over injured places, drainage of gauze or tube introduced. The peritoneum is closed separately with fine silk continuous suture, the muscular fascia and skin with silk worm gut.

GYNÆCOLOGY.

IN CHARGE OF

A. LAPHORN SMITH, B.A., M.D., M.R.C.S., Eng.

Fellow of the American Gynecological Society, Gynecologist to the Montreal Dispensary and Samaritan Hospital, Surgeon to the Western Hospital; Professor of Clinical Gynecology in Bishop's College.

In many of the three last numbers of the various gynecological journals, much space is devoted to the consideration of the question: *Shall the abdominal or vaginal method be employed for the removal of pus tubes, fibroid tumors, cancer of the uterus, and other diseased conditions of the pelvic organs?* Notwithstanding the wave of opinion in favor of the vaginal method, which started in France

a few years ago, and which received such an impulse from the visit of Jacobs of Brussels to America last summer, the majority of recent American writers are not at all in favor of it. The more the writer sees of this procedure the less favorably is he impressed with it. An operation which would be fairly easy if performed by the abdominal route, with the patient in the Trendelenburg position, becomes exceedingly difficult when performed in the vagina, especially if it be a narrow one. As regards mortality, the very lowest that has been claimed for it by Jacobs was over four per cent., while the mortality of hysterectomy, with removal of the appendages, is less than two per cent. in the hands of Howard Kelly. The writer has seen these two operations performed a number of times by two operators of world-wide celebrity, and it was the general opinion of all who witnessed them that there was no comparison between them, the abdominal route receiving the preference. In the case of cancer of the uterus, especially, the abdominal method allows us to keep much farther away from the uterus, and consequently renders the operation much less likely to be followed by recurrence.

The early recognition of cancer of the uterus has also been receiving a good deal of attention, but certainly not any more than it deserves. All gynæcologists are agreed, that in the great majority of cases the patient does not come under our care until the disease is already so far advanced that there is very little hope that even total removal of the uterus will be successful in eradicating the disease. Is there any remedy for this unfortunate state of affairs? Several recent writers place a great deal of dependence on the microscope and recommend, when there is the slightest suspicion of cancer being present, to remove a small piece of the cervix under cocaine, and have it submitted to microscopical examination. Others again have no faith even in the microscope for this purpose, maintaining that many cases were eventually proved to have the disease in which the microscope failed to detect it. The truth lies in the fact than on one day it may be absent, while a few days later it may be present. We have one means of diagnosing cancer long before the microscope can detect it, and as it were, before it is actually present, namely, when there is no other lesion than a badly lacerated cervix with eversion of the lips of the os uteri and cystic degeneration of the glandular structures. This is the stage when one of the simplest and safest operations known to gynæcology will remove the danger of cancer altogether. All the leading authorities agree that cancer of the cervix uteri without the presence of a laceration is a very rare exception; Emmet says he has never seen it, while Kelly says he has only seen it once or twice. All are agreed that as far as cancer of the cervix uteri at least is concerned, its prevention and cure depend entirely upon the recognition and repair of lacerations of the cervix. The family physician is urged to make it a rule to examine every woman whom he had confined within three months

of her confinement, and if a tear is discovered, he should take immediate steps to repair it. Apart altogether from its saving the woman from the risk of cancer, the operation is one of the most satisfactory in its results, curing the discharge from the cervix and the pain in the head and back as well as the disorders of digestion. The application of nitrate of silver to the everted lips of a lacerated cervix is especially deprecated by several writers as contributing to the formation of the cicatricial tissue in which cancer finds its most suitable hot-bed. In his recent article in the *American Journal of Obstetrics* for Nov., p. 664 : Munde says, "I have made up my mind most positively that in no case will I ever again remove the uterus for cancerous disease, whether of the cervix or body per vagina or by abdominal section, unless the organ is so movable that any possible extension of the organ to its surroundings can be absolutely excluded."

The treatment of retroversion and prolapsus of the uterus is the subject of at least half a dozen papers. While admitting that many cases can be temporarily and even permanently cured by the use of a suitable pessary, all are agreed that in cases where the uterus is fixed by adhesions, and even in cases in which it is easily replaced, but in which it fails to remain in its proper position, some kind of operative treatment is advisable. For several years the various methods of shortening the round ligaments were given the preference. Munde and Cleveland each read a paper at the recent meeting of the American Gynæcological Society, advocating the claims of the Alexander operation which they had performed nearly a hundred times. But the majority of operators on this continent to-day are in favor of ventrofixation, which has many advantages over shortening of the round ligaments, the latter operation being sometimes exceedingly difficult and sometimes impossible, owing to the fatty degeneration of the cords, rendering them too weak to bear the weight of the uterus. Single or double inguinal hernia is known to have followed the operation in the hands of one of its ablest exponents. Ventrofixation is comparatively easy, and if properly performed entirely devoid of danger, while the result is exceedingly satisfactory. Many cases of pregnancy going on to a happy termination after the operation have already been reported, while, owing to the smallness of the incision required, ventral hernia is a rare exception after it. It has another great merit, that we are enabled to introduce a finger into the abdomen, and carefully break up adhesions which might not have been detected before performing an Alexander, but which would completely prevent the latter operation from doing any good.

Is so called conservatism in gynæcology conducive to the best results to the patient? is the title of an excellent article by Praeger of Los Angeles, in the December number of the *American Journal of Obstetrics*, p. 891, in which he defends gynæcology from the attacks of those who do not believe in operations. These latter would never

sew up a badly lacerated cervix or perineum, but on the contrary would allow the woman's nervous and digestive systems to be ruined by reflex irritation of scar tissue in the angle of the tear. They do not believe in total removal of the cancerous uterus, even in the few cases in which the disease is recognized while it is still limited to that organ. They do not advise removal of ovarian tumors as long as they are not big enough to cause much inconvenience. They do not believe in removing pus tubes, but would rather allow them to break into the rectum or bladder or vagina, or at the most they would approve of opening them into the vagina where they will keep up a foul smelling discharge and a septic condition for months until the woman is exhausted, while they consider it nothing short of criminal to remove contracting sclerotic ovaries, which never allow their owner a moment's respite from pain while she is conscious, and cause her menstrual periods to be dreaded more than a labor. Retroversion of the uterus, causing obstruction of the bowels and irritation of the neck of the bladder they consider a condition of no importance, or at most deserving of replacing with the sound, when if the tubes are diseased, and the fundus fixed, a fatal peritonitis often rapidly ensues. It is the experience—it might be said, the bitter experience—of the writer that gynæcologists are rather too conservative, some of the most unsatisfactory results he has ever had being due to his conscientious but mistaken desire to leave one ovary, when his judgment told him that both should have been removed. And, strange to say, it is the patient herself who thanks him the least for his well-intentioned mistake. Nearly if not all our failures are due either to waiting too long before doing anything, or when we do take action, to not making our operation sufficiently radical. Many a woman in this city and in this province is dragging out a miserable existence by the aid of morphine, who might be restored to health and usefulness by the removal of useless because hopelessly diseased ovaries and tubes.

PHARMACOLOGY AND THERAPEUTICS.

IN CHARGE OF

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THE TREND OF MODERN THERAPEUSIS.

It would seem as if the untiring efforts of the physiologists, in directing attention to the importance of the individual cell-metabolism, as distinguished from the results of metabolism of the cell-community, and the importance of the secretions of the individual cell in health and disease, were bearing fruit, as evidence the attention devoted these last few years to the part played in the human economy by the blood-serum, leucocytes, and altered secretions of the animal cells seen in some of the acute exanthems, diphtheria, and tuberculosis,—leading up to the brilliant but short-

lived "tuberculin" of Koch; the later but more successful "antitoxine" serum of diphtheria (Behring and Kitasato); and of tetanus, and of the inoculation of attenuated virus as practised for rabies (Pasteur); the "nuclein" treatment, with its nucleinic acid rich in phosphorus, based on the supposition that resistance to infection and destruction of the individual cell depends on some substance within or secreted by the cell itself, or contained within its nucleus, the "nuclein" injected entering the circulation, and taking the place of that which should have been supplied by the debilitated cells, thus bringing the organism into the condition of healthy and normal resistance. This latter bordering closely on the method of treatment which has been called "cellular therapy," where, in selected cases, the flagging individual cells have been stimulated—whipped up, as it were—to perform their functions by the administration of minute and graduated doses of irritants, and thus not only getting rid of the *materies morbi*,—the debris and toxic products of the disease—but enabling it the better to resist the active cause. Leibreich, of Berlin, in his treatment of lupus and tuberculosis with milligramme (grs. $\frac{1}{100}$) doses of cantharidate of soda, is but acting on this idea. (It is well to remember, however, that in speaking of "cellular therapy," the only new thing about it is the name.)

Then, again, the importance to human life and health of the secretions of the glands was, perhaps, never so much appreciated as at the present day, nor were they ever so closely studied and experimented on; not but that the value of the ordinary secretions has been recognized, but the fact that the glands secrete something more than the usually accepted and recognized fluids, the "internal secretions" of Schäffer. Life is quite consistent with absence of the bile in the intestinal canal, as where fistulæ have discharged it for months, but total disease, or extirpation, of the liver results in death due to altered metabolism. Diversion of the pancreatic juice will produce amylaceous indigestion, but total disease or extirpation, causes death through diabetes melitus, obviated by transplanting a portion of the gland. Transplantation of the thyroid, or its internal administration, with its marked effect on cretinism and myxœdema, its effect on the vasomotor apparatus, apart from any in the heart, and its effect on the normal resistance to lowered temperatures, all point to some internal secretion of paramount importance to the life and health of the animal. The Pituitary body, long the source of endless conjecture, is claimed to secrete a substance which contracts the cardiac arteries, while disease of this gland is associated with the deformity known as acromegaly. The adrenals, always abnormal in Addison's disease, also furnish an internal secretion, which, according to Schäffer and Oliver, is of great power, $\frac{1}{100}$ grain causing an intense but evanescent rise of blood pressure, increased heart action, and activity of skeletal muscles in the adult, and that it is the medulla, and not the cortex, which is active.

Well might we say with Hare that "In these sources lie materials for scientific investigation and therapeutic discovery, which may give us more than coal-tar has afforded us in remedies for the relief of pain and fever, and enable us to effectually battle with diseases which hitherto have been a mockery to our boasted advances."

Of necessity, the general practitioner is always a certain distance behind the pioneers of thought and investigation in the realms of new treatments for diseased conditions; but at this end of the century, when it costs a mere bagatelle to keep in touch with the investigations of the great minds of the world, and when we are just beginning the return swing of the pendulum from the German school of treating our patient to a diagnosis—and resting there,—there is no excuse for not keeping in the vanguard of medical progress, and giving our patients the results of the latest advance in treatment as well as diagnosis. The tendency to-day is less and less to a multiplicity of drugs, with empirical use, and more and more to a rational treatment of the individual, with a good reason to offer for every step taken. It is something to be thankful for that the days of the stock prescription are fast dying out. It is the duty of every physician to avail himself of these new methods of treatment; and not only so, but it is also his duty to report the results of his experience. Statistics are only useful when carried out under approximately similar conditions with equal care and observation, and in vast numbers. Hence, keep notes—brief as you like, but *keep notes*, and give others the benefit of them when opportunity offers.

American Therapist, Vol. VI., Nos. 4 and 5, 1895.

Therapeutic Gazette, Vol. XIX., No. 12, 95.

THE LOCAL TREATMENT OF DIPHTHERIA.

Those who read the report of the Eighth International Congress of Health at Buda-Pesth, (1894) where the subject of the serum treatment of diphtheria was fully discussed, cannot fail to have noticed the stand taken by Loeffler, who stated that, while not wishing to disparage the serum toxine Therapy, preferred to attack the disease *in situ*, and recommend the solution since bearing his name (*i. e.*, menthol, 10 grains; Toluol 30 cc.; creolin [or solution of iron, as preferred], 2 cc.; alcohol, 100 cc.), to be used on a swab, applied for 10 seconds twice in succession, every 3 or 4 hours. Since then, the serum has had a most extensive trial, and has come out with flying colors; but the fact remains that Loeffler's method is also remarkably successful, though not so easy of application; and now, Schwartz of Constantinople comes forward with the results of his experience with topical applications in this disease. In an original article contributed to the *American Medico-Surgical Bulletin*, November, 1895, Dr. Schwartz, after giving antitoxine serum credit for reducing the mortality from 62% to 25-15% urges

against it the fact that it is efficacious only in pure diphtheria; that where there is mixed infection, it is much less efficacious; that it takes at least 48 hours for the febrile decline and separation of the membrane; that the immunity conferred, either by an attack of diphtheria successfully treated with serum, or by immunization-injections of serum, is short lived—a few weeks only; that the albuminuria is not benefited by the serum, but in some cases it is said to have produced a violent nephritis, and, lastly, that it produces a cutaneous eruption, which, however, is without pernicious effects on the general condition. Schwartz claims that years before Loeffler discovered the specific bacillus of diphtheria, he had considered this disease as of microbic origin, and had directed treatment to the site of infection, seeking a remedy which would destroy the parasites in loco, without injury to patient even after long application, and in a manner calculated not to increase the already weakened condition of the heart. Swabbing, sprayings, and irrigation were given up as too exhausting. His remarks are perhaps but too little heeded. “I am convinced,” he says, “that no small number of the fatal cases of diphtheria in children are directly referable to exhaustion produced by swabbing,”—and he might have added, by want of tact on the part of the attendant. The insufflations of a powder thus seemed the only and most advisable method, and was adopted, with the happiest results; he claims for insufflation that: (1) The vital energies of the child are not taxed to any significant degree, for the insufflation only lasts a few seconds, and is only repeated every 4 hours. (2) Even though it be not applied directly to the infected surface, it mixes with the saliva, reaches the membranes, liquifies and thus enters the deepest lacunæ of the tonsils, which it disinfects. (3) The whole oral cavity, where innumerable bacilli reside, is disinfects. (4) The manipulations are so simple, anyone can carry them out with ease. There can be no objection to some of the powder entering the larynx, even should that happen. After trying various antiseptic powders, he determined on sulphur, and his own experience with the non-injurious effects of the sozo-iodol preparations, added to the result of Langaard’s* experiments on the bactericidal action of sozo-iodol on the pyogenic cocci and those of Luebbert † on the staphylococcus aureus, and pyocyaneus, led him to use these preparations in diphtheria, with signal success.

Dr. Schwartz’ formula is as follows: for children under and up to 2 years,—sodii sozo-iodolici, grms. 3; flor sulphurus, grms. 6; saccharini, grms. 1½. For 2 to 4 years,—equal parts sod. sozo-iodolate and sulphur, with a little saccharine. 4 years and over,—the pure sozo-iodolate rubbed up with a little saccharine, small rolled tubes of paper are used, and, after insufflation, burned. The patient’s strength is kept up with “tonics and merciful treat-

* Therapeutische Monathefte, 1888, No. 9.

† Fortschritte der Medicin, 1889, Nos. 22 and 23.

ment," and, at the outset, to offset any tendency to paralysis. Nux Vomica, thrice daily, in suitable doses, and every 4 and 5 hours a tablespoonful Malaga or Cognac, with cinchona, while soups, eggs, milk (with or without brandy); must be administered.

Both Dr. Boehm of Ratibor (16-2-94) and Dr. Mordtman, physician in chief, German Hospital, Constantinople, have used the method extensively, and report most favorably. The mortality (without going into figures extensively) is quoted as—malignant and advanced cases in bad hygienic surroundings, 8 to 10 per cent.; cases treated immediately after appearance of disease, 2 to 3 per cent. The nose is insufflated in every case, as a precautionary measure, and others in the house either use the insufflation as a preventative, or use a gargle of a 2 per cent. solution of sodium sozo-iodolate as a mouth wash for adults, or both; and troches of 0.3 gm. (5 grains) of the salt, several times daily. Where it is not possible to isolate from other children in the house, then insufflations are practised as well. Dr. Schwartz says: "I do not recall ever having seen any of the children thus protected come down with the disease."

Under this treatment, the disease is said to run a rapid course. "After the first, sometimes after the second, insufflation, the temperature falls to 37° — 37.5° c. ($98\frac{2}{3}^{\circ}$ — $99\frac{1}{2}^{\circ}$ F.), and even in the most sad cases never goes above 38° c. ($100\frac{2}{3}^{\circ}$ F.), the patients feel better, and gladly take nourishment..... the fetor of the breath disappears entirely after 8 to 10 hours, and the membranes loosen and exfoliate within 24 to 48 hours, leaving a healed ulcer surface behind. Complete cure is established after the expiration of 3 or 4 days." As a rule, the insufflations are continued for 8 to 10 days beyond this period; relapses have never been noticed or reported. The treatment is absolutely without result on the kidneys—on the contrary, with the subsidence of the general symptoms, albumen, if present, disappears from the urine. Pernicious action on the body is out of the question, the most severe toxic symptoms yielding to the treatment, while if taken sufficiently early, toxic symptoms rarely develop.

The *modus operandi* of the treatment is explained by Dr. Schwartz as analogous to the immunization accomplished by Behring through producing an antitoxine in the blood by the previous inoculation of the subject with attenuated virus, obtained: (1) either by inoculating with large quantities of attenuated cultures, (2) inoculating with small quantities of virulent cultures, (3) inoculating with cultures modified by the addition of trichloride of iodine or chloride of gold and sodium, (4) infecting with diphtheria and injecting trichloride of iodine, (5) or by previous treatment with peroxide of hydrogen; and believes that the treatment with the sozo-iodates produces at the site of the lesion an attenuated culture, which, absorbed by the mucous membrane,

reacts on the organism, producing an antitoxine in the blood, neutralizing the toxic products of the bacilli,—not only of the specific bacillus of diphtheria, but in the case of mixed infection, of the streptococcus and staphylococcus also. His closing argument in favor of his treatment is certainly a strong one: the general practitioner, who has not always the time or the accessories to determine a bacteriological diagnosis, may use serum in a mixed infection, or an infection where the Loeffler bacillus is absent altogether, yet whose clinical picture is that of true diphtheria, the case will certainly not react to the serum, and may end disastrously, thus tending to throw discredit on serum therapy in the absence of bacteriological proof of the presence of true diphtheria. Schwartz's closing sentence is worthy of attention: "In my opinion, diphtheria is not a disease which can be treated by one-sided methods—*i.e.*, a specific..... therefore it is desirable that those physicians who have fresh serum and every scientific means at their command should employ antitoxine in combination with insufflations of sodium sozo-iodolate,—a method of treatment which can only contribute to the benefit of humanity."

In my own practice, I have treated 10 cases of diphtheria within the last 13 months, 5 with serum and stimulants alone, of which 1 died; a (laryngeal case involving the right lung and necessitating intubation for 2 days,) 3 with Loeffler's reagent, with stimulants alone, and two mild cases, with exudate on the uvula and pharynx, with the following insufflation, being unable to obtain sodium sozo-iodolate in town: Flor Sulph. ʒi ; Carbo lig. ʒi .; Acid Phenic. crystals, grs. v., insufflated every two hours, with Tr. Nux Vomica, Mi every 4 hours, and have been unable to notice much difference in the time of recovery, with the difference, if any, in favor of the Loeffler's reagent.

CREOSOTE PILLS.

Neron (*Pharm. Ztg.*, vol. XV., 1895) recommends that a paste be made, formed of equal parts of creosote and powdered soap, and adding enough licorice root powdered to form a full mass, *e.g.* :—

Creosoti,	10 grms. (2½ fl. dr.).
Pulv. Saponis,	10 grms. (2½ dr.).
Pulv. Rad. Glycerrh,	5 grms. (1¼ dr.).
—to make 100 pills.	

In this way the author claims comparatively small pills may be made to contain large quantities of creosote (0.1 grm., 1½ grains) each; they keep well, do not harden, the creosote does not exude, and are easily soluble in the gastric juice. Pills of guaiacol, terpinol, etc., may be made in a similar manner.

Medical Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, November 15th, 1895.

A. D. Blackader, M.D., President, in the Chair.

Drs. W. W. Alexander, of Lachute; Robert Reddick, of West Winchester, Ont.; A. G. Murphy, of Lachine; A. E. Garrow and J. J. Ross, were elected ordinary members.

RECOVERY FROM PERFORATED GASTRIC ULCER.

Dr. W. G. M. Byers read the report of this case, successfully operated on by Dr. G. E. Armstrong.

Dr. James Bell, after congratulating Dr. Armstrong on the success of his case, asked if there had been any attempt at limitation of the inflammatory process in the abdominal cavity, and if Dr. Armstrong had flushed out the cavity with water or saline solution. He agreed that there was great difference in virulence between the contents of the stomach and those of the intestines; the contents of the stomach did not contain the same pathogenic microbes as the lower tract.

Dr. J. G. Adami said that Dr. Armstrong's view that the virulence of microbes varied was quite true, and for this reason, that in the stomach there was, as a general rule, an acid secretion or acid contents, conditions under which pathogenic organisms did not thrive. Lower down in the intestinal canal the alkaline secretions and broken down proteid matter furnished much more suitable conditions for their growth. There was not much proliferation of pathological microbes in the stomach and a great deal in the intestines—that is to say, that in a given cubic centimetre of stomach contents there was a much smaller number of pathogenic micro-organisms than in a cubic centimetre taken from the intestine. Probably for the same reason tuberculosis did not often infect the stomach walls as compared to the frequency with which it was found in the intestine.

Dr. Lafleur pointed out that the easiest proof of virulence had been neglected in not making culture experiments. It was known that if there was an anatomical lesion of the peritoneum, a chemical irritant produced a peritonitis, which would be very much less virulent than one caused by micro-organisms.

Dr. R. C. Kirkpatrick had assisted Dr. Armstrong, and could bear out all he had said relative to the size of the perforation, which he had measured at the time, and it had seemed to him scarcely possible to bring the edges together. Recovery, he felt, had been largely due to the fact that the glass drain had been inserted into the pelvis, and the fluid collecting had thus been drawn off. As an instance of variability in the virulence of infection, Dr. Kirkpatrick related a case on which he had operated for appendicitis two weeks before, where cultures had been made from the pus with a negative result, but he had had to open up the abdomen again on account of pus having collected beside the track of the drainage-tube.

Dr. Armstrong, in reply, said that there had been no limitation of the inflammatory process, and that he did not flush out the cavity, but wiped it out thoroughly with gauze pads. He did not know why cultures had not been taken at the time of the operation.

TRANSPOSITION OF VISCERA.

Dr. T. P. Shaw showed a case.

SOME MORBID CONDITIONS OF INTESTINES.

Dr. Adami exhibited the following series of morbid conditions of the intestines, obtained recently in the post-mortem room of the Royal Victoria Hospital.

(1) TWO CASES OF MECKEL'S DIVERTICULUM.

Of these, one was of the usual type, and was brought before the Society purely for comparison with the other. It was obtained from the body of a male patient aged 15 years, and was given off from the ileum 103 cm. (about 3 ft. 7 in.) above the ileo-cæcal valve. The diverticulum (about 4 in. long) passed off roughly almost at right angles to the general direction or axis of the intestines. There was no sign of obstruction associated with it.

The other case showed an unusual complication. In this the diverticulum presented itself most clearly as a continuation of the upper portion of the ileum 63 cm. above the valve. It was short and broad (4 cm. by 4 cm.), and provided to its extremity with a very definite mesentery. The lower part of the gut was given off from the upper at an angle greater than a right angle, or, to put it more correctly, the angle formed by the mesenteric aspects of the two portions of the intestine was less than a right angle; and while the diameter of the diverticulum and the gut immediately above it was 4 cm., that of the lower continuation of the ileum was only 2.5 cm. Thus the relationship of the parts had very evidently led to a partial obstruction. The passage from the upper to the lower part of the ileum assumed a slit-like or valvular character. The arrangement of the part, in fact, closely copied, although in a reverse direction, the relationship of ileum to cæcum. This case occurred in the body of a girl aged 8 years.

HEALED INTESTINAL ANASTOMOSIS.

Dr. Adami exhibited this specimen in order to show the perfect condition of healing of the intestinal wall and the condition of the wounded portion of the intestine three weeks after operation. The specimen was taken from the body of a female patient aged 51. The case presented some points of considerable interest, and Dr. Adami was indebted to Dr. Shaw for the notes in reference to it. For ten days the patient had shown signs of intestinal obstruction, with vomiting and ineffectual action of purgatives. Upon October 5th she vomited stercoraceous matter, and was admitted into the Royal Victoria Hospital under Dr. Bell. Here she presented a distinct abdominal facies, and a small resistant mass was to be felt in the right inguinal region. Dr. Bell operated the same day, and discovered that there was a Littre's hernia, a small loop of the intestine without the mesentery being caught in the internal abdominal ring. Through gangrene along the edge of incarceration a small perforation had resulted, without there being any gross escape of fæces. He cut out a wedge of the wall of the ileum, including the necrosed area, and sutured by Lembert's suture. At first the patient progressed very favorably, but

eventually symptoms of partial obstruction supervened, followed by those of acute peritonitis, and the patient died twenty-one days after the operation. At the autopsy there was found evidence of old adhesive peritonitis in the shape of well organized bands in the hinder portion of the abdomen. This represented a condition much older than the final illness. There was, in addition, a sub-acute adhesive peritonitis around the operation wound, and besides this localized condition there was generalized peritonitis. In separating the cæcum, a drop of pus was found between the viscus and the abdominal parietes, and there was in addition an adhesion between a loop of the ileum and the right Fallopian tube. Here again on separation some pus exuded, and upon opening the right Fallopian tube there was found a condition of pyosalpinx of moderate extent. It was difficult to explain the setting up of acute peritonitis and subsequent death of the patient, save on the supposition that the slight degree of obstruction, brought about by the developing organized adhesions in the neighborhood of the wound, had led to a lowered vitality of the intestines and abdominal contents in general, and thus had led to conditions favoring a second infection of the peritoneum.

CONGENITAL ABSENCE OF THE APPENDIX VERMIFORMIS.

The specimen exhibited had been obtained from the body of a male child $3\frac{1}{2}$ weeks old. The cæcum was continued 11 mm. beyond the lower border of the junction of the ileum to the large gut, anteriorly the lower extremity of the cæcum had the appearance of a truncated cone; posteriorly the appearance was that of a blunt cone turned upon itself for 10 mm., the portion thus turned round having a blunt rounded extremity, and being fused to the body of the cæcum. From the blunt terminaton, a fine fibrous filament 9 mm. long passed upwards along the postero-internal border of the cæcum. It was attached to a continuation of the mesentery, just as is the true appendix. But while possibly this might be said to represent the appendix, it was merely a solid fibrous thread, so thin as to be almost unrecognizable, and the appendix as such could only be spoken of as being absent. In other respects the shape of the cæcum closely resembled Treve's picture of the cæcum of the Mangaby ape.

CHRONIC PERITYPHLITIS, CAUSING INTESTINAL OBSTRUCTION.

Dr. Adami exhibited a specimen, prepared and dissected by Dr. C. F. Martin, of this condition, which, but a few years ago, was thought to be not unusual, but which now-a-days as an uncomplicated condition is regarded as being distinctly rare as compared with typhlitis or appendicitis, with its sequelæ.

The specimen was obtained from a man about 35 years old, in whom symptoms of intestinal obstruction were first noticed upon October 3rd, 1895. The patient died six days later. While the patient himself gave the history of continued good health up to the time of the last attack, his wife stated that since he was nine years old he had been subject to abdominal pain, at intervals. The notes (by Dr. Colvin) are of necessity very brief. On admission to Dr. Bell's wards at the Royal Victoria Hospital, the patient presented an abdominal facies, the abdomen was distended and tympanitic, and so tender as to prevent examination. There was frequent vomiting in gushes, and the patient died within a few hours before the operation, for which he had entered the hospital, could be performed. At the autopsy, veil-like organized adhesions were found between the omentum and the abdominal parietes, as also between the large intestines and the abdominal wall. Besides this evidence of chronic and

old peritonitis, there was a general condition of acute early peritonitis, with great injection and dulling of the serous coats of the viscera, slight dry exudation between the coil, and relatively very little fluid present. In the right iliac fossa the following parts were found adherent by old dense adhesions, viz., the transverse colon, the second part of the duodenum, and coils of the ileum. These adhesions had led to narrowing of the lumina of these viscera, the narrowing was greatest at two places along the ileum, and here evidently, judging from the diameter of the intestine of the uppermost of these, the obstruction had taken place; it was, however, noticeable that the obstruction was incomplete, and as a consequence it would appear that the actual complete stoppage was due to kinking at the sharp bend of the adherent coil. There was no sign of gangrene anywhere or of perforation, and in this case, as in that first previously mentioned this evening, the acute peritonitis must be regarded as having been due to the obstruction bringing about such a condition of the coats of the intestines as to lead to the infection of the serous surfaces. Here presumably by passage outward of bacteria through the intact walls. All the adhesions met at the cæcum round about the attachment of the appendix, and here thick fibroid tissue held all the parts firmly together. The appendix, however, situated in the midst of this fibroid area showed in itself no signs of disease, save that it was bound down in a somewhat coiled fashion by the surrounding adhesions. There was no sign of constriction of its lumen at any point, of inspissated contents, or of dilatation. Its coat, when the surrounding moderately loose adhesions were removed, was smooth, and presented no cicatrices or evidences of old perforation. I have already examined not a few appendices, removed in cases of so-called appendicitis, in which, while there was abundant evidence discovered at the operation of acute inflammatory disturbance around the appendix, sections from the organ itself showed but little that was specially noticeable beyond the dilated and influenced condition of the vessels of the outer coat. The specimen here shown would seem to be an example of a possible sequela to such cases as these.

TORSION OF AN APPENDIX EPIPLOICA.

Dr. Adami brought this specimen before the Society, not because of its importance, but because it exhibited a condition which might reasonably be expected to be more frequent. The appendices epiploicæ vary greatly in extent and in arrangement. Often they are present as more or less fan-like or finger-like fatty masses given off at right angles to the circumference of the gut in the plane of the transverse axis, often, however, they are isolated pedunculated masses, as in the present instance which showed several such appendices. Here the pedicle of one had become twisted, and as a consequence there was venous arrest; the organ was turgid, hæmorrhagic, and, when first obtained, of a dark, blue-black color. Such a condition might, in the presence of any wandering suppurative micro-organisms, be the origin of a localized or indeed of a generalized peritonitis.

Dr. James Bell, speaking of the last case, said that he had been called to the country to see the patient on October 4th. There had been symptoms which set in suddenly and acutely nine days before, and a mass could be felt in the abdomen on deep pressure, which was thought by her physician to be a uterine fibroma. Just before he arrived at the house the patient fell into a condition of collapse, and no operation was then performed. She, however, rallied, and was brought down to the Royal Victoria Hospital the next evening. The abdomen was then opened, and a

Littre's hernia found. There was free pus in the peritoneal cavity, but no fæces. A perforation had taken place, probably when the collapse occurred, thirty-six hours before operation. The bowel was closed by a double layer of Lembert's sutures. For two weeks the patient did well, then for a week there was vomiting, but without other signs of obstruction; fæces and flatus passed freely. Calomel was given, which produced a copious evacuation of the bowels. The cause of death was not obstruction in the ordinary sense, and the only explanation he could offer was that suggested by Dr. Adami, viz. : that on account of the long obstruction the vitality of the tissues of the bowel wall was lowered, as well as the general vitality of the patient, and thus allowed the colon bacillus to escape into the peritoneal cavity.

NOTES ON THE MEDICAL EXAMINATION AND MEASUREMENT OF
ATHLETES.

Dr. R. Tait McKenzie read a paper on this subject.

Dr. T. D. Reed thought that the work done by Dr. McKenzie was very valuable, and should be encouraged. He had himself done work of a similar kind, but of a more elementary character, among the lady pupils at the McGill Normal School. The average age he found was 19, the height for the present year 5 feet 3 inches, which was an inch more than the generally accepted average for the age; the weight 123 pounds. The length between the finger tips with the arms stretched out to the fullest extent was half an inch less than the height, on an average. The spirometer gave an average vital capacity of 133 cubic inches, the extremes being 100 and 180 cubic inches. One pupil in nine he had found myopic; hearing and color sense invariably good, thus in 200 tested he had found no instance of color blindness, and this condition, he thought, must be very rare in women. The muscular power of the hand averaged 33 for the right hand, and 30 for the left, varying between 11 and 80. In the whole 200, at the average age of 19, only one had perfect teeth, and she had not yet erupted her wisdom teeth.

Dr. Shepherd congratulated Dr. McKenzie on a paper that introduced a subject new to the Society. It was of the highest importance that every school and university should insist on a medical examination of the pupils and students. Many boys were totally unfit to play games, especially violent games like football. As a rule, he thought that athletes did not succeed in medicine, they were shorter lived than others, and did not seem to have the reserve force that those who led a more sedentary life possessed.

Dr. J. G. Adami disagreed with Dr. Shepherd's remarks regarding the place of athletes in medicine, for two reasons: First, because of all classes, the medical profession had the shortest lives, even shorter than prize fighters; and, secondly, it was noticeable that in every university having a medical school, the "meds" led in strong sports like football; that strong men with strong vitality naturally tended to study medicine; that strong, athletic men were required for our profession, and we got them.

Dr. Shepherd said that he did not refer to the average student, but to the extreme athletes. It was not the great book-worm nor the great athlete, but the man of medium type who would succeed.

Dr. J. C. Cameron thought Dr. McKenzie was to be very much congratulated upon his interesting and important paper. He thought of even greater value was the suggestiveness of the paper. While all were agreed that exercise is useful and often essential, its value as a therapeutic

agent had not been realized or properly utilized. With regard to diet, most physicians would not deal in generalities merely, but would consider it necessary to indicate what particular articles should be taken and what should be avoided. But with regard to exercise, they were too often content to advise their patients to take more exercise, or to avoid violent exercise, without specifying the amount and kind of exercise which should be taken or avoided. But in order that suitable exercises may be prescribed for different pathological conditions, physicians must have clear ideas respecting the various convenient combinations of movements and their therapeutic effect. In this respect the paper of the evening was of great value on account of its suggestiveness. He hoped that Dr. McKenzie would continue his investigations, and that the University would recognize their importance, and provide him with a well appointed gymnasium and proper facilities for carrying on a work for which he had hown himself to be so eminently fitted.

Dr. J. B. McConnell said that this paper opened up a large subject much neglected by the medical profession as a whole, and he was glad to see that one of the members was devoting his attention to it. It was of importance in our Universities to have the physical training of the students looked after, but of even greater importance to have it looked after in the public schools, and a perfect system of exercise, he felt, would bring a great change in the standard of health; of equal importance also would be a proper physical examination of each pupil in regard to the condition of all the more important organs of the body, especially those of sight and hearing. He also congratulated Dr. Reed upon his work, as he thought that the need of proper exercise was more felt among women than among men. The female sex suffered from want of it, and they were thus often improperly developed.

Dr. R. T. McKenzie, in reply to Dr. Morrow, stated that he had classified cycling among the moderate exercises, as it did not require the prolonged strain on the heart, which holding the breath, as during heavy lifting, entailed. It was not within the power of a wrestler or a football player sometimes to avoid a severe strain, but the rider could at any time relax his efforts.

TWO CASES OF RENAL CALCULI.

Dr. J. A. Macphail showed for Dr. J. A. Springle, specimens of renal calculi removed during the previous week at the Western Hospital. The first was an oxalate stone weighing two ounces, taken from the kidney of a man aged 65 years, who had suffered from it for over thirty years. The second specimen was a right kidney removed from a woman of 28 years who had complained of colic and other symptoms of kidney stone for five years. Peri-renal abscess existed, with protrusion of a calculus through the pelvis of the ureter. The kidney substance was considerably injured by four other calculi in the sinus of the organ itself. The stones consisted of oxalates and phosphates, and weighed three ounces.

Dr. Springle was not altogether satisfied that the removal of the kidney in this case was above all criticism, yet the condition at the time of operation seemed to give no other alternative.

CARCINOMA OF THE LIVER.

Dr. J. A. Macphail showed two specimens obtained at an autopsy upon the body of a woman 67 years of age in the practice of Dr. McConnell. The one was a liver weighing twelve pounds, thickly sown with nodules of alveolar carcinoma, the other a virginal uterus carrying four sub-serous fibromata.

Dr. Macphail thought it worthy of note that this patient was unconscious by sign or symptom of either of these conditions until they were related to her by her physician four days before death.

Dr. A. L. Smith referred to a case which he had had a year or two before, in which a cancerous liver had grown to such a size that it reached down to the edge of the pelvis and almost filled the abdomen. Although the case was hopeless, he had called Dr. Finley in consultation, in order to verify the extraordinary size of the organ.

Stated Meeting, November 29th, 1895.

A. D. Blackader, M.D., President, in the Chair.

Dr. D. A. Hart, of St. Lambert, Que., and Dr. L. C. Prevost, of Ottawa, Ont., were elected ordinary members.

ADDITIONAL CASES OF PYOCYANEUS INFECTION.

Dr. J. G. Adami exhibited cultures made from these cases, and gauze dressings showing the characteristic blue color, and Dr. Kenneth Cameron reported the history of one of the cases.

TUMOR OF THE LUNG.

Dr. J. G. Adami exhibited the specimen.

SIX YEARS' EXPERIENCE IN ABDOMINAL AND PELVIC SURGERY.

Dr. Laphorn Smith read a paper on and presented a list of all the abdominal sections he had performed up to the 20th November, 1895, to the number of 143, with 11 deaths. Of these, all but eight, which were performed at the patients' own home, were done in public or private hospitals.

The death rate was shown by comparison of the statistics of each year to have been gradually reduced from 17 p.c. in 1892, to 3½ p.c. in 1895; the number of cases operated on had increased very considerably. The rate for the whole time was 7½ per cent.

These abdominal sections were performed for the following reasons :

	Cases.	Deaths.
Removal of large tumors of the kidney by the abdomen.....	2	0
Extra-uterine pregnancy.....	3	0
Large ovarian tumors.....	8	1
Abdominal hysterectomy.....	11	3
Ventral or umbilical hernia.....	7	0
Obstruction of bowels of long standing.....	2	2
General peritonitis following miscarriage.....	1	1
Tubercular peritonitis.....	2	0
Large cancerous tumors of ovaries.....	1	0
Puerperal septicæmia, cleaning out pelvic abscess.....	1	0
Ruptured pus tubes.....	1	0
Removal of appendages for fibroid tumors.....	4	0
Pus tubes.....	42	3
Cystic ovaries and chronically inflamed tubes.....	9	1
Hydrosalpinx.....	6	0
Ventrofixation, including rapid dilatation, curetting, repair of lacerated cervix and perineum, and in some cases removal of dermoid tubes and ovaries.....	43	0
	143	11

He then gave a detailed account of each case that resulted unfavorably, showing how several of them would probably have been saved if he had at that time known about the Trendelenburg posture, which has completely revolutionized pelvic surgery and converted disasters into brilliant results. Four of the deaths would have been prevented if the patients had been sent for operation earlier, the death rate being due to longer anæsthesia required in dealing with adhesions, and greater hæmorrhage when tumors had been allowed to become larger before being removed. One of the deaths was due to drainage tube infection; and one to infection by iodoform gauze packing. He no longer uses either of these devices, because they are no longer necessary, for by means of the Trendelenburg posture he was able to tie all oozing points and cover all raw surfaces with peritoneum. Three of the eleven deaths had no connection whatever with the operation, but eight of them were due to the operation. The remote results were then gone into carefully. Three cases of the 132 which recovered from the operation died from the progress of their disease within four months. Of the remaining 129 cases, one is not cured, having still an acrid discharge from the uterus, which may necessitate the removal of that organ, and 3 cases of ventrofixation are only partially cured, because they had only one ovary and tube removed when both were diseased. The latter patients now regret having insisted upon keeping an ovary in, and intend to have a second operation eventually. The remaining 125, which have nearly all been seen within the past year, are apparently cured, and many of them are in robust health. The most gratifying results were obtained from the six combined operations at one sitting, including ventrofixation, performed on 43 women. The removal of the appendages for fibroid was also highly satisfactory; the reader thought that the operation should be preferred to hysterectomy in all cases in which, by reason of the size of the tumor, the total removal of it promised to be extra hazardous. The two women whose abdomens were opened for puerperal septicæmia—in the one case the septic uterus being removed, and in the other a large pelvic abscess, walled in by omentum being cleaned out and a large piece of omentum being removed—made excellent recoveries, and are now alive and well. The former was the first case recorded in Canada of removal of the uterus for puerperal septicæmia. The removal of pus-tubes also gave excellent remote results, women who had been chronic invalids for years regaining their health and strength in a few months after the cause of their trouble had been removed. The operations, which had always been very difficult, did not, however, prove to be so fatal as he would have supposed. Two of the patients were brought to the hospital in an ambulance, with an attack of peritonitis in full blast, and yet they made excellent recoveries after removal of the pus sacs. Even many cases in which the pus tubes ruptured during removal, as well as one case in which the tube ruptured at the patient's home several times before operation, also made good recoveries. One of the extra-uterine pregnancy cases walked out of his private hospital against advice on the twelfth day, and another from the Western Hospital on the fourteenth day, and yet made perfect recoveries. He felt convinced that if all these cases were operated on before rupture, or soon after the first rupture, they would all recover.

As far as the effect upon the sexual feelings of the women was concerned, the patients might be divided into three almost equal categories: First, those who, after the operation, gradually lost all the sexual feeling which they had previously possessed; second, those who never experienced it either before or after the operation; and third, those who had never

known sexual pleasure before the operation, but gradually experienced it more and more after the diseased ovaries had been removed. About half of the latter have now strong sexual appetite several years after the removal of both ovaries. Although his experience in abdominal section for removal of large diseased kidneys was so limited, he was very much in favor of this route, because it enabled the operator to ascertain whether the patient had another kidney, and also because it allowed him plenty of room to see what he was doing and to do good clean work. One of the patients was 65 years old at the time of the operation, and is now nearly 70 years old and in perfect health. He strongly advocated leaving in the silk-worm gut sutures which close the abdomen, for thirty days, since he has been doing this, now some three or four years, ventral hernia following operation has almost become a thing of the past. He attributed his increasing success and diminishing death rate: 1st to the Trendelenburg posture; 2nd, to the A.C.E. suture and quick operating, requiring less anæsthetic; and 3rd, to his assistants and nurses being better trained and more thorough believers, as he was himself, in *absolute asepsis* from beginning to end.

THE ST. JOHN'S AMBULANCE ASSOCIATION.

His Honor the Lieutenant-Governor of Ontario presided at a meeting held at the Military Institute, November 25th, 1895, to consider the formation of a branch of the St. John's Ambulance Association for the Province of Ontario. Amongst those present were Lieut.-Col. Otter, D.A.G.; Lieut.-Cols. Mason, Hamilton and Davidson; Lieut.-Col. Macdonald, Guelph; Major Mead, Com mander Law, Dr. Meyers, Dr. Elliott, Dr. King, Dr. Chas. O'Rielly, Dr. Stuart, and Dr. Ryerson.

This Society is the Ambulance Department of the Order of St. John of Jerusalem in England, which has its headquarters at St. John's Gate, Clerkenwell, which is now all that remains of the ancient priory of the Order, built in 1504, and recently restored. This order is a revival and a continuation of the old Hospitaller Order of Rhodes and Malta. Its history has been an eventful one, both in England and abroad. It was suppressed in England at the time of Reformation as a Roman Catholic fraternity, and at Malta when Napoleon took possession of the island. In England, however, it was never annihilated; for after the suppression referred to, its members continued in communication with the headquarters at Malta, and, passing through many vicissitudes, continued without state recognition as a fraternity devoted to hospital and charitable work. In 1888 Queen Victoria granted a Royal charter of incorporation, and graciously became its sovereign head and patron, the Prince of Wales at the same time taking the place of Grand Prior. Among the many services which the Order has rendered to the public is the establishment of an ambulance society, which has now been formed here. Since the inception of this Association in 1877, upwards of 300,000 certificates of proficiency have been awarded, hundreds of detached classes have been formed, one among the police in this city, and over 300 "centres" established.

It is spread over the entire Empire, having branches in Australia, South Africa, West Indies, Madras, Bombay, Ceylon, Hong Kong, New Zealand, and at Halifax. Its objects are : The instruction of persons in rendering first aid in cases of accident or sudden illness, and in the transport of the sick and wounded in peace or in war ; instruction in the elementary principles and practice of nursing, also of ventilation and sanitation ; the formation of ambulance depots in mines, factories, and railroads ; the organization of ambulance, nursing, and invalid transport corps ; and generally the promotion of works for the relief of the sick and injured in peace and war, independently of class, nationality and denomination. It should be distinctly understood that its object is not to rival, but to aid, medical men, and with a view of qualifying pupils to adopt such measures as may be advantageous pending the doctor's arrival or during the intervals of his visits. Some idea of its necessity may be learned by the statement that in London alone in ten years, 28,071 were injured in the streets, and in England and Wales there are annually lost 2,000 to 3,000 lives by drowning, and in the mines over 1,000.

It was decided to form local centres through the province, as the opportunity may arise, and a local centre will be formed in Toronto at an early date. The formation of these centres is being promoted by Dr. Ryerson, Deputy Surgeon General, an honorary associate of the Order of St. John. Classes of not more than thirty persons are to be formed, to whom a course of lectures are to be delivered by one of the lecturers of the Association. At the conclusion of the course an examination will be held, upon passing which certificates of proficiency will be issued to those entitled to them. On no account will mixed classes be permitted, nor will a lecturer be allowed to examine his own class, so that the certificates may be awarded as an evidence of knowledge apart from any influence which may affect the lecturer.

The following officers were elected : President, his Honor the Lieutenant-Governor ; vice-presidents and members of Council, Sir James Grant, K.C.M.G., Ottawa ; Senator Gowan, C.M.G., Barrie ; Judge Weller, Peterborough ; Sheriff Murton, Hamilton ; Rev. Canon Richardson, London ; Lieut.-Col. Macdonald, Guelph ; H. Corby, M.P., Belleville ; Judge Hughes, St. Thomas ; Dr. R. T. Walken, Q.C., Kingston ; Wm. Mulock, M.P., Toronto ; Surgeon-General Bergin, M.P., Cornwall ; Henry Cawthra, Toronto ; W. R. Brock, Toronto ; Medical Director, Deputy Surgeon-General G. S. Ryerson, M.L.A., Toronto ; lecturers and examiners, Drs. Strange, Grasett, E. E. King, Stuart, Dame, Nattress, Ellicott, Myers, W. H. B. Aikens, and C'Reilly ; assistant secretary-treasurer, Dr. Campbell Meyers.—*The Canadian Practitioner.*

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Editorial.

SYMMETRICAL DEVELOPMENT.

Those who take an interest in the proper evolution of children into well developed adults concede the necessity of well regulated and constant physical exercise. Good results only follow courses of training which bring equally into action all the muscles of the body, and in such a manner that both sides of our dual organization are equally exercised. It has only been the result of generation and centuries of habit, that in the majority of people the dexterity of the right hand supersedes that of the left, and education of these limbs equally from childhood up would doubtless, in a generation or two, lead to a condition in which the individual would be normally ambidexterous. It is not only necessary that both sides of the body should be equally exercised, but of the greatest importance that absolute symmetry in shape, size and proportion should be aimed at. Hence the necessity that all physical training should be regulated by those properly qualified for such work, not only by a knowledge of the various exercises suitable for general development, but also by the possession of an intimate acquaintance with the structures and functions of the human body. It should be impressed on our school boards, and those who govern the education of our youth, that the importance of physical education is scarcely less than that of the mental; every muscular fibre has its corresponding nerve representative in the brain, and the exercise of the former means a simultaneous incentive to growth in its associated neuron, and thus indirectly muscular exercise contributes to expansion of the brain, and it need scarcely be stated that a strong, robust physical constitution is absolutely necessary

for enabling the individual to accomplish in life the possibilities of his full mental capacity. We do not doubt but that the greatest benefit would accrue to the present and coming generations, were a medical committee to constitute part of the governing organization on our educational board, who would arrange for proper individual physical examination of children on entering school, and from time to time, and which examination should extend not only to skeletal and muscular conditions, but to the various organs of the body. In this way, defects, congenital or acquired, would be early recognized and put in the way of appropriate treatment in their incipient stage. The duties of such a board would also tend to securing for each pupil the proper kind of exercise and the requisite amount indicated in each case.

But our intention in starting this article was to draw attention to an evil which will at once be manifest to anyone giving it a moment's consideration. We refer to our skating rinks, and the practice which seems to be general in this city, and probably elsewhere, of skating always in the same direction. Skating is one of the best exercises, and has possibilities in the many different movements and intricate gyrations of the accomplished skater of bringing into play all the muscles of the body, and requiring such a nicety in balancing as to tend towards symmetrical growth. But the largest of our rinks permits only of moving around in a continuous circle, with the body always inclined to the centre. As skating is possible here for some four months during the year, when it is indulged in, the continual oblique leaning in one direction brings into unequal play the muscles on each side of the body, and when it does not lead to actual deformity, undoubtedly means unsymmetrical development of the muscles and nerves. It might astonish some adept skaters to find how awkward they would feel were they to try skating around in the reverse direction. We think it very advisable that in all our rinks, at least on alternate days, the direction of skating should be reversed. Skating is one of the most advisable forms of exercise; it is so extremely fascinating that it becomes an easy means of inducing our youth to indulge in the activity which results in increased muscle, brain, lung and heart power. And hence, it should be regarded more than it is in the light of a gymnastic exercise than a pure recreation, and each rink should have a competent instructor, to direct in the various possible movements and varieties of skating, which are so comprehensive as to

meet every requirement of exercise, besides developing gracefulness of carriage, and, when indulged in in the open air and sunlight, becomes the most healthful of our recreative pastimes.

ANATOMY AND HISTOLOGY.

A separate section for Anatomy and Histology was instituted at the meeting of the British Medical Association in July-August, 1895. At former meetings anatomy was included under physiology a few times.

This is an honor for anatomy, and will tend to disperse the idea that human anatomy is a finite and will nigh exhausted science. Henry Morris, F.R.C.S., was elected president of the Section, and in his eloquent opening address, touched on many interesting points. After speaking of the deficient knowledge of the anatomy of infancy and childhood, and the late advances in the anatomy of the nervous system, he prophesies much light from the further study of comparative anatomy and embryology. From the fact that the arterial system is developed from a network of connective tissue cells, with its branches growing from the periphery towards the centre of the body, thus explaining why the blood vessels follow the connective tissue septa, and enter the organs at their sulci and fissures, he shows that so-called abnormalities of blood vessels are caused by the departure of other structures from their usual arrangement in the body. He reasons that conditions at present considered as abnormal will be explained by the students of these branches. Of morphology he speaks as follows: "So likewise it is certain that as morphology comes to be more and more pursued, it will be found to yield more and more about disease; and that in this direction the minute and accurate observation of variations in form and texture will take rank with, if not in front of, the chemical analysis of solids and fluids of the body, and the new science of bacteriology which, indeed, is a branch of morphology.

"It is impossible to foretell the extent of knowledge which may be gained by this study, and I should no doubt be accused of speaking in folly or irony if I were to predict the time would come when, by a morphological examination of the placenta, not only much of the tissue conditions of the parents at the time of impregnation and conception would be ascertainable, but that the physical, mental and moral attributes of the offspring will be fore-

“told ; so that it will be possible, in anticipation, to classify him
“with the athlete or cripple, the genius or the idiot, the total ab-
“stainer or the inebriate. Yet things quite as improbable have
“happened.”

G. F.

The *American Journal of Surgery & Gynecology* has been removed to St. Louis, Mo. Dr. Emory Lanphear, Professor of Surgery in the Women's Medical College, has been appointed Editor-in chief.

The *Medical News*, which has for more than thirty years been published in Philadelphia by Henry C. Lea and his successors, Lea Bros. & Co., has removed its editorial and publication office to New York city.

The *College and Clinical Record* will be hereafter known under the name of *Dunghlison's College and Clinical Record: a Monthly Journal of Practical Medicine*.

Book Reviews.

A Manual of Syphilis and the Venereal Diseases. By James Nivins Hyde, A.M., M.D., Professor of Skin and Venereal Diseases, Rush Medical College; Dermatologist to the Presbyterian, Michael Reese, and Augustana Hospitals; and Consulting Physician to the Hospital for Women and Children, Chicago. And Frank H. Montgomery, M.D., Lecturer on Dermatology and Genito-Urinary Diseases, and Chief Assistant to the Clinic for Skin and Venereal Diseases, Rush Medical College; Attending Physician for Skin and Venereal Diseases, St. Elizabeth Hospital, Chicago. Publishers, W. B. Saunders, 925 Walnut St., Philadelphia.

This is a book of 618 pages with 44 illustrations in the text, and 8 full page plates in colors and tints. It "has been prepared with the intent of meeting the special needs of the student and of the practitioner, rather than the expert." Containing "in compendious forms, and with detail, all practical facts connected with the study and the treatment of syphilis and the venereal diseases."

The subject of syphilis especially is one that cannot be too thoroughly understood and carefully studied by the general practitioner, manifesting itself as it does at all ages, and in every organ of the body. Its symptoms and injurious results are extremely varied, and are often not recognized as to their true cause, unless the physician is thoroughly posted in regard to its immediate and far reaching possibilities. The numerous and varied methods and avenues by which the virus may gain admission and infect the organism need to be thoroughly appreciated by the physician, who exposes himself to such imminent danger in attending such cases, and cannot be too widely taught to the community around us. Hence a work like the one before us, which gives us in a lucid, terse style and in sufficient detail everything known to date, in regard to this subject and the other venereal diseases, such as gonorrhœa, which is said to destroy more lives annually than syphilis, should be heartily welcomed by the Profession, and extensively purchased and read. Two hundred and ninety-two pages are devoted to syphilis; acquired syphilis is first dealt with. The chancre and everything pertaining to it is described, and its treatment fully given. In the evolution of syphilis, four types are given, and the stages usually described as primary, secondary, and tertiary are not accepted as representing the true chronological scheme of its course. Considerable space is devoted to syphilis of the skin. The syphilodermata being grouped under five headings, hereditary syphilis is then fully considered. Then follows an extended chapter on the treatment of this affection.

Mercury and iodine, in various forms, are recommended in numerous prescriptions, formulæ suitable for every variety of indication. In syphilis of the nervous system the hot bath, fumigation and the Turkish and Russian baths are to be avoided, being apt to produce congestion of the nervous centres. We see no reference to the Aachen method of treatment in Germany, or the benefits of treatment at the hot springs of Arkansas. An interesting chapter then follows on syphilis in relation to the family and society as to whom such patients should marry, duties of man and wife when infected, the regulation of public prostitutions, etc.

In the article on chancroid, a lengthy detailed list of symptoms are given, comparing them with chancre in parallel columns, and with Herpes Progenitalis and other disorders of the skin and mucous membranes, which will be found exceedingly useful for reference. The chapter on hypochondriasis is full of interest, and refers to a number of subjects such as impotency, the various sexual psychopathies, syphilophobia, etc., upon

which important information is given and useful suggestions made for their management. The remainder of the book (some 250 pp.) is taken up with the consideration of acute and chronic urethritis, and their complications and treatment. The latter is full, but does not recognize the possibility of cure in from one to two weeks, claiming that all abortive measures are failures.

This is not in accordance with Janet's special methods of irrigation with solutions of permanganate of potash, by which it is claimed by numerous investigators that cures have resulted in about an average of 15 days.

Altogether this Manual will be found a safe guide in this important branch of medicine, and will prove a valuable addition to the library of the active physician, who requires just such condensed but comprehensive and practical works for ready reference.

The Structure of Man, an Index to his Past History. By Dr. R. WIEDERSHEIM, Professor in the University of Freiburg and Baden. Translated by H. & M. Bernard. The translation edited and annotated, and a preface written by G. B. Howes, F.L.S., Prof. of Zoology, Royal College of Science, London. Publishers, MacMillan & Co, London and New York. The Copp Clarke Co., Ltd., 9 Front st. West, Toronto.

This is an exceedingly interesting book, brimful of interest to the advanced anatomist, as well as the medical student and graduate, and the educated public generally. It is only supplementary to the classical treatise of Darwin & Huxley, but aims at giving a general idea of the type of animal structure, and more especially the salient features in the anatomy of man which link him with the lower forms, and in that of the lower forms, which shed special light on parts of the human organism.

In the preface, the author suspects that some of the classificatory systems are erroneous from the principle of convergence not being recognized, which teaches that essentially similar definitive conditions may be independently reached, under advancing modification, along parallel lines by members of different groups of animals, and suggests the possibility that some of the characters which modern man and the higher apes have in common may have been independently acquired.

He refers to the work of the "Collective Investigation Committee of the Anatomical Society of Great Britain and Ireland," in regard to variation in man. Subjects chosen for investigation year by year are taken in hand in the leading dissecting rooms throughout the kingdom. The work of the student, becoming thus a research work, is ennobled; and the reports embody a mine of accurate information, which, edited and tabulated, is of great service to both the surgeon and the scientific anatomist.

In the introduction the progress of the views promulgated in Darwin's "Origin of Species," by means of natural selection, is traced "the theory of descent, in spite of opposition, has steadily gained ground, and its advance has been especially favored by new and surprising results attained in the three closely allied branches of science,—palæontology, comparative anatomy and embryology."

Man is proven to be one link in the chain of organic nature, and is not, as taught in the Mosaic Cosmogony, the result of a special act of creation. Although palæontological discoveries have not traced time further back than diluvial times (no certain proof of tertiary man having been obtained), this break in the record cannot in the least impair the evidence of morphology as to the real ancestry of man."

Then follows a consideration of the various portions of the animal body, beginning with the tegumental organs. The development of the

hair is traced from its first appearance in the embryo about the 12th or 13th week. Instances of hypertrichosis are mentioned and illustrated by some striking wood cuts. The greater number of these cases, he states, "appear to be due to a temporary arrest in the development of the hairy covering, and the persistence and subsequent growth in post-embryonic life of the foetal woolly covering, or lanugo."

The homology of sebaceous and mammary glands is pointed out, and the consequent possibility of all parts of the skin being capable of producing mammary glands. The existence of supernumerary mammary glands and teats, polymasty and polythety is discussed. In a similar way the development, variations and relation to similar parts in the lower vertebrates is considered in regard to the skeleton, muscular system, nervous system, sense organs, alimentary canal, circulatory and urino-genital system.

In the concluding remarks, he states that "in the course of philogeny, the body of man has undergone a series of modifications, which still in part find expression in his ontogeny. There are indications that changes in his organization are still continuing and that the man of the future will be different from the man of to-day, brought about by degeneration of superfluous organs and the acquisition of increased functional efficiency in others."

A glossary of technical zoological terms occurring in the text is placed at the end of the book. There are one hundred and five illustrations, and in the book two hundred and twenty-seven pages.

It is an intensely interesting book, containing the results of the most recent investigations in this branch of science, and written in such an attractive style that one is rivetted to its pages as to a fascinating tale of fiction.

Manual of Gynæcology. By HENRY T. BYFORD, M.D., Professor of Gynæcology and Clinical Gynæcology in the College of Physicians & Surgeons of Chicago; Professor of Clinical Gynæcology in the Woman's Medical School of North-Western University; Professor of Gynæcology in the Post Graduate Medical School of Chicago. Containing two hundred and thirty-five illustrations, many of which are original. Philadelphia, P. Blakiston, Son & Co., 1012 Walnut street. 1895. Price \$2.50.

This book differs from other books on this subject in several particulars: First, it presents it from a distinctly clinical point of view;—there are no long discussions with endless references, which, while they might show the erudition of the writer, would diminish very much the student's interest in the book; second, it is printed in two kinds of type,—a large type for essentials such as the student should master, and a small type for such amplification and addition of practical detail as may be of advantage for the practitioner, but which would burden the student's mind unnecessarily. The smaller type is appended to the paragraph, in such a way that it can be omitted or included in the course without creating confusion; third, the chapters on gynæcological technique and the principles of gynæcological treatment are more minute in their detail than is usual in such books, even to the description of many of the duties of nurses for the purpose of enabling the student to understand, and the young practitioner to conduct, the preparation and after-treatment of patients operated upon by professors or consultants,

One has only to read a few chapters of the book in order to surmise that the author is a man of large practical experience in teaching, for he seems to know just what the student needs, and in this surmise one is correct, for Dr. Byford is recognized as one of the ablest teachers of this subject in the West. We welcome it to our library, and feel sure that to the student and practitioner both it will prove of valuable service.

PUBLISHERS DEPARTMENT.

EUGENE FIELD'S LAST STORY.

In 1884 Eugene Field wrote a story which he called "The Werewolf." When it was finished he laid it aside, and a year afterward entirely rewrote it. In 1886 he again took it up and revised it, and during the nine years between that time and his death, in November last, he rewrote it eight times. His last revision pleased him, and he decided to print it. But death came too suddenly, and the story was found unpublished, among his effects. Mrs. Field, concluding to have the story appear, gave it to the editor of *The Ladies' Home Journal*, in which magazine all of Mr. Field's work, outside of his newspaper articles, was presented to the public. The story will be printed in the next issue of the *Journal*, strikingly illustrated by Mr. Howard Pyle.

The January issues of *Littell's Living Age* contain many papers of more than usual interest and value. Among others may be mentioned "Lord Salisbury," by Augustin Filon; "Matthew Arnold in his Letters," by Alfred Austin; "Kashmir," by Sir Lepel Griffin; "The Air Car, or Man-Lifting Kite," by Lieut. B. Baden Powell; "Corea and the Siberian Railway"; "Muscat," by J. Theodore Bent; "In the Wild West of China," by Alicia Bewicke Little. "1920," from the *Contemporary Review*, is a thoughtful forecast of the future growth and importance in the world of the Anglican race, and furnishes much food for thought.

Other articles worthy of prominent notice are "The Peasant Life of South Russia," from *Blackwood*; "Purcell and the Making of Musical England," by Frederick J. Crowest; "William Blake," by Alfred T. Story; "Fighting Thurlow, his Foes and Friends," by W. P. Courtney; "The Lost Ambassador," by Margaret Howitt; "Recollections of Thomas Carlyle;" with many others of scarcely less value.

Fiction is well represented by short stories from the pens of M. B. Hardie, John Habberton, I. Hooper, etc. A page of the best current poetry accompanies each number.

The busy men and women of to-day, who demand the best that the literary field can supply, will find *The Living Age* as fresh, timely and indispensable as ever. LITTELL & Co., Boston, are the publishers.

Six Hundred (\$600) Dollars in Prizes.

The special attention of our readers is called to the advertisement of the Palisade Manufacturing Co., with the above title on page 1 of this issue.

The prize contest which this well-known firm announces will no doubt attract a great deal of attention, and result in the submission of many articles of merit on "The Clinical Value of Antiseptics both Internal and External". The prizes are extremely liberal, and the well-known professional and literary eminence of Dr. Frank P. Foster, the talented Editor of the *New York Medical Journal*, who has kindly consented to act as judge, is a sufficient guarantee of the impartiality to be observed in the awarding of the prizes.

We are assured that there is absolutely "no string" attached to the provisions of this contest, and any physician in good standing in the community is invited to compete on equal terms with every other competitor.

Further particulars as to conditions, etc., can be obtained by addressing the above-named firm.