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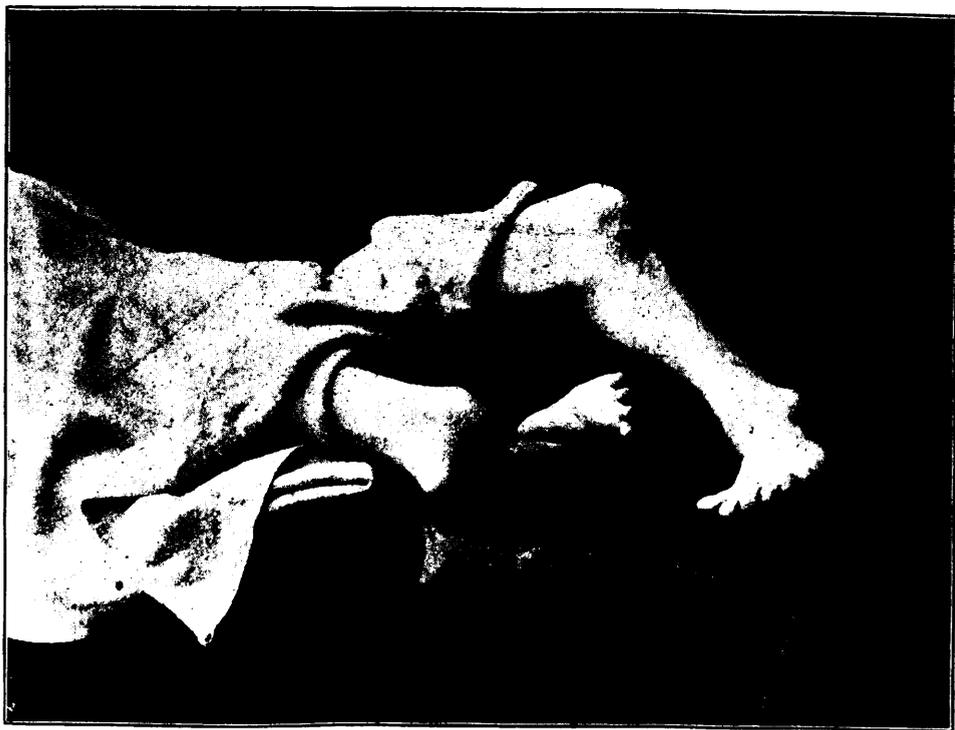
## ORIGINAL ARTICLES.

### A CASE OF DEFORMED LEGS.\*

By G. A. BINGHAM, M.D.

Surgeon to the Toronto General Hospital, St. Michael's Hospital, Sick Children's Hospital, etc.

G. T., male, age 14 years, born at Uxbridge, Ont., was admitted to the Hospital for Sick Children on January 21st, 1901. Family and pre-



vious history are unimportant. His present condition is as follows:—  
Strong, well-nourished boy, with bright complexion. Upper half of his

\*Reported by Dr. E. S. Ryerson, House Surgeon, Hospital for Sick Children.

body is unusually well developed, being very muscular in his arms. Circulatory, respiratory, nervous and genito-urinary systems are all normal.

Right leg,—the femur and patella are normal in their relations. The leg is rudimentary, but one bone being present and forming the prominence at the knee and external malleolus. There is a dislocation of the leg outwards at the knee, so that the whole surface of the inner condyle of the femur can be plainly felt beneath the skin. The leg cannot be extended beyond a right angle, but can be fully flexed. The foot is rolled inwards at the ankle so that it lies on the inner side of the lower extremity of the leg, with the sole looking upwards. There are only four metatarsal bones and four toes. The muscles are small and flabby from lack of use.



Left leg,—is normally developed; the knee is quite normal with some undue prominence of the head of the fibula. The bones of the leg are twisted spirally, as if the knee had been held firm and the foot forcibly twisted inwards. Both malleoli are very prominent, the inner bone being on a much lower level than the outer one and being the part of the foot which is walked upon. The foot is turned inwards. It is dislocated upwards between the tibia and fibula, causing a limitation in the movements at this joint. The metatarsal bones are curved with the concavity on the inner side of the foot.

On January 29th the patient was anaesthetised and the right leg disarticulated at the knee, using the Stephen-Smith flap method. An excellent stump resulted, the flaps meeting well behind the knee.



For some years the patient has been accustomed to walking on crutches, which were merely single poles with axillary pieces. The right foot was twisted around the crutch and could hold it almost as well as a hand. The left foot was walked on, the internal malleolus bearing most of the weight.

On February 12th he was again operated on. An incision was made on the inner side of the leg over part of the tibia which was most slender. An osteotomy was done on the tibia with difficulty as the bone was very hard and ivory-like. The deformity could not be overcome, so the fibula was also divided. When both bones had been broken, the foot was twisted straight and put up on a posterior rectangular splint.

On March 5th leg was taken off the splint and put up in plaster of Paris. There was some union of bones but not enough to support the weight of foot.

On March 26th a subcutaneous tenotomy of the tendo Achillis was done and the foot brought more to a right angle with the leg. It was put up in Plaster of Paris again.

On April 24th tendo Achillis was again divided and the foot brought still more into position.

The position of the foot at present can be seen in Fig. 3. The bones have united firmly.

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## THE DRINK EVIL.

By NOAH E. ARONSTAM, M. D. PH. G.

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LOUIS J. ROSENBERG, L. L. B.

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Wine-making and wine-drinking have as most things been discovered by accident. An earthen vessel containing some half-crushed grapes was forgotten somewhere in a nook and left to ferment. The youngster ever looking for mischief and adventure has given the effervescent beverage due relish and partially intoxicated, came back to his parents. Upon the discovery of the cause of the child's intoxication, the parents too were not loathe to partake of the potion, experiencing of course, the same exhilarating effects. Thus drinking and the making of drink occurred simultaneously and ultimately developed into an established habit.

The history of drinking and its habits are very ancient. The discovery of alcohol, like the invention of gun powder, may be ascribed to the alchemists and monks of the 12th century. The credit of first making liquors from fermented grain, belongs to the Arabians. The first case of inebriety is related in the Bible, (Gen. IX, 20, 21.) The Spartans, in order to make manifest the abominable effects of drunkenness exposed their slaves while in a state of intoxication, to the disgust of the spectators. Heroditus as early as 500 B. C., had cause to protest against a strongly prevailing inebriety. "Drunkenness," he said, "showeth that the mind and soul were sick." Rome, once the mistress of the world, caused its ruin by the adoption of Bacchannalianism. The fall of Hannibal's army was due to the wines of Capia.

Alexander, the Macedonian, the military wonder of antiquity, was cut off from his career at an early age by the indulgence in wine at one of his celebrated feasts. So too, can the decline of Assyria, Persia, Babylonia, Macedonia and Greece be ascribed to too much wine drinking.

Nor was wine the only beverage of ancient times. The famous historian, Tacitus, states that ale and beer were much in vogue among the Teutonic tribes of his period. The ancient monastery, like the one near the Wartburg, immortalized by Scheffel in his "Ekkehard," did not altogether abhor the use of spirits. The conquering Huns too soon acquired a strong taste for liquors. Even so great a man as Martin Luther had the boldness to assert that without *wine*, song and woman, the wisest man remains a fool.

This brief historical review sets forth the universality of the drinking habit. How this habit has in time established its control will now be the effort of our inquiry. As long as human beings were unaware of the effect of this great stimulus, alcohol, no additional measures were demanded to sustain activity. The knowledge of the action of spirits has given man a means wherewith he may become more daring and

potent. The force of this habit varies with governmental systems, inevitable fatalities, industrial pursuits, and the presence or absence of artificiality. As long as a nation is free from internal discrepancies, as long as the organism is aware of its mission, stimuli are unnecessary. Should disunion attack the national spirit, should individualism come forth in its naked and brutal facies, stimuli, at once, recommend themselves and thus nations sometimes become victims to debauchery. As a corroboration of this statement, we refer to the Reign of Terror. So too, the ingression of certain national catastrophies mercilessly decimating the ranks of communities is an efficient cause for the establishment of the habit of drinking. We see this well illustrated in the outbreak of the plague which occurred in the Thirteenth Century, and the terrestrial cataclysms like the one seen in the outbreak of Vesuvius and that of the Lisbonic earthquake. Further illustrations are the Thirty and Seven year wars. Again, the demands which agriculture, industry and the strain of a constant and incessant progress put upon man, exhaust his vital forces and weaken the great nerve centres. As long as ordinary work compensates the wants of Nature and the arising necessities, stimuli are not necessary, for Nature compromises *per vis resistentiae naturae*. With the advent of altered environments and the demand for more expenditure of force, stimuli become indispensable and man is compelled to resort to the first best artificial invigorator, alcohol.

Though the drinking of spirits may not amount to a habit for some time its constant repetition, augmented by worry, work and unsatiated ambitions may develop into a craving. Accompanying this craving, the organism undergoes a retrograde metamorphosis, a devitalization, until it finds that natural means and ways are no longer suitable to sustain the demands of the economy. Hence a path of perverted functional activities is opened; a lack of force throughout the body is manifested, which cannot by all possible efforts assimilate the pabula for its nutrition and further maintenance. Thus human beings grow artificial; the various organs and structures must be continuously urged and encouraged to functionate; fear for work, monotony of life, indolence and languidity of both body and mind are the usual sequences of such a state of affairs.

Again, artificial stimuli of any sort are conducive to certain pathologic states in the central nervous system. On the one hand, the nerve cells which by the use of intoxicants, lose their resiliency and no longer responds to the central wave of nerve force and conductability, but remain in a state of passivity amounting almost to total inaction. On the other hand the force resulting from the periphery does not reach the neuron, and cannot therefore be transmitted to the great reservoir of energy—the brain. Man thus acquires a perverted, unresponsive nervous mechanism, which demands a constant artificial stirring, a continuous oiling of the wheels of the machine, i.e. a repeated consumption of the stimulating agent, which finally leads to an ineradicable habit, a morbid taste, a second nature.

Doctor T. D. Crottes puts a great deal of stress upon what he calls "hereditary inebriety," claiming that "the hereditary inebriate is born

into the world with a low power of vitality and states of central brain exhaustion, which are ever seeking relief; and alcohol, by its narcotic action, supplies the demand. This impulse to degeneration may pass down one or two generations before appearance as inebriety again." We however, cannot concede to the existence of a so-called hereditary inebriety, notwithstanding the plausible and scientific precision Dr. Crottes would like to stamp it with. A direct parental transmission of inebriety, or rather of the drinking habit is just as impossible as the direct parental transmission of morphinism or cocainism. Still, to do away altogether with his theory would be unjust. To be sure, inebriate parents may transmit defective morbid impulses, an abnormal mentality, a debilitated body, a perverted nervous mechanism and mal-developed organs, which will but imperfectly perform their offices but *never* can such parents *directly* implant the morbid desire for any stimulus, particularly so for alcohol.

Having obtained some glimpses of the history and the causes of the drink evil, we may now appropriately ask, what is alcohol? To answer this question we must first analyze its chemical composition, and secondly investigate the range of its activities.

Alcohol is an organic substance belonging to the group of hydrocarbons, in which the radicle hydroyl is chemically incorporated with the base ethyl. That is to say, it is a hydrate of ethyl, or ethyl alcohol— $C_2H_5OH$ . Chemically, therefore, it contains all the elements entering into the composition of starch and sugar substances so absolutely necessary for nutrition and for the creation of heat and force. Thus we see that alcohol contains the elements of a food. Whether it really is such we shall now critically examine.

To carry on this investigation with tolerable precision we must ask ourselves, what is a food? This may be defined to be a substance which, when ingested, furnishes the body its natural constituents, or contributes to the elaboration of available force and heat, thus acting as a nutrient. Nutrients, again, are of three kinds:

1. Nitrogenized or albuminous food stuffs,
2. Carbo-hydrates or starches, and
3. Hydro-carbons or fats.

The first kind lends to the body its musculature and force, the second kind furnishes it with heat and force, and the third kind contributes to the rotundity of the body and gives tone to the nervous system by supplying it with phosphorized fat.

Judging alcohol from chemical composition we find it to simulate the starches very closely. That the latter are the chief sources of heat and energy cannot be disputed. Now, the question arises, is this equally true of alcohol? We will answer this by describing its physiological action. But before doing so it may not be amiss to state that the ingestion of starches and sugar indirectly contributes to the formation of alcohols and ethers within the gastro-intestinal tract, being absorbed as such. At a first glance at the formula of starch or sugar we notice that they can be readily converted into alcohols by the primary action of acids, and the secondary neutralization of the salt by alkalies found

in the alimentary tract, thus giving rise to a higher or lower series of alcohols. We now return to our description of the physiologic action of alcohol.

Small doses of alcoholic beverages, when taken before meals, will invariably stimulate the appetite, augment the gastric secretion and favor peristalsis. After having exerted its action upon the alimentary tract it is absorbed and enters the circulation. There it is attacked by the oxygen-carrying erythrocytes, which convert it into heat and energy, simultaneously liberating carbon dioxide and aqueous vapor by the pulmonary and integumentary apparatus.

Alcohol is thus completely assimilated by the economy and utilized as a means for calorics. Hence alcohol could be classed among the foods. Still the amount of alcohol which undergoes combustion is very small compared to that which remains in the system and produces the well-known re-action. True alcohol upon coming in contact with the medullary centers will invoke an increased activity of the respiratory and circulatory functions which would undoubtedly lead to the inhalation of a greater supply of oxygen. The red blood cell, however, tasked to the utmost, finally assumes a semi-paresis, so to speak. To be sure alcohol primarily will stimulate the function of the central nervous system as well as of the vaso-motor apparatus, thereby augmenting the diverse secretions of the body, temporarily stimulating the mind, intellect and imagination, creating a powerful influence upon the various emunctories of the organism, in short, producing a *bien être* of longer or shorter duration. In this manner it indirectly contributes to the nutrition of the body. As already intimated the red blood corpuscles are deprived of their normal stability; they can no longer carry the vitalizing oxygen as thoroughly as before. Their motility is considerably diminished and the body enters a state which has been termed sub-oxidation. Individuals grow fat and this obesity also involves the manifold organs of secretion and excretion. The liver, spleen, kidney and heart undergo fatty infiltration or degeneration. The brain too, participates in the bodily confusion and mental deterioration is its direct sequel. The beverage continued, the misery increases, and we finally enter into a state of affairs where body and mind no longer co-operate effectively. A shattered nervous system, a depressed circulation, an advancing mal-nutrition brings about pathologic states and structural lesions in the nerve unit.

Still, happy for those who so end. Much woe and endless misery to the many who fill our prisons as criminals paying the indemnity of alcoholism. Again, were the disaster to end right here we would perhaps say, "forebear;" but alas, in countless instances, inebriate parents transmit all their moral and physical infirmities to the offspring, which infirmities are not infrequently conducive to many a criminal tendency. Doctor Louise E. Rabinovity, of Paris, France, has made an examination of the relation of criminality in the offspring to alcoholism in the parents. This examination has revealed the following statistics: The Alosys Asylum, of St. Anne, Paris, shows an average of 50 per cent. in which criminal children can be traced to the existence of alcoholism in the parents; the Elmira institution at Elmira, N.Y., shows a percentage of 48 ascribed to the same cause.

Vagabondism, too, is almost solely due to the continuous indulgence in liquors.

This completes our discussion of the bio-pathologic aspect of the drunkard. We shall now proceed to give the general rules expressing his *legal* status.

Lord Coke classed all drunkards under the class of *non compos mentis*. Hence all contracts entered into with drunkards were void. This was the common law. Nevertheless, strangely enough, drunkards were held to be responsible for all criminal acts without any reference to the *intent* or *consciousness* of such acts. In fact, drunkenness was usually considered an aggravation of the crime. (See Frost case, 22 St. Tr. 472, Rex vs. Carrol, 7 c. and p. 115. See American decisions, People vs. King, 27 Cal. 507, State vs. Johnson, 40 Conn. 106).

At the present time, contracts made by persons intoxicated, whether voluntary or involuntary, are not void but voidable, at the option of the party intoxicated; provided, of course, he is able to show that he was so intoxicated as to have incapacitated him from making the contract. The drunkard's criminal status has also been materially changed. While voluntary drunkenness is no excuse, it never aggravates an offence. (See McIntyre v. People, 28 Ill. 514.)

Drunkenness may also be cited to show the degree of the crime, as in a prosecution for maliciously shooting, evidence that the defendant was so intoxicated that he could not form an intent to wound, is admissible. So too is it admissible to show that drunkenness made him physically unable to commit the crime. (Ingalls vs. State, 48 Wis. 647).

Intoxication is always available to disprove a specific *intent*, such as passing counterfeit money with intent to cheat, or an assault with an intent to murder, or to do bodily harm and the like. (Roberts vs. People, 19 Mich. 401, Real vs. People, 42 N. Y. 270.)

Of course, it need not be emphasized that if a person be made drunk, by fraud or stratagem of another, he is not responsible for his acts. This is certainly understood. So too, he is not responsible if he is made drunk by the unskillfulness of his physician. And a man, owing to temporary debility or disease, maddened by the quantity of wine which he usually takes in his normal condition, is not voluntarily insane, and hence not responsible. (Roberts vs. People, 19 Mich. 401; State vs. Johnson, 40 Conn. 136).

We have now discussed almost all the vital points of the subject. From all that has been said hitherto, the disastrous effects of alcohol are prominently evident. The tendency of alcohol to undermine the body and mind has always been alarming. The homes that it has marred, the affections that it has robbed, the happiness that it has destroyed are both multitudinous and appalling. This being so the State has been requested to suppress the liquor traffic. The advocates of these suppressive liquor laws, as we may call them, usually give something like the following arguments as reasons for their adoption :

(a) The aim of the State has been from time immemorial the production of the greatest happiness for the greatest number. Intemperance destroys happiness, hence the State ought to suppress the liquor habit.

(b) Every individual owes liberty to the other, and no one ought to be permitted to carry on a business which directly or indirectly causes man to hamper or obstruct the stream of liberty.

(c) That the liquor traffic is very invasive, always expanding beyond its assigned limits.

(d) That it is nothing more than a luxury, not a necessity. And like all luxuries, the supply creates the demand and not the demand the supply.

These arguments have met with some success, and a number of cities and states have adopted prohibition laws. The first prohibition state was Maine, adopting those laws in 1851; next was Vermont, in 1852. In New Hampshire it was adopted in 1855, but as to its sale only, not as to its manufacture. Later on, Rhode Island, Kansas and Iowa and a number of counties in most of the other states have also adopted prohibition laws.

The pro-liquor element, on the other hand, strongly opposing both suppressive and restrictive liquor laws, usually advance these arguments:

(a) Suppressive or restrictive laws curtail the liberty of a certain number of individuals, while it makes others guardians over such individuals.

(b) That it encroaches upon the management of a business which supplies a demand or luxury to a certain number of consumers, and which by so supplying them, employs no more fraud or illegitimate adroitness, than any other commercial enterprise.

(c) That reformation if any at all is necessary, should be carried on among the consumers rather than among the suppliers; for as long as there is a demand for an article there will surely be a supply. To rid the world of liquor you must destroy the demand.

These two set of advocates constitute the extremists. Besides these extremists there is another class which we may term the "high license class." This class comprises the greater number of the reformers of the liquor problem. Their theory is that far-off idealism must give way to practical expediency. Until the total suppression of liquor will find favor with the majority, we must satisfy ourselves with restrictive measures. The hour is too late to question the magnitude of the liquor traffic and the power of the liquorelement. The national outlay for liquor is estimated to be over a thousand million per annum. The vote of the liquor element of Greater New York alone is about 150,000. A third of the members of the legislatures is composed of men sent by them. A third of the saloons are headquarters of political clubs and assemblies.

(a) They therefore argue, that high license tends to decrease the number of persons conducting the liquor business, thus weakening their influence in affairs governmental.

(b) It brings the traffic under the control of more or less responsible individuals.

This scheme of high license has found favor in the majority of the states.

In addition to the several classes mentioned, there are also those who would have the liquor traffic as a governmental monopoly. There are

also religionists, and a host of others too numerous to mention, who are incessantly seeking the reformation of inebriates by prayers, establishments of missions, etc.

It is certainly true, as the pro-liquor advocates claim, that the liquor business is no more illegitimately conducted than most of our other commercial pursuits. It is also true that alcoholic beverages are mainly consumed as luxuries. Nor can it be denied that high license is of great beneficency. So too are we unable to deny that moral suasion has been of some use in certain individual instances. Still there is much in the doctrines of each and all of those advocates to which we are forced to take exception.

If the State is not to interfere with the management of the liquor traffic, because in doing so it may curtail, as the pro-liquor element put it, their liberty, it will have to take "hands off" so to speak, of almost everything within the domain of human conduct. The worst criminal could use the identical argument with the same amount of logic. "What right has the state to interfere with my private affairs, it is a curtailment of individual liberty," --might he well argue. Again, should the State endeavor to do away with the entire liquor business, it is reasonable to expect that by doing so, the State will not only become tyrannical and involved in the destruction of private property, but will really "beat its own head against the wall. For, an absolute prohibition of liquor at the present time is bound to make men more persistent to use it. Stolen fruits are always sweet. Again the high license method, while it may sometimes be an improvement, often encourages ardent efforts on the part of the liquor men to become potent. So too, government monopolies are more often a failure than a success. Take for instance Russia as an illustration. There it is in vogue more or less, yet there are not the least signs of the decrease of drinking. So too, religious workers have never been of much effective service, as Mr. Augustin Abbott in his "Necessity for Medical Supervision of Criminal Arrests", read before the Medico Legal Congress, September, 1895, rightly said: "Moral suasion has been tried and though it may have prevented much and cured some individual cases, it fails to accomplish the service which the community needs."

The same author concludes the paragraph by asking: "Is it not time now that scientific suasion should be tried?" This query must be answered in the affirmative, for it is indeed scientific suasion and scientific suasion only that could lead us to the proper solution of this much vexed problem. Science and Science alone, "can instruct the community how to deal with it by measures directed towards diminishing the sources. It would be futile in the present state of public opinion to propose measures for prophylactic treatment of crime, but is it premature to propose such measures in a practical form in respect to dealing with inebriety?"

The last sentence is a question put by Prof. Abbott. In answering the same we would state that it is *not* altogether premature to propose measures for prophylactic treatment of crime, much less is it to propose such measures in a practical form in respect to dealing with inebriety. The main remedy is beyond question in the nature of a prophylaxis.

It is, however, but practical to have some regulations of the liquor traffic in addition to our preventative measures. The following regulations of the liquor traffic have met the approval of the most-thorough students of the problem.

- (1) First, moral qualifications for licensees.
- (2) Second, limit to the number of licensees that is to say, grant no license to a new saloon keeper unless a vacancy has occurred by the going out of business of another. This measure is in vogue in Pennsylvania, Boston, New York, etc.
- (3) Third, liability in damages, that is to say, for all injuries sustained, the saloon keeper should be pecuniarily liable to the parents and guardians of the minor, and to the wife and family of the man. This measure is now in force in almost all the states of the union.
- (4) Fourth, rules of sale; i. e. one should be allowed to sell liquor and run some other in business in conjunction with it; nor should anyone be permitted to sell liquors to minors, aliens, women, and habitual drunkards; nor on any holiday; and on no day later than 11 p. m.
- (5) Fifth,—a special tax should be imposed upon all the manufacturers and vendors of liquor to defray the expenses of asylums built for the treatment of alcoholics and dipsomaniacs.

So much for the regulation of the traffic of liquor; and now, a word on the treatment of inebriety. The benefit derived from drugs is questionable, for the craving remains as intense under the exhibition of medicines as without it. Still a tonic course of treatment may be tried, preferably the bitter tonics and mineral acids. In no wise should a physician adopt such a regime, which is apt to eventuate in a new habit, thus substituting one craving for another. Good hygienic and sanitary surroundings and out-door exercise should go hand in hand with the above treatment.

Hospitals for inebriates and asylums for dipsomaniacs should be instituted in every community by the Government. The benefit of such institutions has long ago been proven. The first asylum for inebriety was founded in 1854 by Dr. J. E. Turner, and assisted by the renowned surgeon, Dr. Valentine Mott. Since then, there have been established many institutions of like nature. Few of them, however, have accomplished their designed purports. In many of them the attendants get no salary, and as a result the patient receives very inefficient service. Some of these asylums, again, are not properly graded. Institutions of this sort should employ nine but the most competent assistants and should be graded according to degree and severity of the malady.

In order to ascertain the grade to which the particular inebriate belongs, the aid of the physician and probation officer should be invoked. Probation officers should be appointed in every fairly populated city, who should investigate for the information of the court, the previous records of persons arrested for drunkenness, should keep records of such investigation, and also of all cases placed on probation.

Still, as we have said before, all these measures do not go to the root of the evil. While such institutions as the Washingtonian Home, Boston, Massachusetts, or those that we have in mind and have described

above, may have cured some hard cases, the main remedy is in the nature of prophylaxis. Though these institutions are so, to some extent, that is to say, they do prevent the spread of the disease, yet they are mainly for those already afflicted. To prevent the visitation of inebriety upon future generations, we must not only establish such hospitals as above mentioned, but institutions that will take the place of the saloon.

We all want stimulation and recreation. Recreation is change of tension. Bodily and mental fatigue is best treated by variety. Furnish us with mild and innocent stimulant, and the more dangerous one, liquor will fall in disuse. Free concerts and public theatres of an instructive and entertaining nature, superintended by a committee of literary men appointed by the municipality may be conveniently established. Public clubs, where debates and games are held, and finally and mainly, social guilds, should be built in various parts of every city.

In conclusion, we cannot do better than express our hope with Dr. Quimby, that: "the irrepressible conflict now inaugurated between drunkenness and sobriety" will go on "until that righteousness which exalteth a nation shall prevail."

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## SELECTED ARTICLES.

## IMPERFECT OR DEFICIENT URINARY EXCRETION AS OBSERVED IN CONNECTION WITH CERTAIN DISEASES OF THE SKIN.

BY L. DUNCAN BULKLEY, A.M., M. D.,

Physician to the New York Skin and Cancer Hospital; Consulting Physician to the New York Hospital, etc.

The relation between the skin and the secretion of the kidneys is a matter of every-day observation in general medical practice. All are familiar with the temporary changes in the urine which may take place from a chilling of the surface, and all are equally familiar with the relief given to congested kidneys by free diaphoresis.

The converse, however, has not been as freely recognized and known, and the relations of the kidney secretion to the integrity of the skin and its functions have not been as clearly demonstrated; nor, indeed, can this be expected until more data have been collected.

It is with a view of contributing to the subject that I wish to present a study of two thousand analyses of the urine of skin patients, which have been made in my office during the last ten years, mainly by my associate, Dr. H. H. Whitehouse, to whom I am also indebted for much laborious effort in their subsequent compilation and analysis. I may state that these urinary analyses were not made with any view to such a study as the present, nor to demonstrate any particular point in medicine, but simply in the ordinary run of my private cases, in order to better direct their treatment.

Nearly twenty-five years ago the present writer called attention to "The Relations of the Urine to Diseases of the Skin,"\* giving analyses of over three hundred specimens, relating to a hundred and more patients, and since that time he has constantly employed urinalysis as an efficient aid in the understanding of the general physical condition of many of those exhibiting disease on the skin. During the earlier years the analyses of the urine related mainly to the specific gravity, acidity, albumen, sugar and microscopic elements; but for the last four years they have been much more complete, including urea, the determination of the percentages of the various salts of the urine, also observations as to indican, urobilin, etc., as will appear later; nearly a thousand of these later, very complete, analyses have been made.

In most instances analyses were made of two specimens at each time, one of the urine passed on retiring at night, and one of that passed on rising in the morning; in some instances there was an analysis of a sample of the total urine voided in twenty-four hours.

It will be observed that the title of the paper refers to "imperfect or deficient urinary excretion," and not to actual disease of the kidneys, and our study relates rather to functional derangement of the urinary secretions, many of which are quite within the limits of moderately good

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\* *Archives of Dermatology*, October, 1875.

health. Indeed, it is a little remarkable how very seldom there has been found real kidney disease, manifested by albumen, or renal casts, or glycosuria, although all these features have been diligently searched for. Our studies, therefore, relate mainly to kidneys not organically diseased, and fortunately so, for the results of our therapeutics.

But a consideration of the changes which are found in the urine from kidneys not organically diseased may often be of the greatest importance in regard to the life and health of the patient, as indicating the manner in which the processes of assimilation and metabolism are carried out; and in this way I regard them of the greatest value in connection with the proper care of patients affected with many diseases of the skin.

It is understood that I do not claim that the urinary changes to be spoken of are the direct cause of any of the diseases referred to; but experience has shown that they do enter as a factor in the proper understanding of the physical condition of the patient, and are often directly associated with exacerbations in the skin trouble. It is also to be understood that these alterations in the urinary secretions are not generally to be considered as evidences of faulty kidney action so much as of errors of metabolism in the system, often dependent upon disorder of the stomach, liver, or other organs connected with digestion and assimilation.

Although the kidneys have undoubtedly independent secretory powers, they must in the main be looked upon largely as filters, whose office is to remove from the blood-current the products of metabolism, or effete matter, whose longer retention is injurious to the system; and in the character of the secretion we discover the manner in which the life processes of the body have been carried out. If the blood which comes to the kidneys has not been properly prepared, if antecedent processes of assimilation and disassimilation have not been properly carried out, the secretion from the kidneys cannot be such as belongs to perfect health. And it is here that the relation between the kidney secretion and certain diseases of the skin becomes of interest and importance; for it cannot be denied that a proper condition of the blood is necessary for the proper nourishment of all portions of the body, including the skin.

It is recognized, of course, that there can be very great variations in the quantity and quality of the urine, which are quite within the limits of fair health. It is also recognized that errors in the action of various organs often adjust themselves spontaneously. It is recognized that in many instances the faulty condition of the urine found is only the effort of nature to rid the system of imperfectly elaborated material. But with all this, it is believed that the blood conditions thus shown are of importance as indicating the state of nutrition and of the skin; and clinical experience has shown that certain lesions on the skin do vary more or less, according to the condition of the urine.

The manner in which systemic derangements exhibited by disordered or deficient urine operate in influencing changes in the skin, is not as yet by any means determined. I cannot wholly subscribe to the doctrine of Haig, that they are due to capillary changes excited by the presence of

uric acid circulating in the blood. While many of his clinical observations in regard to the concurrence of certain symptoms in various organs are most excellent, the researches of others seem to point to some doubt in regard to the actual circulation of free uric acid in the blood; but the fact remains that with deranged urine we do frequently have changes in the skin as well as in other organs, which pass away when the urine shows that these systemic derangements have been corrected, whether by medicine, diet, hygiene, or even by the recuperative processes of nature.

Imperfect and deficient urinary secretions can be manifested in many different ways, and all of them should be appreciated and considered in order to rightly estimate the relations which they may bear to diseases of the skin or other organs. Not only is it important that the chemical ingredients of the urine should be in the proportions belonging to health, but it is also essential that the individual should pass them in sufficient quantity; and this is a matter which is often not attended to. In numbers of my patients who stated that they passed sufficient urine, it was found on actual measurement that the quantity was not one-half the normal amount; and continually it was found that the daily excretion of solids was far below the normal standard, occasionally not more than one-half the proper amount was being passed.

In recent papers\* I have called attention to this deficient kidney excretion, and have given a table for the calculation of the solids which should be passed in health for different body weights of women, which is as follows:

Relation of body weight of women of average health to total daily secretion of urinary solids:

Weight, pounds.	Total urinary solids, grains.	Weight, pounds.	Total urinary solids, grains.
90	500	135	815
95	535	140	850
100	570	145	885
105	605	150	920
110	640	155	955
115	675	160	990
120	710	165	1,025
125	745	170	1,060
130	780	175	1,095

These figures for women do not represent much active exercise and with increased bodily exertion the solids passed should be materially more; men excrete about one-tenth more than women. There are also less urinary solids passed with advancing age, and about 5 per cent may be deducted for each ten years after forty.

It is not a very difficult matter to carry out the plan of learning the total daily excretion of urinary solids if it is rightly arranged. I have long had it done daily in many instances, and in others at stated intervals. An ordinary two-quart mineral-water bottle is used, with a strip

\* Transactions Medical Society of the State of New York, 1897; *Journal of the American Medical Association*, January 8, 1898; *New York Medical Journal*, November 5 1898.

of paper or adhesive plaster on the side for a scale. This is graduated by filling the bottle from a two-ounce measure and marking off each two ounces; the space for the intervening ounce can be divided by the eye. A glass funnel is kept in the mouth of the bottle, by means of which the urine can be poured into it as passed. The index is read off, the amount recorded, and the bottle emptied at the same fixed hour every day, a sample of the whole being sent to my office, with the statement of the total amount passed in the twenty-four hours.

From the specific gravity of the sample the total amount of solids passed in the day is easily estimated by Haine's modification of Hasser's methods, which is as follows: *Multiply the last two figures of the specific gravity of the urine by the number of ounces voided in twenty-four hours, and add 10 per cent. to the product.* Thus, if the amount passed in twenty-four hours was 36 ounces, and the specific gravity 1.021, it would be  $36 \times 21 = 756 + 10$  per cent. = 831, the number of grains of solids in the whole amount. By comparing this with the table it can readily be ascertained if the amount is above or below the normal standard for the body weight of any patient.

But it is also very important that the *actual quantity* of the urine should be correct; for, even with a proper daily excretion of solids the life-processes are not properly carried out when the quantity is scanty and the specific gravity high; many symptoms of ill-health will often be found to disappear when there is a free flow of urine, of an average normal density. This has been repeatedly observed in many of the cases forming the basis of this study. The specific gravity and acidity of the urine are thus often of the greatest value as indications of the manner in which metabolism is carried out in many patients with diseases of the skin. The same is true with regard to observations as to the urea, indican, etc., and microscopic sediments also often furnish most valuable indications, as all recognize.

Very much could be said in regard to the possible or probable effects resulting from different and special changes in the composition of the urine, which would lead far beyond the proper scope of this paper. We are not yet in a position to indicate the exact relation of them to disease on the skin, and more observations are needed to enable positive deductions to be made. But of this I am positive. By means of them there may often be detected errors in the processes of nutrition, which might otherwise escape recognition, and a little practical experience will often enable one to utilize the knowledge thus gained very effectively in the management of certain diseases of the skin.

The two thousand urinary analyses which form the basis of this study were made upon the excretion from 569 patients, 265 males and 304 females, of all ages. They relate to patients with most varied diseases of the skin, over fifty different affections being represented. In many instances but a single examination was made, of the morning and night specimens, because of some clinical indication or thought of a possible urinary derangement. In many other instances repeated analyses were made, often extending over long periods, during treatment, and the results of remedies observed.

The specific gravity varied from 1.045 to 1.003; and of 1816 analyses 463, or over one-fourth of the whole number, gave a specific gravity of 1.030 or over, while there were large numbers with a recorded specific gravity of 1.026 to 1.030. There were but 51 specimens with a specific gravity of 1.010 or under.

The reaction of the specimens varied greatly. With an oxalic acid equivalent in 100 c.c., a percentage of .3 being about normal, the specimens ranged from the highest, .6804 in a case of eczema to neutral or even alkaline in rare instances. While high grades of acidity were very common, there were also many specimens far below normal, and many striking contrasts between the morning and evening specimens were observed.

It is surprising that albumen was found so seldom, it occurring in but 62 specimens, relating to 26 patients, in the entire 1816 complete analyses. In a number of instances where the urine was below 1.010 there was no albumen, several of these having a specific gravity of 1.003 and 1.004. Nor was sugar often found, but 36 times, relating to 15 patients; even several specimens at 1.044 and 1.045 contained no sugar.

The alterations in the urine were largely due to variations in the organic salts. Thus oxalate of lime was recorded in 460 specimens, uric acid in 269, and the urates in 240 analyses.

The amorphous phosphates were the most frequent deposit, being recorded 717 times, relating to 271 patients; the triple phosphates were recorded 118 times, relating to 55 patients. Many of these examinations belonged to one syphilitic patient having obstinate cystitis; in some instances they were due to decomposition, but were occasionally found in fresh specimens.

The urea varied in quantity much less than would be expected. Of 531 specimens in which this was accurately determined, the percentage varied from 4 to .4 per cent., the normal being about 2 per cent. In one case of seborrheic eczema the night specimen gave .04 of urea, with a specific gravity of 1.029, and in another case of the same trouble the urea stood at .04 and .032 respectively, with a specific gravity of 1.039 and 1.035; in the former there were amorphous phosphates, and in the latter urates and uric acid, with amorphous phosphates in the morning specimen. In 353 specimens the urea stood at 2 per cent. or over, and in 178 specimens, or one-third of the whole number, it was below the normal amount.

The phosphates and chlorides were both found to vary greatly on quantitative analysis. Thus in but 16 per cent. of the analyses were the phosphates normal or above, and in but 8 per cent. were the chlorides up to the normal standard. The sulphates are the most stable constituent, rarely varying from the 1 per cent. found in normal urine; once they reached 2 and 2½ per cent. in a number of specimens with very high specific gravity from a case of hyperidrosis; they were diminished to one-half the normal amount in several specimens with low specific gravity from patients with acne and eczema.

Coming now to the urinary changes observed in connection with special diseases of the skin, as mentioned before, our analyses relate to

patients with some fifty different diseased conditions; many of these are of no relative importance in the present study, while others present most interesting and valuable data. Those pertaining to some of the more important diseases will be considered.

Eczema, of course, comes first on the list. There were 924 analyses relating to 316 patients with eczema, 183 males, 133 females, almost all of them adults, of various ages. A glance at the tabulated results of the separate analyses exhibits a curious and tangled picture; while some few specimens represented healthy urine in all particulars, there were really very few where gross and radical departure from a normal standard were not observed.

Not only were many found with very high specific gravity, and many very low, but very great discrepancies were observed between the morning and night specimens; the highest specific gravity observed was 1.045, in which the urea was double the normal amount, with abundance of urates and uric acid. The average specific gravity of 885 specimens was 1.023.

The urea and chemical constituents showed the very greatest variations. While the average of 145 analyses gave an exactly normal proportion of urea, it was relatively below the proper proportion to the average of the total solids, which called for an average of .027. There were a number of specimens where it was very high, even up to .041, the normal being .02, but there were also very many specimens where it was below 1 per cent., in one instance even down to .002.

The urinary salts showed very great and strange variations, and no figures can express the conditions found, so irregular were the proportions in various specimens. But an average of 50 analyses showed the chlorides to be markedly diminished, 9.5 per cent. in place of the normal 16 to 18 per cent. The phosphates also were diminished, giving an average percentage of 8.4 in place of the normal 12 per cent., while in these very specimens amorphous phosphates appeared on microscopic examination 28 times. This shows that the finding of phosphates microscopically does not indicate an actual excess in the urine. The sulphates were slightly in excess, 1.12 per cent. (normal 1 per cent.).

The disparity between the total amount of solids in many specimens and the urea and chemical constituents, as shown by analysis, was often very striking, and can only be explained by a large amount of uric acid in solution, which was not tested for.

In looking over the compiled tables of these analyses one is struck with the universality with which crystalline deposits were discovered by the microscope. As already mentioned, the amorphous phosphates were a very frequent sediment, while uric acid, oxalate of lime, and the urates were constantly observed. In almost every one of the 885 analyses one or other, or often several of these microscopic elements were recorded.

*Acne* is a disease constantly associated with disturbances of assimilation, and our analyses of the urine showed abundant evidence of these errors. There were 503 urinary analyses relating to 93 patients.

The specific gravity varied from 1.044 to 1.004; and the average gravity of all was 1.025. There were very many specimens at 1.030, but sugar was not present in any, the increased weight being due to salts.

The urea varied from .039 to .004, but was more commonly above normal; the average of 108 analyses gave .022.

As in eczema the chlorides and phosphates were below normal; the former gave 8.65 per cent. (16-18 normal), the latter 7.7 per cent. (12 normal). The sulphates were slightly increased, 1.2 per cent. (1 per cent. normal). As in eczema, it is difficult to see the elements contributing to the increased specific gravity. Almost all the specimens exhibited microscopic evidences of derangement, in the way of phosphates, uric acid, oxalate of lime and urates.

*Pruritus* is accompanied by urine of very different character, as shown by 98 examinations of specimens from 19 patients. The specific gravity varied from 1.036 to 1.038, the average being 1.024. The acidity was considerably above normal, and the urea averaged 2.5 per cent. The amorphous phosphates were found microscopically in almost all the specimens, with uric acid, oxalate of lime and urates in a few. One specimen contained a trace of albumen, and, strange to say, sugar was not recorded in any.

*Psooriasis* is represented by 67 examinations, relating to 26 patients. The specific gravity varied from 1.040 to 1.011, the average of all the specimens being 1.026. The acidity was high, and oxalate of lime was a very frequent microscopic object, being recorded 28 times, and uric acid and urates 17 times. The urea was a little above normal, averaging 2.4 per cent.

The remainder of the analyses related to too few patients in each disease to admit of any general averages being made, but the individual specimens presented very many interesting features, some of which may be mentioned.

Thus in one case of *alopecia areata*, twenty-six urinary analyses were made, extending over a considerable period of time. The urine was persistently very acid, and of a high gravity, seldom falling below 1.030 and with an average of 1.031: the urea was also very high, yielding an average of almost 3 per cent; there were constantly microscopic deposits of phosphates and oxalates, with occasional uric acid. In several cases of *erythema* the urine was of a high average specific gravity, with almost constant presence of uric acid or amorphous phosphates microscopically. In nine cases of *furunculosis* the average specific gravity was very high, but the acidity was very low: the urea averaged 2.4 per cent. The chloride, phosphates, and sulphates varied greatly in the specimen analyzed. In several cases of *lichen planus* the specific gravity of the urine averaged high, but the acidity was low. In three cases of *urticaria* the same was observed; in one case urates was found microscopically in a neutral urine, and in another amorphous phosphates, with the same reaction.

In reviewing again the data obtained from a study of these tabulated analyses, one is disappointed with the actual results as to positive facts connected with the condition of the urine in the different diseases mentioned; for it must be conceded that no very sharp lines of differentiation can be drawn between them.

But, on the other hand, these results are about what was expected,

for, as stated at the outset, there is no claim made that any particular urinary changes can be yet demonstrated to have any direct and immediate connection with any particular skin lesion. The object of this study is to call more attention to the fact than is usually granted, that in many patients with skin diseases there are errors of nutrition and metabolism which must have something to do with impairment of the integrity of the skin. This evidence of deranged assimilation and disassimilation appears abundantly in the tabulated sheets of analyses, for an inspection of them shows that exceedingly few of the analyses represent the urine of health, in all respects; while many of the individual analyses exhibit evidences of gross departure from healthy urine.

It would undoubtedly have been better if the specimens analysed could always have been samples of the urine of the entire day, and if the total daily excretion was always known the figures given would then have been of relatively more value. But as this is often infeasible in the ordinary run of practice, this study was made from urine as ordinarily tested by the physician, the morning and night specimens.

4 East Thirty-seventh Street, New York.—*Journal of Cutaneous and Genito-Urinary Diseases.*

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## WHEN SHOULD WE OPERATE IN APPENDICITIS?

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So much has been written on the subject of appendicitis that I have hardly the temerity to proceed and I am sure I would not have if it was not for the memory of many cases that I feel could have been saved and others "in futuro" that never will until some of the general practitioners rise above their prejudices. I believe it is the duty of all operators to agitate this subject until the correct position of operative procedures is thoroughly appreciated. If men who do not operate and meet these cases would have in mind septic ones and their serious termination—if not in death, they go on to abscess, drainage, ventral hernia, and a long convalescence—as well as catarrhal ones with their recoveries, then much will have been accomplished. To diagnose and correctly appreciate the uncertain cases is the most essential feature. Like other surgical conditions that invite procrastination, appendicitis may lead us to a serious or fatal termination. I propose treating only one feature of the disease, and that the old one, namely shall we operate in all cases, or shall we follow an expectant line of treatment? There are many able men in favor of both expedients.

*Important Factors.*—There are important factors in every case that the general practitioner should consider, viz.: Are the symptoms clear cut and urgent? Is it a primary or recurring case? How far advanced is it? What is the opinion of the patients' friends or advisers? Has some one in the vicinity had a slight catarrhal attack of appendicitis, or other local disease with the character of appendicitis, which has ended in recovery without surgical interference, or has surgical interference in some neglected or fulminative case ended fatally? Either condition will have a material effect on the family and friends in deciding concerning an operation. Then there is the clinical experience of the one in attendance, and the class of cases he has met, the question whether or not he does surgery, whether he is opposed to calling in a consultant, how many cases he has had and their outcome, and, lastly, whether he concludes his consultant is advising an operation purely because he is desirous of performing it.

There is no fair comparison between the eminent specialists of the large centers, whose every utterance is law to so many, who have such a wide territory to draw from that their patients and even their professional brethren do not know of their results, and the practitioners of smaller places. We general practitioners are most excusable—with our limited opportunities—for the feeling of anxiety and apprehension that comes with each case of appendicitis, when we review the great variation in the views of our most eminent men. One will say, "Operate at once;" another, "be conservative and follow an expectant line of treatment that you may have the advantage of an elective operation," while still another equally eminent man says that operative procedures are seldom indicated. Errors of judgment will occur with us all, but these conditions must be met and corrected by men of the greatest experience. I am sure that mistakes, if properly interpreted, are powerful for good.

*Indicative Symptoms.*—What symptoms are of service to us in reaching a conclusion that we should operate in a case of appendicitis? Temperature, pulse, respiration, general or localized pain, vomiting, sudden onset, tenderness in the immediate region of the appendix, the facial expression, the presence of a tumor, rigidity of the abdominal muscles, edema of the abdominal walls, distension of the abdomen, tympanites and chill, are all at one time or another observed in appendicitis. The pulse, temperature, respiration, nausea and vomiting are in no sense a guide in the first stage because different patients react so differently to the first impressions of the toxins. The pain is at first referred to the umbilicus or epigastric region, and then after a few hours settles down in the region of McBurney's point; you can readily appreciate that the exact point varies according to the location of the appendix. Later, we may have a severe paroxysm of pain, which so many characterize as the time at which the rupture occurs; it is of value in that it indicates the time at which the alarming symptoms commenced.

The presence or absence of pus in an inguinal tumor is a condition which must be considered very carefully in estimating the value of the symptoms; as an acute general peritonitis may appear in a case of appendicitis in which the general cavity is not protected, or a perforated appendix may be walled in by lymph which is barely sufficient to close the opening or surround the slough. It is of interest to note that the abdominal muscles protect an inflamed appendix by their rigidity, and that they do so regularly, and that they do not protect in the same way an inflamed ovary or tube, only an inch or two distant, but remain normally relaxed.

The rigidity of the abdominal muscles is an important symptom, and when associated with the anxious facial expression and rapid pulse, I always feel that there is trouble ahead. In late cases increased edema of the abdominal walls, with distension of the abdomen and progressive inflammation, marked at first by a rise in temperature, which is shortly followed by a fall, with a weaker and quicker pulse, is characteristic of a diffuse septic peritonitis; this condition, preceded by a severe paroxysm of pain in that region, indicates a ruptured appendix, which may be diffused or walled off. A chill sometimes occurs at the onset, again at the stage of perforation, and later if sepsis supervenes.

*Remarks.*—During the past year I have been called in consultation in nine cases of septic appendicitis which succumbed to the disease, and which, I believe, could have been saved if those in attendance had acted along the lines of our present conclusions in these cases. I have also operated on at least a dozen cases of fulminant appendicitis, during the same period, sent to me by another class of observers, without a death, and in five of this number rupture had occurred, though it was not thirty-six hours from the initial symptoms. How can we avoid the fatality of the first variety? Only by the attending physician associating with himself, when in doubt, some one thoroughly familiar with these cases, and so being in a position to differentiate the catarrhal from the septic cases, and thus reaching those requiring operative procedure early.—  
*Journal A. M. A.*

## TAKING COLD.

J. WARREN ACHORN, M. D., Boston.

Taking cold is nothing but a *vulgarity*.

It is from this cause primarily that most bronchial affections arise.

Habitual colds are due to an ill-kept skin on the outside and depraved mucous membranes on the inside, coupled with carelessness.

For one whose digestion is right and whose skin is bright, who takes common sense precautions when exposed to unfavorable conditions, colds have little use.

Grooming, hardening, common sense, proper food and pride of person are the foundations upon which a cold cure must rest.

The man who occupies the bath room every morning for three-quarters of an hour to the detriment of everybody else, who can be heard sporting and splashing in the shallow water, is usually the healthiest one among the *boarders*.

A cold sponge one to three minutes long, with a brisk rub immediately before and after it, is all that is necessary to keep the cutaneous circulation alive and the skin re-active to sudden changes of temperature. Never bathe when cold; rub warm first.

If the cold sponge or shower cannot be taken in the morning for some *mighty* reason, although the whole procedure should occupy less than eight minutes' time, it may be had at night before retiring.

For those unaccustomed to cold water, tolerance can be gained in three weeks' time, by the use of water at any comfortable temperature, making it one degree colder each day, until it can be employed without dread, as cold as it will run.

For cold feet, wading ankle deep before retiring, in water in the bath tub, for one or two minutes, or until the feet begin to pain, should be practised.

Rub hard afterwards.

If reaction does not set in, wrap the feet in blankets and let them alone; they will soon thaw out.

Do not use water bottles or other debilitating heat.

A month or two of this sort of hardening will effect a cure.

Cold hands may be treated in the same way—cold clammy hands.

Salt may be added to the water for its stimulating effect, or alcohol; witch hazel is also useful.

Tuberculosis is no contra-indication to the use of cold water. The more delicate the person, the greater the care required, but the more brilliant the results.

Cold water intelligently used, does not steal vitality, but fosters it. It stimulates the nerves that control the calibre of the blood vessels and regulates the cutaneous circulation. It is a respiratory stimulant.

Hot water should be employed once or twice a week when a full bath is taken and soap used. The duration of the bath should not exceed ten minutes, except for the obese, and end with a cold sponge.

If catching cold results from dust or disease in the nasal passages, they may be washed out regularly with some tepid alkaline solution and with as much satisfaction as one brushes the teeth. This procedure is properly a part of the morning toilet for those at least who suffer from catarrh in the atmosphere of great cities.

Operative interference on the nose and throat may be required for deflections, deformities, or diseased tissues acting as an exciting cause.

The inside and outside skins of the body are so much in sympathy, so dependent upon each other, that disorder of the one is sure to react upon the other; and this is as true of the bronchial mucous membrane, as it is of the alimentary canal and the cuticle.

Over-eating when tired, over-eating in connection with over-exertion, over-eating anyway, indulging in things known to disagree, that cause headache in this case or palpitation in that, biliousness, or insomnia, that precipitate an attack of asthma, hives or piles, or aggravate an existing cough or skin disease, are among the *habit* causes of colds; for taking cold is nothing but an attack from without, that succeeds, made upon the outside skin when not properly supported from within or from lack of tone, its own, or carelessness on the part of the man who wears it.

A healthy digestion and a healthy skin acting and reacting in harmony, coupled with purpose enough on the part of the owner, to discover the cause that ushers in the unwelcome visitor or with common sense enough to "keep moving when rained on," reduces the liability of having this guest to entertain regularly to a shadow knocking at the door. One should never stand on a street corner in winter if chilly or cold, but keep moving and *breathing*. Work the lungs as bellows till the perspiration (fire) starts.

The person who keeps moving when wet and moving and breathing *deep* when chilly, will seldom have a chance to complain about taking cold from getting soaked through, while standing on a street corner at night waiting for a car.

It is by care in eating and drinking, by controlling bad habits and cultivating a healthy skin, we are enabled to banish colds and regulate the circulation through the lungs and bronchial tubes.—*The Dietetic and Hygienic Gazette*.

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## THE PRESENT STATUS OF THE TREATMENT OF PUERPERAL INFECTION.

BY DR. H. J. GARRIGUES.

(*St. Louis Courier of Medicine*, Jan., 1901.)

The author reminds the profession that 17 years ago he introduced strict antiseptic obstetrics in America when he urged disinfection with corrosive sublimate and the "occlusion dressing." From 1875 to 1883 the mortality average was 4.17 per cent. at times reaching as high as 8 or even 20 per cent. During the first three months after changing the treatment there were 102 confinements without a single death. During the first ten years of the new era the mortality from sepsis dropped to 0.39 per cent.

While opposed to the frequent use of intra-uterine injections—and particularly of corrosive sublimate—the author favors vaginal injections with creolin or lysol. In the "diphtheritic" wounds of vulva, vagina, or cervix, he believes in exposing the parts in the vaginal speculum and cauterizing the patches with 50 per cent. chlorid of zinc solution. Excepting in peritonitis he believes in aperients and enemas, particularly in the beginning of puerperal infection. Local cold or hot applications are recommended indifferently for the relief of pain. Iodoform suppositories are daily introduced if the interior of the uterus is effected. Ergot and faridization are used by the author if the uterus is not properly contracted. He is opposed to antistreptococcus-serum injections and also to Credé's ointment. He leans favorably toward the internal administration of nuclein and to the intravenous injection of normal salt solution. Of 13 cases of diffuse peritonitis treated by the opium plan seven got well.

Curettage by means of the finger nail the author strongly commends, as well as the exceptional use of the dull curette, in cases in which placental tissue is left in utero. For simple endometritis the scraping operation, on the other hand, is totally wrong. Inguinal incision and posterior colpotomy are indicated in local abscesses. Laparotomy in diffuse peritonitis may be indicated but gives no better results than when the cases are left alone. Tubal and ovarian abscesses should be attacked from below—exceptionally from above. Two cases in which hysterectomy was attempted or performed died.

"Looking back over the whole field and weighing the evidence adduced by different observers," the author concludes, "that surgical interference, inclusive of intra-uterine douches and curetting, has done more harm than good."—*The Post Graduate*.

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## SOME POINTS OF PRACTICAL IMPORTANCE IN THE SYMPTOMS AND TREATMENT OF ACUTE PNEUMONIA.\*

BY ROBERT H. BABCOCK M. D., CHICAGO.

There are two conceptions of the nature of acute pneumonia: One, that it is a local inflammatory process of microbic origin with secondary systemic disturbance resulting from the absorption of toxins; the other that it is primarily an acute infection having peculiarly marked tendency to fibrinous exudation within the lungs, either alone or in conjunction with the same sort of exudate in the serous cavities, so that the pneumonia is but one of the local manifestations of the disease. To my mind this latter view corresponds with the morbid anatomical changes found post mortem, and explains the clinical phenomena observed during life.

The points which I desire to bring out in this paper are, first, that a pneumococcus pneumonia is not necessarily a lobar pneumonia; and secondly, that the gravity of the symptoms in many cases does not depend upon or bear any relation to the extent of the pneumonic process, but is the result of the infection.

The correctness of the first proposition is seen in those cases, usually called atypical, in which instead of the whole of one or more lobes becoming hepatized, signs of consolidation are discovered over a very limited area, perhaps at one base or over all patches in several situations. These are lobular pneumonia, not lobar, and if severe bronchitis is associated, they are likely to be regarded as bronchopneumonias.

The truth of the second proposition is seen in those cases in which with little or no discoverable evidence of pneumonia the patient nevertheless dies, in spite of the most approved treatment, from heart weakness accompanied by cyanosis.

The following case illustrates these two points admirably: A gentleman of 73, who had been ailing more or less for ten days with what appeared to be a simple acute bronchitis, was taken suddenly worse on Saturday afternoon with what seemed to be an asthmatic seizure. When his physician arrived the patient was still breathing with difficulty, but exhibited no signs of pneumonia. During that same evening the lungs filled with râles very much like those of mild pulmonary edema, and there was frequent cough, with scanty mucous sputum. Temperature was subnormal— $96\frac{1}{4}^{\circ}$  in axilla; respirations were labored rather than accelerated. Codeine relieved the cough somewhat, and the next day his physician was unable to detect anything more than some roughness of the breath sounds in the left lung. Monday forenoon the patient developed a fever of  $103^{\circ}$ , with respirations of about 26, and moderate acceleration of the pulse. In the afternoon of that day his temperature in the axilla sank to normal, and when I saw him in consultation at 8.15 in the

\*Read before the Tri-State Medical Society, Keokuk, April 2, 1901.

evening it was but  $97.6^{\circ}$ , respirations 28, and pulse 78 but occasionally intermittent; this last feature having developed at six o'clock. The patient lay partly turned to the right side, breathed without much difficulty, and was in a condition of somnolence, from which however he could be easily aroused, and was then entirely conscious. The heart was greatly enlarged and the sounds, particularly the pulmonic second, were feeble, and there was moderate cyanosis. The abdomen was moderately tympanitic. Over the front of both lungs they were resonance and roughened vesicular breathing, except directly below the outer third of the left clavicle, where there was dulness, and the respiratory murmur was bronchial without râles. Posteriorly there was a small area of dulness and bronchial breathing in the right infrascapular region, and on the left side breath sounds were rough, but I could not make out any dulness. As already stated, the temperature in the axilla at this time was a trifle below  $98^{\circ}$ . But suspecting this to be delusive, I asked that the rectal temperature be taken, which was done, and the internal heat was found to be  $102.1^{\circ}$ . This settled the cause, and I expressed the opinion that this was a pneumonia with scattered and small exudates, and that the patient was suffering from paralysis of the vasomotor centres in the cord with consequent capillary paresis and cardiac asthenia. The prognosis was declared most grave—in fact, it was predicted that recovery would not occur. In spite of vigorous and approved treatment the patient failed steadily, and died the following afternoon.

The instructive features of this case are three: first, the patchy distribution of the pneumonic exudate; secondly, the intensity of the infection, which led to death in less than three days from its invasion; and thirdly, the apparently subnormal temperature. Regarding the first I may say there can be no doubt of the nature of the disease notwithstanding the fact that it did not present the ordinary character of lobar pneumonia. It was not a catarrhal inflammation of the lungs attendant upon bronchitis, but was a clear manifestation, as respects the pulmonary condition, of senile pneumonia of pneumococcus origin.

An entire lobe may be involved in the aged the same as in a young adult, but not uncommonly the involvement is lobular, and in the matter of diagnosis it is important to remember this fact. The second point concerns the display of infection. Romberg and Passler have demonstrated by experiments on lower animals that when cyanosis appears in the course of acute pneumonia it is due to paralysis of the vasomotor centres in the spinal cord, and that the heart weakness is secondary to this vasomotor paresis. This enables us to understand why in this case death occurred although other evidences of intense toxemia were wanting.

The third element of interest was the seemingly subnormal temperature. It will be recalled that this low temperature of  $97.6^{\circ}$  was obtained in the axilla. This is not difficult to understand. In consequence of the capillary dilatation that produced the cyanosis, radiation of heat was so rapid that the skin became disproportionately cool and the thermometer failed to reveal the actual state of the body temperature. Therefore, whenever in a case of pneumonia with cyanosis the patient seems fever-free, the temperature within the rectum should be ascertained.

This is the second time during the past winter I have seen such a state of things, and both times, as it happened, the pneumonia was in an old person. I can now recall another observation of the kind in a comparatively young woman, so that the phenomenon has no connection with the age of the individual, but is merely due to the state of the capillaries, and primarily therefore to the action of the toxins on the vasomotor centres.

The practical point I desire to make in the treatment of acute pneumonia grows out of the effect of infection on these nerve centres. We have long been wont to administer nitroglycerin so soon as cyanosis appears. Elsner in an admirable paper before the American Climatological Association two years ago reported his success in these cases with the frequent administration of diffusible stimulants. He advocated the use of fifteen drops each, every twenty minutes, of aromatic spirits of ammonia, compound spirits of ether, compound spirits of lavender, and tincture of valerian, keeping them up day and night so long as danger exists. Although in the discussion of his paper I maintained that nitroglycerin does sometimes act as a heart stimulant if not given in too large doses, still I have come to the opinion that as this agent is in itself a vasodilator and is likely to intensify the capillary paresis, it is better to rely upon diffusible stimulants. It should be remembered that their action is very evanescent, and therefore they should be administered from two to three times an hour. Their purpose is to stimulate the failing heart and enable it to overcome the influence of capillary stasis. Alcoholic preparations, as champagne and high wines, are also useful in small, frequently repeated amounts. I apprehend that when digitalis does good in these cases, it is because in addition to reinforcing cardiac systoles it contracts the arterioles and antagonizes the stagnation in the capillaries.

Aside from pure heart stimulants in these cases I know of nothing so efficient as full hypodermic doses of strychnine as a cardiac tonic, one-thirtieth or even one-twentieth every two hours, and in very urgent cases even hourly. Caffeine, by preference the valerianate of caffeine, in grain doses, is also thrown under the skin every two hours or oftener. This remedy not only acts as a cardiac tonic in conjunction with the strychnine, but also exerts a vasoconstrictor effect. I have seen surprising results follow this treatment, the pulse increasing appreciably in strength and the pulmonic second sound becoming louder. This mode of treatment is symptomatic.

We should make attempts to eliminate the toxins, since as yet we possess no certain means of antagonizing them, the favorable reports from antipneumococcus serum to the contrary notwithstanding. I therefore recommend the administration both by rectum and under the skin of a physiologic salt solution. A special apparatus is not necessary, since an excellent gravity apparatus can be constructed out of an aspirating needle and an ordinary fountain syringe. From one to two pints may be allowed to flow slowly into the subcutaneous cellular tissue, and a convenient site for administration is the loose skin of the axilla or the lateral lumbar region. In those cases in which this treatment does good, the pulse grows fuller, stronger, and somewhat slower, while in the course

of an hour there is an increase in the volume of the urine. This treatment may be repeated as often as required. A friend of mine who has frequently employed this subcutaneous infusion of salt solution has assured me that he is confident he has seen it save life in these cases. I regret to say that when I have employed it the condition has been so grave that all means of treatment have proved unavailing. Nevertheless, I believe it should be tried in all cases of severe pneumococcus infection.

The last method of treatment of which I desire to speak is venesection. Although bloodletting is particularly useful in the beginning of sthenic pneumonia in vigorous adults, still it is undoubtedly of service at times in these cases of cyanosis. From sixteen to twenty ounces of blood should be taken from the arm, or the blood should be allowed to flow so long as it remains thick and dark. When the blood becomes red, sufficient has been drawn, even though it does not reach the amount stated. This procedure will sometimes promote the action of the salt infusion. Even when it does not help, it will do no harm, and is not objectionable so far as I can see. At all events such is the gravity of these cases that we should resort to any and all means of treatment that may offer the patient a chance of recovery.

Finally, the inhalation of oxygen is also to be recommended, although it has always seemed to me that its special indication is the mechanical interference with hematosis by extensive bronchitis and such an extent of pneumonic consolidation that life is endangered through the want of sufficient respiratory capacity. When employed the gas should be given freely, and, if need be, continuously.—*Medicine.*

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## TREATMENT OF ACUTE INFLAMMATION OF THE MIDDLE EAR.

By S. S. BISHOP, M. D., CHICAGO.

In the first stage, or before the serous effusion has taken place or the pain has become severe, gentle inflation and filling the ear with warmed pure or carbolated vaselin will suffice to give relief. When the pain has become intense, inflation must be practiced under very low pressure, as the movements of the drum head, like those of an inflamed joint are exquisitely painful. The patient in this stage should be put to bed to keep the temperature equable; a warm 8 per cent. solution of cocaine or eucaïne may be instilled into the ear, and if deemed necessary,  $\frac{1}{2}$  grain of morphia can be given in combination with  $\frac{1}{100}$  grains of atropia for an adult. If for any reason the morphia and atropia should not be prescribed, bromidia may be substituted in teaspoonful doses, in water, every half hour until relief is obtained. Then it must be discontinued. The bowels and general health should receive proper attention. We have often found that leeches gave speedy relief. Two Spanish leeches may be applied in front of the tragus and two behind the auricle for adults. The external canal is stoppered with cotton so that the leeches cannot enter it. The skin is pricked until a drop of blood appears: then the leech in a two-drachm vial, with its mouth at the opening of the bottle, is placed so that its mouth covers the drop of blood. The vial is held in position until the leech takes secure hold. Then the bottle is removed and the leech is allowed to fill and drop off. This manner of applying leeches is given because few seem to be conversant with the subject, and this method removes the common objection to handling such repulsive creatures.

Especial care should be exercised to abstract the blood in middle-ear inflammation as much as possible from the region of the tragus, on account of the intimate relation of the blood vessels of this region and the anterior wall of the meatus with the vessels of the tympanic cavity. If enough blood has not been abstracted after the leeches fill and fall off, more can be drawn by applying napkins wrung out of warm water. If there should be any difficulty in stopping the bleeding from the leech-bites, pressure applied to them will succeed. The artificial leech is also an excellent device, but it occasions more discomfort.

The common practice indulged in by the laity of pouring oils, onion-juice, etc., into the ear is a vicious one, since these become rancid and irritating, and predispose to a subsequent inflammation. Poultices are also mischievous and favor suppuration and perforation of the drum membrane.

The writer has seen the following simple device, always convenient, give grateful relief: A piece of clean cotton is placed lightly in the mouth of the auditory canal. A pipe is partly filled with tobacco and lighted. Then a piece of thin cloth is placed over the mouth of the pipe-bowl and

blown gently through, while the lip-piece of the pipe-stem rests against the cotton pledget. This filters the warm smoke through the cotton into the canal of the ear, and a grateful sedative effect is soon obtained. I do not remember to have seen this remedy mentioned, but its efficacy in the absence of other remedies has been demonstrated.

Fever calls for antipyrin or its equivalent in some febrifuge that is less of a cardiac depressant. Phenacetin and acetanilid act well. Quinine, the enemy of the ear, must not be used. It aggravates the existing hyperemia and conduces to a permanent deafness. Alcoholic beverages and smoking are prohibited, and any inflammatory condition of the respiratory tract must be vigorously combated.

If the pain and bulging of the drum head continue, notwithstanding all efforts to counteract the disease, and rupture of the membrana tympani is threatened, it should be incised with the paracentesis knife, in the posterior-inferior quadrant, so as to afford the most perfect drainage. A warm 8 per cent. solution of cocaine or eucaine should be left in the ear for twenty minutes before the paracentesis, and, if the pain does not soon cease after perforating, more cocaine should be instilled, as hot as can be comfortably borne, so as to percolate through the perforation and reach the mucous membrane within. This will give relief. The incision should be a long one, cutting through the entire area of the postero-inferior quadrant vertically. The longer it is, the more it relieves the tension of the nerves of the membrane and the freer the drainage. The paracentesis knife must be absolutely sharp and should be dipped in alcohol before using. The perforation generally heals in a few days if no pus has formed.

After the pain is relieved, which should be the object of our first efforts, the ear may be inflated with as low pressure as will accomplish it. The air pressure in the tympanic cavity promotes absorption of any fluid contents and will be likely to improve the hearing. This treatment had best be administered for a few days once a day. As improvement progresses the treatments can be given at greater intervals until the normal condition is established.

Diet, exercise and clothing should be regulated on general hygienic principles.—*The Laryngoscope.*

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### SPECIFIC THERAPEUTICS.

*Rumex crispus* is a remedy for ulcerative conditions of the mouth either in infants or adults, which depends upon a blood dyscrasia, usually present where the membranes are very red, and where there is general sluggishness of the system.

Bladder wrack has served us a very excellent purpose in dropsy where the condition depends upon heart faults, with simple or exophthalmic goitre; especially if the patient has reached middle life. In older patients suffering from excess of fat, especially those of lymphatic temperament with tendency to fatty degeneration of the heart, this agent is specific.

Ammonium chloride is a specific remedy for neuralgias of a congestive or a distinctly malarial type. This influence has been observed by many writers. While some authors give it in small doses—form three to eight grains in conjunction with belladonna, and get excellent results—others claim equally good results from this remedy alone if given in doses of from ten to thirty grains.

Ginger is a remedy commonly overlooked when a stimulant is needed. It is more popular in domestic practice than with the profession. Its stimulating influence is immediate and greater even than alcohol. It has pain-relieving properties which are difficult to explain. Whenever there is sudden reduction of the temperature with coldness of the skin or excretories or chilliness, all accompanying some severe local pain, this agent is specific.

Belladonna or atropine has a peculiar effect in drying up secretion. They may be given for this effect in any case where there is great excess of secretion, such as the pouring out of an acid fluid from the stomach in great excess, or large watery diarrhoeas of excessive bronchial or nasal discharges as is well known in night sweats. These, however, are only side influences, although very important, depending upon the physiological influences of the drug.

The indications for nitric acid are exceedingly plain, and sometimes a long train of symptoms will disappear when this agent is given according to its symptomatology. The tongue and mucous membranes are of a violet color, sometimes carmine or clear red. The membrane is apparently transparent, though its color is plainly seen. The membranes are dry from the deficiency of the secretion. There is general inactivity of the intestinal glands and unusual lack of tone with a tendency to diarrhoea.

We have frequently given the symptomatology of turpentine, we give it again because it is generally overlooked and exceedingly important in some very common disorders. First, in excessive secretion of mucous, catarrhal discharges from whatever cause especially if there be relaxed, enfeebled, atonic mucous membranes. It may be given with perfect confidence in all cases with these phenomena. Second, in gastric or intestinal inflammations, or in persistent fevers with dry, red, glazed

tongue, dry mucous membranes, tympanites, with suppression of the secretions of all the gastric and intestinal glands.

It is also indicated by a steady distress or dull grinding pain in the abdomen, a sensation of hardness across the abdomen, with tendency to constipation, with general inactivity of the entire glandular structure of the gastro-intestinal tract.

The specific indications for *crætgus oxyacantha* have not yet been very clearly determined. They would seem to be heart feebleness, with considerable functional disorder showing itself by angina, dyspnoea, palpitation with great weakness, intermittent pulse with deficiency of arterial tonus, especially if dropsy be present. These symptoms do not cover its entire field of action, as they are present usually in the heart disease of advanced life; while we have cured irregular heart action and pain in the heart with dyspnoea in hysterical young ladies, with this agent.

The external application of mustard is demanded where there is severe acute local pain, usually with coldness of the surface above it. It should be applied in these cases to obtain its immediate full physiological effect. It should induce redness with an intense burning sensation from four to eight minutes after its application, when it should be removed. Mustard mixed with flour and applied for a slow effect has no influence on acute pain. It has some beneficial effect on old standing inflammations. Soreness with dull and steady pain, slowly developing and persistent, is not greatly benefitted by the application of mustard.

The tingling sensation that occurs in the limbs after sleeping, more or less habitual with some parties, may be relieved by three grain doses of the iodide of ammonium given three or four times a day.—*Chicago Medical Times*.

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### AN EXCEEDINGLY RARE CASE OF IMPERFORATE ANUS.\*

Chas. B. Kelsey, New York, reports the case as follows: The patient, a man of twenty-four, fairly well nourished, though weighing only one hundred and seven pounds at time of operation, was born with an imperforate anus. The history beyond this is exceedingly meagre from the fact that both his parents died in his childhood; but he knows that the opening was made in the perineum during the first few days of life, and that there has always been a free communication between the bladder and the rectum by which urine escaped per rectum and feces per urethram. He states that he has frequently gone for three months without any fecal evacuation of any sort; and that after such a period it is not unusual for him to fill two chamber utensils full of solid matter. On examination there is found a deep anal depression ending in a narrow, firm undilatable slit running antero-posteriorly, which admits the index finger with pain. The slit is surrounded by and located in fibrous tissue. Through this slit the finger impings upon an immense fecal impaction extending above the umbilicus and filling the entire lower abdomen, and

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\* St. Louis Med. Review.

the mass is so stony that hardly any impression can be made upon it. There is no sphincteric power (no sphincter) and the usual fluid discharge existing with impaction is caught in a large sponge which the patient had been always in the habit of wearing against the anus. Under ether it required the united efforts of two men and two nurses forty-five minutes to break up and wash out the fecal mass. A sound passed into the urethra revealed an entire absence of corpus spongiosum for about an inch and a half in front of the triangular ligament, its place being taken by a thin membrane which separated the urethra from the rectum. This membrane was absent at one point for a space about one-third of an inch in diameter, through which communication with the rectum existed. The usual incision for colostomy was made on the left side. An immense pouch was found in the site of the descending colon, with thick, muscular walls and large vessels. An artificial anus was established where it narrowed into the transverse colon.—*Medical Press.*

### FOR BETTER RÉLATIONSHIP.

Anent the movement inaugurated by the Toronto Drug Section of the R. M. A. to bring about a better understanding between physicians and pharmacists, we clip from *The Bulletin* the following set of rules which have been adopted by a joint committee of Maryland Pharmaceutical Association and the Medical and Chirurgical Faculty of Maryland, and recommended for adoption by the two associations, accompanied by the expressed belief that "a faithful adherence to them will conduce to the advancement and best interests of the two professions, and will give the public better service and secure for it more satisfactory results." The rules are as follows:

*First.*—Pharmacists should positively refuse to prescribe for customers except in cases of urgent emergency.

Physicians should carry with them or supply to patients emergency remedies only, except in remote rural districts, where the sending of prescriptions to be filled is impracticable.

*Second.*—The substitution of one article for another or one make of article for another in a physician's prescription, without the physician's consent, is condemned as a most reprehensible practice.

*Third.*—It is as unreasonable for physicians to fix the prices to be charged by pharmacists as it is for the latter to determine the charges to be made by physicians for their services.

*Fourth.*—Whenever a physician, for any reason, objects to the refilling or copying of his prescription, he should plainly indicate his wishes on the prescription itself.

Pharmacists should refuse to refill prescriptions or give copies of them, when so instructed by the prescriber.

*Fifth.*—Copies should not be placed upon containers unless ordered to be placed thereon by the prescriber, even though the patient should request it. Nor should any word or label, like "For External Use," "Poison," "Cautiou," etc., be used unless specifically ordered by the writer of the prescription.

Physicians prescribing poisonous substances should add such directions as will indicate the use for which they are intended, and, if necessary to protect patients, should authorize the use of such labels as they may deem necessary. When unusual doses are prescribed, pains should be taken to indicate to the pharmacist that the quantity prescribed is understood.

*Sixth.*—In case of a suspected error or substitution by pharmacists in the compounding of prescriptions physicians should always satisfy themselves by conferring with the pharmacist as to the true state of affairs, and in no case should the pharmacist be condemned by the physician either to the patient and family or in the press, without previous careful investigation.

Whenever there is a doubt in the mind of the pharmacist as to the correctness of the physician's prescription or directions, he should invariably confer with the physician, in order to avoid possible mistakes or unpleasantness and should not attempt to make any changes without such conference.

*Seventh.*—Pharmacists should never discuss physicians' prescriptions with customers, nor disclose the composition thereof to them.—*Can. Phar. Jour.*

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### TO PROMOTE LARGE FAMILIES

An eccentric millionaire, whose amiable fad would have met with the cordial approval of Frederick the Great, has recently died and bequeathed to the municipality of Rouen an annual sum of 100,000 francs, for the purpose of providing a dowry to a couple of giants, male and female, who are willnig to marry in order to aid in the physical regeneration of the human race. The candidates will be required to undergo a medical examination before being adjudicated the prize. Unfortunately, France requires large families in point of numbers rather than in physical size; but from established statistics we doubt whether either end will be gained by the project of this deceased would-be benefactor. Giant growth is what may be described in Yankee terms as "freak growth." Most giants have been the off-spring of moderate sized parents, whilst children that have been borne of giants, that is to say, both parents being giants have generally been puny. We do not know what success Frederick the Great had when he endeavored to breed giant grenadiers, but we believe it did not realise his expectations:—*Med. Times & Hosp. Gaz.*

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### EXTERMINATION OF RATS

Dr. Collingridge, the Medical Officer of Health for the Port of London, in his half-yearly report states that he has arranged for a supply of a culture from Dr. Danysz, of the Pasteur Institute, Paris, which is pathogenic to rats, but harmless for man. The organism was isolated from the bodies of field mice suffering from an infectious disease, and carried a fatal epidemic among two hundred rats experimentally inoculated with

it. As these animals are known to be disseminators of the *B. pestis* their extermination is a preventive measure of great value. It will be necessary also to guard against the invasion of infection by other channels such as infected clothing, or unsuspected cases of plague:—*Med. Times Hosp. Gazette.*

### A NEW LIGHT ON PERNICIOUS ANEMIA.

*The Medical Press* is very enthusiastic over what it considers a great discovery made by Dr. W. Hunter. This is that pernicious anemia is a septic affection, the poison being derived from the suppuration about the teeth or in the mouth and its dependencies. The poison passes into the stomach where it sets up a special form of gastritis, finally resulting in peripheral neuritis and blood disturbances.

This calls for better habits of oral hygiene and antiseptic mouth washes:—*Dict and Hyg. Gaz.*

### THE NECESSITY OF DRINKING SUFFICIENT WATER.

Dr. W. T. Moffet, (*Illinois Medical Journal*, February; *Woman's Medical Journal*, March), quoting Fowler, who says that the kidneys act as regulators of the water supply of the blood, taking from it any excess, and when there is an insufficiency, demanding only enough to dissolve the solid constituents of the urine and to facilitate their discharge from the body, asserts that it is too often a fact that this regulating function of the kidneys is rendered void by the continued failure to imbibe sufficient water to satisfy the needs of the tissues and fluids of the body. He thinks that many cases of renal inadequacy and self-intoxication, with all the symptoms which may depend upon these conditions, are largely due to a deficient use of pure cold water. With the free use of water elimination will often take care of itself. Drinking cold water increases arterial tension, reduces bodily temperature, increases peristalsis and biliary secretion, and aids digestion. There is a large class of chronic troubles that are associated with constipation, renal insufficiency, and inactive skin. On inquiry it will be found that a large percentage of these cases drink water sparingly, many not at all. All the tissues suffer, toxins accumulate and the whole organism is poisoned—the patient has self-intoxication. Dr. Moffet has known obstinate cases of constipation and eczema to be cured by the free use of water. Most of these patients appear to entertain a distaste for water.—*New York Medical Journal.*

### ON THE STERILIZATION OF MILK ; ITS ADVANTAGES AND LIMITATIONS.

A. D. Blackader (*New York Med. Jour.*, Feb. 2, 1901) says that it must be admitted that commercial cow's milk is never absolutely sterile, though varying greatly as to the number and character of the micro-organisms. If obtained under good hygienic conditions, filtered, aerated,

rapidly cooled, and then kept, without much agitation, at a temperature below  $10^{\circ}$  C., it will contain comparatively few bacteria. Milk obtained and kept under contrary conditions will not only contain bacteria, but spores and toxins as well, and these cannot be destroyed without, in some measure, destroying the quality of the milk as a food. Russell's experiments show that pasteurization at  $70^{\circ}$  C. destroys all pathologic and putrefactive germs, as well as the lactic acid producing bacteria; and if this pasteurized milk be placed on ice or kept at a temperature only slightly above  $0^{\circ}$  C., it will remain sweet and free from bacteria for many days. If, however, the milk is not kept very cool, other fermentations may occur, producing changes in the milk, in some cases recognized with difficulty, but liable to produce grave disturbances in the intestinal tract. The same can be said of milk sterilized at a temperature of  $100^{\circ}$  C.

Russell, finding that milk sterilized at  $70^{\circ}$  C. acquired a scalded taste, and underwent some chemical change, tried pasteurization for fifteen minutes at  $60^{\circ}$  C. ( $140^{\circ}$  F.). This destroyed from 98 to 99 per cent. of the bacteria; the pathogenic germs of diphtheria and typhoid are killed, but there is a doubt as to whether the destruction of the tubercle bacillus is insured by this temperature, although Theobald Smith, after many carefully conducted experiments, found that tubercle bacilli, of bovine origin, were invariably killed by pasteurization for twenty minutes at  $60^{\circ}$  C. Milk raised to a temperature of  $100^{\circ}$  C. is markedly altered in taste and smell. The lactalbumin and globulin are, to some extent, coagulated; lecithin, nuclein and caseinogen are altered; the lactose is partially changed and the organic phosphorus is converted into an inorganic phosphate. These changes interfere with the digestibility of the milk. Wroblewski shows that certain of the calcium salts, necessary for the coagulation of the milk in the stomach, which in raw milk are in a soluble state, are made to enter into insoluble combinations by a high temperature. Other experiments show that it is probable that unheated milk contains ferment-like bodies which, when absorbed, are of distinct value to the economy. The investigations of Russell and Babcock prove that milk obtained in a condition of perfect sterility undergoes a self-digestion owing to the presence of a trypsin readily destroyed by heat. Other observations point to the fact that immunity to disease may be conveyed through the mother's milk, and that such immunity conferring substances are destroyed by a heat of  $60^{\circ}$  C. or over, thus rendering children fed exclusively on milk sterilized at a high temperature more liable to certain infections leading to disturbances in general nutrition. Alteration in the normal emulsion in the milk also takes place from heat, lessening its digestibility. Where fresh milk drawn with careful precautions can be obtained for infant feeding it is better used raw, but where there is any uncertainty as to the milk supply it is probably the lesser of two evils to have the milk sterilized at the lowest efficient temperature, namely,  $60^{\circ}$  C., for about fifteen minutes.

## MISCELLANEOUS.

### SURGICAL HINTS.

Never give purgatives to children who have swallowed foreign bodies, for the reason that it is better that these should travel in company with fecal masses than by themselves.

Small boys brought to the surgeon with a very swollen penis nearly always have buried deep in a sulcus, and often invisible excepting by strict search, a ligature of some sort, or a ring which must be removed.

In bad cases of burns or other severe and painful injuries it is advantageous to give chloroform for the first dressing, or at least to give a hypodermic injection of morphia. This diminishes the pain and fear, and consequently lessens the shock.

The parents of the children with hypertrophied tonsils often object to operation because they think the latter may interfere with the child's voice. This fear is groundless. Explain to the parents that the voice will suffer more from the child's continued bad health than from anything else.

In children with prolapse of the rectum it will often be enough to prescribe the daily use of laxatives, to see that the bowels are only moved while the patient is lying down over a bed-pan, and to strap the buttocks tightly together during the intervals between defecations with a wide strip of adhesive plaster.

In removing the contents of the axilla, begin above the location of the vein, and dissect carefully down toward it. Once found, it makes everything easier. If the vein is imbedded in malignant deposit, apply chromicized gut ligatures at a sufficient distance, and remove vein and all. This is better for the patient than leaving behind any cancerous tissue.

It is seldom wise to consent to the parents being present when an operation has to be performed on a child. Children are bound to be terrified when first given an anesthetic, and their cries for help and appeals to their parents are often more than the latter can stand. More than one surgeon has been compelled to defer or even abandon an operation for this reason.—*International Journal of Surgery.*

**APPENDICITIS.**—It is not prudent to subject a recent scar to harmful tension at a premature time. So we make it a standing rule, to which there are no exceptions, to keep our patients in the recumbent position for at least four weeks.—**SENN.**

**SPINAL ANÆSTHESIA** has been seen by Kammerer to come on as late as forty minutes after application of the cocaine solution and yet be very complete. He usually employs about ten drops of a two-per-cent. solution.

**LIME BURN OF THE EYE.**—Cane sugar in concentrated solution forms an insoluble compound with lime, so it may be used after mechanical removal of larger particles. Cleanse every part of conjunctiva with oil, dilute vinegar or water; then use boric solution and perhaps atropine.—**POSEY.**

**SURGERY IN INDIA** was held in high esteem in very remote times. They had a proverb to the effect that "a physician who is no surgeon is like a bird with but one wing." They had a large assortment of steel cutting and cauterizing instruments, and held that "what drugs and knives cannot cure may be cured with fire."—PARSONS.

**COSMETIC SURGERY** has scored another triumph at the hands of a Vienna surgeon, who injects a mixture of solid and liquid vaseline to remedy disfiguring depressions and voids due to the removal of natural parts as, for example, the testicle. He employs the same method to remedy atrophy of the female breast.—*N. Y. Medical Record*.

**OXYGENATED WATER**, while it disinfects wounds, is painful by contact to raw surfaces, and spoils catgut sutures as well as rubber instruments and leather. In employing catgut sutures oxygenated water should be avoided, since it has even led to fatal hemorrhage.—*The Medical Press*, March 13th.

**ENDOMETRITIS AND SALPINGITIS**—One knows by experience that if one gets the endometrium and the pouch leading to the Fallopian tube into a healthy state, the Fallopian tube almost always recovers itself if merely in a state of chronic inflammation.—AMAND ROUTH.

**COCAINE** in equal parts of almond and petroleum oil, while it is slower to begin, continues to act longer than the water solution. Two per cent. is strong enough for nose and throat work. A five-per-cent. watery solution with two per cent. of sodium sulphate added acts better by reason of the penetrating power and solvent action upon globulins and proteids of the secretions encountered.—WINGRAVE.

**NASAL DISCHARGES IN CHILDREN**.—Do not diagnose accessory sinus trouble before the sinuses are developed; remember that the frontal sinus is not developed until the seventh year; that the antrum, although developed early, is quite small after the second dentition, and that the ethmoidal cells have not bony walls until the fourth year, and at that age they are quite small.—COBBLEDICK.

**FOREIGN BODY IN THE EAR**.—The rubber end of a pencil was extracted by teasing out the end of a small piece of twine, and giving this a good coating of glue, pushing it tightly against the India rubber, and packing it closely all round with cotton wool. This was allowed to remain in position for twenty-four hours, when there was firm cohesion, and not the slightest difficulty was found in withdrawing everything *en masse*.—MACASKIE.

Benson relates an instance of the end of a slate pencil being retained and causing deafness for twenty-five years, and Cullen one in which for thirty years a pea-sized piece of tortoise shell has pressed upon the tympanic membrane. In both patients normal hearing was restored.

**DISINFECTION OF SOFT CATHETERS**.—(1) The disinfection of catheters with bichloride of mercury is unsatisfactory. (2) The use of live steam for the disinfection of catheters is also unsatisfactory, because of the damage done the catheters. (3) The disinfection of catheters with formaldehyde vapor as hitherto practised is too slow and for catheters of

small calibre incomplete. (4) The apparatus devised by the writer enables one to render all sizes of catheters absolutely sterile in from ten to twenty-five minutes without any injury to the catheters, by the use of a strong vapor of pure trioxymethylene powder.—KATZENSTEIN, *Berliner klinische Wochenschrift*, September 10, 1900

**SPINAL ABSCESS.**—Do not wait to open a spinal abscess until the skin is reddened and involved. So far as possible open the abscess at certain seats of election, *i.e.*, away from the groin, and make more than one opening if possible. Carefully cleanse the cavity and rub the interior thoroughly with menthol or iodoform solution. Avoid drains of all kinds, and be careful to carry out perfect aseptic measures from first to last. Some patients improve by rest alone, the fluid portion of the pus becoming absorbed, but in many cases the abscess makes its way toward the surface, and then operation should be performed at once, before the skin and subcutaneous tissue have become infected by tubercle, or a persistent sinus may remain.—A. H. TUBBY, quoted in *Medical Times und Hospital Gazette*, February 23d.

**TO ARREST SMALLPOX.**—I first scrub the skin of the forearms and hands with a strongly alkaline soap and water, in order to remove the oil naturally existing in the epidermis. Then I wash the skin with alcohol to kill germs and also to remove oil. Next the skin is washed with a 1 : 500 solution of bichloride of mercury. Then it is washed with a solution of peroxide of hydrogen. Each of these washings is of ten or fifteen minutes' duration. Finally the parts are well wrapped in a thick envelope of borated cotton. The washing is repeated daily for three days. I would suggest, in addition, that the face and other parts to which the bath is inapplicable, should be treated by disinfectants spread on lint and applied to the skin. Also, when the patient is found poisoned by purulent infection, I should not hesitate to recommend the subcutaneous injection of antistreptococcic serum, and the administration of cathartics which have the power to produce watery alvine evacuations. For this latter purpose the sulphate of magnesium would stand foremost. Also digitalis and frequent draughts of water should be used to induce copious diuresis, thereby discharging ptomaines, as would the catharsis just mentioned.—ALONZO BRYAN, *The Physician and Surgeon*, January, 1901.

**PULSATILLA** is the remedy *par excellence* for headaches at the menstrual epoch.—*Med. Summary*.

THE monobromate of camphor is suggested in acute nasal catarrh.

**HABITUAL CONSTIPATION.**—I wish to call the attention of the profession to the following statements: 1. A certain percentage of individuals suffering from habitual constipation are apt to have a spontaneous movement of the bowels the following day after the stomach has been washed for the first time. 2. The majority of such patients will eventually recover the normal function of their bowels, if lavage is continued daily for two or three weeks, and later at greater intervals. 3. The best results are obtained from using cold water, or hot and cold water alternately. 4. The best time for such lavage is one hour before breakfast.—C. D. SPIVAK, *Journal of the American Medical Association*, April 13th.

GALEZOWSKI'S OINTMENT FOR NEURALGIA, according to Bocquillon-Limousin (*Formulaire des médicaments nouveaux*), is made as follows:

℞ Menthol.....	23 grains;
Cocaine.....	7½ "
Chloral hydrate.....	5 "
Vaseline.....	2½ drachms.

M.

HUCHARD'S DIURETIC AND CARDIAC TONIC.—Bocquillon-Limousin (*Formulaire des médicaments nouveaux*) gives the following formula of a mixture employed by Huchard in cases of nephritis with cardiac weakness:

℞ Tincture of grindelia.....	30 parts;
Tincture of convallaria.....	10 "
Tincture of squill.....	5 "

M.

Dose, fifteen drops, three times a day.

CAFFEINE IN THE TREATMENT OF WHOOPING-COUGH.—The *Agendo-médical* for 1901 gives the following formula:

℞ Caffeine valerianate.....	3 parts;
Brandy.....	40 "
Syrup of coffee.....	500 "

M.

From a coffeespoonful to a tablespoonful, according to the patient's age, is to be given morning and evening.—*N. Y. Med. Jour.*

TREATMENT OF HYPERIDROSIS.—Crocker, without attempting to explain the *modus operandi*, says sulphur in ʒi doses, twice daily, combined with astringents, if diarrhoea results, is the best remedy for hyperidrosis. Locally, belladonna ointment or liniment is useful, or finely powdered boric acid dredged with the boots and stockings every day if the feet are affected.

WARTS AND MOLES, TO REMOVE.—The growth to be treated should be walled in with a bit of wax, vaselin, or mutton tallow, and then a drop of solution of sodium ethylate placed on its very tip; after two or three minutes any remaining portion should be absorbed with a blotter. A caustic effect occurs which kills quite deeply, forming a dark scab which peels off and leaves the parts normal. If the growth is quite thick, one or two subsequent treatments may be required; but wait and see what one does before applying another.—ABBOTT (*The Alkaloidal Clinic*).

### Death of an Eminent Foreign Professor

Joseph Fodos, M.D., professor of hygiene at the University of Budapest, has recently died. He was born in 1843, studied under Pettenkofer at Munich, and later under Baron Liebig. Dr. Fodor was, after his master Pettenkofer, the best known of the European sanitarians, and did much toward rendering Budapest the healthy and beautiful city it now is. He was a man of many gifts, and was for some time joint editor of the medical journal *Orrosi Hetilap*.

# The Canada Lancet

A MONTHLY JOURNAL OF MEDICAL AND SURGICAL SCIENCE, CRITICISM  
AND NEWS.

The Oldest Medical Journal in the Dominion : Established 1867.

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## EDITORIAL.

### ONTARIO MEDICAL COUNCIL AND THE ANNUAL FEE.

The question of the yearly assessment by the Ontario Medical Council has at last been brought to a head. It is to be hoped that those in charge will see to it that in treatment the incision is free, the drainage complete, and that healing takes place from the bottom. The Medical Act provides that the names of members of the College shall be erased when in arrears and reinstatement made without formalities or expense on payment of such arrearage.

In October last everyone then in arrears was notified by registered letter of the amount of his arrearage, on the regular form, containing extracts from the act bearing on the subject and in December, those who had not paid had their names erased from the Medical register. On April 19th, the Council prosecutor notified the delinquents, (about 700 in all) that unless the money was forthcoming within one month from date of notice, the aid of the law would have to be invoked and each would be proceeded against for the illegal practising of medicine.

This had the effect of causing many to comply with the regulations. Finding that some of these expressed the opinion that a month was too short a period of grace, the Executive granted an extension of one month (to June 19th) and so notified those concerned by circular.

The report of an interview of a member of the Government by the leaders of the Medical Defence Union recently published in an evening paper, cannot but convey a most erroneous impression of the state of affairs at present existing.

We are informed that the deputation claimed to represent six or seven hundred medical practitioners of the Province of Ontario. It is true as already mentioned that some six or seven hundred practitioners had been in arrears, and in so far as that was concerned might be identified with the deputation, but subsequent events do not show that all were in arrears for the same cause or object, and no evidence has been adduced to prove that those seven hundred as a body had in any way authorized the deputation to represent them. The deputation stated that the Medical Building was a losing concern and that the fees collected were simply being buried there.

To properly appreciate this matter some acquaintance with ancient history becomes essential. Up to fifteen years ago, the Ontario College of Physicians and Surgeons had no home and was forced to rent halls for examination purposes year by year. This was most inconvenient and did not redound to the credit of the profession. It became evident that something would have to be done towards providing a proper location for the Council headquarters, where Councillors could meet, examinations be conducted, and an office for the registrar be secured. The old church which stood on the site of the present medical buildings was finally purchased, it being considered that it would for the time being meet the main objects to be attained, viz., a large examination hall and registrar's office in a central location. Just about that time the real estate boom began in Toronto, prices rising rapidly, and following on the increase in prices, the taxes also. It was afterwards found that the accommodation afforded by the church was inadequate and not commensurate with the amount necessary to carry the property on the altered basis of taxation. In order to secure the necessary increase in facilities, it was thought wise to erect a large building in the place of the old church which would not only meet the requirements of the Council but contain a sufficient number of first-class office apartments, the rent from which would be sufficient to materially aid in carrying the whole concern, without burdensome expense to the College.

Unfortunately, ere this happy state of affairs was realized, the general crash came and the College of Physicians and Surgeons suffered, like every one of the two hundred thousand inhabitants of Toronto, from the prolonged period of depression and hard times which followed, when little more than nominal rents were paid, even in such a central location as Bay and Richmond Streets. Had it not been for that crash the building would have been more successful during the years which have passed, and those who now call it a speculation would probably have been willing to call it a fair investment.

Through all the period of depression the Defence Association has been pressing for immediate sale, and some of its members have gone to the extent in Council of urging, that it be given to the mortgagee for the amount of the mortgage, viz., sixty thousand dollars. The majority of the Council felt that it would be unwise to sacrifice a property that was sure to increase much in value within a reasonable time, when land values in the heart of the city would once more regain their true standard. This prediction has been borne out by subsequent events, for only recently one of the best land valuers in Toronto has estimated the property as being worth one hundred thousand dollars. True, the interest on the investment and the small annual deficit during these years of depression have amounted to a considerable sum, but it must not be forgotten, that in return for this amount we have an equity of forty thousand dollars in a property, first-class in every respect, in the heart of the best business section of the city, not more than a stone's throw from the Municipal Buildings and Law Courts. We do not know that the investment in the first instance was the most judicious, but we do know that the Council has had full regard to its responsibility, in guarding carefully, as trustees, the property of the profession, and one is forced to the conclusion that it was, to say the least, wise to defer sale until better times. The building is one of the main points of contention with the "Defence" Association—yet some of the leaders in this movement paid nothing even before there was any property bought or building erected.

Again, it has been stated that the profession is not properly represented in the Council. Prior to 1893 there were twelve territorial representatives sitting in the Council. An amendment to the Medical Act was secured at that time whereby five more were added, making a total of seventeen territorial representatives in a Council of thirty—17 territorial, 5 homœopathic, and 8 University and school appointees. In the election which was held in 1894 the "Defence" men made non-assessment the chief plank in their platform; nevertheless, out of

seventeen they carried only six constituencies and at the last election a still smaller number. Thus the profession by a majority of eleven to six in the first instance and in the second of fourteen to three pronounced in favour of assessment. The Act provides that the assessment shall be levied by by-law each year and prohibits all school representatives from voting upon that by-law. Consequently the practitioners have the assessment entirely in their own hands, the schoolmen having no voice in the matter.

The feelings of the profession may be estimated by a glance at the registrar's books. In 1893 not more than seven or eight hundred had paid their fees in full, the remaining twelve or thirteen hundred being in arrears. To-day this is more than reversed, for out of twenty-five hundred practitioners in Ontario there remain only *two hundred and eighty-nine* who are now indebted, and of these a goodly number have promised to pay, some instructing the registrar to draw on them for the amount they are in arrears.

It was furthermore stated that about one hundred out of the seven hundred who were struck off the register in December had paid their fees in response to the notice served on them, *many* doing so *under protest*. Of the one hundred mentioned who paid prior to the interview of the Hon. Mr. Davis by the leaders in the "Defence" movement, on inquiry we find that *not one had protested against payment*; on the contrary, many wrote letters expressing their perfect willingness to pay since everyone was going to be compelled to do so, but they *protested* against any being allowed to go free.

The contention that "they receive nothing in return for their two dollars" is not fair. Is protection against quacks and "shyster" doctors nothing? Verily we think it invaluable. The prosecution of quacks costs a good deal of money and every case brought before the discipline committee has entailed much expense, sometimes amounting to several hundred of dollars, in spite of the fact that everything is done as cheaply as is consistent with efficiency and justice.

The assessment is a mere bagatelle, the Act providing that it shall not be less than one dollar or more than two per annum. Many comparisons might be made as to assessments and methods of collecting the same adopted by other professions, but we will refer very briefly to but two. Members of the legal profession must pay to the Law Society seventeen dollars per annum. It is true that they receive something in return in the shape of law reports. These are valued by legal gentlemen at about ten to twelve dollars. While a doctor can be restored when struck off the register by simply paying arrears, the lawyer must contribute fifty dollars to the treasury in addition to his arrears.

Druggists pay a yearly fee of four dollars (and this is commuted to *two* if paid promptly) for which they receive *nothing but protection*.

The sooner the paying of the assessment is on an established basis and everyone recognizes the fact that it is going to be collected, the better for the profession.

F. F.

### CANADIAN MEDICAL ASSOCIATION.

From what one can learn the Winnipeg meeting of this Association promises to be one of the best ever held. The railways have granted a single fare for the round trip, with the additional privilege of a single fare rate from Winnipeg to any point in Manitoba, the North West, British Columbia or North Dakota after the meeting. This of course will make a large attendance certain.

The Address in Medicine by Dr. J. R. Jones, Winnipeg, in Surgery by Dr. O. M. Jones, F. R. C. S., Victoria, and in Gynaecology by Dr. Thomas S. Cullen of Johns Hopkins makes a nucleus for the programme that will indeed be hard to beat.

In addition to these the following have promised to contribute to the programme: Drs. Gilbert, Gordon, John Hunter, B. E. McKenzie, D. J. Gibb Wishart, G. Silverthorne and G. H. Burnham of Toronto; W. S. Muir, Truro, N. S.; Laphorne Smith, Montreal; A. Armstrong, Arnprior; J. C. Mitchell, Enniskillen; Prof. Russell, of the University of Wisconsin; H. M. Bracken, the Health Office of Minnesota; F. T. Shepherd Montreal and L. H. Warner, of New York.

Judging from the foregoing list which has been supplied to us by the Secretary, the scientific part of the programme will be almost equal to the social part, and, from what little birds tell us, visiting members may look forward to a rich treat.

The Secretary, Dr. F. N. G. Starr, Biological Building, Toronto, will be glad to furnish particulars to any intending to be present.

### THE CONERTY FUND.

To the Editor of THE CANADA LANCET:

SIR,—I beg to forward you the following list of subscriptions to the Toronto Clinical Society Conerty Fund:

Toronto Clinical Society .....	\$25 00
Dr. F. LeM. Grasett .....	5 00
Dr. H. J. Hamilton .....	5 00
Dr. E. E. King .....	5 00
Dr. H. B. Anderson .....	5 00
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Dr. Geo. Elliott .....	2 00

W. H. PEPLER,

Treasurer, Toronto Clinical Society Conerty Fund.

## EDITORIAL NOTES.

### **For Medical Research.**

John D. Rockefeller, the millionaire Standard Oil magnate has made a preliminary gift of \$200,000 to establish facilities for research in medicine. Until buildings are equipped this amount is to be utilized for research in various pathological laboratories throughout America.

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### **University of Pennsylvania Pathological Laboratory,**

The University of Pennsylvania is expending \$500,000 in building a new pathological laboratory.

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### **For the Ontario Licences.**

There were one and sixty-two candidates wrote on the recent primary examinations of the College of Physicians and Surgeons of Ontario.

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### **Medical Graduates of Trinity University.**

Fifty-two candidates succeeded in obtaining the degree M. D. C. M. from Trinity University at the recent examinations.

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### **Graduating Class Dinner.**

The graduating class of Trinity Medical College, some fifty in number, dined at the Temple Café on the evening of the University Medical Convocation. Dr. C. P. Lusk occupied the chair and many members of the faculty were present, a very enjoyable evening being spent.

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### **Class Dinner.**

The Class of '92, University of Toronto Medical Faculty, had a pleasant reunion at the Albany Club, June 18th, about twenty-five being present. Dr. H. A. Bruce, a prominent member of the class, entertained them at lunch the following day.

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### **Resident Medical Staff Hospital for Sick Children.**

The following recent graduates have been appointed:—Dr. Allen B. Rutherford, Owen Sound; Dr. W. H. Lowry, Guelph; Dr. John D. Chisholm, Berlin; Dr. Margaret McCallum, Toronto. Dr. McCallum has the distinction of being the first woman medical resident appointed to such a position in Canada.

## PERSONAL.

Dr. Chas. Trow, of Carlton St., has returned from his holiday in the West Indies.

We are pleased to learn that Dr. Adam Wright is being greatly benefited by his visit to Europe.

Dr. T. A. Addy, (Trin. '99) has successfully established himself in practice at Middleport, N. Y.

Dr. R. J. Dwyer, who has spent the past year in Europe returned to Toronto in June.

Dr. Corelli C. Field, (Trin. '94), of Port Hope, is doing post graduate work in gynaecology at the Johns Hopkins.

Dr. Arthur Jukes Johnson and Mrs. Johnson, of Bloor St., have sailed for Europe, where they will remain some months.

Dr. Allan Baines attended the meeting of the American Paediatric Association at Niagara Falls, N. Y.

Dr. Charles Sheard delivered an address before the National Council of Women at their recent meeting at London, Ont.

Dr. B. Hawke, of Stratford, has taken up his residence on Carlton St., Toronto. Dr. Hawke will devote his attention to diseases of children.

Dr. A. McPhedran, of Bloor street, leaves shortly to spend a couple of months in Europe.

Dr. Brock, of Guelph, has been elected president of the College of Physicians and Surgeons of Ontario for the year 1901-2, and Dr. J. H. Emory, of Toronto, vice-president of the same body.

Dr. B. L. Riordan and Dr. C. R. Dickson, of Toronto, attended the recent meeting of the American Association of Railway Surgeons in Milwaukee.

Dr. Leask (Tor. '90), recently of the resident medical staff of St. Michael's Hospital, has accepted a position as surgeon on the Central Algoma Railway.

Dr. A. Flath, (Trin. '92) who has been practising since graduation at Church's Ferry, N. D., is about to give up general practice and after spending a time in post graduate study, will take up his residence in Detroit.

Dr. Harry J. Way (Tor. '92), and formerly a member of the resident medical staff Toronto General Hospital, who has been practising in Chicago, was married on June 19th to Miss Turley, daughter of Theophilus Turley, Esq., of that city. THE LANCET offers congratulations.

The engagement of T. H. Middlebro, M.B., F.R.C.S., of Owen Sound, to Miss Thompson, of Shelburne, is announced. Dr. Middlebro graduated from Toronto University in 1892, and for the following year served on the resident medical staff of the General Hospital.

## CORRESPONDENCE.

To the Editor of the Canada Lancet.

DEAR SIR,—Philosophers of the twentieth century are telling us that combines and trust corporations have come to stay, and that we, as individuals, must co-operate if we wish to stand solid and be considered among the mighty. The writer thinks that the time has arrived for the medical men to unite and form one big strong combination, a very tower of strength in the hour of need and necessity.

There are many reasons why at the present time we should join hands. For instance, most of us have heard of the dissatisfaction expressed by members of the profession at the management of the College of Physicians and Surgeons of Ontario, that conventions have been held and petitions filed with the Government, in fact, many regular practitioners have been struck off the roll for refusing to pay the annual fee of \$2.00, which fee, in the writer's opinion, has been rightly styled the dog-tax. From such a paltry sum paid annually we cannot expect to derive much material benefit.

Then there is the important question of a Defence Union. We are almost constantly hearing of one of our brethren defending himself in court against some unscrupulous person without anybody to stand by to help him, except perhaps some good hearted fellows who have joined in a private subscription for him.

These are issues that must appeal to the profession generally in Ontario.

Let the medical men of Ontario co-operate and unite to form an association with the College of Physicians and Surgeons as its head. Let them subscribe a reasonable sum, say \$10.00 or \$15.00 annually, which sum could be used for such purposes as :

- a. Medical Defence Fund.
- b. A thorough inquiry into, and, if necessary, the prosecution of all cases of illegal and improper practice.
- c. The general use of the Council building for all meetings of societies and associations, either provincial or local.
- d. The improvement and enlargement of our medical library and for such other practical purposes as may present themselves from time to time.

Yours, etc.

W. H. PEPLER.

## BOOK REVIEWS.

## ENCYCLOPEDIA MEDICA.—VOL., III.—DIPHTHERIA TO FOOD.

Under the General Editorship of Chalmers Watson, M.B. Published by Wm. Green and Sons, Edinburgh. Canadian Agents, J. A. Carveth & Co, Toronto, Ont. Price \$5.00 per volume.

This volume is fully up to and in some respects surpasses in interest those which have preceded it.

The first article is one of 21 pages upon diphtheria. It is most valuable, being at once concise, complete, up-to-date, and most readable. Under Etiology, the views of Newsholme upon the influence of soil and climatic conditions are discussed, and generally supported. Under "modes of dissemination," the influences exerted by schools, and milk supply receive due attention, and the statement is made that no instance exists of diphtheria having been conveyed by the water supply. Under complications the various forms of paralysis are admirably stated and the analysis showing the frequency with which the different groups of muscles are involved is instructive and complete.

Three problems in the pathology of the disease are dealt with especially, viz., the acceptance of the Klebs Loeffler bacillus as the essential cause of diphtheria, the variation in the virulence of the bacillus, and the responsibility of associated organisms for such complications as adenitis, cellulitis, suppuration, etc.

As is to be expected, antitoxin is given at once the precedence and the chief place in treatment, as being "the most satisfactory method that is known." The cardinal rule is laid down—inject early. The remarks with regard to the dose deserve quotation in full:—

"If the treatment is commenced on the first day the dose should be 1,500 units at least; it will usually be unnecessary to give more than 2,000. But if it be delayed, the amount must be increased up to 8,000 or 10,000 units, according to the severity of the case. It is advisable to repeat from half to the whole first dose within twenty-four hours if the local exudation shows no signs of resolution. With respect to the total amount to be administered, though as far as the writer knows (and he has often injected from 30,000 to 50,000 units) the limit is set only by the volume of the serum that can with convenience be injected. Yet his experience leads him to say that little is to be gained by giving more than 16,000 units during the first twenty-four hours from the commencement of the treatment.

But, again, the earlier the treatment is begun, the less necessity will there be for large and repeated doses.

As the more concentrated sera are more expensive than the less concentrated, early treatment is more economical."

Under "local treatment," preference is expressed for flushings of the affected regions with a saturated warm solution of boracic acid, while the use of chlorine, in carbolic acid is deprecated.

Strange to say, the writer, following the English custom, prefers tracheotomy to intubation, and in the latter case advises the removal of the tube every second day.

There are a number of other articles equally interesting, such as those upon the Ear, Eclampsia, Ectopic Gestation, Epidemiology, the Eye, Filariasis, Food, etc.

The list of contributors includes such well known names as those of Goodall, Barr, McBride, Cheatele, Halliday Croone, Dalziel, Jobson Horne, Nuttall, etc.

D. J. G. W.

### PRINCIPLES OF SURGERY.

By N. Senn, M.D., Ph. D., LL.D., Professor of Surgery in Rush Medical College in Affiliation with the University of Chicago; Professorial Lecturer on Military Surgery in the University of Chicago; Attending Surgeon to the Presbyterian Hospital; Surgeon-in-Chief to St. Joseph's Hospital; Surgeon-General of Illinois; Late Lieutenant-Colonel of United States Volunteers and Chief of the Operating-staff with the Army in the field during the Spanish-American War. Third Edition. Thoroughly Revised with 230 Wood-engravings, Half-tones, and Colored Illustrations. Royal Octavo. Pages, xiv-700. Extra Cloth, \$4.50, Net; Sheep or Half-russia, \$5.50, Net. Delivered. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry Street.

This is essentially a work on Surgical Pathology. Every point is discussed from a Pathological standpoint, and, where necessary, Physiological and experimental arguments are brought to hear. This latter is well exemplified in the section on wounds and degeneration of the more highly specialized organs. The phenomena signs, and results of inflammation are discussed at length and the condition given the space and place that its importance demands.

Infections, local and general, and bacterial diseases generally are well arranged and clearly put. The Bacteriology is of the higher sort and is applied in a most pleasing and practical manner to the clinical manifestations. Surgical tuberculosis occupies an important place, and the other infectious granulomata receive due attention. There is an interesting section devoted to blastomycetic dermatitis.

It may be said of treatment generally that all known methods are given their place, being approved of or disapproved of according as they present a logical application to the Pathology of the condition.

It is pleasant to peruse a work where the arguments are so well made and the conclusions so well drawn, and one which so clearly shows the grasp the author possesses of his subject.

H. C. P.

## SAUNDERS' MEDICAL HAND-ATLAS AND EPITOME OF SPECIAL PATHOLOGIC HISTOLOGY.

By Dozent Dr. Hermann Durck, Assistant in Pathological Institute in Munich. Edited by Ludvig Hektoen, M. D., Professor of Pathology in Rush Medical College, Chicago.—W. B. Saunders, Philadelphia, J. A. Carveth & Co., Toronto, Canadian Agents.

This is the first volume of a series of three intended for the guidance of the student in his histological work, the idea is to give an epitome of the pathology, as practical and concise as possible, of special organs, this being illustrated by a series of drawings made from sections in the possession of the author. This volume deals with the heart and circulatory apparatus, lungs, and digestive tract. The drawings are excellent and well explained by foot-notes. The Epitome is necessarily brief, but gives the main points, and those clearly. The work should prove of great value as a guide, but as the author well says in the preface, "its use will yield good results only when combined with the study of preparations under the microscope.

Its use in our laboratories would undoubtedly be productive of great benefit to the students, and a great assistance to those demonstrating.

H. C. P.

## A SYSTEM OF PHYSIOLOGIC THERAPEUTICS.

A Practical Exposition of the Methods, other than Drug Giving, Useful in the Treatment of the Sick. Edited by Solomon Solis Cohen, A.M., M.D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson College; Physician to the Philadelphia and Rush Hospitals, etc. Volume I, Electrotherapy, by Geo. W. Jacoby, M.D., Consulting Neurologist to the German Hospital, New York, etc. In two Books. Book I, Electrophysics—Apparatus Required for the Therapeutic and Diagnostic Use of Electricity. With 163 Illustrations. P. Blaikiston's Son & Co., Philadelphia, 1901.

The publication of a system of Therapeutics in eleven volumes, dealing with methods other than drugs useful in the treatment of disease surely marks the commencement of a new and happier era in the practice of medicine. Such a publication is a natural sequel to the more rational conception of disease based on etiology, pathological anatomy and physiology which forms the groundwork of medicine at the present time. It cannot be denied that the regular school of physicians in even recent times have placed too much faith in the use of drugs, often to the neglect of other methods of far greater importance. This furnished the golden opportunity for quacks, Christian scientists, magnetic healers, faith curists, osteopaths, homeopaths and the scores of "irregulars" who

have too often profited by our mistakes. It is a simple statement of fact to say that cures have frequently been obtained by these "irregulars" that have brought discredit to medical science, simply because most valuable methods of dealing with disease were ignored and left to the quacks and faddists. We welcome the publication of this system of physiologic therapeutics because it will place on a reputable and scientific basis, and within the grasp of the profession generally, the value of therapeutics without drugs. The work is deserving of a place in the library of every progressive physician, and the profession owes a debt of gratitude to the editor, authors and publishers in placing it within their reach. The first volume deals with Electrotherapy, Book I of the volume—containing 242 pages—describing particularly the apparatus required for the therapeutic and diagnostic uses of electricity. This useful but rather uninteresting phase of the subject is fully dealt with and well illustrated. The volume is handsomely executed, the presswork being very creditable. The publication of the subsequent volumes will be awaited with much interest.—H.B.A.

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## PUBLISHERS' DEPARTMENT.

### THE "PAPYROS EBERS."

Believing that physicians, of all men, are most interested in the history of their art, the makers of HEMABOLOIDS are now prepared to present to their friends in the medical profession a fac-simile reproduction of the beginning of the earliest medical treatise extant, together with transcription into hieroglyphics and translation of a portion of the text.

The famous "Papyrus Ebers," which was written during the reign of the Egyptian king Bicheres, 3,500 years ago, was discovered by the celebrated archeologist, Georg Ebers, in 1872, when an Arab brought him a metallic case containing a papyrus roll enveloped in mummy cloths, which he claimed had been discovered between the bones of a mummy in a tomb of the Theban Necropolis. A complete description of the papyrus and its history is included in the reproduction and is certainly extremely interesting to physicians and antiquarians generally. A copy will be forwarded by The Palisade Mfg. Co., Yonkers, N. Y., to any physician who may have failed to receive one.

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## SCIENTIFIC AND PRACTICAL FACTS ABOUT DIARRHOEA.

Prof. White, of the University of Dublin, proved by careful detailed studies as to the action of Angier's Petroleum Emulsion upon the various micro-organisms that inasmuch as petroleum offers no food for bacteria, they cannot thrive in this medium; consequently petroleum is both aseptic and antiseptic. By an elaborate series of laboratory experiments, Dr. White found that the petroleum emulsion inhibited alcoholic, lactic, and butyric fermentation, as well as the growth of putrefactive bacteria which have their natural habitation in the intestinal canal.

Dr. W. D. Robsinson, a well known authority on diseases of the stomach and intestines states in the Medical News (July 14, 1900): "I have extensively given petroleum and salol four times a day, and reclaimed the oil from the feces and found it to contain some salol and its components, phenol and salicylic acid. This proves the carrying of a chemical antiseptic and antiferment through the entire canal. It is a solvent of iodine, sulphur, betanaphthol, naphthaline, menthol, thymol, camphor, and iodoform." By combination of any of the antiseptics mentioned with petroleum a germ-free condition of the intestinal canal is assured and which is not, according to the highest authority, obtainable by any other means.

Dr. Fothergill, director of the Clinical Laboratory, Manchester Hospital, England, employed the unusually large resources of his clinic to determine how infantile diarrhoea could be satisfactorily treated. This authority reported (Medical Chronicle): "Petroleum Emulsion was used in thirty-four cases. One child died. In the remaining cases recovery was rapid and complete. There was no derangement of the stomach, vomiting ceased almost before the diarrhoea was checked, and the stools soon recovered their normal color and consistency. The emulsion seemed also to favor recovery from the accompanying bronchial catarrh. These experiments seem to prove that infantile diarrhoea can be treated successfully without the use of opium or astringents."

It is for these reasons—inhibition of germ life, sedative healing action on ulcerated and inflamed intestinal mucous membrane, etc., that Angier's Petroleum Emulsion has been so successfully employed in constitutional and intestinal affections associated with diarrhoea.

There are many reasons why Angier's Petroleum Emulsion is so extensively employed in bronchitis and the various inflammatory affections of the respiratory organs incidental to the winter months. The first and most potent of these reasons is the universally attested clinical fact that the remedy *quickly and completely* cures these conditions. Equally true is it that the Emulsion exerts its curative influence in both the *acute* and *chronic* forms of bronchitis. It is not, however, a matter of wonderment why this is true, when a moment's thought is given to the pathologic conditions existing in these respiratory disorders. The mucous membrane is congested, swollen and often covered with the disordered secretions—tenacious, adherent, viscid mucus. From this engorgement and the presence of the disordered secretions—which act as any other foreign body and produce irritation—result the symptoms of bronchitis, laryngitis, etc. Frequent cough results from the irritating presence of the retained secretions on the abnormally sensitive ends of the nerves in the respiratory mucous membrane. Expectoration is difficult and indeed practically impossible, because the secretions are firmly adherent and there is insufficient lubrication to facilitate their removal. Bronchial distress, always present, is but increased when strong expulsive efforts are made. Hence in these acute congestions and inflammations of the respiratory organs there is needed a remedy which lubricates the tissues, and at the same time has a sedative influence upon inflamed, engorged

mucous membrane. This is exactly what Angier's Petroleum Emulsion does. It has been well proven that by reason of its capillary action petroleum is capable of passing from the pharynx through the glottis into the larynx, and even far down into the bronchi. It is first of all a lubricant—it loosens the adherent secretions and renders their removal by expectoration an easy process.

### LAXATION IN CONSTIPATION.

By J. A. RENE, M.D., West Superior, Wis.

The successful treatment of constipation does not consist in simply momentarily relieving the overloaded intestinal organs, because some of the pathological conditions co-existing may persist even after this result has been obtained.

The fact that there is an intimate association between the intestinal and cerebral functions was early recognized by the ancients—a fact that shows the need of attending to the cerebral disturbances while correcting the pathological conditions of the gastro-intestinal tract.

The habitual use of purgatives is not to be encouraged, as it only increases the disability which they are intended to remove; and therefore it is essential that the treatment should be one aiming at permanent results as well as relief. And for that reason it is very often necessary to combine drugs that will not only relieve the constipation, but also cure the other pathological conditions which might have been the primary cause of the constipation, or have been brought about by the constipation itself.

Of late years many preparations have been placed at the disposition of physicians, and some of these preparations are certainly scientific combinations. Most of them contain such splendid remedies as belladonna, aloes, cascarn, etc., but of all the recent preparations which have come to my notice I have found the Laxative Antikamnia & Quinine Tablets to be the most efficacious in relieving cerebral disturbance, as well as curing the intestinal trouble.

A close study of this combination shows that it is a tonic-laxative, analgesic and antipyretic—and its administration in certain cases is sure to be followed with excellent results. For instance, in the sequelæ of typho-malarial cachexia, when a gentle and safe laxative combined with an anti-periodic is required, I have found this preparation of the utmost value. The co-operative or synergetic properties of these ingredients will readily commend themselves to the profession.—*Chicago Medical Times.*

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