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CRIMINAL ANTHROPOLOGY-A REVIEW.

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The treatment of criminals has perplexed the statesmen of all ages, and in their efforts to protect society against the criminal, all kinds of methods have been tried. For centuries the underlying principle of penal law was that on vengeance and repression. The state tried in vain to suppress crime by the terror of tortures and intimidation. "All hope abandon ye who enter here," might properly have been inscribed over the portals of every penal institution a century ago, for the whole life of the prisoner was ingeniously contrived for producing misery and despair, so that his mind might be filled with the hideous terror of it, in the belief that upon his release fear would act as a deterrent to crime. Even on his release the pitiless vengeance of society followed him up, for the criminal at that period was marked and branded for life, that he might serve as a living warning to others if he tried to fall into step with the world again.

Did it work as anticipated? Of course not. In fact crimes of property became even more daring, until experience was crystallized into the axiom that "crime thrives upon very severe penalties." In the older countries the prisons and jails became so choked that the government had to resort to transportation and penal colonies for the disposal of their human rubbish.

After eighty years of futile experiment of this kind, the failure of the transportation plan was admitted, and practically abandoned. But this was not without its value, for, at least, it gave the world the lesson that in many cases a desperate criminal could turn over a new leaf in the new environment, and become a useful member of society. The advent of hope in our British penal institutions brought with it the dawn of a new life for the criminal classes, and opportunity succeeded where mere cruelty had failed.

In the Victorian era the penologists, profiting by the failures of the past, evolved the humanitarian plan of reformation and rehabilitation. They began to work with the criminal as well as for him. The beginning of the twentieth century has witnessed the advent of preventative methods as well as the adoption of many curative agencies now in operation in our penal institutions.

The causes of social disorders, the relationship between pauperism and crime, the better housing of the poor, the child placing from the crowded and congested slums of our larger cities, are all vital questions in the new criminology of the Dominion, and they are having the thoughtful and serious consideration of the best thinking people from the Atlantic to the Pacific coast.

The curative agencies of the Dominion penitentiaries, working through the channels of authority and discipline, accompanied by the industrial and the educational methods, with the helpful auxiliary of the parole system embracing the kindly oversight of the discharged prisoner in providing friends and employment on the day of his discharge, are producing magnificent results in the transformation of the criminal strata to the social strata of usefulness and good citizenship.

One of the great advantages England has in her penal system, is embodied in the fact that all her jails and prisons come under one authority. In Canada only the penitentiaries come under Federal authority, the province holding jurisdiction over provincial prisons and jails.

The wisdom of the parole system, and the discretion exercised in its administration can be judged by results. From the adoption of the system in 1809 until the close of the last fiscal year there were 1082 paroles granted. Of this number of prisoners paroled, 657, or about sixty-one per cent. have completed their sentences, under license, without violation of the conditions imposed; while 325, or thirty per cent. additional have thus far respected the conditions of their licenses which are still operative. Those who have forfeited their licenses by subsequent conviction, and who may be thought to represent the criminal element of those under license, number 24, or but little over 2 per cent. The remaining 7 per cent. have been recommitted for non-compliance with the conditions of the license but without charge of criminality against them during the period they were at large.

It cost the state \$254 per capita for the maintenance of convicts of our penitentiaries during the past year. The 222 men released on parole this past year who have proved themselves satisfactory cases have turned producers. The state has not only been relieved of the cost of their keeping in penitentiary, but these men working outside at laborers' wages (\$1.50 per day) produce in the year over one hundred thousand dollars to the support of their families and themselves. I know many of these men who are earning three or four dollars per day, having good positions as capable mechanics, etc., in various cities of the Dominion.

During the year I have twice visited the penitentiaries and jails in the west, interviewing the major portion of the men and seeking employment for the paroled and discharged prisoners.

Dorchester, N.B., and St. Vincent de Paul have had four visits during the year. In Kingston seven visits have been made in the interests of the men and working out the parole system.

A number of patrons have been secured in the cities and towns of the Dominion, who are, on my recommendation, prepared to give employment to the paroled or discharged convicts. We have provided a number with transportation, when such assistance has been deemed advantageous, and have otherwise assisted specially deserving or needy cases. At the request of their parents, five wayward boys were located in the penitentaries, in which they had been incarcerated unknown to their parents, and returned to them on their discharge from the penitentiaries. Several cases of reconciliation and rehabilitation between husbands and their wives and families have also been made, and, where homes have been broken up through the criminality of the parents, these homes have been restored and their children when in the custody of charitable societies or friends, have been returned to their parents.

I have been able to find employment for 286 men on their

discharge from the federal institutions during the past year, apart from the paroled convicts.

REVIEW OF TABULATED PAROLE STATEMENT.

For Year Ending June 30, 1905.

The following statement of results has been compiled from figures obtained from the Commissioner of Dominion Police, and I submit them for consideration:

Convicts Paroled.	1899 1900	1900 1901	1901 1902	1902 1903	1903 1904	1904 1905	Total.
From penitentiaries	71	122	157	113	I 22	127	712
From prisons, jails and reform- atories	1	53	89	65	67	95	370
Total	72	175	246	178	189	222	1082
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Licenses cancelled for noncom- pliance with conditions Licenses forfeited by subse-	5	99	19	11	16	16	76
quent convictions	7	8	6	2		I	24
Sentences completed on parole	59	141	189	124	96	48	657
Sentences not yet terminated	Î	17	32	41	77	157	325
Total	72	175	246	178	189	222	1082

INCREASED JUVENILE CRIMINALITY.

Increase in juvenile criminality from 1901 to 1904:

1001 1004

Number of Juvenile Criminals (under 20 years of age) ... 134 161

Those under 20 years of age constitute 12 per cent. of the entire number of criminals. This fact brings the origin of crime close to the homes of the country.

COMPARATIVE STATEMENT.

The man who commits murder in New York city is in hardly more danger of going to the death chair than he is of being struck by the trolley car. The facts are proven by records. Homicides in New York City:

	Number:
1866	8
1872	
1885	84
1896	
1904	147

In 1866 there were 4 convictions for the 8 murders committed. In 1904 there were 27 convictions for the 147 murders and two executions for the year. Seven life sentences.

Year.	Homicides.	Convictions.
Greater London (population 6,500,000)1904	24	20
Greater New York city (pop. 4,544,354) 1904	147	27

The aggregate homicides in one year of London, Paris and Berlin do not equal the awful murder record of New York City.

COMPARATIVE STATEMENT.

Some little comment has been made in connection with the administrative operation of the Canadian parole system, in comparison with the operation of the parole laws of the United States and elsewhere. They emanate from a source not in touch with the results or the figures given from the states and countries where the parole system is in vogue. I have gone carefully over the tabulated statements of two of the leading United States penal institutions, showing from their figures the best percentage of work accomplished under the system of a "Board of Control," or the "Board of Pardons." I think after a study or analysis of both systems you will agree that the Canadian system is second to none, not only in results accomplished, but in the principle of administration. The careful investigation sought in each case, and the thoughtful consideration given by the Department of Justice before the Crown will grant a parole to any prisoner in our penal institutions in Canada, is strongly in evidence from the results shown by the Canadian system.

The record of the State prison at Michigan City from April 1st, 1897, to April 1st, 1904, shows 909 men released on parole. 184, or twenty per cent., proved delinquent. Of this number 99 were returned to prison for crimes committed while on parole. Of 69 cases the maximum of the term for which they were sentenced expired while they were on parole, and they received their discharge. 491 earned their discharge by good conduct while on parole. 17 died, and 148 continue to make their reports required by the authorities. From the Indiana Reformatory, of the same dates, 1611 men were released on parole, and of these 847 have been discharged after having made satisfactory reports for such time as was required by the parole Board of Control. Of the whole number paroled, 348, or 23.8 per cent., failed to comply with their conditions of parole. The majority of these men, having committed offences, were returned to the institution. Of 144 cases the maximum sentence expired and they received their discharge. One was pardoned by the governor, 36 died, and 172 continue to make their reports.

The amount of wages earned by the paroled men of both institutions netted \$587,711.26.

All our prison knowledge comes from accumulative experiences of past ages. All progress has its root in the sense of failure to realize ideals marking each epoch in the world's history from the days primeval. There are as many distinct ideals as there are groups of men. The economic ideal of a prison is that it shall be self-supporting; the administrative ideal is that it shall be secure and orderly; the punitive ideal that it shall crush its helpless inmates and strike terror into the hearts of men tempted to enter upon a criminal career; the sentimental ideal, that it shall be the abode of comfort, hallelujahs and content; the philosophic ideal, that it shall be so conducted as to reform as many of those committed to it as are susceptible of reformation and rehabilitation. These ideals spring up partly from within and partly from without. Prison officials have the opportunity to study the criminal at first hand. Bv their close and continued contact with him they become familiar with his peculiarities, his tastes, his notions, his sentiments, and his habits. They note the effect upon him of every detail of the discipline to which he is subjected, and the changes in their attitude to him correspond to the keener insight and more accurate judgments gained by a large and long experience in prison administration.

The outside world has a different standard of comparison. It judges by results as shown on the ledgers of the State, the docket in the criminal courts, police courts and elsewhere. From these sources we hear often the questions: Does punishment really punish? Does intimidation really intimidate? Do reformations really reform? Is there any appreciable diminution in the volume of crime in the Dominion of Canada?

Crime is old, old as the human history. The causes of crime are deep, ancient and persistent. Some day these causes may be removed. Let us live in hope, but now, it is folly to speculate in optimistic dreams not having their foundation on sound logic or fact. The bald facts are—we must help where we can, or some will perish who might be rescued. There is no doubt the world in each cycle must grow better. What we do in our generation should be done on sound foundation and in a practical way to recommend it to those who follow and carry on the work of prison and social reform.

THE RELAPSED CRIMINAL.

RECIDIVISM.

The great plague of society is the recidivist. He is the man or woman who has gone to prison half-a-dozen times, or it may be fifty or a hundred. In some countries a criminal who has been in prison two or three times is regarded as a recidivist without reference to the nature of his offence. Under the German system he is regarded as a recidivist only when he repeats his offence.

There are recidivists who are professional and anti-social. It is the latter, whether he be a general recidivist, committing a variety of crimes, or a special recidivist, confining his infractions to a single line, who is most dangerous. The real problem in dealing with this matter is to distinguish between the accidental or occasional, and the habitual criminal.

DISCHARGED PRISONERS AND RECIDIVISTS.

We cannot separate the proper treatment of paroled prisoners from the large and important question of prison administration. When a man returns to prison a second or third time it may be because when he went out of prison he was not properly educated to go back into society, or it may be because society was not properly educated or prepared to receive him. If the convict has learned a trade through the industrial agencies of the prison which lie at the basis of all improvement, it is not so difficult to place him. But, if a man comes out of prison without industrial fundamentals inculcated into his habits, it is hard to tell which is the more helpless, the prisoner who asks for work or the man who would like to befriend him by giving him employment. I have come to the conclusion that efforts of this character, to be effective and lasting, must be carried on as a supplementary agency when he leaves the prison, followed up outside by all the better influences for his rehabilitation. As a rule the paroled prisoner meets an apathetic and sometimes hostile feeling in society when he begins to breathe the atmosphere of freedom.

This is where the services of the parole system are active and potent. We stand by the man before and after he is placed in a situation. Should he hold fast his determination to reform, we encourage him in this intention, till a man once weak and almost helpless begins to feel his footing, and in the course of time he becomes a social unit. Thus he is saved to citizenship and the state.

The indefinite sentence system, as proposed by the Inspectors of Penitentiaries in Annual Report for 1904, sessional paper No. 34, would greatly strengthen our hands in working out the problem in connection with the relapsed criminal in Canada. I would apply this system to every man going to jail or prison on the third commitment, sometimes on the second, never on the first. If a man has made up his mind to follow a criminal life, he is better off in prison than at liberty. Society also will benefit by this protection. Has society not the right to demand this protection? When conditionally released the recidivist will have an opportunity of proving himself. Should he lapse into his former life, he will immediately forfeit his parole and be returned to prison.

Let me cite the Swiss system in dealing with and reducing the recidivist prisoners in the Canton of Neuchatel. recidivists numbered in their prisons in the year 1870, 75 per cent. of the total population. They adopted the indeterminate sentence system, and from 1870 to 1892, the result demonstrated that recidivism decreased to 4 per cent. Now the recidivist is seldom found in their prisons. Our present system in Canada has but little effect on the habitual recidivists. Very few relapsed criminals desire to reform or change their way of living. Hence on their discharge they refuse any work offered or provided to assist them. Many have said openly to me, "I prefer Something should be done to lessen this to follow the graft." great evil. Give the indefinite sentence system a trial and the axe will be laid at the root of this dangerous and pestiferous organism. With the indefinite sentence treatment, the recidivist will begin to diminish and disappear under the strong and helpful administration of our Canadian prisons.

The vagrant question is also vital. The tramp element still prospers. The man who will not work is exceedingly dangerous. Many of the serious crimes committed during the past five years can be traced to the tramp element; many of them are professional in their avocation.

A successful beggar is apt to be haughty, arrogant, dictatorial. On the whole the spirit of begging is the spirit of highway robbery. From an humble request for alms to a demand for your purse is but a step in begging evolution. In both cases the man wants something that is not his. There are three ways open to the human reason to gain it: earn it, beg it, seize it. The first method to a lazy man is absurd; to dig, many are ashamed. And the second, to beg, many regard it as too easy. And the last, to seize, many think to be the best of all—provided objections are not too strenuous. Therefore the highwayman is simply an advanced type of beggar! Nothing but an effective and drastic treatment will reduce the tramp nuisance to a minimum in our criminal population.

CANADIAN CRIMINOLOGY.

It is strange that the disbelief in the possibility of amendment on the part of the criminal should be so deep-seated and universal. Men and women, equally guilty before law, human and divine, but who have not been exposed to the contamination and shame of prison life, have abandoned their evil courses in response to influences exerted upon them in free life. There have been many signal instances of transformation of character and conduct occurring in prison. It would be foolish to estimate the exact percentage of corrigible and incorrigible convicts or to shut our eyes to the persistence of the criminal type of character, or to expect from the average prisoner anything more than he shall cease to be a law-breaker and become a lawabiding citizen. Religion encourages this hope, so does science, as I shall now proceed to show :

The methods and achievements of science have profoundly modified metaphysical thought, so that a new word, psychophysics, has been admitted to the dictionaries. In the psychophysical study of human nature there is a constant recognition of the vital relation between mental experiences in the operations of the brain and of the nervous system in man, of their interdependence and reciprocal relations and influence. The researches of physiologists have shed light on much that was formerly obscure in the anatomical structure and functions of the body. We have learned that every mental impression and perception, every act of memory, of the imagination, of the judgment, of the will, every passing thought or emotion, is accompanied in this life, the only life of which we have experimental knowledge, by molecular changes in nerve tissue, by nervous activity and emotion. The paths followed in the accumulation and discharge of nerve force have been partially

By the aid of vivisection, scientific proof of their traced. existence has been secured, and the functional utility of certain tracts of the brain has been demonstrated, enabling us to localize, to a limited extent, cerebral action, and to inspire the hope that the further prosecution of the investigations now in progress may dispel some portion, at least, of the mystery which enshrouds our present dual existence. The correspondence between the order of succession of nervous phenomena and the phenomena of thought, feeling and volition, and the fact that certain of them are demonstrated simultaneously, have given definiteness and precision to metaphysical speculation with reference to purely mental operations, if such there are, and they have given us an intelligible theory of the formation of habits, which, physiologically speaking, are neither more nor less than reflects nervous discharges rendered automatic by their repeated occurrence, until the paths worn in the brain have become, so to say, broad and smooth. The current of nervous energy accordingly takes the line of least resistance. This parallelism extends as far as consciousness enables us to follow it, and no doubt it is still deeper and more farreaching. It partially explains, perhaps, the well-known and familiar fact that bodily states, experiences and habits, affect the mind, while mental states, experiences and habits, equally affect the body.

Expert treatment is the ideal of the new criminology. The new criminology aims at nothing less than the suppression of evil habits and replacing them by their opposites; in other words, the wearing of paths in the brain which shall offer less resistance than the old, familiar paths; the creation of new habits of thought, speech and action, with or without the consent of the convict himself. This is a task of tremendous difficulty. It is revolution by means of evolution. It is education, in the etymological sense of the word; the education of all the prisoner's faculties, physical, mental and moral, on a well considered, well-grounded plan, scientific and practical at the same time, but differentiated to meet the conditions and needs of each individual case. Kindness must be blended with severity, hope aroused as well as fear, obedience insisted upon and enforced, and above all the good-will and co-operation of the patient enlisted for his recovery. Difficult as the task may be, it is not impossible; but time is essential for its accomplishment. How long a time is uncertain and cannot ever be forefold in advance. The tendency of the parole system is to change the atmosphere of the prison. The convict, when his opposition to our penitentiary discipline has once been overcome, comes to regard it as the abode of hope, not of despair. Sooner or later, he recognizes in the warden a friend, whose strongest wish is to lift him out of the degradation into which he has fallen. When he begins to perceive that it is himself who made war upon society and that society is not his enemy, as he had blindly imagined, his reformation is begun. When he learns the meaning and intention of the law, and becomes reconciled to it, like a wild animal tamed, his reformation is achieved. Affirmatively, therefore, as well as negatively, the parole system is shown to have rational basis.

Let none think that these assertions are the language of a sentimentalist or a visionary. Their truth has been verified by experience.

If a man has been in prison for a term of five years, more or less, it is a momentous instant for him when the guard slips the bolt and he steps out a free man. But if this man was a criminal five minutes before he was discharged from prison, so he is in principle five minutes after; moving the bolt only reshapes his circumstances without doing anything to change the man. Change of circumstance is no index of character. Constructive work in connection with the parole system has first of all to be put into the personality of the man before he leaves the prison; then there must be the effort on his part to reform and do better before the system can help him.

In the operation of the parole system we get to know the man from every standpoint before a movement is made to help him. Then a patron is sought out who will give the man employment, and also take a special interest in his oversight to encourage him in his endeavor to be law-abiding. Through industry and the new-found social environments, a delinquent is made to feel the responsibility of his regaining a social status and becoming a good citizen. Should he relapse into his old ways of living, the license is revoked and the man is returned to prison.

In the ordinary affairs of life men everywhere seek the causes which produce effects. Men are called into being, live their lives and pass away in obedience to natural laws which are as immutable as the movement of the tides. In the evolution of our penal administration the defect of the born cripple, the idiot, the insane, is no longer charged to the poor victim who, unhampered by the world, still has a burden as heavy as should be given any mortal man to bear. It is not very long ago that a world about as intelligent as our own, believed that disease, deformity and sin came from the same cause—some sort of an evil spirit or genius that found his abode in man. The way to destroy the evil spirit was to destroy the man. Our penal systems have undergone a tremendous change. The paramount purpose of all effort in the federal institutions is to "correct with punishment."

It is necessary at times to be severe in our treatment of the criminal, but never unrelenting. While charity sustains the heart, science and religion must govern the mind. They are indissolubly joined in the treatment of the criminal classes. With these two elements in a man's makeup, the spectres of pessimism which generally haunt the background of our efforts will vanish.

Better than any clamor or system for the cure of crime is the purpose of prevention. For if the cure is the voice of the past, and to suppress is the command of temporary physical force, to prevent must be the divine whisper of spiritual power. Prevention did not begin soon enough to entirely prevent crime. To prevent crime, as in preventing ill-health, we should begin at least a century before the criminal is born. We are just beginning to approach an ideal by insisting upon better homes for the poor and vicious; by child-placing in well selected homes, and by the provisions of the juvenile court. While even these excellent agencies cannot effect those whose early life is not touched by their beneficent influence, yet preventive measures may be applied to them at any point of the progress downward, and keep them from drifting further.

Has society the right to punish a feeble being and not try to rescue and correct it? To extend to a wayward one the friendly hand to help it in its distress to forget, and make it forget, the past blemish and taint; to make into a good citizen one who might become a useless and dangerous being; is not only to serve the highest and truest interests of one's country, but it renders a lasting and beneficial service to humanity.

Chastisement to the delinquent without a possibility of a parole or pardon and forgetfulness, discourages and degrades; while the hope of rehabilitation provokes to effort, and restores.

THE TRUE SIGNIFICANCE OF ONE SPRING FEVER—A STUDY IN PATHOLOGY AND TREATMENT.

BY WOODBRIDGE HALL BIRCHMORE, M.D., BROOKLYN, N.Y.

Had a man come to me within a year following my graduation as a doctor of medicine and had said to me: "Doctor, I do not know what ails me, but I think that I have 'spring fever,' I cannot think of anything else it can be," I might have been foolish enough to have laughed with him, and, like him also, to have taken the matter as a joke; but now that I am an older man, not without that experience in life which age must bring, I believe that I am wiser, and I know that I should study my patient and his symptoms with the utmost care before I replied, and with much patience and more care before I laughed. Why? Because, partly with, and in part because of, the lapse of time, I have learned how serious may be the moral consequences of this obscure illness, this hidden malady, and how destructive its results may be to the moral, mental, and physical well-being of the patient if the true bearing of this illness is mistaken, its true significance misunderstood. Twentythree years brings some experience to every man, and increases mightily his breadth of view, and this increase sometimes enables that man to see, to understand, even it may be relationships, otherwise than by experience not to be discovered, no matter how good may be the will to do one's best, no matter how intense the application of this will. With this increased experience and this broadened field of view, which only time can give, a man comes clearly to appreciate analogies, which otherwise he cannot see, even darkly as in a shadow, much less can he understand and profit by them.

The possible meaning of this strange nervous disturbance, and the incidentally learned best means of meeting it, is one of the lessons only time can teach, and time only by giving an opportune experience.

Definition.—The words, this name "spring fever," came into medical nomenclature as *Febris vernalis*, when a number of diseases were recognized only as being fever, or it may be "fevers," when the pathology of the day recognized its spring and autumn fevers, as it did its "mid-summer madness" and its winter's rheums, without a hope of diagnosis between two • or more seasonal fevers, or it may be without a dream that such diagnosis was desirable, needful even, or possible, yet the experience of Morton called this *Febris nervosa*. One is tempted to ask why he did so, and how he came to give so good a description of it.

If one study with painstaking and care the historic development of pathology, much can be learned about "spring fever," or, as it should be phrased, "the spring fever." In the ages when the nomenclature and pathological knowledge, at present those of the village "wise woman," were the nomenclature and pathological knowledge of the highly-paid "physicianer and chirurgeon," resident at the great house, the palace, the castle, a man who had been graduated from one or other of the great universities, diagnosis now a duty was an utter impossibility, safe concealed in the womb of the ages. But many of the forms of disease, which the writers, who dated their books in the vears three centuries since, considered as important, have certainly no known existence now, and if the pathological picture which I have in mind was at that time seen we may safely say that it was not at that time differentiated, except, possibly, by one or two exceptional individuals, such as Morton. In what sense then are the words "spring fever" used for our present purpose? What is the pathology of the symptom picture which we have in mind?

The words, "spring fever," are used in this paper to designate a peculiar condition of the nervous system, more or less pronounced in the various cases which occur during the sudden hot spells of the spring months, usually after April 20th and before June 8th; these dates are the earliest and latest of which I can obtain any information of its occurrence, confined almost wholly to very able-bodied young men, between the ages of seventeen and (assumed) twenty-seven years, whose lives have been active and chaste. The chief subjective symptom appears to be a sense of inability to dare or to do, coming unon the patient suddenly, and resulting in a condition, fortunately, very transient, but during its manifestation not unlike mental collapse. The chief, and to practical purpose the only, objective signs are a slight fever, and irritability of the nervous system almost beyond belief. So curiously intense is this irritability that a man, to whom under ordinary conditions nerves would appear to belong only in the sense in which might belong to a bull's possession of them, will start at a sudden sound, make ill-judged and faulty movements, of the pattern, style, manner or method associated in our minds with fragile young womanhood, and young womanhood's exhibitions of ineffectual mobile impulsiveness.

There is something pathetic and woeful in the nervous unsteadiness of the able-bodied young man, which is wanting to exhibitions of this condition in his sister, but it reaches its climax when to the complaint of nervous irritability and muscular weakness is added a quiver in the vocalization, and that empty, meaningless giggle, which is not laughter, bears no burden of mirth, but rather the load of its relation to the laughter akin to tears, which is so often a characteristic of the insane. True, it may be that laughter and tears are never far apart, but the association becomes unnerving, horrific, paralyzing, when they begin to mingle—*in the man*.

Nor is this picture overdrawn, fortunately it is not often seen, but to see a man who might fittingly pull stroke in a "varsity 8-oar," sit squirming and giggling, in constant futile movement, with hands and feet ashaking, is a picture associated, but incongruous; it is "the plaudits of the populace with the reversed thumb threatening in the background." As I have said, this picture is not often seen, and yet I have seen it often enough to know that in cases of lesser degree and more moderate development it might be noted more frequently than it is; were all the cases recognized, it seems to me, its pathology would be perfectly well-known, which I must suspect is not the case.

Symptoms.—One special example, every feature distinctly marked, I well remember; the phenomena were characteristic, the case was typical in every way. The young man was about twenty-three years old, six feet two inches in his stockings, and big accordingly. A civil engineer by profession, he was employed by the contractors building a big bridge; to supervise some part of the construction, just what part I do not know, he was in the habit of going about the structure, walking on the flange of an I beam as steadily as the most of men upon the pavement. Three days before he had waved his hat to me as I rode by, while he was standing nearly one hundred feet above my head on an ascending beam swinging in mid-air while the steam derrick was hoisting this I beam into place, and now he sat on a chair in my library giggling and grinning as if he were a candidate for sequestration in an asylum for the insane, as in truth he soon would have been if the equilibrium of his nervous system had not been presently restored.

His account of the matter was clear enough; he had been "all right" until about two days before, when, in the afternoon of Wednesday (as it might be), he began to "feel weak and light-headed." He said, as I remember, "for the first time in my life I was afraid of my job. I was afraid to go anywhere, and I had lost my nerve somehow. I know that I am as strong as ever, and yet I feel no confidence in my strength. I am feverish, and I do not believe that I slept ten minutes last night, nor an hour the night before. I assure you that this thing has got to stop or I am done for professionally," and then he began to laugh in a high falsetto, horrible to hear, impossible to listen to.

His temperature was 99.8 degs. F. Respiration was 18 irregular, jerky; without being interrupted, it had distinctly lost its normal rhythm. The pulse was widely irregular, phenominally unrestrained. Sitting beside him on the sofa, stop-watch in hand, I counted a number of "hundreds" of beats. The notes give the following—the unit is "one hundred pulsations": (1) 73.2 sec., (2) 52.6 sec., (3) 63.2 sec., (4) 6.82 sec., (5) 77.9 sec. Between the beginning of the first count and the end of the fifth, 16 min. 12 sec. elapsed, of which time 5 min. 35 sec. of pulse-beats were actually counted. This irregularity was quite distinctive, and actually may be called characteristic of the state under discussion; much greater irregularity would appear at times, as this was conditioned by the subject of conversation.

Careful examination was made to determine the condition of the reflexes—some are noted as diminished, others as increased; the net result is stated as "unsatisfactory." His bowels were *not constipated*, indeed, with his life methods constipation would have been inconsistent with his superabounding health, but he complained bitterly of the distress caused by a sudden enlargement of the scrotum, the sense of heat and the irritability which caused a condition suggesting slight priapism.

It would have been simply impossible not to notice his nervous condition; not only were his fingers in constant motion, but his hands were grasping the arm of his chair and letting go again *rhythmically*, therefore *avolitionally*, for only with much practice is a volitional act made rhythmical.

Without going further into details enough has been said to show that this young man was badly "disorganized," and that the disorganization of the nervous impulse-reflexes was specially noticeworthy.

Secondary Conditions.—Granting that this young man was decidedly ill and was in a seriously nervous condition, one could readily infer that the moral consequences of this nervous disturbance would be likely to be as serious as the physical ones, and the moral consequences in such cases are usually conditioned by certain essential, but not obvious, facts in the environment.

In the first place, this young man was to be looked upon as a "parcel of stored energy," to use the most apt phrase of Stokes. For the past six months he had been living on a diet the same as that of the "bridge gang," in both quantity and quality, and while he had taken vast quantities of food and had lived in the open air, working in moderate measure, but actively, and exercising every muscle of his body, the effect had not been the same upon his health and nervous system as upon the health and nervous systems of his fellow eaters, who had been doing hard, physical labor, while he had only been "training hard" and now was in "fighting trim." His muscles were like steel for elasticity, and their size and development would have made him a good model for Apollo. But while he was absorbing energy, and storing it up to the point at which hoarding becomes dangerous to the owner of the hoard, he had not been using his strength in any properly proportioned measure; on the contrary, he had by this life method been daily putting more and more work upon the safety-valves and compensating apparatus of his nervous system. The reflexes were amply supplied with the power of action, and one might compare the condition of this young man's nerve-muscle apparatus to that of a pair of horses controlled, but only just controlled, by the hand holding the reins; if the reins were slackened for an instant a runaway follows sure. It would be interesting, had we any possible way of measuring it, to determine the equivalent thermodynamically of the explosive force thus stored in nerve and muscle, ready for use or for mischief, for labor or for explosion. It is my own opinion that the true primary factor in this instability in the nerve-muscle system is the persistent, but to the consciousness invisible, struggle between the two great internal forces of our bodies, the direct reflexes and their inhibitions for the control of the cxternal forces of the organism. Here, then, was the wildly, furious, forceful, reflex-instinct group, not yet arrayed and inspected by consciousness, ready to break out into open mutiny, but as yet only causing anxiety, not yet rioting. But what had caused all this astonishing exhibition of nervousmuscular disorderliness, this rebellion against the inhibitory system, this demonstration of supernutrition? Simply a few hot days. Already trembling in the balance, the work of maintaining the vitality, of keeping up the bodily temperature

had aided the powers of order in disciplining reflex-impulses, but when this work of maintaining the bodily vitality was withdrawn, idleness was added to the difficulty of the environment. in which the normal control of the rhythmical-reflexes and the other forces tending to order found themselves placed. Fortunately, the stimulus of direct physical temptation was not added; opportunity did not lift the curtain, nor brute instinct hint the natural solution to this boy, this young man, as it might have done had he been in different environment, or had he been less clearly-minded. Under exactly these conditions of supernutrition, excited by the heat and impulses of the spring time, I have seen young men seek temporary mates, as irresponsibly as bulls or other males, guided wholly by the sexual instinct; for rational, one might almost say volitional, action was utterly beyond the question. In my judgment this action, in the cases of the young men just referred to, was a pure reflex, wholly avolitional, hardly voluntary, quite without responsi-The acts essential to the propagation of the species bility. are, no doubt, the natural solution of this problem, the superfluous energy of the individual expending itself in reproduction, *i.e.*, in prolonging the species; that is in the nutrition of the species as distinguished from the nutrition of the individual specimens composing said species; but certainly this solution of the difficulty is not to be encouraged, and in this instance it did not suggest itself to my young friend, or he would not have been my patient for the cause which sent him to me, but might have been for another after a few days, possibly. There had been no one to suggest to him the natural relief to his condition; had there been—there is no use in considering possibilities, there was none.

It may be urged that much of this pathology is speculative; may be, but I do not think so; nor do I believe that any one else will think so who has had an opportunity to watch the phenomena of spring time among man's dependent mammals, the choice individuals of superfluous energy under the specified conditions. An aquarium is an excellent field for observation also, as the conditions of sunlight stimulation can be so easily controlled. Place the cultures in the dark and watch the superdevelopment of the individuals; stimulate them with the sun's heat and light and note the reproductive energy. From the unicellular alga to the very highest articulate, all will obey the impulse of supernutrition, and supernutrition was just the condition in which this young man then was. The cause and character of the young man's condition appeared to me to be the results of unconscious (inherited of course) reproductive impulsion, caused by the reaction of the environment upon a splendid, thoroughly animal man, in whom the struggle for control of the powers of the organism, as indicated by the individualist will, had produced serious reflex disturbances, and the results of therapeutic effort justified my conclusion. At least so it appears to me.

Treatment.—Plainly the first thing to be done was to relieve the nervous tension. I sent him home to take a cool bath, temperature 80 degs. F., and then to go at once to bed, promising to be with him as soon as possible. I saw him in about an hour; he was in pretty much the same nervous state, but maybe a little less irritable. The temperature was 99.50 degs. F., and the irritability of the pulse and respiration was as marked as ever. Direction was given that during the night he should have sundry doses of an effervescing saline in cold water, and monobromate of camphor was given to allay the special irritation and hyoscyamin to secure sleep. Opium was not to be thought of in this connection, while hyoscyamin appears to act almost specifically, and when combined with the camphor preparation very rapidly. Early in the evening he began to quiet down, and by nine o'clock he was sleeping.

Early in the morning, four a.m., the saline began to take effect, and by breakfast time he had gotten fully awake; to take effect, and by breakfast time he had gotten fully awake; had had a cold bath, shower; been returned to his bed, and now was anxious for the bill of fare. But his eating and drinking was very limited. After eating his breakfast he fell asleep again, and was still sleeping when I saw him at ten o'clock. I wakened him by laying my hand upon his forehead; he opened his eyes and began to giggle.

Examination showed that his heart was in better shape than during the previous afternoon; pulse was firm and more orderly, but still rapid; in fact he was apparently in much the same condition as the previous evening, but certainly less "hysterical." The bladder had been emptied three times and the urine saved, rapidly made; artificial sedimentation and microscope examination failed to show any traces of seminal bodies, but the testicles were still swollen and he still complained of distress. If the camphor mono-bromide had quieted the nervous initation it had not done anything beyond this, and I was inclined to credit the sleep and any other good results to the cool bath and the large dose of hyoscyamin. Having no confidence in the continued improvement, and firmly believing hysterical convulsions with their much to be feared moral effect were quite possible, I determined to continue the hyoscyamin and to try the effect of veratrum viride, which I knew by observation of the results in the hands of others could be relied upon to diminish the local hyperæmia by its centripetal action. I know that cannabis indica has been repeatedly advised in acute hysteria of sexual origin; but, however, useful in women, observation of its results among men when given for other purposes made me doubt the wisdom of using it, and this although it was believed to have done excellent service in a case of this sort in the hands of a friend, who had used it in the form of a cannabin-atropin pillule. (Cannabin I-50th atrop. sulph. I-100th grain.)

The preparation of veratrum used was, of course, the alkaloid, and the dosage given one-half milli-gramme per hour. Direction was given that the result of the dosage should be closely watched. The restoration began after the fourth dose, the fever and local engorgement of the sexual organs rapidly subsiding. After eight doses had been taken the period between the doses was increased, and effectual steadiness was obtained about eight p.m., when the veratrum was discontinued, to be resumed next morning if the condition indicating the need for its use still appeared to exist. The narcotic (hyoscyamin) was continued and he was advised to eat but little. Improvement continued, the giggle and the tendency to rhythmical movements vanished completely in the course of his second day in The morning of the third day he received permission to bed. be up and doing, and in the late afternoon he visited "the bridge," and the fourth morning found him at work.

Of course he was interested in his illness, and so was I, and it was not without surprise that I observed the scanty fund of facts which memory had retained from among the happenings of the day previous to his coming to my office. All the men who had anything to do with him during this afternoon remembered that he complained intensely of the heat and of a sense of hesitation. The foreman of the rivetters said, "I told him the heat had given him spring fever and that he had better go and see you, for the fever might make him "totty," and men who get "totty" on a job like this drop their numbers."

Conclusion.—It would be useless to pretend to anything like satisfaction with my knowledge of this case, the nervous origin of the symptoms and their association in some way with hot weather, high temperature and the seasonal condition of his body, a fund of stored energy, high, nervous tension, the high temperature, possibly the condition of the atmosphere and some undiscovered sensation. An attempt to explain the symptoms as being the result of an acute ptomaine poisoning appears to me to come from as far afield as my own explanation, a disorderly and distorted manifestation of the sexual impulse. The effects of the treatment appear, in my opinion, to go a long way toward confirming the diagnosis.

That this paper is far from being a finished monograph I of course know, but I know also that a single observed case truthfully narrated, may, when the store of facts is small, be more useful than an attempted monograph which must fail for lack of material to reach the limit of usefulness. The reports of cases of sexual hysteria in the male are not yet so common in periodicals or in big books, but that a small measure of interest can be claimed by the reported case as being a new one.

A radiographic shadow simulating that of a urinary calculus may be produced by an atheromatous plaque, as, for example, in the internal iliac artery, by a phlebolith, or by a calcareous gland.—*American Journal of Surgery*.

Subiodide of bismuth dusted on an oozing granulating wound promptly stops the bleeding. It is also an excellent stimulant to the growth of epithelium.—*American Journal of Surgery*.

Collodion, commonly used to seal a puncture wound, as after aspiration, will not adhere if the spot is wet or bleeding. To obviate this, pinch up the skin, wipe it dry, apply the collodion and continue the compression a minute or so until the collodion has begun to contract.—*American Journal of Surgery*.

The history of a discharge from an ear appearing a few days to a few weeks after the beginning of a slowly developing deafness in that ear, unaccompanied at any time by pain, is suspicious of tuberculous otitis media.—*American Journal of Surgery*.

DOMINION MEDICAL MONTHLY

AN ACT REGULATING THE MANUFACTURE AND SALE OF PROPRIETARY AND PATENT MEDICINES.

1

His Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:

1. Each and every box, bottle, pot, phial, package, parcel or other enclosure containing what is commonly known as a proprietary or patent medicine, or article of any kind, or in any form intended for internal consumption or external use by human beings (other than a medicine or article specially compounded upon the written order or prescription of a properly qualified medical practitioner and actually issued by him in good faith in his treatment of an individual patient) which shall be hereafter manufactured within this Province or which shall be manufactured without this Province and exposed or offered for sale, or sold, or given away, or otherwise disposed of within this Province shall have and contain both on the outside wrapper of such box, bottle, pot, phial, package, parcel, or other enclosure and also on a label which shall be affixed to such box, bottle, pot, phial, package, parcel, or other enclosure, in plain English printed in black letters on white paper in type of a size not smaller than "brevier" type a complete schedule showing all the ingredients contained in such proprietary or patent medicine or article and the exact proportion of each ingredient thereof.

2. Whenever any such proprietary or patent medicine or article shall contain more than six per cent. of alcohol or more than one-twentieth of one per cent. of morphine, heroin, cocaine, or of the salts or equivalents or derivatives of the same or any of them, or any quantity of any article named or described in Schedule "A" to this Act there shall be printed in plain English in type not smaller than "brevier" type in red ink on white paper, both on the outside wrapper of such box, bottle, pot, phial, package, parcel, or other enclosure and also on the label affixed to such box, bottle, pot, phial, package, parcel, or other enclosure, in addition to the schedule of ingredients hereinbefore required, the following notice:

"This box, (or bottle, or pot, or phial, or package, or other parcel or enclosure, as the case may be) contains (here give the name and proportion, or percentage of the ingredients above

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referred to, as the case may be) and is therefore under the Act Regulating the Manufacture and Sale of Proprietary and Patent Medicines, being 6 Edw. VII, Chapter—

"POISON"

and also the single separate word "POISON" which shall be printed separately on a line by itself in bold face type in red ink and in letters not less than one-quarter of an inch in height.

3.—(1) On or before the first day of November, 1906, every person, firm or corporation who shall compound, manufacture, or assemble any such proprietary or patent medicine or article as described in sections 1 and 2 of this Act shall prepare two accurate sample boxes, bottles, pots, phials, packages, parcels, or other enclosures of the same in the form in which the same is intended to be exposed, or offered for sale, or sold, or given away, or otherwise disposed of, and shall make out a summary in duplicate verified as hereinafter required containing the following particulars correctly stated:

- (a) The name of the person, persons, firm or corporation manufacturing, assembling or compounding the same:
- (b) The laboratory, place or places where, or from which the manufacturing or compounding of the same is carried on;
- (c) All the ingredients contained in the same;
- (d) The exact proportion of each ingredient thereof;
- (e) The fact that the two samples to be deposited concurrently with such summary are substantially accurate samples of the medicine or article described in the summary.

(2) The summary and every duplicate thereof required by this Act shall be written or printed on only one side of the sheet or sheets of paper containing the same.

(3) The summary shall be verified by an affidavit to be made by the person, or one of the persons, or a member of the firm, or in the case of a corporation, the president, secretary, or one of the directors, as the case may be.

(4) One of such duplicate summaries together with the original affidavit verifying the same and the two such samples shall be deposited and filed in the office of the Secretary of the Provincial Board of Health at the Parliament Buildings, Toronto, and upon such deposit the secretary of said Board of Health shall issue a receipt therefor.

4. Every person, persons, firm or corporation, who shall compound, manufacture, or assemble any such proprietary or patent medicine or article as described in sections I and 2 of this Act, shall, on or before the first day of February, 1907, and in every year thereafter, make out and prepare a summary and two samples verified by affidavit as provided in section 3 of this Act and shall deposit and file the same in the said office on or before such last named date.

5. The Provincial Board of Health is hereby empowered on the first day of November, 1906, and from time to time thereafter, to make or cause to be made a chemical analysis of proprietary or patent medicines or articles referred to in sections I and 2 of this Act, and any person, persons, firm or corporation who keeps the same for sale by wholesale or retail, or otherwise, upon request made in writing signed by an officer or member of such board, shall permit such person as shall be named therein to take away a sample sufficient for the purposes of analysis of such proprietary or patent medicine or article as aforesaid.

6. From and after the said first day of November, 1906, any changes either in the ingredients or in the proportions or percentages of the ingredients in any such proprietary or patent medicine or article referred to in sections I and 2 of this Act shall be forthwith reported by the manufacturer or compounder thereof in a summary containing particulars similar to the particulars required under subsection I of section 3 of this Act and there shall be deposited and filed two accurate samples of such proprietary or patent medicine or article containing such changes and such samples and summary shall be verified by affidavit and the practice with regard thereto in all respects as required by sections 3 and 4 of this Act shall be followed by such manufacturer or compounder with respect to such changes.

7. No person selling any proprietary or patent medicines or articles referred to in this Act with respect to which medicines or articles the provisions of this Act have not been complied with shall recover any charges in respect thereof in any Court of Justice.

8.--(1) Any person, firm or corporation violating any of the provisions of this Act shall, for the first offence, incur a penalty of \$50 and costs of prosecution and for each offence for which such person, firm or corporation is subsequently convicted of \$100 and costs of prosecution.

(2) Any person, firm or corporation violating any of the

provisions of the 3rd, 4th or 6th sections of this Act shall incur an additional penalty not exceeding \$1,000.00.

(3) Any penalty imposed by this Act shall be recoverable on summary conviction before one or more Justices of the Peace—one moiety of such penalty to belong to the prosecutor, and the other to be paid to the Provincial Treasurer of the Province for the use of the Province.

9. In any prosecution under this Act the production of a certificate purporting to be under the hand of the secretary of, or a member of the Provincial Board of Health showing the last registered summary of the ingredients and the proportions of such ingredients in any proprietary or patent medicine or article referred to in this Act, bearing a name or title similar to the proprietary or patent medicine or article referred to in such prosecution, shall be *prima facic* evidence that the proprietary or patent medicine or article referred to in such prosecution and the proprietary or patent medicine or article referred to in such prosecution and the proprietary or patent medicine or article referred to in such prosecution contains all the ingredients and in the proportions set out in such certificate.

10. Section 34 of The Pharmacy Act is repealed.

SCHEDULE A.

(Section 2.)

PART I.

Acid, Hydrocyanic (Prussic.) Aconite and compounds thereof. Antimony, Tartrate of. Arsenic and all the compounds thereof. Atropine. Carbolic Acid. Chloral Hydrate. Cocaine and its preparations. Conia and the compounds thereof. Corrosive sublimate. Digitaline. Ergot. Hemp, Indian. Morphia and its salts and solutions. Oil, Cedar. Strychnine and Nux Vomica. Savin and preparations of. Veratria.

PART II.

Acid, Oxalic. Antipyrine. Antifebrine or Acetanilid. Antikamnia. Belladonna and the compounds thereof. Beans, Calabar. Cantharides. Chloroform and Ether. Conium and the preparations thereof. Croton Oil seeds. Cyanide of Potassium. Euphorbium. Elaterium. Goulard Extract. Hyosciamus and preparations. Hellebore. Iodine. Opium with its preparations, including laudanum, etc., but not paregoric. Phenacetine. Pink Root. Podophyllin. Potassium, Iodide of. Potassium, Bromide of. St. Ignatius Beans. Santonine. Scammony. Stramonium and preparations. Sulfonal. Valerian. Verdigris. Zinc, Sulphate of.

[This bill was not passed.—E.D.]

AN ACT TO FURTHER AMEND THE PHARMACY ACT.

His Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:

I. Section 26 of *The Pharmacy Act* as amended by 5 Edward VII., Chapter 16, Section 9 is further amended by inserting after the word "person" in the first line thereof the following words "or company incorporated under the Acts in force regulating Joint Stock Companies," and by inserting after the word "title" in the twelfth line of the said Section 26, the following words and figures: "And in case of a company incorporated under the Acts in force regulating Joint Stock Companies, unless each Director of such Company is registered under this Act and has taken out a certificate under the provisions of Section 18 of this Act, for the time during which such company is selling or keeping open shop for retailing, dispensing or compounding poisons, drugs or medicines as aforesaid."

[It is understood this amendment has been passed and requires a majority of directors graduates.—ED.]

Clinical Department.

Two Cases of Operation Involving the Thoracic Duct. By R. BUCKNALL, M.D., M.S., F.R.S.C., Assistant Surgeon, University College Hospital, London, in the *Brit. Med. Jour*.

In the first case now recorded the thoracic duct was accidentally torn open during an operation for the removal of some tuberculous glands from the root of the neck in a man aged 54. The wound of the duct was not recognized at the time of operation, but twenty-four hours later there was a copious flow of lymph and chyle from the wound, and the patient lost strength and weight in a remarkable manner. Plugging having proved ineffectual, the torn ends of the duct were exposed and ligatured on the sixth day. No more fluid escaped, and with the reabsorption of chyle the patient rapidly recovered strength and gained in weight. Two months later, however, he suddenly developed signs of widespread general tuberculosis, and rapidly died of this malady.

In the second case the convexity of the thoracic duct in the root of the neck was caught up in some malignant glands in the posterior triangle, secondary to a cancer of the breast, which had previously been removed. The lumen of the part of the duct involved was entirely obliterated; it was therefore removed with the glands and its free ends were ligatured, without giving rise to any definite symptoms afterwards.

Case I.—A robust drayman of 54, weighing 16 stone, had a solitary tuberculous gland removed from the left side of the neck, because it was breaking down and threatening to point. His wound healed, but two months later it broke down again, and other glands could be felt lower down along the course of the carotid. As they were definitely softening, and the process of infection was rapidly spreading, they were freely removed, and the wound was closed.

After a further interval of two months, the patient again appeared, with a number of glands in the root of the neck rapidly growing and softening, like the ones previously removed. An extensive operation was performed for their removal, and during the course of it some glands were extracted from the lower part of the posterior triangle, in the region of the thoracic duct. The wound was closed and the patient very rapidly recovered from the effects of the anaesthetic, as he had always done after the two previous operations. Instead of progressing, however, and rapidly recovering his strength, as he had formerly done, he complained of weakness at the end of twenty-four hours, and sank back in bed, apparently very exhausted. It was then noticed that the dressing was soaked with a large quantity of clear, yellowish fluid, and on exploration similar fluid was seen to be oozing rapidly from the wound. The wound was opened up and plugged for five days, with a view to checking the discharge. The plugging proved of no avail, however, and from two to three pints of fluid leaked away every day, at times slowly, and at times more rapidly, clear and thin on the whole, but definitely chylous after meals. The fluid coagulated in the wound, coating its surface so as to look like pneumonic lymph on the surface of the lung. The patient lost strength in a remarkable manner and grew visibly thinner, so much so that it was obviously imperative to check any further leakage without delay.

On the sixth day, after a feed of cream three hours previously, the wound was carefully cleaned and explored and the torn duct found. A large area of the convexity of the duct was missing, and the two ends could not be sufficiently approximated to permit of an end-to-end anastomosis. The free ends of the The end connected duct were severally ligatured therefore. with the innominate vein did not leak; the one emerging from the thorax, on the other hand, discharged chyle and lymph freely until the ligature was applied. The ligature on the latter was so placed that the jugular lymphatics still discharged into the ascending trunk of the thoracic duct. Chyle could therefore pass from the duct into the jugular lymphatic vessels, unless prevented by the valves. After ligature no more fluid leaked from the wound, and the reabsorption of the chyle was at once evinced in two ways:

1. The patient at once recovered his strength and spirits and put on weight.

2. The tissues of the head, face, and neck became oedematous on both sides, having a yellow tinge, as though the chyle were passing from the thoracic duct to the right lymphatic trunk, via the lymphatic anastomosis, between the left and right jugular lymphatics.

The patient soon left hospital with the wound healed, and the oedema of the head and neck rapidly vanishing. He improved for a short time, and then other glands formed in the neck, and two and a-half months later he died, having rapidly developed all the signs of general tuberculosis. *Post mortem*, the cervical,

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mediastinal, and other glands were crammed with miliary tubercles, which were also present in large numbers in the lungs, liver, kidneys, spleen, peritoneum, and pleura.

Case II.—The second case was that of a woman of 62 whose left breast and axillary contents had been removed for cancer two years previously. She complained of an excessively painful lump in the left posterior triangle which was evidently fixed to deep structures, but which demanded removal owing to the great pain it caused.

The lump consisted of a mass of cancerous glands, involving the thoracic duct and obliterating its lumen. It was removed with adjacent structures, and the free ends of the thoracic duct were ligatured.

There were no immediate or remote symptoms of any kind referable to the duct, and the patient lived two and a half years afterwards, and died of internal recurrences in the lungs.

The second case is merely of interest as an instance of the fact that gradual occlusion of the thoracic duct, even when complete, does not as a rule give rise to any symptoms, the chyle reaching the blood stream by means of anastomoses, particularly with the right lymphatic trunk.

The first case is of interest in several ways.

I. As an example of the extraordinary loss of strength and energy which occurs when the chyle is allowed to leak away owing to a wound of the thoracic duct.

2. As an example of the equally rapid restitution which occurs as soon as the leakage is stopped and the chyle is again absorbed.

3. As an instance of the fact that the chyle may be efficiently absorbed, even when the main thoracic duct is suddenly and completely occluded.

4. As affording some evidence that the chyle under pressure may ascend the left jugular lymphatic trunk, in spite of the valves present, and so by anastomosis reach the right jugular trunk and enter the right innominate vein.

5. The case is a curious example of tubercle beginning and pursuing a rapid course in the glands of an apparently robust adult, in spite of very radical treatment.

6. It is also possible that the attack of general miliary tuberculosis, which proved fatal, may have been due to organisms entering the blood stream from the neck wound, via the torn thoracic duct. Its onset, within two months of the accident, its rapid course, and the fact that the tubercles present were of the miliary type, all bear out this suggestion. It may be stated, in conclusion, moreover, that the glands removed at the second and third operations were examined microscopically and by means of inoculation to ascertain their true pathology, as a possible diagnosis of actinomycosis had been suggested, owing to certain peculiar features present. Both sets of glands afforded ample evidence of tubercle by both methods of examination, and the tubercles removed *post mortem* similarly afforded conclusive evidence.

From a practical aspect the case is of some importance in view of the difficulty of either performing an end-to-end anastomosis when the thoracic duct is torn, or of grafting the proximal end into a vein, as some have suggested, for it shows that the far simpler operation of ligature does not of necessity lead to any untoward results, as might otherwise be expected.

An Unusual Case of Sunstroke. J. G. JONES, M.D., Vincennes, Ind. in the *Jour. A. M. A*.

I report this case because of the extreme rarity of sunstroke in this region during the autumn months, when the temperature usually ranges in midday from 78 to 88 F. in the shade, and also to demonstrate the occasional excessive susceptibility to an attack of sunstroke by an individual who has previously been stricken.

Patient.—A well-developed girl of 11 years of age, always in good general health, had been suffering with slight headaches for a few days previous to the attack. She had until recently been an inmate of the County Orphans' Home, when she had been taken for trial by some country people with a view to adoption. Her parentage history was rather obscure.

History. On September 15th, 1905, at 11 a.m., the patient was standing near a tree in a garden on the hillside only partially exposed to the solar rays, awaiting the return of her companion. This individual returned within two minutes after leaving the girl to find her fallen to the ground and unconscious. The girl was carried to a neighboring farm house, where I saw her within three-quarters of an hour after the attack.

Symptoms.—The patient was in a deep coma; rectal temperature, 107 F. The skin was dry and flushed; pulse, 133 a minute, full and bounding; respiration, 33, irregular and deep. Clonic spasm of abdominal and respiratory muscles was brought on by touching the patient; in the intervals the muscles relapsed into flaccidity. Urine examination was negative. The eyes were suffused and staring. The pupils were widely dilated and remained in that condition for an hour, after which they contracted down to pin-point size, gradually reaching normal within another half hour. In short, the classical symptoms of sunstroke of the hyperpyrexial form were present.

History of Previous Attack.—On inquiry, I found the history of a previous attack of unconsciousness while at the Orphans' Home during the summer of 1904, but could get no information as to what the diagnosis had been, yet, from the description given, I am sure it was a sunstroke. I excluded, with fair satisfaction, all the causes of coma, except sunstroke, and even with this negative diagnosis added to so classical an array of positive symptoms I found it difficult to accept that diagnosis, for the day was pleasantly cool, with a temperature of only 85 F. in the city at noon.

Treatment.—The treatment was very simple. The child was kept for several hours in a cold pack, with an ice bag at the head. Frequently changed cloths rung out in cold water were applied over the abdomen and precordial region, with an occasional rectal injection of cold water. Consciousness returned two hours after the attack, accompanied by some nausea. The temperature returned to normal by lysis within twenty-four hours, with no remission. There was complete recovery from the prostration in three days.

Remarks.—Some authorities speak of the pupils being contracted in sunstroke and consider this one of the diagnostic points, but it is my experience that they are nearly always first dilated for from 20 to 60 minutes and then contract to "pin point," where they remain for a variable period.

A Case of Total Alopecia Following the Use of Cantharidin. P. FREDERIC BARTON, M.B., B.C., Cantab in *The Lancet*.

On December 23rd, 1904, I was consulted by a young man for a small bald patch on the back of his head of the size of a shilling. At the edge of the patch there were a few short hairs but microscopically no spores could be detected in them. As the macroscopic appearances were rather those of tinea than alopecia areata the patch was painted on the 26th and 30th with liquor vesicatorius. On January 7th the patient complained of a swelling round the patch and by the 14th the scalp and face were enormously swollen and pitted deeply on pressure. He could not see out of his eyes and the swelling extended down the neck to the upper part of the chest. By the 16th there was a slightly raised rash from head to foot and blood was present in the urine. Early in February the hair began to fall out, first on the head, then over the rest of the body, until it was completely lost, including axillary and pubic hair. Shortly afterwards his nails fell off. At the present time (October, 1905) there is no sign of the hair returning but the nails have reappeared. The patient has been in excellent health all the time. Both before and after this particular case the bottle of liquor vesicatorius had been in constant use with perfectly normal results.

I cannot find any record of a similar case after the use of cantharidin but doubtless it is due to an idiosyncrasy of the patient. He has been seen by three eminent skin specialists and their prognosis is, on the whole, favorable as the nails have returned and apparently the hair bulbs have not been destroyed. The case, however, appears to be so uncommon that any treatment is of doubtful utility.

A Case of Motor Aphasia Without Agraphia. BYROM BRAM-WELL in the British Medical Journal.

The case is reported by Byrom Bramwell, whose patient was a married woman, aged 27 years. The aphasia was purely motor. Certain defects in writing in the early stages of the case were clearly due to defects in manipulating the pencil and not to a true aphasic defect. The onset of symptoms was sudden, due to either embolism or hemorrhage. In favor of the former are adduced the patient's age, a mitral stenosis, the sudden occurrence during a febrile attack, attended with sore throat and phlebitis, and a very brief coma at the outset. The embolism probably affected the left middle cerebral artery or some of its branches, but the loss of sensation on the right side of the face, the right deafness and anosmia, suggest, perhaps, a lesion of the posterior end of the internal capsule. Against this localization is the fact that the leg was much less paralyzed than the arm and face. So far as the paralysis is concerned, and on the assumption that embolism of the left middle cerebral artery existed, the lesion would appear to have been both cortical and subcortical, a softening of the left motor area at its lower end. For two weeks after the onset of symptoms, the patient uttered no spoken word, though she tried to do so, but she was taught in due time to repeat vocal vowel sounds, and gradually recovered the power of speech. The author knows of no other case in which such complete motor vocal aphasia was associated with such perfect ability to write.

Proceedings of Societies.

BRITISH MEDICAL ASSOCIATION, AUGUST 21 to 25, 1906.

SECTION OF MEDICINE.

President, Sir Thomas Barlow, Bart., K.C.V.O., M.D., London. Vice-Presidents, Professor Alex. McPhedran, M.B., Toronto; Professor James Stewart, M.D., C.M., Montreal; Alex. Napier, M.D., Glasgow; Wm. Calwell, M.D., Belfast.

PROVISIONAL PROGRAMME.

The following subjects have been selected for discussion:

Tuesday, August 21st.—A discussion on "Blood Pressure in Relation to Disease." The subject will be treated under the following headings: (a) "Physiological Introduction," by Dr. Dawson (Baltimore); (b) "Clinical Methods of Investigating Blood Pressure," by Dr. G. A. Gibson (Edinburgh); (c) "Pathology and Therapeutics of Morbid Blood Pressure," by Sir Wm. Broadbent. The following will also take part: Dr. MacKenzie (Burnley); Sir James Barr, Dr. Janeway (New York), and others.

Wednesday, August 22nd.—A joint discussion with the Physiology Section on "Over-Nutrition and Under-Nutrition, with Special Reference to Proteid Metabolism," to be opened by Professor Crittenden, of Yale.

Thursday, August 23rd.—Papers on "Heart Block," by Dr. MacKenzie (Burnley), Dr. G. A. Gibson, Dr. Erlanger, Professor Osler, and others.

Friday, August 24th.-Papers.

ROBERT DAWSON RUDOLF, M.D., M.R.C.P.,

396 Bloor Street West, Toronto.

JOHN TAYLOR FOTHERINGHAM, B.A., M.D., 20 Wellesley Street, Toronto.

ROBERT HUTCHISON, M.D.,

22 Queen Anne Street, London, West.)

Physician's Library.

The Physical Examination of Infants and Young Children. By THERON WENDELL KILMER, M.D., Adjunct Attending Pediatrist to the Sydenham Hospital; Instructor in Pediatrics in the New York Polyclinic Medical School and Hospital, New York; Attending Physician to the Summer Home of St. Giles, Garden City, New York. Illustrated with 59 halftone engravings. 12mo., 86 pages. Bound in Extra Cloth. Price, 75 cents, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

It is not every doctor who is a success in the practice of pediatrics; probably in some cases they do not care or do not try. Success, however, in the careful and thoughtful management of children often leads to a large, general, lucrative practice. This little book is replete with practical matter, and will be found helpful, especially by the young. Many methods of gaining knowledge by physical diagnosis are aptly illustrated.

Nursing in the Acute Infectious Fevers. By GEORGE P. PAUL, M.D., Assistant Visiting Physician and Adjunct Radiographer to the Samaritan Hospital, Troy, New York. 12mo of 200 pages, illustrated. Philadelphia and London: W. B. Saunders Company. Canadian Agents, J. A. Carveth & Co., Limited, 434 Yonge St., Toronto. 1906. Cloth, price, \$1.00 net.

It is evident to us that Dr. Paul has written his book on Fever Nursing especially for the nurse and with a knowledge of the subject that can have been gained only by intimate association with routine hospital work. The care and management of each fever has been accorded special attention, as these subjects are of particular interest to the nurse. The author has divided his work into three parts: The first treats of fevers in general; the second of each fever individually; the third deals with practical procedures and information necessary to the proper management of the various diseases discussed, such as antitoxins, bacteria, urine examination, poisons and their antidotes, enemata, topical applications, antiseptics, weights and measures, etc. Altogether, it will be found that Dr. Paul has rendered a valuable service, not only to the nursing, but also to the medical profession, as much of the information given is not without the frequent needs of the general practitioner.

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The World's Anctomists. Concise Biographies of Anatomic Masters from 300 B.C. to the Present Time, whose Names have Adorned the Literature of the Medical Profession. By G. W. H. KEMPER, M.D., Professor of the History of Medicine in the Medical College of Indiana, Indianapolis, Ind. Revised and enlarged from the original serial publication in the Medical Book Network. With eleven illustrations, nine of which are portraits. Philadelphia: P. Blakiston's Son & Co.

The title page as above, sets forth what this little volume is and whence it came. It is nice and interesting always to know something of those who have left the imprint of their names on medical literature. Anatomy seems full of these names; and who was Poupart, when did he live, what did he do, are answered in this timely brochure.

A Text-Book of Materia Medica, Therapeutics, and Phermacology. By GEORGE F. BUTLER, Ph. G., M.D., Associate Professor of Therapeutics in the College of Physicians and Surgeons, Chicago. Fifth edition, thoroughly revised by SMITH ELY JELLIFFE, M.D., Ph. D., Professor of Pharmacognosy and Instructor in Materia Medica and Therapeutics in Columbia University (College of Physicians and Surgeons), New York. Octavo of 694 pages, illustrated. Philadelphia and London: W. B. Saunders Company. Canadian Agents, J. A. Carveth & Co., Limited, 434 Yonge St., Toronto. 1906. Cloth, \$4.00 net; Half Morocco, \$5.00 net.

For this fifth edition Dr. Butler's text-book has been entirely remodeled, rewritten, and reset, bringing it in accord with the new (1905) Pharmacopeia. All obsolete matter has been eliminated, and special attention has been given to the toxicologic and therapeutic effects of the newer compounds. We notice with much satisfaction that the general arrangement of the book has been so changed that those drugs the predominant action of which is on one system of organs of the body, are grouped together, thus suggesting their therapeutic, as well as their pharmacologic, alliances. We believe this classification to be more thoroughly practical and useful than any other. By use of a more compact type the work has been reduced in size. It is a pleasure to us to recommend this book to the profession, for it is no doubt the most thorough, and in every way the best on the subjects it includes. The Science and Art of Prescribing. By E. H. COLBECK, B.A., M.D. (Cantab.), F.R.C.P. (Lond.), D.P.H. (Cantab.) Physician to out-patients at the City of London Hospital for Diseases of the Chest, Victoria Park, E.; Physician to the Metropolitan Dispensary; Late House Physician, St. Mary's Hospital, W., etc. etc.; and ARNOLD CHAPLIN, B.A., M.D. (Cantab.), F.R.C.P. (Lond.). Second edition, revised and enlarged. London: Henry Kimpton, 13 Furnival Street, Holborn, E.C.

This is a practical little work for students. Part I. treats of the Prescription: Incompatibility; Method of administrations of Drugs. Part II. has for its title Application of the Methods of Prescribing. That two editions have been called for since 1902 is something to its credit.

A Treatise on Surgery. In two volumes. By GEORGE R. FOWLER, M.D., Examiner in Surgery, Board of Medical Examiners of the Regents of the University of the State of New York; Emeritus Professor of Surgery in the New York Polyclinic, etc. Two imperial octavos of 725 pages each, with 888 text illustrations and 4 colored plates, all original. Philadelphia and London: W. B. Saunders Co. Canadian Agents, J. A. Carveth & Co., Limited, 434 Yonge St., Toronto. 1906. Per set: Cloth, \$15.00 net; half morocco, \$17.00 net.

We have been looking forward to the appearance of this work with the greatest expectations, for Dr. Fowler's endeavors in the field of practical surgery have been such as to stamp his writings with unquestionable authority. It is not too much, indeed, we feel it is too little to say that our expectations have been fully realized. The work is a masterpiece. It is an accurate, up-to-date treatise on surgery, skilfully presented. This entirely new work presents the science and art of surgery as it is practised to-day. The first part of the work deals with general surgery, and embraces what is usually included under the head of principles of surgery. Special attention is given to the subject of inflammation from the surgeon's point of view, due consideration being accorded the influences of traumatism and bacterial infection as the predisposing and exciting causes of this condition. Then follow sections on the injuries and diseases of separate tissues, gunshot injuries, acute wound diseases, chronic surgical infections (including syphilis), tumors, surgical operations in general, foreign bodies, and bandaging. The second part of the work is really the clinical portion, devoted to

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regional surgery. Herein the author especially endeavors to emphasize those injuries and surgical diseases that are of the greatest importance, not only because of their frequency, but also because of the difficulty of diagnosis and the special care demanded in their treatment. Throughout special attention has been given to diagnosis, the section on laboratory aids being unusually excellent. The text is elaborately illustrated with entirely new and original illustrations, and evidently neither labor nor expense has been spared to bring this feature of the work up to the highest standard of artistic and practical excellence.

A Reference Handbook of the Diseases of Children. For Students and Practitioners. By PROF. FERDINAND FRUHWALD, of Vienna. Edited, with additions, by THOMPSON S. WEST-COTT, M.D., Associate Professor of Diseases of Children in the University of Pennsylvania. Octavo volume of 553 pages, with 176 illustrations. Philadelphia and London: W. B. Saunders Company. Canadian Agents, J. A. Carveth & Co., Limited, 434 Yonge St., Toronto. 11906. Cloth, \$4.50 net; Half Morocco, \$5.50 net.

To those of the medical profession who are acquainted with Professor Fruhwald's work in the original German, it is hardly necessary to speak of the extremely valuable service the W. B. Saunders Company has performed in presenting this English translation. It must be said, however, that the translation possesses an advantage over the original-though it be the work of a leader amongst leaders in pediatric knowledge-in that the editor, Dr. Westcott, has incorporated much valuable matter, the results of his own valuable experience. With a view to making it of special service as a practical reference book, the individual diseases have been arranged alphabetically, with numerous cross-references. This is a novel feature of untold value to the busy practitioner who wishes information quickly. Special consideration has been given to symptomatology, and the prophylactic, therapeutic, and dietetic treatments have been elaborately discussed; especially is therapy treated according to the latest discoveries. The illustrations are practical and therefore excellent, nearly all being reproductions of original photographs and drawings, representing cases from Professor Fruhwald's own clinic. Indeed, we can foresee for this work the same great success in this country that it has achieved in Germany.



The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper

or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure blackmailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enrol themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only \$2.50 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

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Dominion Medical Monthly

And Ontario Medical Journal

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MANAGING EDITOR: GEORGE ELLIOTT, M.D.

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COMMENT FROM MONTH TO MONTH.

Toronto has no need for a second medical college; and those who aspire to professors would do well to place the "pros" and "cons" fairly and squarely before themselves. Without knowing the inside history of the financial management of the late Trinity Medical College, the fact that with 200 students or more, its stockholders decided to seek salvation in the Medical Department of Toronto University, would look as if there were at that time very grave doubts as to its future financial success. Apart from that no one can advance any cogent reason for any hospital or university corporation launching into medical education in this city; and those who would allow themselves to be inveigled into the establishment of any such institution, would, no doubt, be soon repenting at leisure. With an institution which promises to make this city renowned in medical matters, no one who would seek to detract from its future greatness could be called a friend to either higher medical education or to the medical profession at large. In fact, rather than increase the output, and hold out false inducements that there are yet great opportunities in medicine, the quality had better be dealt with; and at the risk of seeming narrow and deterrent, we would strongly advocate that a policy should be established looking towards an advance of the age limit for graduation; an artsdegree qualification for matriculation; a higher percentage in examinations; the abolition of all piecemeal methods of securing the degree (supplemental examinations); and a year's practical training before actual practice is allowed.

To take these matters up seriatim: There are comparatively few young men whose judgment is matured at twenty-one years of age. It cannot be expected that youthfulness, with its handmaiden inexperience, establishes confidence in either the patient or the patient's friends. Most are little better than boys at that age, full of life and enthusiasm, but lacking in stamina and self-control. The attendance upon human suffering and human ills is a very grave responsibility, a responsibility in which sometimes the best matured and best experienced fail. Three or four years' experience in business, in teaching, or at the university, or in travel, would better qualify most young men on leaving the high school, than immediately embarking on the study of medicine, and right-a-way thereafter graduation entering upon practice. Step by step the matriculation requirements have advanced, but it is doubtful if the requirements for matriculation have kept pace with the requirements for examination. It is certainly shameful and chagrining to see a fellow-student writing "bone," "boune"; "foetus," "feetis"; whilst such a word as "erysipelas" looked like a zig-zag fence. How on earth did a student like this get his matriculation qualification? Most of those graduated from Knox College now-a-days hold the B.A. degree. It is not meant here to discuss nor to parallel the saving of souls with the saving of human life and ameliorating its sufferings, though the two walk side by side. It is merely meant to point out that it would be no hardship upon students of medicine to require this of them, when in another department or profession of life, it is, if not the requirement, at least almost the rule. When a candidate for the M.B. or M.D. degree presents himself for his examinations in all years, he is required to obtain at least one-third, or one-half on each paper, or a higher percentage on the total. A fair set of questions placed before a candidate in an honest endeavor to determine just what he knows of that subject, should look for a far higher percentage than that above. He should be able to satisfy his examiner that he knows from seventy-five to one-hundred per cent. of his subject. Examiners, as a rule, seek to pose as reconditories of abstruse knowledge; and very often apart from their own particular subject, the examined one would be able to meet them on even ground, because

ripe experience ever brings forgetfulness. The saying is often true that one man has forgotten more than another man ever knew. The day has passed for the supplemental examination, *i.e.*, the piecemeal method of obtaining a degree. In the great majority of instances this only subserves the purpose of idle students, who, enamored of city life and college affiliations, take things easily, hang around and become known as "chronics," mayhap, because the paterfamilias can afford it. Should a candidate fail on one subject, the entire examination should be void, and a new one subsequently prescribed. The foregoing would be a strong policy towards enhancing the value of a degree from the Provincial University of Ontario.

But there is another aspect of the question of making medical education in Toronto something to be more than proud of by the profession, especially of this city; and he is a good citizen and true, he is a good member of the profession and true, he is a good friend of alma mater and true, who will raise not one single objection to the medical students of Toronto University having exclusive clinical privileges in the Toronto General Hospital. In enacting legislation of this character, the Ontario Government simply recognizes the fairness and equity of the proposition, that if the university to which the Province gives so much is to stand pre-eminent with the universities of this continent, and to stand pre-eminent before the eyes of the world, every department must be sustained by a strong arm; and the strong right arm of the Medical Department is exclusive clinical facilities for its students. There is no other university in this Province that can aspire to its position. Whilst those outside the city are, no doubt, doing good work, it may not be too much to hope that in the future decade some scheme of federation may be promulgated between the medical teaching faculties, whereby all will have conferred upon them every advantage which may at present be sought for the provincial university. Until some such scheme be launched, let us hope that not from the ranks of the medical profession in Toronto will emanate any detracting movement which would prevent the Medical Department of the University of Toronto becoming the great, powerful and famous school of medicine, which all should hope it will become under wise administration, and at least with a united, civic profession upholding it.

. Science Notes.

A COMBINED undergarment and testes supporter newly invented consists of an undergarment for a man with novel features of construction. There are supporting bands in the garment for the comfortable support of the scrotum and testes, where same is required.

THERE has been established recently in Philadelphia an Infirmary and Laboratory of Pathology for the inmates of the Zoological Garden of that city, through which diseases in wild animals will be studied. Dr. Courtland V. White has charge of the institution.

A RECENT New York invention is a case and stand for surgical and dental instruments. Means are provided whereby the instruments can be effectively treated by an antiseptic solution, and then transferred to any place required for an operation without their being contaminated.

PHYSICIANS who are poultry fanciers will be glad to hear of a new medicated nest egg, which is for the purpose of destroying or driving away vermin, one which does not give off fumes too rapidly. The exudation from this egg takes place slowly and uniformly, and does not therefore endanger the life of the chick.

According to Prof. Speiss, in the Müncher Medizinische Wochenschieft, pain is the cause of inflammation and not, vice versa, as so long believed. When pain is calmed by anesthetics the inflammation in the part subsides. An anesthetic injected into an incipient boil cuts off subsequent inflammation. Prof. Speiss then advocates painlessness in the treatment of all inflammatory processes.' Referring to the cessation of the nasal secretion of influenza during sleep, he states, the inflammation of the mucous membrane is arrested by the insensibility of sleep. Thus also he explains the oft-observed healing of wounds in insane persons without inflammation. Applications of orthoform before and after operations on the tonsils prevented all pain, as was that following the application of a solution of the same drug to wasp stings, mosquito bites, and slight wounds.

PROF. PIERRE CURIE, who a few years ago became famous through the discovery of radium and other radio-active elements, was run over and killed by a wagon in Paris on the 11th of April. Deceased was a son of a physician, and was born in 1859. He married one of his pupils, a Pole, Marie Slodowski, when Professor at the School of Chemistry at Paris in 1895. It was the wife who discovered radium. In December, 1903, the couple received the Noebel prize for chemistry.

THE phenomena of the Crookes tube, of Roentgen rays, and latterly of radium, inexplicable by the chemical theories of a decade ago, have rendered necessary the coining of several new words, which have taken their place in the vocabulary of the modern physicist. We hear so much these days of electrons and ions and their relation to the old-time supposedly indivisible atom that the time seems ripe for a few simple definitions condensed from a recent paper by Prof. Soddy. The first and oldest conception of the ultimate unit of matter is the atom, the smallest particle of an element capable of separate existence. The essential feature of Dalton's conception was that the atoms of the same element are all exactly alike in mass and every other property, but are recognizably different from the atoms of any other kind of element. The statement will be found in textbooks of chemistry written long before the recent discoveries were foreshadowed, that if it is ever found possible to transmute any one kind of atom, that is, any one kind of elementary matter, into any other kind, there is little doubt that the same means would be sufficient to transmute or decompose the other ele-The modern conception of the ultimate unit is the ments. electron, and this, although by origin an electrical conception, is in reality a material conception no less than the atom of matter. The electron could be defined as the smallest existence known capable of isolation and free movement through space. It is a definite amount of "charge" of negative electricity, in a word, the smallest possible amount known to exist; for electricity, no less than matter, had been shown to consist of discrete particles or units, and not to occupy continuously. Unlike the atoms of matter, only one kind of electron is known, consisting of the

same amount or charge of negative electricity with identical properties in all its various manifestations. It is certain that each atom of matter contains in the normal condition at least one electron, which it is capable of losing, and conversely that it may unite with at least one electron more than it normally possesses without deep-seated material change. An atom with one or more electrons less than it possesses in the normal state is positively charged and is often called a *positive ion*. Similarly an atom with one or more electrons in excess is a *negative ion*.—

Among the causes that contribute to the destruction of books, says an Italian writer, Americo Scarlatti, there is one very curious one that may be called bibliophagia. No reference is intended to the mice that once destroyed in England an entire edition of Castell's "Lexicon Heptaglotton," but to human beings, who have literally devoured books. In 1370 Barnabo Visconti compelled two papal delegates to eat the bull of excommunication which they had brought him, together with its silken cords and leaden seal. As the bull was written on parchment, not paper, it was all the more difficult to digest. A similar anecdote was related by Oelrich, in his "Dissertatio de Bibliothecarum et Librorum Fatis" (1756), of an Austrian general, who had signed a note for two thousand florins, and when it fell due, compelled his creditors to eat it. The Tartars, when books fall into their possession, eat them, that they may acquire the knowledge contained in them. A Scandinavian writer, the author of a political book, was compelled to choose between being beheaded or eating his manuscript boiled in broth. Isaac Volmar, who wrote some spicy satires against Bernard, Duke of Saxony, was not allowed the courtesy of the kitchen, but was forced to swallow them uncooked. Still worse was the fate of Philip Oldenburger, a jurist of great renown, who was condemned not only to eat a pamphlet of his writing, but also to be flogged during his repast, with orders that the flogging should not cease until he had swallowed the last crumb.-Scientific 'American.

News Items.

PETERBORO', Ont., is to have an isolation hospital.

The Toronto Emergency Hospital will be closed.

DR. PAGE, Wychwood Park, has moved to Toronto.

DR. W. J. McCollum, Toronto, has gone to England.

G. S. CLELAND, M.D., Toronto, has been created a coroner.

DR. BRYCE MCMURRICH, Bothwell, Ont., is locating in Toronto.

DR. J. W. MOKE, died at McGregor, near Essex, Ont., recently.

DR. ADAM H. WRIGHT, Toronto, sailed for England on the 10th of May.

NEW WESTMINSTER, B.C., is to have a new hospital, at a cost of \$50,000.

On the 17th of April a new general hospital was opened at Moosejaw, Sask.

DR. BARRETT has been appointed Medical Health Officer for the Yukon and Dawson.

GRACE HOSPITAL, Toronto, is contemplating enlarging itself to the extent of \$200,000.

THE death is announced of Dr. Charles Holden, St. John, N.B., who had practiced there since 1869.

THE Hamilton City Hospital claims the Ontario Government owes it between \$6,000 and \$9,000.

GRACE HOSPITAL, Toronto, admitted 96 patients during April, and had 15 births. There were 4 deaths.

B. ROMILLY JAMESON, M.D., aged 86 years, died at Water-loo, Que., on April 2nd.

DR. L. D. HEBERT, aged 56 years, is dead at St. Antoine Abbe, Chateauguay, P.Q.

THE Nurses' Incorporation Bill before the Ontario Legislature has been withdrawn.

THERE are three hundred and sixty free patients from Toronto in the Toronto Provincial Hospital.

DR. HARVEY CLARE, of the staff of the Brockville Provincial Hospital, has been transferred to Woodstock.

DR. J. F. HALSTEAD, late of Grand Valley, Ont., died at Winnipeg, March 3rd. Deceased was in his 83rd year.

DR. G. GORDON LITTLE, of Windsor, has received an appointment to the home staff of Lakeside Hospital, Cleveland, O.

THE SICK CHILDREN'S HOSPITAL, Toronto, gets the money handed into court, \$2,000, in connection with the Gamey bribery case.

THE death of Dr. Turnbull, of Calgary, is announced. He had been practicing there but six months, having come from Yarmouth, N.S.

THE Vancouver Medical Association has placed itself on record to the effect that in the appointment of a medical superintendent to the new general hospital of that city, a registered practitioner of British Columbia be selected.

DR. FREEMAN, late of the city hospital, Hamilton, has arrived at his destination, Chung King, China. The city is situated on the Yang-tse river, 1,500 miles from Shanghai, and has a population of about half a million.

DR. GORDON BELL, bacteriologist to the Manitoba Government, is reported to have visited the Pasteur Institute at Chicago, fearing hydrophobia, he having pricked his finger whilst experimenting on rabbits with the blood of a dog affected with rabies. ARRANGEMENTS have been completed whereby women are admitted to study medicine in the Medical Department of Toronto University.

DR. R. C. TALBOT, of Lewiston, Pa., formerly of Forest, was married on Thursday, April 19th, at Lewiston, to Miss Hannah Catherine Hoover.

DR. J. E. KING, who for the last twelve years has been doing a large and successful practice at Thistletown, has sold out to Dr. J. M. Standish, of Georgetown.

SIX years ago the Toronto Western Hospital moved into its present quarters on Bathurst Street. It averages about one hundred patients per day, and is only established ten years.

DR. COLIN A. CAMPBELL, M.R.C.S., has commenced special practice in Toronto, in ophthalmic and oral work. He is located at 55 College Street. Dr. Campbell is an ex-house surgeon of Toronto General Hospital, was in the Pacific service of the Canadian Pacific Railway as ship surgeon, and for the last three years has been senior house surgeon at Moorfield's Eye Hospital, London, England. He is one of five Canadians who has held this position, the others being the late Dr. Buller, Drs. Gordon Byers, Montreal: Burnham and D. N. MacLennan, Toronto. Dr. Campbell, thus equipped with this splendid hospital training, will be a decided acquisition to the ranks of the profession in Toronto.

At a meeting of the medical men of St. John, N.B., held recently at their rooms in the Market building, it was unanimously decided to form a St. John, New Brunswick, branch of the British Medical Association, and to apply to the general secretary of the association for such a warrant of charter. Dr. Murray MacLaren was elected chairman of the meeting and Dr. J. H. Scammell secretary. The chairman stated the purpose of the meeting, and detailed the advantages of such affiliation. Dr. Thos. Walker moved that the meeting declare itself in favor of forming a branch of the British Medical Association, and that those present pledge themselves to become members of the new branch. Dr. Emery seconded the motion and it was carried unanimously. Dr. G. A. A. B. Addy moved that the secretary obtain the names of those willing to join, and to forward these to the general secretary. The signatures last night were: Dr. Thos. Walker, Dr. S. S. Skinner, Dr. D. E. Roberts, Dr. M. MacLaren, Dr. P. R. Inches, Dr. F. L. Kenney, Dr. Jas. Christie, Dr. J. F. Bentley, Dr. A. F. Emery, Dr. W. T. McVey, Dr. L. A. McAlpine, Dr. T. D. Walker, Dr. W. L. Ellis, Dr. J. H. Scammell. In addition to these names the application will contain signatures of nearly all the other practitioners in the city, as the idea is very generally favored by the profession. Dr. McAlpine then moved that the name of the branch be the St. John, New Brunswick, Branch of the British Medical Association. This was seconded by Dr. Ellis and carried. The other branches of the association in Canada are at Halifax, Montreal and Toronto. This summer the association meets at Toronto during the month of August.

DR. G. DOUGLAS STANLEY, son of Mr. T. D. Stanley, of St. Marys, has taken a partner, Dr. W. T. Hamilton, to assist him in his increasing practice at High River, Alberta. Dr. Hamilton is a son of Rev. Dr. Hamilton, of Stratford.

A RECENT analysis of Guelph city water by Dr. Amyot, of the Provincial Board of Health, shows Guelph city water to be comparatively pure and free from deleterious bacilli, while of eight samples from wells only one was free from poison.

DR. JOHN M. CAMPBELL, of Brooklyn, N.Y., formerly of Seaforth, and well known in Wingham, has been elected an honorary member of the New York Graduates' Society of the McGill University, Montreal, Canada. The only other person enjoying this distinctive honor is the celebrated Dr. William Osler, of London, England.

Obituaries.

A DETROIT paper of April 9th says: Dr. Hugh A. Mc-Eachren, for four years a well-known West Side physician, is dead. Dr. McEachren is a native of Glencoe, Ont. He was a member of the house staff of Harper's Hospital, this city.

DR. ALEXANDER THOMPSON, a former physician of Blyth about thirty-five years ago, passed away recently at his home in Strathroy, in his seventieth year. Dr. Thompson had practiced his profession in Strathroy since 1871, and was highly esteemed by all who knew him. He leaves a widow and four sons, three of whom are also in the medical profession.

ON April 6th, there died in Berkeley, California, Dr. John Bruce MacCallum, second son of Dr. G. A. MacCallum, superintendent of the London Asylum.

Dr. MacCallum was at the time of his death associate Professor of Physiology in the University of California, and first assistant of Prof. Jacques Loeb. He was born in Dunnville in 1876, and after graduating at Toronto University in 1896, he studied medicine at Johns Hopkins University, where he graduated in 1900. During his student career there, and during his tenure of assistantship in anatomy, he completed several investigations in anatomical subjects, which have received general recognition.

DEATH cut short a promising career when Dr. John W. Moak, of McGregor, passed away after a few weeks' illness. Deceased was a brilliant young physician, and had a splendid practice when taken ill. At first he thought it was nothing but indisposition, but finally was forced to keep his room. It was found that he was suffering from nephritis, and the ravages of the disease could not be stopped. Dr. Moak was a graduate of Toronto Medical College, and, after securing his diploma, located in McGregor. He was 31 years old and unmarried. The remains were sent to his old home at Lunenburg, Ont., for interment.

Publishers' Department

The Modern Management of Malarial Anemia.— One of the most obstinate forms of anemia with which the physician has to contend is that which succeeds malarial infection. This particular form of anemia is, unquestionably, due directly to the structural changes induced by the protozoon parasite. While a mild form of anemia is a common, if not invariable, consequence of malarial infection, there is a severe type, termed malarial anemia, which not infrequently occurs. This latter variety usually responds slowly to curative measures; and, since its existence renders the individual a fit subject for recurring malarial manifestations upon the slightest exposure, the importance of its cure cannot be too strongly emphasized. The doctrine of the latency of malarial poisoning in the human body is rapidly gaining in popularity. Some authorities even go so far as to claim that a person who has once been inoculated with the malarial protozoa never completely recovers. Whether this be true or not, it is certain that the protozoon parasite does exert an influence which tends, for a great length of time, to lower vitality and render feeble the powers of resistance to renewed attacks. This is especially true in the case of women, children and persons of advanced age. Recent investigators unite in ascribing the cause of malarial anemia to the liberation of hemoglobin from the red corpuscles in the blood vessels. The pigmentation resulting from this liberation of hemoglobin is one of the characteristics of malarial infection. And while the coloring matter may remain in the blood stream, it usually infiltrates into the cells and neighboring tissues. The deposit of pigment is especially great throughout the tissue of the liver and spleen. The thickening and softening of the mucous membrane of the stomach which always attends malarial infection, seems likely to contribute, at least to some extent, to the development of anemia. In every instance the degree of the anemia is in direct ratio to the amount of the hemoglobin liberated from the red corpuscles. And this fact explains the philosophy of effecting repair by the administration of iron, the hemoglobin-contributor. Whether or not the protozoon parasite is ever completely eliminated from the economy remains an unanswered question. But it is now universally conceded that the protracted administration of iron does render the individual partly, if not completely, exempt from a return of malarial manifestations of an aggravated type. Far more so, in fact, than does quinine. Indeed, we have good cause to believe that iron does exert a



Many patients find it necessary to continue the use of cod liver oil during the entire summer. When this necessity arises Scott's Emulsion can be used with the assurance that it will not only prove far more satisfactory than any other form of cod liver oil but can be taken right through the warmest season of the year without disturbing the stomach or causing any unpleasant after effects.

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destructive influence upon the malarial protozoa and increases the immunity of the individual. While it is the chief aim of the physician to make up the deficiency of the hemoglobin in these subjects by the administration of iron, it is distinctly important, coincidently, to increase the appetite and augment the capacity to appropriate the food ingested. To this end, discrimination in the selection of the form of iron to be employed is vitally essential. The acid solutions of the drug are ineligible because of the fact that they cannot be engaged for a long period without harmfully affecting the secretion of the digestive juices and adding to the morbid state of the mucous surfaces of the alimentary tract. Furthermore, the continued use of acid products of any sort are certain to diminish the alkalinity of the blood, thus depressing, to a very considerable extent, the nutritive processes. Then, too, headache which is an ever disturbing factor in these cases, is intensified by all substances of an acid reaction. The strongly alkaline preparations of iron, while less objectionable than the acid ones, are open to fault for the reason that they induce constipation, and in this manner favor auto-intoxication. By far the most effectual form of iron in the treatment of *malarial anemia* is that which is neutral in reaction and available for immediate absorption. The organo-plastic form of iron, as found in Pepto-Mangan (Gude), certainly fulfils the requirements of the physician with greater promptness and uniformity than any other product thus far evolved. This preparation-Pepto-Mangan (Gude)—is by all means the most potent hemoglobin-producing form of iron, and it undoubtedly surpasses other ferruginous products as an invigorator of the digestive and These assertions are easily confirmed by nutritive functions. the microscope. It is also an accepted fact that Pepto-Mangan (Gude) does not induce constipation, and it seems to materially hasten repair of the mucous surfaces of the alimentary tract resulting from the structural changes incident to the malarial infection. In short, Pepto-Mangan (Gude) is of inestimable value in the treatment of malarial anemia by virtue of its manifold advantages over other preparations of iron. If this preparation is administered for the proper length of time, the individual gains substantially in strength, flesh, physical and mental energy.

HENRY K. WAMPOLE & CO. have had frequent reports from their representatives and others to the effect that many Toronto physicians are under the impression that since the removal of their Canadian offices and laboratories to Perth, Ontario, they have no branch office or warehouse in the city of Toronto. In this connection, permit us to state that they have

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a completely equipped branch office in the city just mentioned, at 80 Bay Street, second floor (take the elevator), telephone main 3280, where with a most comprehensive stock they are prepared to immediately supply the wants of any local physician, dentist or druggist. By simply using his telephone, a druggist may procure (if necessary, by special delivery) such of their preparations as they may from time to time specify on your prescriptions.

THE enterprise and courage of the members of the San Francisco drug trade were clearly exemplified during the recent disaster. Before the fire was extinguished they placed large orders with the manufacturing chemists. One house ordered 30,000 pounds of Antiphlogistine, and altogether over 100,000 pounds were shipped to the coast upon order within a week. On a steamer from New York, running up the California coast at the time of the earthquake, were 35,000 pounds of Antiphlogistine, and upon orders from the home office, the emergency hospitals were liberally supplied free of charge.

"OUR observation of the medical literature indicates that Echinacea is being used far more than formerly."—J. A. M. A., April 8th, 1905. Ecthol contains in each fluid drachm twentyeight grains Echinacea and three grains thuja. It is put up in bottles holding 12 ounces, and any physician who has not used Ecthol, can get a twelve ounce bottle for experimental purposes by sending 25 cents to Battle & Co. to prepay express charges.

SPRAYING FOR DISEASES OF THE RESPIRATORY PASSAGES .----Dr. David Walsh, senior physician to the Western Skin Hospital, London, writes: "Glyco-Thymoline was brought to my notice as an excellent lotion for nasal and oral sprays and washes. On due inquiry it was found to fulfil the two conditions usually recognized by medical men in the United Kingdom as vouching for the character, so to speak, of such a preparation. First, its advertisements are accepted by our three leading journals, The Lancet, British Medical Journal, and The Medical Press and Circular. Secondly, its composition is not a secret, its formula being freely published. Under these circumstances I determined to try the effect of this preparation in a few suitable As a general antiseptic fluid that does not coagulate cases. albumen, and is non-irritant, deodorant, and practically nonpoisonous, Glyco-Thymoline has clearly a wide range of useful-My own observation, however, has been practically conness. fined to its use in the nose and mouth, with results that have proved satisfactory in every instance, especially in acute coryza, pharyngitis, influenza, and septic conditions of the mouth.

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