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CANADA MEDICAL RECORD

DECEMBER, 1897.

Original Communications.

EXPERIENCE OF TWO HUNDRED AND FORTY-EIGHT CASES OF ABDOMINAL SURGERY.*

By A. LAPTHORN SMITH, B.A., M.D., M.R.C.S. ENG.

Fellow of the American Gynæcological Society ; Professor of Clinical Gynæcology Bishop's University ; Gynæcologist to the Montreal Dispensary ; Surgeon-in-chief of the Samaritan Hospital and Surgeon to the Western Hospital, Montreal.

From Jan., 1890, to Nov., 1897, he had opened the abdomen 248 times with 17 deaths, or a mortality of $6\frac{3}{4}$ per cent. for the whole eight years. In 1892 he had lost 2 out of 12 operations, or nearly 17 per cent., but in 1895 he had lost two out of 57, or a mortality of only $3\frac{1}{2}$ per cent. In 1896 his death rate had been low, losing only 2 out of 60, or a little over 3 per cent. 93 of these operations were performed at his private hospital, 79 at the Samaritan, 66 at the Western, and the remainder at private houses and other hospitals. The death rate at the Samaritan for laparotomies was 5 per cent., and for the same at the Western six and a half per cent. Many of the operations were of the most serious nature, such as two of removal of large tumors of the kidney without a death; 11 large ovarian tumors with two deaths; 14 abdominal hysterectomies with 4 deaths; 9 ventral and umbilical hernias without a death; 62 for double pus tubes with five deaths; and 99 ventrofixations with one death, which, however, had nothing to do with the ventrofixation as it occurred in a bad pus tube case. He referred to the charge sometimes brought against gynecologists that they often operated unnecessarily. This certainly could not be said in his

* Abstract of paper read before the Medico-Chirurgical Society of Montreal, 12th Dec., 1897.

case, as he had complete notes of 4,300 cases besides many others which he had seen in consultation with other doctors, and out of these he had only opened the abdomen 248 times. He felt sure that there were at least as many more who would have been greatly benefited by such an operation, and who were on the contrary dragging out a miserable existence while under palliative treatment. He had at least a hundred women under local treatment for diseased tubes who were having recurring attacks of pelvic peritonitis at intervals of from three months to two years, and most of these women would be believed eventually decide to have the cause of their sufferings removed. He found that this delay greatly increased the difficulties of the operation. If these tubo-ovarian abscesses were allowed to break into the rectum, bladder or vagina they became very dangerous to life. He had been called in consultation to a lady in Halifax in whom this condition existed, but she died from hectic fever, being too far gone for operation. He had also a great many cases of cirrhotic ovaries under his care, and these women he believed suffered much more than was generally supposed. Many of them had begged him to remove their ovaries, but it was his custom to decline to do so until they had first been treated for one year by other means. He thought that he had been too conservative, as many of these sufferers had reproached him for keeping them in misery so long when the operation was followed by immediate relief. In some of the grèatest sufferers from chronic ovaritis, the ovaries were so small that they could hardly be felt, and yet the day after their removal the patients claimed that they were entirely free from the pain from which they had suffered for years. In eight years he had only opened the abdomen 36 times for diseased ovaries and had lost only one of them. In about a dozen cases he had left the ovaries in after cutting out cysts and removing tubes. His experience, however, of conservative surgery of diseased ovaries was on the whole unsatisfactory. All the women with two or three exceptions reproached him for not having removed both ovaries completely. He thought that he would be more radical in future for the patients' sake as well as for his own reputation. It was a mistake to

believe that women were never really well after ovaries had been removed; in the majority of cases the operation has completely restored them to health. Among the most interesting cases was one of obstruction of the bowels ten days after removal of very adherent tubes and ovaries. The abdomen was reopened nine hours after fœcal vomiting had begun, and the intestine was found kinked and adherent; it was detached and straightened out, and the patient recovered. He considered the management of tubal pregnancy was one of the most brilliant advances in abdominal surgery. He reported a group of seven cases, all of whom recovered. They had all been sufferers for years from tubal disease, and two of them had been urged to have their tubes removed several years previously. In four of the cases the diagnosis had been correctly made and the other three were mistaken for pus tubes. In two of the cases a live child was floating about in the intestines and in the third it was lying in the ruptured tube. In these three cases there were from one to three quarts of blood in the abdomen. The symptoms in these seven cases were not exactly the same as those described in the text-books. Most of these women had had their periods regularly, but in all the breasts were enlarged. He thought that when we had these three symptoms: enlarged breasts, irregular flow and a painful rapidly enlarging mass in one side of the pelvis, we might suspect tubal pregnancy. If this is followed by an attack of syncope we might almost be sure of it, and should lose no time in operation, thereby saving every case. He thought that it was a disastrous policy to let them alone. Some of the nine cases of ventral and umbilical hernia were exceedingly difficult, it being necessary in some cases to leave at least one layer of the abdominal wall on the bowels which were adherent to the sac. They were nearly all closed with buried silk or worm gut sutures, which were left in. Although he had had a few cases of hernia following his early operations, during the last three or four years he had not had a case. This was owing he thought to leaving in the sutures for one month, a plan which he was the first to advocate. Since he had the Trendelenburg posture he did not use drainage,

either glass, rubber or gauze, because it was unnecessary. He took great care to have the bowels well prepared so that they were rarely seen during the operation, and never handled. He was a firm believer in the value of flushing or washing every coil of intestines with salt solution ; and he usually left from one quart to two gallons of it in the abdominal cavity to prevent adhesions and to satisfy thirst, as well as to wash out the kidneys, as it was rapidly absorbed, strengthening the pulse and preventing the distressing aching all over the body. In emptying very large tumors he always left about two gallons of salt solution to support the abdominal veins. He never used iodoform because of its smell, its cost and danger of poisoning, several cases of fatal poisoning having been reported here and elsewhere. He used nothing for disinfecting except permanganate, oxalic and bichloride, consequently there was no hospital odour. In eight cases the vermiform appendix was firmly adherent to the right tube. He laid great stress on the method of removing the appendix even with the cæcum, and then closing the hole in the bowel as you would a bullet hole with two rows of Lembert sutures, instead of leaving a stump. He knew of several cases in the practice of other surgeons in which the leaving of a stump had caused a troublesome fistula. He hoped that this suggestion would be generally adopted by those who were doing this life-saving operation more often than he, and he offered it as a small contribution towards the improvement of the technique of the operation.

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THE SECTION OF PSYCHOLOGY.

By R. M. BUCKE, M.D.

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Mental Evolution in Man.—About sixty years ago now, in the time of the Millerite excitement, a man who believed that the world was about to end expressed his fears to Emerson, who replied that it was really a matter of little consequence, “for,” said he, “we can do very well without it.” There are wise men who teach that each man creates the world he lives in, and as he gives in its substance so also does he give in it its quality, insomuch that it is good or bad as he is good or bad. Be this as it may, it is certain that each one of us is of more consequence to himself than is all the outside world, be it

shadowy or be it solid ; be it created by each inhabitant, or be it independent and self-existent. Not only so, but the essential part of each man is what we call his mind, in comparison to which the body is an insignificant factor.

The Study of Psychology—This being granted, it would seem to follow that psychology ought to be the most interesting of all the sciences, and, as a matter of fact, it undoubtedly is so, though it has been greatly discredited by the imperfection of the method by which it has until very lately been studied. That imperfection is so great that it would hardly be an exaggeration to assert that nearly all the study and thought expended upon it down to the beginning of our own age has been fruitless and as good as wasted, except inasmuch as it has at last made clear the impossibility of the route men have sought to follow, the route, namely, of introspection. For we might as well study the human body alone without reference to that of any other creature, and attempt in that way to decipher its genesis, development and meaning, as to attempt to comprehend a single human mind without including in our examination not only other human minds in all stages of evolution, but equally all other minds to which our own is related—that is to say, all minds other than human belonging to our kinsfolk the animals, minds which stand to-day like mile posts along the almost infinite length of the path which our mind has followed in its upward march across the immensities and eternities from its remote infancy to the present hour ; minds in which a thousand faculties represent to us everywhere, in infinite sameness and variety, replicas of our own or of parts of our own, showing us, as the poet says, tokens of ourselves which we “negligently dropped as we passed that way huge times ago.”

Comparative Psychology—As man's bodily life rests upon and grows from that of countless prehuman ancestors ; as man includes in his structure the heart of the reptile, gills of the fish, as well as the forms in outline of innumerable still lower races, so is his so-called human mind rooted in the senses and instincts of all his ancestral species ; and not only so, but these senses and instincts still live in him, making up, indeed, far the larger part of his current every-day life ; while his higher psychical life is merely the outgrowth and flower of them.

As truly as the plant is an embodiment of inorganic matter vivified by the transmuted forces, which in the non-vital world about us we call light and heat, so truly is man's mind made the outcome of—the expansion and culmination of—the imperfect sensation of the worm, the rudimentary sight, hearing and taste of the fish and reptile ; and the simple consciousness which, springing from these,

passed to us after almost infinite ages of slow evolution and amelioration through tens of thousands of generations of placental mammals, our immediate progenitors.

In the growth of mind, whether that of the race or of an individual, we recognise two distinct processes : First, the very gradual evolution to, or toward, perfection of faculties that have already come into existence ; and, secondly, the springing into existence (as new branches start from a growing tree) of faculties which had previously no existence. For it is clear to the least thoughtful student that no faculty (as no organ) came into mature and perfect life at once. Hearing and sight, we are told, developed by slow degrees from the sense of touch ; and in the region of the intellect conceptual life was born from ages of receptual, and that from millenniums of perceptual.

Mental Growth in the Individual and in the Race—Let us now suppose mind growing for millions of years in the way set forth. It begins, we will say, as mere excitability ; to that after a long time is added what may be called discrimination, or choice and rejection of, for instance, different kinds of food. After another long interval of almost infinitely slow advance sensation appears, and with it the capacity of pleasure and of pain ; then, still later, memory ; by and by recognition of offspring ; and successively thereafter arise reason, recognition of individuals, and communication of ideas. Concurrently with these intellectual faculties, certain moral functions, such as fear, surprise, jealousy, anger, affection, play, sympathy, emulation, pride, resentment, grief, hate, revenge, shame, remorse, and a sense of the ludicrous have also arisen in the nascent mind. We have reached now the mental plane of the higher animals, which is equally that of the human being at about two years of age. Then occurs in the child the mental expansion which separates man from the higher mammals—for something like a year the child mind steadily grows from the status of the latter to the status of the human mind. This year in the individual during which it walks erect but possesses a receptual intelligence only, not having yet the power of forming either concepts or true words, represents in the race the age of *alalus homo*, the period of perhaps a hundred thousand years, during which our ancestors walked erect, but not having self-consciousness had no true language. At the average age of three years in the individual self-consciousness is born, and the infant, from the point of view of psychology, has become a human being. But we all know that after the attainment of the distinctly human faculty, self-consciousness, the child has still much to acquire both in the way of expansion of already possessed

faculties and in the acquisition of new ones before it is mentally a mature man. Of the numerous faculties it still has to acquire I shall only mention here the colour sense, the sense of fragrance, the human moral nature, and the musical sense. A consideration of these four and of self-consciousness will occupy the short time allotted me to-day.

And first a word as to the basic and master human faculty, self-consciousness. It occurs, as said, at about the average age of 3 years ; but when it first made its appearance in the race it must have done so at full maturity ; perhaps at the age of 20, both life and childhood being shorter at that time than they are to-day. You will see at once why I say self-consciousness must have occurred at first at maturity. Its acquisition at a given epoch supposed a higher mental life than had hitherto existed—such higher life on the part of the race could not have come to the individual before his maturity. To suppose that would be (if you think of it) a contradiction in terms. The human mind attains its high mark at maturity (that is what the word means), and one generation could not reach before maturity what the preceding had not reached at all. Well, but self-consciousness occurs to-day at 3 years of age, and we only reach full mental maturity (on the average) at the age of 35. The advance then made by the individual from the age of 3 to that of 35 represents the advance of the race between the date of the appearance of self-consciousness and to-day, the mental status of the 3-year-old child to-day being the mental status of the adult when self-consciousness first appeared. How long has it taken the human mind to grow from mere self-consciousness to its present stature? Not less certainly than several hundred thousand years. Whatever the time required is the time during which man has inhabited the earth.

Of all the mental faculties below self-consciousness each one has its own time for appearing in the human infant—as, for instance, memory and simple consciousness appear within a few days after birth, curiosity ten weeks after, use of tools twelve months after, shame, remorse, and a sense of the ludicrous—all of them 15 months after birth. Now, it is to be noted that in every instance the time of the appearance of a faculty in the infant corresponds with the stage at which the same faculty appears (as far as can be at present ascertained) in the ascending animal scale ; for instance, memory and simple consciousness occur in animals as primitive as the echinodermata, while the use of tools is not met with below monkeys, and shame, remorse, and a sense of the ludicrous are almost, if not entirely, confined (among animals) to the anthropoid ape and the dog.

To turn now to the true subject of this paper I want to say in the first place that as in prehuman so in human psychology each superadded faculty was acquired in the history of the race, and that that historic period corresponds with the time in the life of the individual into whom the faculty is born to-day. For instance, self-consciousness appears in the individual at the age of about 5 years—it appeared in the race several hundred thousand years ago. It has been proved by Geiger and others that our color sense has been acquired by the race not more than about thirty thousand years ago. Well, it is acquired by the individual at the age of about 5 or 6. It is thought that the sense of fragrance was acquired by the race later than the colour sense; it is also acquired later by the individual. Some considerable study of history has led me to the conclusion that our human moral nature cannot be more than ten thousand years old. For a careful consideration of the records that have come down to us from the early Romans, Hellenes, Hebrews, Egyptians, Assyrians and Babylonians would indicate, I think, unmistakably that, as we go back into the past, this faculty tapers down towards the vanishing point, and that if it continues so to taper as we ascend the ages, all of what we distinctively call our human moral nature would certainly have disappeared by the time we had gone back the number of centuries mentioned—that is ten thousand years.

Well, to-day the human moral nature in the individual, instead of being born at the age of 3 years as is self-consciousness, or at 5 or 6 as is the colour sense, does not come into existence before the average age of about 15 years. As to the musical sense, it is almost certainly less than five thousand years old in the race, and, when it occurs at all, is not usually born in the individual before adolescence.

There are three other laws, each well worthy of notice, which govern the acquisition of new faculties by any given race. They are as follows:

1. The longer a race has been in possession of a given faculty the more universal will that faculty be in the race. This proposition scarcely needs proof—every new faculty must occur first of all in one individual, and as other individuals attain to the status of that one they too will acquire it, until after perhaps many thousands of years the whole race having attained to that status the faculty shall become universal.

2. The longer a race has been in possession of a given faculty the more firmly is that faculty fixed in each individual of the race who possesses it. In other words: The more recent is any given

faculty the more easily is it lost. High authority, such as that of Charles Darwin, could be quoted in support of this proposition ; it is almost, if not quite, a self-evident proposition.

3. A study of dreaming seems to reveal the fact that in sleep such mind as we have differs from our waking mind, especially by being more primitive ; that in fact it would be almost strictly true to say that in dreams we pass backward into a pre-human mental life ; that the intellectual faculties which we possess in dreams are, especially, receipts, as distinguished from our waking concepts ; while in the moral realm they are those faculties, such as remorse, shame, surprise, along with the older and moral basic *sensé* functions, which belonged to us before we reached the human plane, and that the more modern and mental faculties, such as colour, sense, musical sense, self-consciousness, the human moral nature, have no existence in this condition, or if any of them do occur it is only as a rare exception.

Let us now compare, one with the other, a few of the faculties which have been already mentioned in the light of the rules laid down. To do this will give us, more clearly than perhaps anything else could, a definite notion of the growth of mind by the successive addition of new functions. For this purpose we will take simple consciousness, colour sense, the human moral nature, and the musical sense.

Simple Consciousness.—Simple consciousness makes its appearance in the human infant at the age of a few days ; it is absolutely universal in the human race ; it dates back certainly to the earliest mammals, and probably much earlier ; it is only lost in deep sleep and coma ; it is present in all dreams.

Shame.—Shame is said to be born in the human infant at the age of 15 months ; it is a pre-human faculty, being found in the dog and in apes, and undoubtedly existed in our pre-human ancestry ; it is almost universal in the race, being only absent in the lowest idiots ; it is very common in dreams.

Self-Consciousness.—Self-consciousness makes its appearance in the child at the average age of 3 years ; it is not present in any species, but the human ; it is, in fact, that faculty the possession of which by an individual constitutes him a man. It is not universal in our race, being absent in all true idiots : that is, it is permanently absent in about one in each thousand human beings born into the world. In our ancestry it dates back to the first true man ; a race, we are told, unclothed, walking erect, gregarious, without a true language, to a limited extent tool-using, destitute of marriage, government, or of any institution, animal, but in virtue of its highly:

developed receptive intelligence, king of animals, which developed self-consciousness, and by that fact become men. It is impossible to say how long ago it was when this event occurred, but it could not have been less than several hundred thousand years. This faculty is lost much more easily and frequently than is simple consciousness. We lose it in coma and also often in the delirium of fever; in certain forms of insanity, as in mania, it is often lost weeks, even months at a time; and lastly, it is never present in dreams.

Colour Sense.—I have elsewhere written at large on the colour sense, and have only space here to give the facts which bear on the present inquiry. That these are facts, the argument referred to, I think, demonstrates. This faculty appears in the individual at the average age of about 5 years. It is absent in one adult human being out of every forty-seven; it appeared in our ancestors, as Geiger has shown from linguistic paleontology, in the Aryan period, probably less than 30,000 years ago. It is seldom present in dreams, and when it does occur, that is when any colour is seen in a dream, it is generally that colour which for good reasons was first perceived by man, namely, red.

The following occurrence illustrates (I think in a striking manner) the usual absence of the colour sense during the partial consciousness which occurs in sleep. A man whose hair is white dreamed that he was looking in a glass and saw that his hair was not only much thicker than he knew it to be in fact, but instead of being white, as he also knew it to be, it was black. Now, he well remembered in his dream that his hair had never been black. It had, in fact, been a light brown. He wondered (it is worth mentioning here that wonder or surprise is a pre-human faculty, and is common in dreams) in his dream that his hair should be black, remembering distinctly that it had never been so. (I may say here that memory is a pre-human faculty, and is common in dreams.) The important thing to note about the dream under consideration is that, though it was clear to the dreamer's mind that his hair had never been black, yet he did not remember that it had been brown. For some reason (and I think the reason is quite clear) there was a difficulty in calling up before consciousness any colour.

Moral Nature.—The human moral nature belongs to a much later stage of evolution than any of the faculties so far considered. It does not make its appearance in the individual before the average age of 15 years. It is congenitally and permanently absent in at least forty human beings out of every thousand. It would seem clear, as stated already, from a consideration of our historic ances-

tors, from the fact that this faculty rapidly fades out as we ascend into the past, that it cannot have existed in the race more than 10,000 years at the most. It is far more unstable in the individual than the older faculties such as self-consciousness. It is never present in dreams.

Musical Sense.—Finally, the musical sense (a faculty which is now in act of being born into the race) does not appear in the individual before the average age of about 20 years. It does not exist in more than half the members of the race. It has existed less (perhaps considerably less) than 5,000 years in the race. It is never, or almost never, present in dreams, even in the case of professional musicians.

The Scheme of Mental Evolution.—You see now clearly the scheme upon which I suppose the mind (as far as we have got) to have been built. I say advisedly “as far as we have got,” because, if the mind has grown in the way set forth, it is still growing and is not built, but is in the act of building. No man can ever say positively that his theory (of any fact) is the true one, but I am prepared to say of the above hypothesis that, if it be accepted, it will enable us to understand something of the phenomena of mind as we observe it, whereas if we should prefer to hold, as many do, that the human mind was created independently of any that preceded it by a fiat and *per saltum*, then I say deliberately that there is and can be no such thing as a science of psychology, and that every attempt to investigate or explain, to comprehend or divine the rationale of the facts observed as to its origin and growth in the individual must remain for ever futile. And if I could find the right words I would bring home to each one who hears me the inextinguishable conviction that in this idea of evolution lies enfolded the mystery of the past, the explanation of the present, and the sure prescience of the future—what we were, what we are, and what we shall be.

The Atavistic Theory of Idiocy and Insanity.—In conclusion, I desire to refer briefly to two corollaries which flow from this hypothesis. The first is, that if it is correct, then all forms of insanity, including all forms of idiocy, are nothing more nor less than cases of atavism. In this view insanity is due to congenital absence or imperfection (leading to breakdown) of some faculty or faculties, such absence or imperfection being due to more or less complete reversion to an ancestral type. In my opinion this view explains insanity and its numerous forms more completely than these can be explained from any other point of view, and is therefore of great value to the thoughtful student of these phenomena. Upon this view, the comparatively recent origin and rapid evo-

lution of the human mind, and especially the rapid mental evolution of the so-called Aryan peoples in the last four or five thousand years, is almost solely responsible for the large number of cases of insanity in the modern civilized world, since the stability of any form, function, or faculty in any race is dependent upon the time it has existed in that race, and therefore the more recent a faculty is in a race the more frequently will it be found absent, defective or unstable in the individuals of the race.

Future Development of Mind.—The second corollary, which is even more important than the first, is that, upon the view here set forth, the human mind at present is not formed, but forming; is not completed, but in process of construction. By slow and dubious steps taken in darkness our remote ancestors wearily climbed to simple consciousness. After another immense interval they reached self-consciousness. But that cannot be the end—the cosmic process cannot stop there—cannot indeed stop anywhere. Evolution, as far as we can see, has always gone on, is going on to-day, and will always go on. Our old mental faculties are some of them fading out, others advancing toward greater perfection, and alongside of them new ones are springing up, some of which will, without doubt, be of over-shadowing importance in the future.

So-called telepathy and clairvoyance seem to be specimens of such nascent faculties. I place in the same class the phenomena of what is often named spiritualism. The labours of the Society for Psychical Research have made it to me plain that these phenomena, as notably in the case of W. Stinton Moses, really exist. And I think that a study of the above-mentioned case, together with that of Mrs. Piper and that of Mary J. Fancher, of Brooklyn, would compel any unprejudiced person to make the same admission. But to me these are not cases in which outside agents are acting on or through a human being, but are cases in which a given human being has faculties which are not commonly possessed. Whether any given faculty, such as one of those now alluded to, shall grow, become common, and finally universal in the race, or wither and disappear, will depend upon the general laws of natural selection, and upon whether the possession of the nascent faculty is advantageous or not to the individual and to the race.

But of infinitely more importance than telepathy and so-called spiritualism (no matter what explanation we give of these, or what their future is destined to be) is the final fact to be here touched upon. This is that superimposed upon self-consciousness, as is that faculty upon simple consciousness, a third and higher form of consciousness is at present making its appearance in our race. This

higher form of consciousness when it appears occurs, as it must, at the full maturity of the individual, at about the age of 35, but almost always between the ages of 30 and 40. There have been occasional cases of it for the last 2,000 years, and it is becoming more and more common. In fact in all respects, as far as observed, it obeys the laws to which every nascent faculty is subject. Many more or less perfect examples of this new faculty exist in the world to-day, and it has been my privilege to know personally, and to have had the opportunity of studying, several men and women who have possessed it. In the course of a few more milleniums there should be born from the present human race a higher type of man possessing this consciousness. This new race, as it may well be called, would occupy, as toward us, a position such as that occupied by us toward the simple conscious *alalus homo*. The advent of this higher, better, and happier race would amply justify the long agony of its birth through the countless ages of our past. And it is the first article of my belief, some of the grounds of which I have endeavoured to lay before you, that a race is in course of evolution.

Selected Article.

THERMOTHERAPEIA, OR THE HOT-AIR TREATMENT, AND ITS USES AND POSSIBILITIES.

By ELLWOOD R. KIRBY, M. D.,

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The effects of heat upon the human body are, of course, for the most part the opposite of cold. By surrounding the body with a temperature higher than its own the destruction of the tissues by oxidation is considerably diminished; and many curious facts have been discovered, but with few exceptions these facts still remain to be explained.

For the first knowledge of thermotherapeia the medical profession is indebted to Mr. Urquhart. He found that the treatment was adopted in various parts of the world, and that its use was almost universal in cold and temperate climates, but absent in the tropics. By the people among whom it was found the application of hot air was employed as a luxury and

a religion—the religion of physical purity—but not as a remedy against disease. It was left for Urquhart to apply highly heated air as an agent for the relief of pain and disease, with the most signal benefit.

The capacity of the human body for bearing dry air at a very high temperature is a matter of common observation; we see it in the daily occupation of copper smelters, puddlers, and stokers. In well ventilated rooms a temperature of from 170° to 200° is not only bearable but absolutely soothing and agreeable.

The essence of the quality of a high temperature is its dryness, and when absolutely dry a temperature of 400° has been borne for several minutes. If the air be moist, a temperature of 130° or 140° will begin to scald. The great value of dry heat we can clearly see by the universal use of the Turkish or Russian baths; but the application of high degrees of dry heat to the entire human body is dangerous at times.

It has been only within the past two years that any attempt has been made in the use of a definite apparatus, by which a high degree of dry heat at a known temperature can be applied to a part of the human body without the dangers of serious or accidental results from the disorganization of tissues. It is a well-known fact that heat applied to the human body will relieve pain and also abort many simple inflammatory conditions, but just how this is brought about is rather difficult to explain. It has been determined experimentally that a temperature of 140° F. applied to a motor nerve will produce motion in parts supplied from direct irritation, and that a temperature of 212° F. is capable of producing the most violent tetanic contractions, which are entirely due to the disorganization of the nerve tissue.

The apparatus used in the following experiments is one constructed by Lentz & Son, of Philadelphia, and is a most admirable one for its simplicity of construction and its price. The actual space required for the machine is $3 \times 2\frac{1}{2}$ feet, and with chair for the patient the total space is $5 \times 2\frac{1}{2}$ feet. The gas-jets are used for ordinary pressure; these will bring up the required temperature of 300° to 400° F. in from forty-five minutes to one hour. The actual cost of running the apparatus is about two cents per hour. It is entirely portable, its total weight being under forty pounds.

Technique of Application.—The temperature of the machine is allowed to reach 200° F.; the patient's limb is then carefully but loosely surrounded by a large blanket, special care being taken to allow a considerable air space between the blanket and toes or fingers, and also that the limb just within

the iron rim of the machine be thoroughly protected to prevent burning from the heated metal. The canvas hood is now made tight about the limb. For experimental purposes the pulse, respiration, and temperature were taken before and after applying the heat, and in all joint conditions the circumference of the same was taken before and after. The average treatment should last from forty-five minutes to one hour, and the temperature should be slowly increased until the full limit of the patient, so far as his sensations are concerned, is reached.

The guide in the matter is the sensation of the patient, who at first usually experiences pain in the toes and fingers, but this is not excessive; and when the temperature becomes intolerable to these parts, as noticed by the very sharp, stinging pain, the temperature is quickly reduced 10° or 15° by opening the valves at the top of the machine or opening the machine door, or a procedure which we are commonly in the habit of adopting, of opening the door of the apparatus and quickly throwing an ordinary towel into the cylinder. This will absorb a certain amount of heat, thus relieving the distressing pain. After this the temperature is gradually allowed to rise again, until the limit of tolerance is reached, and then lowered. Some surgeons have recommended covering the limb with a piece of lint, or with absorbent cotton, and a bandage. This substance is entirely too thin, and does not absorb the perspiration quickly enough, or may be quickly saturated with moisture; hence in quite a few cases very severe scalds have resulted. When the blanket is used, however, no such injury is possible, if the ordinary amount of care be exercised. Another point in favor of the use of a blanket to encase the limb, rather than lint or gauze, is that the limb is thoroughly protected from the canvas covering of the magnesium; for, although the heat cannot go through the magnesium, it is forced directly through the flues of the apparatus in such a manner that the canvas becomes as hot as the surrounding metal and asbestos, and hence might readily scald.

The thermometer should be pushed down as far as the limit of the metal guard, as this is continuous with the iron of the apparatus; the instrument will register proportionally higher than the true interior temperature actually is. With a temperature of 380° as registered by the thermometer the temperature in the exact center of the cylinder will register but 350° to 360° , while beneath the first fold of the blanket about 335° to 340° , and directly next the skin but 230° to 250° ; so we can therefore notice that quite a difference exists between the temperature as registered by the thermometer of the apparatus and the actual heat in direct contact with the skin.

Immediately after the application the limb or part exposed to heat is washed with alcohol and quickly dried, and the patient allowed to follow his usual avocation. The treatment should be applied daily in acute cases; in chronic cases at longer intervals.

After applications the limb or part is extremely red and hyperemic, bathed copiously with perspiration, skin soft and pliable, and pain, if present before, entirely relieved or much improved. In the lower extremities patients often complain of a peculiar numbness of the limb, a fact which is entirely due to the position in sitting; the limb is markedly extended, and simple extension of the sciatic nerve will produce this condition either in or out of the machine, and has nothing to do with the action of heat upon nervous tissues. Often the circumference of the limb was considerably reduced; at times it was unchanged, a condition which no doubt depends upon the presence of subcutaneous œdema or effusion. The explanation as to the relief of pain is rather difficult. Ringer has shown that heat impedes or destroys the electrical currents of nerves, whence it may be fairly presumed that when subjected to this influence they are less able to conduct impressions to or from the brain. The action of the heat in such cases is a temporary one. If the case was allowed to rest with one application the patient might be entirely free from pain for several hours, and when it did return the pain would not be quite so severe as before the treatment. If the treatments are continued for any length of time there is a progressive loss of flesh and strength, amounting in one of our cases to seventeen pounds for thirty heatings. This case was one of double hydrochs artículi of the knee, the patient refusing operation. He was led to try the hot air by way of an experiment. The result in this case will be given under the list of cases.

The greatest temperature applied at one time was 400° , and the lowest 270° , the average treatment being about 320° .

A short time after applications have been made we find that there is an elevation of the central temperature, the highest in our list of cases being 100.1° and the lowest 98.7° . The average increase of temperature was 1.2° F. The pulse is at the same time somewhat increased in frequency, the greatest being 120 and the lowest 92, showing an average increase in the pulse-rate of thirty-three beats per minute.

When very high degrees of heat are applied to the human body there is at first a violent vasomotor contraction and an increase of blood-pressure, but when a temperature of 380° F. of dry heat is applied there is a vaso-

motor dilatation, as borne out by the increased action of the sweat glands, the increase of temperature, which is almost always associated with dilatation of the capillaries, and finally by the flushed appearance of the skin.

Sonnenburg says the temperature rapidly rises shortly after the application of heat, and considers this rise of temperature consecutive to the overheating of the blood. It is incontestible that when the cutaneous surface of man and beast is subjected in totality or in a greater part to the action of an intense heat, the entire blood distributed to the periphery not only becomes hotter, but is considerably altered, and the overheated blood which flows back to the central structures must of necessity be followed by an elevation of the central temperature; but there is in animals a considerable difference, which can be easily appreciated when one takes into consideration the size of the subject. We have frequently observed that in those cases in which the superficial fat was well developed there was less immediate relief experienced from pain; and the elevation of the central temperature is less demonstrable than in those subjects whose muscular and fatty layers are particularly thin.

Sonnenburg states that if a burning substance be brought in contact with the cutaneous surface there is primarily an attempt at self-defense on the part of the organism by an immediate vasoconstriction which prevents the blood from flowing through the burned area, and thereby causing internal congestions. In our series of cases we have noticed on the contrary a vasomotor dilatation with its consequent hyperemia and fall of blood-pressure, the rapidity of which depends upon the intensity of, and the duration of the application of the heat, results which are clearly due to a paralytic exhaustion of the vascular tonicity. The red blood-corpuscle can scarcely pass through the vessel, while on the contrary the venous dilatation is so great that they occupy one-third more space than in their normal state. Milne-Edwards in his work on comparative anatomy has also studied this phenomena: the action of cold produces a contraction of the arterioles and intense heat produces the same effect, while a moderate heat dilates the vessels. Salviola confirmed these results by actually measuring the diameter of the vessels before and after the application of heat.

We have noticed from a series of microscopical examinations made of the blood by Dr. Geo. A. Muehlick an excess of accumulation of red blood corpuscles resulting from the action of the high temperature.

During the past nine months we have treated something over 300 cases at St. Agnes Hospital, with a grand total of

910 heatings for all cases, including 157 cases of recent sprains, eight of the shoulder-joint, seven of the elbow, twenty-two of the wrist, eighteen of the knee, fifty-five of the ankle, twenty-four of the thumb, and twenty-three of the fingers, with most excellent results.

In cases of traumatism of the shoulder it was impossible to get the full effects of the heat because of the difficulty experienced in getting the shoulder within the cylinder of the apparatus ; in general, however, applications to the upper extremity are followed by good results. Each case was treated for from forty minutes to one hour, with a general average of five heatings. In none of these cases was any retentive dressing applied, with the exception of the ankle ; in all other joints the full limit of heat was applied for forty-five minutes for small joints, as the fingers and thumbs, and one hour for the larger joints. Our best results were obtained in sprained ankles, all of these cases being heated for a full hour, at a temperature ranging from 300° to 380° F. After each application of heat a Coterell dressing was applied, and the patient told to use the joint as much as possible. The majority of the cases were treated daily ; some every third day. Usually one application gave perfect ease from pain ; in some cases two applications were necessary before the pain was entirely relieved ; and in the great majority of cases three applications were necessary to restore perfect function of the joint. In some of our cases the rapidity of cure seemed marvelous.

We have noticed that in subjects with an excessive amount of subcutaneous fat the first application seemed to be followed by an increase of pain and discomfort : this, however, rapidly wears away within a few hours, and the usual relief of pain is then experienced. This we especially noted in a medical *confrère*, and to use his words, the pain and discomfort were greatly increased after the application of one hour, but within three hours he experienced a most delicious sensation of comfort and freedom from pain ; the second application was followed by complete relief of all symptoms, and he was able to walk after the fourth day of treatment, the function of the joint having returned to the normal state. In this case the gentleman weighed something over 220 pounds. Of course in this class of injuries the intense heat prevents the extravasation of blood and the exudation of lymph between the tendon and its sheath, and if blood or lymph be present they are rapidly absorbed.

CASE II.—A strikingly successful case. L. E., aged forty, who after a fall of twenty feet sustained a very severe sprain of his right ankle ; was suffering excruciating pain when

brought to the hospital. Heat was applied to the limb for one hour, until the full limit of tolerance was reached; limb was removed from the apparatus, a Coterell dressing applied, and the pain was entirely relieved. This process was continued for one hour on three consecutive days, the patient walking out of the clinic on the third day.

CASE III.—Alcoholic; received a severe sprain of ankle two days before admission to hospital. Heat was applied for two hours, through the carelessness of the attendant. Patient was lost sight of for two weeks, at expiration of which time he returned with Coterell dressing intact, stating that he had experienced no pain during the interval, and had been walking on the injured member from the time of the first application.

CASE IV.—W. B., while walking on a coke bank, turned on his ankle with such force that a hole was torn in right side of shoe at the site of the external malleolus. He was taken to the hospital in the ambulance. Heat was applied for one hour, after which a Coterell dressing was applied, and the patient was walking on the third day.

CASE V.—Jenette C. while walking the street slipped on a banana peel and received a severe sprain of left ankle. When brought to the hospital she was suffering intense pain and the joint was greatly swollen. A single application of heat was made and a Coterell dressing applied, and the patient left the hospital immediately, walking on the injured limb.

CASE VI.—Marie M., aged twenty, fell from a bicycle, receiving a sprain of the right ankle. When admitted to the hospital her limb was enormously swollen. Heat was applied for four consecutive days; after the fourth application a Coterell dressing was applied, and the patient walked home without much effort.

Numerous other cases were treated in like manner, with the same gratifying results. In the great majority of cases pain was relieved in a marvelous manner, and the function of the joint was restored to the normal in all cases after the fourth application. We have experienced the same good results with the treatment of smaller articulating surfaces; the following case serves to illustrate:

CASE VII.—Mrs. C., after a severe fall, in an attempt to save herself threw out her right hand, injuring thumb. Rapid traumatic plastic synovitis followed the injury, with adhesions locking the thumb under the index finger. Unsuccessful attempts had been made on several occasions to relieve the condition. Heat was applied to injured member, at a temperature of 340° for one hour, after which the adhesions

were forcibly broken up, and patient was enabled to use her thumb freely.

We have not experienced the same uniformly successful results in chronic joint injuries. This is to be explained in part by the fact that in acute injuries the excessive application of heat causes a vasomotor dilatation, thus relieving engorgement of capillaries and in consequence pain. In chronic cases, on the other hand, the exudate organizes into a low grade of fibrous connective tissue ; there is not the same capillary dilatation, and the same relief from pain is not experienced. We have also observed in simple hydrops cases that the infusion in the majority of cases is rapidly absorbed, although the time required for treatment is considerably longer than in acute conditions. In those cases of sprains showing the peculiar tendency to plastic formations of comparatively recent date, the same good results were obtained as in the acute conditions, but when of very long duration little good resulted from the applications.

These results are decidedly an advancement over the older methods of treatment of sprains. Formerly a sprained ankle required from five to six weeks of active treatment, with serious incapacitation of patient for active duties, and the patient almost invariably suffered pain, discomfort, and swelling of the limb for several months afterwards.

Careful measurements of the joints were made, and a decided diminution in diameter occurred within a period of twenty-four hours afterwards.

In chronic synovial effusions of joints our experience has been limited to four cases, in one case of hydrops articuli of both knees, for which operation was refused by patient. Thirty applications of heat were applied by way of experiment. Accurate measurements of the circumference of each joint were made, with a marked diminution in the size and effusion. After the thirtieth application there was still some fluid in the joint. In this case we noticed a marked decrease in the weight of the patient, and treatment was discontinued. The remaining three cases were not of such long standing ; while they were benefited in many respects by the treatment, yet the results were not so gratifying as in the treatment of the acute cases. In these three cases the joint was fixed in the interval. Treatment was discontinued after ten applications, and the usual treatment for these conditions was carried out.

We have met with unvarying and remarkable success in the treatment of acute synovial effusions, the patient experiencing a rapid relief from pain and progressive diminution of the effusion.

Our experiences in these cases coincide in every way with the experience of Professor H. C. Wood in his article, in which he says: "The application of dry heat is of very little value in chronic joint conditions."

Tuberculosis.—We have been very much interested in the application of hot air to the treatment of tubercular arthritic affections. We have been unable to secure sufficient material as a basis for positive statements; we thought that we might in some way be enabled by the application of a very high temperature to destroy the tubercle bacillus. It is a conceded point that the tubercle bacillus is easily affected by comparatively low temperatures, and its activity destroyed at 160° F. Taking for granted a child with tubercular arthritis, the joint of course very small, if the temperature of the apparatus be raised to 380° F., or an interior temperature of 350°, it seemed to us possible that with a temperature of 230° in actual contact with the skin sufficient heat might be brought to all parts of the joint by continuity and contiguity of tissue, and that we might thus destroy the organism. Unfortunately we were only able to experiment upon one suitable case; this was one of tubercular skin infection in a veterinary surgeon of Downingtown. Sections of the ulcer were made by Dr. Raven, of the University of Pennsylvania, and tubercle bacilli were found. Five applications of from 380° to 390° were made at intervals during six weeks. The ulcer promptly cicatrized, all induration disappeared, and the Doctor writes that he has had no further trouble for the past four months; and is evidently cured.

We have as yet not been able to experiment with other local non-pyogenic infections. We think, however, if the heat could be applied that its curative effects upon lupus would be quickly demonstrable. Of course, it is needless to say that sufficient heat could not be applied to the skin for the purpose of destroying pyogenic organisms, as these microbes are only killed by such temperatures as would entirely disorganize the human tissues.

In acute rheumatic cases we have met with gratifying results in the use of dry heat. The patient experiences an immediate sense of relief from pain, and a marked diminution in the swelling of the part. In one case we have in mind the usual treatment had been thoroughly tested for two weeks without result; the pain was very severe, and patient experienced her first relief from pain after the use of the apparatus. Six other acute cases seemed to be completely cured, while the remaining eight were greatly improved. Of the chronic cases we treated thirty; all experienced a relief from pain, but there was no permanent improvement manifested. This seems to be the experience of all observers.

Rheumatoid Arthritis.—Our experience with the treatment of rheumatoid arthritis has been disappointing. We experimented upon one man of twenty-eight years in whom nearly all the joints of the body were involved; the patient was unable to walk without the aid of crutches. The case was one of fifteen years' duration, and all forms of treatment known had been tried unsuccessfully. Accurate measurements were made of the joints before and after treatment; pulse, respiration and temperature were carefully noted. Both lower extremities were exposed to a temperature from 300° to 320° F., each limb being permitted to remain in the apparatus for a period of one hour. We were led to expect brilliant results after the second heating, the patient being able to walk out of the clinic without the aid of his crutches, and his general condition seemed improved. After about ten days, however, he became anemic, lost eleven pounds, and was forced to discontinue treatment, and since then the patient's condition has been much worse than before the treatment was begun. From the experience of Professor Wood it would seem that the hot-air treatment is absolutely contraindicated in rheumatoid arthritis, and in fact in cases of simple rheumatism with any bony exostoses about the joints; and little or no good may be expected from the treatment of these cases.

Leg Ulcers.—Nine cases of the ordinary callous ulcer of the leg were subjected to the application of heat. Assuming that the circulation is increased in the part, we hoped by the resulting lymphatic stimulation to obtain granulation tissue reaction, and thus by favoring a better metabolic exchange in the tissues to hasten the cure of these otherwise obstinate conditions. These cases were somewhat improved, and in several the ulcers rapidly took on a healthy granular appearance. The callous area is rapidly softened and the ulcers look clean, and the granulations when formed have the normal healthy appearance. We concluded that this will be an excellent preliminary procedure in the treatment of these conditions.

Elephantiasis.—In the one case of elephantiasis subjected to this treatment we had hoped to stimulate the lymphatic system, and thus bring about a certain amount of improvement. Patient discontinued treatment voluntarily after the third application, and no definite conclusions could be drawn.

Fractures.—Thirty fractures, including seventeen Colles, six of tibia and fibula, seven of fractures of the lower end of the humerus, were subjected to the hot air after the dressings had been removed. It is usually stated in text-books that

the average cure of a broken bone requires about six to eight weeks ; this only includes the time the fracture is uniting, but many weeks and sometimes months are required to limber up joints and tendons before the normal function is restored. Colles's fracture is of very frequent occurrence, and it is well known the disability that follows this fracture often extends over a very long period. We hoped the hot air would so soften the adhesions that a rapid absorption would speedily follow and the function of the joint be rapidly restored. We were right in this surmise. In every case after the splint was removed the part was subjected to heat to the point of tolerance, which we observed to be considerably below the usual limit, which is in all probability due to the defective nutrition of the part, and the excessive amount of engorgement of the lymph channels.

In every case the function of the limb was rapidly restored, œdema and swelling rapidly disappeared, and the patient was enabled to follow his usual avocation much earlier than in cases treated by massage and electricity. Massage combined with the hot air treatment might still further hasten a cure, but this procedure was eliminated from our cases for experimental purposes only.

Dislocations.—We treated a number of dislocations of various joints and met with uniformly good results, in causing the absorption of the lymphatic adhesions between the articular surfaces and a rapid disappearance of the swelling. Heat was applied when the dressing was removed and the capsular ligament supposed to be entirely healed.

Tenosynovitis.—Eight cases of tenosynovitis were treated ; all were of traumatic origin, seven being about the wrist-joint and one at the elbow ; four were acute and four chronic. Of the acute cases all were promptly relieved by four treatments ; splints were applied in these cases after the application of the heat. In the chronic cases improvement was slower ; the pain was promptly relieved, but crepitation could be felt for some time afterward. After seven heatings patients were cured and able to return to work. The heat seemed to be of special value in these cases, and when the exudate about the tendon was not excessive it was rapidly absorbed. In those cases in which the exudation was excessive the use of an antiseptic seton was combined ; the improvement was rapid, and permanent cure soon resulted.

Assuming that the theory in regard to the destruction of the tubercle bacillus by the application of a high degree of heat is correct, we think that the treatment should be followed by the most brilliant results in cases of tubercular tenosynovitis.

Ankylosis.—Seven cases were treated—two of elbow,

three of knee, and two of shoulder. All these cases were of traumatic origin and of long duration. As many as twelve or fifteen applications were required in each case before permanent improvement was noticeable, but in all the final results, with the exception of one elbow, the range of motion was increased to a remarkable degree. The elbow case discontinued treatment of its own accord.

In conclusion, we believe that the application of dry heat will find its greatest use in those cases of acute origin, such as sprains, tendinous inflammations, acute muscular strains, acute rheumatic conditions, and as an after-treatment of fractures and dislocations, to promote and aid the elimination of effete substances through the skin, by sweating and through the lymph channels, increasing the blood-supply and thereby the nutrition of the part. We think it is absolutely contraindicated in cases of rheumatoid arthritis, and of but little value in chronic rheumatic affections. We believe with Dr. Wood that the general sweating has something to do with the relief of these cases. Little experimental work in the line of tuberculosis has been done, but the brilliant results obtained in our one case encourage one to further investigate this matter. We are now doing some experimental work with the view of ascertaining whether the application of a high degree of dry heat will in any way facilitate the penetrating power of ointments. One can readily see the boon to syphilographers if the permeability of inunctions be furthered, thus enabling one to rapidly saturate the system with physiological doses of mercury.

Our experiments also have led us to believe that if an apparatus could be constructed enabling one to adapt this method of dry heat in pulmonic congestions, the vasomotor dilatation ensuing, literally bleeding one into his own arteries, many distressing and dangerous symptoms, as cyanosis and dyspnea, might be relieved or mitigated. It seems to us that this subject is well worth further investigation.—

Therapeutic Gazette.

Progress of Medical Science.

MEDICINE AND NEUROLOGY.

IN CHARGE OF

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CIRRHOSIS OF LIVER AND INTEMPERANCE.

The United Kingdom is by no means a temperate country as regards the consumption of alcoholic drinks, though the Briton is far better conducted in this respect than he was at the date of the Queen's accession, an epoch when the law was less solicitous for his welfare than it is at present. Through learning culled from popular works and temperance lectures the public have an idea that the drinker of spirits dies miserably with a hob-nailed liver, the result of chronic alcoholic poisoning of that organ. The profession substantially supports this idea, for though British physicians recognise other forms of fatal disease due to intemperance, they still understand "hob-nailed liver" and "gin-drinker's liver" to be synonymous with cirrhosis, and they still teach that neat spirits are more potent in causing cirrhosis than wine or malt liquors.

There is a source of fallacy in this theory. Gin-drinking was once very prevalent amongst the classes who seek hospital relief, classes who yet consume other spirituous liquors too often in excess. Their fatal malady could be traced beyond death, and diagnosis was verified by the medical registrar and demonstrator of pathology. The Briton who can afford to drink wine does not often die in a hospital, nor do his friends allow of pathological research. Hence it is too much taken for granted that abuse of wine does not frequently cause cirrhosis.

Professor Lancereaux quite recently brought forward some remarkable facts and theories before the Paris Académie de Médecine. He proved that undeniably cirrhosis of the liver, common amongst the poor of the French capital, is very often caused by intemperate indulgence in wine and in wine alone, the well-known *vin ordinaire* of the wine shops. An Englishman might conclude that the wine of the *estaminet* or *tapis franc* may be fortified with cheap spirit for inspiring the proletariat, just as the *vin ordinaire* for the

benefit of tourists at hotels is doctored with logwood and aniline. But Lancereaux says nothing about the Paris workman's wine being "fortified." He insists, however, on another form of adulteration, to which the Académie devoted much attention—the addition of plaster-of-Paris in order to give a "dry" flavor. On the strength of this fact he goes so far as to advance a new theory. Cirrhosis of the liver, he believes, is not due to alcohol, but to certain salts which are in solution in intoxicating drinks. His own statistics seem to us to include the same source of fallacy as is found in English statistics. Out of 210 cases of cirrhosis under his own care, where the patient was clearly intemperate, the "especial vanity," as Mr. Weller, senior, would say, was distributed as follows: Excess of wine, alone, 68 cases; excess of wine, brandy, rum, and absinthe more or less combined, 126 cases; excess of wine and beer, 12 cases; and excess of wine and cider, 4 cases. Hence he concludes that in Paris wine is the efficient cause of hepatic cirrhosis, as excess of that alcoholic drink was marked in all his cases, and often was the sole agent in causing the disease. On the other hand, Parisian workmen all drink cheap wine, whilst the British inebriate in humble life nearly always takes spirits. Hence we have no evidence that spirits may not be a yet more "efficient cause" of cirrhosis.

Still there remains Lancereaux's theory, that cirrhosis is due to mineral salts, and not to alcohol. Gin is not doctored, we believe, with mineral salts. Of the "plastering" of cheap claret, however, there can be no doubt. The epicure loves the flavour of a naturally dry wine for its own sake. On the other hand, it is not certain that the uncultured sot and the coarse drinker in any class look on dryness as a sweet sensuous delight. They choose a sham "dry" wine because their stomachs are disordered, and they hate anything sweet. Thackeray loved to see a man of forty eat a jam tart with relish, and we know what he meant. The drinker cannot tolerate sweetness, whilst he knows that acidity will upset him. Hence the "dry" flavour is preferred as being, to the drinker, neither nauseous nor irritant. Therefore plaster is freely put into cheap claret for the Paris poor. Lancereaux now demonstrates that it is the sulphate of potash, which exists in considerable quantity mixed with the sulphate of lime, that damages the liver so as to cause the well-known cirrhotic changes. He and Couturieux have found that sulphate of potash mixed with articles of diet undoubtedly causes the well-known changes of the connective tissue of the liver which bring about the appearances characteristic of cirrhosis. The administration of pure alcohol in the higher

animals never seems to cause hepatic cirrhosis, though all observers find that it produces true and typical fatty degeneration. This change, it appears, is seen in absinthe drinkers. Lancereaux gives us a bit of information specially important when this subject is considered in a general sense, and beyond the banks of the Seine. "The proportion of salts of potash," he states, "is relatively strong in certain wines and in some beers."

The distinguished French pathologist is doubtless more or less correct in his conclusions about wine and hepatic disease in Paris, and it would appear that "some" kinds of beer contain the noxious salt. Unfortunately, we once more face negative evidence. He implies that spirits, especially absinthe, do not contain the salt. Absinthe drinkers do not get cirrhosis. What, however, causes the disease in the British drunken operatives; do some spirits, like "some beers," contain sulphate of potash? The matter is worth investigation. Till it is made clear, we doubt if British physicians will abandon the theory that spirits—at least British spirits—cause cirrhosis through the direct injurious action of alcohol on the liver.—*British Medical Journal*.

THE CLIMATIC HEALTH RESORTS OF CANADA.

In an editorial in the *British Medical Journal*, Nov. 13th, 1897, it is stated that one of the good results which it may be expected will flow from the visit of the British Medical Association to Montreal will be a better understanding of the climate of Canada. Canadians resent that their country should have been apostrophised as "Our Lady of the Snows," and Rudyard Kipling is not a name to conjure with at the present moment in the Dominion. Extending from east to west, from the Atlantic to the Pacific Oceans, and modified at its two extremities by the influence of these oceans, and in its central portion by the great inland lakes, Canada, of course, presents many varieties of climate, and it would be absurd to expect as yet any detailed knowledge of all the variations which latitude, elevation above the sea, or proximity to the oceans must produce. Some sort of general or preliminary notion may be obtained, however, by observing that of the settled parts of the Dominion the eastern part is roughly in the same latitude as southern Germany, and the western part in that of northern Germany.

In spite of its eastern indented coast line, Canada as a whole has a continental climate—a well-marked winter usually with long-lying snow, and a warm summer. In the

maritime provinces, wanting the influence of the Gulf Stream and suffering from that of the polar current, the winter is cold, and apt to be damp and foggy. The summers are bright and not hot, owing to the same cooling agency. The coasts of Prince Edward's Island, Nova Scotia, and New Brunswick thus offer many bracing seaside resorts, subject, however, to very much the same vicissitudes of weather as make a visit to a British seaside place rather a lottery. The greater part of the province of Quebec has a more constant climate, and the city of Quebec itself, though in the same latitude as Central France, is on the same isotherm as Stockholm. The climate of the eastern part of the province of Ontario is somewhat less constant, the summer hot but the winter less steady. From the great lakes eastward to the Atlantic, therefore, the climates of Canada present few striking points of interest or advantage to Europeans. The only exception which may at present be suggested is the district of the Muskoka Lakes, where special local conditions render the climate bracing and the air free from dust.

In the Rocky and Selkirk Mountains, however, Canada possesses a vast extent of country which has a summer climate presenting the well-known Alpine characters in their most marked form. As to the winter climate we have not as yet sufficient information to express any opinion, but in summer the climate appears to be all that can be desired, especially in the middle of the summer season—mid-July to the end of August. At Banff there is ample accommodation for visitors, who can there obtain all the comforts and many of the luxuries of civilisation, while at other points along the Canadian Pacific Railway, as at Field in the Rocky Mountains, and at Glacier in the Selkirk Mountains, there are well-managed mountain hotels.

The climate of the prairie country east of the Rocky Mountains possesses certain valuable characteristics. From Brandon, the western centre of the wheat-growing country of Manitoba, where the elevation is 1,150 feet, the prairie, which is all open and usually undulating, rises imperceptibly, until at Calgary, the western centre of this ranching country, the elevation of 3,388 feet is attained. Here the rainfall is low (11.54 inches), the proportion of sunny days, with a maximum in winter, is high, and the snow does not lie deep. The air all the year round is bracing and stimulating, and everything, both in the climate and the customs of the inhabitants, encourages the resident to live an out-of-doors life. Neither the social surroundings nor, perhaps, the climate are adapted to persons who are actual invalids; but for those young men for whom a change of climate is recommended rather as a pre-

cautionary measure these western prairies of central Canada offer advantages which it will be well to bear in mind. One distinct advantage of a minor kind is that the journey from, say, Calgary to England can easily be accomplished in less than a fortnight.

Westward of the Selkirk Mountains, and at a much lower elevation than the prairies on the eastern side of the Rocky Mountains, is a remarkable "dry belt." Its most accessible town is at present Kamloops, on the main line of the Canadian Pacific Railway. The rainfall is low (11.05 in.), and the air, in spite of the fact that the district is traversed by several fine rivers, remarkably dry. It is proposed to erect here a sanitarium, and there is every reason to believe that the climate is specially suitable to the treatment of consumptive patients in all the earlier stages of the disease. The chief danger to be guarded against appears to be dust, but this is only likely to be troublesome on roads and in settled parts, and due regard will doubtless be had to this in the choice of a site. Southward of this district is the country in and about the Okanagan Valley, which possesses a similar climate, while affording a somewhat more varied scenery.

It will be seen that the Dominion of Canada affords climatic conditions calculated to be of use in the prevention or treatment of various diseases, and that there is good reason to believe that a great future awaits certain specially favoured localities.

MASSAGE IN PRURIGO.

Murray, of Stockholm, found (*Hygiea*) that massage had a good effect in a case of prurigo in a boy aged eleven. The procedure had no effect on the process but relieved the intense itching. Hatscek (*Arch. f. Derm. u. Syph.*) had an opportunity of trying the method in Kaposi's clinic in eleven cases (nine males, two females). Of these, seven were suffering from prurigo ferox, and four from prurigo mitis. Most of them were young, but one of them was aged sixty-two. Nine were treated exclusively by massage; in two cases this was for a time supplemented by carbolic acid pills. To exclude sources of fallacy, massage was used in the form of dry effleurage. Stroking was moderately firm, and was made in a centripetal direction. The duration of each sitting was at first ten to fifteen minutes; after a time this was shortened to five, and later to three, minutes. In all the cases the itching was markedly relieved; in some after two or three sittings, in others not till after some weeks. The treatment is more effectual if vaseline is employed.

The method had no direct effect on the disease process, but it was noticed that new nodules, developing while the patient was under treatment, itched less than had formerly been the rule, and rapidly disappeared. In some cases recurrence of the pruritus took place. To prevent this, massage must be continued to a greater or less extent throughout the patient's life.—*British Medical Journal*.

DIETARY CRANKS,

According to the daily prints Dr. Kellogg, of Battle Creek, Michigan, recently delivered a lecture before a large audience in the Y. M. C. A. Hall of this city. Among other things he is said to have urged abstention from meat as an article of diet, on sanitary grounds. The comparative method is especially favorable in the study of fads and crank systems. Saulsbury and Kellogg added together furnish a plentiful dietary, subtracted the one from the other they reduce themselves to the absurdity of annihilation. Exclusive systems of diet result from the application of observations on disease to the regulation of the body in health. It is only necessary to change the disease which is on view to get an entirely new set of requirements. There is no doubt of the efficacy of raw meat, dry bread, and hot water, exclusively, in the very common acid-dyspeptic states. Plethoric individuals with the irritated kidneys and neuralgic twinges of the uric-acid condition fly with joy to the grains and nuts of Battle Creek. A sect has lately arisen which, if we are informed aright, largely discounts the very moderate restrictions of the two schemes mentioned above. It has evolved a theory which is truly ponderous in the way in which it tramples down the joys of the table. The Ralston Club has solved the mystery of arterio-sclerosis. Their logic is simple. The arteries calcify; the lime-salts cause calcification; all foods except fruits and all natural waters contain lime-salts; *ergo*: eat nothing but fruit, drink nothing but distilled water. They apparently assume that with this one mighty brain-throb they have solved the problem of life, and that they have left men no shadow of an excuse for dying under two hundred years of age. The monkey, the nearest of kin to the hairy progenitor of man, is appealed to as a touching instance of plain living (we wish we could add high thinking, but though the apostles of Ralston may believe it they do not expressly say so). The monkey, they tell us, eats only fruits, and never drinks water with his meals. Presumably the reason why he fails of the double-century mark in respect of age, is because he does not drink distilled water.

The Ralstonites pause in their consideration of the animal kingdom with the monkey. This is unfortunate. The raven, for instance, lives to be one hundred years old. He lives on carrion. The next army of cranks may be encouraged to follow his example.

The fruit-eating craze is possibly the most degenerate of the many recent fads. The fruit-eating and pot-bellied natives of the tropics and their next lower relatives, the apes, are truly inspiring objects of imitation by civilized man! not even their outdoor and arboreal lives save them from the consequences of a meagre and irritating regimen. It is truly pitiful to see the army of neurasthenics, dyspeptics, rheumatics, starving their tissues and acidulating their blood at the beck of a few, to put it charitably, hare-brained enthusiasts. It is fair to suppose that a troop of rickety children will later rise up and call them anything but blessed, a fate from which the ape saves himself by abundant potations of river-water.

The fact with regard to fruit is, that although it contains little nourishment, it agrees well with many people endowed with a vigorous gastric mucosa and fairly alkaline blood. To them it brings looseness and joy. In many dyspeptics tates, it is the first food stuff to disagree, and to the ill-nourished neurasthenic it is a miserable substitute for the better tissue-builders.

An appeal to the facts of evolution gives little comfort to the cranks of one dietary idea. Primitive man has as hunter and herdsman thriven on an animal dietary. Nuts and fruits have served his turn as well, and encouraged him to the cultivation of the cereals. There is no evidence to show that the people of any nation have become longer-lived or shorter-lived on account of an exclusively vegetable dietary, or that any association of cranks has increased the longevity of its members by any exclusive system whatever.—*Cleveland Journal of Medicine.*

CROUPOUS PNEUMONIA.

Weismayer (*Zeitschrift für Klinische Medizin*, bd. 23, Supplement, Medicine) discusses the course of croupous pneumonia. He first briefly reviews the literature on the subject, dwelling particularly upon the work of Finkler, who makes a clear distinction between the pneumonia due to the diplococcus of Fränkel and that due to the streptococcus. Finkler, it will be recalled, recognized three forms of streptococcus pneumonia: an acute pernicious, an acute benignant, and a subacute or chronic form, and contended that both clinically and pathologically the two forms ought to be distinguished. Weismayer has observed thirty-nine cases

clinically, making in each case a bacteriological examination of the sputum. In thirty-four of these cases there was found in the sputum merely the diplococcus of Fränkel. Three of these cases were fatal; one in an aged person, one complicated by fibrinous bronchitis, the third in an alcoholic. All of the cases terminated before the twelfth day, and in all there was a rapid disappearance of the signs of consolidation. In two cases the sputum contained, in addition to the diplococcus, the streptococcus. One of these cases, complicated by diabetes and peritonitis, terminated fatally on the nineteenth day; the second, after a febrile course of thirty-seven days, made a slow recovery. In three cases merely the streptococcus was found in the sputum. Symptomatically these cases differed but little from typical frank pneumonia. The physical signs, however, were peculiar in that in one case dulness with the other evidences of consolidation did not appear before the ninth day and remained to the thirty-first. In the other cases resolution was made out as complete on the twenty-fifth and nineteenth days. In these three cases of true streptococcus pneumonia the physical signs resembled in every particular those of croupous pneumonia. The chief characteristic was the unusually late disappearance of the exudate.

Weismayer concludes that the examination of the sputum in cases of pneumonia is of practical importance, both as regards prognosis and the duration of the disease, the prognosis being in general more unfavorable where streptococci are found, as it increases the length of the illness and adds to the danger of abscess formation and of secondary infection by tubercle bacilli. With the statement of Finkler that a streptococcus pneumonia is always a lobular pneumonia he does not agree. The cases that he observed appeared always to be lobar pneumonia. He believes that many cases recorded as true streptococcus pneumonia may really be cases of diplococcus pneumonia in which a secondary infection by the streptococcus has taken place.

GYNÆCOLOGY.

IN CHARGE OF

A. LAPTORN SMITH, B.A., M.D., M.R.C.S. England.

Fellow of the American Gynæcological Society, and of the London Obstetrical Society; Gynæcologist to the Montreal Dispensary; and to the Western Hospital; Surgeon-in-Chief of the Samaritan Hospital for Women; Professor of Clinical Gynæcology in Bishop's University, Montreal.

What is to be done for the myomatous uterus? The answer varies all the way from curetting to electricity, to

removal of ovaries, to removal of the myoma without removing the ovaries or the uterus, to total hysterectomy by the vagina or by the abdomen, according to the more or less radical or conservative tendencies of the doctor. Dr. Hunter Robb in the September number of the *American Journal of Obstetrics* makes a strong plea for the conservative treatment of the myomatous uterus, meaning thereby the removal of the myoma from the uterine wall without injuring either the uterus or the ovaries. The method which he advocates is that employed by August Martin, of Berlin, which is briefly as follows, and which is entirely bloodless :—

1. The vagina and uterine cavity are disinfected and packed with gauze.

2. The abdomen is opened.

3. The uterus is lifted out and laid upon a gauze napkin.

4. A rubber ligature is passed round the uterus close to the cervix to control hemorrhage.

5. The uterine cavity is opened and the tumor is shelled out.

6. The uterine wound is brought together by sutures and the uterus is returned into the abdominal cavity.

7. The abdominal incision is closed.

The Surgical Technique of Operations for Pus in the Pelvis is the title of a paper by Dr. I. S. Stone, of Washington, in the above-mentioned journal of the same date. He thinks that the correct treatment of acute salpingitis is the thorough irrigation of tube and its return to pelvic cavity without loss of either tube or ovary. He is opposed to operating for pus tubes on patients who are not in good condition ; he is opposed to the small incision. The patient must be in the Trendelenburg position, and the cornu of the uterus is to be clamped, as also the ovarian artery. The tube should be removed without rupture. The uterine artery below the cornu is tied and the cornu is then exsected, and the peritoneum united over it. He is entirely opposed both to flushing of the peritoneum and to the use of drainage tubes.

Dr. Hawkins, of Denver, in the same journal reports thirty-five cases of vagino-abdominal section with one death. He claims that the danger of the operation is lessened by first opening the vagina and freeing adhesions, and afterwards opening the abdomen. During the course of this paper he states that he resorts to a preliminary vaginal section in every instance where it seems likely that drainage or gauze packing will be required. As drainage and gauze packing are almost completely abandoned, being no longer necessary, he states that he has met with a great many ventral hernias

and long persisting sinuses, all of which resulted from gauze or glass drainage. By the aid of the Trendelenburg posture we are able to see what we are doing and ligate all oozing points. The best point which the author makes is when he says: "When the conditions as determined by the vaginal incision permit, we may forego abdominal incision, and thus greatly lessen the risk." In some of these cases he tapped cystic ovaries and in others emptied tubes filled with water. In another case he emptied and enucleated quite a large pus tube which was lying low down in Douglas' *cul-de-sac*. In three cases he enucleated a ruptured tubal pregnancy. In these latter cases, as the abdomen is generally full of blood, we prefer to deal with it by abdominal section.

Dr. Baldy, of Philadelphia, reports a case of removal of the broad ligament or a considerable part of it, together with the left ovary and tube, with apparently good results. As is well known, the left ovarian vein has special difficulties to encounter in its course up to the left renal and thence into the vena cava, so that varicocele of the left broad ligament is quite a frequent condition. Dr. Baldy points out that when the patient is lying down there is absolutely nothing abnormal to be seen.

Dr. Wesley Bovee, of Washington, reports a case of retroperitoneal ectopic pregnancy at full term. The patient died on the thirteenth day. The author points out the danger and folly of waiting a single day after the condition had been diagnosed. In the same paper he reports another case which was supposed to have been cured by electricity, from which he removed a foetus and cured a woman. In the first case the pregnant tube ruptured into the folds of the broad ligament and then went on growing until the ninth month. It would have been much better for the woman if it had ruptured, as it most often does, into the abdomen, for in that case her condition would have been recognized, and in order to save her from dying from hemorrhage it would have been compulsory to open the abdomen. As nearly every one of these cases recovers, even when the abdomen is found with several quarts of blood in it, and as nearly every one dies who goes to full time, it is evidently better to let no woman go a day longer than is required to recognize the case. In both of Dr. Bovee's cases there was the usual history of sterility for several years followed by irregularity in menstruation, and then the fainting fit with pain at the time of rupture. Dr. Joseph Price has pointed out that the child need not be considered, as it is always either dead or deformed.

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Editorial.

NEURASTHENIA ESSENTIALIS AND NEURASTHENIA SYMPTOMATICA.

Very undefined and vague ideas exist in regard to what is really meant by neurasthenia among physicians generally, and even among neurologists and alienists, and a recent writer in Germany, Binswanger, in a treatise on the pathology and therapy of neurasthenia, groups under this title "all neuropathic appearances which rest on a basis of a general functional disease of the nervous system, but which cannot be placed in the same category with the fully developed psychoses and neuroses because of their incomplete character." Dr. F. X. Dercum, in a paper read before the neurological section of the American Medical Association, Philadelphia, June, 1897, which appears in the *Alienist and Neurologist* for October with the above title, in mentioning these facts, takes exception to such vague and unsatisfactory definitions, and laments the lack of interest taken in the affection. He considers it one of the most interesting affections for study, as it has a syndrome as definite and fixed as that of any other disease, with sharply delimited boundaries. "The various symptom groups occurring in neurasthenia, though differing widely in detail, always present the same essential features, and, from whatever standpoint they are approached, a harmonious, clinical whole."

Its essential features are persistent diminution of nervous energy and increased mental and physical irritability. The misconception in regard to it arises, he states, from the fact that the symptoms are largely subjective, and the objective ones are not so striking as in other functional diseases. And the symptoms which belong to other diseases have been described as belonging to this affection, such as the symptoms of anæmia, chlorosis, the nervous symptoms of pelvic, gastric and other visceral affections.

He proposes to designate these neurasthenic symptoms as neurasthenia symptomata.

True neurasthenia he names neurasthenia essentialis. The symptoms are primary and those of secondary importance, the latter sometimes becoming unusually prominent, which has led to wrong classification. Charcot has divided the symptoms into cardinal or neurasthenic stigmata and accessory symptoms; the former were: headache, sleep disturbances, rachialgia, and spinal hyperæsthesia, muscular weakness, digestive and sexual disturbances and mental symptoms. The accessory symptoms, which were those that were not essential to the diagnosis, included giddiness, disturbances of special senses and of respiration, circulation and secretion, and of motility and febrile conditions. This classification of symptoms places the most prominent clinical features as essential. Dr. Dercum simplifies matters in regard to a correct understanding of the true pathological nature of the affection. He regards the fundamental symptoms to be fatigue and irritability and all other symptoms are secondary, and he describes the primary and non-essential symptoms of neurasthenia as manifested in different parts of the body. In sensory disturbance, there is the primary symptom of fatigue generally, or local, which, when exaggerated, becomes aches of different kinds, and occurring in parts most frequently used. If headache is the symptom, such sensations as fullness, lightness, distension, throbbing, increased coughs, and other ill-defined feelings of distress are all of secondary value, and the same condition of primary fatigue and ache and a number of non-essential adventitious symptoms applies to the various parts of the body.

In the eye of neurasthenics fatigue and irritability are the prominent symptoms, while seeing things as through a mist, objects appearing exceedingly dull or unusually bright, etc., are secondary. Hearing, taste and smell present a similar grouping of symptoms. In the motor system muscular weakness, the amyosthenia of Charcot, is the primary and tremors are secondary.

Dr. Dercum refers in a similar way to the disturbances of digestion, the sexual organs and circulation. In the latter, feeble pulse and cold extremities are the primary expressions of neurasthenia; disturbances of rhythm, heart murmurs, and loss of vasomotor tonus, evidenced by involuntary flushings, aortic pulsation, etc., are secondary.

In regard to psychic symptoms, that of exhaustion on slight mental effort is the most prominent feature. Others in the primary group are lack of power of concentrating the attention, lack of spontaneity of thought, a diminution in the strength of the will, a condition of general indecision and mental and emotional irritability, while fears of different kinds, which are such prominent features in some cases are to be regarded as secondary.

“Neurasthenia is not a vague and ill-defined affection, as Binswanger would have us believe. I contend that it is an affection with a syndrome as well defined, as well established, as any with which we as clinicians have to deal. The moment we regard neurasthenia in its true light, namely, that of a *fatigue neurosis*, much of the mystery passes away, and, as pointed out, the essential symptoms, those directly expressive of fatigue, stand out boldly and prominently and give to the disease its clinical features. The failure to assign to the secondary symptoms their proper value has been a prolific source of error and misconception. Often these secondary symptoms are quite prominent and striking, but they should not throw us off our guard. If the case be one of neurasthenia some of the fundamental or primary symptoms can always be found.”

Dr. Dercum further alludes to a condition which he has called neurasthenia terminalis a stage in which the functional derangement is followed by tissue changes. These changes, such as hypertrophy of the heart from palpitation, atheroma of the vessels, all suggest premature senescence, and until these are accentuated in some one organ, they should be regarded as the terminal form of neurasthenia.

"My object in this brief paper was merely to present in as condensed a way as possible my own interpretation of the symptomatology of neurasthenia, and was prompted especially by the publication of Binswanger's untenable and retrogressive views. I intended mainly to point out the difference between true neurasthenia and spurious or symptomatic neurasthenia, and also to give to neurasthenia its proper position in our nosology as a *fatigue neurosis*."

We have given a *résumé* of Dr. Dercum's very interesting paper, which is one of great value. The aspect which it gives of this vague disease will materially advance our possibilities of comprehending, analyzing and grouping its various symptoms, and place us in a better position in regard to the therapeutical management of these cases.

REFILLING PRESCRIPTIONS.

The *Medical and Surgical Reporter* refers to this subject in a recent editorial :

"We have an old prescription which had been carefully treasured in the family for at least two generations before it fell into our unappreciative hands. It is undoubtedly an orthodox formula of the old-time physician, containing numerous vegetable ingredients, of which burdock is, perhaps, the most alarmingly medicinal. How often has every practicing physician had a patient produce from a wallet a prescription not much less ancient, and ask if it is not applicable to his present ailment, or compare it with the one just received with the air of a connoisseur judging the relative merits of two works of art. An old friend relates a rather discouraging experience in the way of a repeated prescription. He once gave a formula for a quinine mixture to a canal boatman. Years afterward, he happened in a drug store where, from a copy of the original prescription, the clerk was just dispensing the preparation to one of the next generation of boatmen, afflicted with plasmodia many generations removed from those of the original patient. Entering into conversation with the purchaser, our friend was informed that the formula was one of 'Old Doctor ——' (his own name) who was long since dead, but whose good works lived after him in that that prescription 'had cured all the

ague on the canal for the last thirty odd years.' And the doctor refrained from asserting that he was still alive, and from kicking from the loss of practice that the unauthorized refilling of the prescription had cost him.

“Somewhat recently it has been decided—or re-decided—in court that the written prescription is the property of the druggist who fills it, and that he is at liberty to refill the prescription at any time, but that in so doing he acts purely as a merchant and on his own responsibility. That is to say, the physician cannot be held for any harm resulting from the unauthorized issuance of medicine. Whether the druggist could be held for damages in case of bad effect from repeating a prescription at the solicitation of a patient or his friends, is, we believe, an undecided point, and one on both sides of which much might be said. A pharmaceutical journal, commenting on this topic, suggests that the physician should not fail to write ‘Do not repeat’ on any prescription which would become dangerous from too long use. The editor expresses the opinion that few druggists would take the responsibility of renewing a prescription so marked. This is doubtless true, yet, from personal experience, we can testify that there are some who will repeat distinctly dangerous prescriptions even when marked ‘Do not repeat.’

“The matter of repetition of prescriptions involves two distinct principles, the commercial interest and the right of the physician, and the safety or, at least, the welfare of the patient. Some things are, by their nature, purchased for indefinite use, others for use only at one time. Thus, a man purchases admission to a society and gains the right of entry for a year or a lifetime; he purchases admission to a place of amusement, and he is a thief if he re-uses his ticket. No general rule can be laid down, but each must be decided by the common sense of values transferred. In deciding the business ethics of the repetition of a prescription, two questions must be asked: Is the formula something which is of value to the purchaser on one or an indefinite number of occasions? and, Is the price which he pays a fair compensation for use at one time or whenever he chooses? The same questions would apply to the single or multiple use of

a railroad ticket, a postage stamp, or any other commodity, and to a professional reader we need scarcely say why the latter question should be answered in the same way for the prescription as for the ticket and the stamp. The laity fail to distinguish between the purchase of a formula for some common domestic or mechanical use and for use medicinally. It seems to us that the essential difference is that the former represents information which, in the nature of things, must be subject to indefinite use, while the prescription does not carry any adequate information to the patient. For example, a housewife wishes some cement which will stick together two parts of a broken utensil. The indications for its use are perfectly clear to her, she knows how to apply it, she simply lacks information on the single point of ingredients. The patient buys a prescription—or rather he looks at the transaction in that way—but he does not know the indication which his case presents except in a crude way that may be entirely misleading to him; he does not know the method of application nor the *modus operandi* of the medicines, in most instances he does not even know what those medicines are. In short, he is not buying information at all, but carries the prescription to the drug store as an utterly irresponsible if very much interested agent.

“A pharmacal contemporary, in discussing the proposed legislation in a middle-western State to forbid repetition of prescriptions, emphasizes the disfavor which will fall upon the medical profession on account of such legislation, taking the ground that patients will consider themselves defrauded and will change physicians till they find one who will consent to the indefinite repetition of a prescription without additional charge. This contemporary suggests that however careful physicians may be to put forward the welfare of the patient, their own self-interest will become manifest. It seems to us that the best way to deal with this problem is to carry the war into Africa. Instead of leaving the patient to detect the self-interest of the physician, put that interest to him frankly. Let him understand, as in any other transaction that has the business element in it, that such transaction involves approximately equal values. Entirely aside

from the fact that he cannot tell what kind of a cough or dyspepsia or fever he has and cannot estimate the exact indications for medicine, ask him plainly if a dollar, more or less, is an adequate fee for the treatment of any one ambulant malady throughout an indefinite period, and not only for himself but for any one with whom he chooses to share his prescription."

LANGSDALE'S LANCET.

Dr. John M. Langsdale, editor of *Langsdale's Lancet*, has now associated with him as co-editor Dr. Samuel Goodwin Gant, the well-known author of "Diseases of the Rectum and Anus."

THE PHILADELPHIA MEDICAL JOURNAL.

This is the title of a new weekly Medical Journal which is to appear in January, 1898.

A company has been organized with a capital of \$30,000. The management of the company is entrusted to a Board of Trustees in which are representatives of leading medical schools. Those selected to serve for the first year are: Daniel Baugh, Esq., of the Jefferson Medical College; Charles William Bergner, Esq., of the Medico-Chirurgical College; Robert R. Corson, Esq., of the Woman's Medical College of Pennsylvania; W. W. Keen, M.D., of the Jefferson Medical College; J. Ewing Mears, M.D., of Philadelphia; S. Weir Mitchell, M.D., of the University of Pennsylvania; Thomas S. K. Morton, M.D., of the Philadelphia Polyclinic; Joseph Morwitz, Esq., of Philadelphia; John H. Musser, M.D., of the University of Pennsylvania; William C. Oler, M.D., of Johns Hopkins University; William Pepper, M.D., of the University of Pennsylvania; William Potter, Esq., of the Jefferson Medical College; John B. Roberts, M.D., of the Philadelphia Polyclinic; Charles E. de M. Sajous, M.D., of the Medico-Chirurgical College; William Thomson, M.D., of Philadelphia; James Tyson, M.D., of the University of Pennsylvania; Barclay H. Warburton, Esq., of Philadelphia; James C. Wilson, M.D., of the Jefferson Medical College; The President of the Philadelphia County Medical Society.

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The subscription price will be placed at three dollars per annum, with a view of ensuring a large circulation. One would imagine that the field for medical journalism had been pretty well occupied from the fact that some three hundred are published in North America. It would be to the advantage of medical journalism if the number was less and the literary efforts were put into larger journals which would more likely have wider circulations and could be kept at a more moderate price. With such a board of management as is indicated above, and so eminent a writer for editor as Dr. George M. Gould, together with the low subscription price, we should be ensured a first-class journal, and they a successful enterprise.

Correspondence.

Editor CANADA MEDICAL RECORD (Montreal).

SIR,—When, at the Ontario Medical Association Meeting in June, the subject of the "Victorian Order" for providing District Nursing was discussed, I was in full sympathy with the resolution passed by the Association in respect to that subject. Why? Because the object of the nursing project, from having been misunderstood, and perhaps in a measure, unwittingly, misrepresented, I was under a false impression in respect to it.

Since Dr. Worcester, of Waltham, Mass., who has made a special study of the subject both in Europe and America, and has had much practical experience in district nursing amongst the poorer classes in Massachusetts, has been in Ottawa and explained the working of such a system and its excellent results, my views have changed; as also, I particu-

larly desire to state, have the views of a number of the medical practitioners of this city with whom I have had converse on the subject.

To be brief, three special advantages may be named as almost certain to result from the proposed nursing scheme if carried out, as follows:—

First,—It would be a decided advantage (rather than a disadvantage) to our already somewhat considerable army of regular nurses, by increasing, probably, in a little time, quadrupling the demand for these “Ministering Angels.”

The new order of nurses would go forth amongst the sick and distressed of the poorer classes, *visit* them only say for an hour or so (never remaining, as for a day or a week) for a small sum paid to the Home, not to the nurse.

One of them would be sent out, say, to a woman at the commencement of labor by the physician engaged, she would take the place at the bedside and in the room of the very incompetent neighbor or friend, or even mother, of the patient, now commonly in attendance. With a knowledge of the requirements of the case, with kindly sympathy, tender and *clean* hands, she would arrange everything for the comfort of the patient, the prospective baby, and also for the coming physician; and in the best possible manner, very different from that in which they are now commonly arranged; sometimes providing from the Nurses Home certain necessaries not obtainable in the patient's house.

If properly chosen or selected as naturally adapted to this sort of semi-mission work, the district nurse would bring such a stream of sunshine (really and figuratively, with fresh air), such confidence, cheerfulness, hope and comfort as would not only produce a favorable individual effect on the patient, but cause her family and neighbors to make great efforts on other occasions of the kind to employ a regular outside nurse for some days or a week or two in order to have the benefit of a nurse's constant attendance instead of only visits.

So in a case of pneumonia, of enteric fever, of acute rheumatism, pulmonary tuberculosis or any other disease. The very natural results of this sort of nursing would be, and as appears to have been Dr. Worcester's experience in Waltham, to greatly increase the demand for the regular nurse, as now provided.

Second,—The District Nurse is to be sent out only under a physician it appears in all cases, and she cannot fail to prove a very great time and labor saver to the physician in all cases in practice which she attends, especially in midwifery practice. This, Dr. Worcester states, is his experi-

ence. She will let the attending doctor know just when he is needed at the bedside, saving him hours of patient or impatient waiting; or "watching" calls or visits; she will enable him to leave the case sooner, and to know when other after calls would be most needed by her morning visit to the patient and reporting the conditions.

Third,—The District or Visiting Nurse would, by her sympathetic presence and other personal characteristics, and her knowledge and acts, bring into the often unventilated, unclean, perhaps darkened, noisy, ill-managed, unhappy house of the sick, pure air and light, cleanliness, quiet, comfort, etc., and so assist immensely to promote recovery and health, abbreviating the period of illness, preventing suffering, despair, death, in a word, to lessen the mortality by modifying and removing the cause of it, wherever she might be sent.

Trusting the above may help the readers of the CANADA MEDICAL RECORD to a better understanding and appreciation of the proposed "Victorian Order,"

I am, etc.,

EDWARD PLAYTER.

OTTAWA, Nov. 25th, 1897.

Book Reviews.

A Text-Book of the Practice of Medicine. By James M. Anders, M.D., Ph.D., LL.D., Professor of the Practice of Medicine and of Clinical Medicine in the Medico-Chirurgical College, Philadelphia; Attending Physician to the Medico-Chirurgical and Samaritan Hospitals, Philadelphia, etc. Illustrated. M. B. Saunders, 925 Walnut St., Philadelphia, 1898. Canadian agents, J. A. Carveth & Co., 413 Parliament St., Toronto, Ont.

It is no light task to undertake the writing of a book on the practice of Medicine. To cover the extensive ground and to give evidence of even some slight personal observation in the hundreds of various diseases which must be described should mean several decades of persistent study and a large personal experience in hospital and private practice, and the writer should have recorded the various details of the cases treated by him from the beginning of his experience. All this added to a complete résumé of the knowledge on each subject as elaborated by all previous workers up to the time of writing would give us an ideal book and keep the reader completely posted.

In Dr. Anders' new book on Practice of Medicine we have a very good approach to this ideal work. His personal experience.

for over two decades is given, and in nearly every page the pronoun I may be observed, giving testimony to careful observations and a wise selection and separation of that which he has proved to be true and of value. There is not so much given of personal results in noting the pathological conditions in large numbers of personal examinations, as is such a marked and valuable feature in Osler's practice, and we are called on very often to take the author's opinion for certain views rather than statistical facts in such phrases as "I am satisfied that"; "I am of the firm belief"; "I believe that many of them are ascribable"; "I do not think they were suspected, etc." Undoubtedly the author has been a keen observer, and we may accept these opinions unless tabulated statistical results should be forthcoming which would fail to corroborate them. While almost every article gives evidence of personal experience or the testing or proving of the methods recommended by others, it is everywhere apparent that all the recent and best writers have been quoted from, and that almost every subject is presented in its most modern aspect. Some six hundred diseases are described in twelve hundred and eighty-seven pages in such a way as to give in a brief condensed review a practical *résumé* of the essentials of each disease suitable to the requirements of the practising physician or the student.

A useful feature of the book is the number of differential diagnostic tables distributed throughout in the more important subjects. Most of these are original with the author, and in affections which have an apparent resemblance to each other are very useful in helping to establish a diagnosis, and for the student in memorizing the distinctive details. Another feature which will make this work attractive and popularize it among students is the large number of illustrations in the way of wood cuts, colored plates, charts and skiagraphs. The subdivisions of each subject are indicated in heavy lettering. Numerous formulas are included in the text, which are useful, and suggestive in regard to treatment. Another modern introduction is seen in the terminology and orthography, which is in accordance with that now adopted by a number of the United States standard lexicographers, the *æ* and *œ* diphthongs are replaced by *e*, and the termination *ide* is rendered *id*. We do not warm to this modification of English, and the author is apparently loth to entirely reject the old methods, as seen in the name *purpura hæmorrhagica*. We can without hesitation say that Dr. Anders has produced a very creditable book, one that has come to stay and deserves a wide distribution.

Essentials of Obstetrics. By Charles Jewett, A.M., M.D., Sc.D., Professor of Obstetrics and Pediatrics in the Long Island College Hospital and Obstetrician to the Hospital, assisted by Harold F. Jewett, M.D. Illustrated by eighty wood cuts and three colored plates. Cloth \$2.25. Lea Brothers & Co., New York and Philadelphia, 1897.

This is a small volume of some three hundred and fifty pages, the object of which is stated by the author to be that of placing the essentials of obstetrics within easy grasp of the student. With this aim in view, conciseness and clearness have been consulted even at

the risk sometimes of being dogmatic, and a systematic and logical arrangement has been observed. Most attention has been given to practical topics. The author thinks that the student succeeds best by first mastering elements, and "the foundation well laid, a complete and systematic knowledge of the subject becomes a matter of comparatively easy attainment."

The eighty chapters into which the book is divided includes the following subjects: anatomy of female genital organs; physiology of pregnancy; physiology of labor; physiology of the puerperal state; pathology of pregnancy; pathology of labor; pathology of the puerperal state, and obstetric surgery. One is surprised how completely the subject of obstetrics has been considered in this concise résumé, and the numerous illustrations make it a very practical and complete instructor in most that is essential in the practice of obstetrics. Not only will it serve its purpose as a means of laying a foundation for the student, but will accomplish much in the way of refreshing the memory of the practising obstetrician, and will in addition teach him a number of things that are new, unless he has been a reader of very recent obstetric works. The directions for the use of forceps, *cœlio-hysterotomy*, *cœlio-hysterectomy*, *symphysiotomy*, the treatment of ectopic gestation and other operations are so clear that it would in emergencies prove a valuable instructor and reminder when prompt action is indicated.

The author's reputation as an authority on obstetric subjects, and the manifest usefulness of a reminder of this kind as an auxiliary to the large text-books for the busy practitioner and for imparting a good foundation for the student, should obtain for the work a large measure of appreciation from those for whom it is intended.

A Text-Book of the Diseases of Women. By Henry J. Garrigues, A. M., M. D., Professor of Gynæcology and Obstetrics in the New York School of Clinical Medicine; Gynæcologist to St. Mark's Hospital in New York City; Gynæcologist to the German Dispensary, New York; Consulting Obstetric Surgeon to the New York Maternity Hospital, etc. Containing three hundred and thirty-five engravings and colored plates. Second edition, thoroughly revised. M. B. Saunders, 925 Walnut St., Philadelphia. J. A. Carveth & Co., Toronto, Dominion agents.

In none of the specialties has greater activity and advance been more apparent than in Gynæcology. Many able men have devoted their lives to work in this line, and hence many have contributed to the advances made, and many have given us the results of their experience in text-books which are issued frequently by the various medical publishing houses either as new works or revised editions of those already in the field. Dr. Garrigues' work is one of four or five published during the present year, and for the general practitioner and medical student is undoubtedly the most useful that has appeared for some time. It is an eminently practical work, and arranged with a view of replacing the advantages to be gained by a post graduate course for those that cannot avail themselves of the knowledge to be

picked up at the clinics and demonstrations of these courses ; and even for those who have followed instructions of this kind but are away from hospital centres, and for the medical student who has all the details of operation to become familiar with, this work, which is characterized by the great number of illustrations it gives, showing the details in technique required in the various operations, will prove an invaluable reminder of what was witnessed at the clinic, or what may not have been clearly understood at the regular lectures of the College curriculum.

The special anatomy and physiology of the female genital organs are given in very full detail.

In the part on examinations the various positions, methods and instruments used are shown by wood cuts interspersed through the descriptive text. The names of the various instruments are given, a useful point to those not specialists.

All the apparatus used in treatment are shown the same way, and the method of using them made plain.

The bulk of the work is taken up with special diseases of the various organs, and these are so fully described and the details of treatment so minutely described and illustrated, that it becomes an easy matter for one somewhat accustomed to surgical methods to be able to undertake any of the operations in gynæcology with the guidance here given. The comprehensive and reliable detail in regard to both medical and surgical treatment are striking features of the work.

Dr. Garrigues' long experience in hospital work and as a teacher, and his eminent powers of observation and sound judgment, have all aided in enabling the production of a thoroughly modern and practical guide for those who desire to prepare themselves for the intricate work required in the treatment of diseases peculiar to women. The language is concise and pointed ; there are very few repetitions. This is overcome by frequent references to parts of the book where the subject has already been considered. In the present edition much new material has been added, and effete and antiquated matter eliminated, and in the appendix some of the chief methods employed in intestinal surgery have been given. As a text book for the student or ready reference work for the general practitioner, and even as a reminder to the specialist, this last edition of Dr. Garrigues' work will fulfil beyond criticism all the requirements demanded by such.

Index Catalogue of the Library of the Surgeon-General's Office, U. S. Army. Second series, Vol. II, B to Bywater. Government Printing Office, Washington.

This work is well printed and comes in neat green cloth binding. It includes 15,732 authors' titles, representing 6,383 volumes and 14,802 pamphlets. It also contains 5,774 subject titles of separate books and pamphlets, and 21,725 titles of articles in periodicals.

Archives of the Roentgen Ray, formerly Archives of Skiagraphy. Edited by M. S. Hedley, M.D., M.R.C.S., in charge of the Electro-Therapeutic Department, London Hos-

pital, and Sydney Rowland, M.A., M.R.C.S. Editorial Committee—Mackenzie Davidson, Esq., London; John Macintyre; Thomas Mare, Esq., F.R.C.S., London; M. J. Morton, M.D., New York; Campbell Swinton, Esq., London; J. Lynn Thomas, Esq., F.R.C.S., Cardiff; E. Norris Wolfenden, M.D., London; Sylvanus Thompson, D.Sc., F.R.S., London; W. White, M.D., Philadelphia. The Redman Pub. Co., Limited, 11 Adam St., Strand, London, Eng. American agent, W. B. Saunders, Philadelphia, 1897. Price \$1 per part.

The Archives of Clinical Skiagraphy, of which four numbers appeared during the year ending April, 1897, was edited by Sydney Rowland, B.A. Camb. These numbers contained a number of excellent skiagrams with descriptive text. A history of the subject was also given, the apparatus described, and an account given of the progress made since the discovery of Prof. Roentgen was made public. Under the new form the title is changed and the size increased, and it will appear regularly as a quarterly record of all that relates to the Roentgen ray. The literature of the progress made will be a more prominent feature, and the pictorial record will be full and of the highest standard.

The proceedings of the recently formed Roentgen Society will be regularly published in the Archives, and will doubtless represent all the progress made in this new field. The object of this Society is to discuss the Roentgen rays in their relation to Medicine, the Arts and Sciences; to discuss and exhibit apparatus and methods in connection with the rays; to hold periodical meetings for the reading of papers and discussions thereon, with exhibitions of clinical cases, skiagrams and all matters bearing on the Roentgen rays; to provide a museum, library and Roentgen ray appliances, and publish the transactions in a convenient form. Those subscribing for the Archives will be kept abreast of all that relates to this interesting subject, and will have an elegant collection of illustrations of the greatest clinical interest.

A Text-Book of Practical Therapeutics. By H. A. Hare, M.D. 6th edition, enlarged, thoroughly revised, and largely rewritten. Lea Brothers & Co., Philadelphia and New York, pp. 758 (677 actual text). \$3.75 cloth.

This work is a splendid example of synoptical writing, and illustrates how much can be done in the way of condensation without sacrificing intelligence to brevity. Within the narrow limit of 677 pages, we find Part I devoted to General Therapeutic Considerations. Part II to Drugs, Organic and Inorganic. The absence of a string of preparations is welcome and the insertion of formulæ in the text useful. Part III to Remedial Measures other than Drugs, and Foods for the Sick. The former embraces such procedure as acupuncture, kataphoresis, antiseptics, rest cure, climatology, use of cold and heat, etc., etc.; the latter, the different peptonised foods, diabetic foods, beef teas, etc., and their preparation. The evident suspicion of the author that this little lesson in cookery would not be unwelcome is well founded; too few, far too few, medical men are able to give the nurse instructions for

the preparation of the invalid's food. It is doubtful if more than ten per cent. could give proper directions for preparing a meat extract or essence. Part IV is devoted to the Medicinal Treatment of Diseases, and occupies 247 pages. It is possible that some of the ills flesh is heir to may have escaped the grasp of the author, but it is doubtful. When we find that in this brief space everything from tetanus to neuralgia, muscæ volantes to worms, corns to gonorrhœa, mosquito-bites and freckles to surgical shock and syphilis, are considered, the marvel is, not that they are brief but that they are readable. In treating of diphtheria, however, I regret that so much stress is laid on the importance of swabbing and spraying with peroxide of hydrogen, and the absence of any note on the use of the sozoidol compounds, notably the sodium salt, as recommended by Schwartz, of Constantinople. The axiom that whatever over-excites the heart is contra-indicated in diphtheria, is as true as the dictum that whatever disorders the digestion is contra-indicated in tuberculosis pulmonalis. Both the solution of oxygen and Lœfler's Toluol-creolin or Toluol-iron solutions are inferior to the insufflation, in that the application takes an appreciable time, and is almost invariably accompanied by struggling on the part of the little patient. In the treatment of puerperal septic infection exception might be taken, I think, to the advice that "occasionally it may be necessary to repeat the irrigation *and curetting* for several successive days." Curetting should be done once only, and then properly. There is no mention of Marmorek's antistreptococic serum. This in spite of the author's statement (Diphtheria, pp. 507): "This is a brief but sufficiently long explanation of the rationale of antitoxin treatment, which opens itself like a beautiful fan over many other diseases than the one we are discussing." In the treatment of actual abortion, the (Pajot's) balls of cotton are inferior in asepsis to an antiseptic gauze bandage carefully packed. The latter offers far less trouble in extraction. In the treatment of burns we would rather have seen some less disagreeable antiseptic than Iodoform used, say AiroI or Europhene—both excellent cicatrisants. The article on springs and climate is very incomplete. A very full index of dosage, drugs and diseases closes an extraordinarily complete little manual. That it is well written, the author's name is sufficient guarantee. As a ready reference handbook the alphabetical arrangement is indispensable. It should find a place on every physician's desk. It were a pity, however, were the book, by its charm of diction and conciseness of manner, to prevent our younger graduates from going further afield, and reading works which deal more exhaustively with physiological action and more in detail with therapeutic applications. The press-work is excellent and up to Lea Brothers' standard.

Pathologic Technic. There is a book newly to hand, written by Frank Burr Mallory, Assistant Professor of Pathology in Harvard Medical School, and James Homer Wright, Director of the Laboratory of the Massachusetts General Hospital, also Instructor in Pathology in the same school. The book is called

Pathologic Technic and is published by W. B. Saunders, 925 Walnut St., Philadelphia.

A book upon Pathologic Technic to be worthy of a place in the laboratory must be a book of remembrance more than a teaching book. It must contain not only all that one should know, but everything which one has forgotten or is liable to forget. It is there for an emergency to be of use when it is wanted, like a lens or a blow-pipe. There is no dearth of laboratory guides, but for the most part they do not take sufficient account of the fallibility of the human memory, and they waste their effort in trying to teach a handicraft which every man can and must teach to himself by observation and experiment. The book in question does not try to do too much; it does well what it undertakes. It contains a very complete collection of formulæ for preparing culture media, fixing reagents and staining solutions. The accounts of the various histologic and bacteriologic processes are very clear, and convey an accurate notion of how such work is to be done, even in the absence of previous experience. The book promises to have an extended usefulness to beginners as a guide, to advanced workers as a reference book, and to any one who wishes casually or in an emergency to carry on a pathologic enquiry. It will take the place of many of the less complete works now in use.

Essentials of Bacteriology. Being a concise and systematic introduction to the study of Micro-Organisms for the use of students and practitioners. By M. V. Ball, M. D., Bacteriologist to St. Agnes' Hospital, Philadelphia. Third edition, revised, with eighty-one illustrations, some in colors, and five plates. W. B. Saunders, 925 Walnut st., Philadelphia, 1897. Price, \$1. J. Carveth & Co., 413 Parliament st., Toronto, Ont., Canadian agents.

This small volume of some two hundred pages is a concise treatise on Practical Bacteriology, intended chiefly for the medical student for use in the laboratory. It is similar in character to the practical works of Crookshank and Frænkel, which depict the work as carried on in Koch's laboratory in Berlin. In this edition the subject has been brought up to date. The latest work on the diphtheria bacillus is embodied, and an article on bacteriologic examination of the organs and cavities of the human body is added to the appendix. Some general consideration in regard to bacteria are given and their classification; then their origin and distribution. Then follows methods of examination, stains and staining, methods of culture, the various media, immunity, experiments on animals, etc. In part second, special bacteriology is considered. The non-pathogenic bacteria are first described, then the pathogenic. This portion is profusely illustrated, as is the whole work. At the end of the book are some forty pages of tables devoted to tabulating the chief characteristics of the principal bacteria. Each species has noted its genus, biology, product, culture, characters, actions, habitat, and its discoverer. This addition to "Saunders' Question Compendis" may be regarded as a trustworthy guide for the student in one of the most interesting departments of laboratory work.

Lectures on Malarial Fevers. By William Sydney Thayer, M. D., Associate Professor of Medicine in the Johns Hopkins University. D. Appleton & Co., New York, 1897.

We have in this monograph of over three hundred pages an exhaustive account of all that is of interest in connection with malarial fever. This is one of the diseases which has had its pathology elucidated by means of microscopic research. As might be expected in a work of this kind, a minute history is given of the various attempts to find the cause up to the first most plausible theory of Klebs and Tomassi Crudeli, who believed that they had discovered the bacillus of the disease in 1879. Laveran, however, in the following year, proved that the specific cause was not a bacterium, but an animal parasite belonging to the protozoa. The numerous observations and experiments which have followed up to the present time, confirming the discovery, and still further adding to our knowledge of the characteristics and varieties of this parasite, are fully referred to. The method of examining the blood and a description of the hæmocytozoa of malaria is then given. The conditions under which malaria prevails and a clinical description of the varieties of this fever then follows, with the sequelæ and complications, morbid anatomy and general pathology, and finally the diagnosis, prognosis, treatment and prophylaxis. It is interesting to observe how well all the peculiarities of malarial fever have been explained by the characters of the parasite, although a number of problems are yet unsolved. And on many disputed points the various theories held are given, such as those in regard to the cause of the intermittent fever, the most acceptable view being that the parasites which attack and develop in the red corpuscle produce a toxic substance in the circulation which gives rise to the febrile paroxysms, and that these substances are produced at a certain stage in the life history of a group of parasites, that of sporulation. The anæmia is easily explained from the destructive actions of the parasite on the red corpuscles. The jaundice due to the destruction of red cells then are taken up by the liver; an excessive amount of bile is produced, more than can be carried off, and some is absorbed. The importance of the examination of the blood in diagnosing malaria from other affections with irregular fever is dwelt on, and the specific action of quinine is studied and the best time to administer it pointed out. The work is replete with interest, written in an attractive style, illustrated by several colored plates, and a complete resumé of what is known on this subject at the present time.

The Principles of Bacteriology. By Dr. A. C. Abbott.

A fourth edition is at hand, issued in May, 1897, to succeed the third edition issued in November, 1895—an interval of eighteen months. The last edition is enlarged by fifty pages, which number 543. The book is now approaching the dangerous point when by attempting to do too much it may overleap its object. A writer of a manual must judiciously select and be content to omit much.

There is a marked improvement in the description of the var-

ious processes. In the previous editions the details of many of the processes were too meagre to be of value to the unlearned. So elementary a procedure as Gram's method of decolorization was quite unintelligible in the previous editions. The sections upon the bacillus of the bubonic plague, the bacillus of influenza, and the gonococcus are particularly good, especially the first. The staining of flagella still remains the tedious business it always was. The use of "night blue" finds more favour in many hands. The chapter upon the bacteriologic examination of water is admirable, and well defines the difficulties and limitations of this source of information. It conveys the useful lesson that bacteriology is not a thing that can be done in a corner, and that it is not the easy thing inexact writers and ready talkers who are inexpert would appear to believe.

Dr. Abbott's book has always conveyed the impression that it was the actual result of the experience of a worker highly trained in respect of his mind and his hands—a scientist with skill and ingenuity in his calling. He has also a consoling way in speaking of the difficulties and exasperations which every worker has continually to encounter.

The authors and publishers, Lea Brothers & Company, have entirely rid the book of meaningless photogravures, and have used instead drawings which are often dainty.

The Medical News Visiting List for 1898. Weekly (dated, for 30 patients); Monthly (undated, for 120 patients per month); Perpetual (undated, for 30 patients weekly per year); and Perpetual (undated, for 60 patients weekly per year). The first three styles contain 32 pages of data and 160 pages of blanks. The 60-patient Perpetual consists of 256 pages of blanks. Each style in one wallet-shaped book, with pocket, pencil and rubber. Seal Grain Leather, \$1.25. Thumb-letter Index, 25c extra. Philadelphia and New York: Lea Brothers & Co.

This is a compact visiting list, well printed on good paper. The first 32 pages are replete with medical facts under the headings, doses, poisons and antidotes, and therapeutic reminders. These are invaluable to the fatigued practitioner in a moment of doubt. Other items are, analysis of urine, ligation of arteries, tables, etc.

The system of book-keeping entailed in the visiting list proper is very simple, compact and complete. Convenient record charts for Vaccination, Confinements, Fevers, etc., are found towards the back.

As a whole it is the most complete compact visiting list possible.

Spinal Caries. (Spondylitis or Potts' Disease of the Spinal Column.) By Noble Smith, F.R.C.S. Ed., L.R.C.P. London.

The second edition of this valuable book is published by Smith, Elder & Co., London, and differs from the first edition in the correction of some errors, the description of a new form of

head-piece for cervical disease, in the addition of remarks on forced reduction of the deformity of caries under chloroform, and in being supplied with an index.

The author still holds to the opinion that spinal caries is generally a curable disease, *i.e.*, depending upon the accurate support of the spine.

Mr. Smith, in dealing with the treatment of spinal caries, has endeavored to be as practical as possible, and has added special hints of much service to those practitioners who have not the co-operation of the instrument maker. Good illustrations supplement the text, and the work is equally useful to the student and practitioner.

Vade Mecum de Posologie et de Therapeutique Infantiles. (*Infantile Therapeutics and Posology.*) By Dr. H. Dauchez, Paris. Price 1 fr. Société d'Éditions Scientifiques, 4 rue Antoine Dubois, Paris.

This is a short tabulated treatise on infantile posology with remarks upon applied therapeutics in the treatment of infantile diseases.

This small book though very short is concise and up to date dealing with the peculiar actions of some remedies upon children as compared with adults and giving a great deal of valuable information in connection with infantile therapeutics and posology to the busy general practitioner. Symptomatic indications are also dealt with in a clear manner.

Pamphlets Received.

Operative Indications in Appendicitis. By the same author. Reprinted from the *Nashville Journal of Medicine and Surgery.*

Medio-Bilateral Lithotomy. By the same author. Reprinted from the *Nashville Journal of Medicine and Surgery.*

The President's Address. British Medical Association Sixty-fifth Annual Meeting. By Thos. G. Roddick, M.D., Professor of Surgery, McGill University, Montreal. From the *Montreal Medical Journal.*

The Experience of Several Physicians with Sero-Therapy in Tuberculosis. By Paul Paquin, M.D., St. Louis, Mo. Read in the Section on Practice of Medicine at the Forty-seventh Annual Meeting of the American Medical Association held at Atlanta, Ga. Reprinted from the *Journal of American Medical Association.*

Cheyne-Stokes Respiration Phenomena. By N. S. Davis, jun., M.D., Chicago, Ill. Presented in the Section on Practice of Medicine at the Forty-eighth Annual Meeting of the American Medical Association at Philadelphia. Reprinted from the *Journal of the American Medical Association.*

The Cardio-Vascular and Renal Relations and Manifestations of Gout. By the same author. Presented to the Section on Practice of Medicine at the Forty-eighth Annual Meeting of the American Medical Association held at Philadelphia, Pa. Reprinted from the *Journal of the American Medical Association.*

- Sterilized Gauze in Pelvic Surgery.** By Thomas H. Hawkins, A.M., M.D., Denver, Colo. Reprinted from the *Medical Mirror*, St. Louis
- Epiphora, or Watery Eye; Lachrymal Abscess; Necrosis of the Bony Walls of the Lachrymal Canal; Implantation of a Glass Ball for the Support of an Artificial Eye; Grattage for the Radical Cure of Granular Lids.** By L. Webster Fox, M.D., Professor of Ophthalmology in the Medico-Chirurgical College of Philadelphia. Reprinted from *International Clinics*, Vol. II., Seventh Series.
- Recurrent Gallstones, Angioma of Spleen, Excision of Cæcum.** By John Homans, M.D., Boston, Mass.
- The Hemiplegic State, and Its Treatment.** By Archibald Church, M.D., Professor of Neurology, Chicago Polyclinic, Professor of Mental Diseases Northwestern University Medical School, Neurologist to St. Luke's Hospital. Reprinted from *The Chicago Medical Recorder*.
- The Standard of Medical Education.** By J. M. Bodine, M.D., professor of Anatomy and Dean of the Faculty in the Medical Department of the University of Louisville. The Address of the retiring President, delivered at the regular Annual Meeting of the Association of American Medical Colleges, Philadelphia. Reprinted from the *American Practitioner and News*.
- The Cure of Tuberculosis by Oxytuberculine, with Experiments on Patients, Animals, and Cultures.** By J. O. Hirschfelder, M.D., Professor of Clinical Medicine, Cooper Medical College, San Francisco, Cal. Read before the Medical Society of the State of California.
- The Relation of Oxaluria and Uric Acid Excess to Genito-Urinal Inflammations and Disorders.** By Bransford Lewis, M.D., of St. Louis, Professor of Genito-Urinary Surgery and Venereal Diseases, College of Physicians and Surgeons; Genito-Urinary Surgeon to Baptist Hospital; Consultant in Genito-Urinary Surgery to the Missouri Pacific Hospital, the City Hospital, the Female Hospital, and to St. Mary's Infirmary, St. Louis. Read before the American Association of Genito-Urinary Surgeons at Washington.
- Atrophic Rhinitis.** Candidate's Thesis for the American Laryngological Association. By John Edwin Rhodes, M.A., M.D., Professor of Physical Diagnosis and Clinical Medicine Northwestern University Woman's Medical School. Reprinted from the *Journal of the American Medical Association*.
- The Antiseptic Treatment and the Limitation of Climatic Treatment of Pulmonary Tuberculosis.** President's Address delivered at the Meeting of the American Climatological Association, Washington, D.C., May 4, 1897. By E. Fletcher Ingalls, M.D., Chicago. Reprinted from the *Journal of the American Medical Association*.
- A Distinguished Physician-Pharmacist—His Great Discovery, Ether-Anæsthesia.** By Joseph Jacobs. Read at the Forty-fifth Annual Meeting of the American Pharmaceutical Association, held at Lake Minnetonka, Minn., August, 1897.
- Susceptibility of Infants to Tuberculosis.** An illustrative case. By Louis Burckhardt, M.D., Indianapolis. Read before the Marion County Medical Society, October 6, 1897. Reprinted from the *Indiana Medical Journal*.
- Differential Indications in Regard to Choice of Operative Methods in Obstetrics.** By the same author. Read before the Marion County Medical Society, April 20th, and at the Terre Haute Meeting of the Indiana State Medical Society, May 21, 1897. Reprinted from the *Indiana Medical Journal*.

Congenital Cystic Degeneration of both Kidneys. By the same author. Reprinted from the *Indiana Medical Journal*.

When to call a Surgeon in Appendicitis. By George W. Gay, A. M., M. D., Surgeon to the Boston City Hospital. Reprinted from the *Boston Medical and Surgical Journal*.

PUBLISHERS DEPARTMENT.

APPLETONS' POPULAR SCIENCE MONTHLY.

Edited by W. J. Youmans, published by D. Appleton & Company, 72 Fifth Avenue, New York. Contents for December:—I. The Racial Geography of Europe. XI. The British Isles, by Prof. William Z. Ripley, (Illustrated). II. Are there Planets Among the Stars? by Garrett P. Serviss. III. Animated Pictures, by J. Miller Barr (Illustrated). IV. Processes of Change in Pronunciation, by Prof. Michel Bréal. V. Principles of Taxation. XIII., by Hon. David A. Wells. VI. Pacific Coast Gulls, by Harry L. Graham (Illustrated). VII. Our Liquor Laws as seen by the Committee of Fifty, by Frederick A. Fernald. VIII. An Early American Evolutionist, by Dr. C. M. Blackford, jun. (Illustrated). IX. Excursions of the Recent International Geological Congress, by Prof. Daniel S. Martin. X. The Fear of Death, by Guglielmo Ferrero. The Symbolism of Salt, by Marie Goldsmith West. XII. The Teaching of Applied Science, by Charles Lauth. XIII. The Life History of Scientific Ideas, by Gustave Le Bon. XIV. Sketch of Joseph Prestwich (with portrait). XV. Editor's Table: The Scientific Advance, The Uses of Education, Parental Neglect as a Cause of Hoodlumism. XVI. Scientific Literature. XVII. Fragments of Science. 50c a Number, \$5 a year.

CHRISTMAS LADIES' HOME JOURNAL.

The *Christmas Ladies' Home Journal* opens with a page of pictures of beautiful children selected from thousands of portraits. The children's holiday greeting is a pleasing introduction to the excellent articles pertaining to the great festal season. One of these interestingly describes Christmas in the Palace at Potsdam, telling how the German Emperor and Empress and the Royal children celebrate the day. There are also two admirable short stories, "Christmas at 'The Hollyhocks,'" and "Christmas at the 'Trimbles.'"

A feature that will arouse widespread interest is the first letters of a series giving "The Inner Experiences of a Cabinet Member's Wife." They present an inside view of Washington's political and social life as has never before been done in any magazine. The letters will occasion much surprise. A reading of the first instalment makes obvious the reason for withholding the writer's name.

Every reader of fiction will be delighted to find the opening chapter of Hamlin Garland's new serial, "The Doctor." Mary E. Wilkins carries her readers into her favorite realm, New England, in one of her sketches, "The Christmas Sing in Our Village," and Lilian Bell, in her second letter from London, sums up her studies of English men and women at short range in keen and brilliant epigram.

Edward W. Bok points out how to make pleasanter the Christmas of the youth and the aged, and decries the use of slang by girls, and the habit of talking about one's ills. The only correct and authorized version of "The Lost Chord" ever published in this country appears, with an autograph note by its famous composer, Sir Arthur Sullivan.

Practical articles on Christmas tell of suitable things to make for gifts, and detail games, amusements, etc. Mrs. Rorer, in addition to her cooking lesson, has an instructive article on candy-making, and another on how to set the Christmas dinner-table, and cook and serve the dinner.

The excellence of the illustrations is striking, and in every feature the *Christmas Journal* is attractive and useful. By The Curtis Publishing Company, Philadelphia. One dollar per year ; ten cents per copy.

What would you do if war should be declared to-morrow with a European power? How would it change your home life, the lives of your brother and other relatives? How would it affect your business connections and business? What changes would it make in financial, city, state and national affairs? It is these interesting problems which a writer in the December *Cosmopolitan* has undertaken to sketch under the heading of "A Brief History of Our Late War With Spain," at the same time vividly describing the exciting scenes which would attend the opening of hostilities. This same number of the *Cosmopolitan* has an article on "The Well-dressed Woman" by Elsie de Wolfe, a contrast of the characters of Henry George and Charles A. Dana by John Brisben Walker, in another place "The Loves of Goethe," while Wells' story, "The War of the Worlds," which has been so widely read, reaches its conclusion in an unexpected way.

VALUABLE REMEDIES WORTHY OF ATTENTION.

Especially at this season are the tablets of "antikamnia and codeine," each containing $4\frac{3}{4}$ grains antikamnia and $\frac{1}{4}$ grain sulphate codeine, worthy of attention in the treatment of pulmonary diseases. This combination is a sedative to the respiratory centres in both acute and chronic disorders of the lungs. Cough, and in fact nearly all neuroses of the larynx are in the vast majority of cases, promptly and lastingly relieved, and often entirely suppressed. In the treatment of *La Grippe* and its sequelae, its value is highly esteemed. In diseases of the respiratory organs, pain and cough are the symptoms which especially call for something to relieve ; this combination does this, and in addition controls the violent movements accompanying the cough. To administer these tablets in the above conditions, place one tablet in the mouth, allowing it to dissolve slowly, swallowing the saliva. Exhibited in the grinding pains which precede and follow labor ; in the uterine contractions which often lead to abortion ; as well as in the nocturnal pains of syphilis, the results obtained are most satisfactory. In the various neuralgias, and in all neuroses due to irregularities of menstruation this combination affords immediate relief, and the relief is not merely temporary and palliative but in very many cases curative. In these last conditions, always instruct that tablets be crushed before taking.

To present the best thought in the whole range of living literature is the mission of *The Living Age*—and how well it has fulfilled this mission for over half a century its record fully testifies. Edited with a sound judgment and a keen literary instinct, it seldom fails to gather within its pages the most valuable expression and record of the world's progress and growth along every avenue of thought and activity, and continually grows in value with the ever steadily increasing stream of periodical literature.

The titles of a few of the papers contained in its latest issues illustrate the freshness, catholicity, spirit and value of this publication : "England and the European Concert," by James W. Gambier, R. N. ; "Woman's Place in the World of Letters," by Alice Stopford Green ; "The King of Siam," by B. A. Smith ; "Newman and Renan," by Wm. Barry, D.D. ; "The Dead-Lock in Austria-Hungary," by Austriacus ; "Paris in June, 1871," by A. J. Butler ; "Royalties," by F. Max Muller ; "The Growth of Caste in the U.S.," by Joseph Edgar Chamberlin ; "Recent Science," by Prince P. Kropotkin ; "Pascal," by Leslie Stephen ; "The Sphinx of Modern London," by F. W. Newland ; "The Lesser Elizabethan Lyrists," by Stephen Gwynn ; "The Sayings of Jesus" ; "Jean Ingelow" ; "Mrs. Oliphant" ; "A Great Country's Little Wars," with choice selections of fiction and poetry, including Kipling's magnificent "Recessional."

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