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(*Author's Abstract.*)

ON THE PREVENTION AND TREATMENT OF CANCER OF THE UTERUS.(1)

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

Fellow of the American and British Gynecological Societies; Professor of Clinical Gynecology, Bishop's University, Montreal; Gynecologist to the Montreal Dispensary; Surgeon-in-chief of the Samaritan Free Hospital for Women; Surgeon to the Western General Hospital.

In the author's opinion cancer of the uterus is not a hereditary disease, because in more than half of his cases the family history was absolutely free from it for three generations back. This may shock those who have been brought up to believe in the tradition of its heredity, just as it did those who believed in the heredity of consumption when they were told that it was a contagious disease, as every one now admits it to be. Cancer of the uterus has been proved by numerous experiments to be a contagious disease probably due to a microbe which does not flourish on healthy tissues, but which luxuriates on tissues of low vitality, such as cicatrices, or on women whose whole vitality is below par.

Its prevention.—The author has noticed that it is frequent and increasing in countries where little or no attention is paid to laceration of the cervix, while it is becoming quite rare in countries where these lacerations are promptly repaired. The author makes it a practice at his clinics and hospitals to repair every lacerated cervix that comes before him, with the result that out of over five thousand cases of which he has a complete history, there are at present less than twenty-five with a marked laceration unrepaired. If we

(1) Read before the American Medical Association, Columbus, June 6, 1899.

believe, as Emett has conclusively proved, that cancer of the cervix almost always begins in the cicatricial tissue in the angle of the wound, then by removing the cicatricial tissue and repairing the laceration we would put a stop to this dreadful disease. Moreover, if it is contagious, as it must be if due to a microbe, physicians and nurses should take greater precautions to disinfect their hands after touching a cancerous patient. The author knows of three cases of cancer occurring in nurses attending patients who died of cancer, and there was no trace of cancer in the family history of any of these nurses. When its contagiousness is more fully recognized, it may yet be possible to stamp it out by isolation of the patients.

Its treatment—If the disease were always detected early while still limited to the angle of the tear or to the mucous membrane of the uterus, total extirpation would in most cases be followed by cure. Unfortunately the majority of these women do not consult their family physician during the early stage; while in the cases in which he is consulted in good time he often fails to recognize the disease or fails to do the right thing promptly, viz.; to send her to a specialist for vaginal hysterectomy. If the hundred thousand physicians of the continent would each make one hundred and fifty mothers understand that irregular hemorrhages at the change of life are not natural, but on the contrary constitute one of the earliest and strongest symptoms of cancer, then vaginal hysterectomy would be performed much earlier, and the results would improve in proportion. Provided that the organ is freely movable, even if the disease has invaded the whole of it, vaginal hysterectomy with ligatures gives good result. If less movable the clamp method is more feasible. If firmly fixed and the disease has extended to the broad ligaments, the author prefers to make a thorough curetting and application of pure carbolic acid freely to the mucous membrane and then to perform Schroeder's amputation of the cervix. Before closing up the flaps it is well to sear them lightly with the cautery to destroy the microbes. This has in the author's experience prolonged life from two to five years. In all cases care should be taken to disinfect all cut surfaces.

Selected Articles.

ON THE CARE OF THE SKIN IN ITS CONNECTION WITH PHYSICAL CULTURE AND HEALTH.

By Dr. JOHN MOIR, L. R. C. P., L. R. C. S. (Edin.) London, England.

Simple as it looks, the skin, the case or envelope of the body, is really very complex, and is designed to serve a great many useful purposes in addition to its protection of the body from too rough contact with external objects.

Three layers of membranes enter into its composition; the outermost being the cuticle, scarf-skin or epidermis, so easily abraded or blistered by exertion; then, the soft mucous layer or coat, the seat of color, so dark in the negro; and, thirdly, the inner or cutis vera, the thick true skin, enveloping the whole body, and keeping every part in its place.

The outer skin, or cuticle possesses neither blood vessels nor nerves, so that when abraded it neither bleeds nor feels pain, so that it is in its proper place as the outer layer, and through becoming thicker from use, forms an admirable pad for the parts beneath, enabling us to walk and use our hands without pain. The laborer or blacksmith can thus carry on his work with the same ease with which the fine lady uses her needle. It is easily and quickly renewed, and, being perforated by many little holes or pores, it allows the hairs and perspiration to pass freely through. These pores are nearly two millions and a half in number. By preventing the perspiration passing off too rapidly by evaporation, it keeps the true skin in the moist and pliant state necessary for touch and sensation; the nails and hairs also belong to the cuticle and are consequently also insensible to pain, and are speedily renewed after being cut or otherwise injured. The functions of the cuticle, then, are to protect the body, and promote a proper degree of moisture and softness.

The mucous coat is the seat of color, and forms an intermediate coat between the outer and the inner skin, protecting the nerves and blood vessels of the latter, and aiding in their softness and pliancy. The occasional want of this middle coat gives rise to unusual frequency of bleeding from various parts of the body, cutaneous hemorrhages, produced by very slight causes, and may, according to medical accounts, have

been remotely connected with the death of the late Duke of Albany. The pigments of which this layer is the seat vary from the intense black of the African negro to the white of the Albino, and are constantly affected by the varying shades and degrees of sun and light, bronzed by the heat of the sun, bleached by the deficiency of light.

The inner, or true skin, is by far the most important of the three. It is highly organized, and endowed with life and sensation in the greatest state of activity. It is, in fact, the greatest seat of sensation and touch, as well as the vehicle of perspiration, the equable promotion of which is such an all-important factor in the preservation of health, consequently of strength. It is composed of fibro-cellular texture, closely united to the underlying cellular membrane in which the fat is deposited, and is full of cells or cavities, large on the fatty parts of the body, and smallest on the forehead, back of the hand, etc., where there is no fat and where the skin is thinnest. It is intersected by minute nerve filaments and blood vessels in countless numbers, which, passing through to its outer surface, form points or papillæ, best seen on the surface of the tongue, on the tips of the fingers and palm of the hand. These are so numerous as almost to constitute, and are inseparable from, the true skin itself. The general redness of the skin in blushing shows this—or, still better, the puncture of even the finest needle, which invariably draws blood, and causes pain.

We have now seen that every layer possesses more or less complexity of structure according to the functions it has to perform. The cuticle, with the hairs and nails defending the soft parts beneath from external friction and injury, and if unaccustomed exercise, as rowing, or digging, or even walking, is carried too far, the tender parts below get irritated and inflamed, and blisters are formed, the nerve filaments becoming extremely tender and painful, and also by preventing the too rapid evaporation of the perspiration, keeps the skin from becoming too hot and dry. The chief use of the mucous coat is also in protecting the true skin beneath, and its darkness in the negro minimizes the danger of sunstroke from the higher radiating power of black as compared with that of lighter substances. On coming to the true skin, however, we find that there are four great functions which it performs in the state of health, first, and chiefly, it acts as an exhalant of waste matter from the body; secondly, as a joint regulator of the animal heat; thirdly, as an agent of absorption; and, fourthly, as the seat of touch and sensation.

exhalant of the waste products of the body, we can easily see that if, as Lord Palmerston said, "Dirt is only matter in the wrong place," it is certainly in the worst place of all when it is on the skin. Chimney-sweeper's cancer was at one time a well-recognized and not uncommon disease. In "making-up" for the stage, very few actresses and no actors, manage to retain their health and complexion intact through a prolonged career, and the children of the poor and ignorant classes suffer most from this cause, more especially if they turn ill, when the care of the skin, as we shall see, is of the most vital importance. In all cases, cleanliness is essential, and the temporary want of it may lead occasionally to an amusing incident, even, when it possesses no element of danger, as the following anecdote from a recent publication of Cassel & Co. illustrates: "Lord Glasgow, not the late one, but his elder half-brother, when Lord Kelburne was, in the early 40's, a candidate for Greenock. At several meetings he had been severely 'heckled' by a member of the 'black-squad. One night a meeting had been called unusually early, and Lord Kelburne flattered himself that his merciless heckler could not be present. He was mistaken, however, for, no sooner was his speech over, than up jumped his tormentor, black and grimy, just as he had come from his work. 'Lord Kelburne,' said he, 'if ye're returned tae Parliament, what's the first thing ye wad tak' the duty off?' Lord Kelburne, his eyes sparkling at the opportunity, bent down towards the heckler, and replied: 'Soap, you dirty rascal.' After that there was a period of peace."

Everyone knows that perspiration is performed through the skin, so that the checking or prevention of it is an important cause of disease and death, but people are not sufficiently alive to its extent and influence. When heated by exercise, in warm weather, the skin perspires profusely, and thus carries off the superfluous heat, producing an agreeable feeling of refreshing coolness. But in the ordinary state, it is not generally known, or else it is very generally overlooked, that the skin is always giving out large quantities of waste materials by what is called "insensible" perspiration, so called because, being thrown off in a vaporized form, it is invisible to the human eye, but it may be often seen by bringing a clean, cool, dry mirror close to the skin, when the vapor soon becomes condensed. The importance of this function may be estimated from the fact that the waste products exhaled by the skin are greater than those passed off by the lungs, bowels and kidneys all put together. In warm weather, the skin acts most efficiently; whereas, in cold weather, the excretions from the kidneys

are more active, and the danger of Bright's disease more urgent. This can be rectified by appropriate clothing, temperance and avoiding the risk of cold feet.

The quantity of matter exhaled by the skin is increased after meals, during sleep, after friction or stimulation of the skin, and in warm and dry weather, but it is diminished by indigestion, or a wet or cold atmosphere.

M. Sanctorius, a physiologist, who carefully weighed himself, his food and his excretions every day for thirty years, found that five out of every eight pounds of substance taken into his sytem, passed out again by the pores of the skin, leaving only three to be excreted by the lungs, bowels and kidneys. Lavoisier and Seguin estimated the highest amount as thirty-two grains a minute, or five pounds a day, and the smallest, eleven grains a minute, or one pound, eleven and one half ounces a day. This exhalation consists chiefly of water, but contains also minute quantities of acetic and lactic acids, salts of soda and potash, earthy phosphate, oxide of iron and animal matter, with some carbonic acid and oily matter. The arm-pits, groin, forehead, hands and feet, perspire easiest, as they receive a greater quantity of blood, and the entire process proves that perspiration is a vital function and not a mere exudation of watery particles through the pores of the skin. Two pounds, at least, of waste matter having to pass through the skin every twenty-four hours in order that the body may be kept in a state of health, and passed so minutely as to be invisible to the eye, shows how extremely numerous and fine the ramifications of the blood vessels or capillaries must be when even a needle's point can not touch anywhere without piercing them. The number of these pores is estimated by Krause as 2,381.246. Anything, therefore, such as exposure to cold, want of personal cleanliness, neglect of washing the body daily, or the abuse of alcohol on account of its affinity for water, thereby unduly abstracting it from the blood, making the skin hot and dry, is injurious to health, because, for every twenty-four hours such a state continues, we have either a proportion of the two pounds of useless and pernicious matter accumulating in the body and poisoning the system more or less, or the strain is thrown on the other excreting organs, particularly by the kidneys, and, in a lesser degree, the lungs, thus producing serious internal mischief, on account of the extra work they have to perform through this neglect of the skin, the commonest neglect of all, and the most disastrous The heated atmosphere of a theatre, or a tavern, or the like, with the flow of animal spirits, etc., cause a momentary excitement, producing an increased flow of blood to the system, thus in-

creasing the amount of insensible perspiration, and leaving the kidneys and the other internal excreting organs almost at rest, but on going out into the cold night air, all the conditions are reversed. The cold chills the surface and drives the blood inwards on the internal organs, and the kidneys then secrete in as many minutes as much fluid as they did for hours previously, bringing on disease, when, in turn, the skin is again called on to do extra work to relieve them, and the perspiration from it is altered, both in quantity and quality, in many cases acquiring a distinct urinary odor. We can thus easily see how soon it may be affected in its functions as a joint regulator of the animal heat by its give and take action with the internal organs of the body.

In considering, briefly, the property of absorption possessed by the skin, we have familiar instances in vaccination, the application of blisters, the rubbing in of oils and the poisonous absorption from snake bites, bite of mad dog or from a cut in dissecting, or the outward use of lead, arsenic, opium, mercury, etc., without sufficient precaution. There is also a curious case on record of poisoning by nicotine through absorption by the skin, of a sailor smuggling a large quantity of tobacco underneath his shirt, next his skin. Contagion and marsh miasms may be received in the same manner, through the minute capillary veins, which take into the skin substances in contact with their extremities, just as we have seen that the arterial capillary vessels exhale or pour out the perspiration; absorption being the action of the veins, as exhalation is that of the arteries. Whenever, by injudicious clothing, want of cleanliness, cold, wet, intemperance or the like, the perspiration then is prevented from passing off, it is unavoidably partially absorbed, or, rather, reabsorbed, thus acting poisonously on the system, because animal effluvia always form a very energetic and powerful poison.

I have spoken of the absorbent action of the skin as being undoubted and powerful, and have chiefly mentioned its injurious effects in that way; but, as regards the inhibition of oil, the case is altogether the reverse, and the practice is always of the highest physical benefit. I have always found, and have often proved to others by ocular demonstration, that inunction with oil, the outward application of olive or salad oil to the skin, sometimes, in the case of athletes, such preparations as Elliman's embrocation, pine oils, hartshorn and oil, and the like, are probably the most beneficial of all measures for the preservation of physical health and the strengthening of body alike in delicate children, athletes and workmen, following severe and ardu-

ous and exhausting occupations. Not only to prevent loss of muscular power, but in scrofula, consumption and other diseases more or less akin, and often complicated with the scrofulous diathesis, such as rickets, taber laryngismus, tinea, impetigo, etc., the practice of oil inunction is simply invaluable.

Sir James Y. Simpson, Bart., says: "In the marasmus (wasting emaciation) of children, I have seen, more than once, oil inunction succeed, and, apparently, save life, when all other means and remedies had utterly failed. When the body is much reduced by morbid eliminations, or by acute chronic disease—as after the dysentery and diarrhœa of children—oil inunction sometimes forms the best restorative. In rheumatism and in the chorea (St. Vitus' dance) of the young, when accompanied by debility, it is often serviceable." The sum of Sir James Simpson's observations is that the practice guards weak constitutions against the effects of changes of weather and temperature; and the feeling of cold, and tendency to catarrh and chilliness, attendant upon various debilitated states, is sometimes entirely arrested and averted by oil inunction, for it is the property of oils, as Pliny long ago remarked: "*Tepefacere corpus, et contra algores munire*" (to warm the body and fortify it against cold). The external use of oil is more efficacious when begun in childhood, the absorbing power of the skin being much greater in youth. A wineglassful, slightly warmed, should be used every night at bedtime, rubbed into the chest, armpits, flexures between the thighs, and into the legs and arms, and a flannel night-dress worn. From fifteen to twenty minutes are required at first, with previous sponging of the parts with warm water; afterwards, absorption will take place much sooner. The practice soon becomes pleasant and promotes both cleanliness and sleep. As with the bath, so with oil inunction, many feel disinclined to give it up after getting used to it. It is used by some Asiatic nations at this day as a great luxury, as well as a means of strengthening and refreshing the body, and giving suppleness to the muscles. The Bible contains allusions to the practice among the Jews, and it formed part of the daily life of the ancient Greeks and Romans, both as a habit and a luxury. Seneca particularly notices it, and Plato, in his "*Historin Nature*," book XXIII., chapter 22, remarks: "*Duo sunt liquores corporibus humanis gratissimi; intus vini, foris olei.*" (Two liquids are most grateful to human bodies; wine within and oil without.)

Touch and sensation are functions of the skin very highly developed, owing to the innumerable nervous fila-

ments distributed over its whole surface, but particularly to the hand. But for this, external bodies might destroy or hot bodies burn it, without our knowledge. The proboscis of the elephant is most highly organized in this particular.

To keep the skin in health for the highest purposes of physical *culture*, daily bathing should be commenced at birth and continued throughout life. At first, the water should be warm, as the circulation in infants is chiefly cutaneous, with warm, clean clothing, frequently changed. As life advances, cold bathing and lighter clothing will be more suitable and bracing, and in old age, warm bathing and warmer clothing will be again required. The ancient Greek poet, Pindar, sings, "The best of all things is Water," and the English race appear instinctively to have recognized the fact, to the astonishment of some of their Continental friends. George Bernard Shaw, in his play, "Arms and the Man," makes one of the Serb officers speak in surprise of the mad Englishman, who actually washed himself every day, but the habit has carried the English far in their colonizing efforts all over the world. Still, there is room for improvement, and it would be better for the human race and its highest physical culture if a quarter of the attention bestowed upon the skins of their horses were bestowed on their own. The ancient words still hold good: "If the prophet had bid thee do some great thing, wouldst thou not have done it? How much rather, then, when he saith to thee, Wash, and be clean?" This is the sum of the whole matter.—*The Medical Brief.*

SOME RECENT OBSERVATIONS ON INFANT FEEDING.

By Sir WILLIAM O. PRIESTLY, M.D., LL D.,
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While in the French capital recently I took the opportunity of inquiring what advances were being being made in the departments of obstetrics and gynæcology, and I was particularly impressed by the admirable and original work respectively of M. Budin and M. Pozzi. I was especially interested in the clinic of M. Budin, where a series of investigations had been undertaken concerning the best way of feeding newborn infants. It is on these investigations I propose to say a few words in the present paper.

A large proportion of medical men in general practice, as well as obstetric physicians, have constantly to consider and give advice on the management of newborn children, and it is a subject which so nearly touches the affections and

interests of so many households, that any fresh contribution, placing it on a scientific and successful basis, must necessarily be welcomed by all of us.

In truth, the well-being of infants is so important not only in a domestic sense, but in its relation to the State, that it may well engage the best faculties of the medical man, and not to be left, as it too frequently is, to the bungling mismanagement of ignorant and opinionated nurses.

We are all aware that the mortality of children during the first year of life is very large in all countries. In certain portions of France, not more than ten years ago, it amounted to more than 50 per cent.; at Lille in 1850, it actually amounted to 89 per cent. Even in Paris no longer than ten years ago, it was found by Dr. Lede to be more than 27 per cent. In this country the percentage is apparently not quite so large, but the Registrar-General's reports show a large preventable mortality, and the question for medical men to solve is, how these deaths of young children are to be obviated.

When we look at the domestic surroundings of the poor, the bad sanitary conditions in which we live, and the ignorance from a scientific standpoint they show of the proper methods of feeding and rearing children, we cease to wonder that so many children die in infancy; we rather wonder that so many survive. Unfortunately of those who live, many, as the result of mismanagement in the early months of life, emerge from infancy enfeebled and stunted in growth; eventually if they live long enough, they themselves become the parents of a degenerate race. But it is not among the poor only that newborn children are mismanaged; the children of the rich are commonly entrusted to the care of women nurses, imperfectly educated for the important duties they undertake. If they are quick enough, they generally contrive to pick up a little traditional lore from other nurses, whose sources of information are anything but scientific, and who make up for their lack of knowledge by self-assertion and deprecation of the interference of the doctor. The widest prevailing fallacy among these women is, that infant's food cannot be nutritious unless it is thick, and hence they feed infants soon after birth with various admixtures of farinaceous stuffs which the young stomach cannot assimilate.

All instructed medical men now know that some form of animal milk, without the admixture of any farinaceous material, is the most suitable food for children during the first months of life, but the difficulty hitherto has been to find with exactitude the best substitute for mother's milk, and to prevent misadventures when for any reason the child cannot

be suckled by its own mother. The researches of M. Budin and of his assistant M. Chavane, have shown conclusively that one of the chief difficulties in the artificial feeding of infants is in keeping the milk of the cow or other animal free from contagion of bacilli which are always floating in the atmosphere, and which, when introduced into the digestive organs, produce green motions and diarrhœa. Milk of every kind is found to be an admirable medium for the cultivation of these microbes, and its exposure to the air for even a short time, more especially with a warm temperature, is sufficient to favor their very rapid development. The result of imbibing these organisms, even in small quantity, is that the child is seized with diarrhœa and vomiting, and these unchecked speedily exhaust vitality and extinguish life.

MM. Budin and Chavane start with the proposition which they cannot too strongly emphasize, that of all ways of feeding a newborn infant, that of suckling by the mother or by a healthy wet nurse is the safest and the best. The substitute of a wet nurse when the mother for any reason is unable to suckle her child is much more prevalent on the Continent than in Great Britain. Even in hospitals, when a woman cannot nurse, the State provides a wet nurse, and there seems to be no difficulty in providing an adequate supply of wet nurses. M. Budin has charge in his maternity hospital of a department in which all the premature babies born in certain parts of Paris are brought together. Here are dozens of small and imperfectly developed infants, some being in *couveuses*, or incubators, to maintain their bodily temperature, and all except those suffering from syphilis or other diseases are nourished from the breast. I saw several of these wet nurses suckling two diminutive babies at the same time, one at each breast. Those whose condition rendered it inexpedient to put them to the breast were fed either with human milk drawn previously from a woman or on cows' or asses' milk specially prepared for the purpose. In Great Britain there is a certain prejudice, besides the difficulty and expense of providing a wet nurse, and feeding by hand is much more universal.

Most of us know something of the difficulties surrounding hand-feeding, of the small or more serious ailments which spring up in connection with it, and the constant need of prescriptions to combat these inconveniences. But all of us may not have appreciated the true causes of these inconveniences, nor understood that they represent but another link in that chain of microbic pathology which we owe primarily to the researches of the great man who was finally interred, with such well merited honor, at the Pasteur Insti-

tute, on November 25th. We have rather been disposed in past times to attribute the derangements of digestion to that indefinite change in the milk which we call "turning sour," or to the casein of cows' milk being too strong for the infantile stomach, and the necessity of further dilution with water. This idea has been strengthened by observing the masses of indigested curd passed in the evacuations. When some other food has been added to the milk, this perchance has been blamed for the derangement.

H. Budin's researches clearly indicate that, next to mother's milk, the milk of some other animal, like that of the ass, the goat, or the cow, and this undiluted with water but properly sterilized, is absolutely the best. As the milk of the cow is the most readily available, this is used by M. Budin, and his experiments were made chiefly with cows' milk.

Since it was discovered that various zymotic diseases have been produced by drinking infected milk, various sanitary authorities have impressed upon us as a measure of precaution the necessity of always boiling milk for household purposes, and there can be no doubt that boiling is a very effective method of sterilising milk. But boiling milk has unfortunately the effect of giving it a disagreeable taste, and it seems besides to have the effect of so firmly coagulating the casein as to render it less easily digestible for the infantile stomach. The method of sterilising milk recommended by M. Budin is to allow it to remain in a bath of boiling water, a *bain marie*, as he calls it, for forty minutes. The apparatus he advises consists of a series of bottles, each capable of holding a child's meal, and furnished with india-rubber stoppers. These bottles are placed in a pan of water or water bath, which is kept boiling for the prescribed time. The covers or stoppers are so adapted that they allow vapour to escape during the heating process, but as the bottles cool they are drawn down into the opening by atmospheric pressure, and fit like suckers into the orifice, thus showing that they are air-tight. It is a notable fact, not generally known, that it requires a higher temperature to boil milk than water, and consequently milk can be immersed in boiling water for forty or more minutes, without being itself boiled. The temperature is, however, raised high enough to disinfect it of all the commoner germs of disease, while the flavor of boiled milk is not imparted to it; indeed, the taste is little altered from that of new milk. But the additional advantage gained is that the curd of the milk is separated into minute particles or flocculi and so softened that it does not form hard concretions in the digestive tube of the infant. It

is much better adapted, therefore, for infant feeding, and is likely also to be of great use in the case of adults who have feeble digestion, or for other reasons find ordinary milk objectionable. M. Budin deprecates very much diluting milk with water or even barley water for infant feeding. He holds that it is much wiser, and more in the interests of the child, to give a smaller quantity of pure milk properly sterilised than a larger quantity diluted with water. In all the observations made in reference to this point he found that the greater quantity of fluid, necessitated by dilution, tended to derange digestion, while the normal and progressive increase of weight was not maintained. Always supposing that too large a quantity of sterilised milk was not given, and it was regulated in accordance with the age or needs of the child, there was no difficulty in the assimilation of the pure milk.

M. Budin insists that both in hospital and private practice the progressive well being in the infant is best ascertained by weighing it. In his hospital the children are weighed every day, and their weight is registered, so that an increase or diminution is readily observed. He has constructed an ingenious table which serves as a register. In the first column are figures in grammes, the lowest ones at the bottom, with an ascending scale. The days and weeks are indicated along the top, and thus a curve may be traced with pen or pencil, as in temperature charts. Even under normal circumstances the weight of the child drops a little during the first week after birth, but after that time it ought steadily to advance. In the charts alluded to, whenever water was added to the milk there was always a little drop in the curve, showing that less nourishment had been absorbed, and a like drop was noticed if, perchance, the child had diarrhœa, or catarrh, or other infantile ailment, showing that nutrition was impaired. To make the sterilisation of milk effective, great care must be taken to exclude every source of infection from germs which may get access to the milk after the process is completed, either in the vessels themselves or in the apparatus used for feeding. Many of the misadventures were found to arise from lack of precaution in this respect. Sometimes the milk, after being duly sterilised, was again exposed for some time to the air before being used, and thus became again the medium for development of bacteria, more especially in a warm atmosphere. The Académie de Médecine in Paris does not think it beneath its dignity to express an opinion on babies' feeding-bottles, because it concerns a matter of vast importance to the community, and it has emphatically condemned all feeding-bottles with long and complicated tubes, because it is impossible to keep them cleaned and sterilised. Consequently they

become the nidus for bacterial development, particularly at the joints. The simplest bottle which can be scalded throughout is the best, but there may be great difficulty in persuading poor women to adopt them, because although a siphon bottle may be the means of poisoning her baby, yet she can put it beside the child in its cot and go about her other occupations, leaving it to absorb its nourishment automatically.

If pathogenic organisms can be prevented getting access to the digestive organs of young children, one of the most fertile sources of infantile diarrhœa would be removed and the mortality from this cause greatly lessened.

Sterilised milk seems in certain cases actually to be a remedy for infantile diarrhœa, for always supposing that a fresh supply of irritating organisms is not poured continuously into the digestive canal, Nature will eliminate the poison up to a certain amount, and then untainted milk is retained and becomes nutritious.

If M. Budin's deductions turn out to be correct—and he is a careful and earnest observer—the use of condensed milks may to a large extent be discarded; these have crept largely into use, and no doubt are very convenient in emergencies. They may seem to answer for a time, but in my experience they are very defective sources of nourishment, and should never be employed when fresh milk can be procured. Dr. Barlow, who has written so ably on infantile scurvy, believes that by the condensing process milk loses its antiscorbutic property, and so favours scurvy in children. This may possibly occur when milk is boiled, but the risk is minimised when it is simply sterilised and not boiled.

To sum up M. Budin's conclusions, therefore, one may say:

1. That he regards breast milk as absolutely the best and safest nourishment for an infant, and that when a mother cannot nurse her own child the best substitute is a good wet nurse.

2. When artificial feeding must be had recourse to, cows' or another animal's milk sterilized by the method alluded to is by far the best substitute, but even when milk has been sterilised it must be guarded by certain precautions, and the simplest feeding bottle is the best.

3. Sterilised milk is best given undiluted with water, the quantity given to vary with the age of the child and other circumstances.

This, I presume, implies that the child is in normal health. If any derangement of the digestive organs or other abnormal condition is present, dilution with barley water or other modification of food, may be required as well as medicines.

He objects to all farinaceous forms of food during the first year of life.

The method of sterilisation of milk as recommended by M. Budin is not new, and he does not claim any originality in this respect. Inexpensive apparatus for this purpose is to be found with many instrument makers. I learned quite lately that the calves used for vaccination at the National Vaccine Institution are now fed on sterilised milk to keep them healthy. It would certainly be a satire if we were not to adopt the same measures of safety for human beings which we provide for the lower animals. Sir Dyce Duckworth, who has just returned from America, tells me that a system is gradually making way there in which medical men habitually write prescriptions expressing the exact amount of casein of cream and of sugar which milk is to contain in accordance with the age and condition of the infant. The milk is at the same time carefully sterilised. In Boston and New York especially laboratories have been established to make up these prescriptions. Sir Dyce has furnished me with a pamphlet by Professor Rotch of the Harvard University, in which all the details are set forth with great ingenuity and clearness.

This is bringing the science of feeding children to very exact proportions, but entails great trouble and possibly expense. Budin's and Chavane's method, if generally successful, can be more readily adopted for domestic use, as it is very simple and entails little expense. The more elaborate one may be reserved for special cases or until it is more generally available.

Progress of Medical Science.

MEDICINE AND NEUROLOGY.

IN CHARGE OF

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ACUTE INTERSTITIAL NEPHRITIS.

The author (W. T. Councilman) defines "acute interstitial nephritis" as "an acute inflammation of the kidney, characterized by cellular and fluid exudation in the interstitial tissue, accompanied by, but not dependent on, degeneration of the epithelium; the exudation is not purulent in character, and the lesions may be both diffuse and focal." Reference is made to the literature of the subject.

Acute interstitial nephritis is found especially in the infectious diseases of children, particularly diphtheria and scarlet fever. The most striking feature is the general and focal infiltration of the intertubular tissue with cells which correspond to those described by Unna as "plasma cells." The focal character is marked usually in the boundary zone of the pyramids, in the sub-capsular region of the cortex, and around the glomeruli. In some cases the blood vessels of the boundary zone of the pyramids contain numbers of lymphoid and plasma cells without any infiltration of the interstitial tissue. The cells seem due to emigration from the blood vessels and multiplication by mitotic division of the cells which have emigrated. The cells escape as plasma cells or as lymphoid cells, the latter changing into plasma cells in the tissues. In the normal subject plasma cells may be formed in the mucous membrane of the intestines and, to a limited extent, in the spleen. In diphtheria, scarlet fever, and probably in a number of infectious diseases, plasma cells are formed in great numbers in the spleen, in bone-marrow, and to some extent in lymphatic glands.

There is no adequate explanation of the focal nature of the lesions in the kidneys. Possibly the physical conditions of the circulation may have something to do with their accumulation in the vessels in certain places. It is also probable that in the interstitial foci there may be soluble substances

which exert a chemotaxis for them. Certainly, the foci are not due to primary degeneration of the epithelium, which, although present, is always diffuse. In foci where it is more intense, and due to the interstitial changes, polynuclear leucocytes are found in the tissues in the degenerated epithelium and in the tubules. Polynuclear leucocytes, and not plasma cells, are attracted by degenerated tissue.

In a number of cases examined by the author the kidneys were found to be sterile, both by cultures and by microscopical examination. In cases where bacteria were present, they were found only in small numbers in cultures, and not on microscopical examination, and thus connection with the foci could not be demonstrated.—*The American Journal of Experimental Medicine*; *The Medical Chronicle.*

A FEW PRACTICAL SUGGESTIONS RELATING TO THE CAUSES AND TREATMENT OF CONSTIPATION.

In order that this common disorder may be treated in a rational manner, it is first necessary to determine the cause, the most common of which may be classified under four heads, as follows :—

1. Concentrated diet.

2. Enteroptosis, or prolapse of the intestines, especially of the colon.

3. Motor insufficiency of the colon, with dilatation.

4. Spasm of the anus or of some portion of the colon, producing pseudo-stricture.

Now the question is to determine which of these conditions is the primary difficulty in a given case, or whether there are several present, and what they are.

1. Errors in diet are a very common cause of constipation. The use of sugar, wine, tea and coffee, pepper, mustard and other irritating condiments, cow's milk, superfine flour, a concentrated diet (bulk is necessary to stimulate peristalsis), and a deficiency of fat in the food are particularly to be avoided in this class of cases. The following foods are highly recommended : Fruits, especially figs, prunes and acid fruits; well-cooked whole-grain preparations, especially granose, graham zwieback, and crystal wheat ; purées of peas, beans and lentils ; also various nut preparations, especially maltol, manno and nuttola.

2. In enteroptosis, or prolapse of the colon, there is a pulling down of the lower abdomen ; the stomach is also usually prolapsed, and not infrequently the right kidney also. This condition is exceedingly common in women, in business

men of sedentary habits, especially those who sit much at their work, and in persons who have round shoulders, flat or hollow chests, a condition always accompanied by bulging abdomen and prolapsed viscera. The remedy is daily massage and replacement of the viscera, and maintenance of viscera in place by means of a proper abdominal support.

3. Dilatation of the colon is indicated by the large quantities of water received and the readiness with which it is retained. In this condition there is a relaxed or weakened state of the abdominal muscles and general habitual distension of the bowels with gas; if an enema is administered, it is only partially expelled, the expulsive power being greatly diminished. These cases require the mechanical emptying of the colon by an enema of some sort, usually the coloclyster, at least two or three times a week, the quantity at first being quite large—perhaps three or four pints—and the temperature about 95° F. at the beginning. The quantity of water should be lessened each day (the graduated enema) until the amount is reduced to half a pint or less, and the temperature lowered. This may be administered at night or before breakfast, or just before going to stool, as may be found most serviceable. In these cases the oil enema is often more efficient than the water enema. Introduce at bedtime four to eight ounces of pure, sweet cottonseed oil, previously warmed to the temperature of the body. It should be administered slowly, and retained overnight. As a result, the bowels are almost certain to move the next morning, and several mornings subsequently. This treatment need not be used more than once or twice a week; but in the meantime, measures must be employed to strengthen the abdominal muscles by the use of sinusoidal electricity, massage and special gymnastics.

4. Hemorrhoids, ulcers or irritated surfaces in the rectum are very likely to be the cause of spasm and consequent retention of fecal matters until they become excessively hardened and difficult of expulsion. The remedy is to remove the irritation. Dilatation of the rectum may give rest for a time, and allow it to heal. Hemorrhoids may be removed surgically, or palliated and sometimes practically cured by the application of ichthyol or dry calomel.

Spasms of portions of the colon are also not infrequent in cases of prolapse, and especially where there is marked irritation of the solar plexus and the lumbar ganglia of the abdominal sympathetic.

5. Colitis, or chronic catarrh of the colon, is an increasingly common affection. This condition is indicated by the presence of mucus mixed with the stools. In these cases,

wash out the colon once a day or every other day by a colo-clyster, and introduce a quart of tannic acid solution, a dram to a quart. When this has been expelled, introduce six ounces of oil to be retained. In mild cases, cottonseed oil alone is sufficient. Liquid petroleum may be used in place of cottonseed oil, and is less likely to become rancid.

6. In cases in which constipation is due to loss of normal sensibility in the rectum, indicated by a loss of desire for evacuation, the following treatments will prove useful: Hot and cold rectal irrigations; applications of faradic or sinusoidal electricity; a glycerine suppository or a small glycerin clyster, a half ounce of glycerine to an ounce and a half of water; thirty drops of spirits of camphor in two ounces of water, and the introduction of a dram or two of dry, powdered boracic acid. These remedies should usually be employed before breakfast, or in obstinate cases the application may also be made the night before, or after breakfast.—*Modern Medicine*, April, 1899.

THE NEW METHOD OF TREATING TETANUS

The successful case at the West London Hospital of the treatment of tetanus by intra-cerebral injections of anti-toxin, recorded under "The Operating Theatres" last week, is, we believe, only the second instance published in this country in which the new method has been tried. Of course, it is impossible to claim for this method that it has solved the difficulty under which, so far, surgeons have laboured in their treatment of tetanus; nevertheless, it is impossible to dispute that it appears to be founded upon a substantial, scientific basis, and that its trial, up to the present at least, while not being uniformly successful, still gives promise of affording more satisfactory results in the future. We may here recall that Roux and Borrel, from experiments carried out at the Pasteur Institute in Paris, determined that the toxin of tetanus becomes stored up in the nerve-cells, while the antitoxin injected into the blood in the treatment of the disease does not reach the cells in which the poison is contained. The authors assumed, therefore, that this was the explanation of the frequent failure of the intravenous and subcutaneoue injections of antitoxin which had hitherto taken place. Hence, the idea occurred to them of bringing the poison-laden nerve-cells into direct contact with the antitoxin by means of intra-cerebral injections. For proof of this assumption their experiments showed that of forty-five tetanised guinea-pigs treated by these injections, no fewer than thirty-five recovered, while of seventeen others treated by simple sub-

cutaneous injections only two survived, and of seventeen not treated in any way, a fatal result ensued in every instance. The principle, however, of the treatment does not exclude the continuous use of the subcutaneous injections; indeed, it is deemed to be highly essential that these should not be in any way interrupted, the idea being that the circulation of the fresh supplies of antitoxin in the blood will neutralize the poison which is secreted at the seat of injury before the opportunity is afforded it of reaching the nerve-cells. A detail of some importance, also, seems to be to excise the tissues in the neighbourhood of the wound from which the tetanic infection has taken place. The soundness of this practice cannot be disputed. As long as the infected tissues are allowed to remain, so long, it is reasonable to assume, will fresh secretions of the toxin continue to gain entrance to the blood. Those who are interested in this subject will find a *résumé* of the recorded cases, up to date, published in the April number of the *Annals of Surgery*. So far as they go, the cases clearly point to the value of the new treatment, but time can only show with increased experience of its practice, whether intra-cerebral injections of tetanus antitoxin will solve the problem of the treatment of this fatal and terrible disease.—*The Medical Press*, May, 1899.

CHANGES IN THE NERVOUS SYSTEM IN CASES OF TYPHOID INFECTION.

As the result of a histological study of the tissues in three cases of typhoid fever and some rabbits inoculated with the bacillus typhosus, Nichols (*Journal of Experimental Medicine*, vol. iv., No. 2, p. 188) concludes that the application of the Nissl method to the study of the motor cells of the spinal cord and the nerve-cells of the dorsal rootganglia in typhoid fever shows that these cells regularly suffer pathological changes in the course of the infection. The alterations in the motor cells are more constant and of a severer grade than are those in the cells of the sensory ganglia. The more characteristic changes consist of disintegration, solution and destruction of the chromatic substance of the cell, starting from the axon hillock and proceeding toward the nucleus. Coincidently the nuclei of the affected cells seek the periphery. Alterations are also suffered by the nucleus and the nucleolus. While this central form of chromatolysis is the prevailing type of pathological change, disintegration, etc., of the Nissl bodies situated in the periphery of the cell and in the dendrites is also observed (peripheral chromatolysis). In experimental

infection with typhoid bacilli in rabbits a similar series of lesions in the corresponding nerve cells in the spinal cord and ganglia is encountered. The main or central type of lesions discovered is identical with that found in man and animals after section, destruction, or even slight injury of the peripheral nerves. Examination of the peripheral nerves arising from the lumbar segment of the cord (the site in man and rabbit of the most profound changes) in rabbits inoculated with typhoid bacilli showed well-marked evidences of parenchymatous degeneration. It is probable that lesions of the peripheral nerves in typhoid fever in human beings are common, and that the post typhoid hyperæsthesias and paralyses are due to this cause. Restitution of the chromatic granules may take place in the affected nerve-cells, the new formation beginning about the nucleus and extending through the protoplasm.—*Medical Record*, May, 1899.

THE DETECTION OF ALBUMIN IN URINE.

As the result of a comparative study of sixteen selected tests for the presence of albumin in urine, Cammidge (*Lancet*, April 22, 1899, p. 1085) concludes that the salicylsulphonic-acid test seems to be the most convenient and the freest from objection. In delicacy it stands between Heller's test and the heat and acetic-acid tests. The acid may be used either as a solid or in saturated solution, and be applied without heat or special apparatus. It precipitates all forms of albumin, the precipitate becoming flocculent when heat is applied. Albumoses also are precipitated, but the precipitate disappears on the application of heat and reappears on cooling. With many normal urines salicylsulphonic acid yields a faint haze due to nucleo-proteids. Heller's test may be employed as a check.—*Medical Record*, May, 1899.

HYGIENE OF THE BARBER SHOP.

A noted French critic writing of American customs, says: "The correct and well-dressed young men, many of them, are shaved each day by a public barber. You may see rows of small porcelain cups with the names of their owners upon them. These young gentlemen come in, take off their collars and neck-cloths, and then their faces are daubed with soap and rubbed by the hands of the barber and shaved. They are then wiped off with a towel, powdered, and without any further ablution on their part, they go thence to make love, or to kiss their wives and children, for all I know. This seems to me horribly dirty and painfully disagreeable." Whereupon a judicious con-

temporary comments as follows: "The above is a non-professional opinion of the American barber shop, and considers mainly the æsthetic features of that institution. If looked at from a professional standpoint, the objections will carry even more weight, and will relate largely to the transmission of disease.

"The writer, recently, when taking his seat in a barber's chair, observed two of his patients in adjoining chairs. One of these patients was then under treatment for a papular syphilide, and the other was just recovering from a tinea sycosis. The horror of the situation was intensified when our barber took from his pocket a stick of alum and was about to use it to staunch the slight bleeding from an abrasion, had not a decided protest prevented his doing so.

"Can a barber shop be made aseptic? Such places, so-called, exist in Paris and in some cities of the United States, but as yet are not very popular; their greatest enemy is the barber himself. He cannot be made to understand the principles of asepsis and antisepsis. A book written upon the subject for the barber is needed, which gives in simple language the principles of asepsis, and the manner in which the various diseases are transmitted.

"In an aseptic barber shop many of the old-time utensils will be discarded. The mug, the brush and the cake of soap must be thrown away. In their place will be used a soft soap from a compressible tube, rubbed on the face with moistened aseptic fingers. The wire brush will be used, and with the metallic comb, the scissors and razor, must be taken from boiling water just before using. The towel will be a sterilized towel, and the puff box or magnesia cake will be replaced by the powder from a dusting box.

"Let us hope that the evolution of the barber shop will be rapid, and that every State in the Union will soon have laws for the examination and licensing of barbers—or at least follow the lead of the Board of Health of Quebec in requiring that they shall take certain precautions regarding the disinfection of the implements of their trade."—*The Medical Times*, May 1899.

A NEW SYMPTOM FOR THE EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS.

Dr. Murat (*Gazette hebdomadaire de médecine et de chirurgie*, March 5,) calls attention to a subjective symptom which he has found very frequently present in the subjects of incipient tuberculosis. As it causes no distress, patients, as a rule, are unaware of it until their attention is directed to

it. It consists of a sensible vibration in the affected apex on loud speaking. Sometimes the patient instinctively tries to diminish this vibration by pressing the corresponding arm against the body. This symptom is a logical consequence of the induration of the lung tissue, and is akin in its nature to bronchophony, which it often precedes, however, as Dr. Murat is able to aver from his own observations. If a patient in whom an early phthisical condition is suspected is instructed to make deep local expirations, and his attention is directed to this point, he will generally be able to recognize the vibration on the affected side, as though the tuberculosis lung were in relation with the larynx, while no such sensation is perceptible on the sound side. A thorough investigation of this point would, if it substantiates Dr. Murat's opinion, place us in possession of a very valuable aid to the early diagnosis of pulmonary tuberculosis.—*N. Y. Med. Jour.*, May 13, 1899.

THERAPEUTIC HINTS.

Neurasthenic Headache associated with low vascular tension :—

℞ Caffeinæ citratis..... gr. v.
Sodii bromidi..... gr. x.
Sodii bicarb ..... gr. x.
Pulv. acid. tart..... gr. x.
M. ft. pulv. No. i. S. Take in water while effervescing.

Or :—

℞ Caffeinæ salicylatis. ..... gr. i.
Ammonii salicylatis,
Phenol salicylatis..... āā gr. v.
M. ft. cap. No. i. S. One every three to four hours.

Or :—

℞ Caffeinæ pur..... gr. ss.–iss.
Phenacetin . ..... gr. v.
M. ft. cap. No. i. S. Take in hot water; repeat in one hour if necessary.

As a diffusible stimulant for Neurasthenic Headache especially in women :—

℞ Ammonii carb..... ʒ iij.
Tinct. sumbul..... ʒ vi.
Spts. lavandulæ..... ʒ i.
Elix. ammonii valerian ....ad ʒ viij.
M. S. Two teaspoonfuls every three hours in water.

—Joseph Collins.

For Rigidity of the Perineum :—

℞ Chloroformi..... 2 parts.
Etheris..... 1 part.
Eau de cologne ..... 1 part.
M. S. For external use. Southworth.

Chronic Colitis in Children:

℞ Acid. hydrochlorici..... gtt. v.
Aquæ destil..... ℥ iij.
Syr. gum. arabici..... ʒ vi.
Tinct. opii..... gtt. ij.
M. S. One or two teaspoonfuls twice a day.

ROMME, *La Presse Médicale.*

Senile Pruritus:

℞ Potassii bromidi..... ʒ ij.
Sodii iodidi..... ʒ i.
Sodii salicylat..... ʒ ij.
Sodii acetatis..... ʒ i.
Inf. gentianæ..... ℥ iv.
M. S. Two teaspoonfuls in water after each meal.

—LAVELLEE, *Revue de Thérap. Médico-Chirurg,*

SURGERY.

IN CHARGE OF

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SURGICAL TREATMENT FOR CEREBRO-SPINAL MENINGITIS.

The prognosis in cases of meningitis is always uncertain and often grave, and it is doubtful if any of the therapeutic measures in current employ is capable of doing more than helping toward a favourable termination, so that any agency that offers hope of more specific or more direct utility will be most cordially welcomed and fairly tried. What serum therapy is capable of accomplishing in this direction is yet undetermined, and uncertainty here will be enhanced by the fact that the inflammatory condition is variously dependent upon different causes—among others, the diplococcus meningitidis, the diplococcus lanceolatus, the streptococcus, the tubercle bacillus, the typhoid bacillus, the influenza bacillus, etc.

Although the demarcation between surgical and medical practice has grown and continues to grow more and more

sharp, there are many points at which the surgeon and the physician must meet in conference and act in co-operation. Of this fact concrete illustration is afforded by the existence already of a publication devoted to subjects on the boundary line between medicine and surgery; and if the tendency in this direction continues, the duties of the physician will in increasing degree become those of prophylaxis and diagnosis, and the duties of the surgeon more largely those of therapeusis solely. Thus, when the physician recognizes the existence of appendicitis, of threatened or actual typhoid perforation of the bowel, of perforating gastric ulceration, of brain tumor, of biliary or urinary calculi, of hemorrhagic pancreatitis, of tuberculous peritonitis, etc., he will, if he be wise, call to his aid the services of a surgeon, to operate or to refrain from mechanical intervention, as they may mutually decide.

What has been done successfully for other intracerebral and intraspinal conditions—such as hemorrhage, effusion, cysts, tumor, etc.—it is now proposed to do in suitable cases of cerebro-spinal meningitis, of which Rolleston and Allingham (*Lancet*, April 1, 1899, p. 889) report a case treated by laminectomy, incision of the dura mater in the dorsal region, and drainage, with recovery. The patient was a man, twenty-four years old, who was seized with pains that became diffuse, who experienced a dull, singing sensation in his ears, with deafness, and who presented mental wandering, with an inability to reply pertinently to questions. The knee jerks were normal; vomiting occurred, and delirium was present at night. The patient lay on his right side, with his thighs and knees flexed. The head was retracted, the muscles of the neck were rigid. There were, further, headache, tache cérébrale, occasional convergent strabismus, variation and inequality of the pupils, and horizontal nystagmus. The patient grew worse, the temperature rose, the skin became red and swollen, and coma and delirium alternated.

As it appeared that the man would die if left alone, other treatment having failed, surgical intervention was undertaken, an incision six inches long being made over the spines of the lower dorsal vertebræ, of which the laminæ of the seventh and eighth were excised. The exposed dura bulged and was incised for about an inch in the long axis of the cord, with the escape of coagulated lymph and cerebro-spinal fluid, to the amount of about three ounces. A drainage-tube was inserted, and no attempt was made to unite the incised margins of the dura mater. The skin was loosely approximated by nine sutures, and the usual antiseptic dressings were applied. Decided improvement at

once ensued. There was a free discharge of clear fluid from the wound, necessitating a change of dressing twice daily. For three and a half weeks the discharge continued, being impeded from time to time as the wound healed, when the temperature would rise and the symptoms be aggravated. By the thirty-fourth day the temperature remained normal, the discharge diminishing and finally disappearing. The tube was removed on the fortieth day, and the wound was completely healed eleven days later.

While it cannot be said with positiveness that death would have resulted in this case had operative intervention not been undertaken, it will be admitted that the result has confirmed the wisdom of the treatment and that a desirable certainty was exchanged for a dubious uncertainty. It is not to be expected that a like procedure will be considered necessary in any large number of cases of meningitis; but the experience in that reported demonstrates the justifiability of the operation and increases the hopefulness of the prognosis, particularly in grave cases.—*Medical Record*, May, '99.

PERFORATING WOUND OF LIVER, KIDNEY, PLEURA AND DIAPHRAGM; RECOVERY.

Dr. Robert Abbe (at the Dec. 14th, 1898, meeting of the New York Surgical Society) presented a man, who, on July 1st, 1898, then weighing 180 pounds, while riding with moderate rapidity on a bicycle, while leaning forward to read the cyclometer attached to his wheel, came into violent collision with a rapidly moving express waggon going in the opposite direction. As he swerved to one side to avoid it, one shaft struck his right side and impaled him as if it was a spear. It first penetrated the right arm, separating the biceps and vessels from the humerus, and pinioning the arm to his side. Thence it crushed into the chest, breaking in the tenth rib just back of the mid-axillary line, and tore through the diaphragm and liver, detaching the latter somewhat from its posterior support. The impetus of two heavy bodies moving in opposite directions now swept the pointed and worn shaft (which had by this time reached the intentinal area) in a plane backward to the spine, and making a ragged laceration through the liver, caught the kidney against the spine and cut its upper third almost completely from the lower two-thirds.

At this stage the weight of the body broke the shaft at the outer side of the arm, and as the patient fell from his wheel the broken portion was drawn out and fell in the roadway, where the patient remembers seeing it as he crawled away.

Some little time afterwards (the driver of the waggon having driven off and escaped) the patient was found faint and bleeding, and brought to Roosevelt Hospital, where his condition of shock precluded more than temporary surgical dressings and use of restoratives. A large splinter of wood was removed from the arm which it transfixed.

It was seven hours before his condition was sufficiently restored to bear operative interference. By this time his temperature had begun to rise and reached 103° F. The gravity of his wound was indicated by the fact that the urine drawn soon after entering the hospital was found to be nearly pure blood. With every preparation at hand for speediest work, the patient was etherized. A six inch incision was made along the tenth rib, which was resected at the site of comminution, so as to give free access to the pleura, from which was sponged out clotted blood mixed with bile and perhaps urine, estimated to be about a quart in all. The lacerated wound of the diaphragm was now enlarged so as readily to admit the hand. As blood flowed freely from the torn liver on being disturbed, a temporary tampon of gauze was thrust into the rent, while an incision was made below the ribs as if to resect the kidney, since satisfactory access to that wounded organ could only be secured from below.

Through the latter incision a careful palpation of the kidney was made, examining it with both hands, one in each incision. The upper third was torn from the lower two-thirds so that it could be moved as on a hinge. The rent in the liver was not a hole, not a plane section, and admitted the hand with four fingers side by side. The patient's condition did not warrant resection of the kidney or further operation.

Inspection of the duodenum and neighboring intestines was carefully made, as laceration seemed reasonable to expect, but no intestinal contents could be seen.

Extravasated blood in the peritoneal cavity surrounding the kidney (presumably contaminated by urine and the thrust of the dirty waggon-shaft) was quickly sponged away with hot saline solution.

A tight iodoform gauze packing was then begun through the pleural wound, beginning at the kidney and continuing up through the liver and between the liver and chest wall, where the former was torn away. This was brought up through the diaphragm and out of the chest.

A lighter tamponade, largely of plain sterile gauze, was placed in the pleura up to the retracted lung.

The lower wound was partly sutured in haste. It seemed now as if the patient could with difficulty be gotten off the

operating-table alive, but by elevation of the limbs and intravenous hot saline infusion of a quart, he rallied and passed a fair night.

The subsequent course of the case gave rise to much anxiety, and it was a month before he was out of danger. His temperature varied between 102° to 104° F. During that time the liver seemed to discharge almost all its bile, mixed with the urine from the kidney, through the wound. Then the flow of bile lessened and finally ceased.

The urine continued to discharge for two and a half months through the now narrowed sinus.

The lung progressively healed as in an ordinary empyema.

The patient has made an excellent convalescence since then, and has nearly gained his normal health after six months.—*Annals of Surgery.*

A MISLEADING SKIAGRAPH.

Dr. Curtis, at the Nov. 23, 1898, meeting of the New York Surgical Society, showed an X-ray picture, which revealed, apparently, a pin in the œsophagus. The patient was a child who had swallowed a hat-pin, about two inches long, with a glass head. An unsuccessful attempt was made to locate the pin by the aid of the fluoroscope. An X-ray picture was then taken, which apparently revealed a thin, dark body, like the shaft of the pin, in the œsophagus. The picture proved to be deceptive, however, as the pin was recovered shortly afterwards in the stools, and the supposed pin was a defect in the gelatin of the plate,—but not a mere scratch on the surface which could easily have been recognized. The case illustrates the necessity for care in the interpretation of the X-ray negatives.—*Annals of Surgery.*

WOUNDS OF THE HEART.

Not very long ago it was usual to consider all wounds of the heart as of such extreme danger as to give, nearly invariably, a most serious prognosis. More careful study has recently shown that a proportion of those cases which seems surprisingly large go on to final recovery. Statistics recently given us show that nearly one-third of the cases get well, a trifle over a third survive the infliction of the wound for some time, and a little less than a third die immediately. This estimate is really quite a surprising one, when we consider how we were taught to believe such injuries to be almost always fatal.

These statistics naturally lead us to believe that active surgical intervention must be not only allowable but distinctly indicated in a certain number of such cases. Professor Ninni, of Naples, reports eight cases of wounds of the heart treated by suture, in which three of the patients made a good recovery, a remarkable result when we consider the gravity of the injuries.

As in wounds of other viscera, the prognosis varies according to the location of the traumatism. It seems pretty well proved that wounds inflicted through those parts of the heart wall which are most muscular give the smallest percentage of deaths, the contraction of the heart serving to check the flow of blood. Hence the prognosis is best when the left ventricle is injured, notwithstanding the greater blood pressure in this part of the heart. In the auricles and right ventricle the thinness of the walls allows of such rapid hemorrhage as to increase the danger a great deal.—*International Journal of Surgery.*

SURGICAL HINTS.

In these days of absolute cleanliness in surgical operations the following hints from the *International Journal of Surgery* are well worth considering :

Never allow a room to be swept or dusted just before an operation. Cover everything with wet sheets, if necessary, so as to prevent the raising of dust.

When you have blood on your hands, first wash them in pure water. Using soap at first is a mistake, as soapy water does not dissolve blood rapidly. Clear water and a nail-brush should come first, soap next.

In all amputations, remember that the loose muscles retract more than those which are attached to the bone. Hence it is better to sever the loose muscles first and the attached ones next, so that the ends may be of equal lengths.

If you believe that the operation has been a clean one, leave the wound alone, if not an infected one. The best surgeons usually apply but one dressing, the first. When this is removed the stitches are taken out, and the wound only needs a clean covering for a few days.

Before giving ether to patients suffering from catarrh of the nasal passages, wash these out with an alkaline solution. This will, by cleaning out the secretions, allow much easier breathing, and hence increase the facility with which anesthesia can be induced.

Scalp wounds should always be stitched if of any size. But always remove the stitches very early, otherwise they

may act as setons and lead to suppuration, which, if it reaches the loose layer under the aponeurosis, is likely to be serious. These wounds only gape if the scalp muscle or its aponeurosis is incised, and a very few stitches are needed.

In cases of felon, find out as soon as possible whether the bone is attacked. Should the terminal phalanx become loose, amputation will nearly always give the most useful finger, especially to workmen. The amputation, however, is best delayed until the septic process is overcome, or else the flaps will probably die, and the time needed for healing by granulation will be greater than that taken up in previous antiseptic treatment.—*Maryland Medical Journal.*

THE OPERATIVE TREATMENT OF NON-MALIGNANT STENOSIS OF THE PYLORUS.

Henle (*Centralbl. f. Chir.*, November 29, 1898) discusses the question whether pyloroplasty or gastro-enterostomy be the better operative method to adopt in cases of non-malignant constriction of the pylorus. The results obtained from the former method in the practice of Mikulicz have convinced him that this is quite as successful with regard to the restoration of function as gastro-intestinal anastomosis ; and, moreover, in pyloroplasty, it is pointed out, the natural conditions of the affected parts are maintained. The occasional failure of this operation is attributed by the author to a faulty technique, or to errors in the selection of suitable cases. An instructive case is here recorded in which on operating for the relief of frequent vomiting, gastric pain and other symptoms of pyloric obstruction, Mikulicz not only departed from his usual practice of performing pyloroplasty, but also modified to some extent the ordinary method of gastro-enterostomy. The obstruction was found to be due not only to stricture, but to displacement of the pylorus, caused by the retraction of firm bands of adhesions between the pyloric end of the stomach and the duodenum on the one hand, and the colon and the liver on the other. The pylorus had been drawn upwards, dragging with it the end of the stomach and the first portion of the duodenum, which were placed side by side, each taking a vertical direction. As the pylorus could not be readily reached it was decided to establish an anastomosis between the dilated stomach and the small intestine. The ordinary practice of taking up a loop of jejunum was not adopted, but the displaced and contiguous portions of stomach and duodenum were opened and stitched together. The patient, it is stated, made a good and complete recovery. —*British Medical Journal.*

APPENDICITIS DURING PREGNANCY.

Bouillier (*Thèse de Lyon*, 1897) discusses this subject on a basis of 22 observations, considering (1) the influence of pregnancy on appendicitis, (2) the influence of appendicitis on pregnancy. As to the first point he concludes that pregnancy plays no part as an etiological factor in the causation of appendicitis. The pregnant woman is not more subject to this form of inflammation than the non-pregnant. The influence of appendicitis on pregnancy is, on the other hand, well marked. In 7 out of the 22 cases abortion at about the fourth month resulted, either before or after surgical treatment. Spontaneous abortion may be due either to the febrile condition and the affection of the general health, or to infection of the pelvic organs from the appendix; possibly to both factors. The mortality in the 22 cases was: Maternal, 30.4 per cent.; fetal, 47.8 per cent.; consequently pregnancy renders the prognosis of appendicitis more serious. The treatment is that of appendicitis, the pregnancy not constituting a contraindication. Early interventiou is desirable, since, if the case be left, there is grave danger of puerperal complications due to general infection or to direct infection of the pelvic organs.—*Britis Medical Journal.*

PRACTICAL ADVICE ON THE ADMINISTRATION OF CHLOROFORM.

Professor Berger, after observing that the administration of chloroform is a surgical procedure which must conform to certain precise rules, in conclusion recapitulates the main principles:

1. The safety of the anæsthesia depends entirely on the continuous and rigorous observation of every physiological phenomenon.

2. If there is one thing to be observed beyond all others, it is the respiration, disturbance of which almost always announces the approach of accidents. Respiration muse be appreciated by the ear.

3. The examination of the colour and of the vascular reflexes of the face has an almost equal importance to the last.

4. The palpebral reflex is a very sure, but not an absolute, guide.

5. The manner of commencement of chloroformization has a determining influence over the whole duration of anæsthesia.

6. Chloroform is to be administered in a continuous manner at the beginning and during the stage of excite-

ment; afterwards—*i. e.*, during the stage of tolerance—it is to be given at regular intervals.

7. One can only succeed by a "system of oscillations" in determining the limits between which the patients can be maintained during resolution, so as to avoid awaking and accident; but one has above all things to avoid the latter.

8. The longer the period of anæsthesia, the narrower become the limits of the period of tolerance, and one can with smaller doses bring about accidents.

9. If there be the least doubt as to the interpretation of phenomena, stop the administration until all doubt is cleared up.

10. Finally, and before all else, the surgeon must be perfectly clear as to the purity of the chloroform.—*Treatment.—American Medical Compend.*

GRANULAR CONJUNCTIVITIS.

There is quoted in the *New York Medical Journal* an apparently effective method of treating granular conjunctivitis by local application of a solution of salicylate acid in alcohol, one to ten parts. It is applied on a pledget of cotton, and a few seconds are sufficient to be beneficial. There is pain at first, which may be prevented by cocaine. The recovery is rapid.

TO KEEP NEEDLES AND CUTTING INSTRUMENTS BRIGHT.

Dr. Dawbarn recommends a saturated solution of washing soda in water as a cheap and reliable method of preserving the polish and edge of needles and cutting instruments. He has employed it upward of a year with complete satisfaction. Keeping them in alboline is also effectual, but the oiliness of the instruments is in a way objectionable. We may add that the former is actively antiseptic while the alboline is not.—*Annals of Surgery.*

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Editorial.

THE PROFESSION SLANDERED.

"Curious to think that, with the advance in medical, science, there are hundreds of general practitioners in Montreal * * * who, if they submitted themselves to the examinations to-day, would be infallibly plucked. The discovery of to-day gives the generally accepted theory of yesterday a black eye. Finalty is never reached. The medical knowledge of ten years ago is quite archaic to-day. Unless the general practitioner be a faithful student, the poorest fourth year undergraduate has a superior equipment to the man who is licensed to practice."

The above editorial paragraph appears in a recent number of the *Metropolitan* published in Montreal, and above the signature of "Old Fogey." An editor is by the public generally credited with the possession of universal knowledge. Those permitted an insight into the editorial sanctum are however, often dubious as to the value of criticisms emanating from the Editorial WE. Even without this knowledge it is often self-evident that editors of daily and weekly journals deal with subjects which are beyond them. This is especially the case when criticism is made on professional subjects. "Old Fogey" has since he has taken charge of his special department on the *Metropolitan*, written some good things. He has, however, often written on subjects about which he evidently knew little, if anything, and the para-

graph we have quoted is one of them. To say that "there are hundreds of general practitioners in Montreal * * * who, if they submitted themselves to the examinations to-day, would infallibly be plucked," is absurd. In the first place there are only about three hundred practitioners in Montreal, and of these about one hundred are attached to the three medical schools, and we believe we assert the truth in saying everyone could present themselves and pass the present examination. In some of the elementary branches they might be unable to take more than a pass, in having become rusty in some minute details, for which all students cram. These details have not changed much in the last thirty years, and are those which as a rule are misty in ninety per cent. of all graduates a year or so after they have left College. The progress in Medical Science during the last twenty years has been in the field of practical medicine. And in this field we know, from the discussions which take place in our Medical Societies, the great bulk of general practitioners, whether attached to colleges or not, have kept themselves well posted. To say as does "Old Fogey" that "the poorest fourth year undergraduate has a superior equipment to the man who is licensed to practice" is simply arrant nonsense. No matter how well a graduate is equipped, the moment he encounters his first serious case he feels himself in a sea of theoretical knowledge. He must be possessed of a clear head and considerable reasoning power before he can narrow his vision down to the point where he has brought within his view those particular facts or theories applicable to the case before him. To the great majority of practitioners, at least a half dozen years must elapse before clinical experience will give them at least a fair amount of confidence in the practice of their profession. A surgeon before he can be even a fair surgeon must perform many times operations on the cadaver, which few students have an opportunity of doing when at College. He cannot be looked upon as an expert surgeon until he has been at least ten years in the operating field, and his abilities and expertness increases with years. Every succeeding year adds to his knowledge and to the knowledge of the causes of his failures. This continues till age unsteadies his hand, and from

this he is often obliged to drop active work and devote himself to consultations. A good surgeon at thirty is generally a great surgeon at forty-five, and there is often the history of brilliant surgical work at sixty. What equipment, no matter how brilliant at graduation, could make even a decent surgeon? A medical man no matter how well theoretically he may be charged the day he receives his parchment—if he possesses the humble spirit which he ought to possess—will feel that, till he has had some practical work, he must proceed slowly and cautiously. A few years' active work will be golden years for his further success. Ask a graduate how much a House Physicianship in one of our large Hospitals is worth to him, as preparation for actual practice, and he will tell you that such a position shows him how to use the means of which he previously knew little but what is theoretical. No—you have made a big error, Mr. "Old Fogey," the Medical and Surgical profession are up to date. We fear you have been looking through a pair of your own old specks, which have become dusted with the accumulation of years, and judge others from yourself.

LAPRAIRIE CAMP.

This camp which opened on the 21st of June was the largest which has assembled on the Laprairie Common since about the year 1871—fully four thousand men being under canvas. Major General Hutton was in command the greater part of the time, and, after a few days devoted to squad drill led his command into greater things. The Cavalry were engaged in scouting, the rides extending to Chambly and Lacadie—while on one day a sham fight extending over six or seven miles of country was a feature of the camp. We allude to this for the purpose of saying that it was the first opportunity which the Medical officers of the Militia had of getting in any practical work—the theory of which, for the last four or five years had been pretty thoroughly drilled into them by Surgeon Lieut.-Col. Campbell of the Royal Canadian Regiment, who as Principal Medical officer was their instructor. Col. Campbell having been retired, Surgeon Major Birkett of the 3rd Batt. Victoria Rifles was P. M. O., of the Camp, and a better a selection could hardly have been

made. Active, energetic, full of enthusiasm for his work, and fresh from a course of Military Medical training at Aldershot, he put in good work. The stretcher bearers were drilled by Hospital Sergeant O'Hagan, R. C. R., also just fresh from Aldershot. The officers were drilled and lectured to by Surgeon Major Birkett. Hospital Sergt. Cotton, R. C. R., acted as Brigade Hospital Sergt. The result of all this training was evident on the day of the sham fight—the men who fell in action being well ticketed, as to the nature of their wounds, by the Surgeons of the first line. The temporary dressings before removal to the Field Hospital were well made, and the spot selected by Surgeon-Major Birkett for his Field Hospital was commended by Major-General Hutton and Director-General Surgeon Lt.-Col. Neilson, who was in camp most of the time. Altogether the experience of the Militia Surgeons this year at the various Camps which so far have been held has been such as to teach them practically the duties which they would have to perform in actual war. This is decidedly more interesting than much of the work that has heretofore been the routine of Medical Camp life. Being interesting, it was cheerfully done, and though the work may have been at times a little hard, there was no grumbling. In the Camps of next year, the Medical work will be still further broadened. Is seems to us that when the time arrives for the present G. O. C. to lay down the *baton* of office, his work will be so in evidence that we will hardly be able to let him go. To accomplish this end, he ought to be given a free hand, and politics banished from the Militia. Is this possible? We hope so, but are not sanguine.

ANECDOTES OF THE LATE SIR WILLIAM JENNER, M.D.

Many are the tales told of the late Sir William Jenner, who, although his practice for the greater part of his career lay among the rich and aristocrats of Great Britain, was more distinguished for the *fortiter in re* than for the *suaviter in modo*. The London *Telegraph* has just published incidents in his life related by Dr. Cooper Bentham, who was with the great physician as his assistant from 1875 until his

retirement a few years ago. Jenner's younger days were spent in grinding poverty, and for some time after he qualified he was in general practice and had much difficulty to make ends meet. He is said to have owed his connection with the court of England to a series of lucky circumstances, but subsequent to that event his life was one of almost unexampled prosperity, and with the exception probably of Sir Andrew Clark and Sir William Gall, his yearly takings have never been exceeded by any English physician. His income in 1876 and the following years, according to Dr. Bentham, averaged between $60,000 and $75,000. His largest fees were paid by Americans—$26,000 on two occasions. Jenner was remarkable for his rapid and accurate diagnosis of a case and for his marvellous power of reading the character of his patients. One of his regular visitors—a lady—would cheerfully pay her fee just to have the opportunity of gossiping with him. Her first words would be, "Have you heard——" and Jenner would break in, "No, I have not. Please to put this thermometer in your mouth, that I may take your temperature." And he kept the tube between her lips for ten minutes, so that only five minutes were left for the lady to indulge in chatter; the maximum length of time he allowed for a consultation being fifteen minutes. He is said to have done more consultation journeys in his time than any other physician. His reputation was so great that he would be called to all parts of the country, and even to Scotland. Once he went to Scotland to see a rich man. He was to meet a Glasgow professor. Before Jenner was called in, the son-in-law was anxious to have a homœopath, but the professor refused, saying: "No, you must have the best man in England. We will telegraph for Jenner." Jenner came, and the young man was very pleased with the explanation of the case. "Ah!" he said to Jenner, "you will understand, Sir William, that a drowning man will catch at a straw." "Yes," replied the great doctor, a confirmed allopath; "I can understand that, but I cannot understand his leaving a plank to do so." Here is another anecdote told by the late Sir Russell Reynolds, his dearest friend: Jenner was ill, suffering from some stomach trouble, and Reynolds called to see him. When he entered the bedroom, Jenner said to him: "Look

here, Reynolds; these chaps who are attending me want to introduce a trocar into my perineum. What would you say if you were I?" Reynolds immediately answered: "I would say that I would see them d—d first." "The very words I made use of!" chuckled Jenner.

CATARACT EXTRACTION IN A LIONESS.

The *British Medical Journal* of June 17 says:—Professor Gustavo Pisenti, of the University of Perugia, has lately had a thrilling experience in extracting a cataract from a powerful lioness about three years old. The animal was placed in a suitable cage in the middle of the menagerie, and the first difficulty was the administration of an anæsthetic. The intervals between the bars of the cage were filled up with cotton wool, and a large packet of gauze impregnated with chloroform was placed in the cage, the door of which was then closed with a shutter. In about a quarter of an hour a reconnaissance was cautiously made, and the illustrious patient was seen lying stretched out, apparentlay in condition of deep coma. She was then dragged out of the cage, bound and gagged. She was next placed on a table, but before the operation could be begun she suddenly awoke, and struggled violently, rolling on to the floor, where the medical men "with admirable coolness, but not without intense emotion which might easily be seen in their countenances," held her down while the animal's head was wrapped in a towel steeped in sulphuric ether. The lioness, however, managed to free herself from the gag, and partly from her bonds, and gave a roar which made the majority of the spectators beat a hasty retreat. But the ether overcame her, and Professor Pisenti with great pluck dragged her into the cage again, where the anæsthetic *coup de grâce* was given by means of another packet of gauze steeped in chloroform. The beast's head was pulled out through the door of the cage and securely held in position. Professor Pisenti then operated with brilliant success. We have no doubt that the Professor had a more "serious time" than Artemus Ward had in getting into the uniform of the days of his youth, and we congratulate him heartily on having escaped a counter-operation by his formidable patient. A curious feature of the scene

was the excitement produced among the other animals—zebras, bisons, leopards, wolves, hyænas, monkeys, etc.—in the menagerie, who all inhaled some portion of the anæsthetics with which the air was saturated.

EXTERNAL APPLICATION OF NUTRIENTS.

The *New York Medical Journal* says:—The fact that nutrients acting not only generally but locally can be introduced into the system through the skin with gentle massage is familiar to all physicians, who not infrequently avail themselves of this form of nutrition, especially in children. But the oils used are not always pleasant in their application, on account of their greasy, sticky character.

The recent request of a leading theatrical artist for some treatment to develop the neck and bust directed our attention to a new preparation recently introduced to the profession under the name of Krinogalon. The preparation is composed of oil of sweet almonds, chemically pure glycerine, boracic acid, gum benzoin, so admirably combined as to form a clear liquid, neither sticky nor greasy, and seems an ideal preparation to accomplish the work desired. The result obtained in the clear skin, and the rounding out in full and beautiful proportions of the parts to which application was made, was all that could be desired. This form of local nutrition with massage produces results not likely to be obtained by general exercise or carefully selected diet.

SUNLIGHT FOR THE SICK.

A great deal has been written upon the subject of sunlight in the sick-room, and it would naturally be supposed that almost every intelligent person understands fully its importance; yet, as a fact, they do not. In a large majority of cases, when a physician is called into a sick-room in a private house, he finds that room darkened. A greater healer than he can ever hope to be is shut out. There is nothing much worse than a dark sick-room. The excuse usually offered is that the patient cannot bear the light. The real reason is that there was once a superstitious practice of shutting sick people in dark rooms, which has never been wholly given up. Sunlight diffused through a sick-room warms and clarifies

the air. It has an influence on the minute organic poison and a cheerful effect upon the mind of the patient. Do not shut it out.

DEATH OF MR. LAWSON TAIT.

Many of our Profession in Canada will hear with deep regret of the death of Mr. Lawson Tait, of Birmingham, on the 13th June, at the comparatively early age of 54 years. It will be remembered that about twelve years ago he came to Canada to attend the meeting of the British Association for the Advancement of Science in Montreal, and attended the meeting of the Canadian Medical Association which met a couple of days previously. He took an active part in the work of the latter Association, and made many friends, who did not forget his pleasant face and large frame. Mr. Tait was one of the earliest men to take a prominent part in gynecological surgery, and up to his death he was a great worker in that field. He was a man of very pronounced opinions, and somewhat aggressive, and as a result he made not a few enemies, who, now that the grave has closed over his mortal body, will be among the first to admit the part he took in advancing his specialty, and recall the many great and noble qualities of the man. Although he had been in poor health for several years, yet at the end his death was somewhat unexpected. He was able to go some distance to attend a public function, and while so engaged was taken suddenly ill, and death followed soon after.

THE STORY OF A NOTABLE PICTURE.

One of the most important and admired pictures displayed in recent years at the National Academy Exhibitions is "The Country Doctor," by Mr. W. Granville Smith. This fine canvas won warm praise both from the critics and the public, and was one of the chief attractions of an exhibition for which more than twice the usual number of pictures were offered, and whose walls were crowded to the utmost limit, so great was the pressure for space. Under such circumstances the standard of judgment is very stringent, and only a high order of merit secures consideration for a picture. Especially difficult is it for a large canvas to win the coveted

honor, for each big picture shoulders out several small ones, and the opposition to big pictures is therefore intense. For that reason it is an extraordinary honor to have a large picture hung in an exhibition where the space is sufficient for only one-fourth of the applicants,

Mr. Granville Smith's "Country Doctor," a big canvas, four feet by six, has won this distinction, and his place as one of the "coming men" among the younger American artists is thereby assured.

The artistic merits of this notable picture are certified by its place of honor in the chief American art exhibition; its power of appeal to human sentiment was evidenced by the persistent attention it attracted, touched by its reality, its homely humanity, its suggestion of pathos.

"The Country Doctor" is a vivid portrayal of a familiar episode—a furious winter night tempest, a long struggle through drift and storm at duty's call, an exhausted old doctor struggling wearily forward, a fatigued horse shrinking in the blinding snow-blasts, an anxious mother eagerly waiting the longed-for relief. From the porch of her humble country home she peers eagerly out into the storm. The lantern she holds above her head cuts a feeble path of light through the gloom, along which the doctor plows his way to shelter.

This strong and beautiful work, presenting a phase of a doctor's life, has been purchased by the Arlington Chemical Co., of Yonkers, New York, at the National Academy, for $1,000. It is their purpose to exhibit the original at the various assemblies of physicians held from time to time throughout the country, and also to reproduce the picture in exact fac-simile by lithography, of a size suitable for framing. The subject is of uncommon interest, especially to physicians, a fit companion-piece to the famous painting by Luke Fildes, entitled "The Doctor," which we reproduced and presented to physicians some time ago. They will be pleased to send a copy to any member of the medical profession on receipt of 10 cents to pay mailing expenses.

It is now in press, and will be ready for distribution in the late summer.

LEMON JUICE.

Dr. Laser, of the Hygienic Institute of Konigsberg, draws attention to the power which lemon juice has in destroying the diphtheria bacillus. He testifies that he tried it as a gargle in fifteen cases of acute diphtheria, and eighty other cases of throat disease, and that only one of these proved fatal. The lemon juice must be diluted when used as a gargle, but slices of lemon may also be given to the patient to masticate when he is able to do so. But the pulp should be rejected.

HOW TO USE EYE DROPS.

The *Alkoidal Clinic* gives a suggestion as to how to put drops in an eye which may be of service. Have the patient lie down, or sit in a reclining chair, with head thrown back and eyes closed. Drop the medicine on the closed lids, allow it to remain until it becomes heated from contact with the skin. then open the lids gently and allow it to flood the eyes. In the case of children particularly will this be found to make the work easy.

The *New York Medical Journal* says: An unexpected illustration of dispensary abuse occurred at the City Hospital Dispensary in Baltimore when a man who had just applied for free treatment, on the plea that he was unable to pay a physician, dropped dead, and in his pocket was found $1,500 in notes.

Personal.

Dr. D. A. Rodger (Bishop's, 1897) has settled in Mansonville, and is doing well.

S. Irving (M.D., McGill), late House Surgeon of the Western Hospital, has commenced practice in Westmount, (Montreal).

Dr. R. A. Kerry (M.D., McGill, 1897) has been elected Ophthalmologist to the Montreal Dispensary.

Dr. Macdonald, of Sutton, and Dr. Philimore, of Cookshire, have been in the city this month, having got a few hours off from their duties at the Laprairie Camp.

Surgeon Major Birkett, 3rd Victoria Rifles, is Principal Medical officer of the Laprairie Camp, which this year is the largest since 1871.

Dr. MacDougall (Bishop's, 1899) has commenced practice in Chambly.

Dr. Tanguay (Bishop's, 1899) has been named House Surgeon to the Women's Hospital, Montreal, which has just entered upon new quarters, affording accommodation for fully double the number of beds it had in the old quarters.

Dr. F. W. Campbell had three weeks salmon fishing this month on the Restigouche. The salmon fishing this year, so far, has been the poorest in years, in almost if not in all the salmon rivers in Canada. Dr. Campbell killed five fish of the weights of 11, 24, 27, 28, 34 lbs. each.

Dr. Bruere, Professor of Physiology and Histology in the Medical Faculty of Bishop's College, has been appointed Director of the Clinical Laboratory of the Royal Victoria Hospital.

Book Reviews.

Saunders' Medical Hand-Atlases.—Atlas of External Diseases of the Eye, including a brief Treatise on the Pathology and Treatment by Prof. Dr. O. Haab of Zurich. (Authorized translation from the German.) Edited by G. E. DeSchweinitz, A.M., M.D., Professor of Ophthalmology in the Jefferson Medical College, Philadelphia; Consulting Ophthalmologist to the Philadelphia Polyclinic; Ophthalmic Surgeon to the Philadelphia Hospital and to the Orthopedic Hospital and Infirmary for Nervous Diseases. With 76 colored plates and 6 engravings. W. B. Saunders, 925 Walnut street, Philadelphia, 1899. Price $3 net.

This little volume is one of the best of Saunders' Series of Atlases which has as yet been published. With such wide clinical experience as the author has had in this special department of medicine, one would naturally expect something good.

The author begins with the examination of the eye—that is, with functional testing—and leads the student easily and gradually from one examination to another, and makes him familiar with the best methods of investigating the organ of sight for the detection of morbid processes. He then follows this with chapters on diseases of the eye, the most important of which are clearly described, and the best therapeutic measures briefly recorded.

The series of plates (which with the exception of a few were all painted from nature) are admirable, to each one of which a brief clinical history is appended. As the editor in his preface has

remarked, it is not too much to say that while one is reading this manual, he distinctly feels that he is in the atmosphere of a large clinic. The author in the treatise on pathology and treatment which accompanies the plates has confined himself to essentials—above all, to a detailed description of methods of examination, which he deems most important to students of this specialty. The book, which is of a very convenient size, will be highly useful to the student and to the general practitioner whose opportunities do not permit him to see large numbers of external ocular disorders. To the profession we commend this volume, feeling assured that everyone will be pleased with it.

A Text Book of Obstetrics. By Barton Cooke Hirst, M.D., Prof. of Obstetrics in the University of Pennsylvania, with 653 illustrations. W. B. Saunders, 925 Walnut st., Philadelphia. Price, cloth, $5; sheep or half morocco, $6. Canadian agents, J. A. Carveth & Co., Toronto, Ont.

This new aspirant in the medical book field is from the hands of a writer who, as a hospital attendant and medical teacher, has had a most extended experience. He has attempted to give in a condensed form the results of his labour combined with a complete culling of what is now accepted from the text of other authors, and all has been extensively illustrated largely from original photographs and drawings. In the 820 pages everything pertaining to the subject is considered, each section being characterized by fullness, combined with brevity and ample illustration. In part first, pregnancy is included, the anatomy of the pelvis and sexual organs, menstruation, ovulation, fertilization, the development of the embryo and fœtus, the fœtal appendages, the diseases of the fœtus, the physiology of pregnancy, pathology of the pregnant woman, the physiology and management of labor and of the puerperium, the mechanism of labor and its pathology, pathology of the puerperium, obstetric operations and the newborn infant, its physiology and pathology. The exhaustive character of the book is in evidence throughout, not only in the number of subjects referred to but in the comprehensiveness of each paragraph, and throughout the book, authors and subjects and the journal or book quoted from, are referred to at the bottom of each page. A striking feature is the profuseness of the illustrations and their excellence; seldom does one see such fine colored plates as those on segmentation of the mammalian ovum; the breasts in pregnant and non-pregnant women; color of vaginal mucous membrane and introitus in pregnant and non-pregnant blondes and brunettes, etc., and throughout the book wood cuts and photogravures abound, illustrating every practical point, enabling student and practitioner to comprehend more fully the text and apply the operative methods recommended. The completeness of this book and the brevity of the articles commend it as a valuable text-book for both student and busy practitioner.

The Sexual Instinct—its Uses and Dangers as Affecting Heredity and Morals. Essentials to the welfare of the individual and the future of the race. By James Foster

Scott, B.A. (Yale University), M.D., C.M. (Edinburgh University). Late Obstetrician to Columbia Hospital for Women, and Lying-in Asylum, Washington, D.C.; late Vice-President of the Medical Association of the District of Columbia, etc., etc. Price $2. E. B. Treat & Co., New York, 1899.

The discussion of sexual matters is happily being rescued from the overdrawn pictures of the improperly informed, which has in the past prevailed. Scientific men have carefully investigated these functions which have by the mass of the profession been considered too undignified for study, and the Charlatan has had full sway in the gross painting of the evils connected with the abuse of the sexual organs. The present work touches upon a great variety of subjects, largely with a view of showing the true results of various forms of sexual abuse, and has been written, not specially for the physician, but intended primarily for laymen, and the author's endeavour has been "to avoid generalization, vagueness and indefiniteness, to truthfully present physical and ethical facts, not evading unpleasant topics, nor yet transgressing the limits of propriety." As to the importance of the subject, he believes the degradation of mankind is due more to sexual irregularity than to any other cause. The contents of the book may be inferred from the headings of the 13 chapters. The sexual instinct and the importance of a just appreciation of its influence; physiology of the sexual life; a proper calculation of the consequences of impurity from the personal standpoint; woman, and the unmanliness of degrading her; some of the influences which incite to sexual immorality; prostitution and the influences that lead a woman into such a life; the regulation of prostitution; criminal abortion; gonorrhœa and its complications; chancroid; syphilis; onanism and the perversions. These articles are all written with the object of showing up the evil associated with and resulting from them, and hence to deter the susceptible from entering on a course encompassed with danger on all sides. The results of prostitution are truly depicted and shown to be such, that the recounting of them to the tempted would exercise a powerful restraining power in preventing embarkation on a course which usually ends in disaster. The article on criminal abortion is a vivid description of conception and the development of the fœtus, the definition of abortion, the risks and danger of the crime, etc. While the book is one that the physician may read with profit, it is calculated more particularly to enlighten the laity in regard to a fruitful source of trouble and suffering, and for the benefit of the rising generation cannot be too widely distributed.

The Pathology and Treatment of Sexual Impotence. By Victor G. Vicki, M.D., from the author's second German edition, revised and rewritten. W. B. Saunders, 925 Walnut street, Philadelphia, 1899. Price $2.00. Canadian agents, J. A. Carveth & Co., Toronto, Ont.

This interesting and instructive work on a subject which the mass of the profession require enlightenment upon is from the author's second German edition, which appeared at the end of 1896;

it has been thoroughly revised, many of the articles rewritten and the most recent editions to our knowledge on the subject incorporated.

The work is very comprehensive, and withal succinct and lucid; the 285 pages include the anatomy of the male sexual organs, the physiology of the sexual act, the causes and forms of impotence, such as congenital malformations and defects of the sexual organs, acquired defects, consecutive impotence, neurasthenic, professional and senile impotence, then the diagnosis, prophylaxis and treatment.

The work bears evidence of wide reading and much personal observation, and each subject receives full and adequate consideration at his hands; no reservation or beating around the bush obtains in this scientific presentation of what is at present known on the subject.

We have found it one of the most interesting, fascinating and instructive books it has been our privilege to review for some time. It touches on hundreds of points which one does not come across in ordinary medical literature and books, and on subjects which it is of the greatest moment for the physician to be informed upon, as the influence of the sexual organs on the general health of the patient is very great, and is too often overlooked by the physician, who, through ignorance on this subject, fails to give proper medical advice to a large class of sufferers. To read the numerous causes of impotence given here will be a revelation to any physician who has not heretofore perused a book of the kind, and the valuable advice given in the chapters on treatment for the different varieties is such that every physician should be cognizant of, and which he should be in a position to give his patients. Containing, as this work does, such abundance of scientific information in regard to a most important department of abnormal conditions, we earnestly advise its perusal by every physician whose attention may, by this review, be drawn to it.

A Text-Book of Pathology. By Alfred Stengel, M.D. Instructor in Clinical Medicine in the University of Pennsylvania, Professor of Clinical Medicine in the Woman's Medical College, Physician to the Philadelphia Hospital, Physician to the Children's Hospital, Philadelphia, etc., with 372 illustrations. W. B. Saunders, 925 Walnut street, Philadelphia, 1898. Price, cloth, $4 00. ½ morocco, $5.00. Canadian agents, J. A. Carveth & Co., Toronto, Ont.

This is a work of some eight hundred pages. The author being a clinical teacher presents the subject in a practical form, and always from the point of view of the clinical pathologist, and prominence is given to pathologic physiology. It is divided into general and special pathology. There are eight chapters in the first part, including the etiology of disease; disorders of nutrition and metabolism; disturbances of the circulation of the blood; retrogressive changes; all the degenerations, glycogenic infiltration, dropsical infiltration, abnormal cell division, etc.; inflammation and regeneration; progressive tissue changes, hypertrophy and tumors. Bacteria and diseases due to bacteria are taken up in chapter seven, classification, morphology, biology, artificial cultivation, functions

and products of bacteria are considered, also their local effects and that of their toxic products, immunity; then the diseases due to bacteria. In each affection a definition is given: etiology, cultivation, pathogenicity, distribution, pathologic physiology and anatomy, and photogravures are given illustrating microscopic appearances and various cultures. Parasites are fully considered and illustrated.

Special pathology takes up two-thirds of the book, beginning with diseases of the blood. All the varieties are described, and well illustrated, some of the plates colored, and methods are given for the examination of the blood. The lymphatic tissues are similarly treated. Then the various diseases of the circulatory and respiratory system; the gastro-intestinal tract, the ductless glands, urinary and reproductive organs are considered, diseases of bones, and finally diseases of the brain and nervous system. The text on each subject is characterized by brevity, but containing a clear and full account of our present knowledge on the subject, and it is well illustrated; no one seeing such plates as those showing the epiphyseal junction in congenital syphilis or neuropathic arthritis of the knee in a case of locomotor ataxia could fail to recognize these conditions when seen. The work is very suitable for the student, and one in which the practitioner may find all necessary information on pathological subjects in the briefest period possible.

A Text-Book of Practical Obstetrics. By Egbert H. Grandin, M.D., Gynæcologist to the Columbus Hospital; Consulting Gynæcologist to the French Hospital; late Consulting Obstetrician and Obstetric Surgeon of the New York Maternity Hospital; Fellow of the American Gynæcological Society, etc. With the Collaboration of George W. Jarman, M.D., Gynæcologist to the Cancer Hospital; Instructor in Gynæcology in the Medical Department of the Columbia University; late Obstetric Surgeon of the New York Maternity Hospital; Fellow of the American Gynæcological Society, etc. Second edition. Revised and enlarged. Illustrated with sixty-four full-page photographic plates and eighty-six illustrations in the Text. 6½ x 9½ inches. Pages xiv—461. Extra cloth, $4.00 net; sheep, $4.75 net. The F. A. Davis Co., publishers, 1914-16 Cherry street, Philadelphia.

The names of Grandin and Jarman are in themselves a sufficient guarantee to those teaching or learning the obstetric art, that any work written by them will be a success. Such, undoubtedly, is their latest book. That it is not merely copied from other works, the large number of original plates would prove it. The value of these plates being that they are so well adapted to explain the context and prevent the student simply memorizing his work, for with these plates he must grasp the ideas which are desired to be taught. It contains all that is needed for practical work without superfluity. There are occasionally statements to be found to which exception might be taken, but the same may be said of every book written. It is not necessary to take up the work seriatim; we can only say that we most heartily recommend it to all teachers or students requiring a modern text-book.

PUBLISHERS DEPARTMENT.

LITERARY NOTES.

One of the most thoughtful contributions to the discussion of the questions of propriety involved in the publication of the Browning Love Letters is the article in the Edinburgh Review on discretion and publicity, reprinted in *The Living Age* for June 24.

Blackwood's review of the Autobiography of Mrs. Oliphant is reprinted in *The Living Age* for July 1st.

Arthur Symons' appreciation of Balzac, which *The Living Age* reprints from *The Fortnightly Review*, is one of the freshest and most sympathetic of recent contributions to the study of Balzac.

A subject which is just now uppermost in many minds, The Ethics of War, is the subject of a thoughtful paper by the Rev. Father Ryder in *The Living Age* for July 1.

The serial attraction of *The Living Age* for the summer months will be a story by "Neera" one of best-known of contemporary Italian writers. It is called "The Old House," and the opening chapter, in the number for July 1, is full of color and romantic charm.

LATE LITERARY NEWS.

The Beecher family is one whose branches are very many and whose lines of work are as varied as the individuals. It is a grand-niece of Henry Ward Beecher, Mrs. Charlotte Perkings Stetson, who is at present very much to the fore in relation to the economic emancipation of women. In the July number of *The Cosmopolitan*, Mrs. Stetson will wage a pen warfare with Professor Harry Thurston Pack over an article in the June number of *The Cosmopolitan*, "The Woman of To day and To-morrow." Mrs. Stetson has something in the June number—a four-line poem on "Queer People." The illustrations by Oliver Herford are themselves queer.