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## Original Communications.

### ON DYSPEPSIA.*


BY A. MCPHEDRAN, M.B.,

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Of all the ills that flesh is heir to, derangements of the digestive processes are doubtless the most common and productive of most suffering, and therefore, with the causes of these derangements, and the best manner to give relief from them we cannot be too familiar. Not only do we suffer from the digestive system itself through derangement of its functions, but many of the derangements and diseases of other organs and parts are secondary to and caused by the imperfect performance of the digestive functions. The more thoroughly we comprehend the digestive process in even its minutest details, and consider the important relations the various steps bear to each other and to the physical economy generally, the more will we be alive to the vital importance of caring for these organs whose duty is to furnish all other organs and parts of this complex mechanism the wherewithal to maintain their integrity, and enable them to perform their allotted functions. So long as these functions are properly performed we are well, and work is a pleasure. We retire at the close of the day to enjoy dreamless repose, waking with the morn to enter on a new day's work in which no duty is irksome, and with a temper that no cross ruffles. Our meals find us with appetites that relish the plainest fare.

The answer of the wife of the good-natured husband to that of the ill-natured one, was, if coarse and blunt, also philosophical. When asked how she managed to keep him so good natured, answered, "I feed the brute." The following from Sidney Smith humorously illustrates the relation between indigestion and low spirits. I quote from Lauder Brunton's Lettsomiam Lectures. He says: "Happiness is not impossible without health, but it is very difficult of attainment. I do not mean by health merely an absence of dangerous complaints, but that the body should be in perfect tune, full of vigor and alacrity. The longer I live the more I am convinced that the apothecary is of more importance than Seneca; and that half the unhappiness in the world proceeds from little stoppages, from a duct choked up, from food pressing in the wrong place, from a vexed duodenum or an agitated pylorus. The deception as practised upon human creatures is curious and entertaining. My friend sups late; he eats some strong soup, then a lobster, then some tart, and he dilutes these esculent varieties with wine. The next day I call upon him. He is going to sell his house in London and retire to the country. He is alarmed for his eldest daughter's health. His expenses are hourly increasing, and nothing but a timely retreat can save him from ruin. All this is the lobster; and when over-excited nature has had time to manage this testaceous incumbrance, the daughter's health recovers, the finances are in good order, and every rural idea effectually excluded from the mind. In the same manner old friendships are destroyed by toasted cheese, and hard salted meat has led to suicide. Unpleasant feelings of the body produce corresponding sensations in the mind, and a great sense of wretchedness is sketched out by a morsel of indigestible and misguided food. Of such infinite consequence to happiness is it to study the body."

Digestion consists of two processes, the solution of the food and the absorption of the liquid thus formed, and the digestion of a meal is not complete until its soluble portion has been liquified or emulsified and absorbed into the lymphatics or blood-vessels. By *dyspepsia* we mean difficulty, imperfection, or both, in the performance of these processes. As with the general health, so it is with the digestion, it may be strong or weak. The function of digestion in some is so strong as to enable them to eat almost anything with impunity, as turnips, quantities of fat, pastry, etc., while

* Read before the Toronto Medical Society, Oct. 1st, 1889.

with others such things would cause great distress, relieved perhaps only by vomiting or diarrhœa. Yet the digestion in both may be perfectly healthy, only in the latter the function is easily overtaxed. This may be a wise provision of nature to prevent more serious lesions of the kidneys or liver.

First in the digestive process, is mastication. With the mass of people, food is eaten too hurriedly and only partially masticated, and, therefore, is more difficult of digestion. The objects of mastication are manifold. The primary object is, of course, the minute division of the food, so that the digestive fluids may easily gain access to all parts of it. Almost of equal importance, is the admixture of the food with saliva, the flow of which is stimulated by mastication. The importance of the saliva in digestion is widely under-estimated. That it aids greatly in the digestion of the starchy foods we can readily convince ourselves by chewing a crust, and observing the sweetness developed as it becomes converted into a pulp. The saliva, also, owing to its alkalinity, is an efficient stimulant to the secretion of the acid gastric juice, which is also stimulated, reflexly, by the act of chewing. Mastication also stimulates the circulation so that the heart beats more forcibly and frequently, sending an increased supply of blood to the nerve centres, which, as part of the general result, leads to increased secretion of the digestive fluids which are probably improved also in quality. The mere act of masticating a small piece of crust, raised my own pulse, while writing this, from 60 to 72 beats per minute. There is still another object to be attained by full and complete mastication; that is, to enable us to judge when we have eaten enough, and so prevent us from eating too much. No one will dispute that the mass of people eat too much; they do so chiefly because they eat too fast. To understand how slow eating prevents over eating, we must know the causes of hunger and the means by which it is satisfied. I think Lauder Brunton's theory as to hunger is the correct one. He thinks the cause is two-fold: "First, a certain condition of the stomach, probably consisting in distension either of the lymphatics or capillaries of the mucous membrane, which is relieved when food is ingested and secretion begins. Second, a condition of the system which is not removed by the mere presence of food in the stomach, but requires for its alleviation the absorption of nutritive material into the blood."* This second condition is well illustrated by many dyspeptics who have voracious appetites, and "can eat every hour of the day"; also in cases of tubercular disease of the mesenteric glands when patients eat enormous quantities of food. In neither of these does sufficient nutriment reach the tissues. Hence, it is evident that if the meal is eaten too hurriedly there will not be time for the first part of it to be digested and absorbed to supply the nerve centres and tissues generally with the nourishment they demand before sufficient is eaten, and until this demand is supplied the feeling of hunger is not fully appeased, and before we are aware of having had enough of food, the stomach may be overloaded. Looking at the subject in this light, we see not only the necessity for complete mastication slowly performed, but also the desirability of the partaking of our meals in a quiet, deliberate manner, with a due amount of light conversation; we also see the great advantage of the intervals of rest between the courses of a dinner. Many business men and others rush through their mid-day meal so hurriedly that good digestion is impossible. A few days ago one of them said to me that often he would not know that he had eaten did he not see his empty plate before him; yet he is surprised that his stomach does not digest his food properly. The good effect of mental quiet on digestion is well seen in the two extremes of life. The healthy child or youth scarcely knows he has a stomach, and "in the sere and yellow leaf," when men have left the work and worry of life behind, it is the rule to find them eat, if not with the gusto of youth, at least with great satisfaction and digest without discomfort, even though they may have suffered from indigestion during the busy portion of their lives.

In the matter of gastric digestion, recent investigations have added much to our knowledge of the process, as well as of its derangements and the best means of correcting them. From the now classic descriptions of the late Dr. Beaumont, we have obtained invaluable information as to the appearances of the stomach in both health and disease. At rest, the gastric mucosa is of a pale pink color and covered by a thin coating of clear

* Brunton, "Disorders of Digestion," page 117.

mucus of alkaline reaction. The introduction of food causes a deepening of color from an increased flow of blood, the secretion of the gastric juice which trickles down the sides of the stomach, and gentled peristalsis. This continues during the digestion of a meal, one to four or five hours, after which the condition of quiescence is resumed.

Instead of the mucous membrane of the stomach being of a pink color, it may be pale and flabby, so that the introduction of food into it is not followed by a due increase in the blood supply, and the gastric juice is both deficient in quantity and defective in quality. There is no feeling of hunger but a fair quantity of food may be taken, which, not being digested soon lies heavily in the stomach, and ferments with formation of gas and often acidity. Such is the condition in atonic dyspepsia.

Much has been done lately in determining the defects in the gastric juice in the various diseases of the stomach. To obtain gastric juice for examination it is best to give two or three ounces of toast and a little water on an empty stomach; the water soon absorbs, and the toast while promoting a flow of gastric juice does not alter it. As soon as the gastric secretion shall have attained its maximum a small stomach tube is passed, to it is attached a syringe, by which suction is slowly made. As soon as sufficient juice is obtained the tube is withdrawn, its contents filtered and examined. The HCl. is the ingredient that is found to vary most, and it is abundantly proved that it is the most important one. In true acid dyspepsia it is in excess but this is not a common condition. The HCl. is much more frequently deficient or even absent as in atonic dyspepsia and many cases of gastric catarrh. In atonic dyspepsia there is debility of the system generally so that the circulation is feeble and the nerve centres depressed; therefore, the nerve centre does not respond to the stimulus of the food, with the result that the flow of blood to the stomach is not increased, and without the required blood supply, the gastric glands cannot secrete either good or plentiful gastric juice; its HCl. will be scant, if present at all. Hence the decomposition of the food, the flatulence, the acidity, the heartburn, and the distress. It has been fairly well established that gastric peristalsis is due to the presence of HCl., hence absence of this acid will be followed by greater or less dilatation of the stomach from retention of its contents.

In the treatment of atonic dyspepsia we have many things to consider. The stomach, if loaded with offending material, must be relieved by an emetic, or by washing. Then we may seek to promote secretion by giving alkalies, which act locally on the glands, stimulating their acid secretion. Bitters, as columba, or gentian, are given to irritate the stomach more powerfully than the food does; they act on the nerve fibres in the mucous membrane, and thus stimulate an increased flow of blood. Nux vomica locally has the same effect, and, after its absorption, it stimulates the nerve centres, rendering them more susceptible to stomach impressions. If there is anæmia, iron should be given, to improve the quality of the blood.

In the matter of diet, nothing more than general principles can be laid down. Intelligently used, perhaps the late Austin Flint's rule should be sufficient: "The diet should be regulated by the appetite, the palate and by common sense." Food eaten with a relish is usually wholesome, even though it is sometimes contrary to our preconceived notions. Experience must needs be the guide to our common sense, and where people have no experience, as in recovering from typhoid fever, for example, they had better be guided by that of others. It is not so often *what* we eat, as *how* we eat, that "upsets" our stomachs. Not a few people unnecessarily eliminate many articles of food from their diet, under the impression that they cannot digest them. Such an one presented herself to me not long ago for advice; she could not take meat, eggs or milk. An alkaline stomachic was prescribed; she was assured it would enable her to digest all these articles of diet, and she was requested to take them in moderation, and without worry. On returning a few days afterwards, she gleefully reported that they all agreed with her from the first, and that she now felt well.

In cases of distress, notwithstanding such treatment, five to ten minims of dilute HCl. may be given with advantage, during or after the meal, to supplement the deficiency in the gastric juice. As improvement takes place, the need of it will disappear. Pepsin may be added, but its use in my experience has been disappointing. For the relief of acidity and pain occurring an hour or two after meals, Sir William Roberts, in his address before the late meeting of the British Medi-

cal Association, strongly recommends the bismuth lozenge (B.P.), which owes its antacid property to 3½ grains of chalk and 2½ grains of magnesia, the bismuth being inert. He suggests as a better formula, the chalk and magnesia, with one grain of sodium chloride to give it a sharpness that will promote the flow of saliva. The lozenge should be placed on the back of the tongue and allowed to slowly dissolve, so as to cause a concurrent flow of saliva, which will materially aid in overcoming the acidity. They are to be used only when the gastric pain is distinctly present and greater than can be well borne.

Constipation, if it exists, will require appropriate treatment; also attention to bathing and general hygiene.

### CHRONIC GASTRIC CATARRH.

This condition exists in a large number of chronic dyspeptics. The catarrhal condition varies in degree from the mildest, between which and atonic dyspepsia there is no sharp dividing line, and the most severe, in which there is persistent vomiting and extensive abrasion of the gastric mucosa. The causes of it may be the habitual ingestion of food, excessive in quantity or irritating in quality, alcohol and other stimulants; or it may be secondary to diseased states of other organs, as of the liver, kidneys, lungs, or heart, by which the circulation is impeded or the blood rendered unsuitable by retention in it of excrementitious matters. In the mildest cases the symptoms are not distinguishable from those of atonic dyspepsia, in fact, there is a general atony present. In others there is a craving for food, which is satisfied, or, I might say, satiated, by the first mouthful or two, a feeling of over-distension, and, it may be, nausea following; or even the odors of the food may be sufficient to replace the craving by feelings of repugnance. How often women experience this while cooking the dinner. As we all know, such craving may continue for a day or two, to be succeeded by a so-called bilious attack, and many sufferers know the significance of such craving, and, by the exercise of self-denial, aided by a cholagogue purgative, they are able to forestall the attack. In such cases there is more or less coating of the stomach with tenacious mucus, containing many epithelial cells. Beneath this the mucous membrane is congested and highly irritable. The gastric juice, on examination, is found to be deficient in HCl., and what is present is quickly destroyed by the alkaline mucus. The presence of food, or even its odor, is too great a stimulant to the unhealthy mucous membrane, and acts much as an emetic does in the healthy stomach. The craving for food is due to the demands of the nerve centres and tissues for more nourishment, their supply being insufficient on account of the imperfect digestion. The mental depression often present, the headache, the coated foul tongue, and the high-colored urine loaded with urates, in short, the so-called bilious condition, are probably due, not to bile constituents in the blood as commonly supposed, but to absorption of the poisonous alkaloidal products of the decomposition of food in the stomach and bowels.

Lauder Brunton has advanced the theory that part of the function of the liver is to intercept and turn back in the bile all such alkaloid products, and is able to do so effectually under ordinary circumstances; but when an excess of these deleterious substances are poured into the portal vein, the circulation in the liver is impeded, owing to the low pressure of the blood in the portal vein, and then the liver cells become unable to eliminate all these poisons, and some of them escape into the hepatic vein and so into the general circulation. On this theory it is easy to explain the efficacy of the so-called cholagogue purgatives. Acting on the duodenum as well as the rest of the intestinal tract, they sweep out the food with all its decomposing products, also the copious discharge of bile, loaded with these poisons, that is being poured into the intestine, to be re-absorbed and carried again to the overburdened liver—unless removed by purging. The supply being thus stopped, the emunctories are not long, as a rule, in removing from the blood what deleterious matters it may contain. The stomach, however, may be in such a state as to continue to furnish the fermentative products; in that case it too should be cleansed, either by an emetic, or, much better, by the use of the stomach tube. While there are no means within our reach to compare in efficiency with lavage, yet in mild cases it is rather unpleasant to be resorted to; it would be like driving a nail with a trip-hammer. In these, restrictions of diet, mild cholagogue purgatives and alkaline stomachics suffice. The cholagogue may be given at

bedtime and followed in the morning by some saline bitter water, preferably Hunyadi, judging from my own experience. A wineglass of Hunyadi in a large goblet of hot water, slowly sipped while dressing, will give most people a copious dark bilious stool after breakfast; the slow sipping stimulates the circulation, and the bulk of water serves to flush out the mucus from the stomach—which is said to be a tube when empty. The water, after absorption, will then flush the kidneys.

To soothe the irritable gastric mucous membrane, such sedatives as bismuth and hydrocyanic acid may be given, to which soda may be added to dissolve the mucus and stimulate gastric secretion; as soon as the irritability is allayed, bitters may be added, as in atonic dyspepsia.

In the severer cases of *chronic gastric catarrh* there is considerable thickening of the mucous membrane, with destruction of gastric tubules. There is an abundant mucous secretion, rich in epithelial cells, more or less dilatation of the stomach from lessened or arrested peristalsis, and but scant secretion of gastric juice, and what is secreted contains little if any HCl. There is no appetite, just as there is none in phthisis or the acute diseases. I need not dwell on the picture, you all know it. Excess in alcohol is the most frequent cause, but there are many others.

Judging from my limited experience in the management of these cases, there is only one plan of treatment that offers satisfactory results, viz., lavage. It is, besides, the only rational treatment, inasmuch as it is the only one that strikes at the root of the trouble by relieving the stomach from the constant irritation that keeps up the inflammation. The washing out of the stomach should be resorted to regularly and systematically, using either plain water or a weak solution of bicarbonate or biborate of soda, or boracic acid. Sufficient fluid should be used to remove all the mucus, after which a little nourishment should be given, such as milk (raw or prepared), broth with a raw egg stirred in it, and toast; the coarser foods should be withheld until the condition of the stomach is ameliorated somewhat. A few drops of HCl. may be given with advantage after the food to hasten its digestion, to inhibit the germs of fermentation, and to stimulate the peristalsis of the stomach, forcing the contents onward into the intestine as soon as digested, thus lessening the tendency to dilatation. HCl. given without first removing the mucus, would be useless, as it is destroyed in coagulating the mucus; therefore in mild cases not requiring resort to lavage, it is useless to give HCl. after food.

The more severe cases may require perseverance with the tube for some time, before much benefit will be apparent. I had one such case a few months ago, in the Toronto General Hospital, due to prolonged use of alcohol, in which it was only after some weeks of regular washing that vomiting of offensive mucus ceased and food could be taken with fair comfort. Success was at one time despaired of, but he left the hospital with comparatively fair digestion.

## PATHOLOGICAL RELATIONS BETWEEN BONE-MEDULLA AND SPLEEN.*

BY DR. CHAS. M. SMITH, ORANGEVILLE, ONT

*Hodgkin's Disease.*—The case which first attracted my attention to this subject, was one of general lymphadenoma occurring in a male aged 56.

Enlargement, tenderness and hypersecretion of the parotid, submaxillary and sublingual glands were the first symptoms apparent. The cervical and subcutaneous groups then became involved, while palpation proved that the mesenteric glands were also affected. Asthenia rapidly developed, followed by coma, continuing for forty-eight hours, relieved by a brief period of semi-consciousness and ability to speak, succeeded again by stertorous breathing for two or three hours; one severe general convulsion and death; a period of not more than three weeks having elapsed from my first visit. A section of the spleen, which was somewhat enlarged, exhibited upon its surface numerous masses varying in size from a grain of rice to that of hazel nut, and presenting a grayish-white or drab color. These bodies appeared in lieu of the normal malpighian corpuscles. My knowledge of the fact that a fracture of the tibia and fibula had been sustained some seven or eight years previous to the date of the patient's illness, led me to examine the site of said fracture. I

*Abstract of a paper read at the Annual Meeting of the Ontario Medical Association, June, 1889.

found the normal medulla replaced by a *red*, lymphoid marrow; and in order to discover whether this condition bore any relation to the previous injury, I examined the femur of the same leg and the tibia of the opposite side. The red fœtal mar row was present also in these bones.

*Leukæmia.*—A well-marked case of this affection occurred in my practice in 1882, in the person of a married lady, nulliparous, and residing in a non-malarial region. In this case the enormously hypertrophied spleen filled the left hypochondriac, lumbar and iliac regions, encroaching largely on the epigastric and umbilical areas. The marrow of the sternum, os calcis, and ulna respectively was examined. The most constant elements found were nucleated red corpuscles and the crystals known as Charcot's. In appearance the medulla from the various regions differed in a much less degree than in the normal condition. The long, short and flat bones alike were characterized by a marrow which was seen to contain large granular nucleated cells, other cells resembling colorless blood corpuscles, and smaller forms which were classed as lymph cells. The spleen was of a deep violet red and presented adhesions to the abdominal wall. On section it was found to be firmer than the natural tissue, exhibiting the trabeculæ clearly and showing no traces of the malpighian bodies, when examined with a power of 50 diameters.

*Osteo-Myelitis.*—The autopsy in this case, one of chronic circumscribed osteo-myelitis, revealed an extensive cavity in the head of the right tibia, the wall anteriorly composed merely of periosteum and the cutaneous tissue, and posteriorly and laterally of a thin shell of compact tissue. The finger introduced into the cavity distinguished the ragged remains of cancellated tissue above, around and beneath; while lying partially adherent, was a tolerably firm clot. The leg could be carried with ease in any direction, allowing itself to be brought anteriorly to form almost a right angle with the thigh. The histological elements were giant-cells and granulation tissues. The presence of the large lymphoid cells and granular substances in the specimen, brought to the observer's mind, in a striking manner, the fœtal marrow or that found in the *short* bones of the adult. They are always found in normal or abnormal tissues in contact with bone undergoing absorption.*

Some pathologists† hold that the lacunar cell is the transforming power in bone-absorption; others ‡ assert that the granulation-tissue mentioned above is the factor of destruction or rather solution, and give as an instance, the effects produced upon ivory pegs used in operations for false joints. Billroth claims that the granulations dissolve the lime-salts by virtue of the lactic acid contained within their substance. On the other hand some pathologists§ affirm, that the granulation-tissue is alkaline, and direct attention to the fact that the ivory pegs are only occasionally eroded, and that sequestra withstand the process for long periods, while living bone is absorbed rapidly; concluding, therefore, that the process is a vital act

The spleen on examination was found to be adherent to the diaphragm, somewhat larger than normal, and exhibiting a mottled appearance; the surface being marked by light grayish-yellow areas separated by deep violet interspaces. The differently tinged areas were found to correspond to the external border of pyramidal portions of the tissue, which, owing to the peculiar distribution of the non-anastomosing ‖ arteries of the spleen depended upon a single terminal vessel for their vascular supply. At the point where this arteriole terminated in a leash of pencils an embolus could be discerned. The adjacent pulp-tissue (that lying towards the external border of the organ) was of a dirty-white, or yellow color in parts wherein sufficient time had elapsed to allow of the invasion by leucocytes. The violet-colored portion of the surface corresponded to areas infiltrated with blood from the nearest pervious vessel and possibly from the adjacent vein, which, owing to its valveless condition, permitted such regurgitation.

*Syphilis.*—In examining the tibia of a patient who had suffered from tertiary syphilis, I found the usual gurmmatous material involving the medullary canal, while, the compact tissue was redder and more spongy or larcunar than normal.

The spleen was lardaceous or amyloid throughout. The surface of a section responded both to

*Barwell. † Virchow, Rokistanky. ‡ Billroth. § Volkman, Barwell. ‖ Virchow, Cohnheim.

the iodine and methyl-violet test. Under a power of 250 diameters, the chief alterations were noticed in the trabeculæ and walls of the venous sinuses. The capsule exhibited, scattered over its surface, light-colored portions, resembling in density cartilage, or even, in some places, calcareous plates found in the arterial walls in certain instances. This form described above is not always present—for instead of being diffuse, the morbid changes may effect chiefly the malpighian corpuscles and produce the appearance known as "sago-spleen." The presence in the same organ of the two forms of degeneration, namely, lardaceous and calcareous, would tend to make me adopt the view of Kieber and Virchow, which, while differing somewhat from those of Cohnheim, would appear more probable than those of Reindfleisch and Billroth, who adhere to the infiltration theory.

*Myeloid.*—A brief reference to some of the appearances found in the spleen of a man whom I attended in 1880 for myeloid tumor of the scapula, may be of interest in connection with the subject of this paper. You are no doubt familiar with the histology of the neoplasm as it affects *bone.* The spleen in this case was larger by at least one-half then in health, was extremely soft, of a very dark color, and giving way on very slight pressure, resembling, in fact, a large blood-clot rather than an organized structure. The prevailing cell noticeable on microscopical examination was a large many-nucleated one, similiar to that found in the foetal marrow and the medulla of short bones or diploe of flat ones in the adult. The question arises, whether the multiplication of these cells was owing to an infiltration or to a transformation *in loco* and hyperplasia of elements normally present in the spleen.

*Typhoid Fever.*—I am not aware that any connection has been traced between morbid changes in the bone-medulla and the splenic hyperplasia, which reaches its maximum at the height of the disease and dimishes with convalescence from enteric fever. I have observed the sequela of periostitis of the tibia in one case and of the ulna in another, occurring in patients who had exhibited marked symptoms of perisplenitis.

*Relapsing Fever.*—According to Ponfick * the most constant changes noticed at autopsies performed on subjects of "*Typhus recurrens,*" are those of the spleen and marrow. In the latter there is proliferation with subsequent degeneration of the lymphoid cells, with multiplication of the nuclei on the walls of the minute vessels and fatty degeneration of their coats. Abscesses occur chiefly in the cancellated extremities of the long bones, especially the tibia.

*Spleen.*—This organ is found enlarged when the patient has died in the febrile stage. The pulp is swollen and swells up above the surface of the section. The malpighian corpuscles are grayish or grayish-yellow, increased to the size of a hempseed. Hæmorrhagic infarction, such as described under the head of osteo-myelitis, also exists to a large extent. According to Ponfick these are chiefly venous, the arterioles being patulous.

*Pyæmia and Septicæmia.*—Globular bacteriæ have been demonstrated in the medulla and splenic tissue as well as in the blood of those dying from pyæmia, whilst the rod forms are equally abundant in those tissues in septicæmic cases.

*Glanders.*—Both marrow and spleen become affected secondarily in this disease. The specific microbe is particularly abundant in the latter organ. Investigators have not devoted special attention to the histology of the medulla.

*Anthrax*—The pathological alterations in spleen and bone-medulla in this virulent affection are amongst the most constant—the tissues of the former swarming with micrococci and bacilli, while the normal, fatty marrow is replaced by a yellowish or greenish-yellow material, occasionally of a tallow-like consistency, and exhibiting the peculiar bacillus although in less abundance than the great blood-lymph gland.

While I have endeavored to lay before you some of the morbid affections of these homologous structures, with a view of bringing their functional analogies more forcibly to our minds, I must, at the same time, apologize for the imperfect nature of these observations. The field is an extensive one, and is worthy of more attention at the hands of skilled histologists than has yet been awarded to it. I may, in closing, Mr. President and gentlemen, quote the modest words used by that great pathologist and beloved teacher, Paget, "If now

*Virchow's Arch, Vol. lxxii : p. 154.

I leave the hearer to consider for himself the questions that may thus be asked, I shall but fulfil a purpose kept in view in this paper, the purpose, namely, of offering materials for thought upon subjects of which I have not knowledge."

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## CLINICAL LECTURE—UNIVERSITY HOSPITAL, PHILADELPHIA.

BY H. C. WOOD, PROF. OF NERVOUS DISEASES.

### The Problems to be Decided in a Case Lingering on the Border-line of Insanity.

There is no exact standard to which we can compare a case of suspected insanity; there is no fixed line over which a patient steps which allows us to declare, without further study, that matters stand thus and so. Insanity is a condition of mental unhealth which deepens so gradually and insensibly, that the exact time when it is undeniably present is often impossible to determine; just as the shore along the ocean's edge glides imperceptibly down into unfathomed depths, so do the symptoms in the ordinary case slip gently into that curious condition which we call, for convenience, insanity. The knowledge of this fact is ever present in the alienist's mind when confronted with such cases, but the embarrassment which the call for a diagnosis may produce, is not due so much to the medical aspects of the case as to the legal; for, in the real essence of medical inquiry, it makes no actual difference in the treatment how near the patient hovers to the line and whether he has positively crossed it or not.

In taking up the systematic study of a case of suspected insanity, we find that there are three sets of symptoms which we must carefully consider before we can come to any definite conclusions:

1. Changes in the character of the patient.
2. Changes in the emotional nature of the patient
3. Changes in the mental acts of the patient.

It is claimed by some alienists that one symptom is absolutely characteristic of the insane; it is the "insane delusion." Its presence, they claim, is essential to indicate insanity; but its importance as a symptom is greatly magnified, for there are cases of well developed mental alienation in which there may be no delusions present. For our more perfect understanding, we will define a delusion to be a false belief capable of demonstration, but out of which a patient cannot be reasoned: as for illustration, you close your eyes, and imagine you hear a voice; you open them and see that there is no one present and hence no possible source for the voice, and you recognize that you have been subject to delusion; but if you persist in believing that you heard the voice, then it becomes an insane delusion. You correct the testimony furnished you by one sense with that furnished you by another; the essence or the basal condition is the loss of the power of judgment or reason. There is a necessity that the matters handled shall be capable of absolute proof; the Brahmin cannot call the Christian insane, for their respective beliefs are not capable of positive demonstration, nor has the Christian a similar right.

In regard to the first query, Has he changed in character? we must not make the mistake of comparing a patient with any standard of right and wrong, but with his previous condition: as he is—as he was. If he was affectionate, is he so now; if he was of a melancholy cast, is he unduly hilarious now, or *vice versa;* and so on through the elements which go to make up character. The emotions, which are closely allied to the character, should also be studied with reference to their condition in the past; be careful to see if a change has actually taken place. A profoundly depressed or an excessively hilarious state of mind may have always been the patient's condition. We divide insanity into two forms: one, where there is distinct evidence of organic brain disease; the other, called "pure insanities," in which there is no dependence on organic change; the further division into acute and chronic we will not consider to-day.

With this introduction, let us study this case. A woman, æt. 42, happily married; has a number of healthy children; she says she knows the cause of her ailment. Two years ago, suddenly the neighbors began to abuse her; this persecution grew until, in last January, there arose in her a dread of something impending, which depressed greatly her spirits. Her trouble generally took the shape of a lion which she never saw nor heard, but to protect herself against which she had hid hammers and hatchets in convenient places over the house. She also heard voices calling to her all the time; she had looked for the persons to whom she supposed they belonged, but as she ap-

proached the voices apparently receded from her; she felt sure that the sounds did not originate in her own head. They gradually narrowed down to one voice, which never praises her, but is always abusing and shouting at her. She has no headaches, sleeps fairly well, cannot read because so disturbed by the voice, does her own housework; and she shows that she has reached her present condition not rapidly, but rather slowly. Her sister tells us that she is sad and depressed, and has attempted suicide rather in obedience to the "voice" than from any desire to die. There is no hereditary taint in her family.

The first emotional changes were in the form of a feeling of impending calamity; then, from her account, there seems to have been no absolute hallucination of sight; but notwithstanding her assertions, we may believe that, at the time of her extreme dread, they probably existed. She heard voices, but at first tried to disprove their existence. Is she over the line, and if so, what is the form? She has one of the more acute types of paranoia, the new name for the outcome of gradual ill-development of the brain, called "melancholia." The character of the delusion always corresponds to the emotional change, as in melancholia; the subject believes himself to be hated and persecuted by every one. Some alienists regard the delusion as arising from the emotional change, and other specialists hold that it is just the other way. Probably they have one and the same origin.

Classification in brain troubles is unsatisfactory, for insanity is a symptom, not a disease, just as dropsy is an expression of disease, not a disease itself; but for convenience we group together those forms in which, as yet, we can detect no organic change, while in reality they may be widely separated.

The *prognosis* in these cases is doubtful, not positively bad, for sixty per cent. of the cases of acute melancholia get well. When the attack is slow the prognosis is bad, for there is greater chance of the mental changes remaining permanent; when the onslaught is sudden, then the outlook is better.

There is but little direct treatment to be done. Ought she go to an asylum? This depends largely on her surroundings. I hold that the asylum has the same position to the insane patient as the general hospital has to a surgical case. If all that is required can be had at home, I should say, keep her there. If she remains there, it keeps her from herself, for she is still able to do her own housework, and the majority of inmates in an asylum are left to mope and study themselves—until they sink deeper into the clutches of their malady. But she has attempted suicide, impelled by the "voice"; this may occur again to-morrow. At home it will be impossible to protect her; or this voice may demand that she murder her husband or children, for the most dangerous class of lunatics are of her kind. This may exist with a great deal of mental soundness, which to laymen might prove the general sanity of the patient. Hence use moral and mental means to combat her trouble; give her occupation, pleasant agreeable tasks; treat other symptoms as they arise; see that she gets plenty of good nourishing sleep, and remove all irritating elements of her life.



## Correspondence.

### OUR EDINBURGH LETTER.

*(From Our Own Correspondent.)*

I shall this month give you in brief a few points regarding some of the cases presented to the Post-Graduate Class at the Edinburgh Royal Infirmary, by Dr. Allan Jamieson, at his Skin Clinic.

Case 1. A chronic localized psoriasis, non-specific.

℞—Chrysarobin, . . . . . gr. x.
Liq. carb. deterg., . . . . . ℥ x.
Acidi salicylici, . . . . . gr. x.
Ung. lanolini, ad., . . . . . ℥ j.
M.—Fiat unguentum.

Sig.—Rub in a small portion of the ointment at night, and wash off in the morning; and use an over-fatty potash soap to wash the parts twice a day.

Case 2. Eczema of the scalp — *Eczema seborrhœa.* Treatment.—Shave the hair from the scalp, and then apply the following poultice to remove the crusts, and continue their application as long as any improvement is noted:

℞—Acidi borici, . . . . . ℥ ij.

Sig.—Add a teaspoonful of the powder to a tablespoonful of cold water starch; mix with a little cold water, then pour in a pint of boiling

water and stir till melted; let stand till cold; spread the cold starch thickly on pieces of cotton, cover with muslin, and apply to the part, changing the poultices every few hours.

When no further improvement is noticed from the application of these poultices, then apply—

℞—Resorcin, . . . . . gr. x.
Lanolini,
Zinci oxidi,
Pulv. amyli, . . . . . āā ʒ ij.
M.—Fiat unguentum.
Sig.—Apply twice a day.

Case 3. Alopecia areata. A stimulant plan of treatment was adopted.

℞—Liquoris ammoniæ fort.,
Chloroformi,
Olei sesami, . . . . . āā ℥ ss.
Olei limonum, . . . . . ʒ ss.
Spiritus rosmarini, ad., . . ℥ iv.
M.—Fiat lotio.
Sig.—Apply lotion to bald patches with a sponge twice a day, and wash scalp with an over-fatty potash soap twice a day.

Easton's syrup was also given internally three times a day.

Case 4. An eczema on the hands of a baker, due to the irritation caused by the flour—a trade eruption.

Apply the boracic acid and starch poultices as in case 1, and when no further improvement is noticed, apply *Lassar's paste.*

℞.—Acidi salicylici, . . . . . gr. x.
Lanolini (*Liebreich*),
Vaselini optimi,
Pulv. zinci oxidi,
Pulv. amyli, . . . . . āā ʒ ij.
Misce leniter teranda, fiat past.
Sig.—Apply twice a day.

Another trade eruption due to the contact with chemicals used in the manufacture of morphia, was treated in the same way.

Case 5.—Scabies.

℞.—Naphthol, . . . . . ℥ j.
Ung. simp. ad., . . . . . ℥ j.
Fiat unguentum.
Sig.—Apply at bed-time.

Case 6. Tinea tonsurans.

Dr. Jamieson believes the chloroform test for this affection is as pathognomonic as the microscopic test. Chloroform is applied to the affected spot by means of a fine spray; after a few minutes the chloroform will have caused the diseased hairs to turn white, which can be easily recognized by the aid of a pocket lens.

Treatment.—The hair must be shaved closely from the scalp, and kept so until the disease is cured. After the scalp has been shaved, apply—

℞.—Sulphuris precipitati, . . . ʒ ss.
Hydrargyri ammoniati, . . . grs. x.
Hydrargyri sulphureti nigri, . grs. x.
Misce et adde.
Olei sesami, . . . . . ʒ ij.
Creasoti, . . . . . ♏ x.
Adipis, . . . . . ʒ vj.
Fiat unguentum.
Sig.—A small quantity to be well rubbed in with a stiff brush twice a day.

Case 7. Alopecia areata, due to tinea tonsurans. The lotion prescribed in case 3 was ordered.

Case 8. Pruritus of the scrotum, due to a varicose condition of the veins. Hot baths were ordered to be taken at night. A suspensory bandage to be worn, and the following lotion to be sponged on the parts night and morning:

℞.—Menthol, . . . . . ℥ j.
Spts. vini rect., . . . . . ℥ iij.
Glycerini, . . . . . ʒ iss.
Aq. dest. ad., . . . . . ℥ vj.
M.—Fiat lotio.
Sig.—Apply to the parts with a sponge, night and morning.

Case 9. Comedones.—Comedones to be squeezed out by presure with nails, a watch-key or instrument made for the purpose. Face to be carefully washed with soap and *hot* water, and dried with smart friction, and at night apply—

℞.—Kaolini, . . . . . ℥ ss.
Glycerini, . . . . . ʒ iij.
Aceti, . . . . . ʒ ij.
Fiat lotio

Sulphur may be added to this if a more active remedy is indicated.

Case 10. Sycosis of upper lip, caused by, or complicated with a chronic nasal catarrh.

Add ʒj. of boracic acid and ʒj. of common salt to a pint of hot water, and draw the solution up

the nose frequently. Dry the parts and apply to inside of nose.

R.—Acidi salicylici, . . . . . gr. x.
Zinci carbonatis, . . . . . ʒ j.
Vaselini, . . . . . ʒ j.
Cerati galeni, ad., . . . . . ʒ j.
M.—Fiat unguentum.

The hair must be shaved from the parts daily, and then apply the boracic acid and starch poultices until the crusts are softened, and inflammation subdued. Water as hot as can be borne, should be used after shaving. When the poultices are discontinued, then apply the following:

R.—Sulphuris precip., . . . . . ʒ i.
Creasoti, . . . . . ♏ x.
Vaselini, . . . . . ℥ j.
M.—Fiat unguentum.

Sig.—Rub in a small portion of the ointment twice a day.

Later, a solution of nitrate of silver, 16 grains to the ounce of sweet spirit of nitre, should be painted on at intervals.

Case 11. Eczema, with a great amount of oozing. Apply the boracic acid and starch poultices for a few days, then—

R.—Gelatinæ opt., . . . . . 15.0.
Zinci oxidi, . . . . . 10.0.
Adipis recentis, . . . . . 10.0.
Glycerini puri, . . . . . 65.0.

Combine the ingredients carefully by aid of a water bath, then add 2% of salicylic acid and dispense in a deep tin.

Sig.—Place the tin in a basin of boiling water till the contents are melted to the consistence of milk, taking care that no water gets into the tin; then paint on, and cover with a thin film of absorbent cotton wool. G.

## Selected Articles.

### MICROBIC LIFE IN SEWER AIR.

BY ALFRED CARPENTER, M.D., J.P.

*(Continued from October No.)*

Let us go back to

THE HABITAT OF THE GERM.

Many attempts have been made by various observers to catch the organism. So difficult is this that Professor Nageli, of Munich, endeavored to show by a series of experiments which he carried on for some years that they are not given off by moist surfaces, and Professor Frankland said, in 1877, that nothing particulate was given off from running sewage; but as he has also shown us since then that the bursting of bubbles disseminated particles of lithia in solution, it is evident that whenever bubbles burst any particulate matter in the substance of the bubble might be disseminated as well as the lithia. Some experiments have been made by Mr. J. S. Haldane in the Westminster Palace sewer, which go to prove that micro-organisms were few whenever there was a regular current of air; that with little or no draught there was an increase of carbonic acid, and with that an increase of micro-organisms, but they were moulds rather than bacteria. But another very curious thing was found to exist—viz., that when the ventilation within the sewer was much improved, so that $Co_2$ was materially diminished, there was a considerable increase in the number of bacterial organisms, as if a diminution of oxidation allowed of the increase of germs.

Mr. Haldane examined the air in the Bristol sewers, which are not ventilated. He found that in those sewers the moulds exceeded the bacteria, while in the air of the streets the bacteria exceeded those of the mould.

Hesse has shown us that although the spores of the moulds are much larger than the bacteria they remain suspended in the air much longer than do the bacteria. Mr. Haldane concluded that it is to the presence of air from without that we owe the more prolific existence of bacteria in sewers, and and *vice versa*. His experiments led him to conclude that true sewer air contained fewer micro-organisms than the air of a street, or even the air of an ordinary living room. Our experimenter did find, however, that when the sewage was splashed about there was a large increase in the number of organisms observed, which is a great argument against the formation of large sewers. It is argued that there is much doubt as to the power of sewer air to disreminate typhoid germs independent of water supply. My own experience, arrived at by passing through three epidemics of that disease in Croydon, fully convinced me that when sewers, such as some of ours were in 1875, are loaded with typhoid excreta, the germs which are capable of reproducing the disease do get conveyed from sewers into human beings by aerial means, either directly by air or through the water supply. In those epidemics the very large number of domestic servants, especially kitchenmaids and cooks, who became victims to the disease, was one of their marked characteristics, the reason being that those persons went downstairs into the basement in the early morning before the house was thoroughly ventilated, and inhaled the sewer air that had collected in the kitchen during the night. Then

there was Dr. Buchanan's demonstration as to the reason why fever existed on one side of two or three streets which he specified, in which the water supply was the same, and the sewer the same. In one set of cases the air was admitted into the houses from the sewer; in the other it was not. It is clear, however, that

ORDINARY SEWER AIR CANNOT PRODUCE MISCHIFE

unless the organisms from particular forms of disease exist in the sewer. It becomes the bounden duty of the authorities to take care that no such organisms continue to live and multiply there, and that when cases of any infectious disease exist in a given locality they shall pay particular attention to the sewers in that locality, and prevent them from discharging disease germs into the streets from the open grids which are left for ventilating purposes. They will do this if they are only partially ventilated, and are sewers of deposit.

We are now in a position to answer the four questions which I have put forward.

1st. Do microbes exist in sewer air? No doubt they may. If sewers are properly laid, and there is no sewage deposit, no impediment to discharge allowed to take place, and no part of a given length allowed to have stagnant air in any part of it, there will be no disease germs.

Disease germs require time for development, and if excreta be hurried away to their proper destination, where they become *bonnes bouches* for the carnivorous plants which should be found on sewage farms, there is an end of their *rôle* as disease germs. But if the sewers are sewers of deposit some may settle on the pipes; they may fructify there, and there living, growing spores be carried away by the currents of air and then discharged, to the possible danger of the people. They are not, however, the necessary parts of a sewer system, but are the accidents of defect. I have not the least doubt myself that a stinking grating is not dangerous, from the circumstances I have mentioned. It is an undoubted fact that the year which produced a panic in the House of Commons, and by which the Metropolitan Board of Works was brought into being, was produced by the stinks from the bed of the Thames. It was the healthiest year that London had experienced for a long time, as far as enthetic disease is concerned, at least, if statistics prove anything, and yet the Thames smelt so badly that our senators could not carry on their work in the committee rooms of the House of Commons.

Stinking sewers should not be allowed to exist, but to my mind it is better to have the open grids in the streets than to convey the mischief, which is possible, into positions preventing our getting the knowledge that the sewers require to be scoured. Every line of sewer should be well scoured in the crown of its arch as well as at the bottom, and after the scouring thoroughly flushed by a body of water that fills its calibre completely. The flushing which I see going on in our town from a two or three-inch tube is all but useless for the purpose required, except where there is a stoppage, which produces a head of water and fills up the sewer.

Sewers of comparatively small size, in exactly straight sections, so that they may have the lamp test applied, and which sewers can be flushed by the sudden discharge of a large body of water at frequent intervals, when the temperature of the sewer rises above a certain point, will remove the colonies of disease germs. They do grow on the sides and invert of the arch of swers, as certainly as they may be made to grow in tubes containing pure solution of gelatiue. If the ventilation is tardy, so as to allow of fructification, the colonies give off thelr spores, and these may possibly infect a passer-by, who happens to be infective, and upon whose mucous membrane the organism happens to fall. I say this is a possible contingency, but it will rarely happen. These germs are of two kinds: the one is a living, growing organism, which I may compare to the barley which has been made to sprout in preparation for malting. If this organism be planted on a mucous surface ready for its reception it may take root, reproduce its kind, and set up its own form of disease; but, like to the white corpuscles in human blood, exposure to pure air for a very short period indeed is fatal to them. The fact is made out in the operation called transfusion. If the blood in its passage from one person to another be exposed to the air for more than a small fraction of a second, the corpuscle dies, and the patient, though at first reviving, afterward succumbs to the mischief produced by the dead fibrine. If growing germs are exposed to a current of fresh air, free from ammonia and with its fair proportion of oxygen, in the sewers, the germs will be deprived of vitality before they escape into the open air. It is owing to this fact that the ventilation of sewers must be complete if such veutilation is to be safe. A partial ventilation does not provide for the death of the living, growing germ, and it is this living, growing germ which does the mischief; for the other form, the resting spore, will not rise from the watery bed. The growing germ is also destroyed by sulphuretted hydrogen and its binary compounds, the product of the decomposition of all albuminous matters. I say, then, that

WELL-VENTILATED SEWERS ARE SAFE;

they are doubly so if they are thoroughly and properly flushed. If they are not sewers of deposit they cannot produce sewer gas, and if they thoroughly stink, disease germs cannot live in them.

so that in either case there is no danger; but there is a possible danger, when it is not discoverable by reason of smell, if those openings which give out offensive odors are occasionally free from the discharge of stinking matter, and some one who is not germ-proof stoops down at the opening. Children will be, may be, victims. If we bear in mind that in a pure atmosphere the life of the germ is momentary, all serious danger is at an end. I have said in a pure atmosphere. If the air is impure, if it contains alkaline gas in the form of ammonia rather than the nitrous or sulphurous form of gases, there is the possibility of a much longer life than is the case when the air is pure or has an acid reaction. It is to this fact that diseases spread in unventilated, dirty houses, and if it was not for the sulphurous acid which is formed in the London smoke-fogs it is most likely that the life history of disease germs would be made more manifest than it is when we have an atmosphere entirely without ozone for days together.

We may take it as true that living disease germs from sewer ventilators are possible factors, but they are rarely provided. If the sewers are only partially ventilated, with tendency to the formation of carbonic acid in excess, there is a mould formation rather than bacterial life, and moulds are not yet proved to be zymotic disease germs to human beings. They are comparatively benign; like to benign bacteria, they help to purify both air and water. and return the albuminoid or nitrogenous matters to their simple elements, ready for use by the vegetable world.

I cannot conceive benign organisms becoming malignant in the processes which take place in sewers unless the temperature be raised much beyond that which is ordinarily found in proper sewers with an abundant water supply. I mentioned, when speaking of sewer flushing, that this process must be frequent at certain times, when temperature is higher than usual. If at any time the temperature in this country should be continually high for a month or six weeks together, so that the temperature of the London water should be kept above 65 degrees for a month, London may prepare for a tremendous outbreak of typhoid in the succeeding autumn. It requires a continuously high temperature for probably a month to develop typhoid spores in the drinking water as at present manipulated at the filter works of the companies. That season will come some day with the usual result, "panic," and consequent loss. For the same reason, unless sewers have their temperature permanently raised for some time, there is no danger from benign germs being replaced by malignant; but I believe that it is possible for the coutinuous discharge of hot water so to raise the temperature of a drain-pipe that it may be a hidden source of danger, and that such continuous discharges of hot water from manufactories may be dangerous in badly-constructed sewers, though an excessive heat, such as is experienced on a sunny day, destroys bacteria; but if sewers are well and truly laid, if the pipes are smooth inside and have been properly jointed, if they flush clean, and are properly flushed at intervals, depending upon the temperature of the sewage, then there is no real danger from the admission of hot water into sewers.

I think I have dealt with the four points to which I have drawn attention, and I will conclude what I have to say on this subject, that the greatest danger from drains is not in the public sewer, but in the house connections and in the private drains laid by speculative builders. They are only occasionally used, they become all but dry at frequent intervals, and if they are not as clean as a back kitchen sink ought to be, they will, in spite of all precaution, occasionally produce sewer air. They must be ventilated even more perfectly than the public sewers, and so cut off from all direct communication with the house that it shall be absolutely impossible for any of the products of decomposition, if they arise, to find their way inside the dwelling and carry living, growing germs with them. If these arrangements are carried into effect, those living in such houses may defy disease germs and live in perfect safety from their attacks, and, in the words of the Psalmist, we may say—(1) Thou shalt not be afraid of any terror by night, nor for the arrow that flieth by day; for the pestilence that walketh in darkness, nor for the sickness which destroyeth in the noonday. (2) A thousand shall fall beside thee, and ten thousand at thy right hand, but it shall not come nigh thee. —*The Sanitarian.*

## SOME GENERAL CONSIDERATIONS IN THE TREATMENT OF EPILEPSY.

The treatment of a disease may only be considered entirely rational when it rests upon the firm foundation of pathological knowledge. What then are we to do in epilepsy, the cause of which so authoritative a writer as Hughlings Jackson says has not yet been discovered, a disease which presents no essential morbid anatomy?

Probably for no one disease, have more remedies and methods of treatment been lauded, which in itself emphatically expresses the poverty of therapeutics. The National Dispensatory, in its second edition, lists sixty-four drugs under the heading of Epilepsy. In the older authors as many as ninety medicinal substances are mentioned. Ranny, in his recent work, details a score of pharmaceutical preparations. To these must be added dietetic, hygienic, moral and electrical measures. The large majority of such means have been employed as the result of the shallowest

empiricism or something less; many have been used and recommended from erroneous ideas of the nature of the disease. An enumeration of a few comparatively recent opinions even, as to its morbid anatomy will make this plain. Schroeder von der Kolk held that the vessels of the posterior half of the medulla were unnaturally dilated. Kroon insisted upon the asymmetry of the olivary bodies. Solbrig claimed that constriction of the spinal canal and secondary atrophy of the medulla was the underlying condition. Lelut, Meynert and others maintained that sclerosis of the cornu ammonis was pathognomonic. Landois saw the ætiology in venous hyperæmia of the brain and spinal cord. Cooper attributed the disease to compression of the carotids. Nothnagel described an irritation of the "convulsive centre" in the region of the pons, and so on endlessly.

As far as our knowledge of the anatomical character of epilepsy now extends, no primary pathognomonic changes are known, and Jackson holds to the idea that the disability of the nervous apparatus is the result of arterial disease, thus being a secondary condition only. The reigning hypothesis from a quasi-physiological standpoint is that certain areas, cortical or ganglionic in the brain are in an over-sensitive condition, overstocked, so to speak, with nervous energy and ready to discharge their force suddenly or irregularly under a given provocation.

It may perhaps be accepted that epilepsy only appears in those who are predisposed, and then only upon the occasion of some exciting cause or condition. Heredity explains the predisposition in a little more than one-third of the cases, the ancestors having presented epilepsy or allied neuroses. It is not difficult to understand in many instances where no neurotic family history is discoverable that the marriage of people on the border of nerve instability will, by the combination of their nervous shortcomings, liberally endow their offspring with conditions suitable for the development of this grave disease. In many instances no antecedent information is obtainable, but it is not necessary to seek the predisposition always in heredity. Circumstances, habits, vices, and conditions personal to the patient may so deteriorate his powers of resistance and his nervous mechanism, that conditions favorable to the discharging lesions of epilepsy are developed *ab initio*. Unless a predisposition is conceded, how is to be understood the fact, that of all the numerous head injuries of daily occurrence so very few are followed by epilepsy? that in some individuals the merest traumatism is the starting point, that in others a tænia may determine typical epileptic attacks which cease upon its expulsion?

Of inciting causes, Gowers, in a series of fourteen hundred and fifty cases, mentions exposure to the sun, ascarides, acute diseases, falls, use of forceps, difficult labor, teething, fright, anxiety, excitement, traumatism, toxæmic influences, sexual irregularities and abuses, parturition, syphilis, heart diseases, chorea and some others.

Recently much attention has been given to the eye. Dr. Stevens, in a consecutive series of one hundred cases, invariably found refractive errors. Ranny lays particular stress upon ocular strain as an inciting cause, and reports marvelous cures in chronic and even insane epileptics as the result of operations to rectify the lack of balance in the ocular muscles and by the application of lenses, to overcome the refractive difficulties. Oculists everywhere are curing migraine by prescribing glasses, and the relationship of hemicrania with epilepsy has been recognized for many years. The proposition is advanced in this connection, and may apply elsewhere, that the nervous energy required to maintain the visual apparatus in equilibrium, constitutes a drain upon the sum total of nerve force, leaving the unstable areas unguarded and peculiarly susceptible to the irritation which the eye strain at the same time furnishes. The correction, therefore, of the eye difficulty restores the nervous balance and removes the exciting cause of the attacks if not of the disease. Examination of the fundus of the eye in one thousand cases by Gowers did not discover more abnormalities than in healthy individuals. The habitually dilated pupil of epileptics appears to make them more than usually susceptible to bright lights, and cases are recalled where going quickly from light to darkness, or the reverse, would determine a seizure.

In facing then the subject of treatment, we have these conditions before us. First, an unstable cerebral area with tendency to unequal and uncontrolled discharges of nerve force. Second, the almost certain existence of a condition constituting a constant or occasional source of irritation, and acting as a discharger of the nerve force held in uncertain equilibrium in the cerebrum.

It is to the correction or removal of this second state that intelligent efforts must be directed, or failing to determine this, we are thrown back upon the necessity of trying to blunt the susceptibility of the cerebrum in placing chemical restraint upon the nerve cells, by such means as the bromides, often at the expense of the activity of all cerebral functions, in the hopes that a better habit may be engendered, or at least some of the unpleasant manifestations of the disease favorably modified. Yet it is the observation of many, if not all, who treat considerable numbers of epileptics that they are brighter intellectually when not taking the bromides, though their convulsions may be very much more frequent, and that when these are repressed for a long time by nerve sedatives there finally occurs a terrific explosion. There is a tendency to pronounce against the continuous use

of the bromides or any other drug. Allen McLane Hamilton says: "In our management of epilepsy we are to avoid everything that smacks of routine treatment." Ranny remarks: "Personally I am inclined to believe that the apparent benefit derived from the use of the bromides is more than counterbalanced in most cases by their disastrous effects upon the nervous system." Yet competent writers assert that good effects from the bromides are only to be expected when anæsthesia of the pharynx, acne, and in a word, bromism is produced and maintained for several years.

To determine the irritant condition is as great a problem often, as falls to the lot of a physician. Cases have been cured by the correction of squint, astigmatism, ametropia; by the removal of an ingrowing nail; by the expulsion of a few round worms, a tænia, or fæcal accumulation, or foreign body in the intestines; by the excision of a slight cicatrix including nerve filaments; by the removal of a spiculum of bone producing irritation of the meninges, even of a slight roughness of the inner table of the skull; by the excision of cerebral tumors; by the removal of biliary and urinary calculi; by the extraction of a carious tooth; by the correction of vicious habits and abnormal conditions of the genito-urinary tract. On the other hand, cases permanently and definitely cured by drugs addressed to the nerve cells are so rare that many of large experience have never seen one

Where an inherited or acquired constitutional dyscrasia exists, its appropriate treatment is a most important indication. The English authors lay much stress upon rickets as a casual factor, and the same is true of the German writers.

The dietetic management is of the very first importance. Usually epileptics are inclined to gormandize and become plethoric. As a rule, all meats should be denied them, and even soups, butter and eggs interdicted in some cases. A vegetarian diet with milk has seemed to give the best results. It is necessary, however, in this regard to individualize, the object in view being the attainment of perfect physical health, and cases are encountered where fats, cod-liver oil and albuminoids are indicated. The processes of digestion should be scrupulously watched, every pains being taken to secure regularity in all the functions of the alimentary tract. Frequent bathing, suitable clothing and hygenic precautions which tend to equalize the circulation are of great value; but in regard to bathing a word of warning is needed, as either a hot or cold bath by its effect upon the circulation may bring on a seizure. As it has been determined that of severe attacks the largest number occurring at any one time, take place in the early morning hours; early rising is to be deprecated, and the patient should feel himself thoroughly aroused before leaving the bed. Violent exertions or emotions are to be avoided, but suitable out-door employment or exercise with moderate mental occupation and recreation are of importance. In a word, all those conditions should be provided which favor a healthful existence.

An aura will sometimes direct attention to local measures. When it commences in an extremity an encircling blister, or even a rubber band sometimes, may be sufficient to postpone epileptic attacks. A case is recalled in which a young man having from three to six seizures a day with occasional maniacal outbursts, presented an aura, always commencing near the toes. A blister about each ankle without the administration of any drug whatever, gave complete freedom from the attacks for seventeen days, when the loss of cuticle having been repaired in part, the aura and fits recurred, to be again controlled by a repetition of the blister. This furnished an opportunity for dietetic and non-medical measures by which he was secured immunity from convulsions for over a year, recurring irritability being the only remaining nervous symptom, and this was controlled whenever it appeared, by a few doses of bromide.

Surgical interference is called for by a great variety of conditions, and often results brilliantly. A reasonable connection, however, between the particular condition in question and the epilepsy should be made out. The practice of trephining all epileptics has deservedly fallen into disrepute.

While single convulsions almost never terminate fatally and leave no visible trace of mental impairment directly resulting, yet the absolute tendency of repeated attacks is toward mania and dementia. Anything which will enable a patient to avoid a single fit is so much gained for him, providing it is not at the expense of his physical or nervous forces. Patients who have a warning of their convulsions are able to abort them by the inhalation of a few minims of nitrite of amyl. A sternutatory sometimes has the same effect. With others the recumbent position occasionally affords relief.

In spite, however, of every effort to discover the irritant condition, many cases are found in which diagnostic measures now at our command, fail to bring to light this important factor. We are then brought to a consideration of therapeutical means addressed to the nervous apparatus directly.

Dr. Rockwell, of New York, has reported some benefits derived from central galvanism and general faradization combined with medicinal treatment. It is doubtful that the use of electricity acts directly to the betterment of the discharging lesion. Probably its value is in the general tonic effect it produces, and the improved physical state it encourages. It has seemed to me in some cases to have done good, and there is claimed for it that it increases the efficacy of the bromides and diminishes their unpleasant effects.

Of all the medicinal remedies for epilepsy the bromides have enjoyed the greatest reputation, and have deservedly many ardent advocates. The potassium salt is perhaps the most efficacious, though idiosyncracies may determine the choice of the bromide of sodium, lithium zinc or iron. When its use is undertaken, a course of treatment extending over several years must be confronted, and the patient thoroughly interested in carrying it out faithfully. I have in mind a patient cured for over three years on an average daily dose of sixty grains. During the two latter years he had no fit, yet upon the gradual withdrawal of the drug the convulsions recurred and he finally died in a condition of status. Jackson recommends the immediate exhibition of large doses until distinct symptoms of bromism appear, when the effect can be maintained by a reduced quantity, and this course is sometimes preferable to gradually increasing doses with its tendency to the establishment of a tolerance for the medicament. The bromide treatment in the estimation of the writer should be a last resort. Its disadvantages and lack of specificity have been already indicated.

Of belladonna, hyoscyamus, curara, Indian hemp, digitalis, nitro-glycerine, strychnine and arsenic one must speak with great reserve. Their potency to bring about a cure when directed to the so-called idiopathic state is very doubtful, but they may be incidentally indicated as adjuvants.

In regard to the management of individual features of the disease, of an attack or of status it is not here the place to speak. The gloomy prospect in store for epileptics if not relieved, the long course of treatment ordinarily required, and its uncertainty, the difficulty in securing intelligent and willing co-operation on the part of patient and friends, renders the physician's task inthis disease one of the most arduous in the whole range of medicine.

To summarize briefly :

1. Epilepsy has yet no specific treatment.
2. Antispasmodics merely combat a prominent symptom.
3. Irritant causal factors, may be often discovered, and a cure accomplished by their removal.
4. Hygienic, dietetic and constitutional measures are of great importance.
5. The bromide treatment is a *dernier ressort.*—Dr. Church, in *Western Med. Rep.*

## FRACTURES OF THE NECK OF THE FEMUR.

Senn contributes a characteristically able article (*Jour. of the Am. Med. Assoc.*) upon fractures of the neck of the femur. Six years ago he published over fifty cases in which bony union after intra-capsular fracture had taken place, and practically demonstrated the fact that non-union was due more to inefficient treatment, to imperfect immobilization, than to any inherent peculiarity in fractures of this region. By means of experiments upon cats he showed that intra-capsular fractures treated by the ordinary expectant method, or by means of plaster-of-Paris casts, showed no evidences of bony union, while in those in which the fragments were pinned together by means of bone pegs, bony union, or union by means of an exceedingly short liga ment, without any displacement of the fragments, was obtained. The fact that in impacted fractures satisfactory results are usual, is an additional proof that failure in these fractures is due to imperfect fixation. A brief anatomical study readily shows that the old method of extension and sand-bags neither approximates the fractures nor keeps them in fixed position.

The diagnosis of this fracture, when complete, is comparatively easy ; if partial or impacted, however, it may become exceedingly difficult. The three cardinal symptoms to be considered are : the position of the trochanter major, shortening, and eversion. In all fractures, except the partial, the upper border of the trochanter major will be found above the Roser-Nélaton line (a line drawn from the anterior superior spinous process of the ilium to the tuberosity of the ischium).

The examination of the patient never requires the administration of ether, nor should the surgeon endeavor to elicit crepitus or preternatural mobility. The clothing having been removed as far as the chest, and the patient having been placed upon a hard, smooth, unyielding surface, careful measurements, aided by inspection and palpation, are usually sufficient to determine accurately the nature of the injury The treatment advocated in fractures through any portion of the femoral neck consists in the fulfilment of two principal indications : (1) Immediate reduction. (2) Permanent fixation.

In impacted fractures, the second indication alone is regarded, no attempt being made to correct any of the displacements.

Since, in all intra-capsular fractures, union is effected entirely by the production of intermediate callus between the broken surfaces, no external or provisional callus being formed, the mechanical support upon which coaptation depends must be retained much longer than would be necessary in other localities. In no case should the retention apparatus be removed in less than eighty or one hundred days.

Permanent fixation of an impacted fracture in the position in which it has been placed by the accident, is necessary for the following reasons :

1. It prevents disengagement of the fragments.
2. It obviates secondary shortening and eversion during the stage of interstitial absorption which attends inflammatory osteoporosis.

3. By keeping the injured parts at rest, it serves as a prophylactic measure against the accession of arthritis and para-arthritis.

4. It enables the patient to leave the bed any time after the dressing has been applied, and thus guards against decubitus, hypostatic pneumonia, and other affections incident to prolonged confinement to bed.

The advantages arising from immediate reduction and permanent fixation in fractures of the neck of the femur are the following :

(*a*) The untorn portions of the joint structures are replaced at once into their normal relations ; a procedure which cannot fail to influence favorably the circulation in vessels which may have escaped injury.

(*b*) The sharp and irregular margins of the broken surfaces act as irritants to the surrounding soft tissues ; immediate reduction, by placing the fractured surfaces at once into mutual coaptation, acts as a preventive agent against the supervention of undue inflammation in and around the hip joint.

(*c*) With coaptation the process of repair is initiated at once ; the blood and exudation material between the fragments act as a temporary cement substance, and, at the same time, serve a useful purpose in re-establishing the interrupted circulation.

(*d*) Perfect reduction and permanent fixation prevent muscular spasm and diminish pain.

Senn originally proposed immobilization by means of a steel pin regulated by a screw passing through the centre of a curved steel bar incorporated in the plaster-of-Paris splint over the fenestrum. This pin was so arranged that its point would, by penetrating the bone, procure immobility of both fragments by lateral pressure. In some cases transfixion of both fragments by an ivory or bone nail was advocated. Clinical experience has since proven that the same object can be accomplished by well-regulated lateral pressure in the direction of the axis of the femoral neck, combined with perfect fixation of the lower fragment upon the pelvis.

The method of treatment is as follows: The fractured limb is incased in a plaster-of-Paris dressing as far as the middle of the thigh, the patient is then lifted out of bed and, supported on either side, stands with the sound leg upon a stool about two feet in height. An assistant takes charge of the injured limb and either holds it immovable in impacted fractures, or makes the requisite amount of extension if there is no impaction. In applying the plaster-of-Paris bandages over the seat of fracture, a fenestrum large enough for the application of the lateral compress is left open over the great trochanter. Perfect immobility is secured by including in the plaster dressing the fractured limb, the pelvis, the opposite limb down to the knee, and the trunk as far as the cartilage of the eighth rib. The splint, which consists of a steel bar provided at the ends with lateral flanges and bowed out in the middle, is incorporated in the plaster dressing with the bowed portion directly over the trochanter major. This part is provided with a set screw which drives a stiff, well-cushioned pad so that pressure is made in the axis of the femoral neck. By this means a condition resembling impaction obtains in non-impacted fractures. In about three months the dressing is removed, but the patient is not allowed to put his weight upon the injured leg for one to three months longer.

Seven cases are reported in which the results of this treatment were gratifying in the extreme. The patients recovered almost complete functional activity in each instance.

In extreme obesity or debility, in patients suffering from concomitant fatal maladies, and in certain cases of fracture of the femoral neck, the treatment is not applicable, but in all cases where there is a reasonable hope that bony union may be obtained by fixation, it should be recommended.

Finally, as a result of his experimental and clinical study of the subject, Senn draws the following conclusions :

1. From a scientific, prognostic, and practical standpoint it is not necessary to make a distinction between intra and extra-capsular fractures of the neck of the femur.

2. An impacted fracture of the neck of the femur will unite by bony union, provided the impaction is not disturbed and is maintained by appropriate treatment for a sufficient length of time for the fragments to become united by callus.

3. Impacted fractures of the neck of the femur should be treated by a fixation dressing consisting of a plaster-of-Paris case, including the fractured limb, the pelvis, and the opposite limb as far as the knee, in which a splint should be incorporated by which lateral pressure can be secured in the direction of the axis of the broken femoral neck.

4. Unimpacted fractures of the neck of the femur, both intra- and extra-capsular, should be treated by immediate reduction and permanent fixation, so as to place the fragments in the same favorable condition during the process of repair as in impacted fractures.

5. Reduction is effected most readily by autoextension and traction upon the fractured limb with the patient in the erect position, resting his weight upou the sound limb.

6. The fixation dressing should not be removed and the lateral pressure should not be discontinued for from ten to twelve weeks, the shortest space of time required for bony union to take place.

7. Patients who have sustained a fracture of the neck of the femur should not be allowed to use the fractured limb earlier than four to six

months after the accident, for fear of establishing a pseudo-arthrosis at the seat of fracture.

8. The functional result is greatly improved by passive motion, massage, and the use of the faradic current.—*Am. Jour. of the Med. Sci.*

## THE TREATMENT OF THE ACUTE STAGE OF ECZEMA.

The literature of eczema is pretty extensive, and it can hardly be considered by the most astute observer, or the most exacting critic, that its treatment has not received an adequate share of attention. It must indeed be conceded that more than ordinary attention has been bestowed upon the subject. Numerous remedies and modes of treatment have from time to time been suggested for the benefit of the sufferers from this troublesome complaint, and although I have nothing very new or original to communicate, I have suggestions to make and remedies to propose which, in combination, will speedily arrest the inflammatory stage of the disease, and put an end to perhaps months or years of future suffering. Had the remedies proposed been less numerous, confusion in their selection and application would have been diminished in like proportion. A good deal has to be laid to the charge of those whose mission it is to add to our accumulating stock of remedies. What the busy practitioner of medicine requiries is not a multiplication of remedies, many of which are of equal value, but a judicious selection ready to hand on which he may place reliance, and with which he may cure his patients in the shortest possible time. What applies to remedies equally applies to books. A long farrago of remedies is more often than not laid down in the chapter on treatment for the practitioner to select from. Instead of the best only being pointed out for him, he his left to grope about in the dark, and select as best he can. I have at my elbow an otherwise excellent volume on skin diseases, where no less than forty-nine drugs are mentioned *seriatim* for external use in eczema, without note or comment as to their relative value. This is not at all the sort of book a medical man requires ; it is of no practical utility to him. He scans its pages in vain in preparation for the morrow's rounds, or for the benefit of patients expected in the consulting-room in a few minutes' time. He is obliged to lay it aside in despair of gleaning anything of practical advantage from its pages. We want to make ourselves and our books as practical as possible. The most suitable prescription to our patient at the first interview is urgently demanded. That forty-nine remedies may be indicated in a particular disease we may with a stretch of imagination concede ; but that a particular patient will present himself at our consulting-room forty-nine times to be experimented on with a fresh prescription every time is rather doubtful.

In the treatment of the acute stage of eczema two essentials must be reckoned with before we proceed to tackle the disease itself. The first of these is, that the patient must be instructed not to wash the eczematous parts, and this advice he must religiously observe. He will probably reply, "But I must wash sometimes." "Wash not at all," is the first commandment in eczema. He must neither wash with, nor yet without, soap, nor with the usual adjuncts of bran steeped in hot water, oatmeal, milk and water, butter-milk, whey, sour milk, or rain water, or any other of the usual washes ; all of these are mistakes that seriously hamper and delay curative treatment. That persistent washing predisposes to eczema by drying the skin, and depriving it of the unctuous secretions which impart to it suppleness and softness, qualities on with the natural beauty of the complexion so largely depends, there cannot be a doubt. For the same reason and in the same manner, although it is not generally known, frequent washing with soap and water is disastrous to the growth of hair, it changes its natural color to a lighter hue, the natural gloss is lost, the hair becomes dry prematurely grey, and early baldness is favored. This process of destruction is materially hastened by washing the head with warm or hot water and soap during cold weather. The head and beard should be dressed and kept clean by combing and brushing, a process all-sufficient for purposes of cleanliness, and the rational method for preserving a fine head of hair.

In eczema of the head and face the more essential parts to wash, such as the corners of the eyes and angles of the mouth, may be touched lightly with a small piece of soft sponge, made damp with cold water, and immediately dabbed dry. Warm and hot water should be discarded in the neighborhood of the eczematous skin. A patient suffering from eczema of the head and face only may of course sponge and wash his body with warm water as frequently as necessary. Coffee, strong tea, and alcoholic drinks should be forbidden.

The second essential is that the bowels be kept well open. In the case of children, grey powder, rhubarb, and bicarbonate of sodium, a grain of each, taken as required every second or third night, will answer every purpose ; or grey powder and magnesia will do equally well. In adults saline medicines hold the first rank. The following is a useful combination :

℞.—Magnesii sulphatis, . . . ℥ vj.
Sodii bicarbonatis, . . . ℥ j.
Infusum gentianæ co., . ad ℥ vj.

Sig. Take a sixth part three times a day before meals.

I do not hesitate to say that the sulphate of magnesium is far and away the best of all purgative medicines in most other diseases as well as in eczema—the best because the mildest, the least irritating, one of the least injurious, and certainly one of the most effectual: but it must be taken at the proper time and in the proper quantity. The proper time is an hour before meals—preferably in the morning before breakfast, although it may be taken beforeany other meal with nearly equal benefit. The proper quantity is three drachms, dissolved in three parts of a tumbler of cold water or soda water. Hot water does not materially help its action, and it makes the drug more nauseous. Three drachms of sulphate of magnesium dissolved in an ounce of chloroform water, followed by a cup of tea or beef-tea, can be swallowed almost without taste or inconvenience. A four-or-five-grain blue pill taken at night, and the same draught next morning, has its advantages; or, what is perhaps better still where free purgation is desired, the following pill at bed-time, and the draught in the morning:—

℞.—Extracti colocynthidis co. . gr. iij.
Pilulæ hydrargyri, . . . gr. j.
Extracti hyoscyami, . . . gr. j.
Ft. pil.

Where there is torpidity of the liver, a combination of cascara with nux vomica is equal, if not superior, to any other:

℞.—Extracti cascaræ sagradæ liquidi, ℥ iijss.
Tincturæ nucis vomicæ, . . . ʒ j.
Glycerini, . . . . . ʒ iij.
Infusum gentianæ co., . . ad ℥ viij.

Sig.—Take one ounce every evening directly before dinner, or morning and evening if required.

Medicines such as arsenic and iodide of potassium given internally I have found disappointing, and of very little use. Of course gouty eczema must be suitably treated.

The great desideratum is the appropriate external treatment. I have been in the habit of prescribing an ointment which in most cases pretty nearly approaches the character of a specific:

℞.—Bismuthi subnitratis, . . . ʒ iv
Zinci oxidi, . . . . . ʒ j.
Acidi carbolici liquidi, . . . ℥ ss.
Vaselini albi, . . . . . ℥ ij.
Ft. ung.

Sometimes I vary the prescription into this form:

℞.—Bismuthi subnitratis, . . . ℥ ij.
Zinci Oxidi, . . . . . ʒ ss.
Glycerine (Price's), . . . . ℥ jss.
Acidi carbolici liquidi, . . ♏ xx.
Vaselini albi, . . . . . ℥ vj.
Ft. ung.

The latter ointment mixes into a beautiful enamel-like cream, which is cooling, and acts as a balm to the irritable skin.

When constant tingling and irritation disturb the patient's rest at night, I have found this lotion invaluable:

℞.—Bismuthi subnitratis, . . . ℥ j.
Glycerine, (Price's), . . . . ℥ iv.
Acidi carbolici liquidi, . . . ♏ xij.
Aquam rosæ, . . . . ad ℥ j.

Sig.—Shake up and apply with a camel's hair pencil.

During the day, when business has to be attended to, and the ointment cannot be applied, a powder will be found useful.

℞. Cimolite.
Bismuthi subnitratis.
Zinci oxidi, āā partes æquales.
Fiat pulvis.

In more chronic cases the famous *Unguentum Metallorum* still holds its own. It consists of:

Unguenti Zinci.
" Plumbi acetatis.
" Hydrargyri Nitratis, āā partes æquales.
Misce.

This ointment I occasionally vary by substituting white precipitate for the nitrate of mercury ointment. —D. MACKINTOSH, M.D., LONDON, *Practitioner*.

## A CLINICAL NOTE ON THE USE OF CREOSOTE IN PHTHISIS.

My experience concerns sixteen cases treated at the Roosevelt Hospital and two in private practice. For various reasons the latter two cannot be considered as bearing on the efficiency of the treatment. Of these 16 cases, 11 presented consolidation, two cavities and three both, *i. e.*, consolidation at one apex and a cavity at the other—advanced cases. Of the 16 there were eight of each sex. The average age was twenty-five, the youngest thirteen and the oldest forty-six. The average duration of treatment was 78 days, the shortest 40, and the longest 141 days. The average duration of the disease, as ascertained by the symptomatic history given on application for treatment, was 28 weeks, the longest 72 and the shortest two weeks. In one case the patient felt perfectly well till the occasion of his taking cold, when he immediately applied for treatment and was found to have commencing consolidation at the left apex. Another patient had had lung trouble several years, and this, too, is not of the above number. The average is reckoned on 14 cases. In five cases there was a family history of phthisis. In eight the temperature was

normal; in all the others more or less pyrexia. Night-sweats were present in 11. There was a history of distinct loss of weight in 12. In 12 there was hæmoptysis. In all, if the cough was at all severe, a simple cough medicine was used of antimony, ammonium muriate, and small doses of morphine in differing combinations. Creosote was given only by the mouth. The formula I have followed was as follows:

℞.—Creosote,
Tinct. capsici, . . . . . āā ℥ iij.
Mucilag. acaciæ, . . . . . ℥ ss.
Water, . . . . . ad ℥ iv.

M. S.—Dose, one teaspoonful diluted in water after meals.

In 11 there was unconditionally no gastro-enteric disturbance from the remedy.

| | | | | | | |
|---|---|---|---|---|---|---|
| Cough lessened in | 8, | cured in | 2, | unaffected in | 3 = | 13 |
| Fever " " | 4, | " " | 1, | " " | 3 = | 8 |
| Sweating " " | 5, | " " | 1, | " " | 4 = | 10 |
| Weight lost | 4, | gained | 4, | " " | 8 = | 16 |

To summarize: seven cases were apparently not in the least improved, seven were distinctly benefited, and two I regard as cured. At the time of their last examination there was not the least sign or symptom of any active process going on in the lung. They felt as well as ever. Were able to do their usual work. One had been under observation fourteen weeks, and the other twenty weeks.

In collating these cases I have decided, in every doubtful point, against rather than for creosote. I am well aware that these observations are defective as regards the influence on the bacilli. When they were begun it was with no intention of presenting them in this public manner, and examinations of the sputa were not made. I feel conscientious, however, about the diagnosis, and I am bound to say that creosote has done more in my hands than any other remedy I have ever used. Of all the cases of phthisis I had seen, up to the time of beginning creosote, in a hospital experience of eighteen months and out patient service of four years, I had never seen but one case cured on the usual treatment of tonics, cough-mixtures, and cod-liver oil.

Concerning the *rationale* of the action of creosote, I believe that it is a direct antiseptic and disinfectant. I do not know whether it is a specific against the bacillus. I think not. I believe, however, that it is not irrational to expect that such an one may be found. I think, too, that the sclerotic change which results on the arrest of tubercular invasion is not so much the specific effect of creosote as nature's process, set up when the virulence of the poison is checked.—James E. Newcomb, M. D., *in Med. Record.*

## MEDICAL NOTES.

In *fracture of the sacrum or coccyx*, pack the rectum or introduce a colpeurynter. (Dr. Mears.)

In convalescence from *endocarditis* Prof. Da Costa insists on perfect rest in bed, and also directs the administration of iodide of potash.

In the treatment of *acute gastritis*, Prof. Da Costa directs the following treatment: Keep the stomach absolutely at rest, not giving anything but iced liquids; nourish by the bowel; give hypodermics of morphia over the stomach; calomel in $\frac{1}{6}$ gr. doses every few hours. Bismuth in decided doses.

Where a *chancre* becomes phagedenic cauterize the surface with carbolic acid, acid nitrate mercury, or

℞. Hydrag. chloridi corrosiv., gr. xv
Aquæ destillat., ℥ j. M.

In the treatment of *chronic rhinitis* (hypertrophic), Dr. Sajous recommends applications of chromic acid to the enlarged sinuses, the acid being applied on a copper probe and held in the flame of an alcohol lamp till it changes color, previous to application.

In the treatment of *constipation*, the diet should be easily digested, but some articles should be given which mechanically aid defecation, as oatmeal, dried apples and peaches, and brown bread. Belladonna and nux vomica are the two pre-eminent remedies. Where remedies fail faradization of the abdomen is good treatment.—(Prof. Da Costa.)

For a case of *posterior spinal sclerosis*, of four years' duration, with severe headache, Prof. Da Costa directed argenti nitras $\frac{1}{4}$ gr. t. d., and for the headache the following:—

℞. Aconitinæ, . . . . . gr. j
Lanolin, . . . . . ℥j. M.
Sig.—Rub in a very small quantity at night.

For a man with *progressive muscular atrophy*, at the clinic, Prof. Da Costa directed avoidance of muscular exertion; gr. $\frac{1}{3}$ oxide of silver t. d., and the following:—

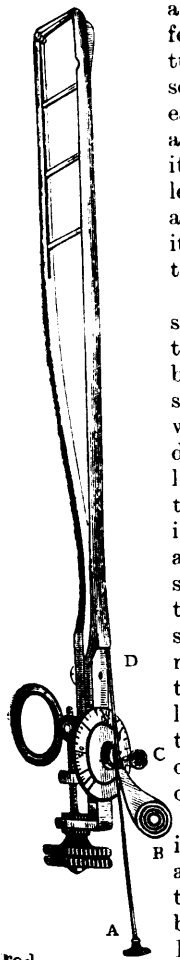
℞. Liquor, potassii arsenitis, . gtt. j
Olei morrhuæ, . . . . . ℥iv. M.
Sig.—t. d.

In a case of *singultus* (hiccough) of long standing, attacks of which would last 112 days without intermission, Prof. Da Costa ordered the following prescription, which arrested the spasms in a short time:—

℞. Chloral hydrat. . . . . gr. v.
Sodii bromid. . . . . gr. x.
Tinct. belladonnæ, . . . gtt. iij
Aq. destil., q. s. ad . . ℥ j. M.
Sig.—Every 4 hours.—*Coll. and Clin. Rec.*

## AN IMPROVED URETHROTOME.

Although the Otis urethrotome is recognized as possibly the best instrument presented to the profession for severing strictures of large calibre, it has, in my experience, three faults: First, that after the knife or blade is drawn forward and made to cut the stricture, it has to be pushed back; second, it must be readjusted for each stricture after the first is cut; and, third, owing to the fact that it opens on the principle of a parallel ruler, the adjustment is slightly altered after it is opened from what it was when first set for the stricture.




The first objection is the most serious one. Although it is intended, when the blade is pushed back, that it shall traverse the same line as was made by the forward cut, in practice it does not do so, but goes back along a *new* line; for the loose character of the tissues of the penis makes this unintentional cut unavoidable, and, as the distal end of the blade is somewhat dull, it makes in addition the cut a lacerated one. The second objection is not such a serious one, but the readjustment takes time and necessitates needless and hence injurious manipulation of the urethra. The third objection is a trivial one—but an objection, notwithstanding.

With my improvement, which is here displayed, these objections are all overcome. The rod A slides to and fro in the slot in the upper bar of the instrument. The blade B is slid forward on top of this rod, and when the instrument is closed and ready for introduction into the urethra, the blade is beyond the end of the rod, down in the slot, and out of the way. The urethrotome is then introduced to the bottom of the penile urethra—to the bulb—and opened, regardless of the location of the stricture or strictures. The seat of strictures having been previously located, the rod A is drawn forward until its extremity is at the point of deepest stricture, and fastened in place with the screw C; then the blade B is drawn forward, and when it arrives at the extremity of the rod A, it rides up on this and cuts the stricture The rod is now released and drawn forward to the seat of the next stricture, and again fixed with the thumb screw C. When the rod is drawn forward the blade always drops into the slot and is out of the way, so that it can be drawn forward, and when it arrives at the rod it rides up on it and cuts the next stricture. When there are more than two strictures, the same process is gone through with until all strictures are cut—always cutting the deepest first.

It is not necessary to have any markings on the rod to indicate where the strictures are, for they can be located for the blade by deducting the distance from the meatus to the strictures from the length of the rod; *e. g.*, if a stricture is at five inches, the rod being eleven inches, six inches of the rod is left outside of the meatus, and when the blade is drawn forward it rises exactly where we want it to—at five inches.

The improved instrument has another advantage over the original Otis—when the blade and rod are removed it is easier cleaned.

When introdueing the rod or blade into the instrument, if the thumb is placed at the point D, and a little pressure made, we utilize a knack that will facilitate materially the ease with which they slide in.

Having had some experience with the instrument, I find it works admirably.

To know that the blade has dropped into the slot, it is only necessary to draw the proximal end of the rod one inch beyond the same end of the knife. J. D. Thomas, M D., in *Med. Rec.*

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THE MIASMATIC THEORY OF ACUTE RHEUMATISM.—To most practitioners acute rheumatism must appear essentially a personal or constitutional ailment, occurring most readily under certain unfavorable conditions, such as fatigue, exposure, depression, with wet or cold weather. There is a disposition, however, among some physicians, to regard it as dependent essentially on miasmatic conditions. One of the latest expositions of this view is to be found in a paper read before the German Medical Society of New York, by Dr. Leonard Weber, and contained in the *New York Medical Record* of Aug. 31st. Dr. Weber considers it nearly proved by the labors of Immermann, Edlefsen, Friedländer, and their pupils, that what he calls inflammatory rheumatism, and what is generally termed acute rheumatism, is not produced by taking cold—*i.e.*, refrigeration of the heated surface of the body; but that it belongs to the class of miasmatic infectious diseases assuming an epidemic-like character at certain times, in so far as we are apt to see a larger number of cases when there is decreasing rain and moisture, while with an increase of the same the number of cases is diminished. Among other points he considers as nearly proved, that rheumatism is also a house disease, the subsoil of houses in certain locations being infiltrated with the virus, which, after prolonged dryness, may be set free by the air currents carried into the apart-

ments. In masked forms of rheumatism there may be an absence of one or other of the main symptoms and of the polyarthritis. Neuralgia of the trigeminal, sciatic, spinal accessory, or other nerves, with slight febrile movement, may be of a rheumatic nature, and yield to alkaline and salicylate treatment after other remedies have failed. Dr. Weber says that his records show that the greater number of his cases of polyarthritis rheumatica occurred in February and March, and again in the hot and dry summer months. We do not commit ourselves to the theory of the miasmatic or external origin of acute rheumatism. By the way, Dr. Weber does scant justice to our own countryman, Dr. Maclagan, who must be chiefly credited with this theory, which, indeed, led him to the use of salicin. We incline strongly to the personal and constitutional theory of its origin. But it is well to keep all well-argued theories in view. It is satisfactory to note that Dr. Weber regards the salicylate of soda, which he gives generally with the bicarbonate, as standing in the foremost rank of valuable drugs with which modern chemistry has presented us.—*Lancet.*

THE PROGNOSIS OF ALBUMINURIA.—Dr. Johnson, in an address on the subject of albuminuria, before the British Medical Association, advanced the following propositions:

1. The presence of the albumen in the urine, though small in amount and occasionally intermittent, is always pathological.

2. The practice of testing the urine in all cases of ailments, even the most trivial,—the importance of which for years he has insisted upon, has led to the detection of albuminuria in many youths and adolescents, who are especially liable to be exposed to the commonest of exciting causes, namely: cold and wet and over-fatigue, and who have not lived long enough for the ultimate evil results of a neglected albuminuria to become developed.

3. The albuminuria, whether intermittent or persistent, of persons apparently in good health has no such special features as to require it to be designated by such misleading terms as "physiological," "functional," "cyclical," and "the albuminuria of adolescents." The last term is especially inappropriate, since the condition is of most common occurrence in both sexes and at all periods of life, from childhood to extreme old age.

4. In almost every instance these cases of albuminuria may, by a careful inquiry, be traced back to some recognized exciting cause.

5. Nearly all cases of acute nephritis pass through the stage of intermittent albuminuria, in their progress towards convalescence; and, on the other hand, the majority of cases of intermittent albuminuria may be traced back to a more or less remote attack of acute nephritis.

6. While, on the other hand, intermittent albuminuria—even though it may have existed for years—may be looked upon as a curable condition if only its exciting causes can be ascertained, avoided and counteracted by suitable dietetic, medicinal and hygienic means; on the other hand, the neglect of such means may convert an intermittent into a persistent albuminuria, although for many years it may be unattended by symptoms of disordered health, ultimately results in a fatal degeneration of the kidneys.

7. Since it is notorious that albumen, even to a very large amount, may exist in the urine of persons who are apparently in perfect health, it is obvious that the urine of every patient, no matter how trivial his ailment, and the urine of every applicant for life insurance, no matter how robust his appearance, should be tested for albumen.

8. For many years past the fact that albumen may be abundantly present at one period of the twenty-four hours, and entirely absent at another, has been publicly demonstrated, and ought to be generally known. It is therefore necessary to test the urine, not only after rest in bed and before breakfast, but also after food and exercise.—*Brit. Med. Jour.*

PROPHYLAXIS OF SCARLET FEVER.—In a recent address before a medical society, Bäumler laid down the following rules to be observed in regard to the prophylaxis of scarlet fever:

1. Isolation should begin as early and be carried out as stringently as possible.

2. Isolation must be maintained till all desquamation, even on the palms and soles, is completed.

3. Persons in charge of patients should not mingle with other people, or if this be impossible, every precaution should be taken in the way of disinfecting the hands, clothing, etc., to render the danger of contagion as small as possible.

4. The air in the sick room should be changed several times a day by opening the windows wide. Care must always be taken not to expose the patient to draughts.

5. All the wash is to be first soaked in a three per cent. solution of carbolic acid, and then boiled with soft soap. The clothes worn just before the beginning of the illness and during convalescence are to be disinfected by passing hot steam through them. Instead of handkerchiefs, rags that can be burned as soon as used are to be employed. Shoes must be wiped, inside and out, with the carbolic solution. The hair should be cut short at the beginning, and the mouth frequently cleansed.

6. For disinfecting painted or papered walls, rubbing with bread that is then to be burned is the best means. In many cases the paper had best be taken from the walls and new applied,

Where walls and ceilings are undecorated they should be freshly calsommed. The wood-work, including the furniture, is to be scrubbed with the carbolic solution. Carpets, mattresses, curtains, etc., must be subjected to the action of steam. The room used by the patient should remain unoccupied, with windows open, for some time after he has left it.

7. Patients must not be transported in public conveyances, but the community should have at its disposal for such purposes easily disinfected ambulances.

8. The possibility must not be overlooked of contagion being carried by a third person, by toys, by pet animals, by food, etc.—*Am. Jour. of Med. Science.*

JABORANDI AS A PARTURIFACIENT.—Under this caption Dr. N. P. Moss reports a few cases (*N. O. Med. and Sur. Jour.*) in which jaborandi seemed to expedite labor, and his explanation of the *modus operandi* of the drug is unsatisfactory, as he seems to attribute it merely to its diaphoretic properties. His cases are also not numerous enough to serve as a basis for accurate deductions. Pilocarpin has been proven beyond doubt to possess a powerful action upon the uterus, and it has been employed to a considerable extent as an abortifacient. Professor Schauta, of Prague, has employed pilocarpin in more than forty cases as a means of strengthening labor pains. Injected subcutaneously he has found it active in 2 per cent. solution, although he has also used it in 3 or 4 per cent. solutions. Schauta went so far as to measure the effects of his doses by means of the manometer, and reached the conclusion that the influence of pilocarpin upon the uterus is a very powerful one, although it varies greatly according to individual susceptibility. In 1881 Van der Mey made experiments upon pregnant rabbits from which he obtained similar results. Gigollet has reported the case of a woman in whom premature labor was twice induced by the administration of pilocarpin, three injections at intervals of four hours having proved sufficient. Prof. Schauta gives the following rules for the administration of pilocarpin: After careful examination of the organs of respiration and circulation I would administer on the first day, if necessary, as many as three injections of a 2 per cent. solution. If by the second day no contractions had supervened, I would use not more than two injections of the 3 per cent. solution; and finally, on the third day one or two injections of a 4 per cent. solution, employing always the muriate of pilocarpin. If I obtained no action by the fifth day I would resort to other measures. It would be absurd to abandon the use of muriate of pilocarpin, which has proved itself such an excellent ecbolic remedy in some cases, simply because it has not been found active in all cases when used in a 2 per cent. solution.

USE OF INDIAN HEMP IN CHRONIC CHLORAL AND CHRONIC OPIUM POISONING.—The patient was a strong, healthy man who had taken forty grains of chloral daily for a considerable period. He suffered from terrible depression and insomnia; without chloral no sleep was obtained, and even then but little; he took scarcely any food. He placed himself under complete surveillance and restraint; the chloral was peremptorily stopped, and a pill containig half a grain of extract of cannabis Indica with a few grains of compound colocynth pill was taken three times a day. The result was immediate improvement; the craving for chloral had almost vanished in twenty-four hours: natural sleep returned after a few days, and he began to enjoy his food. A second case was that of a man who had conquered the habit of excessive spirit-drinking by the frightful assistance o opium. For several months he had taken not less than two ounces of laudanum daily. Cannabis Indica was prescribed, beginning with a quarter of a grain of the extract and increasing gradually to a half, one grain, and one and a half grains, three times a day with the happiest result. Ability to take food and retain it soon returned, and after a time an appetite appeared; he began to sleep well; his pulse, which could not be counted at first, exhibited some volume; flesh rapidly accumulated, and after three weeks he was able to take a turn upon the veranda with the aid of a stick. After six weeks he returned to his post. The name of the drug was withheld from the patients, as they were treated in India, where it may be obtained with facility in any bazaar.—*Lancet.*

THE FAVORABLE INFLUENCE OF COUGHING ON THE REDUCTION OF HERNIA.—Dr. Vaudenabrele in the *Jour. de Med. de Paris*, gives a surprising account of the effect of coughing on some cases of strangulated hernia, which have come under his observation. The first was a merchant, who had pulmonary emphysema for many years. One day his hernia became strangulated and Dr. Vaudenabrele was called in. Five minutes of taxis produced no effect. Suddenly, contrary to his directions, the patient coughed violently; while still holding the hernial tumor, he heard a gurgle and the hernia had decreased to half its volume. A repetition of the coughing was followed by reduction complete! Wondering if there could have been a dilation of the inguinal ring produced by the cough, the doctor determined to be on the lookout for anything that would throw light on the subject. He was called, not long afterwards, to see a woman, whose crural hernia was in a state of strangulation. A surgeon who had preceded him had tried taxis for more than a half hour, but

without avail. Dr. Vaudenabrele also tried it for two or three minutes; he then had the patient cough violently while controlling the hernia, and it was at once reduced. A third case was equally as amenable to this method, even after taxis had been employed both by himself and another surgeon. He therefore believes that he has found a method, simple, easy, applicable at all times and to all cases, superior to taxis and to any measure which has been described up to the present time. The author's explanation is that, in the first place, the cough is capable of dilating the inguinal and crural rings. Gas inclosed and compressed in the strangulated intestine, at the moment of expansion of the ring, makes its escape into the abdominal part of the gut. The hernia then becoming a simple one, is also reducible.—*Ed. Weekly Med. Rev.*

INFANTILE HYSTERIA.—Drs. Hagenbach-Burckardt and Duboisin agree with the view of Liebermeister, viz., that hysteria is a pathological condition of the gray substance of the brain, and must, therefore, be regarded as a psychical disease, and not a neurosis. They also claim that psychical symptoms are never absent; indeed, in some cases they are the only existing ones. The type of hysteria occurring in children is usually most simple, and, therefore, such cases are especially adapted for the study of the disease. Burckardt and Duboisin have carefully studied the history of twenty-four cases of infantile hysteria, in which predisposition played an important part. They found that in fifty-eight per cent. of the cases a hereditary neuropathic tendency could be traced, whilst fifty per cent. of the cases inherited tuberculosis. Only three cases, in which the disease was but slight, were free from both the above-named predispositions. All the patients, with two exceptions, were anæmic. Two had previously suffered from poliomyelitis anterior acuta. In eight cases only was the initiative cause traced to fear, shock, etc. But few instances of ultimate cure were observed. The majority remained anæmic, and continued to be troubled with either headache, palpitation, nervousness, bodily and mental weakness, weakmindedness, or hysterical phychosis. The prognosis may, therefore, be regarded as unfavorable. This, however, is largely dependent upon early diagnosis and treatment.—*Centralbl. für Klin Med.—Med. News.*

THE INFLUENCE OF THE NERVOUS SYSTEM ON RENAL FUNCTION.—The *Lancet* gives an abstract of Dr. Francesco Spallitta's experiments, made with the view of ascertaining whether the effects produced on the renal secretion by lesions of the medulla oblongata are due, as held by Ustimowitsch, Heidenhain and B. Sachs, to the alteration of the blood-pressure caused by the lesion, or, as supposed by Eckhard, to some morbid change in the innervation of the kidney. The plan adopted was to cut through the spinal cord at various levels, and to watch the effect upon the secretion of urine.

In order to be certain that the urine found in the bladder at the necropsy was secreted after the spinal cord had been cut, a solution of iodide of potassium was injected under the skin after the operation, and the urine tested for iodine. The results obtained were as follows:

1. Lesions of the cord at the base of the first dorsal vertebra produce no changes in the renal secretion.

2. Sections at the seventh cervical and first dorsal vertebra permit the continuance of the secretion.

3. Sections at the sixth, fifth or fourth cervical vertebra allow the secretion to continue, but cause the urine to contain a certain amount of albumen.

4. Sections at the third or fourth cervical vertebra arrest the secretion altogether.

5. Electrical stimuli applied to the cord in the cervical region arrest the secretion entirely.

The theory which seems to Dr. Spallitta to accord best with these facts is, that the effect on the renal secretion of lesions of the cord is mainly due to the destruction of special nervous fibrillæ existing in the cord which govern the function of secretion of urine.

PERSISTENT VOMITING.—Persistent vomiting, especially that of pregnancy, is often most difficult to overcome, and baffles every effort of the physician; indeed, several fatal cases have been lately reported. Dr. Blumensandt, in *L'Union Médical*, says that he has found the following formula invaluable in such cases:

| | | |
|---|---|---|
| ℞.—Hydrochlorate of cocaine | . | 3 grs. |
| Tincture of anise | . . | f℥ijss. |
| Spirits of menthol | . . | f℥ijss. |
| Linden-flower water | . . | f℥v. |
| Syrup of cinnamon | . . | f℥j—M. |

A dessertspoonful to be given every hour until the vomiting has ceased.—*Med. News.*

TRICHOPHYTOSIS DERMICA.—Campana, of Genoa, believes that the trichophyton is capable of germinating and growing in the connective tissue of the skin ("Archiv f. Derm. u. Syph.," 1889, Heft 1, p. 51), and, further, that the chief part of such tumors as are formed in connection with ringworm is composed of the fungus itself. He gives a case of diffused ringworm of the body, onychogryphosis of all the toes, and a tumor of egg size (location not stated). Mycelia and spores were found not only in the scaly patches, but also in the nails and in the tumor. The latter consisted of hard fibrous connective tissue, which in places showed signs of beginning necrobiosis.—*N. Y. Med. Jour.*

# THE CANADA LANCET.

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## PLACENTA PRÆVIA.

One of the most difficult and trying positions in which the young and inexperienced accoucheur can be placed, is at the bedside of a woman from whom the life-blood is rapidly escaping through separation of a portion of the placenta, when attached to the lower third of the uterus, and generally caused by the expansion of the neck, and dilitation of the os.

If his attention has not been previously especially directed to this fortunately rather unfrequent occurrence, he finds himself at no little disadvantage in deciding what course to pursue, and extremely liable to error in practice, or becomes totally inadequate at the very time when his knowledge and skill should be effective in saving the life of the mother, and possibly the child.

Within the last thirty years the fatality attending placenta prævia has been reduced from 30 per cent. to 5 per cent. by the early removal of the uterine contents, the improved methods adopted in inducing premature labor, and the general antiseptic treatment, during and subsequent to delivery. It has long been a question among experienced accoucheurs whether it is advisable to postpone delivery till labor sets in spontaneously, if at all possible to control or stop the hæmorrhage from time to time, or to induce labor and deliver as soon as any considerable flowing has occurred, and placenta prævia is clearly diagnosed.

In later years the general concensus of opinion among most experienced authors is, that we should, rather than assume the greater risk of the expectant plan, proceed at once to induce labor and empty the uterus, no matter at what point of pregnancy hæmorrhage from this cause supervenes. The methods available to restrain or stop the flowing, all depend on pressure, by the trampon primarily till the os is sufficiently dilated, if not already large enough to admit one or two fingers. Then the placenta should be separated from the uterus as far as can be detached by one finger; expansion of the os should be induced by the fingers, thereby bringing on contractions of the uterus. If now the uterine action is ineffective to produce sufficient pressure of the head, and the forceps cannot be applied to keep the pressure continuous by moderate traction, so as to stop the flowing, the medical attendant should at once press up the hand either at the margin of the placenta or through the placenta, if centrally located, and resort to version, drawing down the leg, and making a breech presentation. If the os be too small to introduce the hand, turning by combined version must be attempted. With a leg through the os, and the breech well down, flowing is effectually prevented. Then we can safely wait for the natural contractions of the uterus to expel the child, and secundines, assisted possibly by gentle traction on the leg.

In this connection the following rules recently laid down by Braxton Hicks, as embodying the ideas of the most practical and skilful accoucheurs of our day, will be important.

1. After diagnosis of placenta prævia is made, proceed as early as possible to terminate pregnancy. 2. When once we have commenced to act, we are to remain by our patient. 3. If os be fully expanded, and the placenta marginal, we rupture the membranes, and wait to see if the head is soon pushed by the pains into the os. 4. If there be any slowness or hesitation in this respect, then employ forceps or version. 5. If the os be small and the placenta more or less over it, the placenta is to be carefully detached from around the os; if no further bleeding occur we may elect to wait an hour or two, but should the os not expand, and if dilating bags are at hand, the os may be dilated. If it appears the forceps can be admitted easily, they may be used, but if not, version by the combined external method

should be employed, and the os plugged by the leg or breech of the fœtus; after this is done the case may be left to nature, with gentle assistance, as in footling and breech cases. 6. If the os be small, and we have neither forceps or dilating bags, then combined version should be resorted to, leaving the rest to nature, gently assisted. 7. If during the above manœuvres, sharp bleeding should come on, it is best to turn by the combined method in order to plug by breech. 8. When hæmorrhage occurs before the end of seventh month, version by the combined method, no force following is the best plan.

## THE VALUE OF BEEF-TEA AS A NUTRIENT.

This is an age of iconoclasm, not only in the spiritual world but also in medicine. The man who, a few years ago, would have had the temerity to question the value of beef tea as a food, would have been looked upon as a fit subject for an insane asylum, by a majority of the profession. And indeed it is by no means certain that even yet there does not exist in the minds of not a few medical men, the idea that the ever-popular and ubiquitous beef-tea is the sheet anchor in those diseases attended by failing strength and imperfect powers of nutrition. To say that the medical profession as a whole is educated up to the point of believing beef-tea to be almost useless as a food, would be, we fear, to take too optimistic a view of the scientific attainments of that profession. While this belief obtains in the minds of some medical men, it is almost universal with the laity, and the good neighbor who makes and carries to the patient a bottle containing the strength of two pounds of beefsteak, is firmly convinced that if the sufferer does not gain strength from that decoction, he will not from anything else, and that whether acting in the capacity of neighbor or nurse, she has done all that can be done in the way of alimentation. How few people but look surprised—and something more—when the physician tells them that their much-loved and always trusted beef-tea is a delusion, as to its alleged properties as a food. Indeed that idol is not so easily thrown down, and the physician's *ipse dixit*, notwithstanding, the worshippers will still offer it a willing and not half-hearted service, not infrequently to the detriment of the patient and to the serious interference with the physician's plan of treatment. For if beef-tea be smuggled in to a patient and he is buoyed up by frequent libations to this goddess, early in fevers and other wasting diseases, he is simply placed in the position of one who uses up his capital before the financial crisis comes, and when the dread day is at hand, he has no bullion to meet the run on his bank. The beef-tea has assuredly made him feel better at the time, as indeed whiskey or brandy would have done with less ulterior harm, but has wasted his force by unlocking it and rendering it potential, without adding anything appreciable in quantity, or at all commensurate with the amount needlessly squandered by the exhibition of the *stimulant*, unwisely given in the belief that it is a food or force producer.

Patients and their friends cannot be expected to understand this matter, but it is the duty of every practising physician to make himself acquainted with the true value of this much vaunted and entirely over-estimated remedy, and by a clear understanding of the place it really occupies, to be able to so impress his clientèle, that a new order of things may be introduced in this matter. We must educate our patients in a great many directions, and we believe that in none is there more need for a hearty belief by the people at large, than in the inutility of beef-tea as a *food*.

It would render this article too long to give the chemistry of this compound and to demonstrate the facts stated above, but in our next issue we shall undertake to do so, in order that our readers may have a reason for the faith that is in them, if those who still hold out for beaf-tea will be convinced.

## TREATMENT OF ASTHMA.

Within a recent period we have noticed in our exchanges many articles on the treatment of asthma. As to the remedies recommended for this disease, there is no end. With no intention of deprecating the value of several old and well-tried remedies, we shall now only refer to agents which have recently forced themselves to the foreground. Of these perhaps citrate of caffeine stands first. The dose is 1 to 5 grains dissolved in warm water. It does not appear to be

a very dangerous agent, since, in one instance, a patient took 60 grains by mistake, without fatal consequences. Caffeine is said to afford very prompt relief. Arsenic, in the form of 2 or 3 minims of Fowler's solution, is reported as making striking cures in appropriate cases. Arsenic has the peculiar property of supporting respiration, as, for example, in making ascents. Its beneficial effect in asthma is no doubt due to this property. Iodide of potassium is sometimes combined with Fowler's solution. A valuable combination in the bronchitic form its iodide of potassium and carbonate of ammonia. Chloral hydrate, either alone or in combination with bromide of potassium, is also followed by excellent results in certain cases. Cocaine in doses of $\frac{1}{6}$ of a grain of the muriate, given in the form of tablets, has been very highly recommended for the relief of the spasm. In the form of stagnant respiration with congested lips and nose, and cold extremities, strychnia has been found highly useful. The liquor may be given in doses of from 3 to 5 drops with dilute phosphoric acid. When defluction from the mucous surface is very profuse, belladonna probably answers best. Medium doses should be given every four hours. Grindelia robusta a short time ago was largely used; but failed to come up to expectations, and is now much less used. Quebracho is also a remedy in much repute.

We occasionally meet cases of continued distress despite the use of ordinary means. In these cases there is usually much bronchial tumefaction and dryness. In cases of this class nothing can equal $\frac{1}{4}$ grain of pilocarpine with $\frac{1}{4}$ grain of morphine, administered hypodermically. The relief is prompt, the tumefaction subsides, and is followed by profuse expectoration. As to change of climate, experience shows that the asthmatic should not seek a dry atmosphere. A warm, moist atmosphere is the most suitable. In mild cases a mere change from one locality to another may create immunity from this harassing trouble.

The remedies here mentioned, which are culled from a large number of remedies in use, seem to be the ones most relied on at the present time. It must not be understood that the remedies in this list are to be depended upon in symptomatic asthma, when the condition is merely a symptom of a disease usually of a much graver nature. The bronchial muscles are here in a normal condition, some probably serious organic trouble being the cause of the symptom, and requiring a separate treatment, as indicated by the pathological conditions.

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CREOLIN IN OBSTETRIC PRACTICE.—It would seem that creolin has come to stay. Much has been written in medical journals during the past few months, regarding its valuable antiseptic properties. The trend of professional opinion seems to be in its favor. In this connection the experience of Dr. Theophilus Parvin, who has been using it extensively of late, will be of interest. He finds it valuable (*Practice*) in cervical catarrh, in which he applies it at intervals of three days. In the strength of one teaspoonful to a pint of water it is used wherever a vaginal injection is indicated. Benzoated lard with the addition of 4 per cent. of creolin makes a reliable antiseptic ointment, useful alike to the obstetrician and gynecologist. Parvin makes use of this in tamponing the vagina in cases of descent or posterior displacement of the uterus. For this purpose a long strip of absorbent cotton smeared with the ointment, is tucked alternately into the anterior and posterior cul de sac until the vagina is packed either partially or completely as the case requires. Such a tampon has been left *in situ* by Dr. Parvin as long as six days, at the end of which time the only odor detected was that of creolin. In obstetrical practice creolin possesses the advantage of revealing itself both by sight and smell, thus obviating the dangers which accompany the use of sublimate and carbolic acid, which are often used in too strong solutions. Mixed with water in the proportion of one teaspoonful to the pint, creolin makes a milk-colored fluid.

TREATMENT OF SPRAINS.—It may be observed that a sprain is frequently treated with a liniment advised by physicians. It is indeed painful to see a physician writing a prescription for a sprain. There are but two indications in the treatment of sprains: 1—To provoke rapid absorption of the fluid effused around and within the joint; and 2—To favor cicatrization of the torn parts by immobilizing the articulation. Now, the modes of treatment hitherto in vogue do not fulfil these two indications. Massage would seem to present some real advantages, but it can be of little ser-

vice in the case of severe sprains, and mild injuries would probably do as well under rest alone. An elastic bandage, the depressed parts being covered with a layer of cotton so as to prevent too great pressure over the prominence, and thereby causing sloughs, will meet the first indication, and by its use in procuring rest it will meet the second indication. This bandage acts like massage in promoting absorption and and also secures immobility of the joint. It is of equal service in sprains complicated with rupture of points of insertion, whereas massage would be productive of harm in cases in which splinters of bone were torn away. The practice of relieving the mind of the patient by giving him something to do in the way of applying bad-smelling liniments is a pernicious one, and really shows an unprofessional or unscientific attendant.

ANTIPYRINE IN DIABETES.—This very useful drug seems to have found another field for operation in diabetes. It appears that a number of observers, chiefly French, have been experimenting with it on this disease. Thus (*Bull. de l'Acad. de Méd.*) it is stated that with a daily dose of 30 to 45 grains, and without the observance of a special diet, Panas found great improvement in all symptoms. Sée says that a cure, in some cases temporary, in others permanent, is effected by antipyrine in those patients in whom the amount of sugar in the urine does not exceed from 2½ to 3 ounces to the quart. Under its use all the characteristic symptoms disappear, provided that the diet be rich in nitrogenous elements and poor in hydrocarbons, though the latter need not be entirely excluded. No effects can be hoped for in advanced cases, or in those in which the excretion of sugar exceeds the limits just stated. Robin, on the other hand, considers the drug but suspensory in its action, and warns of the too free use of it. Large doses he found interfered with the appetite and caused albuminuria if persisted in. Patients should never be allowed to use it habitually, and it should at once be stopped with the appearance of the first signs of poisoning.

COLON-FLUSHING IN TYPHOID FEVER.—Dr. Buchan, in the *Med. Rec.* presents the following conclusions in regard to the above:

1. That from one to three quarts of cold water can be easily and safely passed into the colon which will rapidly lower a high temperature.

2. That I believe, in some of the cases, the water passed the ileo-colic valve, entering the small gut.

3. That tympanitic distension will always disappear with passing away of the water so injected.

4. That putrefactive fermentation of the bowel-contents is prevented by such use of water.

5. That toxic substances are more rapidly absorded by the cæcum than by any other portion of the intestinal canal, and that, by a judicious and careful washing with antiseptic water, we can prevent the absorption of such toxic substances, and prevent and modify general systemic poisoning.

BROMOFORM IN WHOOPING-COUGH.—According to Dr. Stepp (*Deutsche Med. Wochen.*), whooping-cough is readily cured by bromoform. In a large number of cases no evil results have been noted, and its action upon the disease has proved most satisfactory. He orders it in very frequent doses, children taking from five to twenty drops during the twenty-four hours. It is very sparingly soluble in water, and should therefore be prescribed in alcohol. The Dr. believes that under this treatment the bronchial catarrh and lobular pneumonia do not generally occur. He believes also in the prophylactic power of the drug, other inmates of the family being protected from the disease by taking it in ordinary doses. Dr. Stepp believes that bromoform is either excreted unaltered by the lungs or is separated into its elements, and that the free bromine is excreted by the lungs. In this way an effect on the bacilli of whooping-cough could be easily supposed to result.

DEATH FROM THE ENTRANCE OF AIR INTO THE CIRCULATION.—Dr. Hane (*Ibid.*) has formulated the following conclusions from experiments made upon 70 dogs.

1. Death never occurs from the entrance of air into the ordinary veins of the body unless the quantity be enormous—from one to several pints, a quantity which cannot enter unless deliberately sent in by a surgeon.

2. The cases on record have been due to other causes than air and have not been proved.

3. The tendency of the vessel to collapse and the leakage of blood prevent any entrance of air,

and it would seem probable that a clot has generally caused death, not the air itself.

INGROWING TOE-NAIL.—G. F. Popuder (*Br. Med. Jour.*) prevents the ingrowing of the great toe-nail by allowing the nail to grow square, never cutting down at the corners, and by the wearing of boots sufficiently wide and deep to prevent any pressure on the toes. For the cure of the complaint, he recommends an elongated wedge of cotton-wool, lint or soft linen rag, carefully tucked in (with a wooden match, flattened at one end), between the flesh and the nail, the end of the wedge being tucked as far as possible under the angle of the offending nail which may sometimes be found buried under the granulations. The relief is great at once, and a complete cure usually takes place in a week or two.

WHOOPING-COUGH.—Dr. Williams, of Milwaukee (*Medical World*) says that oil of amber, properly comminuted, and well rubbed over the pit of the stomach, chest and spine, in a warm room, or by a warm stove, once a day, is as nearly a specific in cutting short the period of spasmodic cough, as anything we have. The following is the formula used:

℞—Ol. olivæ, . . . . . ℥ iv.
Ol. succin., . . . . . ℥ ij.
Ol. caryoph., q.s., to strongly scent.—M.

Sig.—♏ xv to ʒ ij, to be rubbed in well, according to age of patient.

Internally, during the catarrhal and spasmodic stages, the following is best:

℞—Glycerini (pure), . . . . ℥ iij.
Chloroform, . . . . . ℥ j.—M.

Sig.—Gtt. x to ʒ j, according to age; at first, every two hours, until the symptoms are under control, then three times a day.

In the third stage, without stopping either of the above, the following stimulating expectorant is given:

℞—Ammoniæ carb., . . . . . ʒ j.
Tr. camph. co., . . . . . ʒ j.
Tr. scillæ, . . . . . ℥ j.
Tr. Senega, . . . . . ad. ℥ vj.—M.

Sig.—℥ ss every four hours, for an adult; children in proportion to age.

Quinine in pill form should be given in full doses, from first to last. Under this treatment whooping-cough is a very tractable disease, and runs its course in from ten to twenty-one days.

TREATMENT OF DYSENTERY.—Dr. L. H. Davis writes to the *Memphis Med. Monthly*, stating that he has found the following combination for a suppository very efficacious in acute dysentery. He uses it after a saline aperient, and has found it more successful, in quite a number of cases, than any other treatment. He says it has proved especially applicable when an irritable stomach was present from the first, thus preventing the satisfactory use of ipecacuanha:

℞.—Cupri sulphatis,
Zinci sulphatis,
Morphiæ sulphatis, āā . . . gr. ij.
Plumbi acetatis, . . . . . gr. iv.
Ol. theobrom., . . . . . q. s.
M.—Ft. suppos. No. viii.

Sig.—One to be introduced as indicated, or after each action of the bowels.

He usually follows the saline by the internal administration of tincture of nux vomica and quinine, and a restricted diet.

TOTAL EXTIRPARATION OF THE UTERUS.—At the third German Gynæcological Congress, Münchmeyer reported (*Am. Jour. Med. Science*) the results of vaginal extirpation of the uterus as performed at the Dresden clinic between 1883 and 1889. The mortality in 160 operations was 5.4 per cent. In 80 cases the uterus was removed on account of cancer; only 4 patients succumbed to the operation, while 14 had since died, 10 from a recurrence of the disease; 62 patients were still living, of whom only 3 had undoubted recurrence. These favorable statistics showed that the operation should be undertaken early. In the discussion which followed, Freund and Hegar reported cases in which no recurrence had occurred ten years after the operation.

THE MOST PROBABLE PERIOD OF CONCEPTION.—Schneider (*Memorabilien*) thinks the most probable time of conception is for four days preceding the menstrual flow and the eight days following, twelve days in all. In support of this he instances the Mosaic law, which forbids intercourse for fourteen days after menstruation. The Jews were very prolific, and Schneider believes the most fruitful intercourse is before menstruation, when coi-

tion favors the rupture of the ovisac; after menstruation he believes coition is less often followed by conception. Of course, during the four days previous to the flow the spermatozoa would retain their vitality in the genital passage of the female, and thus be ready to fecundate the urine when it entered the uterus.

MENTHOL IN NEURALGIA.—Menthol is very popular (*Br. Med. Jour.*) as a local remedy for relieving neuralgia of the fifth nerve, and other painful afflictions. Dana advises its internal administration in doses of five to twenty grains to relieve pain. It gives a pleasant feeling of warmth, and stimulates the cardiac action, without increasing its rapidity, and raises the arterial blood-pressure. It is especially useful in megrim and supra-orbital neuralgia, and in the headaches of neurasthenic and anæmic patients, also in sciatica. Saffrol in twenty drop doses is also good in head ache and sciatica.

THE USE OF DRUGS FOR THE UTERUS.—Dr. Lombe Athill recently stated (*Annals of Gynæol.*), that no ordinary medicines produce any effect on menstruation when taken during the flow, excepting the drastics. He doubts whether ergot, savin, quinine, or strychnine have any appreciable action on the muscular fibres of the uterus. Astringents are useless in menorrhagia and metrorrhagia, including tannin, gallic acid, minor alacids, etc., in his opinion. Full doses of tincture of iron are useful, but only in anæmic women, while he relies on ergot alone.

FOR GASTRIC ULCER.—Dr. Longfellow gives, in the *Lancet-Clinic*, a formula which he says has done good service in gastric ulcer:

℞.—Liq. potass. arsenit., . . . . . ʒj.
Tinct. opii deod., . . . . . ʒijss.
Acid hydrocyanic, dil., . . . . ʒjss.
Aquæ destil. q. s. ad. . . . . ʒiv.—M

Sig.—One teaspoonful every three hours, after taking milk.

Minute doses of cocoaine have at times been indicated, and combined with the above, with the result of decided relief of pain. All starch and sugar foods are to be withheld.

GASTRO-INTESTINAL CATARRH IN INFANTS.—Dr. Irwin (*Am. Pract. and News*) treats gastro-intestinal catarrh in infants by first evacuating the bowels by a mild laxative, such as castor-oil, and by regulating the diet, the food consisting of barley-, or rice-water only. Where further medication is necessary, a few doses of the following mixture, for a child one year of age, usually gives relief:

℞—Tr. opii deodorat., . . . gtt. xv.
Ac. boric (Squibb's), . . grs. xx.
Aq. menth. pip., . . . ʒ ij.—M.

Sig.—ʒ every two or three hours.

BURNS.—The best treatment for burns and the indolent ulceration which follows them, is the following:

℞—Iodal,
Ichthyol, . . . . . āā ʒ j.
Cosmoline, . . . . . ʒ j.
℔ ft. ung.
(*Therapeutic Analyst.*)

*L'Union Med.* recommends the following:

℞—Ac. carbolic, . . . . . p. 1.
Ext. conii, . . . . . p. 40.
Iodoformi, . . . . . p. 80.
Ung. rosæ, . . . . . p. 600.
℔ ft. ungt.

STRYCHNIA IN SNAKE-BITES.—Says Dr. Mueller (*Australian Med. Gaz.*), strychnine in snake-bite acts with the unerring certainty and precision of a chemical test. Purely physiological in action, it neutralizes the effects of the snake-poison, and if pushed beyond the amount needed to neutralize the snake-poison, would itself act as a poison. Its poisonous effects, on the other hand, could be combatted by injections of snake-poison, could the latter be at hand in an emergency of poisoning by strychnine.

CHRONIC DYSENTERY.—Dr. F. T. Field (*Medical World*) recommends the following for chronic dysentery:

℞—Tr. opii, . . . . . ʒ iij.
Ol. terebinthinæ, . . . . ʒ iij.
Gum acaciæ,
Sacch. alb., . . . . . āā ʒ ss.
Ol. gaultheriæ, . . . . . ʒ ss.
Glycerini, . . . . . ʒ ij.
Aquæ, . . . . q.s. ad. ʒiv.—M.

Sig.—ʒ j every four, five or six hours, according to the severity of the case.

VOMITING IN PREGNANCY.—A writer in the *Lancet* says: "I have not failed once for twenty years, by a single vesication over the fourth and fifth dorsal vertebræ, to put an end at once to the sickness of pregnancy for the whole remaining period of gestation, no matter at what stage I was consulted. The neuralgic toothache and pruritus pudendi of the puerperal condition yielded as readily, and to one application.

SALOL AND CHOLERA.—Professor Löwenthal, says the *Lancet*, who has lately made experiments on the action of salol on cholera bacilli in Professor Cornil's laboratory in Paris, of which an account was given in these columns in "Medical Paris of To-day," has received a special mission from the French Government to proceed to Tonquin, in order to study the effects of salol on cholera patients. Professor Löwenthal is for this purpose nominated a navy medical officier *à titre d'étranger*, but is allowed full liberty of action. This is the first time that the French Government has selected a member of another nation for such a post, and it well indicates the tendency of science to draw nations nearer together.

SYCOSIS VULGARIS.—Dr. O. Rosenthal, in the *Fortschritte der Med.*, August 1st, claims that the etiology of sydosis is still very uncertain. Efficient therapeusis he has nevertheless found. He substitutes for the former painful methods of treatment, the use of the following salve, which, it is claimed, acts almost like a specific:

R.—Tannic acid . . . ʒjss.
Lactate of sulphur . . . ʒiij.
White oxide of zinc } . ʒjvss.
Amyl }
Vaseline . . . . ʒjss.—M.

The following modification will be found equally valuable:

R.—Tannic acid . . . 15 grs.
Lactate of sulphur . . . 30 "
Vaseline. . . . . ʒv.—M.

IRRITABLE BLADDER.—It is stated (*Ibid*), that irritable bladder is often due to imperfect evacuation. In cases that have resisted treatment, dilatation of the meatus will sometimes allow a certain quantity of urine to escape after the bladder is supposed to have been emptied. There is a loss of tone in the muscular wall of the bladder, which tr. ferri. chlor., with cantharides and nux vomica, will relieve.

HÆMORRHOIDS.—Dr. F. T. Field (*Med. World*) has treated a case of hæmorrhoids, during gestation, successfully by the following:

R—Antipyrine, . . . . . ʒ j.
Bismuth subnit., . . . . . ʒ j.
Ft. suppos. No. xij.

Sig.—One to be used on going to bed, and another after bowels had moved in the morning.

GLANDULAR AFFECTIONS OF THE NECK.—Calcium chloride, in doses of from two to four grains for children, and from ten to twenty grains for adults, is highly recommended (*Am. Pract. and News*) for glandular affections, especially of the neck. Its action is facilitated in adults by applying iodine at the same time.

THE American Academy of Medicine is endeavoring to make as complete a list as possible of the Alumni of Literary Colleges, in the United States and Canada, who have received the degree of M. D. All recepients of both degrees, literary and medical, are requested to forward their names, at once, to Dr. R. J. Dunglison, Secretary, 814 N. 16th Street, Philadelphia, Pa.

CHOREA.—M. Jules Simon claims (*Med. Times*) that antipyrine gives best results in the treatment of chorea. He begins with half a grain daily, and increases the daily amount taken, by half a grain, until fourteen or fifteen grains are taken.

QUINSY.—In the early stages of quinsy, chloral hydrate is (*Med. Rec.*) nearly a specific, three or four grains to the ounce of glycerine being used as a gargle. It is locally antiseptic, astringent, and sedative.

HÆMATEMESIS (*Pittsburg Med. Rev.*) is quickly relieved by water swallowed as hot as can be borne, in quantities of half a tumblerful at a time. No further hæmorrhage occurs, and fragments of clots are vomited.

DR. Carl Koller, who achieved such world-wide renown in the discovery of the application of cocaine as a local anœsthetic, has been appointed Instructor in Ophthalmology at the New York Polyclinic.

DEBUT OF A LADY PROFESSOR.—Signorina Giuseppina Cattani recently read herself in as incumbent of the newly-founded chair of bacteriology in the University of Bologna. The subject of her lecture was "bacteriology in its relation to modern pathology." She was received with great applause. The learned lady is 31 years of age, and has been assistant in the Bologna Pathological Institute since 1884

R. RHODES REED, M.R.C.S., Norfolk, England, says: I have prescribed S. H. Kennedy's Extract Pinus Canadensis as an injection (one part to six), in an obstinate case of chronic gonorrhœa, with very satisfactory results. The discharge considerably diminished during the first week, and after a fortnight's use the patient reported himself quite well.

ANTIPYRINE in doses of from ten to fifteen grains at six o'clock in the evening and repeated at 8 or 9 o'clock, is said to have cured numerous cases of enuresis in children of from 4 to 6 years of age. The same remedy has been found very efficient as an antigalactic.

L. C. CARR, M.D., Prof. of Obstetrics in Cincinnati College of Medicine and Surgery, Cincinnati, Ohio, says:—I have given Papine (Battle) a fair trial and am well pleased with its action, especially so in the case of an infant suffering with an attack of convulsions. Its action was speedy and safe.

THE ONTARIO MEDICAL LIBRARY.—We are pleased to note the solid progress this institution is making. The donations of books and periodicals are, for a Province like Ontario, large and valuable. Too much praise cannot be accorded to the officers, who by their zeal and painstaking are rendering the Library a credit to the proiession of this country. The entire medical library of the late Dr. Krauss of this city has been transferred to the Ontario Medical Library Association.

BRITISH DIPLOMAS.—Drs. Geo. F. Rennie and W. A. Dixon (Trin. Med. Col.) have recently taken the M.R.C.S., Edin.

EQUAL parts of lactic lead and glycerine are said to remove freckles.

## Books and Pamphlets.

CHEMISTRY: General, Medical, and Pharmaceutical, including the Chemistry of the U. S. Pharmacopœia; a Manual on the General Principles of the Science, and their applications in Medicine and Pharmacy. By John Attfield, F.R.S., etc. Twelfth edition. Philadelphia: Lea Brothers & Co., 1889. Toronto: Carveth & Co.

This has always been a popular work with the medical profession, for the reason that the author has noted at length—in proportion to its importance—every substance having an interest to the followers of medicine and pharmacy. The present edition contains such alterations and additions as are necessary for the demonstration of the latest developments of chemical principles and the latest applications of chemistry in pharmacy. The work now includes the whole of the chemistry of the United States Pharmacopœia and nearly all the chemistry of the British and Indian Pharmacopœias. In Organic Chemistry, that *bête noir* of every young student, the author has adopted the classification now generally in use, and the whole section is in such a form as will render the acquisition of a knowledge of the different subjects as easy as possible. The work is a complete, practical and very useful one, and as such we recommend it to our readers.

A TREATISE ON THE SCIENCE AND PRACTICE OF MIDWIFERY. By W. S. Playfair, M.D., LL.D., F.R.C.P. Professor of Obstetrics in King's College, etc. Fifth American, from the Seventh English edition; with notes and additions by Robert P. Harris, M.D.; with five plates and 207 illustrations. Philadelphia: Lea Brothers & Co. Toronto: Carveth & Co. 1889.

It is needless to say anything as to the merits of this well-known classic in Midwifery. The work has always been justly popular. In this new edition some portions have been re-written and several new illustrations added. But the most important feature is the adoption of the new nomenclature decided on by the International Medical Congress, held at Washington in 1887. This is a step in the right direction, as it will lead to something like uniformity in obstetric description. The work is heartily recommended to students and practitioners needing a handbook of clear and useful information on the subject.