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Original Communications.

REMARKS ON THE TREATMENT OF GONORRHOEAL OPHTHALMIA.*

BY F. BÜLLER, M. D.

Professor of Ophthalmology, McGill University.

The developments of bacteriology have given a new impetus to the therapeutics of eye diseases, and especially to the search after remedies suitable for the cure of the more severe forms of inflammation of the conjunctiva. Of these, the acute purulent ophthalmia caused by contagion of gonorrhœal virus is undoubtedly the most dangerous and destructive. The severer cases of ophthalmia neonatorum might, perhaps, all be placed in the same category, and although we still, unfortunately, meet with many cases of loss of sight in one or both eyes from this affection, it is something to know that such a result is almost always due to neglect or improper treatment, for in the hands of competent ophthalmic surgeons a cure of this disease without loss of vision is, as near as may be, a matter of certainty. Not so, however, in gonorrhœal ophthalmia of older persons. Up to the present time, so far as I can ascertain, no plan of treatment ever yet suggested will prevent great impairment or total loss of vision in a large percentage of such cases.

A review of the literature on this subject during the past five years would show an extraordinary divergence in the views of skilled therapists in regard to the treatment of this disease. Some use hot applications from the outset; others, constant cold applications until the inflammatory process is well on the decline. Some begin, continue and end with caustics and astringents; others eschew

them entirely. Some employ caustics and antiseptics; others, antiseptics without caustics or strong astringents. Only on one point all are agreed; that is, the necessity for frequent cleansing of the diseased eye. And most are agreed as to the expediency of protecting the fellow eye by some mechanical contrivance, if only one be affected.

Latterly there is a growing tendency to employ such remedies as are known to have powerful antiseptic properties. A complete list of the remedies more or less in vogue on account of their supposed efficacy in this direction would be a very long one. I will mention only those I have seen most frequently recommended in current literature. They are quinine, chloral, boracic acid, oil of cade, resorcin, red oxide of mercury, peroxide of hydrogen, salicylic acid, salicylate of soda, iodol, binoxide of mercury, carbolic acid, iodoform, and perchloride of mercury. Of these, the last three take the highest rank, and in the order given. There are plenty of cases recorded where acute purulent conjunctivitis, treated chiefly by one or other of these agents, has terminated satisfactorily, and sometimes the cure has been astonishingly rapid, but as yet no one has dared to vaunt them as specifics; this could only be done after a long series of the most virulent cases had been treated with uniform success. Such a series has, so far as I am aware, never been published, and if it had, I, for one, would remain sceptical until positive proofs of its truthfulness were furnished. Nevertheless, I have strong hopes we shall achieve such a result in time. As yet, the treatment of conjunctival inflammations by so-called antiseptics must be regarded as a promising method still in its infancy. Assuming, for the sake of argument, that the various forms of conjunctivitis are characterized by, and perhaps dependent on, the presence of certain forms of micrococci, no one will pretend to say that we know all about these organisms from a therapeutic standpoint. What, for instance, are their differences in vitality or in their power of resisting germicide agents? Can we ever be sure of reaching them in such a structure as the conjunctiva so thoroughly as to destroy them without destroying the tissue in which they are working mischief. As long ago as 1881, A. Gräfe attempted to define the usefulness of antiseptics in diseases of the conjunctiva,

*Read before the Canadian Medical Association, at Quebec, August, 1886.

and recommended (1) as a prophylactic, (2) in the beginning of contagious affections, and (3) where the disease tends to a croupous or diphtheritic character rather than a simple blenorrhœa.

In, 1882 Lubrecht cleansed the eyes (in gonorrhœal and ophthalmia neonatorum) with dilute corrosive sublimate solution, and found it beneficial, though it did not check the disease.

In 1884, Reich recommended weak solutions of corrosive sublimate as a disinfectant in blenorrhœa and other contagious affections of the conjunctiva, but he used strong solutions (1 to 3 grains to the ounce) in the treatment of granular ophthalmia, washing off the lids before replacing them, as in using strong solutions of nitrate of silver. I would here remark that it is a common practice to use stronger solutions of nitrate of silver in purulent than in trachomatous ophthalmia. Why, then, should we not pursue the same practice in the use of corrosive sublimate in acute blenorrhœa? Certainly we cannot expect to get its full effects as a germicide in the weak solutions hitherto commonly employed, not because the weak solution is incapable of doing the work under favorable conditions, but because the conditions are necessarily altogether unfavorable.

Pernice, in 1884, experimented on the cornea of rabbits with pus taken from a lachrymal abscess, and found its inoculation in the cornea produced deep ulcers and suppuration of the cornea, but if the same pus had been mixed for a while with a weak (1-10,000) solution of corrosive sublimate, it thereby lost its infective qualities. He therefore advocated such a weak solution of corrosive sublimate in the treatment of conjunctivitis and corneal ulcers; practically, however, I think it will be found so weak a solution is of very little value as an antiseptic in ophthalmic practice.

I have recently had an opportunity to test the efficacy of perchloride of mercury in three cases of acute blenorrhœa, two of which were clearly of gonorrhœal origin, and the third probably of the same nature. The results were, it will be seen, not altogether unsatisfactory.

Case I.—A. D., aged 19, French-Canadian, admitted into hospital June 19th, suffering from typical gonorrhœal ophthalmia in left eye of about one week's duration; self-inoculated; lids much swollen; copious purulent discharge, and chemosis of conjunctiva; cornea intact. Ordered ice com-

presses and the conjunctival sac to be washed out every hour with solution of boracic acid, and every fourth hour with a solution of perchloride of mercury 1-2000. This treatment continued for four days with little or no visible benefit. A small transparent ulcer of cornea now visible. Ordered one application of solution of hydrarg. perchloride, 1-1000, afterwards the above treatment continued. The following day there was a marked improvement in the condition of the eye. Four or five days later, commenced the use of nitrate of silver 20 grains to the ounce, once daily, in addition to the other remedies, and the patient was discharged cured on July 10th. Total duration of the disease, 24 days.

Case II.—A little girl, aged 3 years, admitted into hospital July 28th with intense purulent ophthalmia of both eyes, of about two weeks' duration in right eye, and one week in left. This little patient had an acute vaginitis, and was therefore, in regard to the eye affection, probably self-inoculated. A similar course of treatment was pursued. There was some ulceration of right cornea on admission, but this never reached any serious dimension, and both eyes are now well of the disease without impairment of vision in either.

Case III.—E. L., aged 16, a small lad for his age, admitted into hospital for rheumatism, which was found to be of gonorrhœal origin. Left eye affected with intense purulent ophthalmia, of doubtful duration. Cornea, when the treatment began, said to be slightly involved at outer and upper part. The same treatment was prescribed and continued until I saw the patient myself about a week later. There was then an extensive slough occupying the outer three-fourths of the cornea; only a small portion at inner side not involved. I immediately changed the treatment by cold compresses to frequent applications of very hot fomentations. The sublimate lotion and the boracic acid wash continued as before, only warm instead of cold, and a two-grain solution of eserine instilled every two hours. From this time the destruction of the cornea came to a stand-still, and in a few days the slough was thrown off, revealing a very extensive ulceration of the cornea, with a perforation and small prolapse of iris at the upper and outer part; a shallow anterior chamber with a small pupil dimly visible through the semi-transparent ulcerated surface. The ulcer is rapidly

filling up, and a subsequent artificial pupil at the inner side of cornea will probably secure useful vision.*

In the first two cases the result was all that could be desired and certainly afford encouragement for a further trial of the same plan. The prompt effect of the solution of perchloride 1-1000 when 1-2000 did not seem to be working well, is a significant fact, and leads me to hope that the stronger solutions used cautiously may shorten the course of the disease. If there were any way to protect the cornea from the action of strong solutions and at the same time make a thorough application to *all the diseased surface*, I have little doubt the salutary effects of perchloride solution would be much more apparent.

It is obvious that repeated and thorough cleansing of the eye must always take first rank in any plan of treatment, and this is where failure most often comes in, the medical attendant satisfying himself with general directions, without taking the trouble to see that they are strictly carried out.

What percentage of persons suffering from gonorrhœal ophthalmia have the undivided attentions of two or even of one nurse? and yet the best authorities lay down this thorough attention as the chief essential to successful treatment. Though a firm believer in the utility of cold applications, I cannot leave the subject without calling attention to the urgent necessity of watching the condition of the cornea during their use. If at any time any considerable cloudiness of the cornea, or a considerable area of dense opacity with or without loss of substance, or even if considerable ulceration occurs without opacity, as is often seen in the form of a crescentic furrow close to the corneal margin, then the cold applications must immediately cease and be replaced by frequent fomentations with very warm water. In this way a cornea otherwise doomed to destruction can often be saved, in part at least, and, perchance, though but a wreck of its former self. Some vision may be retained and the patient spared the misfortune of a shrunken and sightless eyeball.

DR. SQUIBB states that he can now sell cocaine at one and a-half cents a grain.

* The prognosis given here has been justified by the result. The eye is somewhat blanched, but still quite useful as a visual organ.

"LISTERINE" IN SPECIAL PRACTICE.

BY G. STERLING RYERSON, M.D., C.M., L.R.C.P. & S.E.
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Medical College, Toronto.

The principle of antiseptis in suppurative disease of the middle ear is by no means a new one, but it will be found, on examination, that some objection can be raised to every antiseptic agent, either on the score of poisonous qualities, mechanical defects, idiosyncrasy of the patient, or of inefficiency; therefore any new substance possessing undoubted germicide powers, is welcome. For it is a matter of trite, every day experience that what is one man's food is another's poison, in other words, a remedy which may fail in one case, for perhaps unknown reasons, may be successfully used in others.

"Listerine" is the name given to a pharmacal compound, the antiseptic constituents of which are Thyme, Eucalyptus, Baptisia, Gaultheria and Mentha Aurensis in combination. Each fluid drachm also contains two grains of purified benzo-boracic acid. It is, according to Dr. Deems, President of the Augusta, Ga., Academy of Medicine, "a powerful and trustworthy antiseptic agent. It prevents the various fermentations. Meat keeps indefinitely in it. It is a swift and sure destroyer of infusorial life. It destroys the activity, growth and motion of low forms of vegetable life. Owing to this property, combined with its non-toxic effect on the human system, in quantities medicinal and not excessive, it has the immense advantage over carbolic acid that it may be administered *internally* as well as used with freedom either by injection, lotion, or spray." Dr. Deems appends a detailed report of his experiments on various substances and fluids.

In view of these statements, I determined to try it in chronic suppurative disease of the middle ear, and the results justify me in saying that I regard it as an agent of great value in the treatment of these cases. I have also used it as a spray in cases of muco-purulent nasal discharges and think it is of value here also. The strength used was ʒj to ʒj of water. I have used it with equal parts of water in ozæna and have found that it relieves the odor promptly, after proper cleansing of the

parts. I do not see why it should not prove useful in general surgery.

I also report two cases of eye disease in which I have used it. Of course the number of cases is too small to draw any general inference, but I would suggest that the remedy be given a fair trial. From the results obtained in cases V and VI, it looks as though it would prove of use in eye practice, and supersede the very dangerous practice revived lately of using very strong solutions of carbolic acid in purulent affections of the eye.

CASE I.—A. K., æt. 40, has had discharge from the ear at intervals since early childhood. It is occasionally very offensive. No pain. On examining the right ear, I found a large kidney-shaped perforation in the anterior and inferior quadrants of the drum membrane. No granulations. A thin, ichorous discharge was oozing from the middle ear. I used pure Listerine instillations every other day for a fortnight, at the end of which time the discharge had quite ceased and to-day the opening in the drum head is reduced to the size of a large pin's head. The distress in his head of which he had formerly complained is quite gone. I have hope that the drum head will heal up under this plan of treatment. He has had *no application* except Listerine, using a weak solution at home for himself.

CASE II.—On Feb. 19th, ult., Mr. J. K. consulted me with reference to a discharge from his left ear of some years' duration. The drum membrane on examination was found perforated, and the mucous lining of the middle ear granular. I used Listerine pure every day for a time, and then every other day, with a gradually diminishing discharge with occasional exacerbations. Finally, about the 6th of the present month, the discharge seemed quite arrested and has remained so since. The opening in the drum head is somewhat diminished in size.

CASE III.—Mr. P. contracted a severe cold last fall, while out prospecting in the Rocky Mountains. It culminated in an acute suppurative inflammation of the middle ear. When I saw him a few weeks ago all pain had ceased, the hearing on the affected side was not good, and there was a constant purulent discharge through a perforation in the drum head. He was put under treatment with boracic acid and nitrate of silver solution locally, with varying success. Upon

obtaining Listerine I began to apply it with almost immediate improvement. In the end I succeeded in healing the ulcerated drum membrane and arresting the discharge. He could hear Politzer's acoumeter at 18 feet with the affected ear.

CASE IV.—Master B., æt. 7, caught cold, and in consequence had an acute suppurative process set up in both middle ears. I began to use Listerine when he was brought to me a week later, and in two weeks the discharge had ceased and hearing was restored.

CASE V.—Miss R. went to sleep in a draft one afternoon, and on waking, the left eye, which was uppermost, felt queer. It did not take many hours for an attack of acute granular ophthalmia to declare itself. The lids were greatly swollen, the discharge from the eye considerable, as was also the photophobia, and the granulations were marked. I pursued the usual course of treatment for nearly a week with but little benefit. Then I thought I would try Listerine; I applied it pure with a brush to the inflamed conjunctiva, causing considerable stinging at first, followed by a very pleasant after-feeling. An improvement manifested itself very soon, and in three weeks the eye was nearly well. To some remaining granulations I have applied cupri-sulph. in stick, but during the acute course of the disease Listerine alone was used, after leaving off the first treatment.

CASE VI.—Mr. A. has had granular ophthalmia for many years with parted pannus corneæ. I applied Jequirity infusion until a well-marked membrane was developed; then experimentally I applied Listerine. In four applications the false membrane was gone. Might not Listerine be used with benefit in diphtheritic ophthalmia? or in even diphtheria itself?

TREATMENT OF A CASE OF FOREIGN BODY IN THE RIGHT BRONCHUS; RECOVERY.

BY N. E. M'KAY, M.D., C.M., M.R.C.S., ENG.

(Surgeon to "Victoria General Hospital.")

George Bates, æt. eight years of age, was admitted into the "Victoria General Hospital" on the 22nd of April at 6.30 p.m., suffering from a tamarind stone in the right bronchus, which he had swallowed the evening before. When admitted his

face was flushed, he had an occasional fit of coughing which was aggravated on deep inspiration. Each paroxysm was accompanied by expectoration of mucus; in the interval the breathing was quite tranquil. His voice was hoarse, tongue coated, temperature normal, pulse 110.

History obtained from child's mother—The child was playing with tamarind stones, when suddenly he was attacked with a violent spasmodic cough—difficulty of breathing—a sense of suffocation, with lividity of countenance and more or less insensibility. The mother being present at the time instantly introduced her finger into the child's throat and removed one stone, but this gave him no relief. His brother then held him in the inverted position and shook him, whilst the mother slapped him on the back, but no stone came away. In a minute or two these serious symptoms suddenly improved and the child was able to breathe quite freely. An emetic was given but without success. Two doctors were now called in, who diagnosed a "foreign body in the trachea," and they made several unsuccessful attempts by succussion and inversion to remove it.

Physical examination—Percussion elicited clear resonance over both lungs. The movement of the right chest was less free than that of the left, and the vesicular murmur over the right lung was greatly diminished whilst the respiration over the left was puerile in character. The child complained of pain behind the upper border of the sternum, and a cooing sound was heard here during the respiratory acts, most audible at the junction of the second rib with the sternum on the right side. This, together with the limited motion in the right chest, and the diminished respiratory murmur over the right lung enabled me to locate the foreign body in the right bronchus. Dr. Oliver met me in consultation at 9 o'clock the same evening, and agreed with me in my diagnosis. A consultation of the medical staff of the institution was held early the following morning at which an operation was determined upon. At 2 p.m., the child being put under the influence of chloroform, I performed tracheotomy, and to enable me to examine the larynx as well as the bronchi, I performed the superior operation. On opening into the trachea I passed a loop of fine silver wire down towards its bifurcation, but every attempt to introduce it produced a violent fit of coughing. I then intro-

duced a gum elastic catheter, well carbolized, and pushed it into the left bronchus to the extent of fully $4\frac{1}{2}$ inches, but met with no resistance. I then introduced it into the right bronchus and met with an obstruction $3\frac{1}{2}$ inches down. I again introduced the silver-wire-loop into the right bronchus and pressed it firmly against the obstruction, and held it there until a very violent expulsive effort was produced which, on withdrawing the wire, expelled the stone through the tracheal opening. One stitch was put in the tracheal opening and the edges of the wound were brought together and held in position by catgut sutures and strapping. The wound was then covered with iodoform gauze, and the child's chest enveloped in cotton wool. He was put to bed in a room heated with steam. At 5 p.m. there was some emphysema about the wound extending from angle of jaw to about two inches below upper border of sternum. At 7 p.m. emphysema had disappeared considerably. For the next four or five days child had a slight hacking cough, accompanied by expectoration of mucus. A simple expectorant mixture was ordered him.

April 24th morning, pulse 130, temperature 99° ; Evening, pulse 120, temp. $99\frac{1}{2}^{\circ}$.

April 25th morning, pulse 72, temp. $98\frac{1}{2}^{\circ}$; evening, pulse 130, temp. $99\frac{1}{2}^{\circ}$.

April 26th morning, pulse 100, temp. $99\frac{1}{2}^{\circ}$; evening pulse 120, temp. 100° .

April 27th morning, pulse 80, temp. 99° ; evening pulse 130, temp. 100° .

April 28th, stitches removed, wound healed.

After this date pulse and temperature remained normal, and child was discharged cured May 2nd, the 9th day after the operation.

Correspondence.

CRANIOTOMY V. DEATH OF MOTHER AND CHILD.

To the Editor of the CANADA LANCET.

SIR,—The case given in the May number by 'Junior Practitioner' is a very horrible one; it does seem astonishing that a woman's life should be sacrificed to such superstition. In this affair the plain duty was to fully explain to the unfortunate woman the real state of affairs, and to shew her she was throwing away her own life for no pur-

pose whatever. The same explanation should also be given to the husband ; let him fully understand if he refused his consent he would be held accountable for his wife's death. There is no necessity for asking the opinion of any others. If these explanations did not convince them of their folly, then propose the Cæsarian Section, telling the woman the great danger to herself, and that there is no certainty of saving the child, though the chances may be in its favour. Our first and chief duty is to the mother. The life of the child should not have a feather's weight compared with her safety. Granted this, will any one say the Cæsarian section is the proper operation. ? In craniotomy we destroy the child but, as a rule, we save the mother. Even before chloroform we rarely lost a case, and now, with antiseptic precautions, our chances are much better. In Cæsarian section do we not lose as many as we save ? It must be remembered the majority of these cases occur in poor houses, deficient in ventilation, drainage and general comfort—no trained nurses—frequently a long way from the doctor's house. I suppose the great objection to craniotomy on the mother's side is that the child not getting the rights of the church will, as the lovely Athanasian creed says, perish everlastingly (whatever that may mean). Now, as it seems that baptism is a safe passport to everlasting happiness, why not do (as I have done) have the child baptised in utero. I think the church would recognize it, and the poor little soul would pass into heaven without undergoing the troubles the writer has had.

Yours truly,

F. C. MEWBURN, M.D.

Toronto, May, 1887.

Selected Articles.

BALDNESS : WHAT CAN WE DO FOR IT ?

BY GEORGE THOMAS JACKSON, M.D.

There is probably no one subject in medicine of which the average practitioner is less informed than that of the hair. And yet the subject is important, and everyone should have a clear idea of the resources and limitations of our art in the care of the hair and the treatment of baldness. It is the aim of this paper to point out the varieties of baldness, to throw as much light as possible upon its causation, and to show what and how much may be done in the treatment of it.

The four main varieties of alopecia are : 1, Alopecia adnata ; 2, alopecia senilis ; 3, alopecia prematura or presenilis ; and 4, alopecia areata. The last variety will not be considered at this time, as I have recently contributed a paper upon the subject to the *New York Medical Journal*—in February, 1886.

Alopecia adnata is that form of baldness which is congenital, as its name would indicate. It is comparatively infrequent. An infant is born either with a good crop of long, colored hair which early falls out, to be replaced with light-colored permanent hair, which soon grows darker ; or it is born with colorless hair in greater or less abundance, which gradually becomes darker ; or it is born with a perfectly bald head. In the majority of cases this last condition is transient, and in a few days or weeks the scalp will be covered with hair. All these states of hair-growth are dependent upon the time when the change of type between the foetal and permanent hair takes place. As a rule the change is complete at birth, when we find the colorless hair ; if it is delayed until after birth, we have the long, dark hair ; if at the time of birth the foetal hair has been shed, but there has not been time for the permanent hair to grow, we have the bald head.

Now all these are normal conditions, and even the last, or bald head, is only to be considered as transient alopecia adnata. But in some cases the hair-growth is delayed for months, and in some of these there is a condition of lichen pilaris present, the scalp being rough and covered with pointed papules. The hair will usually grow in time, though a few cases have been reported in which the hair never grew. Delayed dentition, or even a deficiency of teeth, has been observed in these cases.

The cause of this form of baldness is an arrest of the development of the hair. Upon what condition such an arrest depends we do not know. Microscopical examinations of sections of the scalp in cases of inveterate alopecia adnata show either an absolute absence of hair-follicles or an aborted development of them. In some families the disease is hereditary.

As to *treatment*, the most we can do is to attend to the general nutrition of the child and the hygiene of the scalp. Happily in most cases the disease remedies itself. The scalp should be kept free of sebaceous accumulations, and thoroughly washed with soap and water. Should the parents and friends become restive under this expectant plan of treatment, some stimulating hair-wash may be prescribed, such as will be given when we come to the discussion of alopecia presenilis. If lichen pilaris is present, the free use of soap frictions, with the tincture of green soap every day, followed by inunctions with oil, will remove the accumulation of epidermis which clogs the

hair-follicles, and thus give the hemmed-in hair a chance to grow.

Alopecia senilis is that form of baldness which occurs in old age, or after the age of forty-five, and is often preceded or accompanied by grayness of the hair. When this form of baldness begins, it is progressive. Commencing upon the vertex it forms the tonsure, and from there spreads forward so as to involve the whole top of the head; or it may begin anteriorly and spread backward; or the whole top of the head may show a thinning of the hair. When complete the scalp is smooth, oily, shiny, and looks stretched. It is unaccompanied by any disease of the scalp, excepting, perhaps, a slight seborrhœa. The region it affects is that part of the scalp over the aponeurosis of the occipito-frontalis muscle, while the occipital and lateral parts of the scalp are spared. It is always symmetrical.

The cause of this form of baldness is a gradual sclerosis of the subcutaneous tissues of the scalp, the retrograde process beginning in the arterial supply to the scalp, a fibrous endarteritis narrowing the lumen of the cutaneous arteries, till finally the capillary circulation about the hair-follicles is obliterated. This causes a lessening of the subcutaneous fat and a narrowing of the meshes of the connective tissue. It is but one expression of that general lowering of nutrition incident to advancing years.

When the scalp is atrophied we can do nothing in the way of treatment; there is no cure for alopecia senilis. Prophylaxis may do a good deal in postponing the loss of hair. Of what prophylaxis consists will be shown in the next section.

Alopecia prematura is that form of baldness which occurs before the forty-fifth year of age. It is true that the dividing line is purely arbitrary, but it is convenient, and the age of forty-five is usually considered to be that of man's prime, the top of the hill of life. There are two varieties of premature alopecia, viz., the idiopathic and the symptomatic, each of which deserves separate consideration.

Idiopathic premature baldness begins at any time before forty or forty five years of age, most commonly between the ages of twenty-five and thirty-five. Its peculiarity is that it arises uninfluenced by any antecedent or concomitant local or general disease. When it once begins, it is generally progressive. Its course is the same as that of the senile form, beginning on the vertex and proceeding forward; or beginning on the forehead and running backward; or affecting the whole top of the head. It is a process of gradual loss of vigor, and a gradual lessening of the diameter of the hair. The hairs which first fall out are replaced by those of less vigorous growth; these in their turn are shed to make way for yet weaker ones, and so the process is repeated until

complete baldness results, no new hairs being produced to take the place of those which are shed. The scalp in the affected region is atrophied, and often bound down to the underlying tissues so tightly that it cannot be slid about as easily as in the normal condition. It differs from senile alopecia in the earlier age at which it occurs, and in usually being unaccompanied by other signs of diminished physical vigor, such as canities, loss of teeth, and dulness of sight and hearing.

The chief cause of this variety of baldness is heredity, and everyone has known of families in which the fathers and sons for many generations have become bald at an early age. This is due, according to Pincus (*Berl. klin. Wochenschrift*, 1883, xx., 645), to the fact that in certain families there is a tendency to an early induration of the connective tissue under the aponeurosis of the occipito-frontalis muscle, the meshes of which, becoming progressively lessened in size, gradually draw the scalp down upon the underlying tissues, and the hair-papillæ, becoming more and more pressed upon, are at first lessened in diameter and at last completely obliterated.

Improper or deficient care of the scalp and hair is another cause of early baldness, or, at least, hastens its advent in those predisposed thereto. It is a very common practice for men to souse the head daily in water, and as Ellinger (*Virchow's Archiv*, 1879, lxxvii., 549) has noted this habit in eighty-five per cent. of his cases of baldness, it is probable that it is an important etiological factor. Thinkers and brain-workers are very often bald. Eaton (*The Popular Science Monthly*, October, 1886) has recently upheld the thesis that the coming man will be bald and toothless. He found by actual count that baldness was far more prevalent among the intellectual and educated classes than among the uneducated. Thus in the audiences attendant upon churches and operas in Boston, from forty to fifty per cent. of the men were bald; while the percentage was only twelve to twenty-five among the crowds visiting cheap museums and prize-fights. In active intellectual effort the circulation of the head is increased, and the scalp sympathizes and becomes warmer than usual. This increased warmth of the scalp in thinking may operate in the same way in the production of baldness as does the wearing of tight, unventilated hats, which sweat the hair more or less. Stiff hats may cause baldness by compressing the arteries that supply the scalp. Thus F. A. King says (*American Journal of the Medical Sciences*, 1868, April, p. 416): "Baldness of the vertex is due to compression, by stiff hats, of the anterior temporal arteries in their course over the frontal protuberances, and of the occipital behind. The reason why baldness occurs in different places in different individuals is probably due to differences in the shape of the head. The little tuft of hair

often observed on top of the forehead is nourished by the two supraorbital arteries which escape pressure by passing over the forehead in the slight concavities between the frontal eminences." The existence of this little island or tuft of hair depends more likely upon its being located over the belly of the occipito-frontalis muscle, and not over its tendon.

That women do not become bald so often as men is probably because they preserve the cushion of fat under the scalp longer than men do. Pincus says that their comparative exemption is due to the fact that in them "the spaces between the connective-tissue fibres in the deeper and middle layers of the scalp are much larger than in men, the skin of the women during their life preserving more of the characteristics of the skin of children." Other reasons for their comparative freedom from baldness are given, such as: Because they do not wear their hats as much as men, neither are their hats so close-fitting nor made of so impermeable materials; because they give more attention to the care of the hair than men; because they seldom wet their heads; because they are not so abundantly covered with hair as are men, and therefore have less drain upon the hair-forming elements; because their hair is less often cut. Of all these reasons those of most weight are the preservation of the subcutaneous fat and connective tissue, and the greater attention paid to the scalp.

The *treatment* of idiopathic premature baldness is mainly one of prophylaxis and of hygiene. Though hosts of remedies have been proposed from time to time and more or less vaunted, I am inclined to believe that due attention to the proper care of the scalp and to the general hygiene of the body is more reliable than any so-called remedies. Unfortunately, men who most often are bald are least inclined to give the requisite time and trouble to the care of the scalp, and therefore our results are not as good as they should be. Women, though less frequently bald, are willing to give attention to their scalps, and with them our results are better.

Prophylaxis consists in giving early and proper care to the scalp and hair, and this especially in families in which baldness is markedly hereditary. Prophylaxis should be begun at the birth of the child in such families and continued throughout life. The proper care of the scalp consists in keeping it clean by an occasional shampoo of soap and water, borax and water, or some such simple means, and in brushing and combing the hair, and in the avoidance of all things that can harm the scalp. The shampoo need not be repeated oftener than once in two or three weeks, and whenever the scalp has been washed it should be carefully dried, and some simple unctuous substance applied, such as vaseline or sweet-almond oil. Women

should dry their hair by sitting before an open fire or in the sun, and should not dress it until entirely dry. The first shampoo the baby gets is to rid the scalp of the vernix caseosa. This should be most carefully done, without the employment of force, the sebaceous plate having been thoroughly soaked with sweet-oil before the attempt to wash it off is made. After it has been removed the infant's scalp is to be oiled daily until the hair is growing nicely; this is done to guard the tender scalp from injury from atmospheric and other causes. So soon as the hair is grown the scalp only needs an occasional wash to keep it clean, unless there is some sebaceous concretions, when that condition is to be treated.

The hair should be thoroughly brushed and combed daily, not in the careless way in which it is done by most people, but systematically for some five or ten minutes, and with vigor sufficient to make the scalp glow. For this we need a good brush with long, moderately stiff bristles, set in groups widely separated from each other. Such a brush will reach the scalp and brush out all dust. A comb with large, smooth teeth, set wide apart, should be used with the brush to open up the hair to the air; first a stroke of the comb and then of the brush. After the systematic brushing the stiff brush should be laid aside and a softer one used to assist the comb in parting the hair and to polish it. This operation of brushing is rather difficult for women, and most women merely employ the comb. But the stimulation caused by the brushing is very valuable and should be insisted on.

What *not* to do is of nearly equal importance with what to do, in the care of the scalp. We should not allow the use of pomades on the healthy scalp, as they are quite unnecessary if the hair is properly brushed, and by becoming rancid are apt to irritate. The daily sousing of the hair with water should be positively interdicted. Women should not use bandoline or the like sticky substances; should not pull and twist the hair in all sorts of unnatural positions; should not scorch it with curling-irons and hot pipe stems, nor smother it under false hair. The hair needs light and air for its growth, and will not endure forever the pulling and twisting which fashion demands of its votaries. Men should not constantly wear close-fitting hats or caps. If their avocation requires their heads to be covered, they should wear ventilated, easy-fitting hats. Working under hot artificial light should be avoided, so that the head will not be sweated. Withal, the general condition of the physique should be maintained at as high a standard as possible by exercise and moderation in all things; and worry and anxiety of mind should be combated by the cultivation of a more cheerful habit of thought.

When the hair is falling the care of the scalp, as

just indicated, should be continued or, if not already practiced, begun. In addition, local stimulation must be employed. Some remarkable results in making hair grow by hypodermatic injections of pilocarpine have been reported in the medical journals. This may be tried. I have found the drug more useful in alopecia areata than in ordinary alopecia. We know that jaborandi increases the circulation of the skin, and it would seem rational to suppose that in some cases of baldness, dependent upon malnutrition of the papillæ, it might do good. Pincus, who has devoted many years to the careful study of baldness, advises the application to the scalp for from two to five minutes, on two to four successive days, of a wash of

Bicarbonate of soda 4 parts.
Distilled water 180 "

M.

rubbing in one or two tablespoonfuls of it with a soft hair-brush or sponge. Then a pause is made for as many days as the wash was used. On the first and second day of the interval between the application some oil is to be rubbed into the scalp. This treatment is to be continued for a year, and if the disease is then progressive, stronger remedies are to be used. As we will have occasion to speak of a number of stimulating hair-washes when we discuss the treatment of symptomatic baldness, it will not be necessary to mention them in this place.

As a rule, the treatment of idiopathic alopecia presenilis is unsatisfactory, and we should not encourage our patients to expect to see the condition of their hair improved to any great extent under one year, at least, of treatment. But if due attention is given to the care of the scalp and hair, the fall of the hair can be checked in many cases, and that is well worth the trouble it costs.

Symptomatic premature alopecia.—By this term is meant baldness occurring before the age of forty-five, and arising from some accompanying local or general disease. It has four varieties, viz: 1, Alopecia furfuracea or pityroides; 2, alopecia syphilitica; 3, defluvium capillorum; and 4, alopecia follicularis.

Alopecia furfuracea is that variety which is due to dandruff—a seborrhœa or pityriasis capitis. The dandruff may be in large amount, so as to form cakes of fatty matter on the scalp, or it may be slight, in the form of thin, easily detachable scales, which fly off from the scalp and fall upon the coat-collar like snow. This variety of baldness is met with at all ages, but is most serious between the twentieth and thirtieth years of age, and is by far the most common of the different kinds of alopecia. It has two stages; during the first there is a good deal of dandruff, and the hair is dry and falls out slightly. This stage lasts from two to seven years. Then the second stage begins,

when to the dandruff is added a rapid fall of the hair. The location of the baldness is the same as in the preceding forms, though it effects most often the whole top of the head. The course of the disease is progressive and more or less rapid, the hair becoming gradually thinner both as to quantity and diameter, till at last complete baldness results. With the increase of the baldness there is a continuance of the dandruff, until the hair has nearly all fallen out, when the dandruff lessens or disappears.

Alopecia syphilitica next claims our attention. It occurs in the early stage of syphilis most often, but may occur quite late in the disease. Syphilitic exanthems may be present on the scalp and body, or the baldness may be the only symptom of the disease. When it is the result of the syphilitic cachexia we will frequently find more or less dandruff, and there will be a general thinning of the hair, giving the head a peculiar look, which may be likened to the effect produced by taking a pair of dull shears and cutting the hair away in a very irregular manner, so that the head will look ragged. The head is not completely bald in any extended area, but here and there over the whole scalp are irregular, partially denuded patches. Other regions besides the scalp may be affected, the broken arch of the eyebrows being characteristic. Besides this, which may be considered the characteristic species of syphilitic baldness, we have disseminated bald spots of cicatricial tissue due to the presence of syphilitic deposits about the hair-follicles, which have undergone absorption and caused destruction of hair-follicle and scalp tissue. This latter variety belongs rather to the category of alopecia follicularis.

Defluvium capillorum is the variety of baldness which follows acute diseases, especially fevers, or occurs in the course of some cachexia, such as mecurialism. The most common form is that which follows fevers. Usually the hair does not fall out till after convalescence has begun, and then it will be very rapid, the hair coming out by handfuls at times, and the whole scalp is affected. As a rule it does not cause absolute baldness, though in some rare cases all the hair may fall from the body, as in a case of alopecia areata maligna.

Alopecia follicularis is that variety of baldness which is due to local lesions, such as the syphilides, and the parasitic disorders. The appearances presented will vary with the cause. When due to pustular diseases, such as impetigo, the patches are not larger than from the size of a silver dollar to that of the palm. When due to some diffuse inflammatory disease such as erysipelas, the bald patches are quite large and irregular in shape, and the scalp is hyperæmic. When due to favus or ringworm the hairs are altered, becoming lustreless, dry, and split; in ringworm they are often

broken off near the scalp. The bald spots of favus are covered with thick, mortar-like crusts, or are smooth, cicatricial, and of a peculiar red color. In ringworm they are covered with scales, and sometimes crusts, which are not so thick as those of favus.

The *causes* of alopecia *prematura symptomatica* are manifold. We have already mentioned *seborrhœa sicca*, syphilis, fevers, impetigo, erysipelas, and parasitic diseases. Besides these may be mentioned violent shocks to the nervous system, mental distress, parturition, lupus vulgaris and erythematosus, lichen ruber and scrophulosorum, lepra, and other cachexiæ. The baldness following fevers, and with syphilitic and other cachexiæ, is due, in most cases, to *seborrhœa*, but may be purely a nutritive trouble, the hair-bulbs being poorly nourished, the hair becoming loose and falling out. The baldness accompanying or following the pustular and ulcerative diseases is due to the destruction of the hair-follicles. The baldness following upon the abuse of mercury, excess in venery, and intemperance, is due to their damaging effect upon the constitution of the patient. Anything which impairs the full vigor of a man may secondarily contribute to the production of baldness, especially if he have a predisposition thereto. This predisposition is an important factor in all cases of alopecia *furfuracea*. We often meet with people who have had dandruff for years without alopecia; but in many subjects dandruff does cause baldness.

As far back as 1874 Malassez and Chincholle described a parasite as the cause of *pityriasis capitis* and of the baldness following it. But Bizzozero has recently shown that spores, identical with those of Malassez and Chincholle, are found quite generally upon the normal human scalp. Lassar and Bishop believe that alopecia *furfuracea* is contagious, and is frequently transmitted by barbers' brushes and combs. They explain the comparative immunity of women by the fact that they are less exposed to infection at the hands of the barber. Their experiments with the scales taken from the scalp of a man who was losing his hair rapidly, and which they made into a pomade with vaseline and rubbed upon the back of a guinea-pig and a rabbit, in each case producing baldness, are interesting, and seem to prove their thesis. They require and deserve repetition.

Much that has been given in the etiology of the idiopathic form of premature baldness, especially in regard to the use of water on the head, the wearing of hats, and the use of pomades, could be repeated here, since they tend to produce *pityriasis*, and in that way alopecia *furfuracea*.

The *prognosis* of symptomatic premature baldness will vary with its cause. When due to dandruff, it will be good if treatment is begun in time, before actual baldness is present. Even if

the hair is quite thin and the scalp shows a large number of lanugo hairs, we may yet have hope, if there is no predisposition to baldness. *Defluvium capillorum* usually takes care of itself, and we can give our patients a favorable prognosis. Syphilitic alopecia, when dependent upon the cachexia of syphilis, is seldom permanent. The baldness following favus is permanent; that coming after ringworm is transient. Ulcerative processes are followed by permanent baldness. Pustular lesions will not cause baldness, as a rule, and if the hair is plucked early from the follicle the danger of its occurrence is lessened.

Rapid results cannot be expected from our treatment. We must have our patients understand that they must have patience and perseverance, and that the result of treatment will depend chiefly upon their faithful carrying out of directions.

The *treatment* of symptomatic premature alopecia is both prophylactic and curative. Of course, prophylaxis applies chiefly to alopecia *furfuracea*. If it were better understood that dandruff is often followed by baldness, it would be early submitted to treatment, and there would be fewer bald heads. The prophylaxis for this form of baldness is the same as for the idiopathic form, and need not be repeated here.

The curative treatment of alopecia *furfuracea* is first addressed to the ridding of the scalp of the *seborrhœa* or *pityriasis*. If there are thick crusts or cakes of sebaceous matter on the scalp they must first be soaked with oil and then removed by the shampoo. If dandruff is present in only slight amount the shampoo may be used at once. For this purpose we should use soap and water. For our soap we may choose the tincture of green soap. If the scalp is too tender for that we may use Sarg's liquid glycerine soap, Pears' glycerine soap, Castile soap, or any good toilet-soap. Or, if the scalp does not tolerate these, we may order a shampoo of eggs, made by beating up the yolks of three eggs in a pint of lime-water and adding half an ounce of spirits of Cologne, if we want perfume. Borax and water make another excellent wash. Do not stint the water. Rub the shampoo vigorously into the scalp in all directions, using either the fingers or a long-bristled, moderately stiff brush. When the scalp has been well rubbed, the soap or chosen shampoo is to be washed out with a copious stream of water of a temperature agreeable to the patient, or, if convenient, with alternate douches of hot and cold water. The scalp and hair are then to be thoroughly dried, and a little oil rubbed into the scalp. If an excess of oil has been used it may be readily removed by pulling the hair between the folds of a towel moistened with Cologne, alcohol, or ether. The shampoo should be repeated daily for a week or so, and then once every week or two.

While the care of the scalp and hair is, perhaps,

the most essential element of success in the treatment of these cases, still they need stimulating treatment in addition. So many stimulants have been recommended that one is somewhat embarrassed by the excess of richness. We may use carbolic acid in alcohol, two per cent. strength; tincture of capsicum or of cantharides, one to three drachms to the ounce of water; chloral hydrate, or tincture of nux vomica, one drachm to the ounce; corrosive sublimate, one to three grains to the ounce; the stronger water of ammonia, pure, or diluted if too strong. These may be used either as lotions or ointments, separately or in combination. Then there is a wash of rum and quinine which every druggist keeps upon his shelves, and so many of the laity use. This list is by no means exhaustive, but quite sufficient.

An excellent ointment for use, as curative of the seborrhoea, is one which is known, in at least three different dispensaries, as "Bronson's Ointment," after my esteemed friend Professor E. B. Bronson, of New York Polyclinic. It is made of

- Hydrarg. ammon ℥ ij.
- Hydrarg. chlor. mitis ℥ iv.
- Vaseline ad ʒ j.

M.

and when properly compounded forms an elegant pomade of the consistence of a Mayonnaise dressing, and effectual withal.

Pincus advises, in the first stage of alopecia furfuracea, the rubbing of the scalp with a solution of bicarbonate of soda, strong enough to redden the skin, and following this with a compress and an oiled-silk cap to be worn all night. Unfortunately this stains the hair. In the second stage of baldness, when the hair-fall is pronounced, he advises the use either of

- Tannin gr. lxxx.
- Ungt. rosæ ʒ j.

M.

rubbed every night, or of

- Ol. sabinæ gtt. v.-xxx.
- Alcohol ʒ j.

M.

used in the same way. The latter he prefers, as it can be stopped for several weeks at a time, while the use of the former cannot be interrupted for more than six days. A hood is to be worn at night with either of these. The oil of savin often causes headache, nausea, vertigo, and sleeplessness, which interdict its use. Pincus further advises the use of a lotion or ointment containing two to four per cent. of lactic acid, and eight to ten per cent. of boracic acid, applied daily for two or three weeks, and then, after a pause of a few days, followed by an ointment of bicarbonate of soda, three to eight per cent. strength, for one week. Thus he alternates his ointments for one year.

Lassar (*Monatshft. f. prakt. Dermat.*, 1882, i., 131) has had good results by washing the scalp with tar-soap daily, following with a wash of

- Sol. hg. bichlor. (1 in 300).
- Spt. cologne,
- Glycerine āā ʒ ij.

M.

Then the scalp is to be dried, and a one to five per cent. solution of naphthol applied. Finally, a one and a half per cent. carbolized oil is poured over the head. I fear that we would have difficulty in persuading our patients to carry out so troublesome a procedure.

Heitzmann, of our own city, reports ("Transactions of the American Dermatological Society," 1885, p. 32) favorable results from the use of crude oleum rusci in an ointment of vaseline and paraffine, in ten to twenty per cent. strength. This is to be alternated with sulphur and white precipitate ointments.

Piffard (*Journal of Cutaneous and Venereal Diseases*, June, 1885, p. 180) has had good results by using the following:

- Picis liquidæ,
- Olei lavandulæ āā ʒ vj.
- Olei pini sylvestris ʒ j.

M.

In some cases sulphur is added at the commencement of treatment.

Resorcin has been recommended by Ihle. I have not found it so efficacious as other remedies.

In the treatment of these cases I have seen the best results follow the systematic care of the hair, the avoidance of frequent wetting of the hair, and the use of an ointment of precipitated sulphur in the strength of one drachm to the ounce of vaseline, applied every night for a week or two, and then every other night, until the scalp no longer is furfuraceous, and then once a week for months. If care is used in applying the ointment there will be no excess of sulphur showing on the hair.

As illustrative cases of what may be done by this plan of treatment let me recite the following:

Case I.—J. D., aged 20. Hair has been falling steadily for past two years, excessively for last two months. Hair thin over whole top of head, dry, and deadlocking. A shampoo of borax was ordered, to be followed by the sulphur ointment, and directions as to the care of the scalp given. In three months the hair was growing luxuriantly, and the pityriasis was stopped.

Case II.—M.B., aged 26. Hair has been falling for three or four years, and over whole top of the head it is very thin. Was put upon the same treatment, and in nine months' time the hair had ceased falling, and was growing so nicely that the patient had discarded the wig which she had worn for many months.

Case III.—E. B., aged 22. Hair has been falling for two months; scalp scaly; hair thin and dry. After two months of the above treatment the scalp was looking healthy, and the hair was growing nicely.

Case IV.—Dr A., aged 33. Hair has been falling for four years; is quite bald. After two months' treatment the fall of the hair was almost entirely checked. He reported to me, after ten months' treatment, that the hair had ceased falling, and was growing in to an appreciable degree.

Case V.—L. B., aged 22. Hair is falling and has a good deal of dandruff. After five months' treatment the scalp was in fine condition, and the hair was growing nicely.

The treatment of *syphilitic alopecia* is by the internal administration of mercury, the mixed treatment, or the iodide of potassium, according to the stage of the disease. Locally, if any lesions are on the scalp, we may prescribe a lotion of the bichloride of mercury, or an ointment of the ammoniate of mercury. If there are no lesions, then stimulating remedies may be used as in *alopecia furfuracea*.

Defluvium capillorum remedies itself in most cases, and only requires attention to the general condition and to the hygiene of the scalp. If this does not suffice, stimulating measures, such as those given above may be used.

Alopecia follicularis needs the treatment appropriate to the disease present. If there are pustules on the scalp, the hair should be pulled from them.

In conclusion, I would place special emphasis upon the importance of the hygiene of the scalp; the nearer we can bring the scalp to a perfectly healthy condition, the more we can accomplish for the restoration of hair growth. Do not be too easily discouraged, nor allow your patients to despair until a year at least has been given to the faithful care of the scalp.—*Med. Rec.*

THE GENESIS OF "BRIGHT'S DISEASE."

The prevalence of the morbid change so far best known by the term "Bright's disease" (from Richard Bright, who first wrote on the subject); its certain ending, sooner or later, in death; together with the fact that its course can be profoundly modified by proper and judicious measures; all combine to give the subject an intense interest for all—physician and patient alike. "Old age is not an entity, but a set of conditions predisposing to what we call chronic Bright's disease. And though to most this comes in natural course when the prime of life is run, yet to some old age is no matter of years and of averages, but the running down of a spring set for an individual." Such is the happy expression of Dr. Goodhart in his well-

known Bradshawe Lecture before the Royal College of Physicians of London in August, 1885. It is a slow, gradual growth of the lowly connective tissue of the kidney at the expense of the higher kidney tissues. But the kidney-mischief is only a part of the morbid change. A like growth of lowly tissue is going on in the walls of the arteries—atheroma—rendering them inelastic and brittle. But what calls out the growth of the lowly connective tissue in kidney and artery? The irritation set up by the presence of uric acid (possibly accompanied by other forms of albumen-metamorphosis) in excess in the blood. In order to grasp the matter firmly we must look a little beyond mere clinical facts, so as to read these last aright. We see, in the gradual evolution of life, the reptile, the cold-blooded inhabitant of tropical swamps, casting out its excrementitious matter in solid form—i. e., urates. The uric acid formation still continues in the warm-blooded bird, which also possesses a solid urine. When the mammalia appear, they are found to have a fluid urine, and their form of excretion is the soluble urea. But vestiges of the earlier formation still cling with the tenacity of original sin; and a certain, if small, quantity of uric acid is daily voided by man himself. So that we still carry with us traces of our descent in other forms than the branchial arches—the gills of fetal life. Indeed, the circulation of the fetus is that of the higher reptile; and the uric acid formation is distinctly seen in intra-uterine existence. We have long been familiar with the fact that under given circumstances the human body reverts to the early primitive form of urine-stuff. As to gout, we have recognized its association with good eating, especially when accompanied by a lack of exercise. The sensuous monk of old, lazy, fond of good living, and addicted to wine-bibbing, was the typical gouty man. Now, it is the country squire, whose habits were active till gout in his feet cripples him, and then its fell clutch becomes tighter and harder; or the plethoric publican, whose pleasures are those of the palate. This was the gout which came of good living. "Gout is the disease of those who will have it," said Meade. But a number of cases of distinct gout were found under widely different circumstances. They occurred in spare beings, small fastidious feeders, whose trencher performances were conspicuous by their temperance. To this class the term "poor man's gout" was applied. It did not explain the apparent paradox, and this inability to explain it was regarded as an opprobrium to the medical profession. Doubtless a large proportion of the sufferers from poor man's gout were descendants of gouty ancestors; and only by the strictest regimen, as to meat and drink, could they elude the visitations of their hereditary foe. But the gouty ancestry was not present in all cases.

The late Dr. Budd held that sundry persons came into the world with what he called "insufficient" livers; and Dr. Murchison endorsed this view. Such livers revert to the uric acid formation very readily; and now poor man's gout stands revealed before us. Indulgence in animal food in excess reduced a normal liver to the uric acid formation. A congenitally insufficient liver reverts to the uric acid formation under an ordinary or even meagre dietary. The result is the same in each case. When the uric acid formation is established, we find one of two consequences: either (1) the uric acid is gradually deposited in the body, in the articular cartilages by preference; or (2) is cast out by the kidneys, which, being constructed to excrete the soluble urea, are irritated by the presence of uric acid in excess; with the result of interstitial nephritis, or chronic Bright's disease. Often both are found.

Renal changes are by no means the sole morbid outcome of the uric acid formation. The cardio-vascular system feels its malign touch. A tight artery is the consequence of the blood condition, and, with that, changes in the arteries and the heart. The high blood pressure in the arterial system leads to hypertrophy of the left ventricle, and that, again, to secondary valvulitis of a progressive nature—probably due to the forcible closure of the valves; the mitral by the large ventricle; in the aortic by the recoil of the highly distended artery. Possibly in the latter there is a tendency to gouty deposits, as in the joints. The distention of the arteries leads to a growth of connective tissue in their walls, which lose their elasticity and become brittle—the atheromatous change,—and from these we get apoplexy and aneurysm; while angina pectoris vaso-motora is called out by occasional spasm of the peripheral arterioles. Sooner or later the growth of connective tissue within the coronary arteries themselves cuts down the nutrition of a large heart, and fatty degeneration spreads throughout its structure. The failing heart leads, in its turn, to dropsy, albuminuria, and death. Indeed, we get a vast number of morbid outcomes in this widespread vaso-renal change, beyond the interstitial nephritis, which is spoken of as "chronic Bright's disease," or "renal cirrhosis," or "the gouty kidney," as it is variously termed. But the consideration here is restricted to what is truly "chronic Bright's disease," a renal change started by an impure blood, as Professor Hayles Walshe asserted in 1849. The uric acid (and possibly other excrementitious matter of nitrogenised character, the products of albumen metamorphosis) irritates the kidney structures, and starts up a rank growth of the lowly connective tissue, or packing material, at the expense of the higher true structures of the kidney. Here and there in minute foci, scattered throughout its mass, mainly in the cortex at the

outset, we find the destructive action at work. The lowly invader is preying upon the higher structures, like the Tartar Turk spread himself over the population of the Balkan peninsula, and with the same result—destruction. Slowly and steadily one minute portion of the kidney after another is caught within the light touch of some soft growth of connective tissue; but as the latter dries up and hardens, it contracts, and the true tissue within its clutch is ruined—squeezed out of (functional) life and (anatomical) form. Bit by bit, and often very slowly, the process goes on, until the kidneys are rendered inadequate as depurative organs, and the blood is rendered toxic by being surcharged with waste of albuminoid origin. Then follow secondary inflammation set up by the toxic blood, or other truly uræmic complications, often desperate attempts on the part of the body to cleanse its blood. To call this widespread change a "kidney disease" is as much a misnomer as to apply "Pimlico" to the whole metropolitan area; and to seek for evidence of it in the renal secretion solely is as imperfect as would be an inquiry into the sanitary arrangement of Lambeth, however carefully conducted, as to the state of the whole area which discharges its sewage at Barking Creek. Casts of the renal tubules are truly the infallible evidence of renal destruction as to existence, if not as to extent. The character of the urine tells much; when it is copious and of low specific gravity we have only too good reason to decide that the injury is extensive and widespread. Sometimes albumen is present in the urine, but its significance depends upon its associations. Dr. Reichard Bright found that when albuminuria coexisted with dropsy the kidneys were the seat of disease. But in the diagnosis of several practitioners the dropsy factor drops out of the calculation, and the diagnosis is made in its absence. Albuminuria and "chronic Bright's disease" are, however, not convertible terms by any means, nor the equivalent of each other, as is not unfrequently assumed.

Chronic interstitial nephritis is but one of the numerous morbid progeny of the uric acid formation, albeit an important unit. We are all familiar with this vaso-renal change, as it runs its course in the mesoblastic structures of the men of Norse type, large-boned and florid, giving joint-gout, cardio-vascular changes, chronic bronchitis, rheumatism, eczema, and secondary valvular disease in the large heart. That is one aspect of the vaso-renal change. But this is by no means the only aspect of this change. It may sometimes commence with primary kidney mischief and consequent imperfect blood depuration. Far more frequently it starts from a congenitally "insufficient" liver in persons of the neurosal diathesis or Arab type (to whom the term "neurotic" aptly applies), the phenomena are widely different. The

mesoblastic tissues are comparatively untouched ; while the hypoblastic and epiblastic tissues are the seat of suffering. These persons are of spare habits and complain of indigestion, acidity, and flatulence—matters of the hypoblast ; of migraine, accompanied by vesical irritability, of palpitation, of failure of the heart's action, resembling syncope, except that they do not lose consciousness, and and realise the horror of their condition—matters of the epiblast. In many cases cardio-vascular change is also present, and the migrainous neurotic is as liable to apoplexy as the red-faced, short-necked gouty man ; the urine of the last is usually copious and clear, while in the neurotic the urine is often charged with lithates.

The migrainous neurotic of the uric acid formation is growing more and more common. Town populations have a tendency to grow smaller and darker, as anyone can see by comparing the living crowd with the worthies in effigy at Madame Tussaud's. They have a tendency to revert to an earlier and lowlier ethnic form, and are smaller in the bone. They are precocious, and the early development of the nervous system is accompanied by a deficiency or backwardness in the assimilative organs. There is an insufficient liver, which readily reverts to the uric acid formation ; and this is aggravated by the fact that town dwellers eat more animal food than rustic populations of the wage class, while the latter have the advantage of plenty of oxygen. The town dweller works in ill-ventilated rooms, and his amusements are indoors in a vitiated atmosphere. With an insufficient liver, a meat dietary, and insufficient oxidation, the town dweller is the subject, more than all others, of the uric acid formation, with all its varied consequences. At Victoria-park Hospital I have under care at the present time a mite of a girl, not yet thirteen years of age, in whom all the phenomena of the migrainous neurotic are already present. The effect of town life is to produce a distinct retrogression to a smaller, darker, precocious race of less potentialities than the rustic population. Precocity is seen in early puberty, but reproduction is impaired ; and Hayles Walshe, Mr. Cantlie, and others have shown that it is well-nigh impossible to find a true Cockney of the fourth generation. Dr. Ralfe informs me that of 800 inquiries made at the London Hospital only four resulted in genuine Cockneys of the fourth generation. The retrocedent race perishes either by sterility in the females, or their sparse progeny succumb to the diseases of childhood. These urban dwellers, the progeny of town-born parents, this retrocedent race, are the possessors of congenitally insufficient livers, and as a consequence are the victims of the uric acid formation. This liver reversion is the microcosm within the macrocosm and Bright's disease is especially the disease of this urban race. Teetotalism and vegetarianism

are no matter of mere caprice or fashion ; but are the unconscious submission to an unseen law ruling the choice. The urban dwellers cannot tolerate the beef and ale of their rural forefathers. No doubt in many cases alcohol and syphilis play their part, and too often an important part. But these are only accessories to the great fact that the descendants of town dwellers die prematurely old of Bright's disease, and that the spring runs down at a much earlier period with them than with rural populations.

Many persons are remarking how common gout is becoming amidst us at the present time. Such is certainly my personal experience ; though articular gout is by no means the common outcome of the uric acid formation in town dwellers. Sufferers from articular gout are comparatively infrequent among the crowd of persons who are undergoing that vaso-renal change to which "chronic Bright's disease" is the term most commonly applied. In other cases neurotics are found with the uric acid formation, who seem to owe their "insufficient" liver to hard intellectual toil on the part of their fathers. Nearly every American lady of this class has given me a history of the long and usually successful efforts of her father. "The fathers have eaten sour grapes, and the children's teeth are set on edge." There seems some law of antagonism betwixt the tissues of the epiblast and those of the hypoblast. Long sustained demand upon the brain as "the organ of mind" tells upon the viscera. The liver suffers therefrom ; and the progeny of the hard-working brain-toiler comes into this world with an insufficient liver. Clifford Allbutt, F.R.S., some years ago pointed out clearly the mental causes of Bright's disease, in an address which attracted much attention at the time and since. Not only does my experience fall in with his as to the individual, but it seems to teach a further lesson—viz., that hard sustained brain toil has its Nemesis in an insufficient liver, which reverts to the uric acid formation. The bright, high-souled migrainous-neurotic, one of the most charming patients who enter the physician's consulting-room, owes her fortune and her liver alike to her father's toil, which is rather a hard nut to crack for those whose ambition it is to make a fortune.

Thus we see there are many factors—and some of them little suspected—at work in the genesis of Bright's disease. Nor is it inaccurate to say that it is a disease becoming daily more common in "this madly striving age." More familiarity with its causal relation ought to develop definite preventive measures.—J. Milner Fothergill in, *Lancet*.

SANTONATE OF CALCIUM is said to be more efficient as a vermifuge than santonin, while at the same time it agrees better with the stomach.

INTERNAL DERANGEMENTS OF THE KNEE-JOINT AND THEIR TREATMENT BY OPERATION.

Dr. Annandale reports four cases of displaced semilunar cartilage successfully operated upon by the following method :

"An incision is made along the upper edge of the tibia, on the side corresponding to the cartilage displaced, and it should extend from the border of the ligamentum patellæ outwards or inwards, according to the cartilage affected, for a distance of about three inches. The tissues having been divided, and the synovial membrane exposed, all vessels should be secured before the joint is opened. This having been done, the synovial membrane is incised in the same direction as the external wound, and the parts examined. A blunt hook is then inserted, and hooked round the anterior margin of the displaced cartilage, which is in this way brought into its proper position, and held there while two or three interrupted catgut sutures are passed through it and the periosteum and fascia, over the edge of the head of the tibia. In this way, the cartilage is firmly secured in its proper place. The edges of the external wound are then brought together by sutures, and the dressing and a splint applied."

These four cases bear out the following facts :

"1. That one or other of the semilunar cartilages—most frequently the internal one—is liable to be displaced, and to cause more or less interference with the movements of the knee-joint.

"2. That this displacement may be slight—as is most common—or severe, and that the amount of displacement depends upon the extent of separation of the attachments of the cartilage.

"3. That it is the anterior attachments of the cartilage which are most frequently separated."

The diagnosis he considers is usually readily made, yet it is sometimes impossible to reach a positive conclusion, and in these cases he advises an exploratory incision, if the disability is really seriously interfering with the patient's comfort or usefulness, which will enable one to ascertain the cause of the trouble and at the same time remove it.

The writer also reports three cases of growths in the interior of the knee-joint successfully removed by an incision made as for the fixation of a cartilage.

The first case was that of a woman aged twenty-one, who, one year before the operation, had twisted the joint. Since that time had had much pain and limited motion with a tendency of the joint to "catch," and was thus prevented from taking active exercise.

The joint was normal in appearance except for

slight fullness just internal to the ligamentum patellæ, at which point pressure caused pain.

On opening the joint the cartilage was found in its normal place, but "a small mass of fatty and fibrous texture was lying over the inner and anterior margin of the cartilage where the fullness existed. This growth was connected to the synovial membrane, and was moveable, and could be drawn forward." The growth was drawn forward and stitched to the periosteum on the upper edge of the tibia, to fix it and prevent its passing between the joint surfaces. The patient recovered with perfect motion.

The second case was almost an exact reproduction of the first, but in this the greater part of the growth was cut away before its base was fixed by sutures.

The third case differed from the others in that a moveable body could be felt on the outer side of the joint, which, on removal, proved to be a myeloid sarcoma. This case also did perfectly well.

Judging from the results in these three cases, and in others mentioned below, the writer concludes that when such a growth is recognized in a knee-joint, it should be removed or fixed by an operation if there is no other joint disease except synovitis.

In the *American Medical Record* for June, 1886, there is an interesting paper on the subject, by Dr. R. F. Weir. Dr. Weir records two cases of his own and one of his colleague, Dr. Bull, in which tumors were removed from the knee-joint. In one case the tumor was composed of "vascular connective tissue, rich in fat and connective-tissue cells." In the second case the growth was a "fibro-sarcoma," and in the third the growth was a "giant-celled sarcoma." Weir also refers to other cases published by Simon, Volkmann König, and Lauenstein. Barwell ("International Encyclopædia of Surgery") mentions that he removed two fatty growths from the knee, one being situated upon each side of the ligamentum patellæ. He expresses the opinion that some of these growths are formed in the subsynovial tissue, and gradually bulge into the joint. Volkmann, under the term "lipoma arborescens articularum," has described a condition of multiple fatty growths having their origin in connection with the fringes of synovial membrane.

The last case in the paper is that of a woman aged fifty-five, who for several months had had pain and stiffness in the right knee-joint, and latterly had noticed that free movement of the joint was prevented by some thing "catching inside the joint." Just outside the ligamentum patellæ a hard body was felt, and an incision parallel to the outer border of the ligament was made, exposing this body, which was an out-growth of the articular surface of the femur. It

was removed by a chisel, and measured one-half inch in length and one-quarter of an inch in diameter at the base. The patient was discharged much improved.

It is well known how commonly out-growths of chronic arthritic origin cause interference with the movements of this and other joints, and it cannot be said that such cases are very favorable for operative interference; but still I think that in cases where a single and distinct growth is causing much pain or stiffness, the question of an operation may be taken into consideration, and the case just recorded proves that the removal of such a growth may be successfully performed, and may also, even if not perfectly relieving the symptoms, improve them. It is not an operation that I would wish to urge very strongly, and the general condition of the patient, the condition of the joint, and his or her wishes—the question having been properly explained—would influence me in advising its performance.

Lastly, in opening the knee-joint for the removal of growths, the incision will be best made over the position of the growth, if it can be felt. Should its exact position not be determined, and the case be one suitable for operation, I would suggest that the incision advised for the fixing of the internal semilunar cartilage be employed, as it was found very convenient in the three cases reported.—*Brit. Med. Jour.*

MEDICAL NOTES.

For *migraine*, a remedy of the foremost importance and value is *Cannabis indica*.

Urethral hemorrhage arising from a urethrotomy was arrested by Prof. Gross by passing a hot bougie.

Prof. Bartholow states that we should try gelsemium in the severe cases of *chorea* which resist the ordinary treatment.

Caff-iodoform, a mixture of two parts iodoform and one part coffee finely powdered, makes an efficient external application, in which the odor of the iodoform is almost entirely covered.

Prof. Bartholow treated *gonorrhæal rheumatism* by small blisters around the affected joints, using cantharidal collodion, and gtt. xv of tinct. chloride of iron, four times a day.

Quinine gr. viij, stimulus fʒviiij per day, and gtt. xx of dilute nitrohydrochloric acid every three or four hours, is a routine plan of treatment for *typhoid fever* in the Pennsylvania Hospital.

As a *stomachic tonic* Prof. Bartholow prescribed the following:

R Acid. phosphoric. dilut. . . . fʒj
Strychninæ sulph. . . . gr. j. M.

Sig.—Ten drops in water before meals.

Dr. Longstreth recently showed the class at the Pennsylvania Hospital some cases of *tonsillitis* which had simply been treated by applying turpentine stupes to the neck, with gratifying results.

In giving *quinine*, it is well to combine with dilute hydrobromic acid; it renders the disagreeable cerebral effects much less, does not interfere with its action, and renders it more soluble, while it really adds to its efficacy.

A case of *strumous synovitis* of the knee-joint was recently treated locally by Prof. Gross as follows, with good results:

R Iodoformi.
Vaseline āā ʒj. M.

Sig.—To be rubbed into the part.

Prof. Bartholow prescribed as follows for an *aneurism of the ascending aorta*: gr. ij of Squibb's aqueous extract of ergot three times a day, and gr. xx of iodide of sodium four times daily, both to be kept up for a long period.

The best treatment for a *bunion*, in Prof. Gross' opinion, is the following: The patient should wear a broad boot, apply a blister to the bunion, remove the skin, and then freely apply a mixture of cosmoline and tannic acid, equal parts.

Perhaps it is not known that the disagreeable effects which a *sea voyage* or a railway journey have on some persons can be averted by getting the patient under the effects of a bromide before starting, and continuing in small doses during the trip.

A case of *infantile eczema* of six months' duration was cured by Dr. Meigs in one week with the following:

R Unguent. zinci oxidi.
Ung. petrolati āā ʒss
Hydrarg. chlorid. mitis . . gr. x. M.

Sig.—Apply freely.

Belladonna given internally will often give very satisfactory results in *prurigo senilis*. It may be given with *nux vomica* as follows:

R Extract nucis vomicæ.
Extract belladonnæ, . . . āā gr. ¼
Ft. pil.

Sig.—Take morning and evening.

When no reasons can be found to exist by which *impregnation* is prevented in cases of sterility, it may be advisable to order the patient to abstain from copulation, except for two days following the menstrual flow. If this fails, coition may be allowable during menstruation.—Parvin.

Thaline in gr. iv doses has a remarkable influence over *high temperatures*, as shown in two cases exhibited by Prof. Da Costa at the Pennsylvania Hospital, in one of which a temperature of 105°

occurring in cerebral rheumatism was reduced to normal in three hours by the above dose. Its action is accompanied by profuse sweating, and no bad after results.

For a crying, irritable, peevish infant, Prof. Bartholow speaks very highly of the following :

R Sodii bromidi gr. v.
Mist. asafœtida f̄j. M.

Sig.—*Pro re nata*.

If there be no flatulence, simply give the bromide in camphor water.

In using *felt splints*, they should be softened in hot water before applying, then allowed to harden on the limb. They should then be removed and coated with shellac varnish to give them the property of supporting power. Otherwise they are of little use, for they allow the fragments to become easily displaced.

Prof. Parvin claims that one of the best local applications for *diabetic vulvitis* is a four per cent. to ten per cent. solution of cocaine hydrochlor. For *aphthous vulvitis* local applications of iodoform are always successful. It relieves the itch and the pain. Dust freely on the parts once a day, and in the meantime keep the labia separated by antiseptic cotton.

Prof. Da Costa believes *adonidine* to be a marked addition to our *heart tonics*, but it can never supersede digitalis, because it lacks its diuretic properties. The nearer the heart is dilated and the more a tonic is wanted, the more is adonidine indicated. In a case recently presented at the Pennsylvania Hospital with dilatation and mitral lesion, gr. $\frac{1}{10}$ three times daily, afterward four times a day, was given with most marked benefit and improvement. The heart's action became stronger and more forcible, the pulse became full and regular, and the dyspnoea and vertigo ceased. As its name indicates, it is derived from the plant Adonis.—*Coll. and Clin. Record*.

NEUROTIC SYMPTOMS ATTENDING THE MENOPAUSE.

This patient comes to us with the history that she is sixty years of age, that she has had three children, the youngest of which is thirty years of age. The menopause occurred ten years ago. She complains of a burning pain in the pelvis. On vaginal examination, I find a cicatricial band at the neck of the womb. We not infrequently find women about this age complaining of a burning pain in the abdomen, running down through one iliac region to the vulva. This, to my mind, is a neurosis, and it is one that is very difficult to cure. The change of life usually does not require

a long time, and, as a rule, at the end of that time the woman is well; but she may present a condition of this kind. Under these circumstances I always give the bromides, and a favorite prescription with us is the following :

R—Ammonii chloridi, 2 dr.
Ammonii bromidi, 4 dr.
Tinct. gentianæ co.,
Aque, aa 3 oz.

M. Sig.—A tablespoonful, in water, before each meal.

I always give with the bromides a bitter tonic, to counteract their depressing effect. I am fond of using the ammonium chloride, on account of its stimulating effect on all the einunctories. The ammonium bromide is used instead of the potassium salt, because it makes a neater prescription, and also because its effect is less depressing. Another formula, which I frequently employ in these cases, I may as well give you now. It is my pil. sumbul comp., sugar-coated, by Bullock and Crenshaw :

R—Acidi arseniosi, 1.40 gr.
Ferri sulph. exsiccati,
Extract sumbulli, aa 1 gr.
Asafœtida, 2 gr. M.
Ft. pil. j.

Sig.—One after each meal. If this does not have the desired effect, the dose may be increased.

I am disposed to think that the burning of which this patient complains is purely a neurosis. It seems incredible that at this time of life it could come from the ovaries, but it may come from the plexus of nerves in the neighborhood of these organs. There is another form of burning to which I desire to refer. Women about the change of life, or past it, will speak of a burning of the vulva, usually accompanied with itching. My advice is, under such circumstances, always to examine the urine for sugar. If the woman is at all stout, there is probably sugar in the urine. It has been supposed that it was the presence of the sugar in the urine trickling over the parts that caused the pruritus. This may be so in a few cases, but in the majority of instances the itching is a neurosis. In the treatment of these cases, local applications, with remedies directed to the glycosuria, are required.

There may be at this period of life a burning, accompanied with itching, which may be due to a senile catarrh with an acrid leucorrhœa. The discharge comes from the cavity of the womb, and while it may not be sufficient to attract attention, it may be sufficient to cause itching. I have found that curetting the womb was the best way of getting rid of this form of burning. With this I associate internal applications.

These women will often come to you with the statement that they have a tumor, when the whole

trouble is that they have nervous flatus, causing distention of the abdomen. I wish that I could find a theory which would satisfactorily explain how it is that, in certain conditions of the nervous system, there will be the sudden distention of the abdomen with flatus. I am disposed to think that gas may be rapidly generated in the human body. Otherwise it seems impossible to explain this. The patient's attention is called to the swelling by the fact that the clothing is tight, and she will come to you with the statement that she has a tumor. Indeed, I have had physicians send me patients whom they thought had a tumor, when the whole trouble was due to a collection of wind. In such a case there would be resonance all over the front of the abdomen. This is a diagnostic sign. Another is, that by taking hold of the abdominal walls, you can lift up a large fold of skin, so that there would be no room behind it for a tumor of any size. Then if you percuss, you will find no evidence of a tumor. Of course, this does not serve to exclude a small tumor, but the patient consults you on account of a large swelling.—*Dr. Goodell, in the Polyclinic.*

NEW UTERINE REPOSITOR.

The plan of reducing a retroversion or retroflexion of the uterus by the rotation of the sound within that cavity, besides occasioning a good deal of pain to the patient, has also the serious disadvantage of almost certainly causing abortion (should the patient happen to be pregnant at the time); and this is by no means an easy thing to determine beforehand, should the patient have borne children previously. In cases of very recent retroflexion or version, it will sometimes be sufficient to place the patient in the knee-elbow or knee-chest position, when by raising the perineum and posterior wall of the vagina with the duckbill speculum, the atmospheric pressure alone will ef-



fect the desired result. But where the complaint is of longer duration, it will require some additional pressure to replace the organ. In these cases I avoid having recourse to the sound, by using the instrument depicted in the accompanying woodcut, which acts on the principle of the Hodge's pessary. The patient being in the knee-elbow position, the top of the instrument is placed in the posterior *cul-de-sac*, when by slight but firm pressure in the downward and forward direction (using the heel of the duckbill as a fulcrum, if necessary), it will be found that reduction is easily accomplished with the minimum amount of pain to the patient.

On the instrument being removed, and while the patient retains the same position, a Hodge's pessary, of suitable size, can be introduced with facility, and, on the patient resuming the erect position, the sense of relief will be at once experienced. The instrument will also be found useful for applying steady pressure to tumors occupying either *cul-de-sac*, and with ordinary care, it will be almost impossible to do injury to the surrounding structures. Having experienced the value of the instrument in the cases I describe, I have confidence in recommending it to others. By the use of the means described, I have reduced a retroflected uterus of eight years' duration, where the usual means, position, and use of sound had failed altogether.
A. DUKE, Dublin.

TRAINING.—The victory of Cambridge this year in the boat-race has given rise to many comments as to the mode of training best adapted to get crews into condition. It has been stated that Mr. Bristowe, the President of the Cambridge University Boat Race, allowed fish, entrées, puddings, and dessert for dinner through the whole course of training, and did not insist upon the monotonous and excessive flesh diet usually enforced. For some years past there has been a growing tendency to adopt a more rational plan of feeding and to permit a greater range of carbohydrates and hydrocarbons in the diet. Indeed, the more varied the food the better the health of the individual, and as training was defined by Professor Parkes as a method of obtaining the highest degree of vitality, a scientific mixture of the various principles of diet is called for. With hard muscular work at a quick pace more animal food is necessary than for ordinary work, but this should never be given in excess, and beyond what the digestive secretions are able to dispose of; one pound and a half is certainly as much as is required. In giving carbohydrates, care should be taken that they are well cooked and are of a digestible character. Rice, sago, and tapioca puddings are excellent; but potatoes should not be indulged in in any quantity, as they are apt to cause flatulence—that bugbear of the trainer knows as “inwardful.” The hydrocarbons should be supplied by a liberal allowance of butter; the men should be encouraged to eat the natural fat on the chops and steaks, and not cut it off as they have been directed to do, whilst meat with plenty of fat on it is usually more tender than lean. Fresh fruits should also form part of the daily dietary, since these supply the alkaline salts so useful in keeping the blood in a healthy state. The chief article to be avoided in training is sugar, especially sugar with pastry; it tends to cause acidity and promotes “biliousness.” The question among trainers is the amount of fluid permitted. Under the old

system great cruelty was often practiced by keeping men, especially during hot weather, on a strict allowance; this was a mistake. On the other hand, man should not be allowed too much freedom in this respect, for fear of diluting the digestive fluids; it is well, therefore, to keep this within physiological limits. A man of 12 st., under ordinary circumstances, eliminates about three pints and a half from the body daily by the skin, lungs, and kidneys; with strong and quick work, he probably gets rid of a pint and a half more. Five pints of fluid would therefore be sufficient for most men. As training advanced and the elimination became less, the quantity might gradually be reduced. At the beginning of training slight excess of the physiological requirements might be permitted, as it would help tissue metabolism and carry off the waste products formed in consequence of increased muscular activity.—*Lancet*.

PHYSIOLOGICAL ACTION OF NITROUS OXIDE GAS.
—Dr. Dudley Ruxton has communicated two valuable papers upon the above subject to the Odontological Society, based upon numerous clinical observations and experiments. The effects of nitrous oxide inhalation upon the mammalian organism are, he says broadly speaking—1, a condition of anæsthesia; 2, an emotional state, provoking a sensation of exhilaration—in fact, it plays the rôle of a stimulant; 3, it gives rise to modifications of the respiratory and 4, circulatory systems; and 5, provokes marked muscular movements which may be classed as (a) rigidity and (b) jactitations. The anæsthesia produced by nitrous oxide is not dependent upon analgesia or loss of sensation of painful impressions of the sensory end-organs, such as that produced by cocaine, etc., or upon failure of the conducting sensory nerves, for sensation is retained until the perceptive powers themselves cease to receive; moreover, there is immediately anterior to the loss of consciousness a hyperæsthetic stage, therefore it may be concluded that the nerve centres are acted upon. The way by which nitrous oxide may enter the system, and is enabled to produce its special effects are—either that it gives rise to other bodies by changes in its chemical form, or by acting as an irrespirable gas and causing asphyxia, or by exercising a specific action, just as strychnine does. Dr. Frankland came to the conclusion that nitrous oxide was not decomposed during its sojourn in the body, basing his opinion upon analyses made of the air expired by rabbits when confined in an atmosphere of mixed air and nitrous oxide. In the first stage of asphyxia, that of dyspnoea, there is an increase in the respiratory movements, both inspiratory and expiratory; in the second of dominance of the expiratory efforts, culminating in general convulsions, in the last, exhaustion, with long-drawn inspirations, gradually dying out.

The blood-pressure during the first and second stages rapidly rises. Dr. Dudley Buxton has never observed an increase in the expiratory movements when N_2O has been administered, which are merely increased in number and depth, or expiratory convulsions, notwithstanding the gas has been pushed to its utmost limit, and from a larger number of sphygmographic tracings the tension in the arteries has been lower than normal. In experiments upon dogs, Dr. Buxton found that where a trephine-hole was made through the skull, during the inhalation of the gas the brain pulsations became more forcible and somewhat hurried; then the brain substance was seen to swell up, until at last it actually protruded through the aperture; whereas in a similar experiment, with the trachea occluded, the brain receded, sinking away from the opening. Other experiments showed that the heart's action was but little interfered with by nitrous oxide, even when inhalations were pushed until respiration was interrupted; during asphyxia, on the other hand, a rapid and continuous increase in blood pressure invariably occurred. The dose of nitrous oxide required to produce insensibility varied very considerably in different persons—a fact which supports the view that nitrous oxide exerts a specific action on the nerve centres. Dr. Buxton also discusses many other interesting points in the action of the gas, such as the occurrence of hallucinations.—*Lancet*.

A SIMPLE METHOD OF PREVENTING ARTERIAL HEMORRHAGE.—Dr. Muscroft, of Cincinnati, described in the *Lancet-Clinic* of April the 2nd, 1887, the following method of preventing arterial hemorrhage, which was entirely satisfactory in a successful amputation at the hip-joint, and a high amputation of the arm for elephantiasis:

“He proposed to pass a strong pin or needle under the femoral vessels *en masse*, high up in Scarpa's triangle, and then, by winding a cord around the exposed ends of the needle, protected by corks in a figure-of-eight turn, to secure sufficient pressure to occlude the artery completely. This method of compression before the operation could not possibly do any harm, and if properly applied there could be no danger of hemorrhage. The additional advantage would be secured that there were no tourniquets or bandages to slip when their points of resistance were removed by the disarticulation of the head of the femur, and the apparatus for controlling the hemorrhage was not at all in the way of the operator or his assistances.”

As soon as the patient was fully under the influence of the anæsthetic, a needle one-eighth of an inch wide, slightly bent at the point, about the thickness of a dime, and four inches long, was introduced perpendicularly into the front of the thigh, about an inch and a half below Poupart's ligament. The exact point of entrance was one-

fourth inch internal to the combined sheaths of the vein, artery, and nerves. The point was pushed beyond the vessels, then turned outward until the needle had passed beyond them; the point was then pushed out through the integument. The needle was then behind the vessels and nerve. A piece of cord was passed under the heel and point of the needle, forming a figure-of-eight ligature. Before the ligature was applied the femoral artery could be felt pulsating strongly, but when it was tightened the pulsation below the needle had ceased entirely.

The compression with the needle and figure-of-eight ligature was entirely successful in preventing any bleeding from the brachial artery. The needle was introduced from before backwards, and parallel to the borders of the axilla. The point and heel of the needle were protected, as on the former occasion, by corks.—*Med. Progress.*

ARE SYPHILITIC ATTACKS MADE MORE PRONOUNCED BY THE WITHDRAWAL OF ALCOHOLIC STIMULANTS FROM THE INEBRIATE?—Dr. C. F. Barber, of Brooklyn, sends the following communication: "Voluminous as are the writings upon syphilis, I fail to find mention, save in a minor way, of the deleterious effects of alcohol upon the disease. True, we are cautioned again and again to induce our syphilitics to refrain from the use of alcoholic drinks, or, if habituated to their use, to curtail them as much as possible. But no stress seems to be laid upon the outcome of their abuse. It may be my misfortune to meet unfortunate cases, or perchance those made worse by neglect, but the fact impresses me most forcibly that the abuse of alcohol, while not retarding or checking the progress of the disease as to its ultimate results, causes relapses to occur more suddenly and with greater violence than they otherwise would. It may be objected that no inebriate (for it is from this class of patients I draw my inferences) takes care of himself as he should, to say nothing of following the directions of his physician. Granting the point of this statement, I nevertheless maintain that, while many neglect themselves to a dangerous degree, yet there are those who exercise more or less care and attend to their unhealthy condition. I have during my observations, extending through several years of service among this class of people, been forcibly impressed with the fact that syphilitics, as a rule, after the withdrawal of alcoholic stimulants by gradual reduction, suffer in a sudden and severe manner from the disease in some of its many forms. Whether alcohol has any controlling effect upon the disease I am unable to state positively, but certain it is that in some patients there seems to be a period of *stasis* during their excesses. I have in mind several cases in which the disease was dormant for a long period, and suddenly reappeared after a prolonged debauch.

In one case this was marked by a most severe laryngitis, causing loss of voice, difficulty in swallowing (to such an extent that nothing but fluids could be taken, and these only in small quantities), swelling of the tongue, and sordes upon the tongue and inner side of the cheeks. This patient retired in apparently good health, but upon awaking the next morning found himself in the condition I have described. Another case is that of a man who invariably, after one of his debauches, is the subject of a syphilitic ulcer on the anterior pillar of the fauces. A third has to combat a serpiginous ulcer over the crest of the tibia. A fatal case which came under my observation was that of a laborer who had contracted syphilis previous to a prolonged debauch, which terminated only after he had been sent to an institution for the cure of inebriety. After being restored to apparently his healthy condition, and while at work among his fellow-inebriates, he was complained of on account of a terribly offensive odor which emanated from him. This could not have been a result of neglect of cleanliness, for he was compelled to bathe frequently. Upon examination he gave a syphilitic history, but said that he had not been troubled for some time by any manifestations of the disease. Upon the removal of his clothing there were found syphilitic papules scattered over his body, and his scrotum was found to be a complete mass of ulcers. There were also ulcers upon the inner side of each thigh. The testicles were no doubt involved; but the condition of the scrotum forbade handling, and the internal parts of the sac could not be examined. This condition had all come on within three days, as the patient had had his bath and a change of clothing, under the eye of a reliable person, but three days previous, at which time he was apparently in a perfectly healthy condition. Many other cases, varying as to intensity, might be cited, but these are sufficient to illustrate my belief. It is well for those who have the troublesome malady of inebriety to contend with to be on their guard, and at the first indication of a syphilitic nature take the case well in hand, and, by proper treatment, alleviate the sufferings which through neglect might cause results of the gravest nature."—*Med. Rec.*

VENTILATION OF SHIPPING.—The ventilation of ships of war and of merchant vessels has hitherto presented almost insuperable difficulties, from the fact that considerations of speed, stability, draught, carrying power, and strength must necessarily be of paramount importance. In the P. and O., Cunard, and other "liners," indeed, the ventilation of the deck cabins leaves little or nothing to be desired, but such an arrangement is obviously out of the question in an ironclad, while the berths of second-rate passenger vessels and merchant ships

are for the most part simply unfit for human occupation. All methods as yet proposed for the ventilation of the 'tween decks, if they do not, like those of Perkins and of Thiers, depend on the rolling movement of the hull, at least require progression as an essential condition of their efficiency, and are totally inactive when most wanted, as when moored in a tropical port. Fans enclosed in shafts have, it is true, been tried with some degree of success, but the space they occupy and the amount of mechanism which their multiplication would necessitate preclude their application to each cabin or compartment. A novel method, which may be seen at work at Messrs. Green and Sterkman's offices, 91 Queen Victoria Street, E.C., seems to offer complete solution of the problem. Its principle consists in the conveyance of compressed air from a central compressor, by common iron gas-pipes, to the several chambers, where it is discharged through nozzles in specially constructed tubes or channels communicating with the open air. The secondary current set up in these is more than twenty times as great as that proceeding from the nozzles themselves. These channels may be arranged to act as impulsion or exhaustion tubes, so that the air of the compartment can, if desired, be entirely changed in five or ten minutes. On board steamers and in factories the compressor may be worked by the engines employed for other purposes at the same time.—*Brit. Med. Jour.*

DISGUISED FORMULÆ.—An American professor recently discussed in a clinical lecture the advisability of letting patients know what medicine they were taking. Obviously this must depend to a great extent, upon the patient; no small amount of tact and discretion is required in order to distinguish between those who would and those who would not be benefited by an explanation of the means to be employed. In dealing with a man of intelligence and education, there is always a temptation to enlist his confidence by affording him an insight into the nature and scope of the measures to be employed. But few medical men, probably, have escaped the disappointment of seeing their very reasons made use of to discredit their skill and impugn their ability. As a matter of fact, practitioners of mature age and experience of life seldom commit themselves to anything of the kind, or if, to gratify a patient's whim, they appear to yield to the temptation, their explanations are advisedly ambiguous. There is always a possibility that the patient may glean some information from the prescription. The official *Pharmacopœia* recognises the necessity of concealing the nature of certain preparations. Opium may be ordered under several different denominations without giving rise to the slightest suspicion of its presence. Mercury, another drug in reference to

which prejudice is general, has not been equally protected. "Hydrargyrum" is nearly as well known as the magic word "aqua." It is suggested that calomel might be written "panchymagogus querce anus," but the expression, though etymologically interesting, might prove as much of an enigma to the chemist as to the patient. The employment of the names of individuals is an effective if unscientific way of disguising the real nature of the substance ordered, where this is deemed desirable. Dover's or James' powder would checkmate the most curious and best informed of laymen, and with a small amount of archaeological research it would be easy to baffle the most persevering querist. The tendency, however, is to discard these vestiges of a cruder system, and to leave to the patient the responsibility of following the directions which have been given him. As the art of medicine advances, the practitioner learns to adopt simple and practical methods of treatment which shall acquire for him the confidence formerly obtained only by mystery of demeanor and speech.—*Brit. Med. Jour.*

THE NEUROTHERAPY OF EPILEPSY.—Dr. C. L. Dana, in the *Quarterly Review*, gives the following plans of treatment of epilepsy, of different authorities.

The zinc treatment of Herpin was as follows: Give gr. ij 1-5 of zinc oxide ter. in die. Increase the dose by gr. three-fourths every week until gr. xj are taken t. i. d. Keep this up at least three months. It appears that Herpin subsequently used to add or alternate with ammonia-sulphate of copper or selenium.

The belladonna treatment of Trousseau:

Ext. belladon. fol. }
Pulv. belladon. fol. } . aa gr. 1-6. M.

Sig.—One a.m. and p.m. for one month.

Then increase the dose by one pill daily each month until twenty pills are taken night and morning. The treatment must be continued for a year.

Grover's method consists in giving the bromides in single doses at intervals of from two to five days, these single doses being gradually increased. Thus the patient takes one drachm on the first day, one and a half drachms on the third day, two drachms on the sixth day, three drachms on the ninth day, four drachms on the fourteenth day, and so on until the maximum dose of about one ounce is reached, when the drug is decreased in the same way.

I have found this a very good method if, during the intervals, tonics and adjuvant measures are employed.

The method of Meynert, in many cases is to give fifteen grains of bromide of potassium three times daily, and increase the dose by fifteen grains every time a fit occurs, until they are suppressed.

A mixture treatment like the following is recommended by Ball and Hanfield Jones :

1. Ammon. bromid.
- Sodii bromid. aa ʒ ijss
- Infus. valerianæ ʒ x.

M. Sig.—ʒ ij daily, increasing until ʒ ijss of the bromides are taken daily.

2. At the same take a pill :
Ext. belladonnæ gr. ʒ.
- Zinci oxidi grs. iij.

M. Sig.—One, morning and night.

3. A drastic purge weekly.

An acid mixture for epileptics, which he found efficient in two cases which resisted other forms of medicine, was :

- Acid. hydrobromic. dil, 10 per cent. ʒ j.
Atropinæ hydrobrom. grs. 1-200.
Zinci citrat. grs. iv.

M. Sig.—Take this t. i. d., and gradually double the dose.

A mixture alleged to be very efficient is :

- Potass. bromid. grs. xv.
Sodii arsenit. grs. 1-120.
Picrotoxin grs. 1-180.

M. Gradually increase—*Alienist & Neurologist*.

SCHEDE'S METHOD OF DRESSING WOUNDS.—

Prof. Mikulicz communicates to the *Przeglad Lekarski* an account of fifty cases of surgical operations which were treated by the method recommended by Dr. Schede at the last surgical congress in Berlin, viz., to allow blood to fill the wound and to lie between the lips after they were brought together, any deficiency in the quantity of blood being remedied by the use of the knife, the idea being that the blood either actually becomes organized or serves as a protection for the granulations as they are formed. The wound is covered with protective, to prevent evaporation. Prof. Mikulicz's observations included six resections of joints, four amputations, six dissections, two ligatures of arteries, seven extirpations of large tumors, etc. In thirty-six of the fifty cases union took place without suppuration, in four there was extensive formation of pus, in five superficial suppuration starting from the points of suture, and in the remaining cases pus had existed previously to the operation, and the disinfection at the time not having been complete, it continued subsequently. The general condition of the patients was highly satisfactory, even in those cases where suppuration occurred, the temperature in no case rising much beyond normal. The dressings were not removed or changed for at least a fortnight, sometimes not for a month. This appears to be of great advantage in the case of bone and joint operations where complete immobility of the parts is a desideratum. Other specified advantages attributed to this plan

are that wounds attended with a loss of substance rapidly fill up, and the cicatrices that form are peculiarly soft and smooth. Prof. Mikulicz does not find, as Schede did, that the existence of silver sutures in osseous lesions has any unfavorable influence on the cicatrization of the wound. He remarks that it is important not to bind the external dressings to tightly to the wound.—*Lancet*.

PLEURISY ONLY A SYMPTOM.—Dr. Frederick C. Shattuck of Boston (*Boston Med. and Surg. Jour.*) in his report on thoracic disease says : Those of our readers who have studied in Germany must have all been struck with the doctrine there so generally held, that simple primary pleurisy is a very rare affection. This view is not so widespread in France, but has there adherents. Germain See, for instance, classes pleurisy among the infectious diseases. Landouzy reports two cases confirmatory of this view, and formulates his opinion on the question as follows :

(1) "All demonstration is wanting of the dependence of acute primary pleurisy with effusion on exposure to cold, as is so commonly held.

(2) "Pleurisy attributed to exposure to cold is not a disease, like pneumonia, by the side of which nosographers persist in placing it, but simply a morbid, and always secondary condition.

(3) "Pleurisy, whether acute in onset and characterized by large effusion, or local, subacute, or chronic, is a symptom of disease.

(4) "Without absolutely denying the occurrence of pleurisy as due simply to exposure to cold, I believe it to be most exceptional, as rare as it is thought to be common.

(5) "The part played by exposure to cold is, in pleurisy, as in erysipelas, pneumonia and zoster, quite subordinate : the true etiological factor lies in a cause which was latent until the day when the exposure took place.

(6) "This genuine etiological factor, this determining cause is tuberculosis, often masked by the pleural effusion, and thus escaping recognition."

He goes on to say, further : "Any patient with pleuritic effusion is tuberculous, let him be vigorous, young, robust, and fat as you please ; let him declare himself otherwise perfectly well and quite free from hereditary or acquired predisposition, unless the pleurisy can be attributed to an infection, (scarlet fever, puerperal fever, etc.), a dyscrasia (rheumatism), or a trauma (fractured rib, infarction)."

If this doctrine be true, all we can say is that tuberculosis is recovered from more frequently than has been supposed.—*Epitome*.

DISINFECTION OF DWELLINGS AND OF INHABITED ROOMS.—Drs. Guttman and Merke, of the City Hospital Moabit, in Berlin, have made an investigation as to the relative value of various methods

of disinfecting inhabited rooms, and have published the results in a paper in *Virchow's Archiv.* of March 2, 1887. The main points kept in view in the inquiry were that a satisfactory method should destroy the vitality of the bacteria, should not injure the house or furniture, should not be dangerous to the health of the persons in the house or of the person applying it, should involve the least possible labor in its use, and be as cheap as possible. The bacillus anthrax was taken as the test organism, and was dried in silk fibres and scattered through the room, on rugs, etc. Disinfection was attempted by rubbing the floor, ceilings, and walls with disinfectant fluid and by spraying the same on the rugs, etc. The solutions experimented with were a five per cent. solution of carbolic acid, and solutions of bichloride of mercury of various strength. Their conclusion is that a solution of bichloride of mercury, 1 to 1000, used as a wash and a spray, is the most certain, the cheapest, and in all respects the best for disinfecting inhabited rooms.—*Sanitary Engineer.*

ENGLISH AS SHE IS TAUGHT.—Mark Twain contributes to the *Century* a number of illustrative examples of the failure of teaching to educate the pupil, taken from a school-master's actual experience. From them we select a few with a medical bearing.

Physiology is to study about your bones, stomach, and vertebrae.

Occupations which are injurious to health are carbolic acid gas, which is impure blood.

We have an upper and lower skin. The lower skin moves all the time and the upper skin moves when we do.

The body is mostly composed of water, and almost one-half is avaricious tissue.

The stomach is a small pear-shaped bone situated in the body.

The gastric juice keeps the joints from creaking.

The chyle flows up the middle of the back bone and reaches the heart, where it meets the oxygen and is purified.

The salivary glands are used to salivate the body.

In the stomach starch is changed to cane sugar and cane sugar to sugar cane.

The olfactory nerve enters the cavity of the orbit and is developed into the special sense of hearing.

The growth of a tooth begins in the back of the mouth and extends to the stomach.

Socrates destroyed some statues and had to drink Shamrock.

Ipecac: a man who likes a good dinner.—*Phila. Med. Times.*

THE DANGER OF HYPODERMATIC INJECTIONS OF MORPHINE IN THE TREATMENT OF STRANGULATED

HERNIA.—Dr. Routier had operated twice for strangulated umbilical hernia; the first operation was performed twelve hours after the strangulation and was a perfect success. He was not called to the second until five days after the onset of the trouble, and found gangrenous points scattered along about thirty inches of intestine; he resected the entire affected part but the patient soon died. This patient had been treated with injections of morphine, which had relieved the pain and arrested the symptoms, and thus caused the grave error of permitting fatal temporization. He has ascertained that the use of injections of morphine is very common in strangulated hernia. Various cases have been published in favor of this treatment, but none are convincing; it is impossible to understand how morphine can favor spontaneous reduction; in that case it would be necessary for the strangulation always to lie in the ring and for the relaxation of the muscles to have an influence upon it, which is doubtful. Nothing, then, is further from being proven than the good results of this treatment; on the contrary, its dangers are self-evident, since, by diminishing pain and vomiting, it permits temporization, which is always exceedingly dangerous, for the operation is acknowledged to be the more dangerous as it is delayed. The treatment of strangulated hernia by morphine should be very energetically rejected, and it should be held as an axiom that a patient with strangulated hernia should not be left until relieved.—*Annals of Surgery.*

EXPERIMENTS IN HYPNOTISM.—Hypnotism and Dr. Charcot continue the Parisian sensations of the day. A most interesting *séance* took place yesterday morning in the museum of the Salpêtrière Hospital. Dr. Charcot received a delegation from the Société de Médecine Légale, commissioned with examining the possibility of any one under hypnotic influence making or signing a will. A very curious experiment was made, in which a young girl, under Dr. Charcot's admonition, signed a paper, after having refused to do so for several minutes. She remembered having received the paper from one of the members of the commission. Dr. Brouardel then made her a present of fifty francs. The experiment tends to prove that, if such a thing is improbable, it is not impossible.

This study has become a passion among the medical men, who say it may greatly help legal procedure, inasmuch as by sending criminals to sleep and dragging their secret from them while under hypnotic influence there would be little fear of judges condemning the innocent for the guilty. A theft in the hospital was found out in this way by Dr. Marié, for many years Dr. Charcot's assistant. The subject refused at first to tell where the stolen object was concealed. After a little

diplomacy, however, on the part of the young doctor, who told the sleeping girl he was the young man from whom the card-case had been taken, and not to fear telling him where it was, she gave the detailed account of having stolen it, and told where the card-case was to be found. Dr. Marié immediately went to the spot indicated, where, sure enough, the stolen article was found.—*Paris Cor. New York Herald.*

THE TREATMENT OF ACNE.—LASSAR recommends the following paste for all forms of acne:

B naphthol	10 parts.
Precipitated sulphur	50 "
Vaseline or lanolin	25 "
Green soap	aa 25 "

This is to be spread upon the skin to the thickness of the back of a knife-blade, and left on for fifteen or twenty minutes, when it will cause a little burning. It is then to be wiped off with a soft cloth, and the skin powdered with talc. The skin soon becomes inflamed, then turns brown, and finally peels off. The desquamation can be hastened by the application of Lassar's paste with two per cent. of salicylic acid. When the desquamation has ceased, the acne will be found to be greatly benefited.—*Therap. Monatsh.*

ALMÉN'S TEST FOR SUGAR IN THE URINE.—Dr. Norderling, of Rockford, Ill., in referring to the defects of Trommer's test for saccharine urine, sends the formula proposed by Professor Almén, of Upsala, which, he says, possesses many advantages. It is reliable, and will keep unchanged for years. The following is the formula:

R. Caustic soda, Gm. 8 (3ij.) in water Gm. 100 (3iij.)
Potassium-sodium tartrate Gm. 4 (3iv.)
Bismuth subnitrate Gm. 2 (3ss.)

The urine is first to be tested by heat and nitric acid for albumen, and, if any is present, it is to be separated by filtration. In testing for sugar, one part of the solution is used to ten parts of urine. By means of this bismuth solution, Dr. Norderling affirms, sugar may be detected, when present in the proportion of only .05 per cent. The preparation of the solution should be intrusted only to a competent chemist.—*Med. Rec.*

A PATHOGNOMONIC SYMPTOM OF TUBERCULAR MENINGITIS.—In a paper read before the Chicago Pathological Society, Dr. Skeer called attention to a symptom which had not been mentioned in the literature on tubercular meningitis. The symptom is a small circle which forms in the iris, near to and completely surrounding the pupillary edge. It is very indistinct at first, but in from twelve to thirty-six hours, the whole margin of the iris will be involved, having become of a whitish or yellowish-brown color, and appearing irregular, thickened

and somewhat granular. This cloud-like appearance is in some cases very evanescent, which makes it necessary to examine the iris at every visit. If it can be established that this symptom is co-existing always and only with tubercular meningitis it will be of great diagnostic value, for it is exceedingly efficient, and not less important to diagnose the tubercular from simple meningitis in the acute stage of the former disease.—*New Eng. Med. Month.*

POINTS IN THE TREATMENT OF GONORRHOEA.—It will be well to paste the following recommendations of Dr. Otis in your hat, that you may have them always handy for reference:

1. Fully explain to the patient the inefficiency of popular remedies, and the dangers attending their use.
 2. Secure absolute personal cleanliness, thereby preventing infection of other parts, and insist upon as nearly perfect rest in bed as the exigencies of the case will permit.
 3. Soak the penis frequently in water as hot as can be borne, but more especially during the act of micturition.
 4. Recommend milk as a diet, and prescribe alkaline diuretics and mineral waters as internal medication.
 5. Secure absolute freedom from sexual intercourse and from thoughts associated therewith.
- Perfect faith in and obedience to these simple formulæ, he insists, will insure a successful ending of all uncomplicated cases before the seventh week.—*Med. and Surg. Rep.*

TRANSPLANTATION OF HUMAN BONE IN A CASE OF UNUNITED FRACTURE.—Professor A. Poncet, of Lyons, reports the case of a man of forty-three years who suffered from an ununited fracture of the tibia, the ends of the bones being atrophied and 35 mm. to 40 mm. apart. He removed the first phalanx of the great toe, on a limb recently amputated, sawed off the articular ends, and split the bone in two. One of these halves, 26 mm. long, was fastened between the freshened ends of the broken tibia, with due antiseptic precautions. Fibrous union took place at one end, osseous at the other. There was no necrosis.—*Med. Rec.*

IN THE BRONCHO-PNEUMONIA of children the treatment in Paris is ipecacuanha to the extent of vomiting the patient occasionally, the use of the bromide of potassium to quiet the cough, and the free use of alcohol. No opium is given. Mild forms of counter-irritation are applied to the chest. In croupous-pneumonia the treatment is expectant, and alcohol is used, though Professor Jaccoud gives tartarized antimony in the early stages when the patient is robust.—*Paris Correspondent of the Chicago Medical Journal.*

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THE LATE DR. FULTON.

Since our last issue, the hand of death has fallen upon Dr. John Fulton, the editor-in-chief and proprietor of this journal. The illness which ended fatally was the result of a severe cold taken in the course of ordinary professional duties, and although it was severe, yet at first Dr. Fulton confidently expected to be all right in a few days. He did improve most wonderfully, so that on the Tuesday (the 10th inst.) before his death, he sat up in bed and occupied himself for at least two hours, in answering correspondence and other matters connected with the LANCET. But unfortunately, little as he expected such a thing, this was to be the last work to be done by the assiduous and ever faithful worker. For within a very short time afterwards delirium set in, and continued till Sunday, the 15th, when death closed the scene. His disease was typhoid pneumonia.

The loss of such a man as Dr. Fulton is one difficult to estimate. In every capacity he was faithful to duty. No family could have a kinder or more judicious head. He has left behind him a son and three daughters, whose well-being was the object ever nearest to his heart, and whose loss, in the sad and most unlooked-for removal of their only surviving parent, is simply incalculable. The family has, and will continue to have, the heartfelt sympathy of every one of their late respected father's wide circle of friends.

Dr. Fulton was born in the Township of South-

wold, Elgin County, Ontario, on the 13th of Feb., 1837, the year of the rebellion. His father was a highly respectable farmer of Irish origin. His mother's family had originally come from Scotland, and their son John very early showed all the quickness of the one race and the shrewdness and perseverance of the other. He began his early education when very young, and continued for several years at school, always one of the best behaved and most advanced of the scholars.

He continued at home on the farm till he was 18 years of age, when his health, never robust, although as a rule good, was such as to warrant him in seeking a less laborious and more congenial occupation. He became a school teacher, having obtained successively several certificates, and was as usual, not very long before reaching the highest grade. As a teacher he was, wherever he taught, most successful—seeing clearly himself every point he desired to teach others, he had the somewhat rare but invaluable power of making it clear and simple to every pupil—a power which characterized him all through life in his subsequent career as a prominent professor of various branches of medical science.

He began his medical studies under the supervision of Dr. J. H. Wilson, of St. Thomas, a highly respected medical man, still engaged actively in his profession. From the moment of his entrance on his professional studies he was characterized by unremitting zeal—never being idle, doing as much work in the way of study in a week, as would take most young men a month to master. In due course he entered the medical school, so long and so successfully carried on by the late Hon. Dr. Rolph; And here, he at once ranked as one of the best men of his year. He was ever most ambitious, and was not content with matriculating as usual in medicine alone, but also matriculated in arts at the University of Toronto, taking a high position in this examination.

After completing his course he graduated at Victoria University, of which at that time Dr. Rolph's school was the "Medical Department." He also went up for his examination and graduated in medicine at the University of Toronto. He had hardly taken his degree in Canada, when he went to New York and spent some time attending with his customary regularity, Bellevue Hospital in that city, and very shortly left for

England where he spent all the time at his disposal in the hospital wards and at his studies. He successfully went up before the Royal College of Physicians of London and the Royal College of Surgeons of England, and obtained the licence of the one and the membership of the other. He then visited Paris and Berlin for a brief space, and as usual was found following the great masters of these capitals around the hospitals, never losing sight of his great aim—the increasing of his already large store of professional knowledge. Shortly after his return to Canada he was married (Jan., 1864) to Miss Isabella Campbell, of Yarmouth, Ont., whose premature decease in October, 1884, all but crushed his heart, and who was deservedly loved and respected by all who knew her.

Dr. Fulton settled in Fingal, Ont., for the practise of his profession, and had not been there long before he was tendered by the late Hon. Dr. Rolph and accepted the professorship in Anatomy, in the medical school of which he had so recently been a distinguished student. His duties as a professor were begun with enthusiasm, and as a medical teacher he was a success from the very first. Not content, as most men of his early age would have been, with the high position he had already reached, he attended University College classes in arts, with the intention of graduating in arts at the Provincial University. This intention, owing to constantly increasing duties, he had most reluctantly to abandon; for he greatly disliked to give up any plan on which he had deliberately set his heart. In addition to his professional and professorial duties, in 1867 he began and shortly completed his work on Physiology, which was for years highly prized by successive classes of students, as giving a clear and succinct epitome of that subject in the briefest possible compass, and which he subsequently re-wrote and enlarged for a second edition. In 1869-70 he lectured on physiology and botany with the same acceptance as had characterized his lectures on anatomy.

In 1870 he busied himself, in addition to other duties, in writing a work on *Materia Medica* which, however, from stress of other labors, was never completed. This year he sent in his resignation of his chair in the college, owing to difficulties which had arisen, and in consequence of which Drs. Rolph, Geikie, and Fulton resigned together; Dr. Fulton consented, however, on being requested

to do so, to withdraw his letter of resignation. In August, 1870, he bought from its then proprietor the *Dominion Medical Journal*, which had been carried on for a short time, and into which Dr. Fulton at once infused life and vigor. He changed its name to the CANADA LANCET, under which title it appeared for the first time in September, 1870, and under Dr. Fulton's indefatigable editorship has been continued ever since; the LANCET having in that time risen from having hardly any influence and a very small circulation, to the position it now holds, of being the most influential and widely circulated medical journal in the Dominion of Canada; a change effected by its proprietor's amazing and continuous industry, aided by his great business tact. In March, 1871, Dr. Fulton finally resigned his chair in Victoria College Medical School, and was offered and accepted the professorship of Physiology in Trinity Medical College. This he continued to hold, and to discharge its duties with distinguished ability and satisfaction to all concerned until a few years ago, when he succeeded his colleague, Dr. Bethune, on that gentleman retiring from the chair of Surgery. This chair, he filled ably and well till his death, and in connection with it, he was also one of the surgeons to the Toronto General Hospital, which institution has in his death sustained a severe loss.

As an editor of a medical journal, our readers do not need to be told that Dr. Fulton was earnest, painstaking, and thorough in a most unusual degree. The same, too, may be said of him as a medical teacher, and indeed in every other relation in life where he had duties to perform. He was for nearly twenty years before his death a member of Knox Church, Toronto, and one of the trustees of that church. Here, his advice and remarkable clear-headedness will be much missed. His memory will be long cherished, and his example it is to be hoped will be followed by not a few of our young medical men. For as Dr. Fulton made himself what he was, by his persevering efforts, for he was essentially a self-made man, they too, by doing and working as our departed confrère did, may come to occupy the highest positions in public and professional influence and respect.

TEN per cent. of the whole amount of alcohol manufactured in the U. S., is used for medicinal purposes.

UTERINE HEMOSTATICS.

Hemorrhage from the uterus is of such frequent occurrence, and so often of serious import, that means for its arrest have been sought for in all ages. Experiments with countless agents, having this object in view, have been made, from the earliest period of which we have any record, down to the present day. Many of these agents have been vaunted at various times as specifics, and physicians have exultingly exclaimed, Eureka! I have found it. But further experience failed to establish their alleged virtues, and when weighed in the balance by time, they were found wanting. The vegetable and mineral astringents long held undisputed sway, and up to a comparatively recent date occupied the first place as hemostatics, but like their antecedents, failed to maintain their position, and were justly superseded. They only held this position so long, because of our want of knowledge of something better, and not because of their innate and established virtue. Yet many learned and conscientious physicians placed implicit confidence in them in former days. We well remember our professor of obstetrics repeatedly asserting, that if deprived of acetate of lead, he would "abandon the practice of midwifery," yet, who at the present day places any reliance on that remedy in uterine hemorrhage? It is difficult to conceive how astringents could exert any valuable styptic power, when passed through the system. Only a possible infinitesimal portion in homeopathic dilution could get to the bleeding vessels. But doubtless it was thought by our fathers that they acted "dynamically." Their employment for so long a period, only proves the besetting tendency in medicine to self deception, even among the most cautious and conscientious. Nor can we boast of freedom or exemption in this respect, for doubtless many of our favorite remedial agents will be superseded in future, as medical knowledge progresses.

The inclination at present is to rely less on internal remedies, ergot alone excepted, and more on such agents as water, heat, and electricity. Contraction of the muscular fibres of the uterus and of blood vessels is the object to be attained, hence the agents which accomplish that most rapidly and effectually, are the ones indicated. Mechanical

irritation of the uterus internally and externally; removal of foreign bodies, injections of hot water, which in addition to its mechanical action, produces specific effect, by heat, and the application of electricity, the most potent and rapid stimulant to muscular fibre known, are the agents now chiefly employed, and with much better results, than those produced by any former treatment. Styptic liquids injected into the uterus are sometimes employed with good effect, but the danger of setting up severe irritation, inflammation or some other morbid action, forbids their use except in extreme cases. Hot water applied by means of a rubber bag to the lumbar vertebrae, and injections into the vagina and even uterus, have been found more effectual in controlling profuse menstruation and uterine hemorrhage, and much less dangerous. The water should be as hot as can be borne, and should be continued until the hemorrhage abates or ceases.

The only internal remedy upon which reliance can be placed in acute cases, is ergot. This should be administered first, especially if the uterus be in an advanced state of development, either from pregnancy or from some pathological cause. But if it be of normal size, ergot is less effectual and cannot be relied on. Some few remedies, such as digitalis, etc., may be found useful to lessen the rapidity of the circulation, but they do not effect a cure. When hemorrhage results from dyscrasia, or some altered condition of the blood, and one attack renders the system more liable to a second, then iron, quinine, arsenic, etc., act slowly but effectually by improving the plasticity of the blood, and otherwise restoring it to a normal condition. Cannabis indica has been strongly recommended in hemorrhage caused by uterine fibroids, and in painful menorrhagia, but it is a very unreliable remedy. Opium and the alkaline bromides, from their sedative effects, may benefit some cases of menorrhagia but can hardly be classed among the uterine hemostatics. Hydrastis and hamamelis have recently been strongly endorsed for this purpose. It is claimed that they exert an undoubted beneficial effect on hemorrhages, passive congestions, and the pain which often accompanies these pathological conditions. Sufficient time has not elapsed to pronounce upon their merits. We can only hope that the virtues attributed to them may be established by more extended experience, and that they possess all that their advocates claim for them.

IODIDE OF POTASSIUM IN THE LATER LESIONS OF SYPHILIS.

The proper use of iodide of potassium in the later lesions of syphilis does not seem to be given the attention due it. This is particularly true of lesions of the nervous system. Our text-books do not seem to advocate the use of iodide of potassium in the quantities demanded in grave cases. Recent authority speaks of giving large doses, but does not urge the necessity for heroic doses in alarming cases. In cases where there are no alarming symptoms, twenty, thirty, or forty grains of the potassium iodide three times a day is ample. In these doses the symptoms can be watched and the doses increased in size to suit the endurance of the individual.

Syphilis of the nervous system, characterized by convulsions, hemiplegia, syphilitic hemispasms or coma, necessitates a quantity commensurate with the gravity of the cases; hence, in extremely unfavorable cases, from three hundred to five hundred grains should be given every twenty-four hours till the alarming symptoms are relieved. The drugs should be largely diluted. While several authors recognize the necessity of prompt treatment and large doses, they do not express the facts as forcibly as is required. We draw this conclusion from our experience with cases of tertiary syphilis that were under the care of physicians and treated for months without any apparent benefit. The iodide of potassium was employed in what was supposed to be large doses—twenty or thirty grains three times a day—without showing results. As soon as the dose was increased to fifty or eighty grains three times a day the effect was soon noticeable. Iodism or gastro-intestinal irritation is apt to follow the use of large doses, provided the drug is taken on an empty stomach, but if taken on a full stomach, or well diluted, no evil effects are, as a rule, noticeable.

COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.—The following is the list of successful candidates at the College of Physicians and Surgeons of Ont. :—

Primary—Honors, H. W. Armstrong, J. H. C. F. Fisher, W. R. Wade. *Pass*—E. C. Arthur, R. K. Anderson, W. J. Armstrong, T. A. Amos, W. E. Almas, J. C. Auld, J. F. Brown, F. J. Bradd,

J. Brown, P. Brown, J. J. Brood, F. J. Bateman, W. W. Birdsall, U. E. Bateson, J. E. Bowman, G. M. Bowman, T. F. Bibby, James Bell, W. J. Bradley, W. C. Barber, J. D. Balfour, E. R. Bishop, H. Becker, W. P. Chisholm, James Campbell, G. G. Caron, E. Clouse, J. A. Cross, J. T. Campbell, J. H. Collins, W. H. Clarke, J. Crawford, A. W. Campbell, J. C. Connell, R. M. Cooper, C. A. Cline, J. A. Creasor, W. P. Chamberlain, G. K. Crosthwaite, W. H. Clapp, H. Chapple, J. Caruthers, F. P. Cowan, W. H. Cooke, Jennie S. Carson, J. Duff, M. C. Dewar, G. A. Dickinson, W. A. Dixon, G. F. Dryden, C. F. Durand, Lelia A. Davis, W. J. Early, W. Egbert, A. R. Elliott, Elizabeth Embury, A. T. Emmerson, G. F. Emery, C. L. Easton, H. C. S. Elliott, E. Evans, A. E. Edgar, W. A. Fish, F. F. Ferguson, A. B. Foster, T. A. Fitzgerald, J. B. Fraser, T. A. Ferguson, F. E. Godfrey, W. C. Gilchrist, J. C. C. Grasett, John Grant, J. A. Greenlaw, O. Groves, E. H. Greene, E. W. Gemmill, H. Grundy, A. J. Goold, W. H. Grooves, B. Hawke, W. E. Harding, R. G. Howell, A. H. Holliday, M. W. Hart, A. J. Harrington, J. S. Hart, J. M. Hotson, C. H. Hamilton, A. J. Hunter, F. B. Harkness, H. R. Hay, J. A. Howitt, W. Hall, E. H. Horsey, J. M. Henwood, S. Hutton, D. Henderson, T. H. Johnston, S. J. Jones, G. F. Jones, T. J. Jamieson, D. Jamieson, J. W. Johnson, H. W. Jeffs, W. Kerr, R. A. Kennedy, J. D. Kennedy, J. A. A. Kelly, I. J. Lane, F. Lawrence, Marion Livingstone, H. Mason, H. J. Meiklejohn, J. H. O. Marling, Albert Myers, D. Mitchell, G. Mark, C. N. Mallory, T. J. Moher, W. C. B. Murray, J. T. Manes, M. G. Millman, W. J. Moxwell, R. G. Montgomery, W. J. Milne, E. Meek, A. B. Macallum, H. A. Minchin, R. D. Moffatt, H. J. Mullin, B. Z. Milner, T. A. Moore, J. Mundell, P. J. McDonald, C. H. McLean, J. R. McCabe, T. J. McNally, J. Y. McLachlyn, H. A. McColl, C. J. McNamara, H. McEwen, A. M. McFaul, H. R. McCullough, J. McGillawee, E. McEwen, A. McKellar, T. L. McRitchie, T. P. McCullough, D. H. McIntosh, J. H. McFaul, sr., J. H. McFaul, jr., D. McKay, J. McBride, C. McLachlan, J. M. McFarlane, S. H. McCammon, A. L. McDonald, J. H. Nimmo, T. J. Norman, W. W. Nasmyth, J. P. Ogden, T. O'Neil, T. C. Patterson, D. H. Piper, J. A. Phillips, A. G. Patterson, R. H. Palmer, J. C. Patton, W. F. Pratt, T. A. Patrick, A. H. Perfect, J. F. Palling, L. T. Pare, W. R. G. Phair, H. D. Quarry, S. H. Quance, J. W. Ross, J. A. Ross, R. R. Ross, J. H. Reid, J. P. Roger, S. T. Rutherford, L. F. Ross, A. J. Reynolds, P. J. Rice, G. S. Rennie, D. A. Rose, J. B. Reid, R. P. Robinson, J. F. Rogers, A. W. Stinson, F. G. Salter, W. J. Stevenson, W. H. Smith, Geo. H. Shaver, D. J. Sinclair, F. N. G. Starr, G. Stewart, A. A. Smith, W. D. Scott, O. Sisley, E. Sisley, D. M. Smellie, W. A. Smith, W. A. Sangster, G. Silverthorne,

T. L. Stringer, Gustave G. Smith, Adam Thomson, F. G. Thompson, H. B. Thomson, H. A. Turner, P. W. Thompson, S. H. Thorne, J. Tyrrell, R. E. Walker, J. S. Wardlaw, J. J. Wiley, R. J. Wade, A. E. Wills, G. R. Watson, J. Webster, H. Wallwin, H. W. Westlake, A. J. Wilson, G. A. White-man, F. A. Wygle, A. F. Warner, M. Wilson, W. A. Whitney, W. M. Wright, L. Watson, S. R. Walker, T. S. Webster, H. W. Wilson, H. P. Wilkins, S. N. Young, H. A. Yeomans.

Final—T. A. Amos, Geo. Acheson, J. Appelbe, W. Armstrong, O. R. Avison, A. G. Allen, J. V. Anglin, James Bell, J. D. Balfour, J. J. Brown, A. D. Barnett, S. G. T. Barton, A. Bradford, J. W. Begg, G. G. Caron, E. Clouse, A. W. Campbell, W. H. Clarke, C. R. Charters, A. E. Collins, D. Cameron, J. M. Cameron, E. Campbell, G. F. Dryden, C. F. Durand, D. A. Dobie, C. L. Easton, Ed. Evans, J. H. Eastwood, A. J. Errett, W. A. Fish, A. B. Foster, A. E. Freeman, E. J. Free, Ada A. Funnell, J. M. Fraser, A. D. Graham, Jas. Galloway, J. Guinane, H. P. H. Galloway, W. R. Gillespie, W. J. Glassford, M. J. Glass, W. F. Graham, M. Gallagher, S. Hawke, M. W. Hart, H. R. Hay, Wm. Hall, J. H. Hoover, R. R. Hopkins, T. H. Halsted, S. J. Jones, G. F. Jones, J. W. Johnson, D. Johnson, M. James, R. A. Kennedy, J. A. A. Kelly, M. J. Keane, F. Lawrence, Marion Livingston, H. Lawson, A. E. Lackner, W. F. Loucks, T. A. Moore, J. Mundell, D. Mitchell, M. Mullock, J. A. Macmahon, C. F. Moore, M. Maybee, J. E. Mabee, C. H. McLean, A. M. McFaul, H. R. McCullough, E. McEwen, A. L. McDonald, D. P. McPhail, J. H. McCassey, T. McKenzie, C. D. McDonald, James McLurg, J. H. Nemo, T. J. Norman, W. Newell, O. G. Niemeier, A. Ochs, D. H. Piper, A. H. Perfect, L. T. Pare, T. S. Philp, J. A. Palmer, A. F. Pirie, A. R. Pyne, S. H. Quance, James Rea, G. C. Richardson, J. W. Ross, R. R. Ross, L. F. Ross, D. L. Ross, J. B. Reid, W. J. Stevenson, George H. Shaver, G. Stewart, W. D. Scott, Gustave G. Smith, C. R. Staples, J. W. Shellington, W. O. Stewart, W. R. Shaw, J. C. Smith, D. Sinclair, W. A. Shannon, J. R. Shannon, A. J. Stevenson, R. S. Smith, Thomas Scales, Adam Thomson, S. H. Thorne, M. Tovell, J. M. Thompson, J. D. Thorburn, A. F. Warner, W. R. Walters, W. J. Walsh, A. E. Yelland.

ONTARIO MEDICAL ASSOCIATION.—In addition to the papers mentioned in our last two issues, the following have notified the Secretary, Dr. J. E. White, of their intention to be present, at the meeting to be held in Toronto, next Wednesday and Thursday, and give papers on the following subjects:—Dr. G. H. Fox, New York, “on the chirurgical treatment of lupus vulgaris, pustular

acne and hypertrichosim”; Dr. Groves, Fergus, “Prostatotomy”; Dr. Holmes, Chatham, “Puerperal Fever”; Dr. Adam Wright, Toronto, “Removal of Uterine Appendages”; Dr. Turver, Parkdale, “Reduction of temperature in acute diseases of air passages”; Dr. J. E. Graham, Toronto, “Case of Herpes Zoster, with pathological notes”; Discussion in Ophthalmology, opened by Dr. Rosebrugh, Toronto, “Some practical points in the treatment of diseases of the Eye”; Discussion in Surgery, opened by Dr. Strange, Toronto, “Points in the Minor Surgery of the general practitioner”; Dr. Macdonagh, Toronto, “Primary tuberculosis of the larynx”; Dr. Ferguson, Toronto, “Arsenical neuritis”; Dr. Murray, Thorndale, “Case of laceration of femoral artery”; Dr. W. H. B. Aikins, “Micro-organisms of puerperal fever”; Dr. Fenwick, Kingston, “Laceration of cervix uteri”; Discussion, Dr. Henderson’s notice of motion for the formation of Medical Defence Union, for the purpose of defending or assisting members in cases of alleged malpractice, where unjust or groundless charges are brought against them. We look forward to an exceptionally interesting meeting, both as regards the subjects to be discussed, and the gentlemen taking part in them. A number of papers are expected, which have not been received at the time of going to press.

ADMINISTRATION OF OXYGEN IN CROUP.—Dr. Wagner, of Indiana, writes to the *Br. Med. Jour.*, suggesting the direct administration of oxygen as a substitute for tracheotomy or intubation in membranous croup. He mentions three successful cases, and reasons, that as the object of tracheotomy or intubation is to supply oxygen to the blood, this may be done as above suggested. He says the relief afforded is perhaps more rapid than by tracheotomy, and, he adds, the practice should have the following advantages: “The membrane cannot extend below the incision, and thus render the operation useless; it does not cause broncho-pneumonia, as intubation sometimes does; and all physicians are not prepared to tracheotomise or intubate, while anyone can generate oxygen and apply it. Also, oxygen seems to lend more strength to cast off the membrane, and the trachea is not encumbered by a tube or false outlet for expelling air from the lungs.”

ON THE DIAGNOSIS OF LOCOMOTOR ATAXY.—

Dr. Jonathan Huchinson in an able lecture, (*Med. Press. & Cir.*) on the "Surgeon's share in Locomotor Ataxy," after combating the prevailing doctrine that ataxy is simply a sclerosis of the posterior columns of the spinal cord, gives the following symptoms as aids to diagnosis. Let me, he says, disturb your faith in the cardinal symptom, that the patient is unable to steady himself when his eyes are shut, for though it is a critical symptom, it is by no means present in all cases, and is only one amongst a very large group of very interesting defects and failures in nerve function, which go to make up this exceedingly interesting and variable disease. A very useful question to put to a patient is, as to whether he can stand over the wash-hand basin without assistance during his ablutions, that is, without using his left hand to steady himself, if he can then he is not ataxic, or but slightly so. Next you have to investigate the Argyle Robertson phenomena, which is simply this, that the patient has a pupil which is small and incapable, or almost incapable, of dilatation, when the impulse of light on the retina is withdrawn, so that at first you might be tempted to record the fact that the patient had motionless pupils; they are simply in a condition they ought to be, when exposed to a full light. But if you try him at accommodation, and tell him suddenly to look at some small object and then at the sky, it will be found that when he converges his eyes on some close object, then his pupils manifest the power of contracting a little more, and when he looks at a distant object, his pupils will become a little, a trifle larger again, still the power of dilatation is very defective. Then, next in order, are the peculiar pains in the limbs, generally described as gnawing or rheumatic pains. Patients not infrequently come under the care of the surgeon, when these pains occur about the bladder and rectum, with the so-called "pelvic ache." To sum up the chief diagnostic symptoms, we have *ophthalmoplegia, internum* or *externum*, the *gastric crises, retention of urine*, and *disturbance of the powers of defecation*, then *ulcus pedis perforans, amaurosis, Charcot's joints, pelvic aches*, and lastly *herpes*. Ophthalmoplegia internum is due to paralysis of the nerves governing the intrinsic muscles of the eye, seen in the Argyle Robertson phenomenon. Ophthalmoplegia externum is due to defective action

of the oblique and recti muscles. When bladder troubles are present, the patient may allow his bladder to fill even above the umbilicus, yet he makes no complaint as under similar circumstances a patient with stricture would do. The *ulcus pedis perforans* has these peculiarities, that the part is first numb, then a corn forms which ulcerates and gets deeper, and it is notable that while a healthy person would be unable to stand upon the inflamed or ulcerated corn, the ataxic patient goes on standing on the ulcer till it proceeds to an unusual depth. The presence of herpes along the course of particular nerves with a tendency to become symmetrical, difficult to cure and frequently returning should create suspicion.

FATAL TEMPERATURES FOR BACILLI.—The following temperatures are given by Dr. Sternberg (*Med. Times*), as being the degrees of heat necessary to kill some of the more important of these organisms :

Typhoid bacillus	132.8°
Cholera bacillus of Koch	125.6°
Anthrax bacillus	129.2°
Tubercle bacillus	212°
Pneumococcus	136.4°
Staphylococcus p. aureus	136.4°
Streptococcus of erysipelas	129.2°
Micrococcus Pasteurii	140°

PERMANENT FEHLING'S SOLUTION.—Dr. McCulloch (*Brit. Med. Jour.*) gives the following as plain directions for the above fluid. Sol. A. :

R—Cupri sulph. (cryst.), . . . grs. 181
 Aquæ, ad. ʒ̄ vj.—M.

Sol. B. :

R—Rochelle salt, grs. 728
 Caustic soda, grs. 400
 Aquæ, ad. ʒ̄ vj.—M.

When Fehling's solution is required, mix equal volumes of sols. A. and B.

POMADE FOR CUTANEOUS DISORDERS DURING PREGNANCY.—Monin, in *L'Union Médicale*, gives the following formula :

R—Zinc. oxid. pulv., grs. iij.
 Hydrarg. ammoniat., grs. jss.
 Ol. theobromi,
 Ol. ricini, āā ʒ̄ ijss.
 Ol. rosæ, gtt. x.—M.

SIG.—Apply to the face morning and night.

INFANTILE CONSTIPATION.—The following is said to be a very successful remedy in the above :

- R—Podoph. resin, grs. viij.
- Iridin, grs. v.
- Sp. ann. aromat., ̄j.

Digest for several days and filter.

SIG.—One or two drops at bedtime, on a piece of loaf-sugar, for a child of one year or under.

GASTRALGIA.—The following is recommended (*Med. Summary*):

- R—Tinct. stramonii, ʒ ss.
- Tinct. hydrastis, ʒ iv.
- Aquæ, lauro-cerasi, ʒ ijss.—M.

SIG.—ʒj, in water, every 4 hours.

REMEDY FOR NEURALGIA.—It is stated (*Med. Press*) that equal parts of eau de Cologne, ether and chloroform form a mixture which gives instantaneous relief in neuralgia. A few drops poured on a handkerchief, previously moistened with water and applied to the painful part, gives instantaneous relief. It is also very useful in nervous headache. The burning sensation which is first felt quickly disappears.

NEW DEODORANTS.—Dr. Leale presented, at a late meeting of the N. Y. County Med. Asso. a number of samples of new antiseptics and disinfectants with which he had been experimenting in his own practice. Among them was first, a substance called glycozone, consisting of pure glycerine with four volumes of ozone. It is an entirely odorless fluid, and effectually destroys all bad odors, and was thus suggested as a useful application for cases of offensive cancer. Another was a solution of peroxide of hydrogen, which is intended to take the place of Labarraque's solution of chloride of lime, which is highly offensive to some individuals. It should be used, diluted with water ten parts to one. It is also odorless and colorless.

INTERNATIONAL CONGRESS ON INEBRIETY.—The Council of the English Society for the Study and Cure of Inebriety, have completed arrangements for an International Medical Congress, to be held at Westminster Hall, London, July 5th and 6th, 1887.

The object of this Congress is to present and discuss the problems of inebriety medically, from

a purely scientific standpoint, by the best authorities. Papers and addresses are promised from a large number of the most distinguished physicians, both at home and abroad.

WHOOPIING COUGH.—A Norwegian physician claims that pertussis may be readily cured, even in one night, by causing the patient to sleep in a room in which sulphur has been burned.

FOR VENEREAL WARTS.—Equal parts of tannin and burnt alum is said (*Can. Med. Rec.*) to desiccate venereal warts, so that they can be rubbed off in a few days.

BRITISH DIPLOMAS.—The following Canadians have passed the late M.R.C.S., Eng., Examination—J. McLurg, (Trin.), A. F. McVety, (Queen's), and N. M. Parry.

PERSONAL.—Dr. A. R. Andrews, of Aylesford, N.S., has been appointed Government Medical Officer of Turks' Island, West Indies.

Wm. Ianson, Toronto, and Arch. Jamieson of Kingston, have obtained the L.S.A., Lond.

CHLORATE OF POTASSIUM IN EPITHELIOMA.—Reclus reports (*Gaz. des hôp.*) a number of cases cured in a few weeks, by keeping the part constantly covered with compresses wet with a saturated solution of the above drug.

Dr. A. D. ROCKWELL, says:—"Kidder's Induction coils are unique in construction and of unsurpassed efficiency in the treatment of those morbid conditions for which the Faradic current is indicated. The varying qualities of current proceeding from these coils, possess a differential value of no little importance, and are worthy a more careful investigation by those interested in electrotherapy than has yet been given them."

It is said that gonorrhœal ophthalmia does not always depend upon inoculation, but that it is an independent manifestation of the disease just as is the arthritis.

M. DOYDEN (*Br. Med. Jour.*) recommends the following in inflamed eczema and ulcerated impetigo; Salicylic acid, 2 grs.; lanolin, 50 grs.; zinc oxide, 24 grs.; starch, 24 grs.

Books and Pamphlets.

THE YEAR-BOOK OF TREATMENT FOR 1886. Philadelphia: Lea Bros. & Co. \$1.

This work consists of a critical review for practitioners of medicine and surgery, by eminent authors at home and abroad. Each department has been fully and concisely treated, and care has been taken to include only such clinical and pathological work as bears directly upon treatment. A full reference is given to every article noticed.

A COMPEND OF ELECTRICITY AND ITS MEDICAL AND SURGICAL USES. By Charles J. Mason, M.D., Assistant Surgeon U. S. Army. Philadelphia: Blakiston, Son & Co. 1887.

This little work presents a selection and classification of such facts and principles as will give a clear and short, but sufficiently comprehensive view of this now important branch of therapeutics. Certainly the average physician does not use this agent as often as the success attending its application would warrant, and we can heartily recommend the book to such practitioners as have not time to peruse more exhaustive treatises. To the student it will be of great value, as the definitions used are clearly put, a great desideratum for those whose time for the study of this branch is limited.

DRUG ERUPTIONS. A Clinical Study of the Irritant Effects of Drugs upon the Skin. By Prince A. Morrow, A.M., M.D., Clinical Professor of Venereal Diseases, Bellevue Hospital Medical College. New York: W. Wood & Co. \$1.75.

It is an axiom, that the prescriber should know all the effects that may be produced by any drug he orders, even the remote and unusual effects. While this is true, we doubt if most physicians have given much attention to such abnormal manifestations as the eruptions produced by the various agents used in the cure of disease. This subject of drug eruptions is of special interest, as they sometimes simulate very closely the exanthemata and other affections of the skin. Considerable attention has been devoted to this subject of late, and the work in hand seems to be an epitome of the views of observers in all countries. The amount of patience exercised by the author in selecting from the numerous sources of information, is wonderful. To this he has added the results of his personal observations, and has made a most useful and readable book. He omits the action of the less frequently used drugs, and confines himself in

the main to those which, from their every-day utility, are of practical importance to the ordinary physician in his daily work. We heartily recommend the work to all those desiring the latest information on this subject.

A PRACTICAL TREATISE ON OBSTETRICS. Vols. I., II. and III. (4 vols.). By A. Charpentier, M.D., Paris. Illustrated with lithographic plates and wood engravings. These are also Vols. I., II. and III. of the "*Clyclopedia of Obstetrics and Gynecology*" (12 vols.), issued monthly during 1887. New York: W. Wood & Co.

" Sometimes swiftly, sometimes slow,
Wave succeeding wave they go
A various journey to the deep,
Like human life to endless sleep!"

How many treatises on obstetrics have floated down the stream of time within the last half century? How many students of the present day know, even by name, such writers as Burns, Gooch, Badeloque, Dewees, Meigs, Ramsbotham, Rigby, Magnier, or Churchill? And yet these men were great in their generation, and did good work. But, "wave succeeding wave," they have gone, if not to "endless sleep," certainly to undisturbed repose. It is a sad fact, too, that as the stream progresses, the current becomes swifter, and its floatage more voluminous. Old age used to creep slowly over books; they now wilt and wither almost before reaching adolescence. Of all the assets a departing or an insolvent physician can bequeath to his heirs, or assign to his creditors, the very worst, even worse than his old clothes, are his old books—that is to say, all over two years old.

Messrs. Wood & Co. have launched upon the impetuous stream, in English form, a work of formidable dimensions, the production of the eminent Frenchman, Dr. A. Charpentier. We gratefully acknowledge receipt of the first three volumes, from a cursory perusal of which we have been led to hope that the enterprising publishers will have no reason to regret their spirited adventure. We cannot, however, refrain from suggesting to the Messrs. Wood, in the way of friendly advice, that they should in future look more closely after the execution of their plates, especially the reference letterings. An able anatomist may not be inconvenienced by this sort of defects, but they must prove formidable stumbling blocks to junior students.

Births, Marriages and Deaths.

On 15th April, at Toronto, John Fulton, M.D.,
Editor CANADA LANCET, aged 50 years.