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No. 6. }

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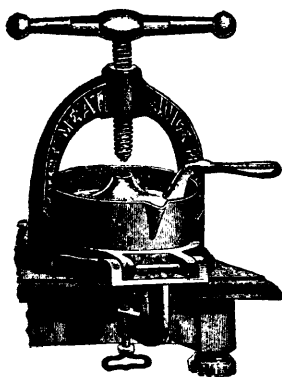
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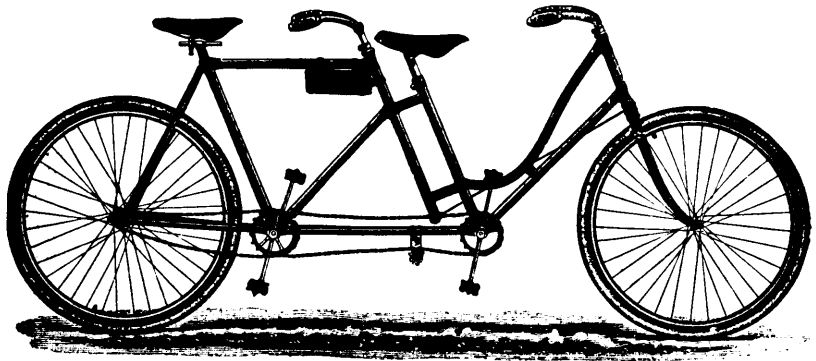
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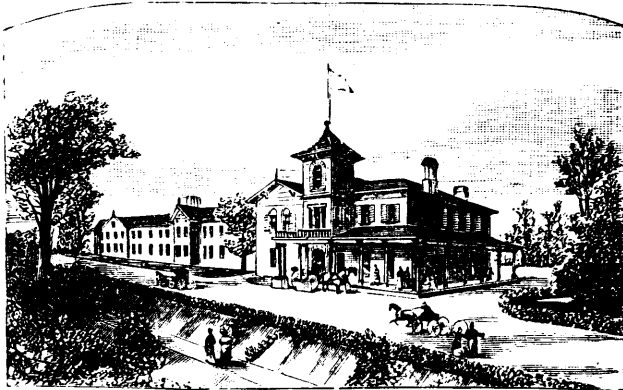
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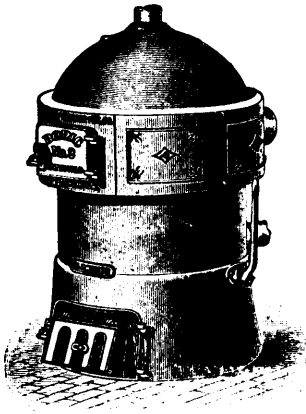
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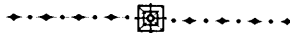
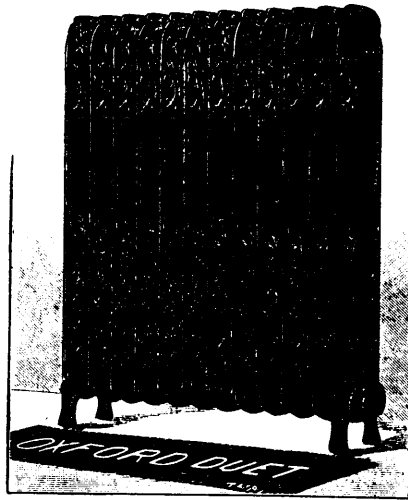
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J. MURRAY MCFARLANE, M.D.
D. J. GIBB WISHART, M.D.

Pædiatrics:

J. T. FOTHERINGHAM, M.D.
ALLAN BAINES, M.D.

Eye and Ear:

G. STERLING MYERSON, M.D.
C. TROW, M.D.

A CASE OF TYPHOID FEVER WITH UNUSUAL NERVOUS SYMPTOMS.

Read before Toronto Clinical Society, November 11th, 1896, by J. T. Fotheringham, Physician to St. Michael's Hospital, Toronto General Hospital Out patient Department, etc. Patient, L. S., in Toronto General Hospital from July 18th to September 28th, 1896.

Family History.—Unimportant.

Personal History.—Æt. 21, thin, of poor education and rather deficient intelligence. At about 15 years of age had chorea, and was very hysterical, having delusions, her mother says, for about a year. Three years ago she had acute rheumatism, from which she apparently recovered, till about one year ago it began again in sub-acute form affecting mainly the fingers, wrists, sometimes ankles, sometimes muscles of chest-wall. The heart has suffered, having a systolic mitral murmur.

Present Illness.—At end of 4th week in hospital from sub-acute rheumatism, temperature crept up in 3 days from an average of 99° F. to 104° F., when she was transferred to another ward as a typhoid suspect. This diagnosis was made certain only with difficulty and by the exclusion of septic processes, the pelvis, as well as other parts, being carefully searched for pus collections, but in vain. The rash appeared in due time, and the characteristic stools and the mode of convalescence also went to decide the nature of the case.

Heart.—From about 16th to 29th August, *i.e.*, during first two weeks of typhoid, heart was in threatening condition, running from 112-158 at various times, as seen by the appended chart. Stimulants were used freely during all this time, up to an ounce of brandy every 2 hours, a ½ oz. every hour, with 3 m. Liq. Strychn. every 4 hours.

Respiratory System.—No complication, but respiration during the above-mentioned period of heart excitement (two weeks or so) ran from 24 to 40. Bronchitis was not troublesome.

Digestive System.—Tongue was not very foul or dry, though characteristic enough. Odor of breath quite distinctly that of typhoid. The first few days constipation was distinct, even croton-oil being needed; but later on there was rather a slight tendency to diarrhœa. Tympanites can scarcely be said to have existed, and very little tenderness. Defœcation and micturition were involuntary (or partially due to mere uncleanness and carelessness) for nine or ten days, during middle of attack. Always took milk greedily and digested it well, crying for it loudly during the height of her period of delirium.

Nervous System.—Bore brunt of attack, which was much masked by hysteric conditions. The history of chorea and hysteria showed an outcrop here of an interesting kind. The first day of high temperature (104° F.) was August 15th, from which date for 10 days sleep was almost absent. She finally got sleep after five or six enemata (once every 4-6 hours) of bromide, hyoscyamus and valerian in large doses. During this 10 days period of sleeplessness, on the fourth day or thereabouts she fell into a state of trance, somewhat like that of coma-vigil, but differing in having no *subsultus tendinum*, and in having the peculiar expression of exaltation and restfulness seen in such cases, with eyes fully open but not distended, eye-ball slightly upturned, breathing tranquil. She would not speak or pay any attention to orders. The eyes could be closed by repeatedly placing the fingers gently on them when they would remain closed for some time. Her pulse ran during this period 100-132 per minute, and breath-rate 22-32. After 24 hours or so of this state she became noisy and unmanageable, not trying to leave bed, but crying and shouting so that she had to be removed to the attic to give other patients any sleep. She remained more or less noisy for nearly a week, having fits of crying and screaming of varying length and severity, with delirium, in which she accused herself of having committed murder and nearly all the other crimes forbidden by the Decalogue. She was at no time cataleptic, but the muscular movements, which began as a sort of subsultus as she grew noisy and delirious after her trance period, became more violent and continuous, making one think of chorea again. They gradually grew less clonic and became more tonic till it could be seen, as she lay in bed, that the flexors had the ascendancy everywhere. The thumbs were turned in, the fingers flexed and bunched, and the bedding firmly gripped. The legs were crossed and drawn up. She could be lifted up to a sitting position by the hand under the head, and if an attempt were made to pull an elbow out from the side the body would follow it. This period of muscular spasm occupied about 10 days in onset course and duration, and was ended by lysis—not suddenly. At its height there was well marked hysterical paresis of right side of face, eyes being unequally opened, mouth opened awry, and tongue protruded to right side. Every now and then during the week of marked muscular disturbance she would have lucid intervals (*sic*), during which she would do as she was bidden, put out tongue, etc., but usually lay dull and obstinate, with

expression of great mental distress, occasionally crying out to be prayed for, etc, and constantly champing, spitting and blowing out froth from the mouth like a maniac. By August 29th, *i.e.*, about 10 days from her attack of noisiness and delirium, she was lying quietly, with spastic state of muscles growing less each day, though still having involuntary (or partially, merely careless) movements and urine. September 27th up and dressed, but mind still ill-balanced, with tendency to melancholia of religious form. Left Toronto General Hospital 27th or 28th.

Treatment.—Throughout purely symptomatic—salol pretty steadily. Calomel or Epsom salts as needed. Stimulant as heart called for it, usually brandy—say as much as 1 oz. every 2 hours, and at times oftener. Liq. Strychn., m. 3, every 4 hours steadily until August 30th, when she was transferred again from the attic.

CLINICAL NOTES ON A CASE OF APOPLEXY.

BY A. J. HARRINGTON, M.D., TORONTO.

Patient, female, æt 34, primipara, five months pregnant, previous history good. She was stoutly built and plethoric. Father and mother alive. Mother has kidney disease. I received a message by telephone at midnight, from her husband, that she had a great deal of pain in her back. I telephoned a prescription to the drug-store from which he was telephoning as follows:

R Liq opii sedativæ..... mxl.
 Tr. Card. Co..... ʒi.
 Elix Simplicis ad..... ʒi.
 Fm. ʒii every four hours only if in great pain.

With the additional instruction to apply hot linseed poultices or a hot water-bag to seat of pain, and I would see her in the morning. Saw her next morning at 9 o'clock.

Her face and extremities were much swollen; still complained of the severe pains in lumbar region; the prescribed medicines had given no relief; the second dose she had vomited. She now complained of headache. Temperature 101.4, pulse 90, respiration 30. She ascribed her trouble to right lung, which she said gave her great pain every time she took a deep breath; but a careful examination revealed no trouble there. Her swollen features and extremities she thought a necessary sequence of her pregnant condition. She had had no headache, no backache, and no eye symptoms. I now ordered magnesia sulphate in a concentrated solution, to be followed by hot drinks, also caffein citrate grs. i., phenacetin grs. v., one powder every two hours. The saline to be repeated in an hour, if necessary. Got a specimen of the urine and took it for examination, with intention of soon returning. Found specimen contained 75% by bulk of albumen. Returned at 10.30 and found her just recovering from a convulsion. Her tongue had been severely bitten, but she said she felt much better. However, I gave her ʒi. chloral hydrat per rectum, and ½ gr. morph. sulph. with atropia ʒi. Examination re-

vealed an os uteri, small and extremely hard. I now sent for assistance. At 11.40 the facial muscles began to twitch, so I immediately gave chloroform, but the explosion came. She had been up to this time in a very comfortable condition; her pulse rate had gone down to 84. She suddenly cried out "Oh, my arm!" and her right arm, which had been slightly raised, fell limp to her side, and immediately coma, with stertorous breathing, came on. I gave chloroform pretty freely, but it did not change the character of her breathing. Her pupils were both dilated. Five minutes later Dr. Temple arrived.

Emptying the uterus was suggested, and after much difficulty, owing to the rigidity of the cervix, it was accomplished. The patient's condition never changed until the last, when her pulse went up to 160. No chloroform was necessary during operative procedures, although given to a certain extent, about $2\frac{1}{2}$ drams being used in all, the greater part of that amount having been used at the onset of the attack. Patient succumbed at 1.45, two hours and a quarter after the first convulsion.

This case, you will observe, has some very interesting clinical features. The primary fit was undoubtedly uræmic in its character. Its short duration, the bitter tongue, the presence of albumen in urine, headache, pain in renal region, the puffed face and swollen extremities, all indicated nephritis. The second fit was different. The exclamation of pain in right arm, the supervening comatose state, with sturtor, the dilated pupils, the unequal bilateral muscular relaxation, extreme cyanosis, no response to chloroform, all point to grave apoplexy, first most probably into right ventricle, thence into left ventricle through foramen of Munro. What was the hemorrhage due to? Was it owing to arterio sclerosis following nephritis, or was the existing nephritis the result of arterio sclerosis? Was the vascular disease hereditary, her aunt having since died of apoplexy at an early age? In this lies the obscurity. Osler mentions a case of ventricular apoplexy in a puerperal patient which was diagnosed uræmic. I am sorry that I am unable to have given a more definite history of her prodromic symptoms, but when one sees a case in the above condition for the first time, one is apt to treat the present first and the past afterwards. Every remedy was used to resuscitate this patient, but to no avail. Unfortunately, I was unable to obtain a post-mortem examination.

TORONTO CLINICAL SOCIETY.

At the last meeting of the Society a paper on neurasthenia was read by Dr. D. C. Meyers. He pointed out that owing to the wide prevalence of this disease much attention was being paid to the anatomical conditions which underlie it. The relation existing between intellectual effort and alteration of brain tissue was a subject which had been studied with much interest by different investigators. One of the most frequent causes of the condition was excessive mental exertion. During mental exertion hyperæmia and changes in the brain-cell structures were going on. This had been proven by experiments, which the essayist described. Two factors contributed to this condition—first, a general increase of

blood pressure during psychical activity; second, the manner in which the greater veins of the pia mater enter the longitudinal sinus, since these are directed in an opposite course to that in which the blood in the sinus flows. Hence the latter would tend to retard the venous flow, and, both acting together would favor the rapid production of hypercemia. Experiment had shown that the products of cerebral metabolism, being absorbed by the lymph which bathes the walls of the vessels, possessed the power of causing variations in the calibre of the blood-vessels. Experiments showing the change in cell-structure had been carried on in bees, birds, etc., examinations being made before and after the day's labor. The changes noted were referable to the changes in the form of the nucleus and the protoplasm. Photographs exhibited by the essayist showed (1) that in the unstimulated cell the nucleus stained lighter than the protoplasm; (2) that the first effect of stimulation reduces the staining power of the nucleus, and the protoplasm to one of equal intensity; (3) that the nucleus stains steadily and distinctly darker, and that it becomes deformed and crenated.

After referring to other observations of experiments of the above sort, the essayist referred to the great strides which had been made (1) in placing mental disease on a firmer anatomical basis; (2) in allowing us justly to conclude that since the nervous system presides either directly or indirectly over all the functions of the body, any serious disturbance in its action could influence the functions of these organs, and lead to the various disturbances met with in neurasthenia. As an example, he referred to the dyspepsia common in nervous weakness. It had been said that this was caused by the absorption of toxins from the alimentary canal. That toxins were so absorbed at a later period was more than probable, and the trouble by this means prolonged; but he thought the primary cause was to be sought for in the changes in the cortical cells of the brain, which caused the impairment of the digestive functions; and that it was only after these had occurred that the toxins played an important rôle.

Drs. Ryerson, Oldright and Spencer discussed the paper.

"Cases illustrating the cure of epilepsy and chorea by the relief of eye strain." A paper with this title was read by G. Sterling Ryerson. He said that headache arose from errors of refraction and muscular insufficiency. It was only a step further to admit that severe manifestations of nerve disorder, attended by gross lesions, might be caused by the same irritation. The first case referred to was that of A. W., aged 25. Consulted the essayist on account of headache, dizziness, loss of memory, and, at times, loss of consciousness. She had been under general treatment without benefit. Patient was found to be suffering from hyperphoria and esophoria and considerable weakness of vision. The right superior rectus was tenotomised, and in nine or ten days the head was better and she complained of no dizziness. Complete recovery ensued. In the second case the patient was a young woman suffering from severe headaches in the occiput and the nape of the neck, and pain over the angle of the scapula. Pains in this region were almost invariably caused by defects of the ocular muscle, whereas frontal pain was gener-

ally due to refractive troubles. She had marked chorea. The vision was affected, and was three and a-half degrees of right hyperphoria. Partial tenotomy of the right superior rectus was done. Recovery good.

He had not operated on many cases of epilepsy referred to him in which hyperphoria existed, because the degree of defect was small. Two or three examinations of such cases should be made in as many days to make sure of the average amount of defect. A constant average of 2% would justify operation.

Dr. Bingham proposed a query as to how the pain occurred at the angle of the scapula. His own explanation was that the sympathetic system, which was directly connected with the nerves that supply the angle of the scapula, would be affected in ocular strain.

Dr. Spencer asked if obstinate constipation was not often associated with eye defect. He remembered a case of astigmatism which he had referred to the reader of the paper. The patient reported after treatment that he was not only cured of the trouble but the constipation as well.

Dr. Meyers pointed out that phenomena which arose through the artificial production of eye strain, muscular rigidity, unconsciousness and attacks resembling epilepsy, showed the connection of the eye with the cuneate lobe. This showed the importance of always examining the eye in cases where the diagnosis was obscure.

Dr. Ryerson concurred with the remarks of the preceding speakers. He said the relief afforded to the nervous system by the removal of the source of irritation had an indirect effect on the digestive organs.

Dr. Norman Walker gave the clinical notes of a case which had come under his care during the past month. Patient had come to the office complaining of great pain in the back of the neck and headache, together with general malaise, which had existed for about a week. The next day symptoms were much worse. Quinine and anti-kamnia was ordered. Also a tonic. Another medical man was called in next day who pronounced it gastric fever. Left a bottle of medicine. The next day the essayist saw the case. Patient was in bed, head thrown back, very restless and irritable. He was unable to move the right hand and arm. The grip of the left was very much weakened. Required to have constant rubbing and raising of the arms, and asked to have them crossed over the chest. Mustard was applied to the neck and the lumbar region. Calomel administered. Hypodermic morphia given in the neck. Urine passed by catheter only. Patient became somewhat delirious. Morphia, atropia and strychnine were given. Pulse got as low as 49. Applications were made to the spine of iodine, mustard, etc., at different times. Potassium iodide was ordered in five-grain doses every two hours. Symptoms of iodism followed. The extremities were cold. Condition continued for several days. The first sign of returning power was about the sixth day, when patient tried to brush a fly off his nose. Diagnosis at this time, cerebral hemorrhage or tumor, with pressure effects. To overcome the inactivity of the bowels croton oil was administered. Temperature never ranged very high. Nutrient enemata seemed to do good. Mercury by inunction was ordered. Stomach very

irritable throughout, accompanied by hiccough. Eleventh day the patient began to improve considerably. Gradually the sedative treatment was stopped. Power returned in the hands and arms, and the bladder and bowel symptoms improved. The doctor thought the cause of the trouble was not definite. The family history was good. The patient himself thought the trouble was brought about by worry; he had overheard some rumors that had been carried to his mother-in-law. He had had a wordy war with this person and had not felt well since. The doctor thought if any medicine did any good it was the iodide. The croton oil did move the bowels, and improvement continued under the use of inunction after the iodide was stopped. Nourishment by rectum contributed much to recovery. Convalescence was slow.

Dr. Meyers said certain symptoms of the case pointed to meningitis, but other symptoms excluded this, particularly the absence of fever and eye trouble. If the disease had been due to graver lesions, recovery would not have occurred so promptly. His own opinion of the case was that it was hysterical or functional paralysis. In these cases the urine was often retained. One suspicious point was the brushing of the fly off the nose when paralysis was present. The diagnosis was borne out by the cause—mental excitement previous to the coming on of the attack.

Dr. Oldright added that another point which emphasized the neurotic nature of the attack was the fact that the patient got relief from having somebody move his arms backward and forward.

I. H. Cameron made some remarks on prostatic hypertrophy. He said he would not enter into a discussion of the pathology and nature of this trouble, but would rather confine himself to the matter of the treatment. He inclined to the view of Harrison that the prostate gland was a muscular sphincter of the bladder rather than a gland, as the amount of muscular tissue was relatively much greater than that of the glandular. Under certain circumstances where hypertrophy of this structure took place there was apt to be increase of function. Following this there was more or less retention of the urine. All were agreed that Sir Henry Thompson was right in establishing the teaching that when a man has residual urine he should have artificial relief by catheter frequently. That doctrine had held universal sway until one day a celebrated physician, now gone over to the majority, unfortunately, wrote an article on catheter fever, and set the world agog by pointing out the frequency of cystitis and distention of the urinary tract by the catheter, which, if properly used and not abused, relieved the condition which latterly ended in this distressing state. After Sir Andrew Clarke's paper, there was a strong reaction on the part of the older men, who began to fear that their patients would die of surgical kidney. The speaker said no doubt many had died and many would die of surgical kidney as long as the catheter was used without antiseptic precautions. If antiseptic precautions were observed, however, surgical kidney would be avoided rather than caused by the proper use of the catheter. In advanced stages of prostatic enlargement where micturition was impossible, and the intolerance of the bladder was very great, though only a small amount of urine was in it, and where it was necessary to use the catheter, a surgeon

could not constantly be present. Therefore there was great need of insistence that in cases of prostatic hypertrophy the proper use of a catheter would lead to cure. It was only in its misuse that dangerous results followed, by infection by pyogenic organisms from without.

Another method of treating the condition, which had found its strongest advocate in White, of Philadelphia, was that of orchidectomy. In one hundred and eleven cases in which operation had been done there had been twenty deaths. The average age of the cases in which recovery took place was 66½ years, the average age of fatal cases 75. So age seemed to have some influence in determining the mortality—something that would be expected, because of the probable presence of arterio sclerosis and less recuperative power of the tissues the older the men were. Of the twenty fatal cases, White, for one reason and another, thought that thirteen might be excluded, as the precedent condition of the patient was such as to prevent success in the operation. This seemed to be a fair showing. On the other hand, Falls, of Glasgow, had had six cases with five deaths as a result of operation, the remaining one not being benefited in thirty days. The speaker himself would refer but to four of the cases which had come under his observation as being typical examples of classes of cases in which this operation was applicable. The first case was that of a man, sixty-nine or seventy, who came under his care in the hospital suffering from retention of urine and with cystitis. Prostatic enlargement was noted, and it was determined to do orchidectomy to relieve him. Due care was not taken to ascertain the condition of the kidneys before operation. At this time catheter drew urine at ten inches. Operation presented no difficulty. Patient was returned to bed. Never very well afterwards. Urine was drawn by catheter at nine inches. Autopsy showed he had surgical kidney on both sides. He should not have been operated upon, the speaker held.

The second case was that of a man aged sixty-four or sixty-five where this condition was present. Unilateral orchidectomy was done. So far as voluntary micturition was concerned operation had no effect whatever. The patient returned in a year or two later for an aggravated cystitis. Sounding him, a stone was discovered. Lithotomy was done, and bladder drained. Good recovery. Returned in two years. Another stone was found. Nucleus was a hair, likely carried in by catheter. Later the patient returned again. Bladder was drained and recovery followed. Patient returned still again, suffering from cystitis. The other testicle was removed. During convalescence patient became extremely depressed and melancholy. Was given the fresh testicles of sheep. Mental trouble disappeared. The function of voluntary micturition was not restored. It was not expected, as for two years the function had been in abeyance.

The third case was that of a man, eighty-one or eighty-two, upon whom the speaker operated last May. The patient had suffered for some time from febrile disturbance incident to prolonged cystitis. An operation was followed by prompt and decided improvement. He presented rather active delirium during convalescence, but this passed off.

The fourth case was that of a man aged sixty-seven, suffering from

acute retention of urine which had existed about six weeks. Operation was done, and within three or four days patient was able to pass urine. Recovery complete.

Dr. Grasett said he leaned to conservatism in the treatment of this condition. Thus far he had been able to treat those cases without resorting to the method advised by White. He thought surgeons were not sufficiently careful in regard to the cleanliness of urethral instruments, where the catheter was kept clean its use could be maintained a long time. A patient under observation, aged 83, had used one twelve years—a man in active life. He had had most beneficial results from drainage also. Cases treated in this way were referred to.

Dr. E. E. King thought that the operation of orchidectomy would never become the operation of choice in enlarged prostate, but in those where great urgency was necessary. A case of this latter sort on which he had operated showed marked improvement within eighteen hours. A second case in which he had done vasectomy was not much benefited by the operation. A third case in which orchidectomy was done died of pneumonia subsequent to the operation. In six other cases results were so good that the speaker was very well satisfied with the operation.

Dr. G. A. Bingham concurred with the views expressed by the leader of the discussion as to the treatment of long-standing and obstinate cases of prostatic enlargement. In the earlier stages he had found the method of stripping the prostate and the vesicles of decided value. This relieved the glandular congestion and enlargement. The speaker cited cases in which he had noted distinct benefit from this course of treatment. Before resorting to removal of the testicles he would examine the bladder by the superpubic cystotomy. In this way drainage could be performed, the condition of the walls of the bladder ascertained, the diagnosis established, and, if necessary, a removal of a portion of the middle lobe.

EMPHYEMA IN CHILDREN.—On the ground of an experience of 86 cases, Dr. Cantley, *Internat. Med. Magazine*, concludes:

1. When pus is found to be present in the pleural cavity, the proper treatment is to remove it.
2. The best method is simple incision and drainage.
3. The best site for the operation is the fifth space in the mid-axillary line.
4. Irrigation is inadmissible, and is indicated only in cases of foetid effusion.
5. Exploration and scraping of the cavity are not necessary.
6. Resection of rib is practically never necessary in children as a primary procedure to procure efficient drainage; but may be required to secure the closure of the sinus, subsequently, by allowing the chest wall to fall in.
7. Collapse of the chest wall is not a result to be desired in the early stages of the treatment.
8. Rapid and complete expansion of the lungs is the great object of treatment.
9. The tube must be removed early.

SURGERY.

IN CHARGE OF

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THE AFTER-TREATMENT OF OPERATIVE CASES.

BY HENRY ROTH, M.D.

The subject of the paper which I wish to present to you this evening is, without doubt, one of great importance to the specialist as well as to the general practitioner. It is especially so to the latter, as many patients, after being operated upon by the surgeon, are left to the attending physician. Books on surgery do not pay sufficient attention to the subject, and this is also the case with lectures on surgery.

There has been a great deal said and written on the preparation for operations, but comparatively little about the management of the patient afterward. This is strange, for the slightest error in the after-treatment may spoil the result of a most brilliantly performed operation, and the least infringement upon the rules of asepsis and antisepsis may cause the death of the patient. In college we have opportunity to witness numerous operations; we see the preparations and the various steps in the operation proper, but as soon as the dressing is completed the case disappears from our observation. Those of us who were fortunate enough to enjoy the benefits of a hospital training had frequent occasion to study and carry out the principles of after-treatment, as this is the most important duty of the hospital interne.

There are certain well-defined principles which can be followed in conducting the after-treatment of a patient upon whom an operation has been performed. It is hardly possible to go into every detail in the time allotted to this paper; I will therefore select the most important ones, describing most fully those methods which were employed at the Lebanon Hospital during my service as house surgeon.

After-treatment proper begins immediately when the dressing is completed, and very often while the patient is still on the operating-table. However, there are certain details which we must carry out before the patient is operated upon, but which have a very close connection with the management after the operation. I refer to the selection and preparation of the sick room and bed in which the patient is to be placed after the operation.

In hospitals a room should be selected with only a few patients in it. In a private house a large and light room is required. Carpets and all unnecessary furniture should be removed. The temperature of the room should be as near to 76° F. as possible; where steam heat is used the temperature can very easily be controlled. Ventilation should be carried out by opening the upper sash of the windows. After tracheotomy and intubation the air in the room should be moistened by steam escaping from a croup-kettle. In summer window-blinds should be closed during the day, especially if the room is exposed to the sun.

An iron bed is always preferable, but if such is not at hand, as in some private houses, an open wooden bed may be used. Folding-beds are never permissible. The bed should be very thoroughly cleansed, and great vigilance observed against the invasion of vermin. The advantage of iron beds is the ease with which they can be kept clean. These beds usually have a wire spring; on top of this is placed a hair mattress; between this and the sheet a rubber sheet should be spread so as to avoid soiling of the mattress. It is very advantageous to spread a folded draw sheet across the middle of the bed; this can be very easily removed when soiled, without materially disturbing the patient. Great care should be taken not to have many folds pressing on the patient, and thus exposing him to the dangers of bed-sores. The patient should be covered with light blankets; in summer a sheet will suffice.

Absolute rest, not only to the body but to the mind as well, is of great importance. Visitors or letters should not be allowed to reach the patient for the first few days, as this very often does harm, and I have repeatedly seen the temperature rise one or two degrees after visiting hours, especially in children. After major operations, friends of the patient should have absolutely nothing to do with the nursing, for they might lead to great distress by errors committed through the kindest intentions. Wherever possible, a trained nurse should be employed, as post-operative cases require uninterrupted attention day and night. The unremitting vigilance which must be observed was well illustrated by a patient under my care in the hospital: a very insubordinate woman, the night after operation for a procidentia of the uterus, during a brief absence of the nurse, left her bed to get a glass of water, and tore a silver wire suture from her perineum. Remarkably enough, she made a perfect recovery. During the night there should be very little light in the room, as the reverse may disturb the patient's sleep. Light should be entirely excluded from the room after the various operations on the eyes.

Before placing the patient into bed, or immediately thereafter, several hot-water bottles or bags are usually put into the bed so as to keep the patient warm. These are especially required where some degree of shock is present. Great care should be taken, however, not to burn the patient, and it is advisable to place the hot-water bags between two blankets. I cannot but reprobate careless and indiscriminate use of hot-water bags, as they are liable to endanger the patient's condition, or at least prolong convalescence. This was well illustrated by one of my patients, who was operated upon for a fissure *in ano*, and was burned on the foot, which took three weeks to heal, thus prolonging his convales-

cence and adding undue pain. One of the advantages of the application of heat is the diaphoresis which it induces.

The position of the patient is very important, and must be varied in accordance with the operation performed. Not less important than this is rest of the wounded part. After operations on the head, neck, and chest, elevation of the upper part of the body is preferred, unless there may be some contra-indication thereto. After intubation the head should be lowered so as to prevent an ever possible "Schluckpneumonie," one of the most dangerous complications which may arise after this operation. After operations on the spine, the patient may have to be placed into an extension apparatus. If the dorsal surface is the seat of operation, the patient should lie on either side. After operations on the side of the body, the intact side is to be chosen to rest upon. After laparotomies or operations on the inguinal regions or perineum, the patients will be most comfortable in the dorsal position. They may be made more so by fixing their thighs and placing a folded pillow under the knees. The lower extremities are usually elevated on pillows or sand-bags. After these operations the patient will very often complain of the weight of the bed-clothes, and it is advisable to make a wire cradle which will keep the covers from pressing on the operated limb. After operations on joints, splints will add considerable comfort. After amputation of the breast it is advisable to fix the upper extremity to the chest, and after operations on the upper extremity, the operated limb is carried in a sling unless some contra-indication may arise; for instance, after a plastic operation on the flexor side of the elbow to remedy a contraction caused by a burn. To prevent motion the extremities should be supported by splints or sand-bags. Patients should be forbidden to move without assistance. After operations on the perineum it is advisable to pin a towel around the knees to prevent unnecessary motion and breaking open of the wound.

I have already alluded to bed-sores, a complication liable to occur during a prolonged decubitus. The position of the patient should be frequently changed where this is permissible. Prophylaxis here is very important, and if the nurse is competent this painful complication will rarely require treatment. It is advisable to rub the parts upon which the patient rests with alcohol, and here I wish to mention the fact that daily sponging of the entire body with warm water and then with alcohol will greatly add to the patient's comfort. Should a suspicious spot of redness present, we can remove the pressure from the affected part by using air-cushions or a water-bed. We should prevent the folds of the linen pressing upon the patient. At every call it is important to look for the presence of bed-sores; should they appear despite all care, dry dressings are preferable to moist. Oxide of zinc in powder or ointment is one of the most valuable remedies. Acetate of aluminum has also a very beneficial effect. At times considerable loss of substance is found, giving rise to a very foul odor. In these cases a charcoal poultice acts remarkably well.

Before leaving the subject of position, it will be proper to mention one other complication which may follow a prolonged recumbent position. I

refer to hypostatic pneumonia, which is especially liable to occur in feeble, old patients. Just as soon as feasible, these patients should be permitted to sit up.

The pulse and temperature should be taken three or four times a day, and any abnormality carefully noted.

One of the most important points of post-operative treatment is feeding, and this requires a considerable amount of attention. It varies according to the operation, and requires special care after laparotomies and operations on the gastro intestinal tract. It will hardly be out of place here to consider vomiting, one of the most frequent symptoms following anesthesia. This is a very disagreeable and at times obstinate sequel to anesthesia. The best remedy for its relief is absolute rest of the stomach. We should keep it empty as long as this symptom continues. At times, however, it may not yield to this simple measure, and we will have to resort to various remedies. I found the application of a mustard plaster to the epigastrium a good prophylactic in some cases. Cocaine in small doses is spoken of as a valuable drug. We should not lose sight of the fact, however, that this may be a symptom of beginning peritonitis, especially after laparotomies or herniotomies. It may also indicate intestinal obstruction caused by the operation or the persistence of a previously-existing obstruction, especially if of a stercoraceous character.

As soon as the patient returns to consciousness, thirst will be complained of as a very distressing symptom, and it will be more so after laparotomies and frequent vomiting. Patients usually crave a drink of water, and the more they get the more they want. Cracked ice is given by some, but this only gives temporary relief. Very soon the stomach fills up, absorption is not active, and vomiting is renewed. Hot water in very small quantities is very much better, but even this should be kept out of the stomach as long as vomiting persists. A very good plan is to moisten the mouth and tongue with a piece of wet linen. Where thirst is very great, an enema of a hot saline solution will very often relieve the patient.

After minor operations, fluid diet may be allowed the day after, and, after the bowels have moved, the patient may return to the previous diet. After more extensive operations it may be necessary to give fluid diet for four or five days, then change to semi-solids, and gradually return to the former diet. After laparotomies, feeding will require most of our attention the first few days. Our method in the hospital was to give a nutrient enema two hours after the operation. This consisted of 2 dr. of beef-juice and about 4 oz of peptonized milk. This was given with a hard rubber syringe, and repeated every four hours for two days. If stimulation was necessary $\frac{1}{2}$ oz. of whiskey was added. If the temperature rose above 102° F., quinine (5 gr.) was rubbed up with the white of an egg and added to the rest. This was repeated every eight hours until the temperature fell or symptoms of cinchonism appeared. If the rectum was irritable or the pain intolerable, ten drops of the deodorized tincture of opium were given with the enema. For the first thirty-six to forty-eight hours small quantities of Vichy or hot water were given to allay thirst. At the end of that time teaspoonful doses of peptonized milk

were cautiously administered, and, if the stomach retained it, the quantity was gradually increased until at the end of the fourth or fifth day, when fluid diet was ordered, with the addition of a soft-boiled egg. The rectum should be washed out before every third enema.

These enemata can be used after various operations if vomiting persists. They may be employed after operations on the gastro-intestinal tract. After these operations no feeding by the stomach should be allowed for the first four or five days, but the patient should be nourished *per rectum*. The same method must be followed after amputation of the tongue and operations on the jaws and larynx, or else the stomach tube may be resorted to. This must be well oiled and carefully introduced into the esophagus down to the stomach, the fluid nourishment being poured into its funnel-shaped extremity. This is to be repeated three to four times a day. After gastrostomies, nourishment may be poured in through the gastric fistula. After intubation the patient must be placed with the head lower than the rest of the body, and fluid in small quantities should be given; where this is difficult or insufficient, feeding through the nose must be resorted to. For this purpose a Nélaton catheter can be used with another tube attached to it. The catheter is introduced through the lower nasal fossa, down the esophagus to the stomach, and the fluid poured into a funnel attached to the tubing. Milk, beef-juice, peptonized milk, and other nutrient fluids can be so employed.

Strict attention must be paid to the bowels and bladder. We should look for a spontaneous evacuation of the bowels; but when this does not occur, cathartics must be resorted to. The best method is to give small doses of salines at the end of forty-eight hours, and if necessary this should be followed by an enema. Our plan with laparotomy patients was to give a small dose of Epsom salts at the end of the first forty-eight hours, then an enema of sweet oil, followed, if necessary, by a soap-suds enema. If that did not act, a high enema was given. If the patient rejects salines, compound licorice powder or castor oil may be used; but profuse depletion should be avoided. After the first movement the bowels should move every day. Spontaneous evacuation of the bowels after laparotomies or herniotomies is hailed favorably. After operations on the rectum the management of the bowels varies with different operators. Some move the bowels as early as the end of the first forty-eight hours by laxatives; others give opium to prevent the movement of the bowels for from five to eight days. The first plan seems to be better, for it prevents tearing open wounds by scybalous masses. After each movement the wounded parts should be thoroughly cleansed. This should also be remembered after perineorrhaphies.

A few words regarding flatulence will hardly be out of place here. This often is a very distressing symptom, and requires prompt attention. The cardinal rule here is to evacuate the bowels before the intestines are distended. It will very often relieve the patient to pass a rectal tube, and if necessary it may be left in for some time. Turpentine given with an enema will very often relieve the patient. Spontaneous escape of flatus is a favorable indication after herniotomies or operations for other

forms of intestinal obstruction. Should flatulence appear forty-eight hours after laparotomies, it may presage the beginning of peritonitis.

Should spontaneous urination not occur eight hours after operation, a catheter must be resorted to. This will occur very often, especially after laparotomies and operations on the genito-urinary organs or rectum. It is hardly necessary to say that the strictest asepsis should be observed in catheterization. The catheter should be sterile and the meatus perfectly clean. Before introduction the catheter should not come into contact with any unclean object. Where it is necessary it should be repeated every eight hours. The patient should, however, be encouraged to empty the bladder without the aid of a catheter. Once catheterized the patient will expect it again. After some operations on the bladder or urethra a self-retaining catheter will have to be employed, but should not be left in longer than forty-eight hours, for it may give rise to pressure sores. The urine should be examined for abnormal constituents, and the quantity voided in twenty-four hours should also be noted. A green, smoky appearance of the urine will suggest carbolic-acid poisoning.

Now to briefly consider several general symptoms which may appear after operations: Vomiting and thirst have already been spoken of, and need no further comment.

Apathy may be due to feebleness or infection. Restlessness may point to the beginning of infection and secondary hæmorrhage, or precede delirium tremens.

For the first twenty-four to thirty-six hours the temperature very often will reach 100° to 102° F., and then return to normal. This is the so-called aseptic fever, and need provoke no alarm. If this temperature continues or rises, it may be due to infection and will indicate removal of the dressings. A chill or sudden rise of temperature should be looked upon with suspicion, and the various internal organs examined, because the temperature may be due to some disease such as pneumonia or tonsillitis. Should this not be the case, then it will be due to sepsis. A subnormal temperature might indicate shock or secondary hæmorrhage. Dyspnea may be due to secondary hæmorrhage.

A pulse of 100 merits suspicion; above 120 it may be due to infection. A rapid, feeble, or intermittent pulse points to shock or secondary hæmorrhage, which are entitled to some few remarks.

A patient suffering from shock should be carefully surrounded by hot-water bottles or bags. If much blood was lost during the operation, transfusion with a physiological saline solution is called for, and the foot of the bed elevated. Hypodermic injections of whisky, digitalis, strophanthus, or strychnine should frequently be given until reaction sets in. Strychnine has proved to be one of the most valuable drugs, given in doses of $\frac{1}{80}$ to $\frac{1}{40}$ gr. every quarter or half hour until the pulse improves in quality. Enemata of whisky, hot saline solution, or black coffee should also be tried, and a mustard plaster applied to the precordium.

In case secondary hæmorrhage occurs, the cardinal rule is to find the source of hæmorrhage. This will necessitate removal of dressings and reopening the wound. If an artery or vein is found bleeding it should be tied. Where the hæmorrhage is parenchymatous the wound must be

tamponed with gauze. If it is impossible to tie a vessel, it will at times be necessary to leave hemostatic forceps in the wound for several hours. After the hæmorrhage has been arrested, the general anemia requires attention.

One of the most frequent symptoms after an operation is pain; at times, however, it may be entirely absent. The intensity and duration will vary after various operations; it will be more severe where the tissues are lacerated. Very often the pain will disappear in a few hours, but where it continues or begins a few days after the operation we should suspect infection, and in that case the pain will usually be of a pulsating character. It may be due to a superficial or deep stitch abscess, or sloughing of the wound edges. Where pain is intolerable, morphine hypodermically should be administered. At times the pain will be due to tight bandages, and will indicate their removal. It has frequently happened that a few hours after laparotomies the binder had to be loosened to make the patient more comfortable. Itching may be due to eczema from various causes.

Few remarks will be necessary concerning the skin. Redness of the face may be due to a high temperature; a pale skin may be due to loss of blood. Increasing paleness will indicate secondary hæmorrhage. Various forms of erythema may occur, and an eruption similar to that of scarlet should lead us to suspect iodoform-poisoning.

Let us now consider the various indications for change of dressings, remembering, however, that the less frequently this is done the more pleasant it will be for the patient. The indications are as follows:

1. The removal of stitches.
2. The removal of drainage-tubes.
3. Saturation of dressings by an abundant discharge.
4. Soiling of dressings by feces, urine, or vomited matter.
5. The disturbance of the dressing by a restless patient.
6. Pain if it is due to pressure, and especially if of a pulsating character.
7. The occurrence of secondary hæmorrhage.
8. Fever if it points to some trouble in the wound.

In a case where none of the above indications are present the first dressing should not be disturbed, for each change of dressing will cause the patient some degree of pain and unnecessary discomfort; nor should we lose sight of the fact that it exposes to the dangers of infection, which should always be guarded against.

In changing the dressing it is absolutely necessary to observe strict antisepsis and asepsis. This is just as important as before or during the operation. I will therefore briefly describe the method which is to be employed in each case while the first dressing is removed. The parts to be dressed are to be surrounded with wet bichloride or sterilized towels, and chilling by unnecessary exposure is to be avoided. The hands should be thoroughly scrubbed and washed with soap and hot water and immersed in bichloride solution. The nurse should remove the bandages and external layers of the dressings. The internal layers should be removed by the physician himself with the aid of sterilized thumb forceps.

Even in cases where suppuration is present this precaution is necessary to avoid the introduction of more virulent germs than those which cause the suppuration. The instruments which will be necessary for any dressing are: Thumb forceps and a pair of scissors. The instruments should be boiled and then placed into a 5-per-cent. carbolic-acid solution. All dressings which might be needed should be prepared, such as sterilized cotton or gauze sponges, sterilized, bichloride, and iodoform gauze.

Where no complications occur after an operation, and primary union is the result, our first indication for changing the dressing will be the removal of stitches. This will usually be between the fifth and eighth day, although in some cases, such as plastic operations on the face, it may be on the third or fourth day.

After laparotomies we remove the superficial sutures on the seventh day and the rest on the tenth. Some precautions are necessary in removing sutures: the method is the following: If separation of the edges is feared, the superficial sutures should be removed, leaving the deeper ones. The ends of the stitch are drawn up with the aid of thumb forceps, thus lifting up the knot. The open blades of scissors, pressing down the skin, should now include one strand as it dips into the skin. This will expose a part which was buried and is clean; this is to be cut. After cutting through it should be drawn across the incision, and not away from it, for this might cause separation of the edges. This method will also prevent secondary infection of the stitch canal and abscess-formation. Catgut sutures need not be removed, for their buried portions will be absorbed, and the exposed parts need only to be lifted up from the skin. After the stitches have been removed the wound is carefully washed with a bichloride solution, then a piece of sterilized or bichloride gauze and cotton is applied, to be held in place by a bandage. The next dressing is to be applied in three or four days. Undue manipulation is a useless interference.

A few remarks about adhesive-plaster strips used after laparotomies will hardly be out of place here. The frequent removal of plaster will cause painful excoriation and irritation of the skin. It is therefore a good plan at the first and subsequent dressings not to remove the plaster, but to cut through it in the middle and separate it from the underlying gauze. This will leave it attached to the skin, and after reapplication of the gauze the ends can be brought together with safety-pins. Thus a great deal of discomfort, caused by pulling off the plaster, is very easily avoided.

Before leaving this subject I wish to mention two conditions which may occur in connection with sutures. These are superficial or deep abscesses of the stitch canals and the cutting through of sutures. We will at times notice, especially where the edges of a wound are brought together under great tension, that the sutures are cutting through the tissues; there is only one rule which is applicable in these cases, and that is to remove every one of these offending sutures at once. Infected silk or catgut, or any suture material which has not been thoroughly sterilized, will give rise to an abscess of the stitch canal. These abscesses may be superficial or deep; where buried sutures were employed the abscess will

be a deep one, and it may give rise to considerable pain and severe constitutional symptoms, such as high temperature, headache, and loss of appetite. In superficial abscesses these symptoms may be absent, because the pus usually escapes at the point where the suture enters the skin; should this not be the case, then we will observe characteristic redness and tenderness around the stitch canal. In these cases there is only one thing to do, and that is to remove every one of the suppurating sutures, because they are of no further use, but, on the contrary, are a source of irritation. In superficial abscesses this will often suffice to stop the supuration, and a dry dressing should be applied, unless severe inflammatory reaction be present, which will do better under a moist dressing. This should be changed every two or three days. A deep abscess will give rise to considerable infiltration and edema, and a fluctuating spot will surely point to suppuration. If the pus is still confined, the wound is to be bluntly separated or the fluctuating mass incised. After this the treatment is that of any abscess—irrigation and drainage by a narrow strip of iodoform gauze and the application of a moist dressing until the cavity is healed. Dressing should be changed every twenty-four or forty-eight hours.

Let us now turn our attention to wounds which are drained. A wound may be drained by a glass or rubber tube or by iodoform gauze. Change of dressing in these cases will be indicated by saturation of the various layers of the dressing, and it may be necessary to do it every half-hour, or in some cases only the fourth or fifth day after the operation. It is very difficult to lay down a rule which will suit every case, and we must study each case for itself and act according to the indications as they arise in any individual patient. If secretion is very scanty the first change may not be necessary for six or seven days. Here again strict antisepsis is of prime importance, and the various details are to be carried out as described above. Where gauze is used it can be pulled out entirely or only partly, but in the latter case it must be shortened. Where it has been entirely removed a shorter piece is to be replaced and the various other parts of the dressing applied. This is repeated in three or four days until the cavity is filled by granulations. If part of the wound was closed by sutures and it is found united, the stitches should be removed, leaving only those which are near the drain.

Where a large, tortuous wound is drained, and the discharge is very profuse, the dressing will have to be changed just as soon as it is saturated; this may be in an hour or two, or the day after the operation. The gauze drain, if such is used, is withdrawn with thumb forceps and shortened. This is repeated at short intervals until the entire wound is closed. If some of the discharge remained in the cavity after the removal of the gauze the wound may be carefully irrigated; but routine irrigation of every wound cavity is to be condemned, because it may break open adhesions formed by granulating surfaces. Should a large amount of discharge be expected, a large quantity of gauze must be applied over the wound. A rubber drain is to be shortened at every dressing and dispensed with as soon as the discharge becomes scanty. If a glass drain is used after laparotomies for pelvic disease it will require

considerable attention during the first twenty-four hours. The tube may have to be cleaned every fifteen to thirty minutes, but the intervals for cleaning will be prolonged as the discharge diminishes. For cleaning, a sterilized, long-nozzled syringe will be necessary, and here strict antiseptics is of the most vital importance, for the reverse may lead to general infection or a localized abscess with all its dangers. Every time the tube is cleaned it should be moved around to prevent the tissue from adhering to the openings in the glass. After the tube is removed, the track left by it should be closed by a previously inserted suture or with the aid of adhesive plaster strips.

At times it will be impossible to completely cover a loss of substance and an open wound surface will be left for our after-treatment. If no indication is present before, the first change of dressing should occur on the fourth or fifth day. Iodoform or sterilized gauze is to be applied and repeated every two or three days. As soon as granulation and cicatrization from the edges are well under way a zinc-oxide or other simple ointment can be applied. Strapping with adhesive plaster will act remarkably well. Should the course of healing not be quite so uneventful the various remedies used in the treatment of ulcers may be resorted to.

Before taking up the consideration of several complications which may occur in a wound after operation, I wish to briefly describe the local treatment after operations on the cervix and perineum. This resolves itself into rest and cleanliness. In the hospital we never packed the vagina after trachelorrhaphies or amputations of the cervix. The vagina was douched every day with boric-acid or bichloride-of-mercury solution. The stitches were usually removed about two or three weeks after the operation, unless perineorrhaphy was done at the same time; in that case the stitches were not removed until four weeks after the operation for fear that, if a speculum were introduced before that, it might break open the wound.

After perineorrhaphies no dressing whatever was used, but the perineum was carefully cleaned with bichloride solution every time the patient urinated or the bowels moved. Two days after the operation the vagina was douched every day with boracic acid or bichloride-of-mercury (1 : 6000) solution, the nozzle being carefully introduced along the anterior wall of the vagina. Constipation should be avoided, for it may do a great deal of harm by producing tension on the perineum. As we have almost always used catgut for perineorrhaphies we had no sutures to remove.

After amputations or plastic operations, especially if the sutures are very tight, necrosis of the wound margins will result. This is due to insufficient nutrition and will frequently occur in diabetics or patients with atheromatous blood-vessels. Sutures should be dispensed with, and if a line of demarcation is present the necrotic parts should be removed. If the reverse is found, iodoform gauze or powder and a moist dressing is to be applied and changed every one or two days.

Should a patient complain of itching or burning we will most probably find eczema around the seat of the operation. This may be caused by

maceration of the skin by retained secretions, the various antiseptics, and especially iodoform. Remove the cause and apply vaseline and dry sterilized gauze. If vesicles are present zinc oxide with starch or bismuth is to be used.

It is far beyond the scope of my present undertaking to go into the treatment of the various complications caused by pyogenic infection, and I will therefore close by saying that an operation may be followed by the various types of sepsis from the mildest to the most severe.—*American Medico-Surgical Bulletin*.

New York; 667 East 135th Street.

SURGICAL ITEMS.

Habitual immunity from infection creates an operative confidence that may lead to a neglect to give full weight to such warnings or contra-indications as might be found in the probable severity of the operation, or in the reduction of the patient's vitality, especially in malignant disease.—*Stimson*.

All along the lines in surgery a conservative trend is apparent. We are now sifting the gems from the sand we have shoveled in past years, and separating the true from the false doctrines of modern surgery. The most precious metals are, in mining, found oft mixed with many that are dross, and no true progress is ever made in life without mistakes along the way. The day of extreme radicalism is passing fast; but, had it never dawned, the sunlight of to-day's conservatism would never have shown through Ignorance's sable cloud.—*Jabez Jackson*.

Local treatment of carcinoma is useless, although in cases of doubt—as when there is ulceration or fissure—I employ a favorite ointment having the following composition:

R Balsam, Peruviani
Unguent, Hydrargyri Nitratis... ää ʒi.
Petrolati..... ʒi.

M.

And if healing does not take place in two weeks, I operate at once. Carcinoma never heals in this way.—*J. H. Hearn*.

Immediate operation is indicated whenever the onset of a case of appendicitis is marked by both suddenness and severity; whenever, during even a mild attack, the symptoms at the end of forty-eight hours are unrelieved or are growing worse; whenever, in cases seen later, a firm, slowly forming, well-defined mass is to be felt in the right iliac fossa; whenever, at any time, a sudden increase in the acuteness of the pain and a rapid diffusion of tenderness occur; whenever there is good reason for believing the appendix-infection to be tubercular in character; whenever attacks of any type have been numerous, or are increasing in either number or gravity, or have unfitted the patient for work or activity, or have caused local symptoms which are permanent and persistent, or have at any time put the patient's life in great danger.—*J. W. White*.

MEDICINE.

IN CHARGE OF

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**THE BRONCHITIS-TENT, THE HOT PACK, AND THE HOT
FOOT BATH.†**

BY H. A. HARE, M.D.

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GENTLEMEN : I propose to devote the hour to day to the consideration and demonstration of the employment of several remedial measures other than medicines ; and I would ask your careful attention, because one of the most important things which you can learn as medical students is the necessity of giving as little medicine as possible for the production of the cure you are seeking to bring about. I have often told you that medicine should be used by physicians as ammunition is used by soldiers, namely, only when necessity requires, and then with a very definite idea of exactly what is to be accomplished.

The first remedial agent to which I wish to call your attention is the so-called bronchitis-tent, an apparatus which can be readily improvised in any household, and which will give your patient great comfort in many conditions in which the respiratory passages are dry or in an irritated condition. It will prove useful in the treatment of ordinary spasmodic croup dependent upon a catarrhal condition of the child's larynx, which may be exacerbated by the fact that the child sleeps in a room heated by means of a furnace, the hot air of which is not only abnormally dry, but often laden with dust. It will prove of value in the treatment of persons who have been exposed to irritating fumes or gases, and who, as the result, are suffering from inflammation of the respiratory passages. In the early stages of bronchitis in children and adults it will do much towards modifying the severity of the cough and the inflammation in the bronchial tubes, and in catarrhal and croupous pneumonia and whooping-cough it will in many instances prove an invaluable aid to the other measures which you will naturally institute.

The bronchitis-tent can be hurriedly improvised by tying to each corner of the child's cot an ordinary broomstick, the broom end resting upon the floor, and drawing over this frame one large sheet, or two small ones basted together in such a way that the canopy falls over the broomsticks and down at the sides of the bed almost to the floor. In this way the

†Clinical lecture delivered at the Hospital of the Jefferson Medical College.

child lies in a little tent, the top of which is elevated two or three feet above its head, thereby giving it plenty of air-space. At the foot of the bed you now place an ordinary Arnold steam sterilizer, an apparatus with which many of you are familiar, and which I now show you. This can be used, as you well know, not only for the sterilization of milk for infant-feeding, but also for the sterilization of your instruments; and by having a small hole made in the lid to which is soldered a pipe running off at an angle of 45 degrees, you are provided with an apparatus by which you can also develop and distribute steam in any place and in any direction you desire. A very small alcohol-lamp serves to disengage a large amount of steam from this apparatus, because only a small amount of water has to be heated at a time, the large pan which is superimposed upon the copper bottom containing the boiling water acting as a reservoir which continually provides a fresh supply of water, so fresh water need only be poured into the apparatus at intervals of several hours. The end of the pipe attached to this sterilizer is now made to project under the sheet forming the tent, and in a very short time the child is surrounded by an atmosphere which on the one hand is not so heavily laden with steam as to alarm it, and yet on the other hand is so warm and moist and balmy as to very quickly soothe its irritated mucous membranes. The child can sometimes be kept in this tent for a number of days with great advantage, and if well enough can be allowed to have its toys, and even its little friends may visit it. By the use of a little ingenuity in the way of substituting flags for sheets, you can very frequently not only succeed in making your patient happy in his confinement in the tent, but the envy of all the other children in the family.

This same steam-producing apparatus can be employed for the breaking up of forming diseases, particularly those due to cold, as it practically provides a home-made Russian bath. The patient, sitting upon an ordinary wooden chair, is stripped, and then covered with a heavy blanket, which is tightly pinned about his throat. The sterilizer and alcohol-lamp are then placed at a little distance to one side, and the tip of the tube from the sterilizer is so arranged that it discharges its steam underneath the blanket surrounding the patient. In a very short time the patient will break out into a profuse perspiration, which will often be sufficient to relieve him of his forming cold by overcoming internal congestion. This relief may be emphasized if at the time of the seance is begun a little sweet spirit of nitre be given in a hot lemonade.

This method is also useful for the purpose of stimulating the glands of the skin and relieving the kidneys in cases of chronic renal diseases in which it is feared that uremic symptoms may develop, or in which mild uremic symptoms have already commenced. Care should be taken in all cases, however, that the patient breaks out into a sweat, for if he does not do so he will be very apt to suffer from heat-stroke, or be much oppressed by the heat. If the heart has undergone marked degenerative changes as the result of the renal disease, increased caution should be exercised, lest the exposure to the hot bath produce cardiac failure. If for any reason the patient is unable to sit upon a chair, he may lie in bed, and by means of a few barrel-hoops cut in two the covers may be slight-

ly elevated above his bed, sufficiently to permit the entrance of the steam, but not high enough to cause him to become chilled by the entrance of the air of the room. In this way the patient gets almost as satisfactory a sweat as in a chair. Similar measures may also be resorted to for overcoming the fall of bodily temperature, which is associated with the collapse occurring at the crisis of acute infectious diseases or following surgical operations or injuries.

You see, therefore, that by means of comparatively simple measures, and one single piece of apparatus which can be used for other useful purposes, you have provided for your patients a number of efficient therapeutic measures.

The hot pack is used for practically the same purposes as is the hot steam bath that I have just named, namely, for increasing the action of the skin and producing a sweat. But it is also of value in another condition, in which the results of its use are often extraordinary. I refer to the control, and even the cure, of chorea minor. As you are well aware, we commonly rely upon arsenic as a remedy above all others in this condition, but in those cases of severe chorea which persist during the night as well as the day the child is rapidly exhausted, not only by the movements but by the loss of sleep, and under these circumstances a fatal result is not rare. It is in these cases that the hot pack affords us the best results, for even while the child is still in the pack it will frequently fall into a restful and refreshing sleep, which marks the turning-point in its disease. Perhaps the hot pack not only does good by quieting reflex irritation, but also by aiding in the elimination of poisonous materials from the body, if, as is thought by some clinicians, chorea is dependent upon an infection. The method of using it is as follows: First, a moderately heavy blanket is dropped in a tub of very hot water. While it is becoming thoroughly soaked, a rubber sheet is placed upon the bed and covered by a dry blanket. The child is now stripped and laid upon this blanket, and the blanket which has been soaking in the tub is then wrung out as dry as possible and wrapped around the child up to its neck, its arms being folded across its chest. This must be done with caution, for two reasons: on the one hand, the application of too hot a blanket will scald the child, while on the other hand if the water has not been hot enough, or the blanket is much exposed to the air while being wrung out, it will become cooled to such an extent as to lose all its efficiency. Care should be taken that the child's temperature does not rise above 100° while in this hot pack, and such a rise may be prevented in part by allowing it to sip a little cold water from time to time, an act which will also reflexly increase the excretion from the skin by the presence of cold in the stomach. After the pack has been used for twenty minutes to an hour, or as long as the blanket remains hot, the child is quickly taken out of it, rubbed dry, laid in dry blankets, and allowed to go to sleep.

The hot foot-bath is familiar to you all, particularly when to the water has been added some mustard to increase its counter-irritant effect. You have probably seen it employed very many times for the purpose of breaking up severe colds, the foot-bath being given the last thing before the patient actually gets into bed for the night, and in association with

hot and stimulating drinks. I want to call your attention to one other use of this hot foot-bath, namely, its employment by nervous and over-worked persons who on going to bed suffer from insomnia and cold feet, the insomnia being due to the cerebral hyperemia following excessive use of the brain. In these cases it is far better to allow of sleep by the use of the hot foot-bath and mental rest than it is to run the danger of producing the morphine or chloral habit in your patient, by prescribing either one of these drugs as a hypnotic.—*Therap. Gaz.*

THE URINE OF TWENTY-FOUR HOURS.

For a thorough and systematic examination of urine it is necessary to obtain all the urine a patient voids in twenty-four hours. Although I have in my lectures repeatedly described the method by which the urine of twenty-four hours is collected and measured, it may not be amiss to go over the ground once more. In certain diseases, notably cardiac and renal, and especially renal, the night urine approximates in quantity that of the day, or may even exceed it. On that account it is well to separate the night urine from the day. While it is possible that occasionally in health the night urine may approximate or exceed the day, *persistent excess of night urine over day means disease, and often Bright's disease.* What is the night urine? By night urine we mean the urine secreted during the sleeping hours, i.e., from the time a person goes to bed at night until he is dressed the next day, supposing always that he voids urine before dressing himself the next day. The urine which a patient voids on rising in the morning is properly night urine, since it has been collected in his bladder during the sleeping hours. All other urine is day urine. The day urine in health is three or more times as much as the night urine. In Bright's disease the quantity of night urine is often equal to the day urine, sometimes more than the day, occasionally much more. In severe cases of Bright's disease a patient may void nearly all the twenty-four hours' urine during the sleeping hours. In diabetes it is not uncommon to find the night urine approach the day in quantity, but great excess of night over day is rarely, if ever, observed.

In order to collect the urine of twenty-four hours for examination the patient should *always* begin in the morning on an empty bladder, i.e., after breakfast. If he were to begin at night the collection would end the next night and the urine could not be, as a rule, examined till the next day, hence would be twelve hours older than if it were examined as soon as the twenty-four hours were up. If the patient begins to collect in the morning the twenty-four hours are up the next morning, and the physician is ready to examine it. The patient, then, begins to collect the urine after breakfast in the morning, being careful to void urine just *before* he goes to stool, thus avoiding any considerable loss while at stool. All that he voids during the day and evening, including what he voids *before* going to bed, should be received in a bottle labeled "day urine."

Extract from a paper by Dr. Clifford Mitchell, in *The Medical Current.*

The chamber-pot is not to be used as a receptacle, but the urine should be voided directly into a wide-mouthed bottle and poured into the "day" bottle afterwards through a glass funnel. As a rule, two one-quart bottles will hold the twenty-four hours' urine, except in cases of interstitial nephritis (granular contracting kidney), and diabetes. The bottles used for collection, from time to time, should be tightly corked.

If the patient rises at night, what he voids during the night should be received in the bottle labelled "night," and, together with it, that which he voids on rising in the morning. If he does not rise at night, that which he voids on rising in the morning represents the total night urine.

The physician, then, has the urine brought him in two bottles, "day" and "night," separately. He measures each and records the quantity. If he finds the quantity of night urine equal to or more than the day, his suspicions should be aroused in the direction of Bright's disease or diabetes. If the day urine is twice the night, nothing serious is necessarily indicated, but the urine may not be normal. If the day urine is three or four times the night, with the twenty-four hours' total urine normal, the chances are that the kidneys are in a healthy condition. Nevertheless, I have known cases of albuminuria in which the day urine was, *at times*, three or four times the night.

It is understood that during the collection of the twenty-four hours' urine the patient is not to make a "tank" of himself in any way, whether with beer, mineral waters, or milk, nor is he, unless positively necessary, to take drugs or submit to surgical operations during the period. He is to eat and drink and do, during the twenty-four hours' collection, that which he has been in the habit of eating and drinking and doing when sober, sane, and sensible.

Having measured and noted the quantity of day urine and that of night, the physician adds up the volumes obtained to get the total twenty-four hours' quantity and mixes the contents of the two bottles thoroughly, so as to be ready for quantitative chemical analysis of the whole twenty-four hours' urine. It is wise, however, to test day and night separately for albumen and sugar before mixing them together.

What should be the total twenty-four hours' quantity in health? The normal amount of urine voided by the healthy male adult is from forty-five to fifty fluid ounces, by the female thirty-five to forty. In the metric system the cubic centimeter is used as a unit of volume. It is said, then, that the healthy male adult voids from 1,350 to 1,500 cubic centimeters, the healthy female, 1,050 to 1,200.

The normal quantity voided by children is difficult to determine. It may be said in a general way that, until three years of age, children void about ten fluid ounces (300 cubic centimeters). From three years up it increases so that from eight to twelve, twenty to thirty fluid ounces daily are voided. At fifteen the quantity begins to approach the adult figures.

After the physician has computed the quantity of fluid ounces passed in twenty-four hours, he should compare it with normal average standards, so as to see whether his patient is voiding much more or much less than normal. Any quantity half or less the normal standard, or twice or more the normal, is almost sure to indicate disease.

Is any examination of urine necessary except that of the twenty-four hours' quantity? By all means. The object of collecting the twenty-four hours' urine is to compare day with night, to compare the total with normal average standards, to observe the physical characteristics, and to make quantitative estimates of the solids as urea, phosphoric acid, uric acid, together with albumen and sugar, if either of the latter is present. In addition to the twenty-four hours' urine we must have a sample of urine *freshly voided*, for purposes of microscopical examination. Women should take cleansing vaginal injection before passing urine for such microscopical examination. The reason of the latter precaution is that otherwise vaginal fluids may be mixed with the urine, and the sediment of the urine be largely composed of matters from the vagina. The freshly voided urine is set aside, with a pinch of salicylic acid added to it, for six hours at least, until the sediment has settled. If the physician own a centrifugal machine the freshly voided urine is placed at once in the tubes and the sediment collected by centrifugation. Whatever is thus found is reasonably certain to have existed in the urine while in the body.

ARSENIC IN GASTRALGIA.

Further observation in practice has confirmed my favorable opinion of the curative efficacy of arsenic in the various painful neuroses included under the name *gastralgia*. I have already laid before the profession my earlier experience in this subject. Romberg's well-known description of *gastralgia* is classical. He distinguished two forms of the malady, *gastrodynia neuralgica*, which he held to be hyperesthesia of the gastric branches of the pneumogastric nerve, and *neuralgia celiaca*, which he attributed to hyperesthesia of the solar plexus. Clinical experience confirms the views of Niemeyer and of Henoeh, that this distinction is difficult and of doubtful utility in practice. *Gastralgic* affections, severe and slight, are rare in hospital practice, and frequent among private patients, especially among those of nervous temperament. I need scarcely observe that for obvious reasons the diagnosis of *gastralgia* is one which should neither be lightly made nor negligently maintained. But pain arising in the stomach when the organ is empty, and relieved by the ingestion of food, is almost diagnostic, as the late Dr. Wilson Fox taught, of its nervous nature and origin. With due regard to the causal concomitants and antecedents of *gastralgia*, arsenic cures the disease. It is best to give the drug in pillular form. I exhibit a twenty-fourth of a grain of arsenous acid made into a pill, with two or three grains of some tonic vegetable extract, such as gentian, three times daily, half-way between meals. Scarcely any other medicinal treatment is needed in cases of moderate severity, and the use of the remedy should be continued for some weeks. In severer cases I use counter-irritation to the epigastrium of duly proportional activity. I have usually found a full and varied dietary suit *gastralgic* patients far better than a restricted "dyspeptic" regimen. It is in such cases that Trousseau's maxim is true—that we

should know what a patient does eat before we advise him upon what he may feed.—*Dr. Sawyer in Lancet, July 7th, 1897.*

The profession owes a debt of gratitude to Dr. Clifford Albutt for his suggestion made many years ago, of arsenic in doses increased to the point of tolerance in the treatment of gastralgia. From eight to twenty drops of Fowler's solution will often be required to obtain the best results. Of course, such doses require close watching, but their effect is at times most startling and most satisfactory.

N. A. P.

THE TREATMENT OF DELIRIUM TREMENS BY CHLORIDE OF AMMONIUM.

BY GILBERT G. COTTAM, M.D., ROCK RAPIDS, IOWA.

It is an almost universal experience that the accepted routine treatment of delirium tremens is unsatisfactory when applied at the bedside. In part this is due to the effect of alcohol itself, and perhaps more largely to the fact that inebriates habitually indulge largely in morphine, chloral, bromide, etc. In this way a tolerance for sedatives and hypnotics is established which renders these agents quite inoperative when exhibited for the purpose of subduing the delirium.

In 1893, during my hospital internship, I had abundant opportunity of demonstrating the truth of the foregoing proposition. While casting about for a substitute my attention was drawn to the chloride of ammonium, which, in moderate doses, from 10 to 30 grains, will effectually overcome ordinary alcoholic intoxication in a short time. Its properties, stimulant and eliminative, led me to believe that it could be used with good effect in larger doses in the more pronounced symptoms of alcoholism.

A suitable case in which to test the remedy did not present itself until last year. I was called late one night to see a laboring man who had been in the habit of drinking intermittently for the previous ten years. In 1891 he was treated according to the Keeley method, which "cure" was followed by a speedy relapse. Three days before coming under observation he began drinking heavily, which culminated in an attack of acute delirium for which I was consulted. He was found in bed, dressed, and had the usual reptile hallucinations. The pulse was somewhat rapid, full and strong, and quite typical of alcoholism. He was very restless, moving incessantly, at times starting from bed and making efforts to ascend the sides of the room. He would frequently have fallen had he not been restrained. The history and symptoms were those of a typical case of delirium tremens.

Having some knowledge of the patient and his tolerance of drugs, I began by administering one grain of morphine hypodermically. This without the slightest effect. Several hours after the administration of the morphine, and after the symptoms had all become aggravated, he was given one drachm of chloride of ammonium. This was promptly vomited. After waiting a short time another was given, which was re-

tained. It acted quickly and favorably. In fifteen minutes the hallucinations of snakes and lizards had disappeared, and he had become quite rational. In forty minutes he was asleep, and it was not thought necessary to continue the administration of the drug.

It was afterwards ascertained that this was the patient's third attack. He had used morphine often, and in large doses, for the relief of headache and insomnia following over-indulgence in alcohol.

The above case may, of course, have been exceptional in the favorable action exercised by the ammonium salt on the alcoholic delirium. It is improper to draw conclusions from a single case, but I offer these notes with the hope that they will encourage those in a position to do so to try the drug in large doses in the treatment of this troublesome affection.—*Medicine.*

NEPHRITIS IN CHILDREN.

Suley (*Medical News*) states that of all the diseases of childhood, nephritis demands the most prompt, vigorous, intelligent and careful treatment. Three essential rules in the treatment must be recognized, viz. : 1. Relieve the kidneys of the extra work of carrying the transuded serum from the tissues, as well as the retained products of tissue metamorphosis usually excreted by the kidneys and retained because of their damaged state. 2. Endeavor, by intelligent medication and diet, to prevent further damage to the diseased organs. 3. Restore the kidney to its normal condition.

In meeting the first indication resort must be had to the compensatory emunctories, the skin and the bowels, and at no age can we rely upon them more than during early life. Calomel is indispensable; it stimulates the liver to action, and by the increased flow of bile the contents of the bowel are rendered more fluid and the elements to be excreted more soluble in the blood, thus proving less irritating to the kidneys. The salines are of great service as hydragogues.

Hot-air baths must be relied upon for their diaphoretic action, as pilocarpine is not to be depended upon. The best method of applying heat is by using an apparatus which will supply hot air under the bedclothes. This can be used continuously, as it does not cause prostration. Liquor ammonii acetatis is an efficient remedy in the stage of convalescence, acting beneficially upon the kidneys and the skin. The high tension in the arteries can be combated more efficiently by blood-letting than by other means, the beneficial effect of this measure being seen upon the pulse, the nervous system and the kidneys.

A very valuable agent is water, given plain after filtration or boiling, as young children take carbonated waters with reluctance. Given *ad libitum*, or at regular intervals if the patient does not call for it, it acts as a diuretic, without causing any irritation. If refused by the mouth it acts as well as an enema if large doses are given.—*Therap. Gaz.*

NERVOUS DISEASES AND ELECTRO-THERAPEUTICS.

IN CHARGE OF

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ANIMAL EXTRACTS.

The following conclusions are taken from a lecture by Horatio C. Wood, M.D., LL.D., Professor of Therapeutics in the University of Pennsylvania, which appears in the *University Medical Magazine*, Vol. 8, No. 7, on the subject of Animal Extracts. In hypertrophy of cicatricial tissues resembling keloid, possibly true keloid, thyroid extract has caused absorption of the hypertrophied and cicatricial tissues.

It has been used with success in simple goitre, in the goitre of Switzerland, before calcareous degeneration has taken place. It will bring about destruction and absorption of the overgrown tissues. In excessive obesity, with tendency to weakness and anemia, in which exercise and diet fail, it is found useful. Thyroid extract is sometimes useful in melancholia, but how it acts we do not know.

When thyroid extract is used freely in continuing doses it sometimes produces a series of phenomena constituting the so-called thyroidism. The most important of the symptoms are loss of weight, shortness of breath, and a weak and rapid pulse. In all cases in which the extract is being used freely and continuously, but especially in those cases in which the symptoms are not those of myxœdema, the patient should be weighed at least every two weeks, and any undue loss of weight or disturbance of circulation or respiration should be the immediate signal for the withdrawal of the remedy or a great reduction in dose.

The thyroid extract has been largely used in exophthalmic goitre, but here he is sure it does harm.

"I have used successfully in one case the extract of the supra-renal capsule for Addison's disease, and know of two or three other cases in which benefit was derived. Always see that a first-class veterinary surgeon gets the capsules himself from the beef. In the case cited I employed the glycerin extract in doses of ten to fifteen minims hypodermically."

The author does not believe in the use of extracts of bone-marrow or spleen in the treatment of leucocythemia.

In regard to the extract of bone-marrow in pernicious and other anemias he says: "All that can be said at present is that there is sufficient evidence to warrant the administration of the medullary glyceride in cases of severe anemia."

He does not believe at all in the use of cerebrine, cardine, or in the Brown-Sequard elixir of testicles.

In reference to cardine, etc., he says: "The only positive theory which could point toward these substances being of value in medicine is that every organ takes something out of the blood for itself, and thereby leaves the blood more pure and free from substances which are deleterious to other organs. There is no probability of truth in this theory."

As to bacterial toxins and antitoxins formed in the animal body, he does not believe in the use of agents of this class in the treatment of tuberculosis. As "this disease is not self-limited and there is never a sufficient production of antitoxins in a case of tuberculosis to arrest the growth of the tubercle bacillus, therefore it does not seem probable that we will ever get a tubercle antitoxin that will be successful."

In regard to the tetanus antitoxin he has had experience in but one case, and in this a fatal issue seemed to be contributed to by the use of the antitoxin. He quotes from Cattani, who does not believe that the antitoxin is of any use in cases in which the symptoms are severe enough for death to occur within the second or third day—that is, in the acute form of tetanus. In acute and chronic tetanus in which symptoms come on during eight or ten days, antitoxin has seemed to save life. It must not be forgotten that the chief value of the antitoxin is not in overcoming the constitutional action of the toxin, but in preventing the formation of the toxin by inhibiting the growth of the bacillus.

In regard to the diphtheria antitoxin he says: "I will agree with some in believing that the exact value of this treatment has not been thoroughly established. On the other hand, I am absolutely of the opinion that the value of this treatment has been sufficiently shown to require every conscientious physician to use antitoxin in diphtheria just as much as he would use quinine in malaria."

He states that the use of the streptococcus antitoxin for erysipelas and septic poisoning is in the earliest experimental stage, although favorable reports of its use are coming in.

NEUROSES FROM AUTO-INTOXICATION.—Dr. M. A. Bunce states (*Philadelphia Polyclinic*, April 11, 1896) that among the more common symptoms that might be attributed to peptone, ptomaine or leucomaine absorption are nerve depression, languor, drowsiness, vertigo, cephalalgia, nausea or vomiting, usually most marked during the acme of chyme absorption; dyspepsias, associated with pyrexia, vomiting, diarrhœa, headache and abdominal tenderness, which so closely simulate early typhoid fever. Among the dermic phenomena are urticaria, erythema, simple and multiform angio-neurotic œdema and general vaso-motor ataxia—the type possibly depending on idiosyncrasy, chronicity and the degree of irritation reflexed to the cutaneous vascular nerve mechanism. Neurasthenia and anæmia will at times point to the intestinal tract as the probable *fons et origo mali*. Nerve and muscular pains about the shoulders, especially the deltoid, pleurodynia, digital nerves of upper extremities, manifest as neurosis, anæsthesia or paræsthesia.

Cases of the above type frequently coexist with the lithæmic habit, though there are instances in which the gastro-intestinal disturbances

stand out so prominently to the exclusion of the more characteristic signs of lithæmia, i.e., urinary, vascular symptoms, etc., yet with symptoms that are common to both, namely, the mental depression, drowsiness, vertigo, headaches, neuritic pains and myalgias, the question frequently arises which symptoms are due to the absorption of the soluble toxins and which are the result of the gradual accumulation and circulation of unoxidized waste products and uric acid.

Lactic acid resulting from activity of the penicilium glaucum is said to be a muscle poison and to lessen the functional activity of the brain and cord. Its absorption and circulation may in part explain the pain and sopor usually present. The following is the course of treatment generally carried out: The necessary injunctions as to diet, more or less strict avoidance of the fats, sugars, starches, of the abuse of alcohol, tea, coffee; curtailing if necessary to milk, plain or pancreatized, the latter not to be continued for any length of time, administered in small quantities, at frequent intervals warmed, if in the cold state it increases the discomfort. As the condition improves, broiled minced meats, red or white fish, and the farinaceous foods are gradually added. As constipation with a yellow brown furred tongue and abeyance of the hepatic function are generally present, a preliminary mercurial purge is given, preferably the mild chloride, combined with powder ipecacuanha or sodium bicarbonate; sodium phosphate is then used for a varying period, followed by a tonic cathartic. To maintain the canal in as clean a condition as possible resort is had to antiseptics, the best being the phenol group. In the atonic gastric catarrhs with flabby, tooth-marked tongues there may be given such prescription as the following:

R. Tincture nux vomica..... m. 15
 Diluted hydrochloric acid or diluted nitro-
 hydrochloric acid..... m. 20
 Essence pepsin..... fl. dr. $\frac{1}{2}$
 Tincture calumba sufficient to make.... fl. dr. 2

M. S. One dessert spoonful before meals.

In the neurasthenic type with hypersecretion:

R. Bismuth subgallate..... gr. 5
 Salol..... gr. 2
 Extract nux vomica..... gr. $\frac{1}{8}$

Make in one capsule and take one half to one hour after eating. Strontium bromide may be used to advantage in the latter case, sodium and strontium salicylate when the muscles or nerve pains are marked. Knowing the value of potassium permanganate to neutralize, by oxidation, morphine and other vegetable alkaloids (many of which are metameric with the ptomains and leucomains that have been isolated) it was administered tentatively to advantage in kreatin-coated capsule from one-half to one and a half hours after eating, in the dose of 2 to 5 grains, guided by the tolerance of stomach.

In a case of *rheumatoid arthritis associated with exophthalmic goiter*, which has been under observation for not quite a year in the clinic of Dr. S. Solis Cohen, great improvement is taking place, which is apparent-

ly to be attributed to the use of extract of thymus gland, of which 5 grains of the solid preparation are given three times daily. There is still moderate exophthalmus, and the thyroid is still enlarged, though diminished from its previous size. The pain in the joints, however, which was the most distressing symptom, has entirely disappeared; and, while no demonstrable change has taken place in the articular lesions, the fingers are much more mobile, and there has been no extension of the morbid process. The tremor of the hands, the general nervousness and the tachycardia have all disappeared.

In another case of *exophthalmic goiter*, under treatment with thymus gland, in the same clinic, all the unpleasant subjective and objective symptoms have entirely disappeared, with the exception of the goiter, which has, however, been much diminished in size, being now less than one-third of its bulk at the commencement of treatment, it having been an unusually large one. The patient's complexion, which had resembled that of a case of Addison's disease, has been lightened in color, but is still abnormal, the hue, however, being rather greyish than bronze.

In demonstrating these cases to the class, Dr. Cohen mentioned two cases in private practice in which similar improvement had taken place, one of which had been seen in consultation with Professor Risley. On the other hand, in a case of simple goiter in private practice, neither thymus nor thyroid extract had been of the slightest benefit, and rheumatoid arthritis was beginning to develop. The liability to fallacy, from the fact that spontaneous recession of symptoms in exophthalmic goiter is not at all uncommon, was also pointed out; but the opinion was expressed that the coincidence of spontaneous recession in four cases, under observation at one time and under one treatment, and of which three had presented severe symptoms, could properly be set aside.

CONSCIOUSNESS IN EPILEPSY.—The following are the conclusions of a paper by Prof. E. Siemerling on "The Transitory Disturbances of Consciousness in Epileptics in their Forensic Relations," *Berliner Klin Wochenschr.*, Nos. 42 and 43, 1895:

1. In the epileptic psychoses a dream-like, altered condition of consciousness is probable, and not by any means a total or partial amnesia.

2. The most various transition forms occur between the different forms of so-called acute and chronic epileptic psychoses. Epileptic or epileptoid conditions and psychoses must alike be reckoned as symptoms of cerebral disease.

3. The transitory, dreamy states are characterized by the rapidly recurring, apparently orderly, indifferent, and inconspicuous manifestations, and by unusual, unexpected, often violent, acts.

4. There is no epileptic psychosis without epileptic or epileptoid antecedents. Epileptoid conditions are more frequent than is commonly supposed, especially vertiginous attacks.

5. With the lack of epileptic or epileptoid manifestations, all other symptoms, such as amnesia, similarity of the attacks, peculiarities of actions, sensory hallucinations, will serve to make the diagnosis of epilepsy most probable.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

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OBSERVATIONS ON THE SERUM REACTION IN TYPHOID FEVER AND EXPERIMENTAL CHOLERA BY THE DRIED BLOOD METHOD.

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RESULTS.

The following table shows the results in 143 cases which we have examined, and which were reported to us as cases of genuine or suspected typhoid. We have left out 8 cases where the sample was not received in proper condition for examination, owing to the directions not having been followed, and where no second sample was obtained for re-examination. Otherwise we have made no selection of the cases. It must be borne in mind that, in almost every case, the serum diagnosis was recorded without any knowledge of the case, except what was to be obtained from the examination of dried blood.

Table of Total Cases of Suspected Typhoid:

Positive results:	
Decisive on first examination.....	118
Of these, complete reaction in 112; partial reaction in 6 (3 of these before the third day).	
Doubtful on first examination; decisive on second examination.....	5
(Of these, 4 were first examined before sixth day).	
Total positive results.....	123
Negative results. Decisive:	
Cases proved by subsequent history to be something other than typhoid namely, meningitis, malaria, pneumonia, constipation, etc.....	14
Negative results remaining in doubt:	
Mild cases of typhoid first examined during convalescence.....	3
Primary examination negative, clinical history, typhoid, no re-examination.....	2
Severe fever of typhoid type, negative results, both by Widal and the dry method (examined three times)....	1
Total negative results in cases of possible typhoid.....	6
Total.....	<hr/> 143

From the above table it will be seen that the positive results were obtained in 123, or 95 per cent., of the 129 cases which there was serious reason to believe were true typhoid. If we exclude convalescent cases, and cases in which no re-examination was obtained, there remains only one case of severe fever strongly resembling typhoid, which did not react to the test made repeatedly under favorable conditions. In this case, in the re-examination, both the fresh serum and the dried blood were tested, and both gave negative, or at best indecisive, results. Including our hospital cases, and excluding those where the samples were not properly taken so as to leave only those where the examination was made under favorable conditions, we have a percentage of 99.4 per cent. of satisfactory or decisive results. We think, however, that 90 per cent. is as high an average as can reasonably be expected of this method for public health work.

RE-EXAMINATION IN CASES WHICH ALREADY HAD GIVEN A REACTION.

Seventy such examinations made in 55 cases gave sixty-nine positive and one negative result when examined during fever or early in the convalescence. The reaction was nearly always complete, and typical clumping occurred, but in a few cases slight motion persisted.

CONVALESCENT CASES.

These were difficult to follow up, owing to the nomadic tendency of the average hospital patient. In 17 cases examined after intervals of from three weeks to three months after their discharge, the action was present in 16 and absent in one. These observations are too few to make them of much statistical value. We have not yet found any patients presenting a reaction at a later period than one year. These blood samples were kindly obtained for us by Dr. J. Ewan.

PERIOD AT WHICH THE REACTION FIRST APPEARS.

As a rule it was well marked and prompt after the fifth day, but occasional cases were met with where it was very slow on the sixth or seventh day. After the first week it was very prompt in nearly all the cases, but varied in intensity at different periods during the course of the disease, and was more prompt in some cases than others.

In three cases the incomplete reaction mentioned above was obtained at the end of forty-eight hours from the apparent onset of the fever. The exact date of onset is a difficult matter to estimate in typhoid, but in one case the thermometer had shown absence of fever forty-eight hours before taking the sample. The case subsequently developed typical reaction and temperature. In these cases a provisional opinion was given that the case was probably typhoid, and this was justified by a subsequent appearance of the complete reaction. This point deserves further study as indicating that a probable diagnosis can be made earlier than has hitherto been supposed.

RELATION OF THE INTENSITY OF REACTION TO SEVERITY OF THE ATTACK.

No fixed relation appears to exist between these, but it is specially in the very mild cases of febricular type that a slow or partial reaction is

likely to be met with. Some cases, however, clinically classed as febricular, gave a very decided and complete serum reaction. In cases not giving the reaction it is often impossible, where the disease is very mild and convalescence very rapid, to tell whether a case was really one of typhoid. In such cases bacteriological examination of the stools by the Ellsner method for isolating typhoid bacilli should give valuable corroborative evidence. We regret exceedingly that a bacteriological examination of the stools was not made in the one case which appeared to be typhoid, and yet did not give the reaction. This was one of our earliest cases.

CONTROL CASES.

Examinations made in thirty-three cases of fever due to causes other than typhoid did not give reaction. These were cases where there was no history of previous typhoid, but examinations made of patients who had had typhoid two or more years before gave negative results. Besides these a number of control examinations were made of the blood of healthy persons and from bodies in the *post-mortem* room. Such gave negative results, but of these we have not kept an accurate record. Nothing in the control examinations has given us any ground for supposing that the reaction occurs apart from typhoid.

INFLUENCE OF DRYING UPON THE BLOOD.

Samples of blood kept dry in the ordinary air and temperature of the laboratory for sixty days still gave a good prompt reaction. Shorter periods, such as one or two days of drying, did not appear to have a material influence on the reaction. Apparently any injurious effect which may follow from drying is not so much due to the direct effects of desiccation on the specific substance as to the difficulty of obtaining the substance in solution afterwards. This has already been stated by Pfeiffer and Proskauer to be true of dried cholera serum, though no statement is made by them as to dried cholera blood.

REACTION FROM HORSES' BLOOD, ETC.

Jointly with Dr. W. H. Jamieson, one of us (J.) has studied the blood of a number of domestic animals, and can confirm the statement of Bordet, to the effect that the blood of the horse often produced a clumping and granular appearance in typhoid culture which we have not been able to distinguish from the effects of typhoid blood, except by the fact that the horses' blood produced a similar agglutinative effect on the cultures *B. coli*, which typhoid blood does not. There are some therapeutic possibilities for employment of horse serum in *coli* infection which we have not investigated. The only medico-legal application we have made of the reaction resulted in the restoration of harmony in what promised to be an awkward disagreement among medical witnesses in a case thought to be due to poisoning, but which presented post-typhoid lesions, a case which had been treated without any suspicion of typhoid having occurred to the attending physician. Of course under certain circumstances the presence or absence of the reaction might have great forensic importance in the examination of a blood stain.

EXPERIMENTAL PRODUCTION OF THE REACTION IN THE BLOOD OF ANIMALS.

We were relieved to find that it is easier to produce the serum reaction experimentally than one would suppose from the recent accurate experiments designed to produce complete immunisation. We have found that a single intraperitoneal dose of attenuated typhoid culture in the guinea-pig is sufficient to produce a perfect blood reaction without any serious detriment to the animal's health. This accords with the more recent statements of French authors that a complete reaction may exist with very slight immunity.

SERUM REACTION OF DRIED BLOOD IN EXPERIMENTAL CHOLERA.

These experiments were done in the Pathological Laboratory of McGill College, with the assistance of Mr. E. W. Hammond. We have found that the dried blood of animals experimentally inoculated with cholera culture gave the reaction typically after several days' drying. This should make the dry method applicable to cholera, in which disease Achard and Bensaude have recently shown that the reaction may be present even as early as the first day.

THE SERUM REACTION AS AN AID IN ISOLATING TYPHOID BACILLI FROM FÆCES, WATER, ETC.

Some preliminary experiments in the direction of straining off the clumped masses of typhoid bacilli obtained by adding typhoid serum to cultures in which when they were present together with the colon bacillus have been made, and have given us encouraging results. How far the power of separating mechanically in an hour or so most of the typhoid bacilli out of a mixed culture with *B. coli* may improve the existing state of our technique we cannot yet say.

We may mention that after adding typhoid serum to culture made from typhoid stools, a peculiar diffuse precipitation, attended by a clearing of the upper part of the fluid, was observed. In this way we are generally able to distinguish, out of a series of broth cultures made a few hours before, those from typhoid and those from normal fæces. A good deal seemed to depend upon the exact composition and reaction of the medium, as with some lots of bouillon we were unable to get this coarse reaction, and we are still unable to give directions whereby it can be obtained with certainty.

While Pfeiffer has undoubted claim to priority as to the description of all the essential features of the reaction, the recognition of its great value as a method of diagnosis and the introduction of a simple and accurate method are due to Widal, who first discovered that it was present early in cases of typhoid. The admirable work of Gruber and Durham, who first correctly interpreted the nature of the reaction, does not appear to have received the recognition which it deserves. For instance, these authors published some months before Widal the simple method of observing the reaction under the microscope with a drop of serum, which has since become the one generally used.

CONCLUSIONS.

1. The use of dry blood serum diagnosis has given us what appeared to be satisfactory results for diagnostic work.
2. An incomplete reaction was occasionally obtained as early as the end of the second day.
3. The complete reaction was rarely delayed beyond the fifth day.
4. Typhoid blood allowed to dry for 60 days still gave the typical reaction. This might permit of its application to medico-legal work.
5. In experimental cholera immunity, a typical reaction was obtained with dried blood.
6. The reaction may appear after a single dose of typhoid or cholera culture.
7. There is a possibility that the clumping of the typhoid bacilli may be utilised as a means of isolating them from cultures made from water fæces, etc.

THE TREATMENT OF DELIRIUM TREMENS BY CHLORIDE OF AMMONIUM.—Dr. Gilbert C. Cottam, in November *Medicine*, writes that it is universally accepted that the usual routine treatment of delirium tremens is unsatisfactory when applied at the bedside, namely, because the inebriate in a great many cases habitually indulges in morphine, chloral, bromides, etc., thus establishing a tolerance for sedatives and hypnotics, which to a great extent renders these agents inoperative. The writer, in 1893, while an interne, had the opportunity of practically demonstrating the above theory. A man who was treated by the Keeley method in 1891 followed his "cure" by a speedy relapse. After a three-days' debauch he came to the attention of Dr. Cottam. He was in an acute stage of delirium, with all the attendant hallucinations, pulse rapid and strong, very restless, and making efforts to reach the ceiling of the room by climbing the walls. One grain of morphine was administered hypodermically and without effect. Several hours afterward one drachm of chloride of ammonia was used. This latter was not retained by the patient. After a short interval another was given without producing emesis, and in fifteen minutes the hallucinations of snakes had disappeared, and in forty minutes he was asleep. It was not thought necessary to continue this drug. It was afterwards learned that this was the patient's third attack. He had been addicted to the use of morphine in large doses for headache and insomnia, hence the non-action of that drug when administered. The doctor states that it is possible that this may have been an exceptional case, and relates his experience in the hope that it may be given a more extended trial.

COLD BATHING DURING MENSTRUATION.—Cold bathing during menstruation is a beneficial measure, provided women become accustomed to it by bathing every day for eight days before. Hehzel holds that cold salt-water baths facilitate the menstrual flow, increase the duration of genital life, and increase fecundity.—*Dr. Depasse, Lancet Clinic.*

NOSE AND THROAT.

IN CHARGE OF

J. MURRAY McFARLANE, M.D.,

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D. J. GIBB WISHART, B.A., M.D.C.M., L.R.C.P.L.

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SIMPLE PROPHYLAXIS OF NASAL DISEASE.

BY JOHN R. WINSLOW, B.A., M.D.

Clinical Professor of Throat and Nose, Woman's Medical College; Throat Surgeon Presbyterian Eye, Ear and Throat Hospital; Fellow American Laryngological, Rhinological and Otological Society.

The nose is, or should be, the portal of entry of the air we breathe. During its passage through the nasal chambers the air is prepared and rendered suitable for respiration in the lower respiratory organs. This preparation is essential, and upon its proper performance depends the health not only of the respiratory tract but even of the entire organism.

Thus the nose bears a hygienic relation to the entire body, and when it is deranged those organs that are directly or indirectly connected with it must sooner or later be also affected. This is particularly true of the throat and lungs, and many diseases so common to these parts take their origin in deranged nasal functions. Indeed many writers hold the opinion that most of the chronic affections of the lungs are principally due to improper nasal respiration. Certainly it has been abundantly demonstrated that even such serious disease as pulmonary phthisis is markedly benefited by suitable treatment of co-existing nasal affections.

Now, one of the important functions performed by the nasal apparatus is the removal of dirt from the inspired air, both visible material as well as the micro-organisms of disease. Every individual, with any care for health and cleanliness, performs certain daily ablutions which are termed "the toilet." Although the nose is one of the most uncleanly organs of the body, it is seldom included in this routine. That this essential process of cleansing the nostrils is woefully neglected any of us who has occasion to examine many of these organs can attest.

With a normal condition of the nose, then, simply as a matter of ordinary cleanliness, the toilet of this organ should be added to that of the face, hair and teeth.

Turning now to the pathological side of the subject, while I have no intention of entering upon a discussion of the treatment of chronic nasal

catarrh, it has occurred to me that by attention to its earlier stages many of these conditions might be avoided and destructive operations with cautery and knife diminished in frequency.

And, firstly, I would urge it upon the profession that we should never neglect a coryza, or "cold in the head." Even in simple acute inflammations of the nasal mucous membrane there is gradually established by repeated attacks a permanent alteration, which eventually results in chronic nasal catarrh.

But what we term acute coryza is frequently the invasion of an infectious micro-organism, with resulting inflammation which may extend to the Eustachian tubes and ear, larynx, trachea and lungs. Thus Ziem draws the conclusion, from extensive observations, that the nose is the gate of entry of these organisms. They penetrate not only the nasal chambers, but enter the accessory sinuses in communication with them. Wolff, of Hamburg, has demonstrated the presence of staphylococci, streptococci and diplococci in the accessory sinuses after cases of diphtheria, scarlet fever, and even measles. In nasal diphtheria virulent bacilli were found in the antrum four months after apparent cure. In scarlet fever and measles the accessory sinuses were always found affected. The more extensive my own experience becomes in affections of the accessory cavities of the nose, the more I am convinced that many, if not most of them, are ushered in by an acute coryza, so-called.

The lesson lies upon the surface that not only should we never neglect even an apparently simple cold in the head, but that in addition to the well-known constitutional remedies, and especially in influenza, scarlet fever and measles, we should apply well-directed antiseptic douche treatment to the nasal mucous membrane, and as long as symptoms of irritation are present. For this purpose we may use one per cent. salt solution, Seiler's, Dobell's, etc., properly diluted.

The second point to which I desire to draw attention is earlier treatment of the antecedent stages of chronic nasal inflammation. These cases seldom come under the care of the specialist, and there is little occasion that they should. Unfortunately, when they do apply to their physician for treatment they are often either told that "it will get all right," or are put under a vigorous and irritating spray regime, which only hastens the inevitable result, chronic nasal catarrh. What they require is a word of intelligent advice, and a simple, efficient and harmless method of treatment, which can be carried out at home with little trouble or expense.

I fully agree with the writer who, in speaking of nasal catarrh, says that the proper systematic use by the patient of an antiseptic cleansing fluid will do more to restore the mucous membrane to its normal condition than the specialists' treatment, and that this treatment without such assistance is deceptive and inefficient. How much more, then, will suitable and timely treatment prevent the establishment of this condition.

The symptoms presented by these cases are very variable. One of the most prominent is occlusion of the nostril, varying from side to side, and most marked at night or when lying down. This is due probably to some vaso-motor disturbance and temporary engorgement of that turbinated body which is most dependent. Then there are various indefi-

nite symptoms due to perverted nervous function. Thus many patients complain of an almost intolerable itching inside the nose, others simply of a general uncomfortable feeling which they are unable to describe, others of a feeling of tension at the bridge of the nose, etc.; all of them premonitory symptoms, which should not be dismissed as trivial, and should lead us to institute prophylactic measures. Examination of the nose shows little more than slight congestion of the mucous membrane.

Treatment.—At the outset I wish to condemn unqualifiedly the so common direction, "Snuff salt water up your nose." Either it does not pass beyond the vestibule of the nose, or, if sufficient force be used, it may be aspirated into the middle ear with permanent damage. Moreover, in the strength in which it is used by the laity, saline solution is by no means the unirritating fluid that is commonly supposed. Unless prepared in powders, tablets, or some definite sub division, so that the strength of the solution shall not exceed one per cent., salt had best not be used, its very simplicity and commonly reputed harmlessness being its dangers. As a cleansing agent a more efficient substitute is cooking soda, which I direct to be used warm in a two per cent. solution (℥j—about a tumblerful). This should always precede other measures.

For therapeutic effect I have tried most of the "ines" and "ols" that are offered in ever-increasing numbers, first to the profession and then to the public. One of the latest of these actually turned sour (fermented) upon my office table, a proof positive that it possessed not the slightest antiseptic virtue. The numerous tablets of attractive formula that are furnished soon become hard and insoluble, so that considerable time and trouble are required in their use. These I always order to be crushed, and, when possible, rubbed up in glycerine.

For my own purposes in the office I have discarded these, so to speak, "ready-made" preparations and employ the following powder, an amplification of that of Professor Karl Stoerk, of Vienna:—

℞.—Kalii Chlorat.	}	aa. 15.0 (℥ss)
Sodii Chlorid.		
Sodii Biborat.	}	50.0 (℥j ℥ivss)
Sodii Bicarb.		
Sodii Salicyl.		
Acidi Carbol.		
Menthol	}	aa. 1.0 (gr. xv)
Eucalyptol		
Thymol		

This I keep in a wide-mouthed, glass-stoppered bottle, and from it I can prepare at any time the saturated solution in water and ten per cent. glycerine, which I always have ready. Of this saturated solution I add from a few drops to a drachm to a spray tube full of warm water, regulating the strength more by the feeling of the patient than the actual quantity in solution. The same method and solution are adaptable to the nasal douche. The advantages of this method are several. It is cheap, the original powder costing about seven cents an ounce, a small quantity of which makes a pint of the saturated solution, of which but a few drops are used at a time.

It is already in solution, or can be prepared at a moment's notice.

It is a method by which we can instantly prepare a warm spray of proper strength from our hot water faucet, which I have found a distinct advantage.

With regard to the means of applying these cleansing and antiseptic solutions, we have an efficient instrument, and one that is safe to put in hands of patients, in the form of the nasal douche-tube or douche-cups. These are modelled, all of them, after the "schiffschen," which was in daily use in Politzer's clinic in Vienna several years before their appearance in this country. Each of these has its advantages and disadvantages, which I do not undertake to discuss.

We have introduced at the Presbyterian Eye, Ear and Throat Hospital a douche-tube which, it seems to me, presents certain advantages over the others.

1. It is cheaper than any other that is of efficient size (one ounce).

2. Its nose-piece joins the body at an angle, so obtuse that it is not necessary to nearly dislocate the neck in order to cause the fluid to run back through the nostrils. (See cut.) This, together with a similar douche, termed No. 10, was made for me by Whitall, Titum & Co., and can be obtained from them.

The method of use is as follows: The tube is held between the thumb and index finger, the middle being over the air inlet. The nose-piece is introduced in the nostril with tube vertical, the chin is thrown forward and the head slightly backward, over a basin. The flow of fluid is controlled by the finger over the air inlet, and when it is removed the pressure of the column of water is sufficient to force it through the nose. The flow can be arrested at any time, simply by placing the finger over the air-hole. By directing the patient to pant or pout constantly during the procedure, the palate is elevated, the fluid flows in a continuous stream into the nostril, around the septum and out through the opposite nostril. Patients are directed to wash twice with warm soda solution through each nostril, and then once with an antiseptic wash, after which they are directed not to blow the nose, but simply to wipe the outside.

The results of this treatment have been eminently satisfactory.

A SOLUTION FOR STOPPING FALLING OF THE HAIR.—

- R Hydrochlorate of quinine, 1 drachm.
Tannic acid, 2 drachms.
Alcohol, 70-per-cent, 1½ pints.
Tincture of cantharides, 2½ drachms.
Pure glycerine, 1½ ounces.
Cologne water, 10 drachms.
Vanillin, 2 grains.
Pulverized sandalwood, 1 drachm.

This mixture, after being well mixed and shaken, is allowed to stand for four days and is then filtered. It is rubbed into the scalp daily for the purpose named.—*Revue de Thérapeutique Médico-Chirurgicale.*

PAEDIA TRICS.

IN CHARGE OF

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THOMAS, JOHN JENKES: DIPHTHERITIC HEMIPLEGIA.

Diphtheritic hemiplegia is a very rare disease. The author reports two cases and gives the history more or less complete of twenty-eight others found after an extended search in literature. These thirty cases form the basis of the paper. He quotes Putnam, who says that of the post-infection disorders of the nervous system none are so common as neuritis, and he distinguishes three varieties: (1) The neuritis attending the first stage of an infective process before there has been time for the development of general disorders of nutrition; (2) the post-infectious neuritis, in the production of which general disorders of nutrition and a variety of other causes play an important part; (3) the acute, usually fatal, and hemorrhagic neuritis of unknown origin. "Finally," he says, "it should not be forgotten that what we have considered as neuritis is often associated with nuclear and diffuse spinal lesions, and that better methods of investigation may show these to play a more important part in the production of symptoms and nerve-lesions than has hitherto been supposed." Hochhaus thinks that the cause of diphtheritic paralysis may be situated in the muscles. Besides a slight interstitial neuritis he found always a severe inflammation of the muscles. Cramer thinks that the changes in the nerve are primarily vascular and interstitial. Gowers classifies the paralyzes of diphtheria under the form of secondary toxæmic neuritis, in which the toxæmic agent first causes some definite disease, which is followed by neuritis, which is probably generally due to some chemical product of the growth of the organisms in the body. He also says: "Diphtheria may cause acute changes in the nerve-cells and nerve-roots." He also describes the lesions found in the peripheral nerves as primarily parenchymatous, and says, "There is not, as a rule, any inflammatory change in the interstitial tissue of the nerves, and the primitive sheath is generally unchanged."

Thus the pathological changes produced in the nervous system by diphtheria are not confined to a single definite variety of lesion. Certain permanent paralyzes, occurring after diphtheria, as the rapid paralysis of one cranial nerve and the progressive ophthalmoplegias and paralyzes of other cranial nerves are probably nuclear in origin, the result of acute

or chronic nuclear changes, sometimes inflammatory, at other times due to small hemorrhages, which we have so repeatedly found mentioned among the pathological changes.

The flaccid form of the ordinary diphtheritic paralyzes, the condition of the electrical reactions in them, and the almost invariable recovery from them, all point to the lesion being one of the peripheral neuron. Whether the change is of the nature of a parenchymatous or an interstitial inflammation is harder to decide. We can, however, assume that the nutrition of the cell suffers from the presence of toxic products, probably chemical, in the blood.

In the case of thrombosis in a cerebral vessel, which is not secondary to an embolus, we may have either a plugging of the vessels by bacteria in the blood-current, or the effect, direct or indirect, of the disease upon the vessel-walls, aided in most cases by the slowing of the blood-current, because of the affection of the heart.

Lastly, we have the cases of hemorrhage. The frequency with which capillary hemorrhages have been found throughout the whole central nervous system points to a diapedesis of blood-corpuscles and an increased permeability of the vessel-walls, produced by the poison of the disease or by the direct action of the bacteria themselves; which we may infer both from the fact that they have been found within these small hemorrhages, and from the frequency with which they have been found in other organs of the body. Certainly the hemorrhages large and small are produced directly by the poison of the disease within the body, and so should be considered as due to the disease itself. In like manner the changes in the peripheral nerves, which are the cause of the ordinary forms of diphtheritic paralysis, are produced directly by the disease, though not by the micro-organisms of the disease directly, as, indeed, in all probability, is the case with most of the symptoms of the disease. Therefore we are justified in speaking of diphtheritic paralysis and also of diphtheritic hemiplegia as the element of time in the sequence of direct results of the disease, which constitutes the chief distinction in this case, is of minor importance.

Of the thirty cases given more or less fully here, the probable diagnosis in seven is hemorrhage. The embolic cases are ten. The remainder, in which the diagnosis must remain more doubtful because of the ambiguity of the case or the too brief description, are twelve in number.

The attack ended in death in three cases, in two of which autopsies were made. These resulted in the finding of a thrombosis of the artery of the fissure of Sylvius in the case of Hensch, and a hemorrhage into the internal capsule in that of Mendel. Unfortunately there are no cases in which bacteriological examinations have been made, or the walls of the vessels carefully examined. In two cases recovery took place. In five other cases it is difficult to say whether the paralysis was permanent or not; one was stated to be almost well at the time of discharge from the hospital. In the remaining nineteen cases the hemiplegia was permanent, in the sense that it caused a greater or less permanent disability.

—*Journal of Medical Sciences.*

ETIOLOGY AND TREATMENT OF ENURESIS.

G. Koester (*Deutsche Medic. Wochenschr.*, 1896, xxii, 364) has revived the electrical treatment of enuresis, first recommended by Seeligmuller in 1867, and obtained very satisfactory results. After the patient has emptied his bladder, he lies down on a sofa at full length. The anode of a faradic battery, armed with a medium-sized round electrode, is placed on the abdomen, just over the region of the bladder, while the cathode wire, after having been thoroughly disinfected with a 5-per cent. solution of carbolic acid, is inserted into the urethra for 1 to 1.5 cm., and thus held. Allow the current to pass, and gradually increase its strength as high as the patient can bear with comfort. Continue for two to three minutes, then gradually weaken the current to its lowest power, where it is allowed to remain for one minute. After this procedure has been repeated three times the séance is ended. Frequently this one treatment is sufficient for a cure. It is better, however, to repeat it a few times during the following three or four days. Whenever the patient has soiled either the bed or his clothing with urine, an application of the current should be made the following day, and only when no enuresis has occurred for a number of days in succession should the treatment be discontinued. He has treated 20 cases (11 boys and 9 girls). Of these there were 11 cases of enuresis nocturna et diurna, of which 9 were cured, and 1 was improved; and 9 cases of enuresis nocturna, of which 8 were cured. The number of sittings given were, in 7 patients, only one; in 6, two; in 3, three; in 2, 4; in 1, twelve; and in 1, twenty; the average, therefore, being two séances. The cures were permanent.

He believes the cause of enuresis to be a weakness of the closing muscles of the bladder, the sphincter vesicae and compressor urethrae. The irritation produced by the cathode influences these muscles reflexly, hence the success of the method. Even in cases accompanied by obstruction to nasal respiration, or adhesions between the glans and foreskin, and in orthopimosia, the result was satisfactory, which goes to prove that an accompanying weakening of the sphincters must at least have existed. The strengthened sphincters were able to resist the reflexly irritated detrusors. Another case, in which the reflex irritation producing evacuation of the urine had been removed by the curing of a phimosis of two years' standing, still suffered from enuresis, until cured by the electrical treatment. This case also corroborated the fact insisted on by Henoch, that enuresis may follow the infectious diseases, for the boy remained cured until he had an attack of measles, when a relapse occurred. From taking cold, and through psychic excitement, the sphincters of the bladder may experience a temporary weakness. General debility is not a very important factor as a predisposing cause, it being only present in 7 out of the 20 cases, the rest having a strong and even robust constitution. In one case heredity seemed to have had some influence, as the father suffered from enuresis up to puberty, and a brother is still subject to it.

SUCCESSFUL LAPAROTOMY AND KRASKE OPERATION ON
AN INFANT TWO DAYS OLD, FOR IMPER-
FORATED RECTUM.

J. W. Elliot (*Med. News*, 1896, lxi, 436) says that an infant, two days old, was brought to him at the Massachusetts General Hospital, with the history that it had passed no meconium since birth. The child weighed six pounds ten ounces at birth. Examination revealed a perfectly formed anus, which proved to be a blind pouch, less than a quarter of an inch deep. The abdomen was distended and hard. The little finger was easily passed into the vagina, but detected no bulging of the bowel.


An incision was made from the anus to above the level of the top of the sacrum. After a few minutes' dissection, it became evident that the lower rectum was entirely absent. The posterior wall of the vagina bulged into the wound, and was opened in order to inspect its upper end. The coccyx was next removed with scissors, but no portion of the rectum could be found. The lower part of the sacrum was next cut out on the left side, up to about the third foramen, making a regular Kraske operation. The finger was then pushed in just in front of the sacrum to a considerable depth, but the bowel could not be felt. The child was then turned on its back in the Tendelenburg position, and the abdomen opened in the meridian line. The urachus and the bladder were met lying against the abdominal wall and were avoided.

The lower bowel was found to consist of a greatly distended pouch, which filled the abdomen and seemed to spread out over the whole pelvis but not to enter it. Its distended condition prevented pushing it down into the pelvis. A trocar was passed in through the sacral wound, and, with two fingers in the abdomen to guide it was pushed into the distended bowel. Gas escaped freely, and as soon as the bowel had collapsed he was able to push it down in front of the sacrum until it was caught in the sacral wound, where it was opened and stitched to the skin, as in a regular Kraske operation. The abdominal and perineal wounds were quickly closed with sutures.

The infant bore the operation remarkably well. Great care was taken to keep it warm. It was fed on modified milk.

The temperature rose to 102° F., and pulse, 140. On the fifth day the temperature was normal, and gas and feces passed freely through the artificial anus. The child gained nearly two pounds in the next three weeks, and was discharged from the hospital on the twenty-seventh day in good condition. The wounds had healed rapidly, and the opening into the rectum was large and needed no dilatation.

A letter from the parent, a doctor, three months after the operation, reported the child in excellent health, but the opening into the rectum had required dilatation.

"Sue for your divorce in the United States.  Albert L. Widdis,
Attorney-at-Law and Solicitor in Chancery, 720 Chamber of Commerce,
Detroit, Michigan."

THE TREATMENT OF ECZEMA IN CHILDREN.

Duenges (*Centralbl. f. Kinderheilk.*, 1896, vi, 182). One form of eczema which may materially interfere with the health of the child is that form which usually appears on the bottom and posterior aspect of the thighs of infants. Its origin can generally be traced to the irritating quality of the urine and feces. These children cry a great deal, sleep proportionately little, and, besides, there is danger of ulcers and abscesses forming on the diseased parts, with their accompanying ill-effects on the health, and even more serious consequences may result. As these cases often resist all kinds of treatment with ointments and baths, the author recommends one which has given him the most rapid and excellent results.

The child must at first be given a bath of 27 to 28° R. It is of importance to dry the child after the bath without friction of the diseased parts, by the simple pressure of a soft towel, or absorbent cotton. Following the bath, any kind of babies' powder is to be thoroughly dusted on the eruption, and then it is to be covered with gutta-percha sheeting, which must be kept well in place by the diaper, or, if necessary, by a roller bandage. In this way the deleterious effect of the urine coming in contact with the skin is avoided, and a chance given the parts to heal. Frequently the moist eczema is already converted into the dry, scaly form on the second day of treatment, and rapid healing takes place.

PREPARATION OF DILUENTS AND FOODS.—The following from Starr's recent book on "Diets for Infants and Children" may be of service:—

Barley-water.—Put two teaspoonfuls of washed pearl barley in a saucepan with a pint of water; boil slowly down to two-thirds of a pint; strain

Oatmeal or Cracked-wheat Water.—Add from one to three tablespoonfuls of well-cooked oatmeal or cracked-wheat porridge to a pint of water; heat almost to boiling-point, with constant stirring until a smooth mixture is obtained; strain.

Whey.—Heat one pint of milk to a heat that can be agreeably borne by the mouth; add, with gentle stirring, two teaspoonfuls (two fluid drachms) of Fairchild's essence of pepsin; let stand until firm coagulation takes place; beat with a fork until the curd is finally divided; strain.—*Annals Gynæ. and Pæd.*, Nov., 1896.

Flour-ball.—Take one pound of good wheat flour (unbolted is best) tie it up very tightly in a strong pudding-bag, place in a saucepan of water, and boil constantly for *ten* hours; when cold remove cloth, cut away soft outer covering of dough, and, as required, reduce hard, baked interior to powder by grating. When using rub the required quantity of powder, with a tablespoonful of milk, into a smooth paste; add a second tablespoonful of milk, rubbing until a creamy mixture is obtained; finally add this, with stirring, to total quantity of liquid for the meal.

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John. Molnár
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“The British Medical Journal” says:-

“Affords those guarantees of uniform strength and composition which have long been wanting in the best-known Hunyadi waters.”
“Agreeable to the palate.”
“Exceptionally efficacious.”

“The Medical Press and Circular” says:-

“Belongs to that large class of Aperient waters which come from the neighborhood of Buda Pest, commonly known under the generic name of Hunyadi.”
“Constant as regards its general characteristics.”
“Contains a large amount of lithia. Specially marked out for the treatment of gouty patients.”
“Unique amongst strong purgative waters.”

“The Birmingham Medical Journal” says:-

“Peculiarly rich in mineral salts, containing indeed a large proportion of sulphate of magnesia than any other mineral water at present in the market. Should prove a valuable addition to those at present at our disposal.”

“The Lancet” says:-

“A much-esteemed purgative water.”
“Its composition is constant. The practitioner is thus enabled to prescribe definite quantities for definite results.”
“A Natural Water. Artificially-made waters exhibiting approximately the same saline composition are not so beneficial as those derived from natural sources.”

“The Hospital” says:-

“Must be regarded as the finest amongst natural Aperient waters known.”
“There is a preponderance of sulphate of magnesia. ‘Apenta’ water, which should be taken systematically every morning in quantities of about three ounces, should prove a valuable water for those of gouty diathesis, and for those who are afflicted with chronic inflammation or constipation.”

“The Canada Medical Record” says:-

“A very reliable and satisfactory Aperient.”
“More agreeable to the palate than any we have knowledge of.”

.....

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For the treatment of subacute and chronic rheumatism rheumatic gout, uric acid diathesis, renal calculi composed of uric acid, and irritable bladder from excess of acid in the urine.

These Lithia Tablets embrace advantages not possessed by any other form of administration: economy, absolute accuracy of dose and purity of ingredients; convenience, ready solubility and assimilation. An agreeable, refreshing draught.

In response to numerous requests, Messrs. John Wyeth & Bro. have prepared Effervescing Tablets of Salicylates of Potassium and Lithium, in the proportions mentioned, which are readily soluble and effervesce quickly and freely. Salicylates Potassium and Lithium are invaluable remedies in all febrile affections inducing headache, pain in the limbs, muscles and tissues, also are particularly indicated in Lumbago, Pleurisy, Pericarditis, and all muscular inflammatory conditions.

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REMEDIES FOR THE CURE OF

**Bronchitis, Coughs, Bronchial
Catarrh, Asthma and like
Affections of the Throat
and Organs of
Respiration.**

There seems to be little or no doubt from recent investigations and the flattering results of the internal exhibition of this derivative of Turpentine, that it plays a very important part in the therapeutics of the profession. In the treatment of chronic and obstinate Cough, Bronchitis, etc., it has proven itself of great value. A number of our medical men most familiar with the treatment of diseases and ailments of the lungs and throat have pronounced it as the best expectorant in existence. In addition to the elixir forms, Messrs. John Wyeth & Brother manufacture it in a compressed tablet form, affording a most convenient, agreeable and efficient mode of administration. Made of two, three and five grains.

Practical physicians need hardly be told how frequently ordinary cough remedies and expectorants fail; the agents that *relieve* the cough *disorder* the stomach. It is a misfortune of the action of most remedies used against coughs that they are apt to distress the stomach and impair the appetite. As in all cases of chronic cough it is of vital importance to maintain the nutrition, the value of a remedy such as Wyeth's Syrup White Pine can be readily appreciated.

Syrup White Pine.

DAVIS & LAWRENCE CO. (Ltd.), General Agents, Montreal.

As Sunlight is to Darkness

is the condition of the woman who has been relieved from some functional disturbance to her state before relief. Don't you know, Doctor, that there are few cases that pay the physician so well as those of women—and the Doctor that relieves one woman, lays the foundation for many more such cases—all women talk and your patient will tell her friends ASPAROLINE COMPOUND gives relief in all cases of functional disturbance—Leucorrhœa, Dysmenorrhœa, etc., and in the cases it does not cure it gives relief. We will send you enough ASPAROLINE COMPOUND—free—to treat one case.

DR. BRETON, of Lowell, Mass, says :

“ I wish to inform you of the very satisfactory results obtained from my use of Asparoline. I have put it to the most crucial tests, and in every case it has done more than it was required to do. I recommend it in all cases of dysmenorrhœa.”

FORMULA.	
Parsley Seed	30 Grs.
Black Hlaw (bark of the root)	60 “
Asparagus seed	30 “
Gum Guaiacum	30 “
Henbane leaves	6 “
Aromatics	
To each fluid ounce	

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EXCELLENT THERAPEUTIC COMBINATIONS

Antikamnia and Codeine Tablets

4¼ Gr. Antikamnia, ¼ Gr. Sulph. Codeine.

We meet with many cases in practice suffering intensely from pain, where from an idiosyncrasy or some other reason it is not advisable to give morphine or opium by the mouth, or morphine hypodermically, but frequently these very cases take kindly to codeine, and when assisted by antikamnia, its action is all that could be desired.

In the nocturnal pains of syphilis, in the grinding pains which precede and follow labor, and the uterine contractions which often lead to abortion, in tic-douloureux, brachialgia, cardialgia, gastralgia, hepatalgia, nephralgia and dysmenorrhœa, immediate relief is afforded by the use of this combination, and the relief is not merely temporary and palliative, but in very many cases curative.

In pulmonary diseases this combination is worthy of trial. It is a sedative to the respiratory centers in both acute and chronic disorders of the lungs. Cough, in the vast majority of cases, is promptly and lastingly decreased, and often entirely suppressed. In diseases of the respiratory organs, pain and cough are the symptoms which especially call for something to relieve; this combination does this, and in addition controls the violent movements accompanying the cough, and which are so distressing.

Antikamnia and Quinine Tablets

2¼ Gr. Antikamnia, 2¼ Gr. Sulph. Quinine.

In the exhibition of quinine, the antikamnia overcomes the headache and general disturbance so frequently produced, and in fact the conditions for which quinine is given frequently include headache, backache and aching of the limbs, and the antikamnia being sedative in its character relieves this.

Antikamnia and Salol Tablets

2¼ Gr. Antikamnia, 2¼ Gr. Salol.

The value of the salicylates has long been recognized in the varied forms of rheumatic troubles. Salol is salicylic acid and carbolic acid in combination, and is the most approved form of exhibition.

In combination with antikamnia the excellence of both is maintained, whether the results sought are the relief of pain or the internal antiseptic effect.

Antikamnia, Quinine and Salol Tablets

2 Gr. Antikamnia, 2 Gr. Sulph. Quinine, 1 Gr. Salol.

This combination has been so successfully exhibited in many disorders, where each and all are indicated, that the manufacturers have been induced to prepare it in tablet form for purposes of general supply. The profession will readily recognize that no new therapeutical claim is made hereby; but that the making of these tablets is simply to offer in an acceptable and convenient form, the means of exhibiting a combination already well approved.

On receipt of professional card The Antikamnia Chemical Company, St. Louis, Mo., will be pleased to send, free of charge, samples of each of these valuable combination tablets, also full literature pertaining to the same.

In Pneumonia, where there is restlessness

R Antikamnia (Genuine)..... 3 ii
Syrup Doveri..... 3 iii
Tinct. Digitalis..... 3 lss
Teaspoonful every 3 to 6 hours.

In Painful Dysmenorrhœa

R Antikamnia (Genuine)..... 3 j
Brom. Potass..... 3 ij
Elix. Simplex..... 3 i
M. Sig.—One or two teaspoonfuls every hour in water.—N. Y. Med. Journal.

We should be glad to have
you write for a sample of



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Acts more vigorously on Starch
than does Pepsin on Proteids.

: RELIEVES :

Starch * Dyspepsia.

We are now able to relieve a large number of persons suffering from faulty digestion of Starch, and can aid our patients, during convalescence, so that they speedily regain their weight and strength by the ingestion of large quantities of the heretofore indigestible, but nevertheless very necessary, starchy foods. We trust that the readers of the *Gazette* will at once give this interesting ferment a thorough trial, administering it in the dose of from 1 to 5 grains, which is best given in powder, or, if the patient objects to powder, in capsule.—*The Therapeutic Gazette.*

Pepsin is
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In ailments
arising from

Faulty Digestion
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Editorial.

BRITISH MEDICAL ASSOCIATION.

Owing to the fact that the meeting of the General Council of the Association has been delayed until January 20th, we are still ignorant of the names of those selected to give the general addresses and to be office holders in the various sections in the forthcoming meeting. We can only here repeat that the local Executive in Montreal has throughout felt that it will be highly conducive to the success of the meeting if leaders of the profession in the old country, rather than Canadians, be chosen to occupy the leading positions in connection with the forthcoming meeting. This not from any disbelief in the abilities of Montrealers and other Canadians being able to prove themselves worthy occupants of the positions, but from a belief that the known presence of well-known men will attract to Montreal a greater number both of Canadians and of practitioners from Great Britain and the Colonies in general. Judging from a telegram recently received from Dr. Roddick, the President-elect, he has found the authorities in England most anxious to aid in making the meeting successful along the lines suggested by the local Executive. Dr. Roddick left Montreal on the 1st inst., and is devoting some weeks in England to the business of the Association; he has, we learn, been received with open arms and a dinner was given in his honor. Not only will he be able to post the officials of the Association with all necessary information concerning what has been done in Canada, but he will, we trust, be able by personal interviews to secure the attendance and active co-operation of many who are first and foremost in the profession.

Since our last issue we have received from England the exact wording of the resolution of the Council of the Association stating who are and who are not eligible to be members and to attend the meetings of the Association. This resolution was passed two years ago, and inasmuch as we hear on all sides that very large numbers of our profession in the United States are proposing to attend the Montreal meeting, it may be

well again to point out that however much the local Executive desires to welcome American practitioners, its hands are tied. Those visiting Montreal must either be members or invited guests if they are to enjoy the privileges of the meeting, and only British subjects can be members. The resolution runs as follows:

"*Resolved*,—That while recognising it as both a duty and a pleasure to accord a hearty welcome to foreign medical practitioners attending the annual general meeting of the Association, the Council is of opinion and is advised that it cannot extend to such practitioners the privilege of actual membership, having agreed to the origin and constitution of the Association, and to the fact that in the opinion of the Council the word "qualified" in by-law No. 1 means British subjects who are registered or entitled to be registered in the Medical Register of Great Britain or Ireland, or British subjects residing in any part of the British Dominions who are legally entitled to practice in such Dominions, and that such definitions cannot be further extended."

Since our last issue, also, the Excursions Sub-committee has obtained most favorable terms from the G.T.R. and the C.P.R. Companies. They offer to the Association and its guests to convey them at half fare as far as Sarnia on the one system and Port Arthur on the other. In addition, the C.P.R. will give the same rates to those wishing to cross the continent. Return tickets will be given from Montreal to Vancouver for one single fare, and the privilege of stopping over at the leading places of interest along the route. The Committee has not as yet received absolute information from the Railway Companies as to whether these terms apply to Canadian members of the Association as well as to members from other parts, but the inference is that this is the case.

The Local Entertainment Sub-committee has also been busy and proposes to give members fond of exercise opportunities of showing their powers in golf, tennis, etc., against the visiting brethren from Great Britain. It is quite prepared also to have a lacrosse match, provided a sufficient number of members from the other side are acquainted with the game. Lacrosse, we may add, has of late years made considerable strides in the north of England and of Ireland and, again, round London.

Arrangements have already been made for a ladies' committee to entertain the wives and daughters of visiting members.

We learn from Toronto that a most attractive excursion through the Niagara peninsular, Kingston and the Thousand Isles has been arranged for those attending the meeting of the British Association for the advancement of Science and intending to be present also at the Montreal meeting.

CREOSOTE IN GONORRHOEA.—Fifty-eight male cases of acute gonorrhœa were successfully treated with injections of a two to ten per-mille emulsion of creosote. The discharge quickly decreased, became mucoid, and then ceased altogether. The patients recovered more rapidly than under the ordinary methods of treatment; complications developed but rarely, and no relapses occurred. In addition, creosote seemed to exercise an anæsthetic action on the urethral mucous membrane.—*Medical Age*.

SYPHILIS IN RELATION TO LIFE INSURANCE.

The question as to whether a syphilitic should ever be recommended for straight life insurance is one which must have confronted most medical men. The disease is held in such abhorrence by every one, medical as well as lay, that the ordinary human judgment is, we believe, somewhat warped in regard to it. Difficulties arise in the home circle when the husband, apparently healthy, is refused life insurance; and the medical examiner is sometimes put to it to invent excuses which shall be sufficient to prevent domestic unhappiness. We have not seen any definite statement as to the usual practice of medical directors of insurance companies in respect to this matter. Many a man would refuse to undergo an examination if he thought there was even a remote chance of his being rejected; for not only has he the uncomfortable assurance, from a source he cannot but respect, that his chances of life are no good, and of the domestic explanations that are pretty soon to follow; but his chances of being accepted by another company even later in life are greatly lessened by one refusal.

Would it not be well for these and many other reasons which might be pointed out, that some uniform rule be adopted by the more important life insurance companies? A consensus of opinion might easily be arrived at, and much trouble to clients and examiners, as well as expense to the companies, be avoided.

Dr. P. H. MacLaren, of Edinburgh, (*Ed. Med. Jour.*) gives the following classification of syphilitics as applicants for insurance and remarks on the subject. From his well-known standing as a syphilographer his words are worthy careful attention, not only in connection with insurance, but as to the chances of trouble and death from syphilis:

1. Cases that have been properly treated, and that are of good constitution and habits. The probabilities are that no complications will arise, and the expectation is that they will go through life with hardly more risk than those who have never had the disease.

2. Cases that have not undergone a sufficient course of treatment, and that apply for insurance before the expiration of six years, the period at which the disease normally terminates, but are not suffering from tertiary manifestations, and are otherwise satisfactory. The chances are that they will escape the malign form; but a ten per cent. extra should be charged until the expiration of the six years, when the cases can be reconsidered.

3. Cases where tertiary symptoms have developed. These should be absolutely declined, because while treatment may temporarily remove the symptoms, it cannot eradicate the tendency to recurrence. Clinical observation shows that these cases rarely live beyond a term of ten years, and often much less when palliative treatment is not properly carried out.

While his personal experience is almost absolutely favorable regarding the cases of class 1, the author deems it questionable whether, to perfectly guard the interests of the office, they should not rather be treated as are those of class 2.

THE PRESENT PREVALENCE OF LA GRIPPE,

The following suggestions will be of value at this season: The pains of influenza are something indescribable, especially when associated with high temperature. To relieve these with some preparation of opium is only to increase the cerebral congestion and aggravate the extreme prostration. Sharp, darting pains are no more severe than are the dull, heavy and persistent pains in the muscles and bones, which so often obtain in this disease. Clinical reports verify the value of the antikamnia in controlling the neuralgic and muscular pains, as well as the fever. In fact, antikamnia may now be called the *sine qua non* in the treatment of this disease and its troublesome sequelæ.

It seems hardly necessary to indicate the condition, when the use of two such well-known drugs as antikamnia and quinine will be serviceable, nor the advisability of always exhibiting antikamnia and codeine in the treatment of the accompanying neurosis of the larynx, the irritable cough and bronchial affections. Relapses appear to be very common, and when they occur the manifestations are of a more severe nature than in the initial attack. Here the complications of a rheumatic type are commonly met, and antikamnia and salol will be found beneficial. Antikamnia may be obtained pure, also in combination with the above drugs, in tablet form.

Tablets mark the most improved form of medication, especially as they insure accuracy of dosage and protection against substitution. To secure celerity of effect always instruct that tablets be crushed before taking.—*Medical Reprints.*

EPITHELIAL SOWING: A NEW METHOD OF SKIN-GRAFTING.

Von Mangoldt of Dresden (*La Semaine Med.*, XV., 1895, p. 520) employs the following method of skin-grafting: First, he selects the part from which the grafts are to be removed, preferably the inner or outer surface of the arm; then, after thoroughly cleansing and antisepticising the spot, the razor is sterilized and held perpendicular to the skin, the epidermis being scraped away until the papillary layer is reached. In this way a magma is obtained, being composed of extravasated blood and epithelial cells, which is placed upon and pressed into the part to be treated. At times the author first scarifies the part to make sure of adherence. After the foregoing, strips of adhesive dressing are placed over the part. This method, to which the author has given the name of "epithelial sowing," is said to have advantages over the Thiersch method in that no pockets of necrotic tissue are closed in by the new-formed skin. After the fifth day the dressing is changed every two days, and the wound gently irrigated with sterile and warmed normal salt solution, and towards the end of the third week the surface shows a normal appearance.—*Philadelphian Polyclinic.*

TO PREVENT HEMORRHAGE.

In the course of a description of a case of limpho-sarcoma of the left side of the naso-pharynx, Mr. Watson Cheyne makes the following note :

Just at the time this case occurred Dr. Wright had published some papers on the value of chloride of calcium in increasing the coagulability of the blood, and also of fibrin ferment as a styptic, and I, therefore, asked him to be present and to superintend the use of these substances, for I anticipated that there would be a good deal of bleeding. Accordingly, an hour before the operation a pint of water containing half an ounce of chloride of calcium was injected into the rectum, and during the operation pledgets of salicylic wood, soaked in Wright's fibrin ferment solution, were applied to the freshly cut surfaces. Whether as the result of this treatment or not, the fact is that extremely little blood was lost; I do not think more than an ounce or an ounce and a half.—*Lancet*.

TURPENTINE FOR BURNS.—Spirits of turpentine applied to a burn of either the first, second, or third degree will almost at once relieve the pain, and healing will take place very rapidly—much more so than by any other treatment that has come under my notice. After wrapping a thin layer of absorbent cotton over the burn, I saturate it with the turpentine, and then bandage. The common commercial article is the one I use, as it is generally found in every house. Being volatile, it evaporates, and it is therefore necessary to keep the cotton moistened with it. When there are large blebs, I open them on the second or third day. It is best to keep the spirit off the healthy skin if possible, as sometimes pain is produced by its action.—*Medical News*.

DANGERS OF CHROMIC ACID.—Being a convenient remedy, rapid in action and easy of application, chromic oxide has been extensively employed in the local treatment of hypertrophic rhinitis. The one objection urged against it has been the difficulty in regulating the extent of the caustic effects; nevertheless, headache and nausea frequently follow its intra-nasal application, and sometimes more serious results, such as albuminaria and acute nephritis. The absorption is not nearly so marked in the tongue and tonsils; hence it may be used safely on these parts.—*North-western Lancet*.

A MIXTURE FOR IRRITABILITY OF THE BLADDER.—In the *Gazette de Gynécologie* the following prescription for irritability of the bladder is given :

- R Benzoic acid..... 15 grains.
- Borax..... 1½ drachms.
- Water..... 5 ounces.—M.

Dose, one tablespoonful three times a day. The mixture produces a decrease in the frequency of urination and lessens the irritability of the walls of the bladder, which are in an abnormal state owing to the phosphates in the urine.—*Med. News*.

GONORRHEA IN WOMEN.—J. F. Scott, of Washington, calls attention once more to the fact that gonorrhœa is a much more severe and ravaging disease to women than syphilis. He also refers to the possibility of infection of an innocent bride by her husband because of a latent gonorrhœa which he thinks has been entirely cured before marriage. "It is well known," says Scott, "that gonococci lurk in the deep tissues and lacunæ of the mucous membrane long after the symptoms have subsided and excess in venery, a debauch of wine, undue physical exertion, or any cause that may bring about a slight catarrh of the urinary tract, will be followed by the reappearance of the gonococci."—*American Journal of Obstetrics*.

Book Reviews.

DAVIS' OBSTETRICS: A TREATISE ON OBSTETRICS FOR STUDENTS AND PRACTITIONERS.

By Edward P. Davis, A.M., M.D., Professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic, Clinical Professor of Obstetrics in the Jefferson Medical College of Philadelphia. In one very handsome octavo volume of about 600 pages, with 217 engravings and 30 full-page plates in colors and monochrome. Cloth, \$5.00; leather, \$6.00. Lea Brothers & Co., Publishers, Philadelphia and New York, 1896; Toronto, Carveth & Co.

Professor Davis' new work affords students and practitioners a concise yet comprehensive guide to the whole art of obstetrics in its most modern development. The author is widely known as a teacher, writer and obstetrician of unsurpassed ability. His thorough acquaintance with foreign literature has enabled him to place at the command of his readers the best material derivable from the vast sources of obstetrical knowledge in the Old World, and his own ripe experience and metropolitan facilities have been equally well utilized in the preparation of the volume at hand. A marked and attractive feature is found in the exceptionally rich series of engravings, among them being a large number of photographic reproductions of obstetrical scenes carefully selected in view of the amount, vividness and permanence of the knowledge which can be so well conveyed in no other way. The book is likewise embellished with a number of most instructive colored plates. In scope it is more comprehensive than ordinary treatises, as it deals with cognate subjects best handled in close connection with their obstetrical precedents, such as the repair of lacerations and injuries, the care of the mother, the infant, jurisprudence of midwifery, etc. A foremost place may confidently be anticipated for it, both as a text book and as a work of reference for practical use.

REFERENCE BOOK OF PRACTICAL THERAPEUTICS by various authors edited by Frank P.

Foster, M.D., editor of the New York Medical Journal, and of Foster's Encyclopædic Medical Dictionary. In two volumes. Vol. I.: New York, D. Appleton & Co., 1896; Toronto, Carveth & Co.

This volume of 652 pages takes the work down to the end of "M." The author has left out, very wisely we think, a lot of obsolete, and to the practising physician, worthless matter such as the physical properties of drugs, their mineralogical, chemical, botanical, and zoological relations.

He has successfully endeavored "to set down only so much as is of direct bearing on the use of drugs in medical practice, or the management of poisoning due to them."

The work is, we believe, the best of the kind which has yet made its appearance. No one would attempt to read it through any more than one would attempt to read a dictionary, but though it has been in our office only a month, we have had occasion several times to refer to it, and have not once failed to find the information we desired. It should be in the office of every scientific and progressive physician and surgeon in the country.

Among the contributors to Vol. I. we note the names of Corning, Foster, Gerster, Jewett, Lilienthal, Otis, Potter, Ricé, Rohe, Solis, Cohen, and others equally well known.

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Palatable
Laxative
Acting without pain
Or Nausea.**

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We make many hundred cathartic formulas of pills, elixirs, syrups and fluid extracts ; and for that reason, our judgment in giving preference to the MEDICATED FRUIT SYRUP, we feel is worthy of serious consideration from medical men.

The taste is so agreeable that even very young children will take it without objection ; the addition of prunes and figs having been made to render the taste agreeable rather than for any decided medical effect. It is composed of Cascara, Senna, Jalap, Ipecac, Podophyllin, Rochelle Salts and Phosphate of Soda.

The absence of any narcotic or anodyne in the preparation, physicians will recognize is of great moment, as many of the proprietary and empirical cathartic and laxative syrups, put up and advertised for popular use, are said to contain either or both.

It will be found specially useful and acceptable to women, whose delicate constitutions require a gentle and safe remedy during all conditions of health, as well as to children and infants, the dose being regulated to suit all ages and physical conditions ; a few drops can be given safely, and in a few minutes will relieve the flatulence of very young babies, correcting the tendency of recurrence.

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The Essential Elements of the Animal Organization—Potash and Lime ;

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The Tonics—Quinine and Strychnine

And the Vitilizing Constituent—Phosphorus ; the whole combined in the form of a Syrup, with a slight alkaline reaction.

It differs in its effects from all Analogous Preparations ; and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

It has gained a Wide Reputation, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

Its Curative Power is largely attributable to its stimulant, tonic and nutritive properties, by means of which the energy of the system is recruited.

Its Action is Prompt : It stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy and removes depression and melancholy ; hence the preparation is of great value in the treatment of nervous and mental affections. From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

When prescribing the Syrup please write, "Syr. Hypophos. FELLOWS." As a further precaution is advisable to order in original bottles.

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SEA SICKNESS.—Dr. Chas. S. Bomean attributes *mal de mer* to a disturbance of the central nervous system, caused by a partial paralysis of the vaso-motor nerves. This paralysis causes a passive congestion of the brain, owing to the relaxed blood-paths, and produces the distressing dizziness, headache and vomiting. To prove that the nausea is due to nervous irritation, the patient vomits with a clean tongue, unless there is constipation present, when there may be a slight coating. What causes the primary nervous disturbance he is unable to say. Nausea may be allayed almost immediately by an injection of one-quarter grain of morphine, combined with $\frac{1}{100}$ of atropine. This combination, he maintains, never fails to relieve the patient after one repetition. He has tried it not only in sea sickness, but in the nausea caused by railway travel, and has reason to believe that it always proves efficient. Chloral will also prove to be a good prophylactic. Given in 15-grain doses 3 times a day, for two or three days before sailing, will be found enough to produce the desired effect. Knowing that there is a relaxed condition of the blood-paths and a nervous excitability, it stands to reason that the use of morphine for the nervousness and of atropine for a vaso-motor stimulant are the proper therapeutic indications.—*Medical News*.

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CANADIAN REPRESENTATIVES: MCAINSH & KILGOUR,

A Text Book on Nervous Diseases—Edited by F. X. Dercum, M.D., Chemical Professor of Diseases of the Nervous System in the Jefferson Medical College, Philadelphia. In one handsome octavo volume of 1046 pages, with 341 engravings and 7 colored plates. Cloth \$8.50; leather, \$7.10 net.

This goodly-sized volume embodies the work of twenty-two leading authorities in neurology in the different and special lines of their individual fitness for the same. The general arrangement is systematic and practical.—*Medical Record*, New York.

Diseases of Infancy and Childhood—By J. Lewis Smith, M.D., Clinical Professor of Diseases of Children in the Bellevue Hospital Medical College, New York. New (8th) edition thoroughly revised and re-written and much enlarged. Handsome octavo of 981 pages, with 273 illustrations and 4 full-page plates. Cloth, \$1.50; leather, \$5.50.

The leading position achieved by Smith on children is the standard text-book and work of reference on its important subject is shown by the demand for eight editions. In the present issue the subject of surgical diseases of children has been added. The new edition will be used by students and practitioners as a complete and authoritative guide to the surgical as well as the medical aspect of the diseases of children.—*Canada Lancet*.

A Text-Book of Practical Therapeutics—With especial reference to the application of remedial measures to disease and their employment upon a rational basis. By Herbert Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. With special chapters by Drs. G. E. DeSchweinitz, Edward Martin and Barton C. Hirst. New (5th) edition thoroughly revised and much enlarged. In one octavo volume of 740 pages. Cloth, \$3.75; leather, \$4.75.

The fifth edition of this valuable book in as many years indicates in a convincing manner the high esteem in which it is held by the profession in America. The editor has a high reputation not only as a teacher, but also as an experimental pharmacologist. We find, therefore, as we might expect, that the physiological action of all the drugs as far as it is known, is very clearly stated. Above all things, however, the work is a practical one and the busy practitioner will find that all information respecting practical therapeutics is here made easy of acquisition.—*Montreal Medical Journal*.

The Pathology and Treatment of Venereal Diseases—By Robert W. Taylor, A.M., M.D., Clinical Professor of Venereal Diseases in the College of Physicians and Surgeons, New York. In one very handsome octavo volume of 1002 pages, with 230 engravings and 7 colored plates. Cloth, \$5.50; leather, \$8.50.

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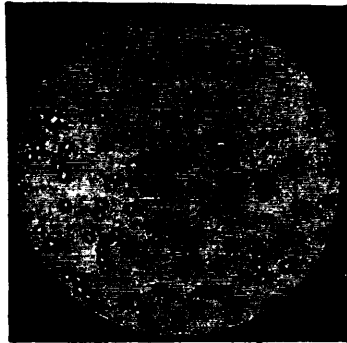
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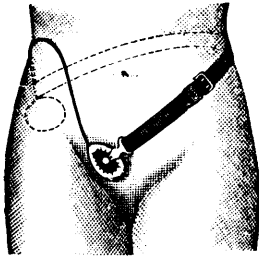
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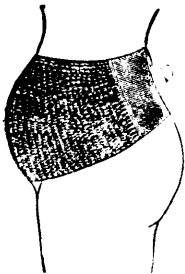
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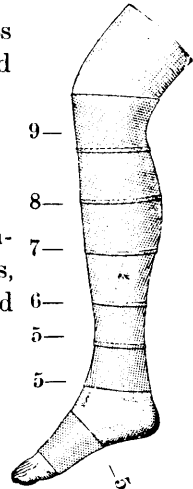
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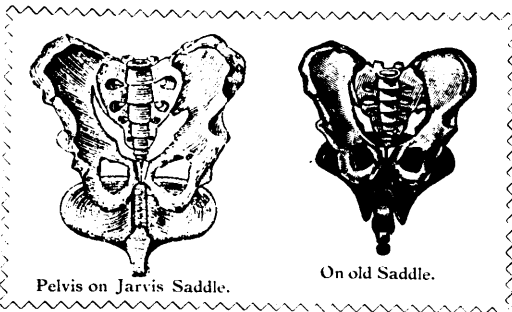
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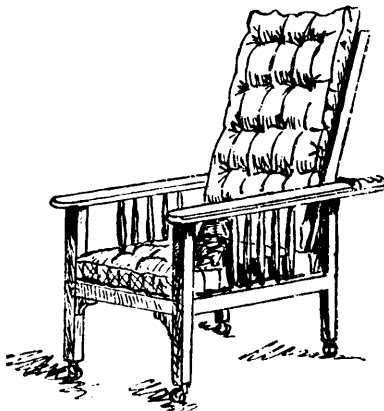
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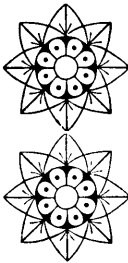
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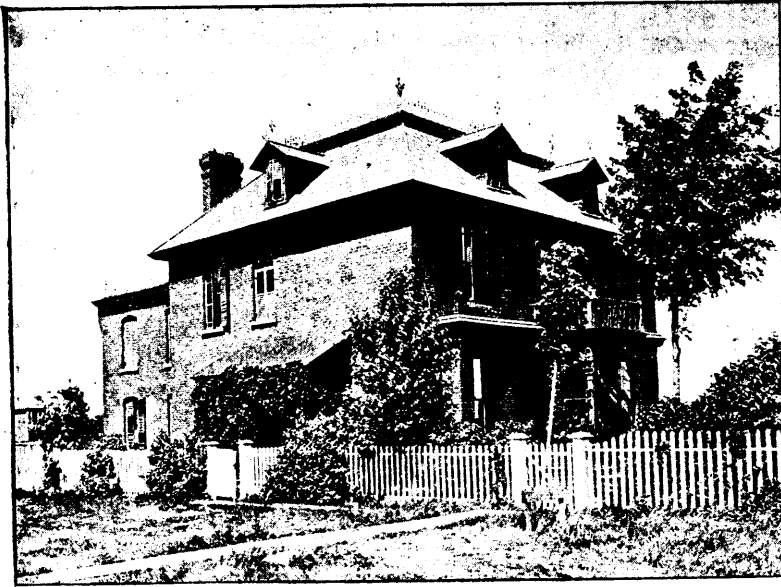
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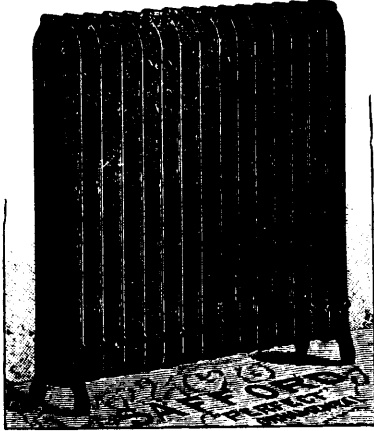
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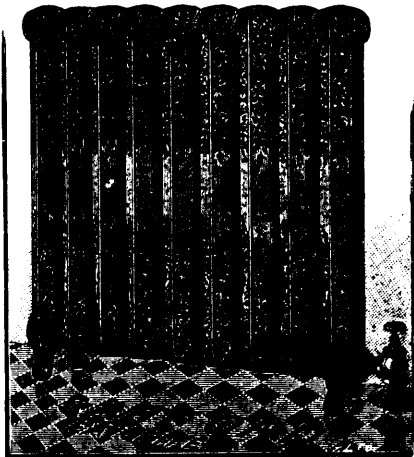
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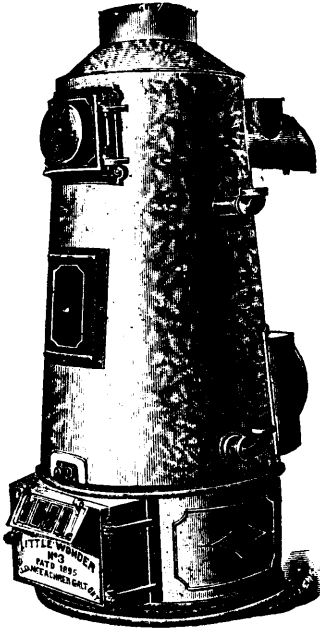
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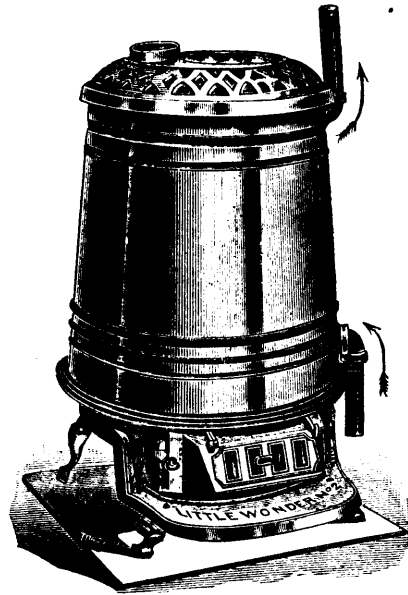
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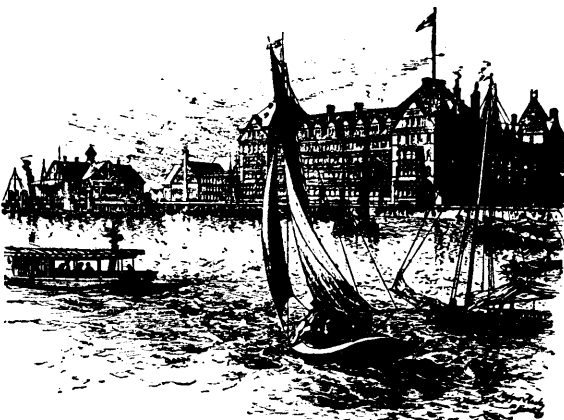
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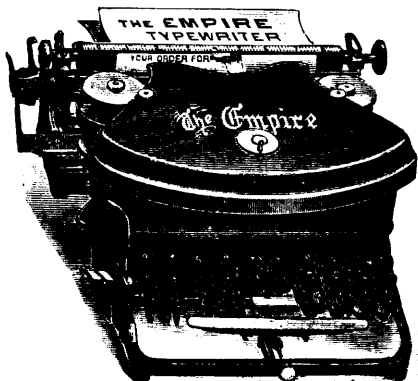
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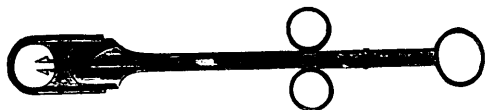
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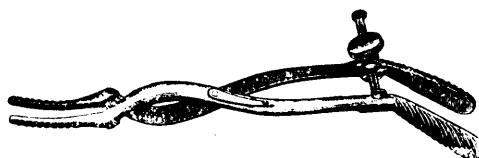
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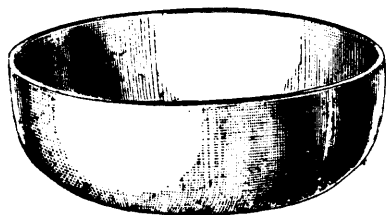
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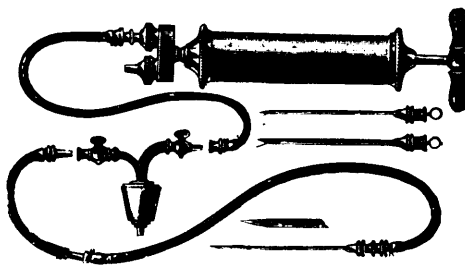


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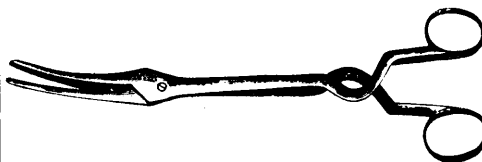


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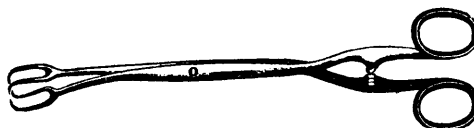
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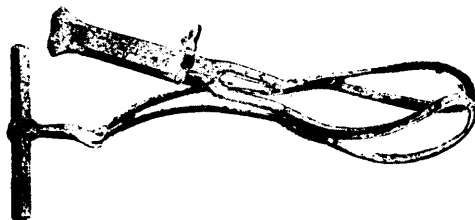
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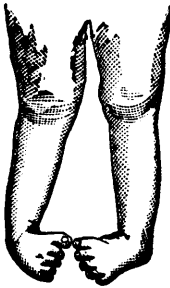
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Calcium	16.750
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A NON-TOXIC, VASO-MOTOR CONSTRICTOR.

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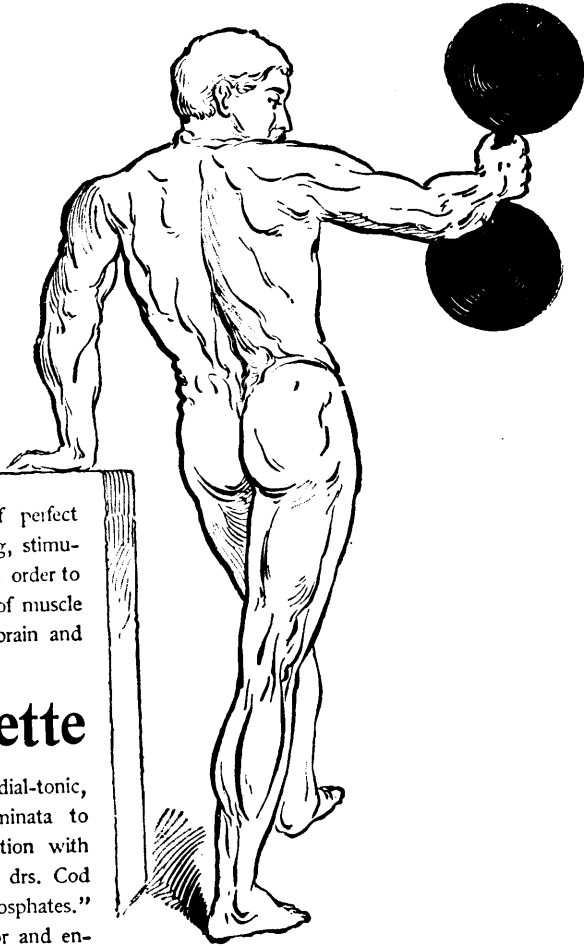
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