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Original Contributions.

CLINICAL REPORT ON THREE CASES OF UNUSUAL INTEREST.*

BY THOMAS H. MANLEY, M.D.,
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CASE 1.—*Mammoth Dermoid Cyst of the Scrotum, complicated with Inguinal Hernia.*

Patient, a German, aged 60, married, cigarmaker; rather steady drinker, but never excessive; undersized and spare habit. (Fig. 1.) His father at the age of fifty years died from the effects of an operation for a strangulated rupture. Mother died from some pulmonary affection at sixty. Always enjoyed good health until seven years ago, when he fell from a ladder a distance of about seven feet. Shortly after this he noticed a swelling on the right side. Went to a physician, who applied a truss. Soon after the truss was applied he noticed a swelling in the scrotum. As the truss caused him discomfort, and failed to keep the hernia up, he discarded it after wearing it three months. For five years after the fall he went about his usual occupation, but after this time he became conscious that the swelling in the scrotum was rapidly increasing in volume, and giving him so much inconvenience that he could not sit with ease at his bench; standing gave him pains in the loins and back, and he could only walk duck-fashion, with his legs spread widely apart. For the past two years the scrotal tumor had attained such dimensions and weight that he had to give up all regular work. It was necessary for him to have a trousers specially made to cover the protrusion, and a harness arrangement extending

* Written specially for THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

up over both shoulders and across the back, from which was suspended a large canvas receptacle in which the vast scrotal bag rested. The effects of this mass finally began to tell on his general health, and besides, there was no possible position he would take that did not augment his misery. This was notably the case when he retired at night, when he had to lie on the right side severely quiet, else any movement of the body caused a drag on the tumor, with much suffering. Dressing and undressing were awkward and painful, unless someone was at hand to hold the

FIG. 1.—(1) Root of penis; (2) Obliterated prepuce; (3) Left testis; (4) Outer aspect of tumor, left side; (5) Base distance, long axis, 13 inches; (6) Transverse diameter, 9 inches; (7) Site of hernia, reducible.

tumor up. In the heated seasons of the year his misery was great. On August 5th, 1898, the patient was placed under my charge by Dr. George V. Hann, of this city. At this time his general condition was not good. Evidences of senility were well marked. He was weak; the appetite was poor and the digestion bad. He had frequent colicky pains and was constipated. He had an irritable bladder, with want of full control over the vesical sphincter, so that his night's rest was broken and his clothes were befouled.

by decomposing urine. There was no evidence of enlarged prostate. I found it impossible to make out the meatus urinarius, to pass a catheter and collect sufficient urine for a proper analysis. The lower limb on the side involved was markedly atrophied and paresic. Psychic symptoms were well marked; the patient was exceedingly despondent, and alleged that, while he was aware that some description of operation was necessary, he knew well that he could survive none.

Local Examination.—On stripping the patient a vast scrotal tumor presented. (Fig. 2.) The enlargement here was fairly symmetrical. The tumor extended well down, nearly to the knees,

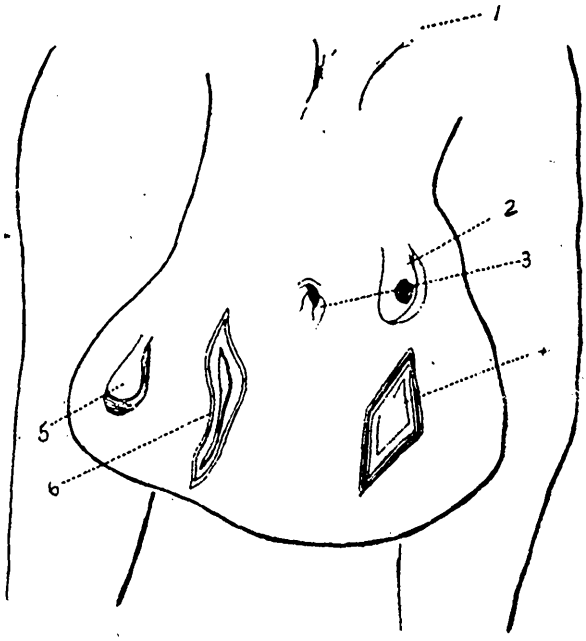

FIG. 2.—(1) Root of penis; (2) Left testis; (3) Foreskin; (4) Incision on left side; (5) Right testis; (6) Long incision on right side.

quite entirely obliterating the penis; the integument over scrotum was tense and smooth. By careful palpation the left testis could be felt, lying near the surface. On the left side the resistance to pressure was not so great as on the right, where the testis could not be located. At first sight the question arose—Was this a case of double hernia, or double hydrocele, or was it some description of cystic tumor? My examination of the patient in the erect and recumbent attitude assured me that there certainly was a hernia on the right side, but that the protrusion was not large. The presence of the free testis lying on the surface precluded the possibility of hydrocele on that side. The history of the case, with

the symmetry of outline, convinced me that we had a neoplasm to deal with, complicated by a hernia. The mass imparted a sense of fluctuation and was everywhere flat on percussion. The tumor measured 28 inches over its antero-posterior diameters and 24 over the lateral. The tumor was placed on a starch-box resting in a scales, in such a manner as to relieve all possible tension from above, and was weighed. The net weight was 14 lbs. and 12 ounces, or 236 ounces. Being assured that, at all events, we had liquid of some kind to deal with, the next question was to determine its character. With this object in view, I passed in an exploratory needle, and under suction withdrew half an ounce of

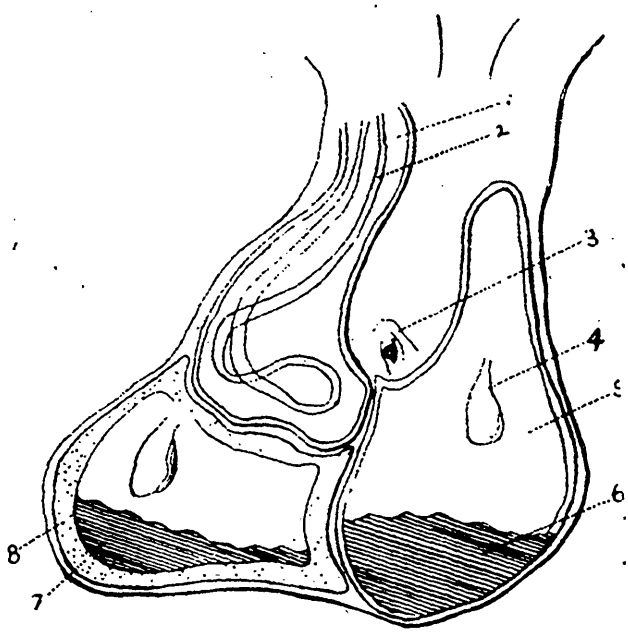

FIG. 3.—(1) Hernia sac; (2) Intestines; (3) Prepuce; (4) Testis; (5) Fluids; (6) Putty; (7) Putty; (8) Cartilaginous walls of sac on right side.

liquid from one side and the same quantity from the other side of the scrotum. This was of a reddish-brown color, odorless, and of a watery consistence. Its specific gravity was 1020, reaction alkaline. Chemist who examined the withdrawn fluid reported it as containing urea, the urates, phosphates and biliary salts, especially cholesterine. The microscopical examination revealed plenty of fat granules, disintegrated epithelia, crystals of the triple phosphates, urates, phosphate of lime and cholesterine. There was a considerable quantity of homogeneous material. In making the punctures to withdraw this fluid, the needle on the left side went in easily, but on the right force was necessary to send it through

a very thick cartilaginous envelope. As a result of the examination, it was clear to my mind that we had a dermoid cyst to deal with, probably multilocular. Now, what was the most rational and the safest course to pursue under these circumstances?

Treatment.—In a healthy, vigorous person, it is clear that in any instance of cystic tumor of the spermatic cord, the epididymis or the testis, the course to pursue is complete enucleation. But here was a man of sixty, of broken-down constitution, with evidence of senile, degenerative changes. A very large dissection would be necessary. Contamination of the wound by the urine was quite certain, rendering primary union of wound quite impossible. It was finally decided to make a free incision, to thoroughly evacuate and drain, with the hope that the endothelial surfaces might be destroyed, and that subsequent contraction might obliterate the cavities. By using cocainization, this would not require the employment of pulmonary anesthetics, and would not entail the dangers of shock from the loss of blood or mutilation, as in decortication. On the 10th of August he was operated on, the parts having been first properly prepared and cocainized. He sat in a large chair, his legs being well separated, and a receptacle placed underneath to receive the discharges. We commenced by making a free incision into the left side of the scrotum. (Fig. 3. Through this was evacuated nine pints and a half of reddish-brown fluid. Then, three fingers were introduced and a large quantity of a brown putty substance, with hairs of various lengths, were dug out. When this was cleared out and the cavity well irrigated with a 2 per cent. solution of the chloride of zinc, the tumor on the right side was opened. This had a thick, firm shell on its anterior and lateral aspect, but its posterior wall was elastic and flaccid. This contained a little more than three pints of fluid. There was not quite so much putty as in the left, but it was more gritty, and contained several large particles of calcareous substance. When this cavity was evacuated, with three fingers in it, the right testis could be located, immediately posteriorly, having a very thick vaginal tunica. By lowering the patient's shoulders, the fingers yet in the hollow sac, it was easy to completely reduce the hernia, when the penis was restored. (Fig. 4.) The after treatment was simple. The patient was well sustained with tonics and nourishing food. His appetite and sleep returned, the colicky pains gave him no further trouble, and he recovered full control over his bladder. Before operation he weighed 114 lbs., with his tumor, and now, three months later, he weighs 125 lbs. without it. The evacuated sac on the left side was firmly obliterated after operation, without infection; but the thick shell on the right side suppurated. The resisting, hard, non-vascular walls became gradually detached, and it was possible to remove them piecemeal, *per morcellement*, until all was brought through the opening, when final, solid union followed. This shell contained plaques of bone substance, histologic cartilage and tufts of tubular racemose

glands, with nearly every variety of epithelia. Now our patient is quite himself again. A considerable mass of redundant scrotal tissue remains, which he supports with an elastic pouch. The hernia is comfortably controlled by a truss, and locomotion is no longer attended with any inconvenience.

The case recorded belongs to a rare type of a very important class of tumors. Cystic tumors of the scrotum in the inguino-scrotal region, in both child and adult, are often confounded with, or mistaken for hernia, or, as in this case, they may be complicated with it. In elderly or old men they are often mistaken for hydrocele. Sir Astley Cooper's diagnostic test in differentiation is a fallacious one, as he tells us that we may always recognize hydrocele, first, by its *transparency;* secondly, by its *fluctuation,* and thirdly, by the swelling commencing *from below.* But every surgeon knows that all these signs may obtain in serous cysts. Monod and Terrillous have written a classic treatise on scrotal tumors, and

FIG. 4.—Photo showing final result: restoraton of penis, support for lax scrotum, and truss on right side.

emphasized the importance of exact diagnosis in their management. Ten years ago the writer called attention to the great number of inguinal and scrotal tumors, which are mistaken for hernia or hydrocele, and pointed out that accurate diagnosis is in many of them only possible by a free incision, when one should be always prepared to complete operative procedures.—"Serous Cysts and Cystic Formations," *Internat. Jour. of Surgery,* June, 1888.

Dermoid tumors of the scrotum are very rare. Curling speaks of them, but declares that none ever came under his own observation. Goodsir, Erichsen and Marshall have each reported cases. Verneuil and Guersant collected and carefully studied nine cases. As to their cause, Olivier believed that they were organic debris, originally of abdominal inclusion. The theory of fetal inclusion, however, is dissented from by St. Hilaire, Lebert, and Paget. Klebs and Kocher were of the opinion, that when the tumor contained heterogeneous tissue, it might be dependent on accidental grafting

in early life. Volkman and Freunzmer express the belief that these cysts originally spring from Giraldes' hydatids in the epididymis, sometimes remaining undeveloped and provoking hydrocele, by erosion, or even rupture. Melchoir, in his record of 282 cases of hydrocele, enumerates 17 as complicated by teratomata on both sides. I can find no case reported of typical dermoid of the scrotum in a man so old as my patient.

CASE 2.—*Embryonic, Umbilical Hernia, containing the Stomach, Small Intestines, the Cecum and Colon, with the Liver, Spleen and Pancreas, in a New-born Female Infant.*

On the evening of October 12th Dr. L. Zwisohn, of this city, invited me to examine and operate on a newly-born female infant with a massive umbilical hernia (Fig. 5), which presented features of strangulation and impending gangrene of sac. The offspring was an eight-month child, the first-born; the mother had rather poor health during pregnancy, though her labor was natural. The infant was rather thin, but energetic, and had an immense ventral hernia through the navel opening. Soon after birth the infant showed signs of suffering, and the thin envelope covering the protrusion presented a mottled color, with signs of impending gangrene. When Dr. Zwisohn was called in consultation he advised, as a forlorn hope, the chances of a kelotomy to relieve the constriction and possibly return the extended viscera. On examination I found that we had to deal with a genuine case of embryonic hernia, the mesoblastic structures of the abdomen lying quite entirely outside, the lateral muscular plates having never closed in. The mass was of globular outline with a narrow pedicle at the navel aperture, then spreading out into a large thin-walled sac with the umbilical cord extending beyond it. The envelope was of dark purple hue, presenting patches of necrotic changes. The infant was etherized, and a free incision made through the abdominal end. Now, it was evident that there was no abdominal cavity, as nothing but a diverticulum remained, which would barely admit the tip of the index finger. Within the sac were the stomach, liver, spleen and pancreas, with the small and large intestine. Nothing could be done in the way of relief, and hence the incision was closed by suture. Six hours later the infant succumbed. An autopsy was refused. The type of hernia above recorded is very rare when of such proportions, for there we had quite an entire eventration, all the viscera being enclosed by Rathke's membrane. This deformity constituted practically a congenital monstrosity. The coverings of these herniæ are always thin, nearly transparent, avascular and very brittle. Berger, in his recent brochure, records thirty-two of these cases of the minor variety which were treated by the radical operation. Twenty-six recovered and six died. In one case recorded by Landerek, a part of the stomach was engaged in the hernia. Benedik, in another, discovered the spleen. Both Goodloe and von Hofsten recommend early operation, while Thudicum records twenty-six deaths after

the early operation. Forgue describes in detail the anatomy and surgical treatment of these herniæ when they present in the minor degree. Broca has designated embryonic extrusion as "hernia into the open canal." Delanglade describes the sac as being composed of the laminæ, between which is a layer of Wharton's jelly, and says that their thin vitelline membrane may rupture before birth, during delivery, or after the child is born. In those of a minor degree, embryonic hernia, whether into the cord or a diverticulum, is not a serious defect, but in the exaggerated type, as the one recorded, art is powerless and death is inevitable. The embryological defect leading to embryonal hernia is of singular interest. The subject is not only directly related to embryology, but comparative anatomy, a branch of anatomical science which Professor Huntington has recently introduced into the regular course at the College of Physicians and Surgeons.

Professor Mall, of Johns Hopkins Medical College, in a recent able contribution, entitled "Development of the Human Intestine

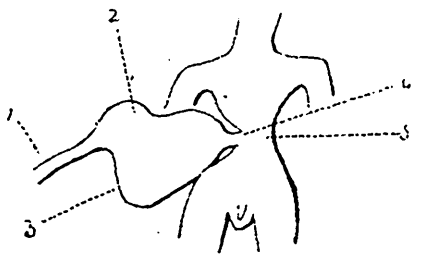

FIG. 5.—TOTAL EVENTRATION.—(1) Umbilical cord; (2) Cavity of sac containing all the abdominal viscera except the kidneys; (3) Gauze-like envelope of sac; (4) Constricted isthmus at base; (5) Collapsed abdominal plates.

and its Position in the Adult," in speaking of the excursions of the fetal viscera, and the rather mysterious migrations of the intestinal tube during fetal existence, says: "Although it is comparatively easy to understand how the intestine leaves the peritoneal cavity to enter the cord, it is extremely difficult to see how and why it enters. When the intestine enters the cord the communication of the cecum with the body cavity is very free and the intestine small, but when the intestine returns to the body the cavity is large while the opening is small. . . . The return of the intestine into the body must take place very rapidly, for I have never seen a specimen in which it is in the process of returning. Embryos 40 mm. long either have the intestine in the cord or in the peritoneal cavity, and, if it is in the latter, the communication between the cord and peritoneal cavity is open and surrounded by a thin membrane, showing that it also is being closed. This membrane now closes the whole opening, and later the recti muscles wander into it to complete the abdominal walls." The condition is therefore an arrest of developmental processes, which

in a minor degree occurs frequently, but disappears during the period of evolution and growth of the body.

CASE 3.—*Large, Irreducible, Umbilico-Ventral Hernia in an aged woman.*

Patient, aged 67; widow. No history of heredity nor injury. Had borne six children, the last when forty-two years old. After the last confinement, became conscious of a "lump," though, as it gave her no annoyance, she wore no support nor truss. (Fig. 6.) For past year she had colicky pains with constipation; besides, the rupture was growing rapidly. She came under my notice, with a view of an operation for radical cure, but as she had atheroma of the vessels and other marks of senile degeneration, I advised against it, but sent her to the J. C. Schuotter Co., truss and brace

FIG. 6.—An enormous acquired umbilico-ventral hernia. Eventration.

manufacturers, New York, where she was fitted with a well-constructed, ribbed abdominal supporter. (Fig. 7.) This gave her great comfort, with relief from the misery which she had formerly borne. This old lady suffered from one of the three well-known anatomical types of umbilical hernia. In the first we have illustrated, in case of the infant, the embryonic, or that in which the viscera were never within the abdomen, really not a true hernia. In the second the navel scar yields; that very common type of hernia seen in infants and children. In the third the eventration begins close to the umbilical scar, but never through it. This hernia rarely occurs except in child-bearing women, when there is commonly an extensive yielding in the median line, and the hernia hangs down over the pubis, when it may produce painful phenomena out of proportion to its volume. It is never com-

pletely reducible; there is no independent sac, but the viscera, by a vermicular movement, insinuate themselves between the muscle sheaths and are held by firm adhesions. Secondary herniæ form in the sac, and hence the patient is in danger of strangulation or seclusion. Most of these patients are obese or asthmatic, and besides many of them have glycosuria or albuminuria. But if seen early they may be always securely controlled by a truss, though a permanent cure is rarely attained in chronic exomphocele except by surgery, which is, in this class of cases, always an extreme measure that should not be urged unless there are symptoms of incarceration or impending strangulation. Here prophylaxis is most potent if utilized early. Those women

FIG. 7.—Same, reduced and retained by the Schuotter ribbed supporter.

prone to pendulous bellies after delivery, should always convey the strain from the weakened abdominal walls to the lumbar and sacral spine by a stout binder or belt. Constipation should be avoided. In their earlier evolution firm bandaging, with reduced and prolonged rest in bed, will greatly reduce their volume, and sometimes lead to a cure. In this type of hernia as many others, by patient and persevering conservative measures, even in the most troublesome ruptures, a cure equally as efficient as by the more radical methods may be realized. In contemplating the special plan of treatment, the resources of the patient must be considered, as it is obvious in many instances the time consumed in treatment is an important factor.

REMARKS ON THE TREATMENT OF CLUB-FOOT, BASED ON THE PERSONAL EXPERIENCE OF THREE HUNDRED CASES.*

BY B. E. McKENZIE, B.A., M.D.,

Surgeon to the Toronto Orthopedic Hospital, and to the Out-Door Department Toronto General Hospital; Assistant Professor Clinical Surgery, Ontario Medical College for Women; Member of the American Orthopedic Association.

It is said that about one case of congenital talipes occurs in every one thousand children born, and that acquired club-foot is more common than the congenital variety. This deformity is one which causes much anxiety to parents, and when left uncorrected presents a very objectionable appearance, and is the cause of marked disability. It is a bar in society and in business. Its treatment has well-nigh reached perfection, and surgical art, under favorable conditions, can obtain such results as practically to annihilate the continuance of the deformity and secure perfect functional results.

This paper is based on the treatment of three hundred club-feet, occurring in more than two hundred patients, 40 per cent. of whom had deformity of both feet, and 27 per cent. of whom had traumatism or paralysis or other disease as the cause of the deformity. More than two hundred of the individual feet dealt with were instances of ordinary club-foot—congenital equino-varus. No reference is made in this paper to flat-foot, nor to cases of any kind not requiring operative treatment. Cases of foot deformity come to the surgeon at all ages, and those referred to here varied from forty-three years down to infancy.

There is an ideal time and an ideal plan of treatment if the surgeon can make his own conditions. In earliest infancy and for eight or nine months, the mother or nurse should be taught to manipulate the foot so as to stretch the structures on the inner border and increase its mobility. There are many advantages in this method over any plan of treatment which contemplates a fixed dressing, whether that fixed dressing be plaster-of-Paris, plastic fibre, or any form of club-foot shoe. The deformed foot and leg are always defective in size and general development when compared with the normal leg and foot. After correction of the deformity there is liable to be but a limited degree of motion and imperfect function at the affected joints. The plan of treatment here advocated presents this advantage, that the manipulation of the foot and leg during the rapidly growing months of infancy tends to increase development, growth and motion, whereas a plan which keeps the foot and leg at rest and submits it to a fixed dressing or appliance, partially exsanguinates the foot and leg and causes needless atrophy in a limb which already lags behind its fellow or behind the normal limb of a child of similar age and development.

* Written specially for THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

There is no useful purpose served by having the position of the foot entirely rectified before the time comes when the child is learning to walk. His first steps should be made placing his weight directly upon the plantar surface of the foot. If the deformity had been corrected some months before this time, there is no natural means of retaining it in position, and will be none until he is able to balance himself upon his feet. The weight of the body pressing downward and the act of walking are nature's methods of keeping the corrected foot in this right position. Briefly, I would say that where the surgeon has the opportunity to direct the treatment of a case from the first, he should instruct the mother how to manipulate the feet and legs, so that the manipulations

FIG. 1.—S. M. at 3 and again at 7 years of age.

may tend to correct the deformity and increase mobility. As it may be assumed that the average healthy child will walk at about twelve months, the mother's care should be continued for nine or ten months, and if the instructions have been well carried out there is still ample time for the surgeon to complete the rectification of the deformity before the time shall have come when the child can walk.

The deformity in ordinary club-foot may be said to consist of three elements: First, the inturning of the foot from the line of its longitudinal axis so that the inner border is unduly concave, and the outer border markedly convex—varus; second, the relation of the foot to the leg is such that the heel is drawn upward and the

toes made to point downward—equinus; third, torsion or twisting of the foot which commonly exists partly in the foot itself, and partly in a wrong relation of the foot to the leg. This element is shown in a lowering of the outer border and an elevation of the inner.

In correcting the deformity it is very essential that the foot, *per se*, shall first be rectified, that the inturning and the torsion shall be the special objects of attack. In the vast majority of children under three years of age this may be corrected in two or three dressings, and without the use of the knife. Some may prefer to give the child an anesthetic; personally, I find no objection to dressing the foot without doing so, as the child seldom suffers for

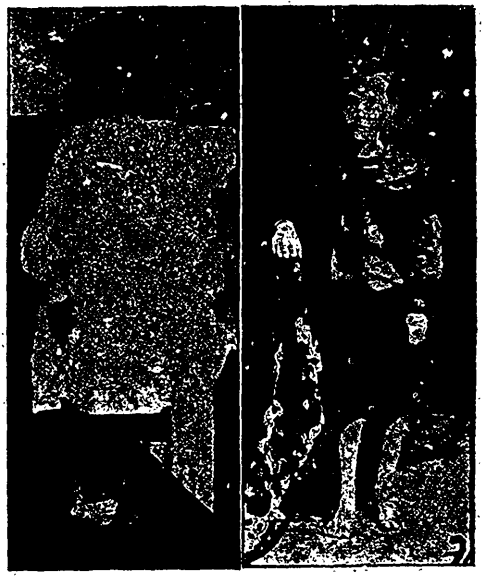

FIG. 2.—D. T. Treatment by tenotomy and manipulation.

more than a very few minutes. Great force may be exerted by grasping the foot with the hand and twisting it toward the position of rectification. If necessary the tenotome should be employed to cut any special tendons, bands of fascia or ligaments, which in a marked way prevent the reduction of the deformity. Of course the gain thus made must be retained by a fixed dressing, of which plaster-of-Paris is without doubt one of the most convenient, applied over an ample covering of absorbent cotton. If sufficient care be taken in applying this dressing abrasions should never occur. This part of the work, namely, the correction of the deformity of the foot, *per se*, should not only be thoroughly done, but over-correction should be made before the relation of the foot to the leg

receives attention. When the varus has been converted into valgus, then the equinus should be corrected. At this point it is of advantage in the great majority of cases to cut the tendo Achillis. Only through prolonged and painful efforts can the relation of the foot to the leg be otherwise corrected in most cases. The section should be complete, and if difficulty is then experienced in bringing the plantar surface into such a position as to allow its axis to make

FIG. 3.—Jno. S., 10 years. Treatment by open incision.

an angle of eighty degrees with the axis of the leg, the knife may be further carried forward so as to cut the posterior ligaments binding the astragalus or os calcis to the tibia and extending even to the point of cutting the internal lateral ligaments. Section of the tibialis posticus and the accompanying long flexor may also be necessary. Under any circumstances sufficient cutting should be done and force applied to quite over-correct the position of the foot in regard to all the elements which enter into the deformity,

that is to say, the varus should be converted into valgus; the torsion, which lowered the outer border of the foot and raised the inner, producing supination, must be fully corrected; and the equinus must be so overcome that the plantar surface of the foot shall make with the leg an angle of eighty degrees or less.

When a few weeks have passed and healing has occurred, and tenderness of the foot has passed away, the active treatment according to this ideal plan is at an end; but if an ideal result later in life is to be enjoyed, the surgeon's supervision of the case must not cease, but should continue for some years afterward.

There are a few cases even in infants and some who are in childhood and adolescence, in whom the course to be followed is not quite so simple. Occasionally the varus cannot be fully corrected without resorting to further operative work. In most of these cases the open incision at the inner border is the best method

FIG. 4.—A. E. Treatment by tenotomy and manipulation.

to adopt. The inner border of the foot is as freely incised as the circumstances of the case demand, *i.e.*, until rectification can be made. After healing the further course of treatment is practically as in the former case.

In a few others the astragalus is found to be thrown so far forward and outward that there is no hope of being able to restore it so as to have its articular surface go normally between the malleoli. In these cases its removal is a comparatively simple operation. The enucleation of the astragalus from a normal foot, even in the cadaver, is accomplished only with considerable difficulty, but when thrown from its position, as it is in these extreme cases of equino-varus, it is not difficult.

Neither the open incision nor the removal of the astragalus

should be done without proof of its necessity; the one leaves a cicatrix at the inner border and plantar surface of the foot, the other has distinctly maimed the limb by the removal of an important bone.

Occasionally it is very difficult to place the cuboid in a normal relation to the os calcis. The latter bone is so distorted in its anterior part in some cases as to constitute a formidable obstacle to complete rectification. The relation of these bones is not easily detected by external inspection or manipulation; but unless the condition just referred to be discovered and set right, relapse is almost sure to follow. In children, while the bones are cartilaginous, this condition may be remedied by mechanical treatment, but in those who are older osteotomy of the os calcis is called for. In such a case the best procedure is to remove a cuneiform section from the os calcis a little distance behind its anterior articular

FIG. 5.—F. B., 15 years. Admitted to T. O. H., July, 1898. Second part of cut shows the feet as they were in November, 1898. Correction made without open incision or removal of bone.

surface in such a manner that its base shall be at the outer border and its apex nearly at the inner.

In some cases, in spite of the best efforts, and after the deformity of the foot itself has been fully overcome, it will still be found that the result is not satisfactory. One of the causes is a twisting in the tibia and fibula, by which the external malleolus is carried relatively forward so that the anterior portion of the foot turns inward when the knee is held in its normal direction. If this condition of pigeon-toe be present in only a minor degree, the natural use of the limb and development are likely to correct the trouble. Very seldom is the twist so strongly marked as to call for osteotomy of the tibia and fibula. When necessary, however, these bones may be cut and the twist in the leg corrected.

I have thus very briefly described what I have found to be the best methods, the selected ones, for adoption in order to secure in the most satisfactory manner the best results in ordinary congenital club-foot.

The after treatment is a matter of vast importance. There is manifested in nearly every case an inveterate tendency towards relapse, which continues to show itself for several years, especially in childhood, which fact accounts for the large number of relapsed cases. There is little doubt that in many of these relapsed cases the operative side of the work was well done, but from some fault, either of the parents or of the appliance employed or of the surgeon who was responsible for the after treatment, the foot has not been held constantly in its corrected position and the ever-present disposition to relapse to the old condition of deformity has manifested itself and brought about the unsatisfactory state which

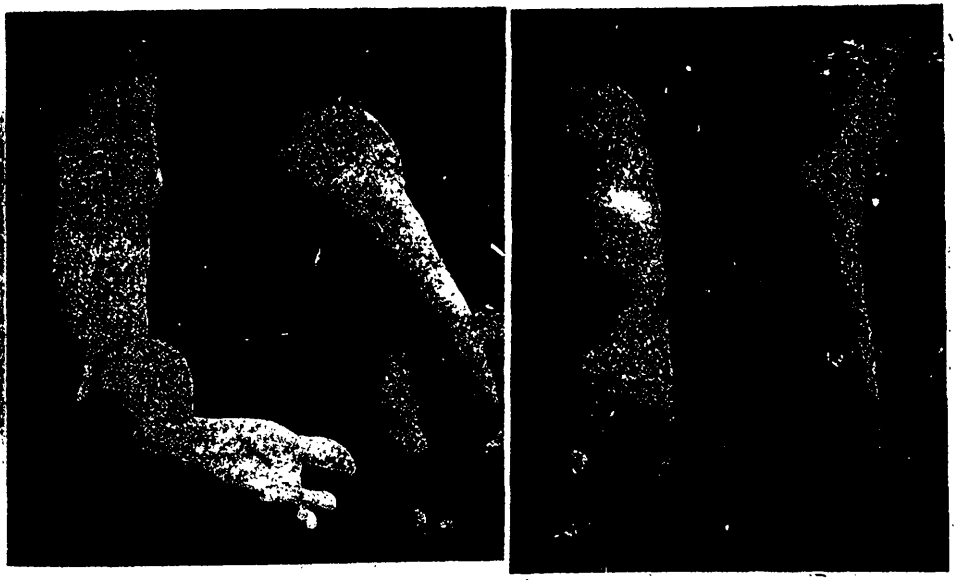

FIG. 6.—J. J., 9 years. Correction made between September 5th and November 29th, 1898, without open incision or removal of bone.

is so often seen where the dorsi-flection cannot be produced beyond an angle, say, of one hundred degrees, and where the foot is turned inward to a greater or less extent.

In the after treatment of the case manipulation and proper exercise of the foot by the patient are of prime importance.

Children should be taught to place the foot securely upon the ground, and exercise directed toward the free movement of the foot in all directions should be assiduously carried out. Massage should be given, during which the foot should be placed always at an angle of ninety degrees or further dorsi-flexed and its anterior part carried well outward. Where these directions are followed, it

is a common thing to have the foot capable of movement through an arc of forty-five degrees or more.

At night, when the muscles are relaxed and the bed-clothes resting upon the foot, probably more is done to bring about a relapse than at any other time. To prevent this a very simple night brace should be employed by which the foot can be kept at an angle of eighty degrees with the leg.

Ordinary boots cannot be worn without great danger to the patient. The boot should fit well and have its sole well projected outward, it should be thicker also at the outer border than at its inner. Corresponding to the head of the first metatarsal there should be a strong counter to prevent the inturning of the foot. This boot also should be made upon a last whose axis is the same as that of a foot which is placed in a position of valgus. If a boot

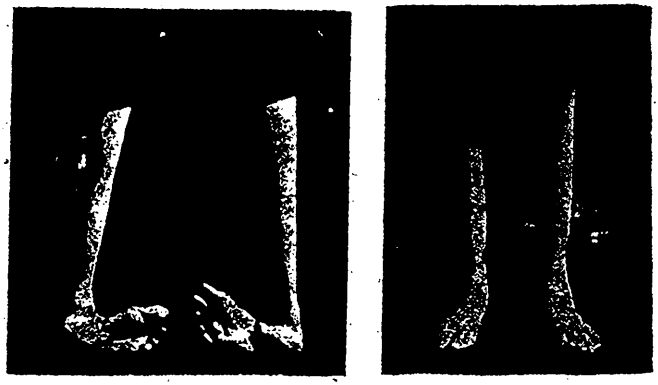

FIG. 7.—F. B. Same patient as Fig. 5.

be thus constructed of good firm leather, it is impossible that relapse shall occur while the patient is walking about.

By a careful observation of these principles for a period which varies somewhat according to the time of life when treatment is resorted to, results may be obtained which are highly gratifying. In fact, if the treatment be commenced within the first eight years of life, and the surgeon can have a free hand to carry out his purpose, a result both in regard to form and function so nearly perfect should be secured that an ordinary observer would not have a suspicion that any defect had ever existed. Children in whom the treatment has been carried out at an age that precedes years to which memory usually recurs, may never know that they had the misfortune to have deformed feet.

In order to attain the high degree of success here claimed, it is as necessary that the active operative treatment be thoroughly done as it is that the after treatment be faithfully followed out;

FIG. 8.—H. E. at three months and at six years.

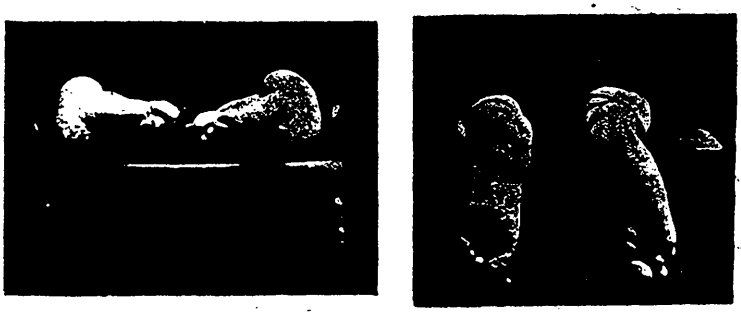

FIG. 9.—S. D., 29 years. Admitted to T. O. H., December 7th, 1898. Discharged cured, March 10th, 1899. No bone operation.

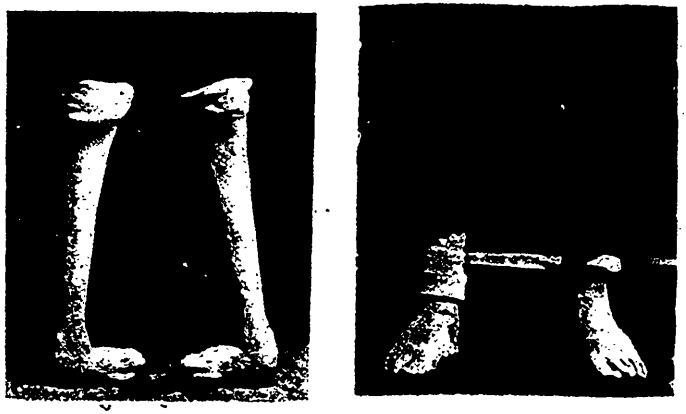

FIG. 10.—S. D. Same patient as Fig. 9.

but it must also be stated that skilful after treatment long continued is quite as important as proper operative work.

The writer does not claim to have always attained the success here portrayed, but from his experience he sets this standard for himself, and is confident that it can be obtained in all cases of non-paralytic, congenital club-foot.

The indications for treatment are not different in the adult; but the knife must be called into use much more frequently. Judging from the cases over eighteen years operated on, the prognosis, so far as rectification of deformity is concerned, is nearly as good as in the child. The function of the foot in the adult has

FIG. 11.—O. S., 18 years. Corrected in T. O. H. without open incision or bone operation, between November 23rd, 1898, and March 4th, 1899.

always been greatly improved; but it is likely to be less perfect than when the correction has been made in childhood.

Seventeen patients over fourteen years of age have been operated on, the eldest of whom was forty-three years. The occupation of this patient necessitates her being upon her feet very much. She claims that the change is of untold benefit to her. Eight were over twenty years of age, and seven of the seventeen above had deformity of both feet.

A reference to some of the cases over fifteen years of age, as shown in figures 5, 7, 9, 10 and 11, emphasizes the fact that such methods of operation as the open incision and removal of bone are

not always a necessity even in the adult, and when the deformity is strongly marked.

In the paralytic cases the results vary greatly. There need be no hesitation about cutting tendons or making incisions because of the paralysis. Healing occurs as kindly and successfully as in other cases. Rectification can nearly always be successfully made;

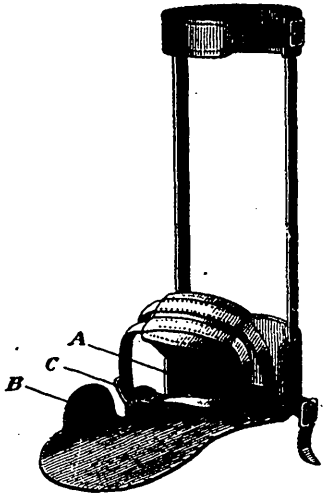

FIG. 12.—Night brace. This foot-piece is at an angle of 90° to the leg portion. An angle of 80° is better.

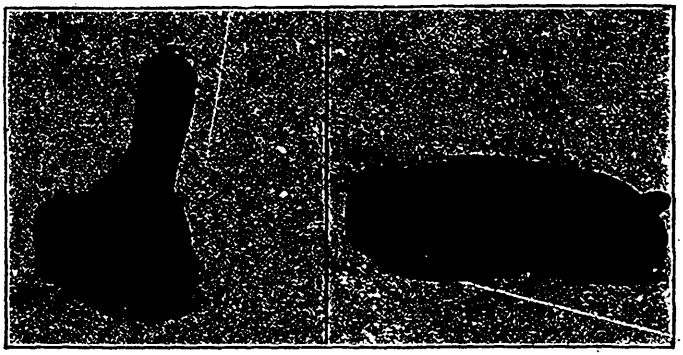

FIG. 13.—Club-foot boot.

but the amount of paralysis and the consequent defects of the affected part cannot be eliminated. In some cases the corrected foot can easily be maintained in its normal position, but quite as often orthopedic braces become a necessity. In all cases the use of braces should be given up as soon as possible, as having a tendency to interfere with natural development. Judging from my own

observation, braces are used in paralytics much more frequently than necessary.

In properly selected cases great gain may be obtained by transplanting tendons; for example, in some cases of calcaneus the peronei muscles are active, and not only useless but positively harmful in their normal situation, as they further increase the deformity by producing valgus, and unduly pronate the foot. In such patients the tendons may be cut, drawn from their sheath and sutured into the tendo Achillis just near its insertion.

Their power exerted heretofore in turning the foot outward is now made valuable for lifting the heel and thus overcoming the calcaneus. There are many other conditions which call for the transference of other muscles, each case calling for the fulfilment of its special indications.

No effort has been made to present this subject exhaustively and minutely, but to point out the most eligible methods as gleaned from experience. To summarize briefly:

1. The prognosis in ordinary non-paralytic club-foot is good.

2. In children restoration to form should be perfect, and function should closely approximate the normal.

3. Restrictive methods, either by dressings or apparatus, should be as little employed as possible.

4. Persistent manipulation improves function and development.

5. Operative treatment must be thorough. No part of the correction of deformity should be left, hoping that mechanical means will complete the work.

6. Intelligent and long-continued after treatment is essential to a final good result. Properly constructed boots should be worn and the foot retained in the corrected position at night.

7. Age is no bar to successful treatment. Eminently satisfactory results may be obtained in adult life. Even in the case of adults the more heroic methods of operation in many cases are not called for.

8. The prognosis in paralytic cases will vary according to the nature and degree of paralysis.

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THE CORRELATION OF INSANITY AND CRIME.*

BY EZRA HURLBURT STAFFORD, M.B.,
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MATTHEW ARNOLD was upon one occasion, it would seem, not more distressed by the conduct of a certain young woman (which was murderous) than by her uneuphonious name (which was Wragg). This was long ago, however, and the late Miss Wragg has long since been forgotten, yet the tendency for unlovely things to group themselves together is still quite as marked as then. A hideous and ghastly environment produces a hideous and ghastly community, and the deeds and thoughts of the individual members are hideous and ghastly. To Wragg and murder in the present instance might be prefixed poverty, squalor, ignorance, disease and insanity; and then the harmony between the first two will be easier to understand than when they are viewed alone, as they evidently were by Matthew Arnold. To appreciate the relation of cause and effect requires very little scientific acumen, one would think. The faculty for being easily shocked is far more common, however, than even the simpler notions of logic.

Philistine charity, in the *abstract*, is not so much a logical manner of viewing facts from a scientific standpoint, as an important factor in the rhetorical repertoire of the pulpit, and upon it are triumphantly raised the glowing superstructures of platitudinous oratory. It has become as limitless as it is unreal, but in the fine art of a technical religion it is as important as the theme in a fugue. Many a gaping niche of mental vacuity has it adorned. In the endless embroidery of words it may be faintly traced as a conventional design. It is a sacred gew-gaw for the wrapt ecclesiastic when in a state of rhetorical exaltation. It has *in hoc signo*, about as much emotional significance as the Greek votive wreaths carved on a French washstand. It is as refreshing and as natural as table napkin botany. Surely, then, a murderous and incorrigible Wragg would hardly be an appropriate object for a sentiment so æsthetic —for her remains only the *practical* charity of the Philistine. This is not utilized for the illumination of church windows. It is not at all ornamental. Those, indeed, who are supposed to be most benefited by it have not even found it soothing.

To go beneath the sleek surface of a beautifying and restraining conventionality it would seem that the sturdy and rugged barbarity of the original forest Teuton of two thousand years ago still had an active and unchanged existence. In the name of philanthropy and charity as much care to-day is taken to keep the serf class down as is taken to keep the breeding standard of horses and dogs up. There is a widespread idea that the more thorough-

* Written specially for THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

bred horses and dogs reared the better it is, but that in the contemporaneous human species there is only room for a limited number of thoroughbreds, and that the full limit were already in the enjoyment of that distinction.

Certainly the number is very limited. The greater part of the vast mass of homogeneous human existence is of the Wragg quality. And the privileged atoms that have become by chance disintegrated from the rest, like gaudy insects rising from their native mire, have employed their privileges and occupied their time in preventing others, as far as they could, from gaining a similar advantage. The machinery by which the privileged class, that is, the class who have got all the good things, have accomplished this end so far, is on the whole complex.

The human animal in a state of nature is compounded of ferocity and timidity. When starved to a certain point the cowardice is in the ascendancy, and the state of *timor mortis* is only occasionally broken by a paroxysmal wind-puff of the former ferocity, like the last jerks of an epileptic before the stage of coma. When not starved, on the other hand, the ferocity is in the ascendancy; but in the domesticated (or civilized) man it undergoes certain changes of expression, though not of intention, and may be indicated as the instinct for tyranny. This privileged class may be regarded as the well-fed class, with the already mentioned peculiarities of the well-fed distinctly accentuated.

Among the mass, on the contrary, timidity and credulity are to be found in *inverse ratio* to the aggregate of feeding and intelligence. To maintain the present divine order of things therefore, and to make the Wragg class quite content to do most of the dirty work and very little of the eating, their timid proclivities and easy credulity must be carefully fostered. The process, as at present elaborated, is known as "bringing comfort to the afflicted." The comfort is wholly verbal. The oracles of the sacerdotal fraternity stand for persuasion. They startle with oriental magic. Their field of terror, grown thick with the uncomfortable flowers of all the mythologies, is practically illimitable. The imagination can browse there forever. Teased with the lime-light vision of a hundred Sheols, and bewildered with the vision of a new Garden of Rhadamanthus stretching far away into luminous nothingness, grotesque, gratis and philharmonic, the present preludium of life is of trivial import; and, in conclusion, the meek shall inherit the earth—sometime, and it is very wrong to covet, but not incredible to sell one's birthright for a mess of aristocratic pottage. Moreover, Hades is very hot, but small, and in the epimetempsychotic state it will be the uneasy resting place of the select few who drink Burgundy and wear diamonds, a sufficient punishment for their greed. Valhalla is, however, sufficiently commodious for the decillions who have eaten mud and gone naked, and here a rejuvenated Lazarus, after a course of iodide, and bedecked in new clothes, will repair with the innumerable battalions of beggary.

Observe the intricate nature of this machinery. The ecclesiast, knowing in his mind that marriage is a holy ordinance, and holding in abomination a study so vulgar as physiology, alike eschewed by the Fathers and the ladies' seminary, joins in wedlock, ignorant of what he is doing, but trusting implicitly to a "higher power," a syphilitic man and a tuberculous woman, and the result is theoretically very satisfactory; for, as the rudest mind can see, the theological ceremony sanctifies such a union. And should the results be untoward, it is simply the "sins of the parents visited upon the children." The parents very reasonably should not have any sins. We will say, for example, that the particular result in this case is the bringing a number of people into the world whose actions do violence to the good taste of the normal multitude. Take one. He is addicted to appropriating the property of others with more or less elegance, or perhaps he displays a tendency to take the lives of others by the expert use of metallic or projectile instruments. Upon the strength of such actions he becomes a person who attracts considerable attention. But now being out of the province of the ecclesiast, who has already done his work effectively and intelligently, he is handed over to the public lictor, and pronounced by him to be, in the technical sense of the word, a criminal.

The "sins" of the parents have undoubtedly reached him, and quite by his own fault. He should not have resorted to *manual* appropriation or to the use of *metallic* instruments. Had he possessed the masterly cunning of some members of the privileged class, who, by using their heritage of superior knowledge instead of visible weapons, deprive, not one individual of his watch or his life, but thousands at once of their daily bread, and indirectly of their lives, he would not have been considered a criminal at all, but an ornament of Plutocracy. At least, the representatives of the law view it in that light, and the thief by wholesale lives in a palace, while the criminal spends his life in prison. He was destined to be a criminal from the hour of his birth. The laws of nature did not happen to ratify the book-holiness of an unphysiological union, even though the theological *Abracadabra* ceremonial was without flaw or error from the sacerdotal standpoint; and the contract valid from the legal. Meanwhile, to digress with reason, the child of a perfectly healthy mother by a healthy father (but between whom it had incidentally happened that no ecclesiastical rite had been spoken) is flung into the river by the much-perplexed mother, who has been ostracized by a discerning society for a crime not against nature, but theology, and she in turn is hanged for drowning the child. Thus is illustrated the conflict between nature and theology. These artificial restrictions have led to "confusion worse confounded." Yet there is no such confusion in nature; and there would be less in life were it not for the legalized meddling of a horde of besotted, self-appointed busybodies in a realm over which they have no jurisdiction, and in which the fine

adjustment for all time of the laws of nature precludes the remotest need for any such petty, interfering enforcement of artificial law.

But to return to the "lawful marriage"—and by the term I refer to one which is smiled upon by the ecclesiastic, and not one, necessarily, which is smiled upon by nature—in the case mentioned the tainted parents brought criminals into the world. It is not always so; the offspring is often insane instead. There is in fact something passing strange and elusive in the law of taint or degeneration. The difference between the criminal and the insane person is merely an external one; but the ecclesiastic and the lictor only see the external part of life at any time, and they see only the external difference here; and the degenerate victim of mental aberration is technically pronounced insane. These guardians of the race, Persuasion and Force, also have their softer moments. They indulge themselves in a moment of tenderness here, and place the insane in the merciful hands of the doctor! The lunatic shall have a habitation all for himself, with special physicians to keep him company and watch his bad eye. Having already built a prison "the force of nature could no further go," and so they make another building just like the prison, which is to be officially known as an asylum for the insane. It is not quite as disreputable to be insane, in the discriminating eyes of the public, as it is to be a criminal, and any reasonable lunatic ought to derive a great deal of alleviating comfort from the difference of name allowed to him, and to his habitation, though the regimen in both institutions is identical.

Meanwhile, as it takes money and time to enjoy or understand virtue, the serf class continue vicious, and as it takes money and time to be healthy they continue to be diseased. These two infirmities, acting and reacting in an atmosphere of stark ignorance and frantic poverty, produce permanent physical and mental conditions among this class which are not pleasant to look at or to listen to, and which are also distressing to the olfactory nerve. It takes several generations before this process of involution reaches a standstill, and the exact depth of this degradation varies at times and in places; representing sometimes an anthropological stage a little lower than the cave-dwellers, and sometimes a stage parallel with them. Meanwhile over this still miasm a dull vapor of pestilence poisonously hangs, for this is the breeding place of crime and insanity. These are the haunts of the cowering myriads who, by the machinery of an ineffectual civilization, hardly yet emerged from the appalling traditions of mediæval superstition, have been defrauded of their birth-right, plundered and cast out. Nor are the privileged classes themselves altogether immune. Into this dismal cauldron of degeneracy falls more and more thickly a gathering detritus also from this superior order of beings. What ignorance and vice have accomplished in the slum, greed and vice have at last accomplished in the mansion. The law of natural

selection, not being specifically mentioned in the canon, may with exemplary piety be ignored by the ecclesiastic; and while the cohabitation of incompetents among the starving tells more and more frightfully upon the blighted offspring, the same law of heredity holds good among a class who have found it convenient to distort the impulses of nature to harmonize with financial and social considerations. And so crime and insanity! Insanity and crime!

Let us, after the manner of *petits maitres*, compare and analyze these phenomena of civilization. The idea having been gaining ground for some time that the mental and moral conditions which constitute insanity and crime are one thing, and the buildings in which members of the community are cared for who are found to be in that mental and moral condition are another thing, there can be but a vague idea in the future of where insanity ends and crime begins, for the idea of each has in the past been associated with its environment. In vagueness, however, there is safety.

It will probably be more convenient to consider grave immorality and grave mental derangement as one thing in essence, and crime on the one hand a special manifestation of it, insanity another. Statistics are not interesting, but in our present inquiry they are convenient, showing indubitably that the population of Europe is increasing at a given ratio, and that crime is increasing in Europe (and America also) in a ratio greater than the increase of population. Statistics show, moreover, that in America, and in Europe, insanity is also very much upon the increase, and, like crime, upon an increase greater than the increase of population will naturally justify. But these statistics do not include those who have been insane outside of asylums, or criminal outside of prisons; and an enormous amount of both crime and insanity is certainly not officially recognized anywhere as such, nor shall ever be. If it were possible to add these also to the enumeration, the increase would be surprisingly greater. Yet in any case the fact that both always run parallel is forced upon the observation. They are, in fact, diverse manifestations of the same thing; manifestations which, by reason of an accidental diversity, it has been found convenient by an unscientific past to call by different names instead of seeing that they were one in cause and in origin. The belief in air, water, fire and earth as the four primal elements of nature is somewhat on the wane at the present time; but there does not seem to have been a similar enlightenment in the theory of insanity and crime, possibly because it is so difficult to draw a fine line of demarcation between them. Distinct in the extremes, they are confused in the beginnings. The criminal, as I have said, is given into the hands of the magistrate, the lunatic into the hands of the physician, and while the physician, who knows very little law, explains insanity from the standpoint of scientific research, the magistrate, who knows quite as little about science, explains crime from the standpoint of the statute. But science

and the statute are totally different things. For measuring purposes they breed confusion, being as a pair of scales to a yardstick. It would be different if the magistrate would give his criminals to the doctor, or even if the doctor would give up his insane patients to the judge, for when all were in the hands of one the standard would be the same.

The association of crime with insanity will be brought home to one who examines carefully the records of an asylum. Take, for example, the last thousand patients admitted into a particular asylum. Of the first five hundred of these, one hundred and twenty-five were so-called warrant patients, or patients transferred to the asylum from the gaol, whither they had been sent in the first place, and where they had afterwards been found to be insane. Of the second five hundred the same may be said of twenty-five per cent. In view of these figures it is just to say that patients frequently are knowingly committed to gaol as insane, when they are found to be dangerous at large, and there is not time for the usual preliminaries of admission to an asylum proper. But this does not alter the fact that nearly a third of the last thousand patients admitted to the asylum in question were, in the first place, committed to the gaol for conduct which would have been punishable by law had they not been regarded as insane. It proves nothing because those admitted as insane in the first place are not in a converse manner, on a second examination, relegated to the gaol as criminal: though in the building of so-called criminal asylums one step has been taken in this direction, which shows that insanity is sometimes found to be very closely related to crime. Statistics wherever taken, however elaborately classified, and however voluminous, will all point to the same interconnection of insanity with crime. There would not be scope here to fully analyze the nature of the offences for which these insane patients are committed to gaol. In that list may be found murder, suicide, larceny, arson, drunkenness, assault, rape and most of the crimes which are committed by the criminal himself.

Recent writers have endeavored, with great painstaking, to get at the fundamental principles of crime through a close study of the criminal himself. The criminals are measured and weighed, pricked with dull and sharp-pointed forks, photographed and cross-questioned. That there are certain well-marked stigmata in most cases goes without the saying; but the fundamental principles of degeneration lie deeper than the nerve fork or the tape line, though no disparagement is suggested of this line of investigation, for by Bertillon's method a great many valuable facts have been put on record.

As the differentiation between crime and insanity is based wholly upon the clinical signs of each, or, in other words, upon the outward actions of the subject; and as these, whether they indicate the one or the other, are, to a certain extent, incidental, it will be convenient to adopt a generic term for the primary condition

which culminates in crime and insanity; and for that no more convenient can be found than Degeneration. It may, perhaps, be unfortunate that writers upon Degeneration have, in the past, applied all their energies to some particular group. Lombroso, for example, had viewed genius exclusively, and what has been commonly accepted as genius, but it does not follow that the possession of genius presupposes degeneration, either mental or somatic; though there is no doubt in the world that in many cases of Degeneration signs of genius often exist. Genius is not in itself an indication of Degeneration, then, but many degenerates have possessed pseudo-genius. Nordau, whose work on Degeneration is merely an extension of what Lombroso has already said, and much upon the same lines, has not approached the subject from the scientific standpoint at all; but with an eye to a popular constituency of readers, merely uses the term for the purposes of the social satirist, much as Alexander Pope used the Rosicrucian theory in the "Rape of the Lock"; and Nordau's opinions have therefore about the same weight as Pope's. Nordau is very brilliant (for a German), but, as in most satires, when it comes to choosing between the exact truth and a *mot*, the latter usually has the preference. He has not seriously applied himself, therefore, to the task of clearing up the doubtful points in the subject which has given a name to his clever pasquinade, and cannot accordingly expect to be taken altogether seriously in turn. Fault might also be found with other writers upon this subject, for the logical methods of Duns Scotus are very much in vogue at the present time, and it would be more satisfactory to exchange them for the methods of Lord Verulam. It is never satisfactory to study any phenomenon from the periphery when it is possible to go to the centre, or from the mouth when it may be traced to the source.

The source of this blight, which is entirely obvious to anyone, as well as the cause, I have already touched upon. Unsanitary conditions, due to the lack of the necessities of health, accompanied by the diseases of ignorance, are at the foundation. Defect and incompetence, rendered hereditary by a clumsy and artificial domestic system, in which no thought at all is taken of the possible offspring from the standpoint of hereditary tendency, go to make inevitable the forms of degeneration which are every day becoming more common. Public and private charity are both ineffectual against it. Nothing can, on the other hand, be done by bare legislation. Treatment of particular individuals, medically or otherwise, can accomplish nothing. One might as intelligently try to limit an epidemic of typhoid fever by disinfecting the mouth of the main sewer. Nor can any fitful attempts at education, among those concerned, be expected to compass much when those who have so far been regarded as the guides of those affected, have been themselves found wanting in that *savoir faire* which is able to grasp such situations. And where all else has failed and the need is greatest, ecclesiasticism, sublimely farcical, still

stubbornly asserts that it has a panacea. But none of these agencies alone will alter the situation. There must be a complete reconstruction from the very beginning of things. The only way by which one can reasonably hope to tide the rapidly rising flood of degeneration is when science joins hands with legislation. The scientific insight that can see to do, must be given the power to do, and a blind justice—bitter satire!—law, sempiternally blind, must be enlightened by science.

The selfish ideas of the privileged class and the narrow prejudices of pompous academic oracles who, in comfortable libraries, tranquilly formulate schemes for the management of the universe, will at last have to be set aside, and a system of life, civic and domestic, entered upon which will be based upon the laws of nature and no other law.

Not Accidental Death.—In the case of Feder *vs.* Iowa State Travelling Men's Association, the supreme court of Iowa holds, February, 1899, that the death of an insured person, caused by the rupture of an artery while he was attempting to close the shutters of a window, was not "accidental," within the meaning of a policy of insurance.

The Chloroform-Burglar Bogey.—Recently our old friend the burglar of scientific craft who lulls his sleeping victims into anesthetic silence came boldly to the front in London itself. Possibly the enterprising writer, feeling that the provinces had received sufficient notice, turned his attention to the great still unworked centre of civilization and of enterprising journalism. At any rate he did not do the thing by halves, for he placed the chloroformist boldly in the midst of a medical man's household. With circumstantial detail his narrative told how the servant going downstairs in the early morning found the place ransacked, and the doctor's trousers lying at the foot of the stairs. The maid then tried to rouse her master and mistress, but failed, and on entering the room found them both suffering from the effects of chloroform. The theory is that the burglars got a bottle of chloroform from the surgery and saturated a handkerchief, which they thrust beneath the door. The idea of being able to saturate the lower part of a room with this heavy anesthetic vapor to the level of the sleepers in a bed by means of a single handkerchief and an ordinary stock bottle of chloroform is too ridiculous to discuss. This view we should be prepared to defend in the face of all comers. Meanwhile, should the story be maintained, we shall have the greatest pleasure in investigating the matter to its furthest confine. For us this bogey of the burglar-chloroformist has always had a curious attraction, shedding as it does a halo of romance around an otherwise sordid calling. Possibly it may find now and then a rare use by way of veiled advertisement. Man is a curiously cunning animal, in some of his intellectual developments.—*Med. Press and Cir.*

Gynecology and Obstetrics.

. . . IN CHARGE OF . . .

GEO. T. McKEOUGH, M.D., M.R.C.S.(Eng.), AND J. H. LOWE, M.D.

THE RELIEF OF SUFFERING IN LABOR.

W. E. FOTHERGILL, Manchester, Eng. (*The American Gynecological and Obstetrical Journal*, February, 1899), says that the relief of pain is one of the first duties of a physician, and although fully half of the actual pain in this world is probably borne by parturient women, yet pain of this kind receives far less attention than any other form of suffering. In labor, as in everything else, precaution is better than cure, and much pain during labor may be saved by careful preparation for labor. Labor must be looked upon as a matter of muscular endurance and pluck; it is an athletic performance, and should be trained for as such. The physician should do his best to bring her up to the day of the event "in good form." She should have plenty of sleep and as much exercise in the open air as is possible short of actual fatigue. Cycling is by no means a bad exercise for pregnant women, if accidents and undue fatigue are avoided. Walking rapidly enough to quicken the breathing and increase the heart's activity is, however, the best general exercise. Alcoholic drinks and late hours must be avoided; a necessary amount of ordinary food should be taken, and no more. Constipation must be prevented. Corsets should be avoided after mid-term, or especially constructed for the needs of pregnancy. Garters should be given up in favor of suspenders. The nipples should be manipulated into good shape and kept soft and smooth by emollients. Ordinary ailments arising during pregnancy should be treated more by rest, and less by drugs, than usual.

Near the end of pregnancy women often suffer greatly from so-called "false pains." They are more irregular and continuous than true labor pains and generally more toward the front of the body. A physician often merely prescribes an opiate and goes away, telling the family to send again when sure that labor has begun. In most cases these pains are due to loaded rectum, and it is worth while to take the trouble to relieve the patient. First wash out the rectum with one, two or three enemata, then put the patient in a full length hot bath, and keep her there from ten to twenty minutes. Opium or the bromides may be used also at the discretion of the physician. Mustard applied to the abdomen will often give relief in bad cases.

The first stage of labor is generally tedious, and often accompanied by great suffering. Too many times the patient is put off with a promise of assistance later on, and nothing done to relieve the present discomfort. One thing should be done as a matter of absolute routine—the washing out of the rectum with a large enema of soap and water, with a little turpentine added. This is not only a physical but a mental comfort to a sensitive patient who is fearful of expelling fecal matter in her bearing down pains; while the absence of danger of fecal contamination for hands and instruments is a boon to the accoucheur as well. In maternity hospitals the poor, dirty patient is placed immediately in a hot bath if she enter the hospital in labor. This is practised there for cleanliness only, but the hot water relaxes the muscles and relieves the discomfort to a marked extent. "The best place for the first stage of labor is the bath-room."

Nausea and vomiting often cause suffering even in healthy women. The accoucheur usually quotes the old saying, "A sick labor is a quick labor," remarks cheerfully that the vomiting will do the patient good and does nothing to relieve it. A mustard leaf on the stomach is often efficacious, or remedies that would ordinarily be used to control vomiting can be administered. In the "colicky" pains of the uterus, due to almost continuous and irregular contraction, or where there is spasmodic action, the cervix closing rather than opening during the pains, the patient should be allowed to inhale the vapor of chloroform until once fully anesthetized. The effect should then be allowed to pass off gradually, giving a whiff now and then. The patient then usually goes on with the first stage in a more comfortable manner. Apart from these two conditions, chloroform often acts favorably on a rigid and slowly dilating cervix.

In dry labor when the membranes rupture at the beginning of the first stage, women ought often to have actual assistance in the dilatation of the os, either by the fingers of the accoucheur or by the use of the Champetier de Ribes bag.

In cases where exhaustion comes on, with little or no progress made in the dilatation of the cervix, either the patient must be given a good rest by sedatives or matters must be helped forward by the physician. If the patient is reckless and nervous as well as exhausted, enough chloroform to abolish the reflexes may be given, then a hypodermic of morphine and the patient be allowed to sleep. Often on awakening a great amount of cervical dilatation will be found to have taken place unconsciously.

If the second course is decided upon, hot baths, friction over the abdomen, change of posture, or the application of a binder may be useful. Quinine in 5-grain doses repeated every hour (for three or four hours if necessary) greatly strengthens the uterine contractions. Of course, in extreme cases where the condition of the mother or child demands haste, the cervix must be dilated by the fingers or bag.

In the second stage of labor the great question is the relief of suffering by chloroform. Any time after the dilatation of the cervix is complete, the membranes ruptured, and the way clear to the end of labor, the physician may begin giving chloroform. A few drops on a folded towel to begin, mixed with plenty of air, then a whiff or two as each pain comes on, will keep the patient resting quietly in the intervals between the pains. When the head is about to escape, push anesthesia a little farther till the patient loses consciousness, and keep her so till the head is born, then give no more.

Two minor points in this stage are the sufferings arising from cramps in the limbs, and pain in the back. The former may be relieved by hard rubbing by the nurse, and the latter by firm pressure on the sacrum. The doctor should see that the nurse does this.

Unnecessary pain is often caused by too vigorous manipulation of the uterus to expel the placenta. Unless there is hemorrhage or an adherent placenta, time should be allowed for the placenta to separate, and then a slight squeeze will expel it into the vagina.

Lacerations of a serious nature must be repaired under an anesthetic, but tears of the perineal body may be united by passing the needle through the muscle and connective tissue only, not touching the skin or mucous membrane; in this way the operation is almost painless. Catgut sutures should be used to avoid the removal of stitches. After-pains may sometimes be avoided by, from the first, allowing the patient to turn over on her hands and knees to pass water, thus allowing the clots and discharge to run freely from the uterus and the vagina. Should after-pains persist, a little opium with potassi nitras, or spiritus etheris nitrosi and hyoscyamus or belladonna as antispasmodic may be given.

Another minor detail is in the choice of an aperient; many women dislike castor oil or salts exceedingly. Why not give two or three grains of calomel, followed by a small saline in the morning?

Other details will suggest themselves to physicians.

G. T. M'K.

OPERATIVE TREATMENT OF MOVABLE KIDNEY.

DR. SENN (*American Gynecological and Obstetrical Journal*, February, 1899), at a discussion on this subject before the Chicago Gynecological Society, described his operation. He stated that the old standpoint taken years ago, that the capsule of the kidney does not possess intrinsic reparative powers, is no longer tenable, and says that no matter what kind of suturing is done for the purpose of holding the kidney in place, the suture will never hold for any length of time. He has, therefore, abandoned for a long time the use of sutures, and relies exclusively on the intrinsic

power of the capsule of the kidney to produce firm, reliable, permanent, parietal adhesions, and the operation which he now performs has, without exception, yielded satisfactory results. The operation is this: The kidney is exposed by making Simon's incision to remove the adipose capsule, thus exposing the whole posterior surface of the kidney. He then grasps the lower pole, brings it well into the lower angle of the wound, strips away the adipose capsule as far as the hilus of the kidney, and relies on nature's resources to secure early and firm adhesions, inflicting a certain degree of traumatism upon the capsule in the form of scarifications. The upper pole of the kidney is rested in the upper angle of the wound and surrounded by gauze packing. Transverse strips of gauze are placed under the lower pole of the kidney to serve as a supporting bandage until firm adhesions take place. He leaves these strips of gauze in from five to seven days, at the end of which time the exposed capsule is seen covered with vigorous granulations. After the removal of the gauze packing the wound is dressed in the usual manner, the margins kept in contact by applying two or three strips of adhesive plaster over the dressing. Under a second dressing the wound heals without difficulty. He places great stress on the increased obliquity of the organ, so that the kidney rests in the future against the firm, unyielding support of the posterior abdominal wall. G. T. M'K.

HYDROGEN PEROXIDE IN PUERPERAL SEPSIS.

Dr. John W. Upshur (*Atlanta Med. and Surg. Jour.*, December, 1898, and *Sajous' Monthly Cyclopedia* for March, 1899) states that in puerperal sepsis the interior of the uterus should first be irrigated with a normal salt solution, secundines or other retained foreign materials removed by means of the sharp curette, and irrigations with salt solution freely used. After thoroughly drying with aseptic cotton or gauze, hydrogen peroxide is applied to the uterine cavity by means of a small intra-uterine syringe or an applicator upon which is wound a piece of aseptic gauze or absorbent cotton saturated with the agent. The foam should be removed and fresh applications made until the cessation of foaming gives positive evidence that the uterine cavity has been thoroughly cleansed. This procedure should be practised daily until the temperature falls to normal and remains at that point. The rationale of the treatment by hydrogen peroxide is that this agent causes a rapid oxidation or super-oxidation of effete organic matter. It initiates and infinitely improves and accelerates the efforts of the human organism to remove offending foreign materials. The advantage of this agent over bichloride of mercury, carbolic acid and other agents that act chemically, is that it is non-corrosive and non-destructive to healthy tissue. Besides, the results obtained from the use of hydrogen peroxide are vastly superior to those obtained by the use of any other agent. G. T. M'K.

Medicine.

... IN CHARGE OF ...
J. J. CASSIDY, M.D., AND W. J. WILSON, M.D.

IS PETROLEUM EMULSION OF ANY NUTRITIVE VALUE?

BY ROBERT HUTCHISON, M.D., M.R.C.P.,
Demonstrator in Physiology, London Hospital Medical College.

THERE can be no doubt that in recent years petroleum emulsion has crept into use as a substitute for cod-liver oil in the case of patients who are unable to take the latter. Now, petroleum belongs to the paraffin series—that is to say, to a set of substances which are characterized by the great opposition they offer to chemical change. One would not, therefore, expect on *a priori* grounds that petroleum would be capable of assimilation in the body. In order to put the matter to practical test I recently carried out some experiments on the absorption of petroleum emulsion by man, the results of which entirely confirmed the suspicions which one had entertained on chemical grounds, and led to the conviction that petroleum is of absolutely no use at all as a substitute for cod-liver oil. It is the object of this paper to describe these experiments and the conclusions to be drawn from them.

I employed a well-known and widely advertised emulsion of exceedingly pure petroleum. It was found that 30 c.cm. of it, when mixed with charcoal and evaporated to dryness, yielded on extraction with ether 7 grams of semifluid petroleum; 30 c.cm. represents about three dessertspoonfuls, which is the usual daily dose of the emulsion in question. I next proceeded to administer this dose to a healthy man with the object of ascertaining how much petroleum one could recover from the feces. In the first experiment the subject was placed on a constant diet containing a moderate amount of fat. The feces were collected daily, mixed with animal charcoal, and evaporated to dryness. The product was then extracted with ether in a Soxhlet's apparatus and the extract weighed. The results are contained in the following table:

FIRST EXPERIMENT.

	Weight of Ether Extract.
Total feces of three days without petroleum.....	7.1 grams.
Total feces of three days on 30 c.cm. petroleum emulsion per day	32.7 "
Difference.....	25.6 "

That is to say, that the administration of three dessertspoonfuls of petroleum emulsion daily had increased the ether extract of three days' feces by 25.6 grams, although the diet was the same as on the three previous days. The appearance of the extract was also quite different for the two periods. That of the three first days was solid and waxy, while that of the three petroleum days was semifluid in consistence.

In order to recover petroleum free from fat the ether extract was saponified by boiling with alcoholic potash solution. The residue was diluted with water, shaken up with ether in a separation funnel, the ether evaporated, and the residue weighed. The total 32.7 grams yielded on this treatment 21.6 grams of semifluid petroleum. Now, 7 grams of petroleum had been administered on each day, so that 21 grams had been given, and 21.6 were recovered. The apparent excess found was probably due to the presence of traces of soaps.

In the second experiment no attempt was made to regulate the diet. Thirty cubic centimetres of the emulsion were administered in one day, and the feces of the three succeeding days extracted with ether, and the extract saponified as above.

SECOND EXPERIMENT.

	Ether Extract.
First day (no petroleum)	3.5 grams.
Second day (no petroleum)	4.1 "
Third day (30 c.cm. emulsion)	4.3 "
Fourth day (no petroleum)	7.6 "
Fifth day (no petroleum)	6.9 "

On saponification, the extract of the fourth day yielded 4.5 grams of petroleum. The extracts of the third and fifth days yielded together 2.6 grams. The total amount of petroleum recovered was thus 7.1 grams, while the amount contained in the 30 c.cm. of emulsion given was 7 grams. The results of this experiment, therefore, entirely confirm those of the first.

From these experiments it may reasonably be concluded that petroleum is not absorbed in the human intestine, and I consider, therefore, that it can in nowise be regarded as a food or a substitute for cod-liver oil.

Nor do I suppose that petroleum has any remote action, say, upon the lungs. It is conceivable that if crude petroleum were employed, some of the volatile substances contained in it might enter the blood and be excreted by the mucous membrane of the air passages, but the purer the petroleum used the less chance is there of any such occurrence.

Whether petroleum may have any value as a local application in intestinal diseases must be left undecided. One can imagine that there may be conditions of the intestinal mucous membrane in which the administration of petroleum might be of value in the same way as the application of vaseline to the skin, by forming a sort of pellicle on the intestinal surface.

In one sense, also, it may be regarded as an artificial intestinal mucus, and it might in that way have some value in certain forms of constipation. It is also worth considering whether it might not be a useful vehicle for the administration of intestinal antiseptics. Carbolic acid dissolves in it, and if the petroleum prevented the absorption of the acid it would also bring the latter into intimate mixture with the intestinal contents, and act as a sort of internal "carbolic vaseline"; but that part of the subject would require special investigation by experiment. My only object at present is to point out that petroleum, even when given in the form of emulsion, is not absorbed at all, and as a consequence can have no nutritive value.—*Brit. Med. Jour.* W. J. W.

THE INDICATIONS FOR THE EMPLOYMENT OF HYDROCHLORIC ACID IN AFFECTIONS OF THE STOMACH.

In his Lyons thesis of 1898, according to the *International Medical Magazine* for December, Perran says that, although hydrochloric acid is already old as a therapeutic remedy for diseases of the stomach, authors are still far from agreeing on the cases in which it should be employed, and, above all, as to the quantity of the drug to be employed. Indeed, while certain clinicians prescribe from fifteen to thirty minims per day, others administer much larger doses. In the work on this thesis Perran describes the favorable effect produced by large doses of hydrochloric acid taken according to the method employed with success by Dr. C. Tournier in his private practice, as also by Dr. Lépine, of Lyons. Dr. Tournier gives hydrochloric acid in the French official dose of from three to four grammes (forty-five minims to one drachm) daily in the following manner: the patient takes fifteen drops of the acid a few minutes after finishing each of the two principal meals, then at the end of half an hour he takes another fifteen drops, and lastly, in certain cases he again takes fifteen drops after an interval of thirty minutes. This method of taking hydrochloric acid is about the same as that employed by Dr. Ewald, who prescribes fifteen drops of the acid three or four times at quarter-hour intervals. However, the hydrochloric acid of the German pharmacopeia contains twenty-five per cent. of the gaseous acid, while that of the French pharmacopeia contains about thirty-five per cent. Tournier therefore employs a larger dose than Ewald. Thus administered the hydrochloric acid would be tolerated and its use prolonged without inconvenience for several months. This medication is indicated in gastric hypochloridia in general, and especially in lienteric diarrhea accompanied by extreme hypoacidity of the contents of the stomach. These patients have very slightly accentuated gastric disorders. One observes neither palpitation nor swelling, neither pain nor flatulence. Gastric movements are preserved and even

exaggerated, and the chemical analysis alone shows that the fault lies in a lack of acid in the contents of the stomach. But there is always a lienteric diarrhea occurring generally after each meal, and this disappears in four or five days under the influence of the acid treatment, although it may have resisted all other remedies. A second group of cases, where the use of large doses of hydrochloric acid produces good results, is found in certain gastric conditions with functional hypochloridia, which may be observed in neurasthenic patients, and shows itself especially in alimentary vomitings with no burning sensations and unaccompanied by soreness. The use of hydrochloric acid in these cases does not fail to control these vomitings. Lastly, this drug is especially useful in cases of gastric catarrh with hypochloridia of alcoholic origin, when the troubles consist more especially of alimentary vomitings, distention, sensation of weight after meals, insomnia, and loss of appetite. The conditions which might constitute a formal contraindication to the use of hydrochloric acid are those in which the gastric troubles are accompanied by a pronounced hyperesthesia of the mucous membrane of the stomach for all acids. It is easy to understand the favorable influence exercised by hydrochloric acid in cases of gastric catarrh in conjunction with hypoacidity; indeed, physiology teaches us that this acid favors the secretion of the gastric juice, the emptying of the stomach, and the disappearance of mucus; further, that it acts as an antiseptic; and lastly, that it is an excitant of the pancreatic secretion. It is, above all, this last property which Tournier invokes in order to explain the curative action of hydrochloric acid in cases of lienteric diarrhea.—*N. Y. Med. Journal.* J. J. C.

MOVABLE KIDNEY.

DR. MAX EINHORN, in the *Medical Record* of August 13th of last year, contributed an article on movable kidney, in which the condition is sketched fully and concisely. As to diagnosis, Dr. Einhorn remarks that its recognition is quite easy, and recommends bimanual palpation in the recumbent position as practised and described by Dr. Hare. After referring to the operative treatment and after citing the opinions of several authorities advocating this method, Dr. Einhorn declares himself decidedly in favor of medical treatment, and gives the following reasons for his views:

"(1) The results of internal dietetic-mechanical treatment are very favorable if the gastric and intestinal symptoms are treated according to modern methods, if attention is paid to promoting nutrition, and, if necessary, the wearing of an appropriate abdominal bandage is recommended.

"(2) As is generally known, very many cases of movable kidney are unaccompanied by symptoms. We find a large percentage of digestive disturbances in patients affected with floating kidney,

because these ailments afford us the opportunity of examining the patient. If we were to examine all healthy persons, it would soon come to pass that digestive disturbances in subjects of floating kidney perhaps do not occur much more frequently than in those whose kidneys are in a normal position. These digestive disturbances in the vast majority of cases, therefore, do not depend upon the movable kidney, but upon general causes; hence an operation upon the kidney would not in the least remove the trouble. Moreover, movable kidney is only one of the manifestations of a general enteroptosis, and suture of the kidney would not remove the ptosis of the other organs.

"(3) The results of nephrorrhaphy are in no respect better than those of rational medical treatment. According to the statistics of Sulzer, the results were unsatisfactory in about one-third of the cases subjected to operative measures; aside from this, there are the risks of the operation, which still has a mortality of two per cent."

That surgeons are in many cases of floating kidney too ready to resort to operative measures is undoubtedly correct, but, on the other hand, that surgical interference is on occasions indicated is equally true. With regard to diagnosis, we are of the opinion that Dr. Charles Noble's method of examining patients in the standing position is, for those surgeons who have not become skilled in searching for movable kidney, the most reliable mode of arriving at an accurate diagnosis. When, however, the medical man has gained sufficient knowledge from long experience, he will in all probability be able to diagnose floating kidney as well with the patient in a lying as in a standing posture.—*Medical Record.*

W. J. W.

The Prevention of Consumption.—Dr. J. G. S. Coghill, writing on "The Prevention of Consumption" in the *Nineteenth Century*, points out that even theoretical scientists have not always held that consumption was a fatal disease. Carswell, the greatest scientific physician of his time, says: "Pathological anatomy has, perhaps, never afforded stronger evidence of the curability of a disease than in the case of phthisis." The *post-mortem* investigations of many observers, both in this country and on the Continent, prove that spontaneous cure of consumption occurs in from one-fourth to one-third of all adults dying after the age of forty years. When the body of the late Emperor of Russia, who died of another and quite different malady, was examined, it was found that the apex of the right lung had, in early life, been the seat of tubercular disease that had run its course unrecognized. An American writer has recently stated that statistics of a large number of necropsies, made during a period of ten years, show that nearly 50 per cent. of the subjects had suffered in a greater or less degree of phthisis.—*Med. and Surg. Rev. of Revs.*

Proceedings of Societies.

TORONTO CLINICAL SOCIETY.

THE fifty-third regular meeting of the above society was held in St. George's Hall, Elm Street, on Wednesday evening, April 12th, at 8.30. The President, Dr. Grasett, occupied the chair. Fellows present: Davison, W. H. B. Aikins, J. O. Orr, Badgerow, Parsons, Lehman, W. J. McCollum, Millman, Spencer, Chambers, E. E. King, Rudolf, Boyd, Charles Temple, Small, Pepler, H. B. Anderson, Silverthorn, Bruce, Peters, Nevitt, Trow, Macdonald, Greig, Wm. Oldright, Bingham, Thistle, Primrose, George Elliott, Fotheringham. Visitors: J. F. Uren, W. J. Wilson, H. H. Oldright, King Smith. Nominations for Fellowship: Drs. J. F. Uren and King Smith, by H. A. Bruce, W. H. B. Aikins and H. A. Bruce and G. W. Badgerow respectively.

NOMINATION OF OFFICERS FOR 1899-1900.

President, Dr. George A. Bingham; Vice-President, Dr. W. H. B. Aikins; Cor. Secretary, Dr. G. Boyd; Rec. Secretary, Dr. George Elliott; Treasurer, Dr. W. H. Pepler. Executive Committee (five to be elected)—Drs. H. B. Anderson, George A. Peters, E. E. King, H. A. Bruce, C. Silverthorn, J. T. Fotheringham, A. Primrose, A. A. Macdonald, W. B. Thistle, B. Spencer and Geo. W. Badgerow.

CRYPTORCHID.

Dr. John L. Davison read short notes of this condition, and presented the patient, a boy, aged seventeen years, for examination by the Fellows present. He said the literature was rather meagre on the subject, with the exception of Heath's "Dictionary of Surgery." In the first place, regarding the question of supernumerary testicle, that they did exist was a fact, though some authorities say that a third testicle had never been actually proven. When such cases exist there are other marked sexual deformities. The penis was decidedly infantile; the epididymis may be found in the scrotum, though partly developed, and the rest of the testicle represented by a small mass like a pea without any particular structure. In these cases the *vas deferens* may be absent; the secretion cannot reach the urethra. It may be due to delayed descent if the testicle is not found in the scrotum at birth. It sometimes comes down and makes its appearance at puberty, and then there is always a hernia. It may be a question whether the case is one of complete absence of the testicle, an anorchism, or one of cryptorchism.

Dr. E. E. King, in discussing the case, thought it one of undeveloped testicle, and was satisfied he could feel the cord on both sides. On the right side he could make out a mass the size of a small bean. He thinks as the patient grows older the organs will develop.

Dr. Davison further stated in cases of this kind, where the testicle is in the inguinal canal or in the abdomen, if it is pressed upon for any length of time, it is very liable to take on malignant disease.

Dermatitis Herpetiformis.

Dr. Chambers presented a patient in this condition, a woman, between thirty and forty years of age. The name dermatitis herpetiformis, he stated, was first applied to the disease by Duhring in 1884. It is a very chronic disease, and, in fact, almost incurable. Itchiness is very pronounced, and the lesions are always grouped and have an herpetic appearance, being irregular in form. Occasionally you get one case with one kind of lesion and sometimes you get all the lesions together. The disease in this case first made its appearance about fifteen years ago. Previously she had been very nervous, so marked at times that she was unable to walk without assistance. Lesions were on the scalp and on all parts of the body. The patient states the lesions are smaller at the present time than at the commencement of the disease. The lesions are frequently found in groups on the face, neck, trunk and upper extremity, and there is no tendency to symmetrical arrangement. The vesicles increase rapidly in size, but rarely become bullæ. They rupture and moist mucous surfaces form, increase in size, and small vesicles form around the periphery; pustules seldom form. The angular outline to the vesicles is similar to herpes zoster. When the lesions heal erythematous patches remain, and some of these show cicatrices. Itching, burning and pricking sensations are nearly always present, and the patient frequently feels these sensations in parts unaffected by the disease. She can tell the outbreak of a new lesion by pain in the region of the liver.

In answer to Dr. Pepler as to his treatment in this case, Dr. Chambers said he had only had one case before this one. That case got better, but he was not so sure that she did not suffer a relapse. A form of the disease sometimes occurs in pregnancy. As a rule the disease is not fatal, but so far as he knew very few cases have been completely cured. The treatment employed in this case has not improved the patient to any great extent. Morris speaks of antimony. Wine of antimony was being used in this case and it was proving very beneficial. In papular eczema you will find that wine of antimony acts very beneficially. You may use any drug that will relieve the itching, but of course it would be only palliative. Locally in this case he had used 2 per cent. sulphur ointment. The disease is undoubtedly a neurosis and the treatment should be constitutional.

Dr. Chambers also presented two patients with favus, in one of whom the disease had existed for eight years, and in the other, three. The mousey odor was not very well marked in either case.

Multiple Angioma.

Dr. H. B. Anderson presented a boy in this condition, aged fifteen years. In regard to family history, his mother had a few moles on her face, and his grandmother had warts about her neck and face. The patient is strong and robust, with a heavy facial expression and brownish birthmarks on the head and nose, not raised. At about nine months a small tumor appeared in the right lumbar region and has gradually enlarged; and other small tumors on different parts of the body. About six years ago, brownish mottling of the skin appeared, and also on the chest. At times they become red. The surface of the larger ones is covered with fine hair; one on the shoulder has an uneven surface, easily indented. All have wide bases, and there are many nodules felt, invisible to the eye. The left breast is diffusely enlarged, the lower ribs prominent and bulged outwards, and a deep depression is seen in the lower sternal region. The condition appears to correspond more to molluscum fibrosum with brownish pigment moles and enlarged sebaceous glands, some of them being vascular enough to suggest an angiomatous condition. Microscopically, Dr. Anderson thinks the tumors would show fibrous tissue with dilated blood spaces. Some authorities say they really rise in the connective tissue of the nerve sheaths. That is the view generally held at the present time. In some cases there have been as many as three or four thousand covering all parts of the body. Others classify these under fibrous tumors, but Senn says they are infective. They are as a rule congenital, being present at birth but continue to grow afterwards for a considerable length of time. As to prognosis, they undergo involution in some cases. Most frequently after attaining a certain size the tumors become stationary. In some cases they may take on a sarcomatous condition and grow very rapidly. Defective mental development is usually found present, and there is also a tendency to deformities in different parts of the body. Dr. Anderson thought the neurotic origin was shown.

Vesical Calculi.

Dr. Grasett exhibited two vesical calculi, one of which was of a peculiar elongated shape, slightly curved and about two inches in length. The first was from a man of twenty-five or thirty years. There was no previous history of any renal attacks. The patient stated that last spring, without any of the ordinary causes that might produce cystitis, he was attacked with that disease. When first seen by Dr. Grasett he had an acute exacerbation with temperature elevated to 102 degrees. After the subsidence of the fever he was sounded, and a stone immediately found without any diffi-

culty. His physician in Japan had never sounded, although he had been under his care in the hospital there for some time. In the patient who had the stone of peculiar shape, prostatic abscess had been at first diagnosed. Dr. Grasett stated that he had tried lithotrity in this case, but could not crush on account of not being able to get the stone into the instrument. He described further how the stone had been removed by the lateral operation. It was partially encysted, and occurred in a young man of some seventeen years.

DOUBLE AMPUTATION OF BOTH ARMS AT THE ELBOW-JOINT.

Dr. George A. Peters showed three specimens in which injuries of the forearms and hands necessitated amputation at the elbow-joint. Two of the specimens were from one patient, a young man nineteen years of age, the result of a railway injury in which both arms were crushed by the wheels. The right arm was removed soon after the injury. The patient begged very strongly to have the other saved, and the surgeon promised not to do an amputation that night until his friends arrived. The right arm shows double fracture of the radius and ulna, the ulna being comminuted. The radius was broken about the junction of the lower and middle third of the bone. The epiphysis is completely separated from the shaft, and there is also compound dislocation at the wrist-joint. In regard to the right arm the skin was torn very badly. The surgeon was able in this case to amputate below the elbow, near to the joint, and get a very good flap of skin, and it healed by first intention. On the other arm the fracture was evidently not nearly so severe. The only injury to the skin were two openings. The point he wished to make with regard to the degree of injury to the skin, is this, that in the left arm where the injury to the skin was less than in the other, the skin had been torn away from the muscles to a much higher level. The skin was dragged away from the muscles beneath, and was separated to a point above the elbow. In this arm he could not amputate below the elbow-joint. He tried first, but found he had to remove it at the elbow-joint. Even after that a portion of the skin sloughed and has since healed by granulation, so that he has a fairly good stump on that side now. The rule in regard to the amputation of such cases has been very forcibly exaggerated by Mr. Cheyne, of Edinburgh. He says that in these cases of crush from heavy machinery, the rule should be to amputate above the part that you think will recover. The circulation in the left arm was excellent, with all the degree of fracture and tearing of the muscles, tendons, etc., and the nerves were intact and the patient could feel all over that hand. There was no coldness and you could feel the pulse at the wrist; and yet under anesthesia, the surgeon found that the skin was entirely separated and there was a great degree of laceration of muscles. Is the circulation all right? Can the hand survive? Are the nerves all right? In both, these were

present. It is quite possible the hand might have lived, but it would have been useless. The hand would have been stiff and a club on the end of his arm, and would have been useless. Another thing: during the process of recovery, provided one made an attempt to save the arm, one runs a great danger of sepsis and risk to life. The left arm Dr. Peters amputated the next morning after the condition was found, under anesthesia.

The other case exhibited by Dr. Peters was the removal of the arm below the elbow-joint in an electrical machine. Thinking the current was turned off, the electrician had passed his hand into the box or cylinder to perform some adjustment, when the piston came down and cut his arm off cleanly. It was as evenly cut around as the end of a cuff. The skin had retracted some when seen by the surgeon. In this case Dr. Peters amputated high up and just saved the elbow-joint. He first stitched the skin over the end of the stump in several directions, and then proceeded to do a circular amputation, and in that way he was able to go close to the elbow-joint.

In regard to efforts to save the elbow-joint, it is important to save the attachments of the muscles which pass down from the arm to the forearm, viz., the triceps, biceps, anconeus and brachialis anticus.

Injury of the Forearm.

Dr. Nevitt showed a patient, a man about forty-five to fifty years of age, who had sustained an injury to the forearm with a considerable degree of laceration, and yet with good circulation through the vessels in the hand. The injury was a machine accident, and consisted of a compound dislocation at the elbow-joint, and a double or a multiple compound fracture of both bones of the forearm. At first sight nobody would have said a word but that the arm must come off. When the elbow was reduced it looked very presentable, and, finding the circulation good, Dr. Nevitt determined to try to save it. The injury to the bones of the arm was very considerable, and also the injury to the muscles. Exactly what the injury was, he was not prepared to say. The patient was here presented to the Fellows, and Dr. Nevitt said the condition of the hand and arm is there to show for itself, and the question is whether that is as good as an artificial arm.

Dr. Bruce, who had charge of the case during the illness of Dr. Nevitt, supplementing the data already given, said, four weeks after this accident was received, Dr. Nevitt had asked him to look after the case. At that time there was a sequestrum found, although it was present at the time of the accident. This sequestrum was about one and three-fourth inches in length and was pressing between the ends of the bones. The upper fragment of the ulna was bent over towards the lower fragment of the radius, and if united in that way there would be no movement in the arm; everything would unite in a mass. Dr. Bruce took a small

section out of the radius and wired the bones into position so that the two fragments of the radius would be in contact with each other—and the fracture was oblique. At the time of making the incision, a mass, almost the size of one's fist, issued out through the incision, and this seemed to be pulpified muscle with some old organized blood clot. When that occurred, the anterior surface of the radius appeared. At least three-quarters of the flexor muscles of the forearm were entirely destroyed. There were no muscles to act upon the tendons lower down. The tendons could be seen at the lower part with no muscles attached above. The sequestrum was a piece of bone broken off at the accident and not a piece which had sloughed off.

Drs. Wm. Oldright, E. E. King, A. Primrose, President Grasett, A. A. Macdonald, Thos. Hillman and George A. Bingham participated in a very animated and interesting discussion of the cases.

Replying to the criticisms Dr. Peters said, in reference to the left arm, no one would deny that the skin would slough. The bones are gone and all the extensor tendons are gone. Some of the flexors are left. The tendons are there but the muscles are crushed, while the veins remain patent throughout, through the sloughing area; and in the meantime the man's life is in danger every moment. The mortality is much greater where amputation is not performed. Dr. Peters had no doubt in his own mind that the hand would have become gangrenous in the course of a few days, although the circulation was so good at the time. When swelling occurred the inflammatory exudate would have choked the veins, and in a very short space of time the arm would have been gangrenous.

The discussion was adjourned until the next meeting in May.

GEORGE ELLIOTT, *Recording Secretary.*

THE INTERNATIONAL ASSOCIATION OF RAILWAY SURGEONS.

INTERNATIONAL Association of Railway Surgeons meets at Richmond, Va., May 31st, June 1st and 2nd, 1899. The Executive Board of the above Association met at St. Louis a short time ago with President Bruce L. Riordan, of Toronto, presiding, and decided on the place of meeting.

One of the features of the coming meeting will be a symposium on scalds and burns—the subject being taken up under the following headings:

(*a*) Pathology of Burns and Scalds, by Dr. J. Alex. Hutcheson, of Montreal.

(*b*) Primary Treatment of Burns and Scalds, by Dr. Herbert Bruce, Toronto.

(*c*) The Secondary or After Treatment of Burns and Scalds,

including Skin Grafting, etc., by Dr. J. B. Murphy, of Chicago, and Dr. Loebe, Chicago.

(*d*) The Complications of Burns and Scalds, by Dr. F. J. Lutz, St. Louis.

(*e*) The Prognosis of Burns and Scalds—reader not named yet.

A large number of papers have been promised by surgeons—members of the Association—including papers on Sanitation of Railway Carriages and Buildings, by Dr. Conn, of Concord, N.H., and a paper by Dr. C. R. Dickson, of Toronto, on Ambulance Training for Railway Employees.

Dr. Brock, Chief Surgeon of the Chesapeake and Ohio Railway, is Chairman of the Local Committee of Arrangements, at Richmond, Va., and has, as his able assistants, such men as the past President, Dr. George Ross, and Drs. Hugh Taylor and White, of Richmond.

The headquarters of the Association will be the magnificent Jefferson Hotel. Various social entertainments have already been arranged, including trips to Old Point Comfort, Va., and White Sulphur Springs, W.Va.

The date of the meeting of the International Association of Railway Surgeons was placed so as to give the members an opportunity of attending the meeting of the American Medical Association which commences at Columbus, Ohio, June 6th.

The President intends to give special attention in his annual address to subjects which are of prime importance to Railway Surgeons, such as sanitation and measures to be adopted to prevent spread of contagious diseases along transportation lines; ambulance training for railway employees so as fit them in rendering "first aid" in cases of injury and other emergencies, and a description of the various systems adopted by railway corporations for the relief of injured employees or passengers.

The officers of the Association are as follows: President, Bruce L. Riordan, Toronto, Can.; Vice-Presidents, R. E. L. Kincaid, Bonham, Texas, U.S.A.; James G. Hunt, Utica, N.Y., U.S.A.; John L. Foxton, Huron, S.D., U.S.A.; W. Gunn, Clinton, Ont., Can.; E. J. McKnight, Hartford, Conn., U.S.A.; C. F. Leslie, Clyde, Kansas, U.S.A.; Hugh M. Taylor, Richmond, Va., U.S.A.; Secretary, Louis J. Mitchell, Chicago, Ill., U.S.A.; Treasurer, Eugene R. Lewis, Kansas City, Mo., U.S.A.; Chairman Executive Board, Frank J. Lutz, St. Louis, Mo., U.S.A. Dr. Middleton, Chief Surgeon Chicago, Rock Island and Pacific Railway, is Chairman of Committee on Transportation, and Dr. C. W. P. Brock, Chairman of Committee of Arrangements at Richmond, Va.

A History of the Case Essential.—*The Doctor's Factotum* for March and April quotes the following from *Puck*: "A man must not only have a fractured skull but a clear and coherent explanation of how he came to get it before he is admitted to a New York hospital."

The Canadian Journal of Medicine and Surgery

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Medical Jurisprudence and Toxicology—N. A. POWELL, M.D., Toronto, and W. A. YOUNG, M.D., L.R.C.P. Lond., Toronto.

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Public Health and Hygiene—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon Toronto General Hospital; and E. H. ADAMS, M.D., Toronto.

Pharmacology and Therapeutics—A. J. HARRINGTON, M.D., M.R.C.S.Eng., Toronto.

Physiology—A. B. EADIE, M.D., Toronto, Professor of Physiology Woman's Medical College, Toronto.

Pediatrics—AUGUSTA STOWE GULLEN, M.D., Toronto, Professor of Diseases of Children Woman's Medical College, Toronto.

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Laryngology and Rhinology—J. D. THORBURN, M.D., Toronto, Laryngologist and Rhinologist Toronto General Hospital.

Ophthalmology and Otology—J. M. MACCALLUM, M.D., Toronto, Assistant Physician Toronto General Hospital; Oculist and Aurist Victoria Hospital for Sick Children, Toronto.

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited.

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Editorials.

FRUITS WHICH LESSEN THE FORMATION OF URIC ACID.

CHEMISTS tell us that hippuric acid is excreted by herbivorous animals in large amounts. Witthaus says (p. 327): "In human urine, with normal food, it exists in small quantity; with a purely vegetable diet its elimination is greatly increased, as it is also after the administration of benzoic acid, and to a less degree in diabetes and chorea. The amount of hippuric acid eliminated under

normal circumstances by man varies from 0.29 gram to 2.84 grams in twenty-four hours."

The words "normal circumstances" used by Witthaus would lead one to think that the ingestion of a certain proportion of vegetables or fruits along with a daily ration of animal food was what he meant, because if vegetables or fruits should not be added to what might, for convenience, be called a "normal diet," then the excretion of hippuric acid would be very small or of no account. For instance, in the experiments made on himself by Dr. Weiss, and detailed in Hoppe Zeyler's *Zeitsch fur Physiolog. Chim*, 1898, the normal diet consisted of meat, bread, butter, water, salt water and sugar. On the days when this normal diet only was used by the experimenter he excreted no hippuric acid, but on the days when fixed weights of fruits were added to the normal diet a notable amount of hippuric acid was excreted, and the amount of uric acid was relatively lowered. The experiments are as follows:

		Urine.	Uric acid.	Hippuric acid.
First experiment.	Normal day	1340 c.c.	0.7204 gr.	0.000 gr.
" "	1½ lb. cherries	860 "	0.3903 "	0.3622 "
Second "	Normal day	1256 "	0.7215 "	0.0001 "
" "	1 lb. good strawberries	1020 "	0.5320 "	0.5110 "
Third "	Normal day	1850 "	0.8500 "	0.000 "
" "	1½ lb. dried cherries..	1725 "	0.4614 "	0.000 "
Fourth "	Normal day	1805 "	0.6877 "	0.000 "
" "	2 lbs. grapes	2200 "	0.5580 "	0.6917 "

In the last experiment the berries of the grapes were swallowed in their envelopes. Beside the diminution of uric acid, in all the experiments there was a notable increase of hippuric acid on the days when the experiments were made, whilst on the normal days the quantity of hippuric acid was imponderable. Is there something in fruits which brings on this change? To ascertain what it might be, new experiments were made, in which bitartrate of potassium, tannin, sugar and quinic acid were added to a uniform diet. An increase of hippuric acid followed the ingestion of quinic acid, a fact of some importance although the exact quantity of this substance in fruits is hard to make out. Its presence in the green-gage plum, which has been described by Harten, probably accounts for the dietetic value of that fruit.

The importance of these experiments of Dr. Weiss is due to the fact that they show clearly the influence of well-known fruits in balancing the evils of a nitrogeneous diet. Excess in food is always

bad, but excess in animal food is worse than excess in vegetable food, especially when combined with sedentary habits. Persons who use a highly animalized diet, and do not take free exercise, are certain to suffer sooner or later from the defective oxidation and elimination of the nitrogeneous products of disintegration. These products accumulate in the system, and thence impair the performance of the functional operations of life. Some of the phenomena of gout, for instance, are observed in persons who, without being guilty of excess in eating or drinking, still suffer from a defective metamorphosis and retention of nitrogeneous products within the system.

To change altogether from a diet containing a large quantity of animal food to a diet made up principally of vegetables or fruits would be difficult in Canada. Here nitrogeneous matter must be provided if vigor and nutrition are to be preserved in full force; hence a diet into which animal food enters largely—a diet that is rich in nitrogeneous matter—is universally used in this country, and, if surrounded by the proper conditions, tends to increase tissue formation and the development of a high state of bodily health and strength. Conjoined with sedentary habits, however, different results are observed, with which the members of the medical profession are quite familiar. To obviate the production of these disordered actions of the system it would be well for those who are compelled to lead sedentary lives, and yet are unwilling or unable to adopt vegetarianism, to lessen the quantity of animal food which they consume, and to take with their ordinary diet a suitable quantity of those fruits, such as cherries, strawberries or grapes, which lessen the excretion of uric acid. There is authority also for this view, for Wöhler has shown that the cherry cure is renowned in the treatment of gout, and the celebrated Linnæus freed himself from the gouty diathesis, from which he had suffered many years, by employing the strawberry cure.

The green-gage plum, which has a particular power to convert uric acid into hippuric acid on account of the quinic acid it contains, grows well in Ontario. It is used extensively as a preserved fruit, and is instinctively relished by most people. The sugar used in preserving fruit, though objectionable to some people, is serviceable to those who suffer from constipation. If preserved fruits are objectionable, grapes are available, though it must be confessed that the quantity of native sugar in the grape is considerable. A kilogram of grapes (two pounds three ounces)

contains about six grams of albumen and 150 grams of sugar. Grapes are diuretic, and in many cases slightly purgative. In looking over the experiments made by Dr. Weiss it may be noted that an increase in the quantity of urine voided was observed when grapes were used, the contrary being noted when cherries or strawberries were eaten. Dujardin-Beaumetz considers that grapes are useful in the treatment of atonic dyspepsias, particularly those accompanied with constipation, such as are observed in gouty subjects or those afflicted with abdominal plethora or hyperemia of the liver. J. J. C.

CHRISTIAN SCIENCE VS. POLYPHARMACY.

In the days of Hahnemann it was said that patients became converts to the new system of small pills and attenuated dilutions in order to escape from the big pills and robust mixtures of the regular school. Whether it be true or false, this saying gives a clue to the trend of thought among civilized races, who, even in matters concerning health and life, demand evidences of refinement as well as strength and utility. Such a manner of thinking naturally presupposes that a patient believes more in the efficacy of his own petty fancies than in the merits of the drugs he takes. As indicative of a different way of looking at the taking of medicine, it is said that an Ottoman's estimate of the value of the potion he swallows depends on the pungency of its odor and the nauseating quality of its taste.

To cater to a change in public taste, the American pharmacist has striven to rescue his output from the opprobrium of nastiness or unsightliness, and with such success that some of his preparations are positively enticing. The modern allopath can therefore meet his rival on almost even ground, the principal divergence between them being that the allopath gives his patient something nice and the homeopath gives him nothing to speak of.

Some there are, however, to whom even a sugar pill is an *embarras de richesse*—people who, in matters of religion, have drifted about seeking comfort in theosophy, spiritualism, and kindred delusions, and in medicine have conformed to the views of Mrs. Eddy, who teaches that, by the operation of some mental influence, patients can be healed of their distempers.

As a proof of this we notice that on Easter Sunday a letter from Mrs. Eddy was read in the Christian Science Church at

Toronto, in which the founder of the sect contends that the metaphysical practice of medicine not only equals, but surpasses the materia medica in curing the worst forms of *contagious* or *organic diseases*. If the truth of these assertions could be demonstrated, there would be no doubt of the success of Christian Science, and instead of one there would soon be many churches of that cult in Toronto. In the meantime, until public opinion crystallizes on its merits, the success or failure of this new medico-religious cult is in the hands of the devout female sex, who form the strength of this, as well as of most other churches in Toronto. Of the ladies we may say that we have sufficient confidence in their good sense, penetration, and promptitude of action to believe that they will abandon the cult without ceremony, as soon as it proves to be a cunning device to thrive on their credulity. With regard to the influence of drug-taking in helping to push public opinion into a position of hostility to medicine, the physician should examine his conscience and ask himself if he has been blameworthy. It will perhaps occur to most of us that in the matter of taking medicine the female sex has done its full share. Would it not be well to reflect before we commit ourselves to the healing merits of a pill or a mixture? Our skill is measured by the success or failure of what we order. If the case calls for mechanical treatment, why try internal medicines, and *vice versa?* If careful dieting and bathing are of most importance, as in a disease which, like typhoid fever, runs a definite course, why use the deadly antipyretic? In reference to the last Dr. Simon Baruch has well remarked: "The chief advantage of the medicinal antipyretics seems to be that their use enables the patient to die with a fairly normal temperature." Then there is the polypharmacy, contingent on the contagious diseases of childhood, on phthisis pulmonalis, respiratory and intestinal diseases, and others, which provide a great portion of the work done by the medical practitioner. Have we helped to swell the ranks of Christian Science by injudicious prescribing? Have we neglected the careful study of the applications of bathing, massage, electricity, rest, careful dieting, recreation, sunlight and ventilation in the home and workshop, and many other physical influences helpful to the organism, and have we pinned our faith to a label? If so, let us retreat before it is too late. To practise medicine rationally one must study chiefly the *modus operandi* of the causes of disease, and, reciprocally, the reactions of the organism. A careful study of modern advances in etiology, pathogenesis, and

pathological physiology should antedate medical practice. Symptomatic medication suffices for urgent cases; but treatment applied to the real cause of a malady is by far more reasonable. This, too, may fail, as when an affection of an internal organ results from an antecedent disease.

But in all the cases which we may meet in the wide domain of human ills, while giving to modern pharmacy its real due, we should not put the servant before the master, and, conscious of the instability of human faith, we should remember that, no matter what our therapeutic methods may be, the best treatment for any disease is a good physician. J. J. C.

DOMINION REGISTRATION.

DURING the last few months a good deal has been done in connection with this important matter. Dr. Roddick, through his position at Ottawa, and with a never-failing desire to bring about this needed result, has spent a great deal of time and energy in looking up and discussing with high authorities the various legal aspects of the question.

A few years after the formation of the Canadian Medical Association, a movement was set on foot to bring about a system of Interprovincial Registration. This seems to be impracticable, because of the difficulty of arriving at a suitable basis of agreement, and also because of a feeling that while "requirements" may appear the same on paper, yet in reality aspirants for qualification may find it much easier to qualify in one province than in another. Nor could the other provinces ever agree to the continuance of the present system of examination as carried out in the Province of Quebec.

It would therefore seem that the only possible means of bringing about a better understanding between the provinces is by establishing a Central Licensing Board. While matters of education were relegated to the provinces by the British North America Act, yet by Sec. 91, of the Act, it seems that the Dominion Parliament has power to make laws "for the peace, order and good government of Canada, in relation to all matters not coming with the classes of subjects by this Act assigned exclusively to the Legislatures of the Provinces." It would seem that the bringing about of a uniformity of medical education could come under this head,

and it certainly is impossible for the provinces to form a Central or Dominion Board, for their duties are confined exclusively to their own province.

Let it be called a Dominion Medical Board, composed of medical practitioners from each of the provinces, and from the N.-W. Territories, having power to appoint examiners and to hold examinations at such time and place as the Board may determine. As an educational standard, to begin with, it might adopt with safety the plan as laid down by the Canadian Medical Association of 1898—ever striving to keep that standard equal to, or even higher than, that demanded by any of the provinces.

As yet, of course, nothing definite has been or can be done until all of the provinces, through their councils, have pronounced upon the scheme, in order that there may be a certain uniformity of feeling throughout the Dominion. One of the objects of this article is to elicit discussion and to obtain information as to the best method of proceeding, in order that we may obtain a system of Dominion registration that will be satisfactory to all, and by means of which the best results may be accomplished.

"IS IT CHRISTIAN? IS IT SCIENCE?"

"To all humanitarian physicians, yea, to all who up to their highest light are ministering to human suffering, the Christian Scientist bears cordial good-will and respect for the motives, if not for the means employed." Such were the condescending words employed by an itinerant lecturer upon Christian Science recently in Toronto. About any form of *religious* belief or worship we have nothing to say as a medical publication. We leave all "error" to the tender mercies of the clergy, but when a so-called form of religion, or rather a sect, is not content with its own province, but seeks to add a "side line" (we use this current commercial term advisedly) by which "mental treatments" are exchanged for dirty material dollars, ought not physicians to utter a strong protest? The text of the lecture above referred to was published in one of the daily papers, but some of the stories that this orator (?) told at the expense, as he thought, of the ethical gentlemen who compose the rank and file of the medical profession, were omitted, we noticed, from the lecture-text published. One of these tid-bits was about a maiden, a tennis maiden. Alas, a painful accident deprived her

of several of her front teeth; she believed they had been forced down her pharynx into her stomach; she became violently ill. A physician was called. After careful examination, he, concurring in her belief, prescribed. Presently a friend stepped inside and said: "Here are your teeth, I found them on the lawn"!! Poor old story, its days have been many. Did it not make its *debut* as a "pickin" from *Puck*. Now another, patient reader, culled from the lecturer's little bouquet of evergreens. A physician joined the ranks of the Christian Scientists (so the story goes), but did not give up his practice, but treated his trusting patients with bread pills. His practice grew, and many were the victims of this "gay deceiver." If this be true, what a slur it is on the honor of the whole body—oh, pardon—sect, of Christian Scientists, to think that it would harbor in its bosom of *truth* and *perfect goodness* a hypocrite so contemptible! To physicians, especially, this sect appears inconsistent; they profess to follow or imitate the Great Physician in their power to heal one another, and yet disclaim all material suffering. In such a hurry are they to become little mental tin gods and to rearrange humanity, that they forget the Great Physician walked this earth for thirty years. Nothing material, do they say? All mind, nothing matter? *Thrust forth thy hand, Thomas, and feel the nail-prints.* The followers of the Christian Science cult have been estimated as being 2,000,000. What a pity their lecturers and promoters seem to have infinite time, and that so many apparently sane persons have taken their vow renouncing forever Materia Medica, bowing in allegiance to such leaders and sitting at the feet of such lecturers, to learn words of wisdom, forsooth! Some one said that at first even Balaam mistook the voice he heard and thought an angel conversed with him. All the same, it was the ass who spoke. W. A. Y.

WHY IS VACCINATION NEGLECTED IN ONTARIO?

THANKS to the genius of the immortal Jenner, smallpox, one of the greatest scourges which has ever afflicted the human race, has become much less frequent in civilized countries than it used to be a century ago. In some countries it is so rare that, in the opinion of German authors, it is no longer observed in really civilized countries, and may soon be considered an infection which will possess a purely historic interest. So far this happy desideratum

cannot be recorded of the United States, in which over three thousand cases occurred during the past year. In Quebec no great epidemic has arisen since 1885. Since that memorable year only trifling outbreaks have occurred in Ontario. During 1888 and 1889 there were a few cases; from 1890 to 1894 there were none. During 1894 and up to February, 1895, there were 17 outbreaks and 35 cases. In 1897 two cases were noted in Toronto. From September 30th, 1898, up to April 10th, 1899, there were 45 cases, with 11 deaths, occurring in 10 municipalities of this province. In no instance, however, was the disease allowed to extend from an infected to a non-infected house. At present there is no case of smallpox in Ontario. In view of the danger which threatened at the end of last year and the beginning of the present year, the Provincial Health Department issued a circular, dated February 1st, 1899, to the local boards of health, urging the need of providing means and taking measures for a general vaccination of school children and other unvaccinated persons.

The following is a summary of the replies received up to April 11th, 1899:

Municipalities reporting	general vaccination	30
"	" vaccination of school children	8
"	" some, but not a general vaccination	11
"	" no action taken or action deferred	20
"	" a refusal to take action	4
Total municipalities reporting		73

It is quite likely that some municipal boards of health may have been doing good by stealth, and have refrained from publishing their statistics. Still, when one reflects that there are 570 local boards of health, 480 medical health officers, and a population of 2,283,182 in Ontario, the paucity of the replies shows that little interest is taken in vaccination by the municipal health authorities, and that the people are either indifferent, or even opposed, to the practice. One might even say that an arm made sore by vaccination had greater terrors for the average man than variola itself with all its horrors.

Immunity to smallpox can be purchased by an individual only by having that disease, or by vaccination. Let us hope, therefore, that, without reference to any action taken, or to be taken, by boards of health, practitioners will make it a duty to induce their clients to be vaccinated. Indeed, smallpox is so detestable a plague

that both the profession and the public should unite to exterminate it. We feel confident, from the study of sound statistics, that if vaccination and revaccination are systematically performed in Ontario, the people will soon be placed in a position of actual immunity to smallpox, which, for them, would then possess a purely historic interest.

What is wanted in vaccine virus is pure vaccine without hurtful microbes—such as staphylococci or streptococci. Competent authority asserts that glycerine prevents the growth of the hurtful microbes, but does not impair the energy of the vaccine. Glycerinated vaccine virus, prepared under aseptic precautions, is, therefore, free from the objections urged against bovine virus put up on points. Some of the objections are that the hurtful microbes, present in vaccine put up on points, cause inflammation of the skin, even erysipelas and long-standing ulcers. Hence the necessity of aseptic precautions in preparing and storing the vaccine.

Logically, however, freedom of the vaccine from hurtful microbes will not suffice if the same microbes are present on the skin of the person to be vaccinated, or on the scalpel or fingers of the operator. While absolute sterility of the skin may be difficult of attainment, still an effort should be made to obtain it, for in microbe warfare, as in other battles, numbers tell, and so unclean arms and unwashed fingers increase the chances of bad results from vaccination. Since the manufacturer has prepared an aseptic vaccine, the physician should continue the good work by using it with aseptic precautions. When this rule is generally followed, we shall hear less of sore arms and other drawbacks, which have been ascribed to bad vaccine or bad methods of doing vaccination.

J. J. C.

THE LATE DR. JOSEPH O'DWYER.

A COMMITTEE of over forty physicians, representing sixteen different medical societies of the city of New York, and including representatives of both schools of medicine, has been formed for the purpose of doing honor to the memory of Dr. Joseph O'Dwyer. The first meeting was held at the New York Academy of Medicine, November 22nd, 1898, under the chairmanship of Dr. J. D. Bryant, and was mainly devoted to organization. Dr. Geo. F. Shrady was elected permanent Chairman, and Dr. Alfred Meyer permanent Secretary, and the following Committee on Scope and Plan was

appointed: Dr. Dillon Brown, Chairman, and Drs. Robert Abbe, R. G. Freeman, L. Emmet Holt and Louis Fischer. At the second meeting held at the Academy of Medicine, March 13th, 1899, the report of the Committee on Scope and Plan was adopted and now only awaits final action of a meeting of the full committee. The memorial to Dr. O'Dwyer will probably take an educational form, for by the plan now outlined it is proposed to raise a fund of $30,000, the interest of which shall support two O'Dwyer Fellowships in Pediatrics, open to competition by physicians who graduate in the United States, and to be held by the successful competitors for a period of two years. During this period they must furnish satisfactory proof of their engagement in original research work to a committee of five, one of whom shall be appointed by the President of Harvard University, one by the Dean of the Johns Hopkins Medical School, one by the Provost of the University of Pennsylvania, one by the President of the University of Chicago, and one by the President of the New York Academy of Medicine. Many details of this general plan are still to be arranged, which it shall be the agreeable duty of the Secretary to furnish to the medical press of the country so soon as they are finally decided. This preliminary notice has for its object merely to acquaint the profession with the fact that a movement of this nature is on foot, and that an effort will be made to give it the international character so fitting as a memorial to an investigator of international reputation.

MR. ZIELINSKI'S REGISTRATION CASE.

As there has been a certain amount of misunderstanding as to this matter, the following letter of Dr. A. McKay to the Registrar of the Ontario College of Physicians and Surgeons, will serve to explain it, and show just what the Legislature consented to do herein:

Re ZIELINSKI.

Dr. R. A. Pyne, Registrar, Toronto.

DEAR SIR,—As the matter of Zielinski's registration has been before the Private Bills Committee now for some time, I wish to call your attention to the fact that Mr. Zielinski appeared personally before the committee and got a good deal of sympathy owing

to his age. He has now been practising somewhere in the neighborhood of forty years the eclectic system of medicine, and is also armed with a very strong certificate as to his capabilities from Dr. P. D. McLean, of Woodbridge, Ont. As you know, the Private Bills Committee consists of some 72 members, which is a large majority of the House, and I may say that they favor his application to a very large extent. I have succeeded, however, in arranging a compromise that I think will be satisfactory. It is simply this, as the bill will show, that Zielinski is to be permitted to practise the eclectic system of medicine in Ontario as he has done for the last forty years, and the penal clauses of the Ontario Medical Act are not to apply to him in so doing. He is not, however, authorized to practise midwifery or surgery, and if he does, can be prosecuted. This does not give Zielinski registration, but practically leaves him just where he has been, and I think it is the safest way out of the difficulty; otherwise they might insist upon registering him and giving him all rights as enjoyed by members of the profession.

I trust this will be satisfactory to the Council. The members of the Council with whom I have come in contact seem to think it a good solution of the matter.

Believe me, yours faithfully,

A. McKAY.

EDITORIAL NOTES.

The Harold Frederic Case.—Despite the storm of indignation aroused by the lamentable death of the late Harold Frederic, the Christian Scientists, who delude themselves, and unfortunately others, into believing that disease can be cured and impending death averted by some occult influences working in defiance of the known laws of physic and physiology, are as mendacious as ever. As was to be expected the astonishing way in which the prosecution in the Frederic case was suddenly dropped by the Treasury, has led the Christian Scientists to believe that they are countenanced by the authorities, and that they have nothing to fear from the law in this country. Posing as martyrs, and as representatives of an inspired faith, they continue to impose upon the credulity of the weak-minded of both sexes, greatly to the pecuniary advantage of the "healers." Knowing something of the influence that was brought to bear in quashing the proceedings in the Frederic case,

it is gratifying to find that the ignorant pretensions of the Christian Scientists, and the blasphemous gabble contained in their "text-book," have been appraised at their true worth by so keen a critic as Mr. W. H. Mallock, who, in a contribution called "The Comedy of Christian Science," which appears in the March number of the *National Review*, exposes this mischievous form of hysterical insanity, which has already cost the world so many valuable lives. The article takes the form of a critical examination of the book entitled "Science and Health," by Mrs. Mary B. G. Eddy, by which the craze is disseminated. Mr. Mallock, by his able exposure of the true inwardness of this amazing farrago of pernicious nonsense, has added another to the many public services which he has already rendered. It is unfortunately true that a very large number of well-to-do people, especially in London, are allowing themselves to be led astray by the ridiculous claims of these self-styled "Scientists," and the sooner a check is put upon the movement, the better for the sanity and well-being of society. We trust, therefore, that a large number of medical men will not only find time to read Mr. Mallock's denunciation of the impostures practised by these ignorant "healers," but they will also assist in calling public attention to the absurdity of the doctrine of the so-called Christian Scientists.—*Med and Surg. Rev. of Revs.*

The American Medical Association will hold its fiftieth annual session at Columbus, Ohio, on Tuesday, Wednesday, Thursday and Friday, June 6, 7, 8 and 9, 1899, commencing on Tuesday at 11 a.m., under the presidency of Professor Joseph McDowell Mathews, M.D., LL.D., of Louisville, Ky. Orations will be delivered as follows: On Medicine, Jas. C. Wilson, Philadelphia; on Surgery, Floyd W. McRae, Atlanta, Ga.; on State Medicine, Daniel R. Brower, Chicago. Chairman Committee of Arrangements, Starling Loving, Columbus. The officers of sections are: Practice of Medicine, Frank Billings, Chicago, chairman; Carroll E. Edson, Denver, secretary. Surgery and Anatomy, W. J. Mayo, Rochester, Minn., chairman: M. L. Harris, Chicago, secretary. Obstetrics and Diseases of Women, A. H. Cordier, Kansas City, Mo., chairman; W. D. Haggard, Jr., Nashville, Tenn., secretary. Materia Medica, Pharmacy and Therapeutics, Thomas H. Stucky, Louisville, Ky., chairman; Leon L. Solomon, Louisville, Ky., secretary. Ophthalmology, Casey A. Wood, Chicago, chairman; Charles H. Williams, Boston secretary. Laryngology and Otology, Emil Mayer, New York, chairman; Christian R. Holmes, Cincinnati, secretary. Diseases of

Children, Henry E. Tuley, Louisville, Ky., chairman; L. D. Boogher, St. Louis, secretary. Physiology and Dietetics, J. Weir, Jr., Owensboro, Ky., chairman; Lee Kahn, Leadville, Colo., secretary. Neurology and Medical Jurisprudence, Frederick Peterson, New York, chairman; Hugh T. Patrick, Chicago, secretary. Cutaneous Medicine and Surgery, W. T. Corlett, Cleveland, O., chairman; J. M. Blaine, Denver, Colo., secretary. State Medicine, Arthur R. Reynolds, Chicago, chairman; W. P. Munn, Denver, Colo., secretary. Stomatology, George V. I. Brown, Milwaukee, Wis., chairman; Eugene S. Talbot, Chicago, secretary. Wm. P. Atkinson, permanent secretary.

Bureau of the Medical Press.—It has long been a subject of comment that the medical journals were slow to appreciate the advantages and benefits to be derived from a representation at the National and State Medical Society meetings, and, indeed, exhibiting an indifference in reporting the proceedings. The fact that a half-dozen journals are rarely seen at the meetings of the American Medical Association, surely reflects little credit upon the enterprise of our medical publishers. It seems, however, to have an explanation in the matter of expense. Unless the publisher or editor has the leisure time to attend the meeting himself, it is difficult to secure a representative who will do justice to the publication, to say nothing of the expense of sending him and maintaining quarters during the session. Still there is no question that the society meeting affords the very best opportunity for a journal to get in touch with both the profession and the advertiser, and this plan, if systematically followed, will ultimately ensure a degree of success unattainable in any other way. We are, therefore, pleased to announce that the bureau service inaugurated by Mr. Charles Wood Fassett several years ago, will be continued at the American Medical Association meeting in Columbus, June 6th to 9th. A catalogue edition of the *American Medical Journalist* will be issued, containing a descriptive index to the medical periodicals and reference books contained in the bureau, and advertising matter of various kinds will be distributed for members.

Pullman Company Blamed for Consumption Contracted in a Car.—J. M. Edmonson, a prominent attorney of San Antonio, Tex., formerly of Dallas, has sued the Pullman Palace Car Company in the United States Circuit Court at El Paso, Tex., for $15,000 alleged damages. The plaintiff's grounds for the suit are

somewhat novel. He claimed that while journeying in a Pullman car from San Antonio to Denver he was drenched with rain water through a hole in the roof while asleep in his berth. From the effects of the wetting he says he contracted a severe cold, which resulted in consumption.—*Railway Surgeon.* We are inclined to think that the plaintiff in this case will have a rather difficult task to establish his claim. It seems to us that to prove that a severe cold will result in tuberculosis of the lungs is far from being an easy matter. No doubt the plaintiff has read the advertisements of quack catarrh doctors, and has thus been led to enter his suit.—*St. Louis Med. and Surg. Journal.*

The New York Post-Graduate Hospital is to have a new training school for nurses, the gift of Harris C. Fahnestock, and it will cost $100,000, supplanting the old one, which has become inadequate to the needs of the hospital. The new school will be known as the Margaret Fahnestock Training School for Nurses of the New York Post-Graduate Hospital. Mr. Fahnestock is founding the school in memory of his wife, and it is to bear her name. It seems that the last days of Mrs. Fahnestock's life were cheered and brightened by the tender care and ministrations of two trained nurses. Mr. Fahnestock took a deep interest in their work, and realized how much they had done to make the last days of his wife less of a burden, and the gift is a tribute to them and their calling and in memory of Mrs. Fahnestock.

A Curious Kind of Reasoning.—The New York doctors have discovered a very pleasant explanation of the increase of from 51 to 53 per cent. of male births, noticed during the past two months in the statistics of the Board of Health of the American metropolis. Many of them attribute this extraordinary increase of male births to the martial spirit which took possession of the population before and during the Spanish war. Dr. Tracy, of the Board of Health, without actually advocating this opinion, remarks that the coincidence is none the less striking. This theory will, doubtless, attract the attention of Dr. Schenck, who had not dreamed of moral influences of this kind, when he promulgated his theory on the procreation of children of one or the other sex.—*Le Progrès Medical.*

The Bubonic Plague is causing great devastation in Bombay City. It is stated that the disease is raging with unparalleled severity. The mortality has been increasing for some weeks past,

and is now greater than at any previous stage of the epidemic. The total number of deaths from all causes in the course of the week ending March 5th was 2,309, and 972 are officially returned as due to the plague. The calculation is unreliable, however, as no effective system of registration of the causes of death exists, and hundreds of plague cases are concealed. Reckoning the deaths from normal causes at 600, all those in excess of this number may be regarded as deaths from plague. The officially reported death-rate for the week is 139 per 1,000 a year.

The Canadian Medical Association.—On August 30th, 31st and September 1st, 1899, the next annual meeting of the Canadian Medical Association will be held at Toronto under the presidency of Dr. Irving H. Cameron. It is now some ten years since this association met in Toronto, and every effort will be put forward to make this the most successful meeting ever held. One of the most interesting features of the meeting will be the probable arrangement of the final details of a scheme whereby Dominion registration will become, in the near future, an accomplished fact. This, together with an ever-growing interest in the value of the Association as a promoter of scientific research, will add materially to the success of the Toronto gathering.

Bertillon System.—Dr. P. H. Bryce, the secretary of the Provincial Board of Health, and Drs. Pelletier and Lachapelle, of Montreal, who together constitute the Canadian Committee of the American Public Health Association, are engaged in preparing a circular, which will be sent to the colleges of medicine and physicians practising in Canada, pointing out that a combined effort will be made to have the Bertillon system of classifying diseases adopted by the various civilized nations of the world, in the decennial census at the opening of the twentieth century. Canadian physicians will be supplied with copies of the classification, and will be requested to forward suggestions for amendments therein.

The Ontario Medical Associaton.—This association will meet this year in Toronto on the 13th and 14th of next month. It is fully expected that there will be a very large attendance, more so probably than for many years past. Dr. Vincent Bowditch, of Boston, Mass., will open a discussion on "The Sanitarium Treatment of Tuberculosis." Dr. Wilson, of Philadelphia, will present a paper on "Perforations in Typhoid Fever." It is also expected that Dr.

Fenger, of Chicago, will open the discussion insurgery. All of those members who intend presenting a paper at this year's meeting are requested to forward at once the title of the same to the Secretary, Dr. Parsons, 97 Bloor Street West, Toronto.

Trinity Medical Alumni Association.—The annual meeting of the above association will be held in the theatre of the Normal School building, Toronto, on Wednesday, May 31st, 1899. The programme of the meeting will include the names of men well known to the profession, from the United States as well as from our own province. The annual banquet will be held in the evening, at which the gold medal offered by the Association for the thesis of most distinguished merit, written by a graduate of Trinity and read at the general meeting, will be presented to the winner. The General Secretary is Dr. George Elliott, 129 John Street, Toronto.

Public Health.—The Local Board of Health of Toronto has decided to ask that $4,000 be placed in the year's estimates for removing the smallpox hospital from Riverdale Park. Dr. Sheard, replying to further complaints as to the quality of milk, said that he would make another inspection of the byres of dealers, and if anything were wrong would call for the assistance of the Provincial Board of Health. It was decided to apply to the City Council for the $20,000 needed to build the isolation hospital. No action was taken on the proposal to erect a public abattoir.

Amendment to the Ontario Public Health Act.—An amendment to Section 104 of the Ontario Public Health Act was introduced by A. Pattullo, M.P.P., and carried at last session of the Legislature. It provides that, if a municipal council wishes to borrow money to purchase grounds or buildings, or to erect buildings for the purposes of a contagious diseases hospital, it shall be entitled to issue debentures, payable in five years, to cover the necessary expenses for the same, without asking for a vote of the ratepayers.

"Montreal Medical Journal."—Some important changes have been made in the operation of the *Montreal Medical Journal* with a view of making it still more efficient and of conducting it on a more satisfactory basis. Drs. William Gardner, F. G. Finley, Frank Buller, and H. A. Lafleur have been added to the editorial staff, with Drs. Wyatt Johnston, C. F. Martin, J. M. Elder, D. J. Evans, Burgess, Stirling, Lockhart, Hamilton, Birkett, Webster, K. Cameron, and Wilson as collaborators.

Marriage Licenses.—The Senate of North Dakota has passed a law providing for the appointment of a board of physicians to decide upon the fitness of applicants for marriage license to enter into marriage relations. Licenses will be refused to any who suffer from diseases that are likely to manifest themselves in their progeny, especially dipsomania, insanity, syphilis, and tuberculosis.

The Treasurer of St. Thomas's Hospital, London, has received an anonymous donation of £1,000 for the endowment of a bed, to be called the "Tom Hughes Bed," in memory of Mr. T. Hughes, Q.C., author of "Tom Brown's Schooldays."

The National Guard of the State of Pennsylvania.—We understand on the authority of the *Medical Bulletin* that its editor, Dr. John V. Shoemaker, has been appointed surgeon-general of the guard.

Dr. Grover W. Wende, of Buffalo, sailed for Europe by the North German Lloyd line, March 22, 1899, to be absent three months at Prague.

In the Rotunda Hospital, Dublin, it is proposed to supply the operating room with sterilized air.

PERSONALS.

DR. G. R. MCDONAGH returned from the Mediterranean last month.

EADIE.—At 899 Queen Street West, on March 25th, to Dr. and Mrs. Eadie, a daughter.

DR. S. G. T. BARTON, who for years practised on Spadina Avenue, has given up practice.

DR. T. B. RICHARDSON has removed to 10 Carlton Street, and Dr. Warner to 520 Church Street.

DR. J. D. THORBURN will shortly move into his magnificent new residence on Bloor Street West.

DR. A. H. GARRATT, of Bay Street, has the architect's plan for his new up-town home almost completed.

THE estate of the late Sir William Jenner, physician in ordinary to the Queen and the Prince of Wales, is valued at $1,925,000.

DR. GEO. B. SMITH, of Toronto, was married a month ago to Miss Dunn, of Carlton Street. Congratulations, doctor. Dr. Smith's new address is 92 College Street.

The Physician's Library.

BOOK REVIEWS.

A System of Medicine. By many Writers. Edited by THOMAS CLIFFORD ALLBUTT. The Macmillans. Toronto: Carveth & Co. Vols. I., II., III.

In true literature, whether scientific or otherwise, there is no competition. The supply is limited. One might as well expect the Muse to menstruate more than once a month as to expect her to meet the illimitable trade requirements of present-day publishers and book mechanics. There was a time when a system of medicine, covering every branch of the subject and written by specialists in each department, was regarded with a certain degree of respect. Such works came in the usual order of nature as a general summing up or a reconstruction of classified knowledge, and represented an era in the growth of medical thought. They were thus of historical value almost, and no more to be lightly treated than the inviolable milestones on the highway.

They emanated distinctly from the leading exponents of medical progress, and the publishers' position remained in abeyance. The advances in medical knowledge at one time only required such a summing up in a quarter of a century. More recently a decade produces sufficient confusion to call for a new classification. With the increased activity of medical research there has also been a renaissance in the ambitious manufacturer of medical books. He has awakened to the undoubted value of systems of medicine. He has observed the phenomena of their selling qualities, and though things so desired cannot be forced or prepared by synthesis, like the German tar products, he has resorted to certain expedients by which he has been able to "put up" a species of merchandise which he calls medical literature, and which in the concrete *looks* somewhat like it. There is a great deal of this spurious material upon the market to-day. It never grew, but was made with hands, and in an unrolling machine something like those which they use to make wall-paper.

One could, I suppose, count twenty different systems of medicine which are being hawked about to-day among a genial profession, full of faith, abounding optimism, and a willingness to subscribe to a great many things. Most of these are *papier-mache* imitations, but the purchaser runs less chance of discovering this than he does of detecting the adulteration in his coffee; for he drinks the coffee, but does not always read the books. At such a time a system of medicine with a *raison d'etre* is certainly a desideratum, and without enumerating many dreary adventures among four, six, ten and twenty volume series, from every variety of pompous mediocrity down to the incoherent whispers of profound obscurity, nor forgetting sundry encounters also with certain hoary ghosts of the past in modern binding and new title-pages, we came in due course to the subject of our present review, and with the feelings of an impressario, take sincere pleasure in stating now that this system of medicine is *par excellence* one which has a legitimate scientific reason, and not a commercial object, for its being. It is literature, not merchandise.

A detailed review is not our present purpose. That has been done elsewhere. But the classification is lucid, the treatment of the various authors (or authorities, for each is one on his own subject) full, yet clear, and the whole the most able exposition of medical learning, as it stands at the close of the century, which we believe to have been written. E. H. S.

Nervous and Mental Diseases. By ARCHIBALD CHURCH, M.D., and FREDERICK PETERSON, M.D. Philadelphia: W. B. Saunders. 1899.

This work in reality embraces two separate treatises written separately by each author, but which, by reason of the close relation which they bear to each other, are conveniently bound within one cover. The greater part of the work is given to Dr. Church's treatise on "Nervous Diseases," which makes no claim, as the author admits, to be more than a carefully prepared text-book. This it certainly is, and considerably more, and that the demand for literature upon this subject is strong may be inferred from the fact that this is the second large American work on neurology which has appeared in the last few months. In the present volume each phase of nervous disease is briefly described, and the opening chapter on "Anamnesis and Physical Examination" is especially lucid and timely. "Diagnostic investigation in neurological work is a fine art," the author observes, and a full and careful sketch is given of the various delicate methods by which diagnosis in some of the more obscure affections is made possible. The illustrations are good, though in this respect the publisher has erred, if at all, in superfluity. Picture books are very diverting, but in a scientific work only those which are absolutely necessary to the comprehension of the text should be retained. This is becoming more and more a fault of medical publishers. The text is reliable, comprehensive, and, to use a term from the commercial world, "up-to-date."

Dr. Peterson's small monograph upon "Mental Diseases" which has been appended to the larger work, covers all the ground. Perhaps there is a certain lack of proportion in giving so much space to Paranoia, where the author has in the present work been tempted to incorporate very extensive quotations from the literary pastime of a Paranoiac, and which, of interest to the alienist though they may be, are non-essential to the readers for whom the short outline was prepared. On the whole, however, Dr. Peterson's *résumé* is very concise, and leaves very little to be desired. E. H. S.

A Text-Book of Mechano-Therapy. By AXEL V. GRAFSTROM, B.Sc., M.D.

Mechano-Therapy is the mode of treatment of diseases by movements. In late years the field in which this means is employed has greatly extended. Many of the leading practitioners of medicine everywhere prescribe for chronic diseases some form of this treatment. It is founded on scientific researches, discoveries and facts, and has done much toward freeing both profession and patients from the slavery of drugs. It is divided into two branches, *medical gymnastics* and *massage*. The nature of the treatment is such as to confine its employment largely to the cases which are treated in institutions, as an intimate knowledge of the details and a skill which comes only from practice are essential to success. Dr. Grafstrom has given us a book which may be a safe and valuable guide to the trained nurse and also to the practitioner, who already has a thorough acquaintance with the principles of anatomy, physiology and pathology. While the author is a warm advocate of mechano-therapy, yet he is not so much carried away as not to recognize its limitations. Herein lies a danger. The specialist in the use of any therapeutic agent is apt to regard it as a "cure-all," while the general practitioner, not knowing its full capacity, is apt to overlook its usefulness. B. E. M.

The International Medical Annual, 1899. A work of reference for medical practitioners, alphabetically arranged; combines the features of an annual retrospect with those of a medical encyclopedia. Copiously illustrated with elegant plates, in colors and black and white. Seventeenth year. E. B. Treat & Co., 241-243 West 23rd Street, New York; John Wright & Co., Bristol, England.

It gives us pleasure to add our word of praise of this the seventeenth "International Medical Annual." Every year since its inception it has improved until the 1899 edition beats the record, being larger in size and more complete

than any predecessor. It contains the most recent methods of treatment, the latest additions to our already large list of therapeutic agents, besides a thousand and one points of value to the practitioner who wishes to be up-to-date. We congratulate the publishers upon the result of their work, and recommend everyone to invest in a copy. Among the special articles will be found the following: "Practical X-Ray Work," by R. Norris Wolfenden, M.D., B.A.; "Advances in Skull Surgery," by Seneca D. Powell, M.D.; "Surgical Treatment of Paralysis," by Drs. Robert Jones, F.R.C.S., and A. H. Tubby, M.S., M.B. These articles are freely illustrated, chiefly by reproductions from photographs. An excellent article on "Climatic Treatment of Consumption," by F. de Havilland Hall, M.D., F.R.C.P., as well as one on "Legal Decisions Affecting Medical Men," by William A. Purrington, A.B., LL.M., will be found interesting and pertinent. There will be found also an article on "The Chief Pathogenic Bacteria in the Human Subject," with descriptions of their morphology and methods of microscopical examination, by S. G. Shattock, F.R.C.S., the Pathological Curator of the Museum of the Royal College of Surgeons, London, illustrated by a series of finely-colored plates.

W. A. Y.

An Essay on the Nature and the Consequences of Anomalies of Refraction. By F. C. Donders, M.D., late Professor of Physiology and Ophthalmology in the University of Utrecht. Philadelphia: P. Blakiston's Son & Co. 1899. $1.25.

This translation, by Dr. C. A. Oliver, of Donders' immortal work will be of great value to all interested in the history of Ophthalmology. One cannot but wonder at the accuracy and precision of Donders' results—years have brought but little change in his axioms. A goodly head set upon massive shoulders looks out from the title-page—a face of strength and determination. It explains how Donders' axioms have suffered little change in the long years since his death. This translation, by Dr. Oliver, wears a fitting dress of paper, letterpress, and binding, in keeping with the veneration and love with which Donders is regarded by all ophthalmologists. J. M. M.

Retinoscopy in the Determination of Refraction at One Metre Distance, with the Plane Mirror. By James Thorington, M.D. Third edition. Philadelphia: P. Blakiston's Son & Co. 1899. $1.00.

Of all the methods of determining the refraction of the eye, retinoscopy is by far the most trustworthy. It demands the use of a mydriatic, without which refraction can never be accurately determined. As a description of how to do retinoscopy this book is excellent; as to the "why" of retinoscopy it is not so admirable. Every man prefers his own tools, and Thorington is no exception. He describes at length a light screen of his own device, very ingenious no doubt, yet retinoscopy can be done without any such complicated apparatus. J. M. M.

LITERARY NOTES.

The Macmillan Company announces the early publication of *Surgical Technique, a Handbook and Operating Guide of all Operations on the Head, Neck and Trunk.* With five hundred illustrations. By Fr. von Esmarch, M.D., Professor of Surgery at the University of Kiel and Surgeon-General of the German Army, and E. Kowalzig, M.D., late First Assistant at the Surgical Clinic of the University of Kiel. Translated jointly and edited by Professor Ludwig H. Grau, Ph.D., formerly of Leland Stanford University, and William N. Sullivan, M.D., formerly Surgeon of U. S. S. *Corwin*, Assistant of the Surgical Clinic at Cooper Medical College, San Francisco. This work, now for the first time translated into English, has been thoroughly revised and enlarged

by the translators, who have brought every operation up-to-date. It is a book which has for some time been of much importance to all surgeons who can read it in the German. The translation has been undertaken under the authorization of the German publishers, Messrs. Lipsius & Fischer, and the text used is that of the latest German edition, the sheets of which are now going through the press. There are upwards of five hundred illustrations of operations upon the head, neck and trunk. The translators have also embodied the best American instruments in the illustrations, and have omitted such German illustrations as are of little or no value for the American surgeon. In a word, their reproduction will form a complete, practical, operating guide for the American surgeon.

Impaired Eyesight; Its Improvement by Glasses is the title of a book which should prove of interest to many besides medical men. Its author is D. B. St. John Roosa, M.D., LL.D., Professor Emeritus of Diseases of the Eye and Ear at the New York Post-Graduate Medical School and Hospital, and surgeon to the Manhattan Eye and Ear Hospital. Dr. St. John Roosa has revised and very carefully enlarged the first edition of this work, which was published under the title "The Determination of the Necessity for Wearing Glasses," so as to make it a complete manual for the student and practitioner. The treatise takes up all conditions requiring the use of glasses, and indicates in the most careful manner the rules for prescribing them. It contains six chapters, and will be illustrated, so that a perfect understanding of the text is made easy. The revolution which has been produced in modern ophthalmic practice by the invention of a practical and exact instrument for measuring the radius of the cornea, is fully dwelt upon. The work is not too technical for the comprehension of every well-educated man.

Parker and Haswell's *Manual of Zoölogy* has been edited and adapted for use in the United States and Canada by A. S. Packard, Professor of Zoölogy and Geology at Brown University, and author of *A Text-Book of Entomology*. Common American forms closely similar to the European or Australian have been mentioned, so that the student can use the book in examining the typical forms from his own country. In the majority of cases the European species differ only in trivial characteristics, so that one general description will answer for both. A few additional American animals have been referred to and figured, while a few cuts have been copied from Parker and Haswell's *Text-Book of Zoölogy* and also from Sedgwick's *Text-Book of Zoölogy*.

"How They Do It."—"Some of the abstracting from 'foreign journals' which graces the pages of the new Quaker City journal is taken bodily from the *Medical Record* without credit. A case in point is a long abstract on page 605 of the March 18th issue, taken from the *Medical Record* of February 4th. The truth is, the *Medical Record* has the earliest and best extracts, and since the journal does not pay for its work of this kind, the young men are losing their enthusiasm and find it easier to go to a trustworthy rather than to the more difficult original source."—*Medical Record.* We are glad the printer's "stone-man" made the omission noted—the proper credit was in Dr. Stevens' manuscript, and was unintentionally cut out in "making-up"—because it gives our genial and urbane contemporary his single and coveted opportunity for displaying his characteristic courtesy and truthfulness. It would, of course, be useless to recall to his attention an appropriate Scotch proverb—"Riven breeks should sit still!"—*Phila. Med. Jour.*

Selected Articles.

TANNOFORM.

TANNOFORM is a condensation product of tannin and formaldehyde, of the formula $C_{28}H_{20}O_{18}$. It occurs as a loose, reddish-white powder, insoluble in water, but soluble in alcohol, in ammonia water, and solution of soda or of sodium carbonate; it melts with decomposition at 230° C.

According to a number of reports from eminent dermatologists, tannoform is an excellent and perfectly innocuous antihidrotic and siccative antiseptic in bromidrosis (offensive perspiration) and hyperidrosis (excessive sweating) in any part of the body, and in soft chancre, bed-sores, ulcers, ozena, and cervical catarrh.

Professor von Mering has conducted an extended series of experiments with tannoform, and reports as follows:

"Tannoform, used externally in substance or in 20 to 50 per cent. triturations with powdered starch, promptly checks excessive sweating. In bromidrosis of the feet I have repeatedly employed tannoform on the one foot, and tannic acid on the other, by way of comparison, and found that the tannin was considerably less active than the tannoform. Compared with salicylic acid—which is the chief remedy heretofore used against this trouble—tannoform proved to be more pleasant and more efficacious. Tannoform is of service also in the treatment of old wounds, such as fetid ulcers of the leg and running eruptions; it also possesses disinfectant properties. It may be used either pure, or mixed with starch or talcum, or as a 10 per cent. ointment.

"Even when dusted over in small quantities, it quickly suppresses the hyper-secretion of sweat and completely removes all odor. It is greatly superior to any of the remedies hitherto used in cases of hyperidrosis and bromidrosis, and it forms, more especially, a valuable substitute for chromic acid, which, owing to its exceedingly poisonous nature, is highly objectionable.

"Tannoform has the further advantage that it does not, like salicylic acid, tartaric acid and formaldehyde foot-baths, shrivel the skin, or stain it like iron chloride.

"Tannoform differs essentially from tannin. Tannin is readily soluble in water; tannoform is insoluble in that solvent. Tannin has a harsh, astringent taste, and possesses in a marked degree the property of forming hard, very coherent, water-insolvent compounds with the tissue elements. Albumen, peptone, gelatin, mucus, etc., are, therefore, precipitated by tannic acid. After

ingestion, tannin rapidly unites with the albuminoids present in the contents of the stomach or adhering to the mucous lining, and, therefore, cannot reach the intestines in active form. Applied to mucous membranes, especially if in excess, tannin is prone to cause irritation; it may tan the stomach so intensely as to disable it for weeks. Even after the ingestion of small doses of tannin, especially on an empty stomach, the gastric mucous membrane becomes corroded, the appetite diminishes, and a sense of weight and of pain is felt in the stomach.

"Tannoform, on the other hand, exercises no irritant or corrosive action on the mucous membrane, and is indifferent in doses in which tannin would be deleterious to gastric digestion. Tannoform, being insoluble in water and acids, but soluble in diluted alkalies, is not assimilated in the stomach, and, therefore, reaches the intestinal canal unchanged—that is, in an active form. On taking 0.1 to 0.2 gm. (1½ to 3 grn.) of tannin into the mouth, a bitter, harsh taste is experienced, and after the taste disappears the mucous membrane of the mouth becomes much irritated. Tannoform, on the contrary, is tasteless, even if taken in quantities of 1 gm. (15 grn.), and exercises no irritating or caustic action on the buccal mucous membrane. The administration of tannic acid (in chronic intestinal catarrh), even in doses of but a few centigrammes, is sometimes followed by vomiting and a sense of pressure in the stomach; whereas, in these same cases, tannoform produces no such symptoms, even when given repeatedly in 1 gm. (15 grn.) doses."

Drs. de Buck and de Moor conclude their paper on the properties of tannoform with the following words (*Belgique Médicale*, 1896, No. 33):

"The clinical observations of which we have given a short account show, in our opinion, clearly enough that tannoform is a really valuable therapeutic agent. As might have been expected from its composition and chemical properties, tannoform has proved to be an excellent intestinal astringent and antiseptic. In this respect its action bears in every sense comparison with that of its congener, tannigen.

"We would more particularly call attention to the local action of tannoform. We have not as yet met with a single case of local hyperidrosis that has refused to yield to the action of tannoform. Often its action is in fact so rapid as to render it necessary to exercise caution in its application, since the sudden suppression of a process of secretion to which the system has become accustomed cannot possibly be treated as a matter of total indifference. We therefore consider it desirable to induce diuresis (by means of diuretic decoctions of milk) as well as to produce purgative effects (by means of podophyllin and belladonna, cascarin, etc.) in all cases where the patient, having suffered for a considerable time from hyperidrosis, requires effective treatment. It should be remarked in this connection that excessive secretion of sweat is a particularly

frequent affliction of nervous patients suffering from gout or anemia. It may therefore be advisable to endeavor to modify this constitutional anomaly by means of alkalies, nerve-sedatives, and tonics."

MULTIPLICITY OF MEDICAL SOCIETIES: CONSOLIDATION THE NEED OF THE HOUR.

Of the utility of organization, and of that special kind that is exemplified in the medical society, there can be no shadow of doubt. In union there is power and in well-directed organization progress. The tendency of the day is toward centralization rather than the opposite, and it is from this point of view that we wish to say a few words, suggestive rather than conclusive, with regard to the waste of energy, time and resources entailed upon the medical profession by reason of the existence and continued organization of what appear to us unnecessarily large numbers of medical societies.

Thus, we have several organizations of national scope and membership; in most commonwealths, State medical societies, and in the counties, cities and towns thereof, usually local and constituent bodies. In the large cities, as for instance, Chicago, New York and Philadelphia, there are often several individual bodies whose work and membership are of a general and similar character, and, besides, a large number with independent organizations devoted to the special departments of medicine; not including the intramural collegiate societies that exist in some places almost without number. There must thus result a considerable waste of time, energy and money, and it seems that with such a division—one might say dissipation—of forces, the influence for good that the constituent membership would otherwise be capable of wielding must be materially attenuated.

It is in this spirit that we beg, therefore, to make a plea for consolidation, for a union of forces, that the greatest good may inure to the largest number. Why need there be more than one great national American medical body—as there is but one great national British medical body—with the organization of sections in all of the departments of medicine? Each State and Territory would also require but one central organization, and one society would suffice for each county, with as many special and geographic divisions and branches as the exigencies of the individual case would demand.

The difficulties of such consolidation and reorganization as we suggest are not insurmountable; the details could easily be arranged, and the result, if consummated, would unify and strengthen the medical profession as no other measure is capable of doing. With such a united body the cause of preventive medicine would be greatly forwarded. Besides antivivisection and antivaccination, there will be other battles to be fought in the public welfare, and

divided forces will fail where united influences must prevail.—*Journal of Amer. Med. Assoc.*

[What the *Journal of the American Medical Association* says herein applies to Toronto as much as to any other city or country. What an advantage it would be if in Toronto this example were followed and all of our too numerous societies amalgamated. However, this will never be so long as the spirit at present prevalent in Toronto exists, of every one wanting to be President or Vice-President, offices entailing certainly more work than glory. —ED.]

Vichy Natural Waters.—There are at Vichy three principal springs, the analysis of which shows a considerable degree of similarity. These springs are known under the name of *Célestins, Grande-Grille* and *Hopital.* They are strongly alkaline waters, pleasant to the taste, easily digested, and lose practically none of their properties when bottled and exported. The analysis follows:

ANALYSIS

as given by Cyr in Jacoud's "Nouveau Dictionnaire de Médecine et Chirurgie Pratiques."

The calculation is made in grammes and per litre.

	Grande-Grille.	Celestins.	Hopital.
Sodium Bicarbonate	4,883	5,103	5,029
Potassium "	0,352	0,315	0,440
Magnesium "	0,303	0,328	0,200
Strontium "	0,003	0,005	0,005
Calcium "	0,434	0,462	0,570
Ferrous "	0,004	0,004	0,004
Manganous "	Trace	Trace	Trace
Sodium Sulphate	0,291	0,291	0,291
" Phosphate	0,130	0,091	0,046
" Arseniate	0,002	0,002	0,002
" Borate	Trace	Trace	Trace
" Chloride	0,534	0,534	0,518
Silica	0,070	0,060	0,050
	7,006	7.195	7,155
Temperature (Fahrenheit)	107.6°	57°	86°

This analysis shows conclusively that the Vichy waters have an ideal composition. They are strong enough in alkaline elements to be able to saturate the organism with alkaline salts within a comparatively short while. They can be taken for a prolonged period of time, and in this respect are of the highest value, since most of the diseases for which they are prescribed are either of a chronic nature, or, if in the form of an acute attack, depend upon nutritive disorders that have existed for a long time, such as the uric acid diathesis and disturbances of the stomach and liver due to functional disorder.