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A Monthly Journal of Medical and Surgical Science,
Criticism and News.

(Index next page.)

Vol. XIV
No. 7.

TORONTO, MARCH, 1882.

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In the various forms of Dyspepsia, resulting in impoverished blood and depraved nutrition, in convalescing from the Zymotic Fevers (Typhus, Typhoid, Diphtheria, Small-pox, Scarletina, Measles), in nervous prostration from mental and physical exertion, dissipation and vicious habits, in chlorotic anæmic women, and in the strumous diathesis in adults and children, it is a combination of great efficacy and reliability, and being very acceptable to the most fastidious, it may be taken for an indefinite period without becoming repugnant to the patient. When Strychnine is indicated the official solution of the Pharmacopœia may be added, each fluid drachm making the 64th of a grain to a half fluid ounce of the Elixir—a valuable combination in dyspepsia with constipation and headaches. This compound is prepared with great care, and will be maintained of standard purity and strength.

DOSE.—For an adult, one tablespoonful three times a day, after eating; from seven to twelve, one dessertspoonful; from two to seven, one teaspoonful.

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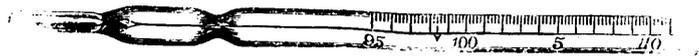
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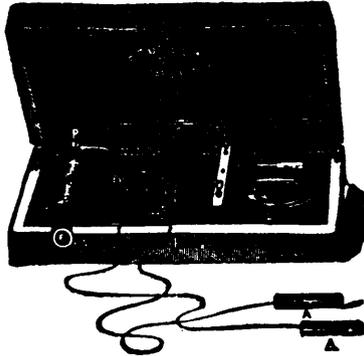
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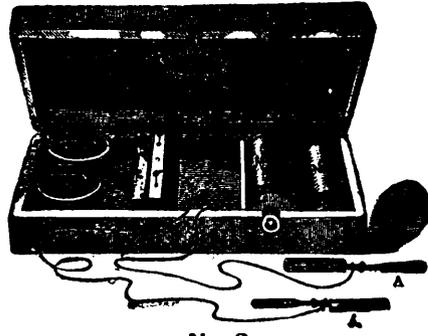
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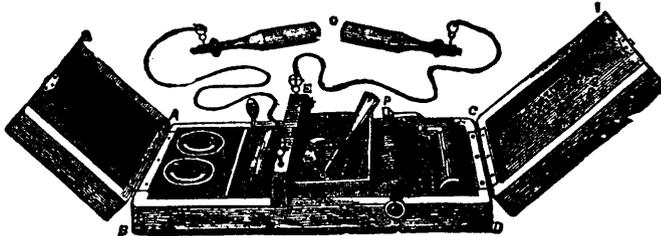
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* See note p. 64, Profs. VAN BUREN & KEYS on Urinary Organs.

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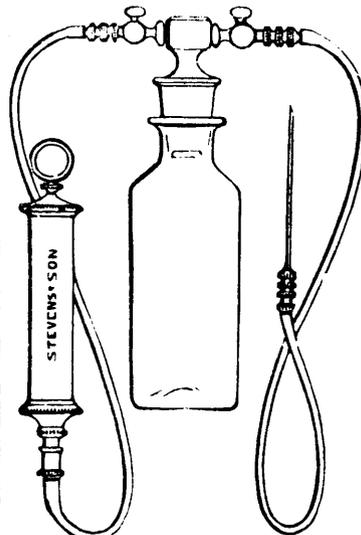
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IN COTTON CLOTH. Superior to the best French make, does not crack or peel off, or tear when wet. Can be removed without soiling the skin. Always reliable.

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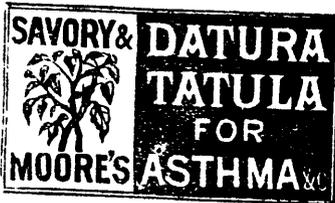


And possessing every requirement necessary in a diet for Children brought up wholly or partially by hand.
Containing the highest amount of nourishment in the most digestible and convenient form.

The Most Perfect Substitute for Healthy Mother's Milk.

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TINS. 1s., 2s., 5s. & 10s.



THE DATURA TATULA, for Asthma, Chronic Bronchitis, &c.

"It is a remedy of great efficacy."—*Dublin Journal of Medical Science.*

"I have suffered from attacks, attended with painfully suffocative sensations, which have been immediately relieved by smoking, for a few minutes, the Datura Tatula. I consider it of great power and usefulness."—DR. BARKER on *Diseases of the Respiratory Organs.*

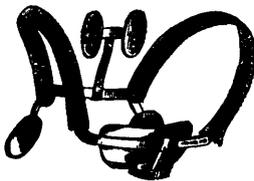
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AND ALL CHEMISTS THROUGHOUT THE WORLD.

Fig. No. 3 is a comfortable support to the abdomen, but is not so effective as No. 8 in supporting the bowels, spine or chest.

THE IMPROVED BODY BRACE.
FIG. 3.



ABDOMINAL AND SPINAL SHOULDER AND LUNG BRACE.
FIG. 8.



No 8 is a general and grateful support to the hips, abdomen, chest, and spine, simultaneously and by itself alone, is ordinarily successful; but when not so particularly in spinal and uterine affections, the corresponding attachments are required.

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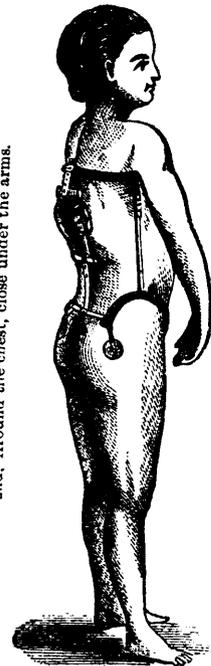
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NO OTHER OFFICE OF ADDRESS.

Send for our Descriptive Pamphlet.

FIG. 19.



HOW TO MEASURE FOR ANY OF THESE APPLIANCES

1st. Around the body, two inches below the tips of hip bones.
2nd. Around the chest, close under the arms.

3rd. From each armpit to corresponding tip of hip bone.
4th. Height of person. All measures to be in inches. Measure over the linen, drawing the measure moderately tight.

No. 19. — THE IMPROVED REVOLVING SPINAL PROP, for sharp angular curvature, or "Pott's Disease" of the spine. Recent and important improvements in this have led to its adoption by the most eminent physicians.



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Sugar-coated Pills are more soluble than
gelatine-coated or compressed pills.—Prof. Remington's paper read before
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FROM OFFICIAL, AND OTHER RECIPES.

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We claim the art of Sugar-Coating, which avoids drying the mass so hard as to render it insoluble and inert.

Skilful preparation and the scientific method of manufacture, which we do not hesitate to call our own, are recognized in the acknowledged success attained. We wish particularly to state that our Pills will produce the effect expected, and our desire is that Physicians shall be able to realize this in their practice; hence the necessity for specifying our make when ordering or prescribing.

We would particularly invite your kind attention to our make of

PILLS OF SOLUBLE BI-SULPHATE OF QUININE,

made from pure material, in sizes containing $\frac{1}{2}$, 1, 2, 3 and 5 grains each, sold at the same price as the Pills of the Sulphate of Quinine. This salt which we are now extensively manufacturing, is by virtue of its greater solubility, offered as an important improvement on the Sulphate.

The following list of Sugar-Coated Pills comprises a variety of combinations of great value, prepared for Physicians prescriptions.

FORMULÆ AND THERAPEUTICS.		FEE
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		MEDICAL PROPERTIES. Doses. Each.
AGUE,	{ Chinoidin, 2 grs. Ext. Col. Co. $\frac{1}{2}$ " Ol. Pip. Nig. 1-8 " Ferri. Sul. $\frac{1}{2}$ "	Antiperiodic. 2 to 4 75
ALOES, U. S. P.	{ Pulv. Aloes Socot, 2 grs. Saponis, 2 grs.	Stimulating Purgative. Directed to lower portion Alimen'y Canal. 1 to 3 40
" COMP. (Pil. Gent Comp.)	{ Pulv. Aloes Socot, $1\frac{1}{2}$ grs. Assafetida, $1\frac{1}{2}$ grs. Pulv. Saponis $1\frac{1}{2}$ grs.	Tonic, Purgative. 2 to 4 40
" ET ASSAFETID.	{ Pulv. Aloes Socot: $\frac{1}{2}$ gr. Zingib. Jam: 1 gr. Ferri Sulph: Exsic: 1 gr.	Purgative, Antispasmodic. 2 to 5 40
" ET FERRI,	{ Ext. Conil, Ferri Sulph: Exsic: $\frac{1}{2}$ gr.	Tonic, Purgative. 1 to 3 40
" ET MASTICH:	{ See Pil. Stomachicæ.]	Stimulating Purgative. 1 to 2 50
" ET MYRRHÆ.	{ Pulv. Aloes Socot, 2 grs. U. S. P. " Myrrha. 1 gr. Croci Stigmat. $\frac{1}{2}$ gr.	Cathartic, Emmenagogue. 3 to 6 50
" ET NUC. VOMICA.	{ Pulv. Aloes Soc: $1\frac{1}{2}$ grs. Ext. Nuc. Vomica, $\frac{1}{2}$ gr.	Tonic, Purgative. 1 to 2 50
ALTERNATIVE,	{ Mass. Hydrarg. 1 gr. Pulv. Opi. $\frac{1}{2}$ gr. Pulv. Ipecac., $\frac{1}{4}$ gr.	Alternative, with tendency to Mercurial Impression. 1 to 2 50
AMMON. BROMID, 1 gr.	{ Pulv. Aloes Socot, " Sapon Hispan " Fruct. Colocynth. " Gambogiae, Oleum Anisl.	Sedative, Alternative, Resolvent. 1 75
ANDERSON'S SCOTS.	{ " Santonin. Calomet. $\frac{1}{4}$ gr.	Cathartic. 2 to 5 50
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Warner & Co.'s Sugar-Coated Pills.

PBB
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MEDICAL PROPERTIES. Doses. Each

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ANTI-CHILL, { Chinoidin, 1 gr. } { Ferri Ferrucyan 1 gr. } { Ol. Piper. Nig. 1 gr. } { Arsenic, 1-20 gr. }	Antiperiodic. Applicable to obstinate intermittents.	1 to 2	1 00
ANTI-DYSPEPTIC, { Strychnia, 1-40 gr. } { Ext. Belladonna, 1-10 gr. } { Pulv. Ipecac., 1-10 gr. } { Mass. Hydrag., 2 grs. } { Ext. Col. Co., 2 grs. }	Applicable where Debility and Impaired Digestion exist.	1 to 2	1 00
ANTIMONII COMP., U. S. P. (See Pil. Calomel Comp.)	Alterative.	1 to 3	40
APERIENT, { Ext. Nuc. Vom. ½ gr. } { " Hyoscyam., ½ gr. } { " Coloc. C., 2 grs. }	Aperient Tonic.	1 to 2	85
ASSAFŒTIDÆ, U. S. P. 2 gr.	Nerve Stimulant.	1 to 3	40
" COMP. { Assafœtidæ, 2 grs. } { Ferri Sulph. Exsic. 1 gr. }	Nerve Stimulant.	2 to 4	40
ASSAFŒTIDÆ, ET RHEI, { Assafœtidæ, 1 gr. } { Ferrul. Rhei, 1 gr. } { Ferrul., 1 gr. }	Tonic and Nerve Stimulant.	2 to 5	40
BISMUTH, Subnit.: 3 grs. Subcarb.: 3 gr.	Tonic, Laxative, Nerve Stimulant.	2 to 4	75
BISMUTH et Ignatæ, { Bismuth Sub. Carb. 4 grs. } { Ext. Ignatæ Amara, ½ gr. }	Sedative, Antiperiodic.	1 to 5	75
" et Nuc. Vomica, { Bismuth Sub. Carb. 4 grs. } { Ext. Nuc. Vomica, ½ gr. }	Sedative, Antiperiodic, Tonic.	2 to 5	75
CALOMEL, ½ gr.	Sedative, Tonic.	1 to 2	1 50
" 1 gr.	Alterative.	1 to 3	40
" 2 grs.	" Purgative.	1 to 3	40
" 3 grs.	" " "	1 to 3	40
" 5 grs.	" Cathartic.	1 to 3	50
" Comp. (Plummer's) 3 grs. { Calomel, } { Oxysulph Antimony, }	Alterative, Anti-Rheumatic.	1 to 3	40
" ET OPII, { Calomel, 2 grs. } { Opium, 1 gr. }	Cathartic, Anodyne.	1	85
" ET RHEI, { Calomel, ½ gr. } { Ext. Rhei, ½ gr. } { " Coloc. C. ½ gr. } { " Hyoscyam. 1-8 gr. }	Mild Purgative.	1 to 3	75
CAMPHOR ET EXT. HYOSCYAMUS, { Camphor, 1 gr. } { Ext. Hyoscyamus, (Eng.) 1 gr. }	Anodyne. Cerebral Stimulant.	1 to 2	80
CATHARTIC COMP., U. S. P. { Ext. Coloc. Comp. 1½ gr. } { Jalapæ, 1 gr. } { Calomel, 1 gr. } { Pulv. Gambogis, ½ gr. }	Cathartic.	2 to 4	50
" " Vegetable. { Podophyllin, } { Ext. Colocynth, } { Virgin Scammony, } { Aloes, Soap & Ginger. }	Cathartic.	2 to 3	50
" " Imp. { Ext. Coloc. Comp. } { Podophyllin, Lepiandrîn, } { Ext. Hyoscyamus, } { " Gentian. } { Ol. Menth Pip. }	Cathartic.	2 to 4	50
CHAPMAN'S DINNER PILLS, { Pulv. Aloes Soc. } { Rhei Opt. } { Gum Mastich. }	Stimulating Laxative.	1 to 3	60
CERII OXALAT: 1 gr.	Nerve Tonic.	1 to 3	1 00
CHINOIDIN, 1 gr.	Tonic, Antiperiodic.	2 to 4	40
" 2 grs.	Tonic, Antiperiodic.	2 to 4	80
" COMP.: { Chinoidin, 2 grs. } { Ferri Sulph. Exsic. 1 gr. } { Piperina, ½ gr. }	Tonic, Antiperiodic.	1 to 2	1 00
GINCHON, SULPH. 1½ grs.	Tonic, Antiperiodic.	1 to 3	75
OOCCIA, { Pulv. Res. Scammony, 1 gr. } { Soc. Aloes, 1½ grs. } { Colocynth, ½ gr. } { Potass. Sulph. ½ gr. } { Ol. Caryophyl. ½ gr. }	Hydragogue-Cathartic.	2 to 4	90
COOK'S, 3 grs. { Pulv. Aloes Soc. 1 gr. } { " Rhei, 1 gr. } { Calomel, ½ gr. }	Purgative.	2 to 4	50
COLOCYNTHIDIS COMP., 3 grs. (Ext. Coloc. Comp.) U. S. P.	Purgative.	2 to 5	80
COLOCYNTH ET HYDRARG ET IPECAC, { Pulv. Ext. Coloc. Comp. 2 grs. } { Pil. Hydrag. 2 grs. } { Pulv. Ipecac. 1-6 gr. }	Cholagogue Cathartic.	1 to 3	75
COLOCYNTH ET HYOSCYAM. { Ext. Coloc. C. 2½ gr. } { " Hyoscyamus, 1½ gr. }	Gentle Laxative.	1 to 2	75
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LESIONS OF THE CENTRAL NERVOUS SYSTEM, OF PERIPHERAL ORIGIN. BY CH. TALAMON, REVIEW BY DR. A. LEONE.

(Translated from "Il Pisani Gazzetta Sicula," Palermo.)

BY JOSEPH WORKMAN, M.D., TORONTO.

The cerebro-spinal nervous axis is put into *rapport* with the various parts of the economy by means of two orders of conducting cords; one, forming the afferent system, transmits by the grey substance the impressions received at the periphery; the other, forming the efferent system, transmits movements and nutritive influence to the organs. The lesions of the latter—the centrifugal order—are at the present time very well known, because it has been almost exclusively to these that modern clinical and physiological studies have been directed. On the contrary, the lesions of the afferent apparatus have been left in obscurity.

Some histological and physiological researches by Leyden, Vulpian, Ghazem, and others, give us some precise notions of the alterations of the cerebro-spinal axis, consecutive to lesions of the extremities of the nerves—alterations which, heretofore, have been regarded as coming from primitive lesions of the central nervous substance, and not as the consequence of an affection localized in the periphery of the nervous system. It is on facts of this class that we propose to treat in this work.

We shall, first of all, study the results which pathological anatomy seems to have brought clearly into view, that is to say, the *atrophic modifications* observed in the central nervous system following the amputation of a member. In the second place, we shall speak of irritative lesions, experimental or pathological, observed to follow peripheral excitations. In the third place, we shall

speak of certain symptoms or phenomena observed through centripetal irritation of the nervous centres.

CHAPTER I.

Of atrophic lesions of the nervous centres following the removal of a member.

A. *Lesions of the medulla.*—Laney and Basard had already noted, with the naked eye, an atrophy of the medulla or of the nervous roots in persons who had undergone amputations and had died a long time after the operation; but both the observations are incomplete. Besides these two, no others were found in the science related to this subject up to 1868, when Vulpian, in a memoir published in the *Archives of Physiology*, and Dickinson in another, published in the *Journal of Anatomy and Physiology*, reported several cases of atrophy more or less diffused in the parts of the medulla corresponding to the amputated member. In the greater number of the cases published by these two authors, the atrophy was observed more usually in the posterior fascicles than in the anterior, of the medulla.

After Vulpian and Dickinson, other observers, among whom are the two Italians, Buffalini and Rossi, have published analogous results. In 21 cases of amputation the following were the alterations found in the medulla:

1st. *In the white substance.*—Atrophy in the posterior cords in 17 cases, and in the anterior only in a few cases.

2nd. *In the gray substance.*—Atrophy, according to Vulpian and Dickinson, is more often in the posterior cornua than in the anterior; but neither Vulpian nor Dickinson have ever observed histological modifications, or diminution of the number of the cells, or atrophy of them. In one case alone, of amputation of the left leg, Vulpian found a very limited destruction of small islets in the gray substance. Geuzmer, in a case in which amputation of the thigh dated back almost 30 years, found diminution of the number of the nervous cells and a great diminution in their size. Lastly, in an observation of Hayem in a case of amputation of the thumb, there was found, besides general atrophy of the anterior cornua corresponding to the injured side, a great number of atrophied cells and some irritative lesion, not only on the atrophied side, but also on the other side; lesions analogous to those of a chronic central myelitis.

3rd. *In the nervous roots.*—Dejerin and Meyer, in three cases observed by them, found no alteration in the cut nerves; but Dickinson and Geuzmer observed atrophy in the nervous roots, apparently, according to Dickinson, in the posterior, but according to Geuzmer, in the anterior roots.

B. *Lesions of the brain.*—Dickinson, in four cases in which the operations took place many years before death, met with no appreciable anatomical modification in the cerebral hemispheres. The atrophy observed in the medulla extended to above the lumbar enlargement in the cases of amputation of the lower limb, and as far as the bulb at the superior limit of the decussation of the pyramids, in cases of amputation of the arm, but never above this point. Other observers have not been more successful.

The experiments of Fritsch, Nitzig and Ferrier, and the pathologico-anatomical researches of Charcot, have demonstrated the existence of atrophy in certain peripheral regions of the brain (the pretended motor zones) following the remote ablation of corresponding members (that is to say, the alteration was found on the right side when the mutilation had been on the left, and *vice versa*).

In contradiction of these facts, Brun, Pitie, Féré, Major, and others, in cases of ancient amputations, found the cerebral hemispheres in all their convolutions in a state perfectly normal. Yet the facts demonstrating atrophy are of much greater number.

Outside the cases of amputation, studies have been made in those in which the patients have been long condemned to inaction, either from paralysis of a given member or from chronic articular rheumatism. *Example*—Landouzy, in a man who had arrest of development of the right leg, found the left hemisphere of less volume than the right. Oudin, in a woman who for 67 years had not used the right leg, found atrophy of the first frontal convolution at its union with the ascending frontal. See, in a subject whose right arm had been atrophied, observed that the left ascending parietal convolution was much smaller than the right. Luys, in a case of chronic rheumatism of three years' duration, found the same alteration.

CHAPTER II.

Irritative, experimental, or pathological lesions, observed in the motor nervous centres in sequence to peripheral excitations.

1st. *Experimental pathology.*—In these researches physiologists are divided into three classes. Some,

as Roessingh, Rosenstein, Rosenbachs, and Vulpian, have never observed either medullary lesion or lesion along the superior end of the irritated nerve; others, as Tiesler and Feinberg, have, in a certain number of cases, met with some considerable alterations in the spinal axis, consecutive to localized inflammation in a part of the nerve, as far as the central parts.

We shall speak of the affirmative experiences of these authors. The lesions observed in the medullary axis, following irritation of the peripheral nerves, appear both in the involucre of the medulla and in the medullary substance itself, in the gray as well as in the white substance.

As to the lesions of the meninges, we may say that they have been met with in great frequency, if not, indeed, with constancy; and they vary from a simple hyperæmia to a focus of suppuration. Klemm observed in rabbits a sero-sanguinolent opacity in the dura mater, at the point where the irritated nerve is implanted in the medulla; in other cases he found a sort of inflammatory proliferation of the adipose cellular tissue in this membrane. In a cat he met with a true spinal pachymeningitis, having its origin at the point of emergence of the irritated nerve. In an experiment of Tiesler, reported by Professor Charcot, on a rabbit, dead paraplegic, three days after the application of an irritant agent on the sciatic nerve, saw a primary purulent focus in the thickness of the nerve at the point irritated, and another focus of suppuration in the vertebral canal, around the roots of the sciatic, near their emergence.

With regard to the lesions of the medullary substance, the studies have been carried out chiefly by Prof. Hayem on rabbits, both after eradication of the sciatic nerve, and irritation of it by acids, or by a needle dipped in nicotine. The alteration was diffused in the whole length of the medulla; first it appeared on the posterior cord, at the level of the origin of the nerve injured, afterwards it invaded the gray substance. "*In all the cases,*" says this author, "*it above all affected the external and posterior group of the anterior cornu, and the cells of this group only were altered when the lesion was less pronounced.*"

The medullary alterations observed by Feinberg, although the description is given with less particularity, are of the same nature. In three of his experiments, by means of irritation of the sciatic with

potassa, he found a diminution of the consistence of the medulla, above all in the gray substance of the lumbar region. Under the microscope, the gray substance appeared completely disorganized, and in part the white substance also. In the experiment of Tiesler, before cited, the medulla, at the point corresponding to the emergence of the irritated nerve, was softened and infiltrated with granulous bodies and leucocytes.

On the contrary, Klemm only once met with myelitis as a consequence of irritation of the sciatic; the inflammation, in his experiments, appeared to be constantly limited to the meninges.

The experiments hitherto cited show that the irritation of a nerve on the periphery may give place, at one time to a spinal pachy-meningitis, at another to a spinal meningitis, and again to a myelitis. But it is asked, What is the path taken by this inflammation in order to be transmitted to the medullary axis?

Klemm injected into a rabbit, with the syringe of Pravaz, some drops of a solution of arseniate of soda, into the sheath of the sciatic. The irritation thus provoked at the point of application was propagated thence to various points of the nerve, both above and below. There was thus formed an ascending and descending neuritis, proceeding by bounds here and there, in a manner very irregular, along the nervous cord, especially showing itself at those points where the arterial vessels penetrate the sheath of the nerve. This was called by Klemm *disseminates neuriti*.

Niedieck, in his experiments, found analogous results. He cauterized the sciatic with nitrate of silver and with chromic acid; the primary alteration was a focus of suppuration at the point of application of the caustic, and, next, the inflammation was propagated in patches along the nervous trunk.

Finally, in 1874, Hayem, who had regarded the neuritis of the upper end at the point irritated as exceptional, established himself, the fact of inflammation of the interfascicular conjunctive tissue along the nervous cord. He saw the cylinder axis swollen and beaded, in granulous degeneration, with proliferation of cells. It appears, therefore, that the irritation is propagated by means of the centripetal cord, following the conjunctive tissue and the nervous tubes into the central cells.

These are the facts obtained by experimental pathology on animals, and we shall now seek to compare them with the phenomena of the same order observed in human pathology.

2nd. *Clinical facts*.—In this division of the chapter we shall show that centripetal irritation of nerves is often, after some time, followed by, at one time signs of muscular atrophy, at another by signs of locomotor ataxia—phenomena which supervene on defect of anatomical control, and in themselves prove the central lesion.

One of the most notable consequences of experimental neuritis propagated to the medulla, is the *rapid muscular atrophy* observed in the animals operated on. This modification in the nutrition is in *rappor*t with the degenerative alteration described by Hayem in the cells of the anterior cornua; this shows the trophic influence of these cells. Now it is certainly worthy of attention that in clinical observance the phenomenon most frequent in centripetal irritation of the spinal axis is exactly atrophy of the muscles.

Vulpian speaks of a soldier who, in 1870, received a gunshot wound at the union of the inferior third with the middle third of the right leg. At the end of a month he recovered and resumed service. In 1875 he perceived a sensation of formication and of stunning at the point of the cicatrix, and afterwards enfeeblement in the whole limb. At the same time he discovered that the whole member affected was continually becoming more atrophied. The circumference of the right thigh was four centimetres less than that of the left one.

Hayem publishes a similar case, in a man who received a gunshot wound in the leg in 1871, and in 1874 signs of atrophy and paralysis were manifested. In these observations the muscular atrophy shows the seat of the lesion to be in the gray substance of the medulla.

We shall record other examples in which the paralytic and atrophic manifestations were produced in regions far from the member primitively injured. Thus Charcot, in 1856, records the case of a man who had diffused phlegmon in the *left* forearm, for which some incisions were made by a surgeon; one of these incisions fell upon the radial nerve. A short time after, the patient began to feel pains and formication at the point of the cicatrix

corresponding to the radial nerve; then followed anæsthesia and paralysis, with atrophy of the muscles. At the end of about a year, he felt a weakness and torpor in the *right* forearm.

Vulpian, in the Hospital La Charité of Paris, observed a fact of the same order. A man suffered a scalding of the left hand, such as to destroy it, leaving to him only two fingers in the form of pincers. After some time the right arm weakened and atrophied; and afterwards, despite of faradization, the muscular atrophy progressed to the muscles of the arm and the shoulder. Brown Sequard, Leyden, LeDentu, and Ferrier report other examples of the same order. But the finest example of atrophy and paralysis is that of Pincet, of Cluny, in which the progressive extension of the lesions into the greater part of the medulla was observed. A soldier, in 1870, received a wound in the battle of Sedan; a ball which penetrated at two centimetres to the right of the sternum, went out at three centimetres below the spine of the scapula. The patient remained three days unconscious. On reviving, the right arm was seen paralysed. The wound healed in eight months, but notwithstanding the use of faradization, the arm remained paralytic.

In 1873 this patient entered the Hospital Val de Grace. The left arm was enfeebled, and had become similar to the right. In 1875 the lesion was perfectly symmetrical in both upper members; there was atrophy of the pectoralis, trapezius, deltoid and great dorsal muscles; also of the biceps, the anterior brachial, and all the posterior muscles of the forearm.

We cite, finally, two other examples, with anatomical observations. Leudet relates a case of sciatic neuritis, developed by asphyxia from the oxide of carbon. He saw, eight days after, a weakening first in the member corresponding to the neuritis, and afterwards in the member of the opposite side, and thence to the upper members, supervening. At the autopsy, neuritis of the right sciatic was realized.

Professor Duménil relates a case in which, following a contusion of the right sciatic at the nates, paralysis with atrophy and anæsthesia in the right limb was observed; in a year after, the upper limb of the same side was similarly affected. Three years after, the lower limb of the *left* side was

affected in its turn, and afterwards the upper one. Finally, the tongue also was involved. The autopsy showed chronic neuritis of the sciatic, and medullary lesions, chiefly in the posterior cornua; the vessels were dilated and varicose, there was infiltration of granulous globules with hyperplasia. The white substance was little or not at all altered.

From these anatomical observations, and many others made by Vulpian and Dickinson on persons who had undergone amputations at remote dates, it has been shown that in the posterior parts of the medullary axis the centripetal irritation has principally its seat.

It is also known, from the observations of Hayem, that the inflammation is propagated across the internal radicular fibres to the externo-posterior cellular group of the anterior cornua. Unless it be now forgotten that ascending lesions in the spinal axis are effected by means of the posterior cords, we have quite sufficient to enable us to account for the cases of locomotor ataxia, which sometimes supervene in sequence to inflammation of the peripheral nerves. Here are some examples: H. Petit relates the case of a man who, in November, 1859, suffered a contusion in a toe of the left foot, from a bar of iron falling on it. In February, 1860, he had lancinating pains in the left foot and leg, and a short time after, pains also in the right, but lighter, so that they yielded to a little rest. Progressive evolution of symptoms of ataxia followed. M. Duplay published in the *Archives of Medicine*, the case of a man who, in the Crimean war, had a foot frozen, and was afterwards taken with fulgurant pains in the lower limb, and at a later date with ataxic titubation; in 1875 all the classic symptoms of sclerosis of the posterior cords presented. Nicaise observed an analogous case in the hospital of Bicetre.

It may be admitted that in these cases the freezing, or the wound, determined a neuritis of the cutaneous nerve branches, next in the principal trunks, and thence into the posterior parts of the medulla.

Another example has been published by Prof. Vulpian: A man, in 1855, underwent amputation of the right leg. In 1873 the left leg became, by little and little, weak and flexible. The foot, in walking, was thrown inwards. A year after, fulgurant pains in the left inferior limb supervened.

In 1877 it was observed that this member had emaciated in its whole bulk. With the eyes shut, he walked hesitatingly. Sensibility was diminished, and the fulgurant pains were severe. On the side operated on, nothing analogous to what happened on the sound side was observed.

In summary then, all the facts which we have passed in review demonstrate:—

1st. That the peripheral irritation of a nerve may determine in the nervous cord, and in the central axis, inflammatory modifications. 2nd. That these inflammatory lesions are produced either in the involucre of the medulla, or in those of the nerve; on the constituent elements of the conducting cord, and of the medullary axis. 3rd. That the medullary lesions have their seat principally in the grey substance, but they may extend also to the white substance. 4th. That they may be limited to the meninges, according to the observances of Klemm. 5th. That in the majority of the cases, if not in all, the propagation of peripheral irritation to the medulla is effected by means of the centripetal cord, under the form of a neuritis, now disseminate, or again continuous, having its seat in the interstitial connective tissue, and probably also in the nerve tubes. 6th. That these central lesions are often manifested with predominant muscular atrophy, and in some cases with signs of locomotor ataxia.

B. Lesions central, produced by irritation of visceral nerves.—We are now interested in seeing whether lesions of the internal organs may bring about consequences on the nervous centres, in the same manner as the peripheric lesions of members. A great number of facts published under the name of reflex or sympathetic paralysis, have no other known pathological mechanism.

It was observed in an individual who for several years had suffered under an affection of the urinary passages, that without appreciable cause a dorso-lumbar myelitis more or less rapidly was developed. Gull, combating the vaso-motor theory of Brown-Sequard, showed that urinary paraplegia supervenes principally in those individuals who, for several years, have suffered from vesical or urethral diseases. Leyden records an observation, in which, in sequence to a cystitis from cold, with retention of urine, symptoms of paralysis appeared at the end of four weeks; at the autopsy there was found a red softening of the lumbar medulla. An Italian

author, Namias, observed a case of central atrophy of the medulla, consecutive to a chronic enteritis, in a woman of 38 years.

Wier-Mitchell says that, in some cases observed by him, "*intestinal diseases had produced effusions and medullary softenings,*" and that the scrofulous and the scorbutic are often subject to softening and chronic myelitis. But he does not give any details, nor cite any autopsy. Leyden has published his observance of a man, who, in sequence to dysentery, had symptoms of a lumbo-sacral neuritis, to which there succeeded those of an ascending spinal meningitis, mounting up to the superior dorsal region. In a memoir of Zabriskie, we read the following fact: A boy entered the hospital with chronic diarrhoea, which had so weakened him that his lower limbs had become paralyzed both in sensation and motion; his evacuations passed involuntarily, and he died from marasmus. The intellectual faculties had remained sound. At the autopsy, extensive lesions were found in the small intestines. The medulla and its involucre did not present, to the naked eye, any alteration. All the viscera were sound. But though the author realized the integrity of the medulla by the naked eye, the complete paralysis of sense and motion, and the paralysis of the sphincters, prove the existence of lesions in the grey substance of the medullary axis, which would not have escaped microscopic examination.

All these facts, above exposed, establish, though not in a very definite manner, the possibility of medullary lesion as a consequence of inflammation of the viscera. But as yet the studies have been rather defective: there have been observed only these few cases in the urinary and intestinal organs, of medullary affections consecutive to irritation of the visceral nerves. As regards lesions produced by irritation of the other viscera, no example is known.

It remains also to know by what mechanism the visceral affection is transmitted to the central nervous system. Gull admits that the inflammation may be propagated, in certain cases, by the veins, to the rachidian plexuses, and thence to the involucre of the medulla. But the more rational hypothesis is that offered by Leyden, and supported by Charcot, that is, the centripetal propagation of the irritation through the nervous trunks; and this accords with the observations of Leyden, who, in

several cases of urinary paraplegia, and in one case of dysenteric paraplegia, found, in addition to dorso-lumbar-myelitis, neuritis of the branches of the lumbo-sacral plexus.

(To be continued).

QUARTERLY REPORT ON THE PROGRESS OF MEDICAL SCIENCE.

BY J. STEWART, M.D., ETC., BRUCEFIELD, ONT.
THE TREATMENT OF EPILEPSY.

(1). *Bromides*.—M. Hublé, under the direction of Bourneville, has employed the monobromide of camphor, bromide of zinc, bromide of arsenic, and the bromide of sodium in cases of epilepsy, where the bromide of potassium given for a lengthened period failed to be of any service. The patients were all inmates of the Salpêtrière. The cases were mostly aggravated ones in old people.

The following are the results obtained by Hublé: The *monobromide of camphor*, given in doses of 10 to 60 grains in capsules, is especially useful where vertigo is a prominent symptom. It produces a profound sedation, which prevents the diverse nervous manifestations which accompany the attacks, such as insomnia, post-epileptic delirium and maniacal excitement. It was never found to cause bromide intoxication.

Bromide of zinc is a powerful sedative, especially to the medulla and spinal cord. It has a similar action to the bromide of potassium, but it has fewer inconveniences. Given in doses of 50 to 60 grains per day, it was found never to cause cachexia or cutaneous eruptions.

The *bromide of arsenic* has also been successfully employed in diminishing the frequency of the epileptic paroxysms. It can be given in doses up to one grain without producing any inconvenient symptoms.

The *bromide of sodium* causes, in very large doses, cachexia, but never the profound cachexia which is induced by large and long-continued doses of the potassium salt. Of all the potash salts, the bromide has the most deleterious influence in this way. In many cases the bromide of sodium had a very beneficial influence.

Hublé does not draw any comparison between the four different bromides, as he thinks his number of observations (46) are too few to warrant any conclusions as to their respective merits.

(2). *Statistics as to the influence of the bromides in epilepsy*.—Ferrand gives details of 89 cases of epilepsy treated by bromide of potassium. In 12 cases a complete cure is said to have resulted. Considerable improvement followed in 51 of the cases, a slight improvement in 16, while 10 were made worse or not influenced by the drug. The bromide was given to females in doses of 75 to 90 grains per day, and to males in doses of 90 to 120 grains daily. After a case is free from fits for one year, the drug is given during six days of the week, and towards the end of the second year it is given three times a week. Ferrand prescribes arsenic in conjunction with the bromide, to prevent the development of acne, and when the bromide dose exceeds 100 grains daily, he gives coffee to prevent its soporific effects.

Hughes Bennet has published the results of the treatment of 117 cases of epilepsy. In 14 cases there was a complete disappearance of the fits, a diminution of them in 97 cases, no change in 3 cases, and 3 cases were made worse. Bennet gives 30 grains of equal parts of the bromide of potassium and ammonium in infusion of quassia, three times daily. If these doses are not sufficient, they are gradually increased until 80 grains three times a day can be taken. Of all chronic nervous diseases, Bennet considers epilepsy the most amenable to treatment.

(3). *Atropine*.—Laskiewicz considers that atropine is the best treatment for epilepsy, when the bromide of potassium fails. Köllner has lately used atropine in the treatment of epilepsy, also. He injects subcutaneously a milligramme ($\frac{1}{8}$ gr.). It appears to have a considerable influence, not only in preventing frequent attacks, but also in mitigating the severity of those which do appear. In the period between the fits, Köllner considers that the mental condition of those treated by atropine is much better than those treated by bromide of potassium.

(4). *Curare*.—Edlefsen, of Kiel, has used curare in 13 cases of old and severe epilepsy. In 6 little or no effect was noticed, 3 cases were completely cured, and 5 were considerably improved; the 13th case was still under treatment.

Prof. Benedikt, of Vienna, has also lately used curare in a few cases of epilepsy, with success. Owing to the exceeding diversity of the strength of different samples of curare, great caution is neces-

sary in prescribing it. It can be given subcutaneously in doses of $\frac{1}{30}$ to $\frac{1}{20}$ of a grain.

(5). *Picrotoxine*.—Conyba relates the case of a child, æt. 5, who was epileptic from her second year and who had been treated by bromide of potassium without success. Picrotoxine was given in doses, at first, of one milligramme, and afterwards increased until $2\frac{1}{2}$ milligrammes were taken in the day. The attacks gradually diminished, and were replaced by vertigo. The picrotoxine was continued for four years. In 1880 she was considered completely cured.

THE TREATMENT OF PNEUMONIA.

(1). Prof. Picot, of Bordeaux, in his work lately issued, lays great stress on the *role* which alterations of the heart play in pneumonia. He states that all his fatal cases presented some heart change. There was either fatty or pigmentary degeneration, the lesion being generally more advanced in the right than in the left ventricle. He condemns the expectant treatment. Although the tendency of a pneumonia is to a cure, still in great measure the result depends entirely on the resisting power of the patient. In treating a case of pneumonia, we endeavor to do two things: (1) to minimize the effects of the disease, and (2) to increase the resisting power which the patient is possessed with.

In speaking of blood-letting as a means of fulfilling the first indication, and thereby preventing that acute fatty cardiac degeneration which is the great factor in bringing about a fatal issue, Picot says that he always uses this means of lowering the blood-pressure in previously healthy adults. When, however, his patient is either old or young, or affected with any cachexia, he avoids it. He considers that cupping is a valuable therapeutic agent in pneumonia. He relies principally on digitalis, alcohol and quinine. Pneumonia of the apices, he considers, happens only in the debilitated and cachetic, and gives alcohol and quinine freely. If the resolution of the hepatized parts is delayed, he considers blistering a valuable means of promoting it. He only mentions tartar emetic to condemn it. In short, the following are Picot's conclusions:—*No* expectancy, *no* tartar emetic, *no* bleeding, except in robust subjects and in cases of urgent dyspnoea from an over-burdened right heart. In the beginning, digitalis and cupping; later,

alcohol, quinine and digitalis. Blistering if necessary.

The treatment of Pneumonia by alcohol.—Dr. Alix, senior physician to the military hospital at Toulouse, compares the treatment of pneumonia during several years at this hospital. During 1875 and the three following years, there was under treatment in this hospital, 230 cases of pneumonia. Of this number 20 died, being a death rate of 8.9 per 100. The treatment pursued in these cases was the ordinary one, without stimulants. In 1879 and two following years, 75 cases were admitted and treated by alcohol alone, without a fatal result. During the same years there was admitted into other military hospitals, from the same corps d'armée, 195 cases of pneumonia. Of this number 15 died, being a death rate of 7.3 per 100. Alix considers that this difference is in a great measure due to the treatment, for the soldiers were recruited in the same district and were under the same hygienic conditions. In severe cases and double pneumonia, digitalis is given in moderate doses at the commencement of the disease, in addition to the alcohol. The object in giving digitalis at the beginning appears to have been with the view of reducing the temperature, rather than of acting as a tonic to the heart. In considering the value of this treatment, it should be remembered that the patients are men from 20 to 25 years of age, and they are admitted into hospital very early in the disease. It cannot be expected that any civil hospital could present such returns.

The treatment of Pneumonia by the employment of the wet sheet.—Dr. Austin Flint gives the details of four cases of pneumonia successfully treated by the application of cold. The cases were picked ones, the patients being robust and no complications existing. The directions were to employ the wet sheet whenever the axillary temperature exceeded 103° Fahr. "The patients were wrapped in a sheet saturated with water at a temperature of about 80° Fahr., the bed being protected by an india-rubber covering. Sprinkling with water of about the same temperature was repeated every fifteen or twenty minutes. If the patient complained of chilliness, he was covered with a light woolen blanket, which was removed when the chilly sensation disappeared. The patient remained in the sheet until the temperature in the mouth fell to 102° or lower, care being taken to

watch the pulse and other symptoms. When the temperature was reduced, the wet sheet was removed and resumed if the temperature again exceeded 103° Fahr."

Flint in speaking of these cases said, "they certainly show that in cases like those which were selected, the treatment is not hurtful. More than this, they render probable the inference that the disease was controlled and brought speedily to a favorable termination by the treatment. They also go to show that the disease is essentially a fever, and that treatment is to be directed to it as such, and not as a purely local pulmonary affection. It remains to be determined by further observations, how often and to what extent this method of treatment has a curative efficacy. It is also an important object of clinical study, to ascertain the circumstances which render the treatment applicable to cases of pneumonic fever, and on the other hand, the circumstances which may contra-indicate its employment in this disease."

A NEW BLOOD-CORPUSCLE.

According to Bizzozero, if the circulating blood in the small vessels of the mesentery of chloralized rabbits or guinea-pigs is observed under a high power, there will be seen besides the ordinary red and white cells, a third form of corpuscle, which is colorless, round or oval, and from one-half to one-third the size of the red corpuscle. Bizzozero says that it is owing (1) to their want of color and translucency, that they have hitherto escaped the notice of observers. (2) They are less numerous than the red and less visible than the white corpuscle. (3) Owing to the great difficulty of observing the circulating blood in the small vessels of the warm-blooded animals. They can be seen also in freshly-drawn blood, for the most part aggregated around the white corpuscles, or immediately under the cover-glass to which they adhere. They soon become granular and give rise to what is called the granule masses. Through appropriate reagents, their form can be preserved. A solution of salt colored with methyl-violet, has this property. The best method of examining them in the human subject, is to place a drop of the above colored solution over the puncture and mixing the drop of blood thoroughly with it. Owing to their typical forms, it is very unlikely they are derived from the red corpuscles.

The colorless corpuscles contain no ingredients from which they could be derived. After bleeding, and in many diseased conditions, they are increased in number. They play an important part in the formation of thrombi and the coagulation of the blood. They form the principal part of white clots in mammalia. It is probable that they play the *role* in the coagulation of the blood which has been attributed by Mantegazza and Schmidt to the white corpuscles, because the latter are few in number in the circulating blood, and their destruction was never observed by Bizzozero, provided the blood was mixed with a saline solution. Again, the time at which coagulation sets in, corresponds very closely to the time that these new corpuscles undergo degeneration. The fluids which retard or prevent coagulation—as solutions of carbonate of soda and sulphate of magnesia—have the same action in preventing the granular degeneration of these corpuscles. The indifferent solution of salt does not preserve them, but one to which the methyl-violet has been added does.

From this evidence it appears as highly probable that the formation of fibrine takes place, under the direct influence of these corpuscles. To them Bizzozero gives the name of "Blutplättchen."

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ARSENICAL POISONING.

BY A. C. BOWERMAN, M.B., BLOOMFIELD, ONT.*

Mr. President and Gentlemen,—In calling your attention to the subject of "Arsenical Poisoning," and in presenting notes of one or two cases that have fallen under my own observation, it has not been my object to offer any original suggestions of a therapeutic value, or to point out any new diagnostic signs by which this grave condition may be recognized. I desire briefly to notice some of the chief sources through which arsenic is disseminated, to show you that poisoning by this metal is of more frequent occurrence than is suspected; and to urge the advisability of precautionary measures to prevent the distribution of this and every other poisonous material without the necessary warning to the intending purchaser.

In considering the wholesale use to which this agent is put in the arts and manufactures, it is a matter of considerable surprise that its deleterious influences are not more widely recognized and better understood. Perhaps indeed if this subject received the attention which I think its gravity demands, many of those distressing affections which now pass under the head of dyspepsia, catarrhal attacks, general malaise and debility, would be recognized as produced by contact with articles saturated with arsenical pigments, or from breathing an atmosphere laden with microscopical particles of this poison in the form of dust. It has been said that "the special province of the physician is to diagnose disease," and the cases to which I refer are of a nature requiring professional observation for their detection. Once having recognized them and their origin, we can have little difficulty in removing them and arresting the progress of their pernicious influence. You must not understand me to mean that every apparently unaccount-

able ailment is the result of contamination with this noxious metal; but once let us fully realize what arsenic may do, and what it has every opportunity and encouragement for doing, and I am convinced we will scan more closely and study more diligently many perplexing cases that now baffle both our diagnostic and therapeutic skill.

I am well aware that arsenic ranks high as a medicinal agent, and has long been held in good repute and been largely administered by the profession; but I understand it is lately becoming an article almost indispensable to the ladies' toilet. I have the best authority for saying that in the administration of arsenical preparations much depends on the idiosyncrasies of the individual, which differ greatly in different persons. These facts, says Bartholow, should not be forgotten in prescribing strictly medicinal doses. Now if so much care is required on the part of persons educated in the use of this agent, what must be the danger those persons expose themselves to, who prescribe this article for their own indiscriminate use, either internally or as a cosmetic externally, and are ignorant alike of its virtues and its virulence?

It is well known that the wilfully suicidal subject is protected and prevented from inflicting self-injury; the would-be murderer is lodged in safe keeping when his propensities are discovered; yet by a species of passive mental amaurosis on the part of the legislative authorities, the greatest possible encouragement is extended to those who expose the element of disease among our scattered and unsuspecting populace. The truth of this assertion will be plain when I state that the most common channel through which arsenic finds a ready entrance into every household is through the employment of wall-papers, calicoes, and other domestic fabrics, which are very frequently coloured with arsenical pigments. Among other articles which are coloured with this metal, according to the authority of Mr. Hogg, of London, I may mention chintz, silks, muslins, ribbons, stockings, gloves, artificial flowers, American cloths, lamp-shades, candles, playing and trade cards, ornamental boxes and wrappers, children's toys, and even sweetmeats. French chalk has been taken in mistake for prepared chalk, and this same French chalk was shown to contain 40 per cent of arsenic. According to the same authority "the almost universal use of poisonous pigments in the arts and man-

*Read before the Quinte and Cataraqui Medical Association, February 1st, 1882.

ufactures is known to be productive of a two-fold noxious influence; first on the work-people employed in their manufacture, and secondly on a very much larger number of persons who purchase them, and being quite ignorant of their nature, adorn and surround themselves and their homes with the elements of disease. Now if this be true, while we are purifying our walls and writing elaborate treatises on "drainage and ventilation"; while we are spending hundreds upon the construction of elegant and effective traps against sewer-gas, would it not be praiseworthy if our attention were likewise directed toward securing for our atmosphere an equal purity and immunity from poisonous contamination from other not less deleterious channels?

It has been said, and sung too, that "The old Oaken Bucket" of Eliza Cook fame, was no more than a pestilential, germ-producing old relic, more to be condemned than venerated because it impregnated the water with vegetative organisms; yet who ever thinks upon entering an elegantly furnished room that perhaps a more subtle poison permeates every cubic foot of the atmosphere of that apartment than all the bacteria the old bucket ever grew? Mr. Hogg in speaking of the separation and diffusion of arsenic into the air of a room the walls of which are hung with arsenical paper, remarks that "it may be thought that the quantity given off is too small to produce symptoms of poisoning. But this, he adds, is a hasty conclusion to arrive at, for on analysis, Dr. Alferd Taylor found that from each square foot of an arsenical paper examined by him, he was able to produce from 13 to 17 grains of arsenic; and from certain papers printed with a peculiar pigment he obtained as much as fifty-nine per cent of arsenious acid. According to the same authority, arsenic finds its way into almost all papers independent of colour, and in this way "the size used for fixing the pigment on the paper is very prone to decomposition, to prevent which makers introduce arsenic. Mr. Henry Carr, of London, likewise quoting from Dr. Taylor, says: "The pigment of arsenicated wall-papers contains a large proportion of arsenic, and from some of these papers in the unglazed state, the noxious material may be easily scraped or removed by slight friction; thus arsenic is liable to be distributed through the air of a room in a state of fine dust." He further adds that Dr.

Taylor was able to detect the presence of this poisonous dust on books, picture-frames, furniture, and projecting cornices of rooms thus furnished. One gentleman who had his library hung with arsenicated wall-paper suffered from symptoms of arsenical poisoning which came on after he had been occupied in dusting his books and on examination a well-marked quantity of arsenic was found in the dust.

As I stated at the outset, I have no intention of offering any remarks relative to the remedial value of arsenic, on the contrary I shall feel my efforts well repaid if I am able to interest you with some of the abuses of this article. The following symptoms obtain from exposure to poisoning by arsenical dust. The earliest indications of the absorption of this poison, most frequently observed, is an excessive irritation of the whole of the mucous tract and which is generally referred to a catarrhal attack. Improvement following remedial measures are temporary. More frequently as the nasal irritation subsides, a feeling of faintness, headache, and great prostration ensues, and the patient who tries not to think himself very ill is obliged to lay up. In other cases the first symptoms are dyspepsia, stomach-derangements and cramp referred to "bilious attacks." Diarrhoea may supervene upon sleeping in a room newly papered; while headache, sore throat, smarting and running of the eyes will supervene upon awaking from this unrefreshing slumber. Breathing the air of a room after the daily operation of dusting has been performed, produces an aggravated hay-fever, spasmodic asthma and bronchitis. In other instances fainting fits, vomiting, diarrhoea, nervous prostration, skin eruptions, conjunctivitis, dimness of sight, paralysis, etc., follow in regular sequence. All of the above and even many more distressing complaints result from wall-paper poisoning. And Mr. Hogg gives it as his opinion that the danger to public health is quite as great as that arising from sewer-gas or impure drinking water. Possibly no better proof of arsenical poisoning would be desired, than a rapid recovery from the symptoms upon removal of the supposed cause. A few well authenticated cases may suffice to illustrate the frequency of this condition.

"A member of the British Parliament suffered for months with a painful eruption of the feet, which confined him to his couch. Abandoning his

fashionable socks, he quickly recovered. Several Californian miners actually died from wearing boots lined with bright green flannel the colouring matter being Scheele's green. An otherwise healthy tradesman suffered from wearing a bright maroon flannel next his skin. Poisoning has frequently occurred from wearing paper collars, coloured calico shirts, gloves, coat-sleeves and hat-linings. A lady suffered from a painful skin-disease from carrying around a bright yellow purse, whilst another suffered from the dye which came off the black crape dress she was wearing. Several members of a family were made severely ill by the chintz window curtains and bed-furniture of the room they occupied. Another family were poisoned by green venetian blinds. A lady suffered many weeks from a troublesome eruption of the scalp from wearing artificial flowers in her cap. Illness in children has been caused by the cloth lining of their perambulators. Eye diseases have been produced by green shades to the gas lights used in composing rooms. Distemper colours on office walls have injured the health of clerks. The daughter of an official in high life in Vienna, recently wore several times a superb dress of dark green material, trimmed with wreaths of leaves in another and lighter shade of green. During the season the beautiful complexion of the young lady underwent a sudden change, and was ruined by a painful and offensive eruption. After a time her physician, baffled by the symptoms, thought of the dress, had it subjected to a chemical examination and found enough in the colouring to produce all the mischief.

Prof. Roscoe, in his elementary chemistry, says: "All the soluble arsenites are dreadfully poisonous. Alkaline arsenites are soluble in water, and sodium arsenite is used largely in calico printing." This then may be another fruitful source of contact with this metal, both in the wearing and the washing of calicoes which are so widely used. He likewise says: "The employment of arsenical wall-papers is much to be deprecated; still more is the insoluble arsenical green for colouring light cotton fabrics such as gauze, muslin or calico to be condemned, as the colour is merely pasted on with size, and rubs off with the slightest friction." It may be information to some of you to know that confectionery-chocolates, gelatines, etc., are very frequently coloured with arsenite of copper. A mistaken impression prevails that green papers and

fabrics alone are dangerous. The fallacy of this notion has been shown on examination of blue, mauve, red, brown, and even white papers, which were found to be arsenical.

Another class of poisonous dyes has also been added with the introduction of aniline colours, affecting more particularly articles of dress. Arsenic is likewise employed in the manufacture of both aniline and indigo dyes, and is present in such a variety of disguises as to render its detection by the public quite out of the question. Aniline dyes are poisonous of themselves, regardless of the arsenic they may or may not contain. Aside from the list of quoted cases and their relative causes, we are all well aware of the extensive use to which arsenite of copper has lately been put in the extermination of the Colorado beetle, the tomato and the currant worm, to say nothing of the danger run by those who apply this substance either in powder or solution. Are there not a thousand chances in which valuable lives may be carelessly sacrificed through partaking of garden fruits fresh from the bushes, thus diligently medicated? I do not mean to say that gardeners are careful to dust or sprinkle the fruit alone. It is the leaf only that is attacked by the caterpillar, and it is the leaf that is aimed at with the exterminator, but I think you would find it a tedious process to do justice to the leaf and avoid the fruit. Gardeners might do well to suspend notices to their bushes warning the trespassing public that their inviting fruits are both seductive and unsafe; but it must not be forgotten that the incautious and unwary child is the victim most likely to be caught in this unsuspected trap. Perhaps it might be just as wholesome to eat a caterpillar now and then, as to preserve the fruit at the expense of one's own or another's life.

(To be continued.)

LACERATION OF THE PERINEUM AND SPHINCTER ANI COMPLICATED BY A RECTO-VAGINAL FISTULA.

BY J. E. BROUSE, M.D., BROCKVILLE, ONT.

On the 15th of November last I received a note from Dr. Hanna of Lansdown, asking me if I would go there and operate on a lady, who lived three miles from the village, for restoration of a completely ruptured perineum. He stated that she had been confined only six weeks previous of her

second child, and that the accident occurred under the care of another physician nearly three years before in her first labor. Without obtaining any more particulars I agreed with her friends to operate, and went to see her on the 26th of November, prepared to do so if there was a reasonable prospect of success, and the woman properly prepared. But when I came to examine the state of the parts and saw the extent of the lesion, I regretted my promise, and were it not for the anxiety of the woman to obtain relief, twice the fee agreed on would not have induced me to touch the case, as I deemed success very problematical. During the twenty-one years of my professional life it has been my lot to see many cases of torn perineum, not only in private practice, but in the New York State Hospital for women, where I saw several bad cases operated on (not always successfully) but never had I met with one in which the original injury was so extensive as in the one I am about to describe. The history is briefly this: June 22nd, 1878, pains began at 6 a.m. very light until 1 p.m. when they became more regular and strong. Membranes ruptured at 2 p.m., from that time until 7 the pains were quite strong. Between 7 and 8 they were feeble with long intervals. The physician in attendance applied the forceps and the child was born in a few minutes. The next day the doctor put in three sutures leaving them in fifteen days, at the end of which time no union had occurred. Ever since then she has had no control of the bowel, both flatus and fæces passing in spite of her every effort. The fæces also pass into the vagina, obliging her to wash out the part frequently. Although only 23 years old her life has become a very burden, and rather than continue an object of disgust to herself, she is willing to submit to any operation that will afford the slightest prospect of relief.

Placing her on a table in good position before the window, I saw a widely gaping cavity into which could be put an ordinary sized goose egg, without stretching the parts in the least. The perineum was entirely wiped out of existence, the sphincter ani torn through and lying at the lower or posterior margin of the anus (which was open) with its inner fibres contracted and the ends marked by a distinct pit on either side. A band of skin and mucous membrane one-eighth of an inch in diameter had united in front of the anus thus

converting what had originally been a rent into a recto-vaginal fistula of over an inch in extent. On passing my left index finger into the rectum and lifting up the posterior vaginal wall, a cicatrix, at the junction of the left lateral with the posterior wall, fully three inches long and extending nearly into the cul de sac, was discovered. The original rent had been through both the vaginal and rectal tissues and in uniting had bound the parts so tightly down that it was almost impossible to raise them sufficiently to get a good view. In order to have the patient in as good a condition as practicable I deferred the operation for ten days, in the meantime ordering such diet as would, in the process of digestion, leave the least debris, and giving instruction to have her bowels freely opened by cathartic pills each day until the ninth when an opiate was to be given so as to lock them up.

On the 6th of December, hearing from Dr. Hanna that the patient was ready, I went up, accompanied by my friend Dr. Vaux, who kindly offered to assist, and operated. I first washed out the rectum with carbolized warm water, but the opiate not having had the desired effect nearly an hour was consumed before the water returned clear. Dr. Lane of Mallorytown gave the anæsthetic, using Squibbs ether, while Drs. Hanna and Vaux kept the parts on the stretch and did the sponging. First marking the points on the posterior wall of the vagina and on either labium to which the denudation was to extend, the operation was begun by picking up the skin with a tenaculum at the left extremity of the sphincter on a line with the posterior margin of the anus and freshening the end of the muscle with the scissors. Then a narrow strip of mucous membrane was denuded completely around the fistula (which was converted into a rent by dividing the narrow band at its lower margin) and down the right side to the other extremity of the muscle. In this manner strip after strip of mucous membrane was removed from the side and posterior walls of the vagina, the greatest difficulty being experienced in getting at the parts bound down by the cicatrix, and it was only by exercising patience that it could be accomplished. To add to the trouble the bowels, notwithstanding the opiate, kept moving every eight or ten minutes during the whole time, occasioning a great deal of delay in cleansing. Having reached the points marking the limit of denudation, the first suture

was put in by entering an ordinary two inch needle, threaded with silk to which a silver wire was attached, below the sphincter close to the left side of the anus, and carrying it up in the cellular tissue to a point one-fourth of an inch above the limit of the rent, then around it and down the right side to a point exactly opposite that of entrance. The second suture was entered on the same plane, catching the end of the muscle and following a course parallel to the first and one half inch higher up. The third passed directly across the upper margin of the anus and under the first two so as the more effectually to bind the muscle in its place, when brought into position. The fourth, fifth and sixth sutures were entered about half an inch from the edge of the left labium, passed back through the tissue of the lateral wall, then through the tissue of posterior wall in front of the rectum and out through the right wall to a point opposite that of entrance. The sutures were about half an inch apart.



By taking an end of wire No. 1 in either hand and pulling, at the same time pushing up the sphincter with the index fingers, the muscle was made to encircle the anus and was secured by a couple of twists of the wire. Suture No. 2 brought the outer fibres of the severed muscle in contact. No. 3 was put in at the suggestion of Dr. Emmet, to whom I had shown a rough sketch of the parts when in New York the previous week, and I have no doubt that it added materially to the success of the operation by effectually keeping the muscle in position. Nos. 4, 5 and 6 brought the sides and posterior wall in contact, thus completely restoring the perineum. In twisting the sutures care was taken to

do no more than bring the parts in contact so as to lessen the danger of cutting through or producing strangulation when swelling occurred. The sutures were left three inches long and secured together by a piece of rubber tubing over the ends and wrapped with wire. All blood stains were now washed away, the thighs tied together, a soft pad being placed between the knees, and the patient put to bed. The operation lasted one hour and thirty minutes, but, had it not been for the trouble given by the old cicatrix and the continued action of the bowels, it would have been done in less than half the time. An opiate was given to confine the bowels, and instructions left for a daily dose until the sixth day when an enema of warm oil was to be administered. Dr. Hanna in the meantime attending to the bladder and washing out the vagina. The same diet was continued as before the operation. The bowels, unmanageable all through, operated on the night of the fifth day, before Dr. Hanna gave the enema, and caused great pain, but did no further harm. Dec. 14th I removed the sutures and found the parts united. She was kept in bed with her thighs tied for ten days longer, when she was allowed to get up. I have not seen her since removing the stitches, but the following extracts from letters by Dr. Hanna will show her condition :

LANSDOWN, Dec. 13th, 1881.

DEAR DOCTOR,—I drove up to see Mrs. R— Friday the 16th, and after a careful examination of the parts I am of the opinion that there is not union of the sphincter ani. I hope I am mistaken, but my opinion was corroborated by yesterday's examination. There is first class union of the perineum proper, and by a digital examination in the vagina, it (the perineum) seems to be perfect in extent and symmetry. However she claims to have good control of the bowel now, and as the passage of the *fæces* into the vagina was her chief trouble, which will now be obviated, I have no doubt but she will feel the operation a success even if my idea be correct.

Yours truly,

F. HANNA.

In my reply to Dr. Hanna I said that he must be mistaken, for if there was no union of the sphincter there could be no control over the bowel. January 4th, 1882, Dr. Hanna wrote as follows : "In reference to Mrs. R— I am pleased to inform

you that the condition is not as I stated in my former letter. There is still a slight deficiency in the sphincter, but she says she has much better control over the bowels than formerly. When I examined her before, the defect seemed to be about $\frac{3}{4}$ of an inch, but since the swelling has disappeared the defect is only trifling and quite superficial. I think you can safely report the case as a genuine success. The family and she are thoroughly satisfied.

Yours truly, F. HANNA."

Thus has a young life been changed from a state of great misery to one of enjoyment by an operation, which, at the outset, seemed almost hopeless. It is such a success as this, occurring occasionally in the career of a medical man, that helps to cheer him when, only too often, cast down and discouraged by his failures and the unkind criticisms of those who make no allowance for any one but themselves.

Correspondence.

ELECTRICITY IN THE TREATMENT OF SPASMODIC DISEASES.

To the Editor of the CANADA LANCET.

SIR,—In a letter in the February number of the LANCET, Dr. Thos. W. Poole denies that electricity is a curative agent in spasmodic diseases, and gives, as ample evidence of the correctness of this position, a single quotation from Dr. J. Russell Reynolds' lectures on the "Clinical uses of Electricity." If Dr. Poole had continued his quotation to the end of the same paragraph, some hint would have been given of Dr. Reynolds' real estimate of the value of electricity in the treatment of spasmodic diseases, and a reply from me would have been almost superfluous. As, however, many of your readers may not possess a copy of Dr. Reynolds' admirable lectures, simple justice demands that his position on this subject should be fairly stated.

Under the heading of "General Remarks on the Clinical use of Electricity," Dr. Reynolds says, on p. 11, "There are other diseases which you cannot be said to cure, but which you may relieve by electricity. By its application you may, in many instances, again and again relieve pain; you may

in like manner relieve spasm; or you may slowly diminish and even ultimately remove paralysis." Again, on page 17, he says, "This (the continuous galvanic current) will do the following things: it will relieve spasm of certain kinds; it will relieve pain of certain kinds. A person may have a particular kind of headache; you pass a continuous current * * and in a few seconds the pain is gone. It will also remove some forms of tremor and of spasm."

Under the heading of "Clinical effects of Electricity on nerve and muscle," he says, on page 23 and page 24, "Electricity may put a nerve into action." * * "Its other effect is to diminish the activity of a nerve, when that activity is normal, or in excess." * * "To the electrification of muscles, similar statements will apply." * * "When, on the other hand, muscles are contracting preternaturally, exhibiting spasm, either tonic or clonic, you may reduce this action by the continuous current," etc.

Under the heading of "Therapeutical uses of Electricity," he says, on pages 62 and 63, "Secondly, electricity may reduce, or even annihilate, for a time, the action of a nerve or muscle." * * "It you have pain, over-action, or spasm—whether tonic or clonic—you may so use electricity as to diminish those conditions and bring nerve and muscle to their normal states." On page 64 he says, "There are * * hardness of a limb, * * actual rigidity, * * tremulousness of muscles, and lastly, clonic spasm." * * "These are all signs of an over-action, that may sometimes be reduced by electricity. Again, on page 66, he says, "Over-activity of a muscle or nerve, or vessel, may be reduced by the application of the continuous galvanic current." * * "Another form of electricity—faradization—may also be employed to reduce over-activity. If you find, for example, a man suffering from torticollis—spasmodic wry-neck—the sterno-cleido-mastoid and other muscles of one side acting most violently, and turning the head over to the opposite shoulder, you may stop that by passing through the sterno-cleido-mastoid muscle a galvanic current." "Another way in which you may reduce the over-action of a muscle, is by faradizing the antagonistic muscle. Suppose the flexors of the arm are contracted, as in some cases of 'late rigidity,' and you find it difficult to get the fingers open,—the best mode of overcoming that condition is to apply faradization, not to the mus-

cles affected, but to the other muscles, the extensors, so as to antagonize them. Again, in the case of torticollis, where a man's head goes jolting over to one side, you can reduce the over-action by putting the antagonistic muscle into action by faradization, and so pulling the head round into its proper position." "There is another point to which I will now call your attention (pages 79-81), and that is the condition of 'rigidity' in a limb in cerebral paralysis. It is common enough in old cases, and sometimes is met with in those that are quite recent. In the latter case I advise you not to use electricity, for you may do harm; in 'late rigidity' you may employ it without fear and with considerable advantage." * * "Sometimes in an early stage, a few applications of electricity will cure the rigidity and not only remove the tendency to cramp, but even bring back the proper contractility of the limb." * * "You may often call into action the extensors of a much weakened hand, by applying a moderate faradization with well wetted sponges to the back of the forearm; * * faradization is much better for this purpose than the battery (constant) current, although the latter may be used to assist the former by applying it, in a continuous form, to the rigid and over-acting muscles." * "You faradize extensors, and galvanize the flexors of the hand and fingers; and you may, if the rigidity has extended higher, adopt a similar plan with regard to the muscles of the forearm or the arm."

It is quite true that up to the date of the publication of these Clinical Lectures (1873), Dr. Reynolds had not been successful with electricity, in the treatment of torticollis, writer's cramp and histrionic spasm. He admits, however, that in this respect he has not been as successful as others; he says (page 102), "Others have been more successful, and I trust your experience will resemble theirs rather than my own. Since the first edition of these Lectures was published, my friend, Dr. Geo. V. Poore, has treated cases of writer's cramp and scrivener's palsy successfully, by a process peculiar to himself. Dr. Poore has found some muscles defective in irritability, and others over-irritable. The plan which he has adopted has been highly ingenious and useful, viz., the faradization of weakened muscles, and the application of a constant current to muscles disposed to spasm, together with the employment of rhythmic move-

ments of the limb, at the time of the latter application. (See the *Practitioner* for 1872-3). From my own knowledge of some cases which Dr. Poore has thus treated, I can speak with much confidence and hope as to the future of many forms of this disease, which had previously proved so intractable as to lead to the general expressions which I have used on the preceding page."

So much for the views of Dr. Reynolds in 1873. Whether they can be adduced as "proof" of the failure of electricity to relieve spasmodic diseases, as Dr. Poole would have us believe, or whether they rather favor Dr. Bartholow's statement, that "there is nothing more certain than the power of electricity to relieve spasm," I leave your readers to decide.

In addition to the above, and in view of the great practical importance of this question, it may be well to record the views of other authorities of recognized standing. A few brief quotations from Meyer,¹ Althaus,² Tibbitts,³ and Rockwell,⁴ must suffice however.

(Torticollis). "It is developed either in consequence of an asthenia (paralysis, atrophy) of the antagonists, * * in which case it is cured by the induced current being directed to the antagonists (see case 70); or it is caused, according to Remak, by a myelitis lateralis of the opposite side, * * and then it is treated successfully by removing the myelitis, through the constant current."—Meyer, page 360. "Electricity of high tension (the constant current) as a counter-irritant and induction currents methodically applied to the antagonists of the suffering muscles, have effected amelioration or cure."—Althaus, page 575. "From this treatment I have had good results in several cases of spasmodic wry-neck (torticollis); * * in these cases it is always well to combine with the charge (constant current) energetic faradization of the antagonists of the contracting muscles; and the same treatment may be followed with advantage in writer's cramp and analogous affections."—

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2. A Treatise on Medical Electricity, by Julius Althaus, M.D., M.R.C.P. Lond. American edition, 1873.
3. A Handbook of Medical Electricity, by Herbert Tibbitts, M.D., L.R.C.P. Lond. American edition, 1873.
4. Lectures on Electricity, by A. D. Rockwell, A.M., M.D., 1879.

Tibbitts, page 143. "M. Rosenthal cured with the constant current the following case (of torticollis): * * the passing of a constant current through the affected muscles caused immediately a freer motion of the head."—Meyer, page 372. "In its earlier stages, however, it may be cured by electrical treatment alone."—Rockwell, page 60.

(Writer's Cramp). "That form which depends upon an asthenia of the extensor muscles is best removed through their faradization, while the neuritis is cured by the use of the constant current."—Meyer, page 365. "As generally all other means fail to effect a cure in this troublesome complaint, I cannot too strongly recommend practitioners to resort at once to galvanization."—Althaus, page 575. "Rest is here imperative. If in the earlier stages this is taken, and the proper electrical treatment administered, the symptoms in many cases yield readily enough."—Rockwell, page 72.

Yours, etc.,

A. M. ROSEBRUGH, M.D.

Toronto, Feb. 17, '82.

ADVICE TO YOUNG PRACTITIONERS.

To the Editor of the CANADA LANCET.

SIR,—The following letter of advice from an old practitioner to the prospective graduate in medicine may interest some of the readers of the LANCET.

Yours, etc., J. W. H.

DEAR PUPIL,—It is, and has always seemed, very strange that there is not instituted a special series of lectures for the senior students of the medical schools—such lectures not to be so much directed to any particular theme, but to a consideration of ethics, in other words, the relationship of medical men to each other and to the public—to a consideration of the young practitioner's duties as a medical man and as a citizen. For example: In the first instance he might be instructed in the manner of charging for his services, and in collecting the same,—how to appear personally, what to assume in his daily life, what company he should associate with—in fact, what would entitle him to be considered a member of our most honorable fraternity, and what to avoid if he wishes not to disgrace it and himself. The reader of this might say that any one knows enough for that. I partly admit it; but you will agree with me when

I say that lectures directed to the subject just before the young medico is given the long sought for honors of his degree, would be the means of directing him aright at the outset, and give a more uniform degree of dignity, than if it were left for his manhood to adopt. I also deem it the duty of our colleges to instruct students in regard to such medicines, surgical instruments and other accessories as they may need in establishing themselves in practice. I can look back some thirteen years to my commencement and see wherein I made some expenses uncalled for, associated with those whose influence and society were derogatory to myself and profession, observing not that gentlemanly seclusion which, to-day, I fully acknowledge as salutary, to a considerable extent, in every profession. As to expenses, I might refer to the needless one of having one's professional card in a newspaper. It has always seemed to me unprofessional and decidedly useless, and yet I have actually thrown—yes, tossed to the winds—some forty or fifty dollars in such advertising. I am pleased to notice that the practice of advertising is getting unpopular among the older and better class of physicians. Young practitioner, put your foot on this evil. I have also been harrassed (this word does not half express my meaning) by the travelling literary gentlemen and drug agents—the former to draw my attention to some late medical work, journal, instrument or appliance; the latter to solicit an order for some new pharmaceutical preparations. The book agent is a bore. Recently a member of this order entered my office, threw down from his arms a great roll, which, when opened, proved to be an atlas of anatomy. After the grand opening and commencement of his stereotyped appeal, I directed his attention to a combination of letters—large type, in frame—which for those of his order I keep constantly in place—NO. Reader, just adopt my simple plan. Your course will have furnished you with what works you need in practice. The United States Dispensatory is a convenient work, and from it you can actually learn more of medicine than any work I know of. I would advise you to subscribe for "Wood's Medical Library," published yearly; yet in so doing, I must admit that two-thirds of the works are useful as reference only, and make your library larger. I maintain that, although the "library" is cheap, if the money for it was ex

HYDROLEINE OR HYDRATED OIL AS A THERAPEUTIC AGENT IN WASTING DISEASES.

By W. H. BENTLEY, M.D., LL.D.,
VALLEY OAK, KY.

From *New Remedies*, September, 1881.

In October, 1880, I read an advertisement of Hydroleine in some medical journal. The formula being given, I was somewhat favorably impressed, and procured two pamphlets: One on "The Digestion and Assimilation of Fats in the Human Body," and the other on "The Effects of Hydrated Oil in Consumption and Wasting Diseases." They are ably written, and afforded an interesting study. Their doctrines are so reasonable, that I got up faith enough to have my druggist order a sufficient supply to thoroughly test the merits of the preparation.

I was ready to catch at anything to take the place of cod-liver oil. In my hands it has proved an utter and abominable failure in ninety-five per cent. of all my cases in which I have prescribed it since I have been engaged in country practice, and it never benefitted more than forty per cent. of my city patients.

The inland people, who seldom eat fish, can rarely digest cod-liver oil. Almost every week I am consulted by some victim of the *cod oil mania*, who has swallowed the contents of from one to twenty-five bottles, and who has been growing leaner, paler and weaker all the while, until from a state of only slight indisposition, these patients have become mere "living skeletons." Nearly all complain of rancid eructations, and an unbearable fishy taste in their mouth, from one dose to another. They not only fail to digest the cod oil, but this failure overloads the digestive organs to such an extent that digestion and assimilation of all food becomes an impossibility, the patient languishes and pines and finally dies of *literal starvation*. In the comparatively small number with whom I have found cod-liver oil to agree, it has proved very gratifying in its results. In my practice, by far the largest number receiving benefit from it have been children. Those who have, previous to their illness, been accustomed, to some extent, to a "fish diet," will be more likely to digest the oil, and more notably so in cold climates. Still the innumerable efforts that have been made in the shape of "pure cod-liver oil," "palatable cod-liver oil," "cod-liver oil with pepsin," "cod-liver oil with pancreatin," "cod-liver oil emulsions," etc., and so on, *ad infinitum*, attest the fact that the great *desideratum* after all is to render cod-liver oil capable of retention by the stomach, and digestible when it is retained.

As Hydroleine is partially digested oil, and this partial digestion is brought about by a combination of factors suggested by actual physiological experiments, these facts commend it to my confidence, and a trial of the preparation in seven typical cases convinces me that it possesses

a high degree of merit, and I feel that it is a duty incumbent upon me to call the attention of my medical brethren to the subject.

The first case in which I prescribed it was that of a married lady 28 years of age, a blonde, and the mother of four children, the eldest 9 and the youngest 1 year old. From the birth of this last child she dated her illness, for she made a tardy convalescence, remaining unable to walk for a month. Soon after she began to grow weaker, and soon resumed her bed, which she had not left to any extent since, not at any time being able to sit up longer than fifteen or twenty minutes. During all this time she was under charge of a skillful physician. He had tried many remedies to check the rapid emaciation; among these were several different brands of malt extract, cod-liver oil, and various mixtures of the oil. None of the oils and their mixtures agreed with her. In March, I was called and prescribed Hydroleine, a bottle of which I delivered at the time, directing her to commence with teaspoonful doses, to be gradually increased to twice the amount. It agreed with her finely, and by the time the first bottle was used she was greatly improved. She procured and used two additional bottles, and, at this writing, June 15th, is considered well.

The above case was one of general and persisting emaciation, unaccompanied by any cough or perceptible thoracic trouble. The ensuing case was one of diagnosed

TUBERCULAR PHTHISIS.

The patient a married lady, *æt.* 32, had been married about 14 years, and was the mother of six children, the youngest two years of age. Several of her sisters had died of the above mentioned disease. Her medical adviser prescribed cod-liver oil, and she had taken a full dozen bottles with plenty of whiskey. The oil had not been digested, although it had been retained by the stomach. Her cough had grown constantly worse, and she grew rapidly weaker, week by week. I prescribed Hydroleine for her, and she commenced to take it in April, about the 15th. It agreed with her finely. She rapidly gained weight and strength, her cough was relieved and has now nearly ceased. She has used nearly four bottles, and continues to use it, though apparently well.

I have prescribed it in three other cases, in two of which the results have been equally gratifying, but in the other case it produced nausea and greasy eructations.

From these trials I am led to think quite favorably of the hydrated oil, and I am led to believe that although it may not agree with all, it will be found of great and permanent benefit to a very large per cent. of consumption and other "wasting" diseases, and that it is destined, at no distant day, to very largely supplant the undigested oils.

HAZEN MORSE, 57 Front Street East,
TORONTO,
SOLE AGENT FOR CANADA.

TUBERCULOSIS RESULTING FROM DEFICIENT NUTRITION.

(From *The Medical Record*, New York.)

Various as are the opinions regarding the treatment of consumption, all writers concur in the belief that whatever measure is adopted, the strength of the patient must be husbanded with the greatest care, and the most efficient means employed to supply the system with that element which the symptoms indicate as being required to keep up the vitality while such course of treatment is being pursued as is considered suitable. The most striking indication of the presence of this dreadful disease is rapid loss of weight. The patient himself, prone as he is to disregard, premonitory warnings of this insidious malady, cannot but observe an extraordinary difference in the appearance of his form, as first the face, then the trunk and, lastly, the limbs become soft and flabby, and the once well-fitting garments hang loosely about him, his flesh seeming to melt away, so rapid is the change.

EMACIATION.

A natural course of reasoning as to the cause and effect of emaciation under these circumstances has developed the fact that the abnormal consumption of the tissues is the result of nature's efforts to supply the waste, through the blood from the fatty tissues of the body with the requisite amount of material whose oxidation is the source of heat and nerve force, the natural supply, through the assimilation of food, having failed in consequence of an unhealthy condition of the pancreatic secretions causing an insufficient supply of chyle, or a failure on the part of the lacteal tubes, through fever or some cause, to absorb sufficient nutriment.

TUBERCLE.

As the attack upon the tissues of the body progresses, not only fatty tissue is absorbed into the circulation from unnatural sources, causing loss of strength, but particles of albuminoid tissue are carried by the blood and being deposited in channels where the system has no provision for throwing them off, form desquamations centres of disease which, in their turn, throw off infectious matter to be absorbed into the general system. The immense extent of delicate mucous surface in the respiratory passages of the lungs exposed to the contents of the minute blood-vessels which permeate their entire texture, offers the greatest and most susceptible field for the reposition of a large amount of this effete albuminoid tissue. This deposit forms the tubercle whose establishment in the lung is the beginning of that train of circumstances which characterizes the progress of that fatal malady—consumption. Thus it is seen that tuberculosis is either due to the defective action of the pancreatic juice on the fatty elements of the food, or to the non-absorption of the chyle into the blood.

ASSIMILATION OF FATS.

Fatty matter, when introduced to the stomach, undergoes little change by the action of the gastric juice, but passes, together with

the chyme or digested fibrinous and albuminous matter, to the duodenum, where it comes into contact with the pancreatic juice, and is thereby transformed into chyle, which is a very delicate saponaceous emulsion or suspension of the oleaginous portion of fat. It is when in *this condition only* that fat is capable of absorption by the lacteals, thence passing directly to the venous blood which is supplied to the lungs through the right cavity of the heart; the lungs then absorb from that blood the hydrocarbons or fatty portion, and return the nitrogenous portion to the heart, to form the globulin of arterial blood before passing into the circulation.

This function of partly saponifying and partly emulsifying fats is enjoyed by no other secretion of the alimentary canal but the pancreatic juice, unless we take into consideration the action of the saliva, which is somewhat of that nature; but as the food in most instances is subjected to the action of the saliva in the mouth for so short a time, this feature in the economy is almost inappreciable.

TREATMENT.

The close relations of non-assimilations of the fatty elements of food to wasting diseases, and especially to consumption, is understood, and reason would indicate that if by any artificial means the absorption of fat could be assisted by supplying, as chyle, a proper amount of oleaginous or fatty matter, a nutritive progress would be established which would modify the unhealthy action of the pancreas, and not only relieve the body from the depleting effects of the disorder, but afford an opportunity for treatment and recovery. With the assistance of a thorough knowledge of the chemical process which fat undergoes from the time of its introduction into the duodenum to absorption, a preparation has been introduced and extensively used by the profession in England with highly successful results, indicated by the very flattering commendations of it from many physicians who, having given the treatment of pulmonary disorders their special attention, are peculiarly qualified to attest its efficacy.

HYDROLEINE.

This preparation, to which the distinctive name of hydroleine (hydrated oil) has been given, is not a simple emulsion of cod-liver oil, but a permanent and perfect saponaceous emulsion of oil, in combination with pancreatin soluble in water, the saponification producing a cream-like preparation, possessing all the necessary qualities of chyle, including extreme delicacy and solubility, whereby a ready and perfect assimilation is afforded.

FORMULA OF HYDROLEINE.

Each dose of two teaspoonfuls, equal to 120 drops, contains:

Pure oil.....	80 m (drops)
Distilled water.....	35 "
Soluble pancreatin.....	5 grains.
Soda.....	½ "
Boric acid.....	¼ "
Hyochohic acid.....	1-20 "

DOSE.—Two teaspoonfuls alone, or mixed with twice the quantity of soft water, wine or whiskey, to be taken thrice daily with meals.

The use of the so-called emulsions of cod-liver oil during the extremely sensitive condition of the digestive organs always accompanying consumption does not usually afford beneficial results. Those of the profession in this country who have under their care cases of consumption, diabetes, chlorosis, Bright's disease, hysteria, and, in short, any disease where a loss of appetite is followed by a rapid breaking down of the tissues of the body in its effort to support the combustion supplying animal heat, are urged to give this preparation a trial. It is supplied by the agent for Canada, Hazen Morse, No 57 Front Street East, Toronto, who will forward literature relating to the subject upon application.

That many of the diseases from which mankind suffer during infant and adult life are caused by malnutrition, there can be no doubt; and the extent to which non-assimilation of the life-giving properties of food interferes with recovery from severe illness, baffling the best directed efforts of the physician, points the necessity for an agent or combination of agents sufficiently potent to replace the deficient principle and aid nature in renewing the degenerated tissues.

Realizing this need, the science of chemistry produced pepsine. Richard Tuson, F. C. S. Professor of Chemistry, London, England, in the *Lancet* Aug. 13, 1870, speaks of this remedy as follows: "Since the introduction of Corvisart and Boudault's poudre nutritive into medicine, in the year 1854, Pepsine, obtained from the stomach of the pig, calf or sheep, in a state of greater or less impurity has been extensively prescribed in Dyspepsia and certain other affections. According to the testimony of some authorities of high standing, long experience in the use of this agent fully justifies Corvisart's predictions relative to its therapeutic value, which were based on physiological reasoning.

There are other authorities who express doubts as to the efficacy of Pepsine. This difference of opinion undoubtedly arises from the circumstance that pharmacutists supply medical men with various preparations, all bearing the same specific name of Pepsine, but differing very considerably in their digestive powers and other qualities. In fact, I find those who speak favorably of its employment in the treatment of disease have prescribed that prepared by the best makers, while those who express a doubtful opinion have been in the habit of prescribing those varieties or makes, which the experiments of myself and others have proved to be practically without any digestive activity, *i. e.* worthless. Under these circumstances it is *absolutely* necessary for the practitioner to be certain of the *make* of Pepsine he uses. *Pure* Pepsine, thoroughly triturated with finely powered sugar of milk (saccharated pepsine) will undoubtedly produce the best results.

Experience in diseases of the stomach, dyspepsia, etc. has demonstrated in many cases, the lack of other agents required to promote a healthy digestion beside Pepsine, namely Pancreatine and Diastase or veg. Ptyalin. Pancreatine the active principle of the sweet-bread or pancreas possesses the wonderful power of emulsifying the fats and oils of food, rendering them easily assimilated by the system not affected by pepsine in the slightest degree. Diastase or veg Ptyalin, as obtained from malted barley in the *dry* extract of malt, represents the saliva, and has the remarkable property of converting the insoluble starchy portions of food into the soluble glucose, thus rendering the indigestible and innutritious article starch into the nutritive and easily assimilated food glucose.

The value of these different ingredients and the difficulty of procuring them of the right quality led Hazen Morse, 57 Front Street East, Toronto, to experiment with various combinations during seven years' employment in the manufacture of Pepsine on a large scale and with the assistance of several prominent physicians he was finally enabled to present to the profession the following formula.

Saccharated Pepsine.....	10 Grains.
" Pancreatine.....	5 "
Acid Lactophosphate of Lime	5 "
Exciccated Extract of Malt equal to one teaspoonful of Liquid Extract of Malt	10 "

Said formula has been registered at Ottawa under the distinctive name Maltopepsyn, thus giving the physician a guarantee of always procuring the same standard preparation and preventing their being imposed upon by imitations of inferior quality, and at the same time putting it at as low a figure (fifty cents for 1½ ozs.) as possible for such a formula to be compounded from the ingredients of the *best* possible manufacture.

Maltopepsyn has digestive power ten times greater than the best Pepsine in the market, as it digests Fibrin and Casein, emulsifies the fat of food taken into the stomach, thus rendering it assimilable, converts starch into glucose, in fact it combines all the agents that act upon food, from mastication to its conversion into chyle, digesting all aliment use by mankind while Pepsine acts only on plastic food. Maltopepsyn also combines with the above the nutritive qualities of Extract of Malt, and the brain and nerve strengthening powers of the Acid Phosphates.

It has been found that a free acid, like Hydrochloric, does not combine well with a Saccharated Mixture, and renders it liable to decomposition, I therefore do not use it in my formula. It can be easily prescribed in solution, (say 20 drops of acid to 4 ounces of water) one half-ounce with each dose, in cases where its use is indicated.

For infants, however, Maltopepsyn will be found to yield the most satisfactory results, and the acid should be dispensed with. The necessity for the absence of acid which would tend to produce harmful results, will be recognized, when it is considered that even the slight acidity of most cow's milk, when used as food for infants, is sufficient to disagree with them.

With regard to the proper time for its administration, as before or after taking of food, opinions vary, but reason would suggest that about half an hour before eating will afford the ferment a sufficient time to combine with the existing condition of the stomach, and produce the most natural effect upon the food.

OPINIONS OF MEDICAL MEN.

46 St. Joseph St., TORONTO, Aug. 19, 1881.

I have tried both Maltopapsyn and Hydroleine in a large number of cases and have found very great benefit from their use. Maltopapsyn is one of the best remedies of its kind that I have ever prescribed when artificial aid is required for digestion. Hydroleine I have found to be one of the best, if not *the* best of its class. It is readily taken, is easily assimilated, does not produce nausea or disgust, and nourishes the body to a very marked degree. In all wasting diseases I have found it to be most satisfactory. I would strongly recommend both of these preparations to my professional brethren.

JAS. H. RICHARDSON, M.D.,
M.R.C.S., England.

MONTREAL, Sept. 7, 1881.

Dear Sir.—I have given a very fair trial to your preparations Maltopapsyn and Hydroleine. I found Hydroleine invaluable in all wasting diseases, where cod liver oil and other tonics are generally employed, and especially in treating some cases of chronic diseases of the skin.

Maltopapsyn has been used successfully in two cases of Dyspepsia.

Yours truly,
GASPARD ARCHAMBAULT, M.D.,
Physician to the Hotel Dieu and Professor of
Dermatology at the Medical and Surgical
School.

MONTREAL, Sept. 12, 1881.

Dear Sir.—I think I have employed Hydroleine since its first introduction here, and it has given far more satisfaction in my hands than any other Cod Liver Oil preparation, in cases of emaciation with cough and threatened consumption its use has invariably been followed by benefit and in many cases results have been truly remarkable. Increase in weight, improved secretions and better spirits usually follows its proper administration. In chronic diarrhoea I have found it very serviceable and for many convalescents it is invaluable.

Yours truly, W. B. BURLAND, M.D.

MONTREAL, Sept. 28, 1881.

Dear Sir.—I have used Hydroleine very freely and find it a very good tonic in all wasting diseases, principally those of the pulmonary organs.

Yours truly,
P. G. MOUNT, M.D.

Physician to the Reformatory Jail, Montreal.

690 Dorchester Street, MONTREAL, Sep. 29, 1881.

Sir.—I have much pleasure in adding my own to the mass of testimony you have already acquired in favor of Hydroleine, with the results of which I have never been disappointed. Its administration has frequently been attended with an increase in the patient's weight far out of proportion to the quantity of oil taken.

Yours truly,
A. LAPHORN SMITH, M.D.
M.R.C.S., England, F.O.S. Lond.,
Physician Montreal Dispensary.

531 Wellington Street, MONTREAL, Sep. 19, 1881.

Dear Sir.—What I have seen of Hydroleine is certainly to its advantage. In the first place you do not, as is done to my knowledge in other preparations, endeavor to cover up deficiencies of the oil by adding strong aromatic oils to the mixture, and again, I consider the formula more likely to secure a finer emulsion by reducing the size of the globules than is possible under other methods.

Yours truly,
CASEY A. WOOD, M.D.

MONTREAL, Sept. 7, 1881.

Dear Sir.—I have much pleasure in testifying to the excellence of your Maltopapsyn in cases of indigestion and the diarrhoea and the vomiting of children. Beyond question it is the most successful remedy we possess in the above class of cases, particularly so in young children, doing away entirely with the very objectionable habit of administering very powerful astringents, including opium. Your preparation in these cases is prompt in its action and above all harmless.

Yours very truly,
JOHN T. FINNIE, M.D.

MONTREAL, Sept. 19, 1881.

Dear Sir.—Having occasion to prescribe Maltopapsyn often, it is with the greatest pleasure that I inform you of its entire satisfaction to the relief and cure of all those troubles which accompany dyspepsia, gastralgia, pyrosis and flatulency; it has also cured costiveness. In all these complaints I am well pleased with the use of this wonderful remedy.

Yours very truly,
J. C. DANSEREAU, M.D.

126 Bleury St., MONTREAL, Sept. 12, 1881.

Dear Sir.—I have used Maltopapsyn in a great number of cases with beneficial results and think that it is a very valuable preparation.

Yours truly,
R. A. KENNEDY, M.D.

NEW DURHAM, ONT., Oct. 1, 1881.

Dear Sir.—I prescribed Hydroleine to a patient afflicted with tuberculosis. She is wonderfully emaciated; nevertheless, from the use of the one bottle she has gained 1½ lbs., her cough has become less frequent, and she expressed a great desire to continue the use of the remedy. I write you for 4 (four) bottles to be sent immediately.

Yours very respectfully,
A. McCURDY, M.D.

UPPER BEDFORD, QUE., Sept. 28, 1881.

Dear Sir.—For the past 12 months I have used Hydroleine (Hydrated Oil) in *all* my cases presenting either a scrofulous or tubercular diathesis, and have found it answered better than any other preparation of cod liver oil. Notably with children (of all ages) do I find its *particular value*.

In suitable cases your Maltopapsyn has never failed me, and in certain cases of long standing dyspepsia, its use I found indispensable.

Yours truly,
DAVID A. HART, M.D.

pended for works one actually thinks, after due consideration, that he needs, it were better. Now, as to drug agents. Be careful of your orders, keep a copy for yourself, and watch the prices. You will find it also to your interest to get quotations from other drug houses. For several years I traded with a firm, and was kept constantly on my guard to keep even with them. If I had not carefully preserved my receipts, I find on looking over my books that I would have lost some seventy dollars. I was persuaded to give them another order—my last; I preserved a copy of it, and sent it to a firm not far distant to get their prices, and I was astonished to find on its return that by dealing with them I could have had the same goods for six dollars less. In purchasing drugs, I would suggest the following: Buy of the nearest wholesale druggist, keep receipts and a copy of your orders carefully; do not buy fluid extracts—make them yourself, for you can purchase for a few dollars the necessary apparatus to manufacture them. Fluid extracts are expensive to purchase and do not last longer than tinctures. Keep posted in regard to the drug market, but especially on staple drugs, and purchase a quantity when low. I have several other subjects to which I wish to draw your attention, and will write them up soon.

Yours, etc., OLD PRACTITIONER.

MEMORIAL TO THE LATE DR. ROLPH.

To the Editor of the CANADA LANCET.

SIR,—Your remarks in the February number of the CANADA LANCET anent a "Memorial to the late Dr. Rolph," were highly opportune and renewed in me a determination to ask the profession, through your journal, if something could not be done to commemorate the name of this great man. I have often thought it a lack of kindness (to say the least) on the part of the profession and especially the graduates of his school of medicine, to have allowed the matter to lay so long unattended to.

We certainly owe a great deal to the energy, determination, ability and scholarly attainments of the late Dr. Rolph, whose well stored mind and willing tongue were ever ready to advance the best interests of his chosen profession. But few of his confrères can be referred to who did so

much for its interest and advancement under so many difficulties and obstacles, and I think that we who have lived to see his great work prosper should commemorate his name as a mark of appreciation of his great labors.

What particular form the memorial should take will be a subject for future consideration by the profession. The first thing, perhaps, to be determined will be, What amount of money can be raised for this purpose? The form of the memorial can be gauged by the amount to be expended. A tablet, bust, or oil painting in the College of Physicians and Surgeons of Ontario would be very suitable, but I think a more public place could be found, where not only the visitors to the Hall would see it, but the public at large. Would not the Park or City Square be a better place? These are merely suggestions.

If the former pupils and friends of the late Dr. Rolph are prepared to move in this matter, I would respectfully suggest that a committee be appointed, and that the influence of the daily papers be also secured in behalf of the undertaking. In that event I think there would be little difficulty in raising a sufficient amount to meet the requirements. There are many outside of the profession who have a kindly recollection of his amiable qualities and who would be pleased to show it by contributions, but who, if only the columns of medical journals were devoted to the subject, might not become aware of the movement.

I am also aware that the subject of this letter had his faults and his enemies, but who among us has none? Let us, however, forget the faults and remember the good qualities, and praise the noble traits, for above all his faults his great abilities soared pre-eminently aloft. Hoping that these few fragmentary remarks may be of use in opening up the way to further action in the matter, and that more able brethren may take hold with us in our feeble efforts to do honor to the memory of this great man.

I remain, yours, etc.,

D. L. WALMSLEY.

Elmira, Feb. 20, '82.

BELLEVUE HOSPITAL Training School for Nurses gave degrees January 17th, to twenty-one nurses.

Reports of Societies.

HURON MEDICAL ASSOCIATION.

The annual meeting of the Huron Medical Association was held in Clinton on Tuesday, Jan. 10th, Dr. Sloan, of Blyth, President, in the chair.

The following members were present: Drs. Sloan, Holmes, Worthington, Hyndman, Bethune, Williams, Graham, Young, Taylor, Duncan, Mackid, Hurlburt, and Stewart.

Dr. W. J. R. Holmes, of Brussels, was appointed President, and Dr. Hurlburt, of Brucefield, Vice-President, for the ensuing year. Dr. Stewart, of Brucefield, was re-elected Secretary.

The Association decided to subscribe for one copy of the *Index Medicus*.

Dr. Mackid, of Lucknow, exhibited a married man, aged 43, farmer, who has been complaining for the last three years of severe periodical pains in various parts of his body. These pains, which are situated in his arms and legs, often last for hours. He also complains of pains of a "lightning-like" character, confined to the arms for the most part. He says his sight is dim, and often, after severe exertion, he is blind, and sees things double. He has lost all sexual desire. He is seldom able to retain his urine an hour. His bowels are very irregular. He says he is apt to stumble in the dark; but there is no evidence of ataxia when his eyes are shut. Patellar reflex is normal. There is no paralysis of motion or disorder of sensation in the muscles of any of the extremities.

Dr. Duncan, of Seaforth, showed a very well marked example of *Jacksonian Epilepsy*. The patient is a boy, four and a half years of age, a twin, born at seven months. The premature birth was owing to an injury the mother sustained in being thrown out of a sleigh. The general health is good. Had whooping cough. There has been a purulent discharge from the right ear ever since the child was two months old.

When he was nine months old, the mother noticed that while nursing he would suddenly and without apparent cause, stretch himself back and leave the breast for a short time. From the ninth to the twelfth month there was frequently recurring attacks of ordinary general convulsions. These attacks have, however, completely passed

away. The boy is larger and better developed than his twin brother. His mind is bright and active. His speech is not very distinct, however. The first unilateral convulsion occurred in June, 1878. They have recurred frequently since that time; sometimes there will be as many as seven in one day. The individual fits occur as follows: The first thing noticed is generally that the child is in unusually high spirits; he is restless and excited and talks strangely. About twenty minutes before the convulsive movement begins, he loses the power of the left side. The convulsions commence, sometimes in the fingers, sometimes in the toes—always in the left extremities, however. If they commence in the fingers, they travel up the arm and down the leg; if in the leg, then up this limb and down the arm. The convulsions, after lasting a few minutes, cease; after a short pause, they are repeated, and again cease; and so on for four or five hours. They never become general. The tongue is protruded to the left and the eyes are turned in the same direction during the convulsions. The left side of the face and forehead get dark during the fit. After the convulsions have completely ceased, the child falls into a deep sleep, from which he awakens with completely paralysed left extremities. The paralysis passes away in from twelve to twenty-four hours. Consciousness does not appear to be completely lost during the attacks. Bromide of potassium has appeared to have prevented many convulsions which otherwise would have occurred. The above case differs from reported cases in the fact of paralysis preceding as well as following the convulsions.

How to explain the paralysis which occurs before the cortical centres discharge themselves and thereby become exhausted, appears to be difficult.

Dr. Taylor, of Goderich, shewed the following cases:

(1). Pseudo-hypertrophic muscular paralysis.

The patient is a boy, aged 16, with a good family and personal history, and who presents the characteristic symptoms of this disease in a pronounced degree. His mother states that he always had a difficulty in walking, and was constantly falling if travelling over uneven ground. His playmates styled him "Stiff-legs." The calves are three inches greater in circumference than the upper part of the thighs. The arms are an inch larger than the forearms. There is general muscu-

lar weaknrs Patellar reflex absent. The lordosis, and peculiar method of arising from the prone position characteristic of this disease are well marked in this case.

(2). Left Hemiplegia from destruction of a portion of the right cortical region of the brain—Epilepsy.

The patient, a female, aged 23, when five years of age sustained a fracture of the right side of the skull by a branch of a tree falling on her. There was loss of cerebral substance at the time. Her left arm and leg have been paralysed ever since—the arm being completely so, the leg only partially. The patellar reflex of the paralysed limb is greatly exaggerated. The left arm is atrophied and contracted. There is loss of bone to the extent of about $2 \times 1\frac{1}{2}$ inches over the right side of the skull, principally in the region known as the lower antero-parietal area, and which corresponds to the convolutions bordering the fissure of Rolando. Three years ago this patient had her first epileptic fit; since, the convulsions have recurred two or three times weekly. While she was being examined she had a fit. The convulsions, which were general, were of a tonic character for about half a minute; this was followed by three or four general clonic convulsions. Consciousness was lost. The contracture of the paralysed arm (left) was relaxed, and the eyes were strongly to the left during the fit. She has no aura preceding any of her fits. The least mental excitement is apt to bring on a paroxysm.

(3). A case of Necrosis of the Mastoid Portion of the Temporal.

This patient was a boy, seven years of age. About four years ago he had a purulent discharge from his right ear, which was followed by swelling behind the ear. A free incision was made into this swelling, and several small pieces of dead bone removed. The wound healed up quickly, and remained so until a few months ago. At present there is a copious purulent discharge from both the external auditory canal and the mastoid bone. The mastoid disease is supposed to have been caused by a plug of cotton wool which had remained in the ear for a period of fifteen months.

Dr. Worthington, of Clinton, showed a case of Paraplegia, being probably an example of the so-called Hysterical Paraplegia.

The patient is a married woman, 32 years of age. She has four children. During her first pregnancy,

11 years ago, she says she was unable to walk; and for a period of nine months following it, she maintains that she lost motion and sensation of the lower extremities. She recovered completely, and remained well up to her second pregnancy, when she complained of "lightning-like pains" in her lower extremities. She says that she again lost motion and sensation following the second pregnancy. After her third pregnancy she remained well. Two months after her fourth pregnancy (Nov., 1879), she "caught a cold," which was followed shortly afterwards by loss of power in the lower extremities; and from this state she has not yet recovered.

Present state.—There is considerable loss of power in both lower limbs. It is with the greatest difficulty that she can move about when supported by two persons; unassisted locomotion is not possible. Sensation is exalted in the paralyzed parts. The legs are œdematous. She has lost power over both rectal and vesical sphincters. The patellar reflex in both limbs is greatly exaggerated; ankle-clonus present. She complains of pains darting around the chest and abdomen. Vision good. There is no spinal tenderness, or unevenness of the spinous processes.

Dr. Sloan, of Blyth, showed a case of Anæmia in a man 23 years of age.

Eighteen months ago this patient had jaundice, lasting five days. Four months ago he commenced to lose flesh and color. There is no enlargement of the liver, spleen, or any of the lymphatic glands. Blood is normal; pulse, 38 when lying, sitting 48. There are no changes to be detected in either the thoracic or abdominal viscera. The temperature is not increased. The administration of iron has not been of any benefit.

Dr. Hyndman, of Exeter, showed a very well marked example of Aneurism of the left femoral artery, situated at the apex of Scarpa's triangle.

The patient is a man 23 years of age, with a good family and personal history. Three years ago he was accidentally shot; the ball (from a large pistol) passed into the left thigh, about the centre of its internal surface, taking a course apparently under the skin and fascia outwards to the external surface of the thigh, where it still lies imbedded. Although there was no hemorrhage, the amount of shock was very great. The wound healed in a week, and it was then noticed that there was abnormal pulsation about the apex of Scarpa's triangle. Since this period he has been constantly attending to his duties as a clerk in a dry goods store. At present there is a large expansile pulsating tumor occupying the thigh, about the middle of its anterior and internal surfaces. It has a long diameter of four inches, and a short one (transverse) of two and a half inches. There is a distinct bruit to be heard and thrill to be felt over the tumor. Pressure on the femoral artery above arrests all pulsa-

tion, etc., in the swelling. There is no œdema and but little pain in the affected limb.

Drs. Stewart and Hurlburt, of Brucefield, showed a boy, aged three, who has lost in a great measure the co-ordinating power of the muscles of his lower extremities, and, in a slighter degree, those of the upper extremities also. He is unable to walk unless assisted. He walks much worse in the dark or with his eyes shut. There is no loss of motion or sensation. The patellar reflex is absent in both legs. The general health has not suffered any. The trouble came on gradually about two months ago. Vision is good. He has complete control over both bladder and rectum. He has had an offensive purulent discharge from the right ear for a year.

Dr. W. J. R. Holmes, of Brussels, showed a man aged 50, who has paralysis (almost complete) of both median and radial nerves in the hands. Full notes of this case will be given later.

Dr. Graham, of Brussels, showed a specimen under the microscope of the blood from a case of pernicious anæmia.

Selected Articles.

PHYSICAL DIAGNOSIS, AND THE EMPLOYMENT OF ASPIRATION IN CASES OF PERFORATING PERITONITIS.

BY AUSTIN FLINT, M.D.

Of the various causes of acute diffuse peritonitis, traumatic and puerperal cases being excluded, the most frequent is perforation of the alimentary canal. It is highly important to recognize this condition at the bedside, in individual cases for several reasons. One reason relates to the prognosis. The prognosis is extremely unfavourable if there be intestinal or gastric perforation. Another reason has reference to the use of opium in the treatment. In all cases of acute peritonitis, opium is the "sheet anchor" in the treatment; but there is added a special object in the use of opium if perforation exist. Recovery is possible only by such a degree of induced arrest of peristaltic movements as will allow adhesion to take place at the point of perforation. The practice of the future may furnish another reason. It may be that laparotomy will be found to be a life-saving operation in some cases. Opening the abdominal cavity, closing the perforation by proper surgical means, and washing out all irritating matters, it is not highly improbable will be a method of treatment sanctioned by its successful employment.

Correlatively it is of importance to be able to exclude perforation, at the bedside, in cases of acute peritonitis. One object of this paper is to invite attention to the proof against perforation

afforded by a physical sign, namely, hepatic flatness on percussion. The exclusion of this cause is a ground for a favorable prognosis; it is to be considered in the use of opium in the treatment, and, at a future time, perhaps in deciding upon laparotomy.

Under normal conditions, flatness on percussion extends from about the sixth rib on the mammary line to the site of the lower border of the liver, that is to the level of the false ribs. In cases of perforation of the stomach or of the intestine, gas in greater or less quantity escapes into the peritoneal cavity. The exceptions, if there be any, must be extremely rare. Gas within the peritoneal cavity, the patient recumbent on the back, will separate the anterior surface of the liver from the thoracic wall. This is probably true without exception, provided there be not adhesion of the entire anterior surface of the liver as a result of peritonitis, and adhesion sufficient to prevent the entrance of gas between the liver and chest-wall is rare. The presence of gas between the anterior surface of the liver and chest-wall gives rise to tympanitic resonance on percussion. I assume that in cases of peritonitis with perforation, the normal hepatic flatness is always supplanted by tympanitic resonance. This statement is shown by experiments on the cadaver and by clinical observations.

The points which I make are these:—If perforation be the cause of the peritonitis, there is more or less gas in the peritoneal cavity; a stratum of gas will then separate the liver and the chest-wall, giving rise to tympanitic resonance on percussion, and, hence, if there be any persistence of the normal hepatic flatness, perforation as the cause of the peritonitis may be excluded.

It is only within a short time that my attention has been specially directed to this proof against intestinal or gastric perforation in cases of peritonitis. During this time, however, the following cases under my observation have exemplified its practical application.

In the case of a middle-aged man, seen with Prof. Erskine Mason, of New York, and Dr. Furnan, of Tarrytown, the history and symptoms pointed to perforation of the appendix vermiformis of the cæcum. The pain originated in the right iliac fossa; resistance to pressure was felt in this situation, and the abdomen was notably tympanitic. Moreover, the general symptoms denoted so much gravity that a fatal termination was considered highly probable. Hepatic flatness on percussion, however, was always found, and the recovery of the patient may be considered as rendering it almost, if not quite, certain that there was not intestinal perforation.

A woman of middle age, seen by me in consultation with Dr. Lewis and Dr. Hutchison, of Brooklyn, presented the symptoms of acute diffuse

peritonitis, with enormous tympanitic distention of the abdomen. Hepatic flatness was well marked, and on this fact perforation of the alimentary canal was excluded. Death took place within twelve hours after my visit. The autopsy showed the recent passage of gall-stones through an ulcerated passage in the duodenum. Two gall-stones were found in the small intestine. There was no gas in the peritoneal cavity.

In the case of a young woman, a patient of Dr. Burrall, of New York, acute diffuse peritonitis was developed in the course of typhoid fever. There was moderate tympanites in this case. Hepatic flatness was found on percussion. The case ended fatally, and there was no autopsy. That intestinal perforation had not taken place, was a fair inference, irrespective of the hepatic flatness, from the absence of the gravity of symptoms which perforation occasions, and from the fact that death did not take place for at least a week after the occurrence of the peritonitis.

So far as these cases go, they show that hepatic flatness on percussion is proof against perforation of the alimentary canal as the cause of an existing acute peritonitis.

A larger collection of cases is desirable, and a motive in submitting a paper at the present time is to interest others in testing the value of this physical proof.

Assuming that hepatic flatness on percussion is proof against perforation of the alimentary canal in cases of peritonitis, it cannot be assumed that tympanitic resonance over the hepatic region is always proof of perforation. The possibility of the colon being pressed upwards, so as to lie between the anterior surface of the liver and the chest-wall, has been demonstrated. But this occurrence is not necessary in order to explain hepatic tympanitic resonance on percussion. It happens not very infrequently that when the transverse colon is much distended with gas, tympanitic resonance is conducted upwards, so as to meet the pulmonary resonance. This conduction upwards of tympanitic resonance from the colon renders the evidence afforded by percussion of the site of the lower margin of the liver very unreliable. If reliance were placed upon percussion, it would be necessary sometimes to conclude that the liver is wanting in its normal situation. This conclusion was actually reached in a hospital case under my observation. The patient had cirrhosis of the liver, with some hydro-peritoneum, and a greatly enlarged spleen. It was reported to me as a case of transposed abdominal viscera, the liver being situated on the left side; and the tympanitic resonance in this case extended upwards to the upper margin of the liver, where it became merged into the pulmonary resonance.

It is not an uncommon error to infer diminution of the size of the liver by measuring, on the

mammary line, the distance between pulmonary and tympanitic resonance. On the other hand, percussion is not to be relied upon for determining enlargement of the liver, for the reason that the upper boundary of the tympanitic resonance is no criterion for locating the lower margin of the organ. Here, however, we have a resource against the unreliability of percussion, namely, palpation. The sense of resistance to finger-pressure may be relied upon in ascertaining how far the liver extends below the false ribs, and the pulmonary resonance on percussion is reliable as indicating its upper boundary.

In order to show that the presence of air in the peritoneal cavity causes hepatic flatness to disappear, and gives rise to tympanitic resonance over the liver, the following experiment on the cadaver was made by Dr. Stone, House Physician of the Third Medical Division, Bellevue Hospital, at my request, and in my presence. It is proper to state that the experiment was suggested by Dr. Corwin, senior assistant of the division.

The body of a man, six hours after death, presented considerable tympanitic distention of the abdomen. Hepatic flatness was limited on the mammary line to a space about an inch in its vertical diameter. Air was injected into the peritoneal cavity through a small sized canula, which was attached to Bowditch's aspirating instrument. The trocar was introduced near the umbilicus. The hepatic flatness quickly disappeared, giving place to tympanitic resonance.

The body of a woman, fourteen hours after death, presented complete collapse of the abdominal walls, and flatness on percussion below the sixth rib. There was considerable rigidity of the abdomen. Air was readily injected into the peritoneal cavity, causing distention and tympanitic resonance over the whole abdomen. The hepatic flatness at once gave place to tympanitic resonance.

In each of these experiments it was difficult to remove the air through the small canula by pressure over the abdomen, sufficiently to restore the hepatic flatness on percussion.

In order to obtain positive proof of the presence of gas within the peritoneal cavity, whenever, in cases of peritonitis, tympanitic resonance extends over the region of the liver, there can be no objection to an exploratory puncture with a small trocar and canula. The puncture should be made within the hepatic region, lest, possibly, if made elsewhere, the intestine might be wounded. The escape of gas through the canula is easily perceived by *the touch* and by the odor. Air injected, and allowed at once to escape, acquires an intestinal odor. If desirable, the gas could easily be collected by attaching to the canula an oiled-silk bag; or it might be aspirated and collected in a glass receiver.

The exploratory perforation thus supplies what

is lacking as regards proof of perforation afforded by percussion, and by means of percussion and the exploring trocar, in cases of peritonitis, it may be positively determined whether or not perforation exists. If hepatic flatness on percussion remain, there is no perforation of stomach or intestine. It, on the other hand, tympanitic resonance be found to extend over the region of the liver, all doubt as to the existence of a perforation is removed by an exploratory puncture in that region. It is hardly necessary to add that care should be taken, in introducing the trocar, not to penetrate the liver; not that the wound will do harm, but because the peritoneal gas will not then escape through the canula. The liver has not been penetrated if, after withdrawing the stylet, the end of the canula which has been introduced be freely movable.

A late writer in a standard work on practical medicine (*Ziemssen's Cyclopædia*), says of acute inflammation of the peritoneum, "the only difficult question is whether the peritonitis be with or without perforation. To decide this point we ought not to rely on any one single well established physical sign, but make an accurate digest of the entire group of phenomena. Notwithstanding, the diagnosis in some cases must remain undecided." (Vol. viii., p. 208.)

By means of the simple methods submitted in this paper, as it seems to me, the question, whether the peritonitis be with or without perforation, is divested of all difficulty, and may always be decided positively.

It is assumed, in this paper, that the presence of gas within the peritoneal cavity in cases of peritonitis, always denotes perforation of either the stomach or intestine. The question may be asked, is not gas sometimes a result of chemical changes in morbid products within the peritoneal cavity, perforation not existing? Without denying the possibility of gas being thus derived, it is, as I believe, a warrantable statement, that the instances, if there be any, are so rare that they may practically be disregarded.

Recovery from perforating peritonitis, requires, first, agglutination by means of fibrous exudation, and, next, permanent adhesion by means of proliferating tissue, to some part with which the intestine or the stomach is in contact at the site of the perforation. It is obvious that the presence of gas within the peritoneal cavity must interfere with this requirement for recovery. Hence arises the inquiry whether the removal of this gas may not prove to be an important measure in the treatment.

Aspiration is probably the safest and best method for the removal of the gas. When air is injected into the peritoneal cavity through a small canula, its entire removal is not easily effected even by firm pressure over the abdomen. The entire removal is shown by the disappearance of

tympanitic resonance over the liver, and this resonance was found to remain after firm pressure, in the experiments on the cadaver which I have related. Moreover, pressure on the abdomen sufficient to remove the gas in cases of peritonitis, would perhaps do more harm than the presence of the gas. Of the different aspirators, I should prefer either my adaptation of Davidson's syringe to thoracentesis, or Bowditch's instrument, for the reason that they are more readily under control, as regards the suction-force, than the aspirator of Dieulafoy. The puncture made by a small trocar causes so little pain that it might be repeated whenever the gas accumulated within the peritoneal cavity; or the canula, closed by a stop-cock, might be allowed to remain, and aspiration repeated as often as the resonance over the liver denoted the presence of gas. The aspiration might include the withdrawal not alone of gas but of the effused liquid. The removal of the latter is desirable, inasmuch as it may separate the site of the perforation from an adjacent part, and thus prevent closure of the perforation.

In order to demonstrate the possibility of the removal of gas from within the peritoneal cavity by aspiration, the following experiment on the cadaver was made, at my request, by Dr. Thatcher, junior assistant, Bellevue Hospital:—A trocar was introduced in the region of the iliac fossa and attached to Bowditch's aspirator. The injection into the peritoneal cavity of the air contained in the syringe twice, was sufficient to substitute tympanitic resonance for flatness in the hepatic region. Afterwards the trocar was introduced over the liver, and, by suction with the instrument, the tympanitic resonance was made to disappear and give place to the hepatic flatness which existed before the injection of air.—*Medical News*.

THE TREATMENT OF HIP-JOINT DISEASE.

Hip-joint disease is acknowledged by all authors to be, as a rule, a very unsatisfactory disease to treat. Many modes of treatment have been proposed, but the method that is described here seems to me to combine better the different objects of treatment than any other method that has been previously described.

In the first place, the condition of the lining membrane of the joint is one in which, in the first stage, there is an active inflammation present. Again, almost invariably, the child or adult affected with this disease is in a broken down state of health. The majority of children affected are more or less strumous, if this expression can be allowed. The pain on motion of the head of the femur in the acetabulum is sometimes exceedingly acute. The head of the femur moving about in

its socket, the acetabular cavity, causes an increase of the inflammation of the lining membrane, no matter whether the head of the bone or the acetabulum is primarily affected. The more quiet the limb is kept the less the pain and the less severe the inflammation. In order that the head of the bone and the acetabular cavity may not be in contact and keep up the pain and increase the inflammation, the first point in all proposed forms of treatment has been to apply extension, so as to remove this source of irritation by pulling the head of the bone out of the socket. The modes of accomplishing this object are very numerous. The most common treatment is that of the application of adhesive straps and weights. This has a number of disadvantages attending its use. In the first place, the child or person to whom the dressing is applied must remain constantly in bed. Not only must the patient remain in bed, but the decubitus must always be a dorsal one. As the treatment must be a prolonged one to be of any advantage to the patient, the confinement becomes almost unbearable. It is absolutely necessary to have the patient watched very carefully, this necessitates almost daily visits of the physician. The patient, if a child, has a tendency naturally to slide down in bed, and of course the extension is destroyed. The adhesive straps, in order to be of any service, must be firmly applied. The various bony prominences over which they fall are liable to become ulcerated, no matter how carefully they are watched. The patients suffering from this disease are almost invariably patients suffering from some dyscrasia. Fresh air and exercise are essential to a cure of any of these cases.

The apparatus of Dr. Sayre, of New York, in which the patient walks on a perineal strip, does away with some of the objections that the other treatment has. It, however, has its disadvantages. In the first place, the apparatus is very expensive, and as the majority of patients suffering from this disease come from the lower class, this comes to be a very important objection to the apparatus. The extension, when the apparatus is properly applied, is good and patients do improve rapidly at times under its use.

In an incipient case of hip-joint disease what are the essential points of treatment? The hip-joint must have absolute rest. The less the motion in the joint the better it is for the patient. Any apparatus that will accomplish this is a good apparatus in this stage. The head of the femur must be removed from contact with the acetabulum. In other words, the extension must be sufficient to prevent the friction of the head of the femur against the acetabulum. The patient must not be confined to bed, but allowed to take all the fresh air and exercise possible.

By the following treatment it seems to me that all the above objects may be obtained. There is

no dressing that can carry out the first object of treatment, namely, the locking of the hip-joint, better than the application of the plaster-of-Paris breeches. The roller bandages thoroughly impregnated with plaster are to be applied as follows: One long external splint made of several layers of plaster is applied, extending from a level with the umbilicus down to the knee-joint. This splint must be very firm. Another splint, very heavy, must be applied along the inner surface of the thigh, extending from the fold above to the knee below. These two splints must be thoroughly adapted to the limb and held in place by circular turns of the plaster roller. After the plaster is hardened the hip-joint will be found to be absolutely locked.

An important point to observe in the application of this dressing, is to have the external splint come up high enough, and to see that the circular bandage which turns around holds it firmly in position. The dressing should always be applied while the patient is standing on the well leg on a stool, allowing the diseased leg to hang, so as to get the advantage of extension.

To accomplish the second part of the treatment, the removal of the head of the femur from the acetabulum, let the patient wear on the well leg a raised shoe. The weight of the limb hanging is then amply sufficient to furnish a requisite amount of extension. With a pair of crutches the patient is able to go about and get all the advantages accruing from plenty of exercise and fresh air.

Only one opportunity has occurred in which the efficiency of the treatment could be tested. The case was of a girl eleven years old, who had been complaining of pain in the hip and knee for about six months. On examination the case was found to be undoubtedly a case of commencing hip-joint trouble. Plaster-of-Paris breeches and a high shoe were ordered and the child wore them for six months, going about on crutches. After an interval of six months the plaster was removed, the shoe was taken off, and the child put to bed for one week. After a week had elapsed she was allowed to get up and walk without anything. She could walk with absolutely no pain, and limped only slightly. This case happened about six months ago, and there has been no return of the trouble yet. From one case of course no opinion can be expressed as to the efficacy of any treatment. It seems to me, however, that this is without doubt the treatment for this trouble; and that if applied in time will do as much if not more than any other form of treatment. The advantages of the treatment are its cheapness, its ease of application, and its efficiency.

Plaster of Paris breeches have been used for some time in the treatment of this trouble. The high shoe on the well foot has also been used. The combination of the two is what is claimed

this paper as the best treatment of this much dreaded disease.—*Dr. Walker—Lancet and Clinic, Cin.*

SIMPLE METHOD FOR THE CURE OF OZÆNA.—Dr. Gottstein (*Gazz. Med. di Roma*) considers ozæna as a constant symptom of chronic coryza. There is no doubt that, after the interference with the functions of the glands, there is a diminution and alteration of the nasal secretion. Part of it, drying rapidly, adheres to the mucous membrane, on which it forms crusts, and it is the decomposition of these which is the cause of the odor. It is, therefore, only necessary that a limited portion of the mucous membrane should undergo atrophy to give origin to an ozæna. In adopting this theory of ozæna, it is evident that there can be no question of radical cure, since it cannot be hoped that the secretion of an atrophied mucous membrane can ever become normally reestablished. We must therefore be satisfied with the treatment of symptoms which is the most simple and convenient for the patient.

The author was led by chance to employ the following method, from which he has already, in fifteen cases of ozæna, seen the best results in less than three months.

Dr. Gottstein commences the treatment with a nasal douche, which, by freeing the cavity from its secretions, permits the recognition of the character of the mucous membrane and the extent of the existing lesion. This is followed by the introduction of a tampon of cotton, 3-5 centimetres long, which should remain in position for twenty-four hours.

About an hour and a half after the introduction of the cotton there is a little secretion from the nose. When the tampon is withdrawn the secretion is found to be fluid and without crust or odor. Twenty-four hours can be allowed to elapse between two applications of the tampon. When both sides of the nose are affected, the nose can be tamponed every twenty-four hours on the alternate sides. The tampons cause an artificial contraction of the cavities, and so increase the action of the column of air and facilitate the expulsion of the secretions, which are absorbed as rapidly as they are formed, and their desiccation is thereby prevented.—*L' Union Med.*, November 27, 1881—*Medical News.*

PROGNOSIS OF LARYNGEAL PHTHISIS.—In a paper on this subject, published in the *Archives of Laryngology*, Dr. William Porter, in answering the question:—Is laryngeal phthisis necessarily fatal?, says that the recorded opinions of authority teach that laryngeal phthisis may only be retarded, that it is progressive and ultimately fatal. Heinze says "a cure of laryngeal phthisis will most probably never be made." And Lennox Browne voices the

generally received opinion when he says "Not even the most sanguine throat specialist is yet justified, according to our experience, in giving even a moderately hopeful opinion as to result.

In his paper Dr. Porter does not subscribe to this doctrine of the inevitable fatality of laryngeal phthisis and relates briefly three typical cases which appear to support his view of their possible recovery. In each of these cases there was also disease of the lung tissue.

In the discussion which followed, Dr. A. H. Smith summed up his views in his concluding remarks, when he said that while it was barely possible that something might be done in the early stages, yet in going through the wards with his students, in speaking of those cases in which there was involvement also of the lungs, he almost envies the veterinary surgeon, who, after making careful pathological and diagnostic observations, sums up the treatment in the words.—"Axe to os frontis."

Dr. Johnson alluded to a point on which he was accustomed to rely whenever in cases in which there was no other trouble to account for the increased bodily heat, he finds chronic laryngitis associated with an irregular elevation of temperature, he gives a more serious prognosis than where the temperature is normal. He recalled one case of tubercular laryngitis, in which there was ulceration and loss of the posterior portion of one of the ventricular bands, and which he considered cured. The patient remained free from it until after the lapse of several years when pulmonary disease developed, of which he died.

Dr. Bosworth said that in the diagnosis the club-shaped arytenoids and appearances of infiltration were of value in deciding the presence of tubercular laryngeal phthisis, particularly in its early stage. He insisted that in such cases the introduction of brushes or sponges into the larynx only increases the tendency to ulceration and hastens a fatal issue. If only medicated or detergent sprays be used the prognosis is better. Three years ago he had reported thirty-seven cases of laryngeal phthisis as arrested; he had now increased his list to sixty cases; among these there were quite a number in which there was laryngeal ulceration. But in cases in which there is well-marked elevation of temperature, lung symptoms are certain, after a while to develop and carry off the patient.—*Lancet and Clinic.*

PHTHISIS WITHOUT COUGH.—Dr. Wm. H. Thomson (*Maryland Med. Journal*) recently called attention to the occasional total abstinence of cough in phthisis. The phenomenon is by no means a rare one among the insane. Very often an extensive amount of pulmonary change may occur in the insane without the usual objective symptoms. In a few cases the absence of laryngeal lesion explains this.

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TORONTO, MARCH, 1882.

This Journal has the largest circulation of any Medical Journal in Canada.

CONSULTATIONS WITH HOMŒOPATHS.

Our ambitious contemporary, the organ of the Toronto School of Medicine, has recently exhibited marked symptoms of what might be called homœopathophobia. After alluding to what it considers the indiscretion of Dr. Bristowe, and the fallacious and short sighted arguments of Mr. Jonathan Hutchinson in reference to consultations with Homœopaths, it quotes with a great flourish of trumpets the half-hearted resolution recently passed by the Royal College of Physicians of London, to the effect "That while the college thinks it *not desirable to fetter* the action of its members, with reference to any opinions they may adopt, it nevertheless expresses its opinion, that the assumption or acceptance by members of the profession of designations implying the adoption of special modes of treatment, is opposed to those principles of the freedom and dignity of the profession which should govern the relations of its members to each other and to the public; the college therefore *expects* that all its fellows, members and licentiates, will uphold these principles by discountenancing those who trade upon such designations." The italics are ours. The organ, then, without due enquiry into the circumstances, accuses a "well-known medical man" in this city of meeting homœopathic practitioners in consultation, and applies the following epithets to him for his alleged breach of ethics. It speaks of him as "besmirching his immaculate garments;" "taking refuge behind Mr. Hutchinson's very fallacious and short-sighted argument that the knife and the catheter are the same

in the hands of the rational and the homœopath," (poor Hutchinson!); that the "*pruritus secundi* does not constitute the surgeon;" that he was "prostituting himself," and was "*particeps criminis*, in foisting a fraud upon the public."

The facts of the case are as follows: A patient who was ill of what was at one time considered an obscure form of disease of the liver, was attended by a legally qualified homœopathic practitioner. An outside opinion was desired by the family, and the "well-known medical man," alluded to by our contemporary, was requested to see the patient and give an opinion. The request was complied with, and such an opinion given to the family, in the presence of the homœopathic practitioner, as the circumstances of the case at the time seemed to warrant. There was not a word said as to treatment, or the future management of the case. The matter began and ended there. To show that there was nothing so very peculiar in this procedure, it may also be mentioned that three "well-known" regular practitioners in this city saw the same patient for a similar purpose, one about a week previous to this time, and the other two—who by the way are members of the Faculty of the Medical School, of which our contemporary is the recognized organ—about a week afterwards! During all this time, and for some days after the visit of the last named gentlemen, the homœopathic practitioner was in regular daily attendance upon the patient. The only essential difference in the position of the consultants was, that the homœopathic practitioner was present when the gentleman alluded to gave his opinion to the family, which after all appears to our mind to have been the more honorable course, if an opinion was to be given at all under the circumstances. Our contemporary may think that in all this there is occasion for great alarm, but it may quiet its childish fears. The honor and dignity of the profession are safe enough in the hands of any of the medical gentlemen above alluded to.

With reference to the propriety of meeting legally qualified homœopathic practitioners in matters of diagnosis, prognosis, and surgical procedures, where no difference of opinion necessarily exists, and where no medicinal treatment is under consideration, we entertain very decided opinions in favour of such a course, but do not wish to press our views upon those who think differently. We sympathize

very strongly, nay, we are prepared to endorse every word uttered by the "indiscreet" Dr. Bristowe, and Mr. Jonathan Hutchinson, and especially the following, by Dr. Bristowe :—

"It has been held that to break down the barriers that at present separate us from homœopaths would be to allow the poison of quackery to leaven the mass of orthodox medicine. But who that has any trust in his profession, any scientific instinct, any faith in the ultimate triumph of truth, can entertain any such fear? All the best physicians of old times, all the greatest names in medicine of the present day, are with us; all science is on our side, and we know that as a body we are honest seekers after truth. What have we to fear from homœopathy? Bigots are made martyrs by persecution; false sects acquire form and momentum and importance mainly through the opposition they provoke. When persecution ceases, would-be martyrs sink into insignificance; in the absence of the stimulus of active opposition, sects tend to undergo disintegration and to disappear. The rise and spread of homœopathy have been largely due to the strong antagonism it has evoked from the schools of orthodox medicine, and to the isolation which has thus been imposed on its disciples. If false, as we believe it to be, its doom will be sealed when active antagonism and enforced isolation no longer raise it into fictitious importance."

Dr. May, in a recent address before the San Francisco Medical Society, after endorsing the above quotation, said, he was not sure that the representatives of the homœopathic faith in this city were behind the regular practitioners in intelligence, education and gentlemanly bearing; and however much his reason might rebel against their peculiar postulates, it cannot be denied that they possess the confidence of no inconsiderable portion of the community. To be for ever posing in a militant attitude towards them is not conducive towards the elevation of medical morals. The proposal to consult with them at the bedside has raised no little outcry in orthodox circles, but it is difficult to see where the valid objection lies.

The New York State Medical Society, one of the oldest and most respectable Medical Societies in the United States, at a meeting held in New York on the 7th ult., adopted a code of ethics which permits consultations with "all legally qualified medical practitioners." In the discussion which took place on the code of ethics, several prominent physicians said, that the persecution of the homœopaths implied in the refusal to accept them as

physicians, had contributed in no small degree to the success of that school in the United States, and that in their opinion the adoption of this measure would eventually bring the two schools together, and extinguish homœopathy as a special school of practice. It was stated by some, that if the proposed code were adopted they would be ruled out by the American Medical Association, but the promoters said, the question was, whether it was right, and if so, let New York lead the van.

Professional courtesies between the homœopathic and regular practitioners in this city and other cities in Ontario, have been of frequent occurrence ever since the incorporation of the homœopathic with the regular profession in the Ontario Medical Council, and we see no good reason why it should not be the case, in so far as they have ground in common. To incorporate them with the general profession, meet together in the same Council, consult with them upon matters of most vital importance to the profession, and refuse to grant them the ordinary courtesies that even a poor unlicensed midwife would in all probability receive, is certainly most inconsistent. The insane cry against homœopaths and homœopathy has done more than anything else to bring them into prominence and public sympathy, and has contributed in no small degree to their success in this country. It is time that new lines were drawn, and those who can read the signs of the times can readily perceive that a change is coming over the spirit of bitter opposition. The remarks of Bristowe and Hutchinson, and the wording of the resolution of the Royal College of Physicians, show the changed state of feeling in England; not that the profession or individual members believe in the doctrines of homœopathy more to-day than in the past, but they are becoming more liberal towards those who differ from them. When such changes in high professional circles in conservative old England have taken place, where homœopathy has no legal status, need it be cause for wonder or surprise, if in Ontario, where they form an integral part of the corporate body politic of the profession, and are entitled to equal rights and privileges with the regular profession, there should be even a greater reversion of feeling in favor of showing them the ordinary courtesies of gentlemen towards each other, and of meeting them at the bedside in cases where only an expression of opinion in regard to diagnosis is

concerned, or an operation in surgery required, and where no compromise on the part of either consultant is demanded. We venture to assert that if such treatment were accorded them as here indicated, soon one and another would drop the distinctive title of homœopath, and finally all would merge in the general profession. Such a consummation has been more than hinted at already, by some of the leading homœopaths in England.

The resolution of the College of Physicians, it will be observed, is directed not so much against opinions as against "trading in treatment," and from certain letters which have recently appeared in the London *Lancet* from Drs. Dudgeon and Wyld, the homœopaths are quite pleased with the resolution of the college.

THE ONTARIO MEDICAL COUNCIL AND ITS (FRIENDS?).

In the interest of the Ontario Medical Council, especially at the present juncture, we cannot but express our deep regret that any Ontario medical journal should publish letters, no matter who may be their author, written with the transparent purpose of injuring any one of our well conducted Medical Schools. Such a communication appeared in the columns of our contemporary last month, and it is well known that the writer, who strives to hide behind the *nom de plume* "Medicus," is a high Council official. This writer gives, or pretends to give, the percentage of students from the various Medical Schools, who passed at the Council Examinations held last year. But the annual lists taken for several years past, conclusively prove that the percentage of pass men from the several schools varies from year to year. One year one school stands highest, and another year another—no two years showing anything like the same result as regards any particular school. For example, at the primary examination of the preceding year (1880), which was very stringent—especially in anatomy—only thirty-four candidates in all were successful; of these, nineteen were from Trinity Medical School.

The letter writer referred to, thinks he has made a great point against Trinity Medical School in his epistle, but his statistics are entirely misleading, and his conclusions utterly fallacious. It is not

well to rake up the past, which for many reasons had better rest, but it would not be difficult to explain the "alleged statistics," and to show that a good many of the best men in Trinity School at that time did not pass, nor even go up for the Council Examinations at all, owing to special circumstances then existing. That the qualifications of these gentlemen were all that could be desired is proved conclusively from the stand taken by them at a recent examination in Great Britain, where they numbered 50 per cent. of the Canadian candidates, and every one of them passed with credit. The others were from various Canadian schools, and they also reflected credit on their schools and country. Does the writer of such a letter as the one alluded to, think it possible that the course he adopts can do the Council anything but the greatest conceivable injury? If a gentleman occupying the writer's high position, publicly assumes the *role* of a violent partizan, pitting one school against another, why should not members of the the Examining Board do the same thing, and if they should, what would be the speedy result? Unless the Council is to be killed outright by its pretended friends, let this sort of thing stop at once and forever. We should feel bound to take the position now assumed, no matter which of our schools had been attacked, for we consider there is a principle at stake in this matter, on which even the continued existence, not to say the future prosperity, of the Medical Council depends. The defenders of the Medical Council might well cry out "Save it from its friends."

SALE OF POISONOUS ALKALOIDS.

The recent poisoning case in England again brings up the question of permitting chemists and druggists to sell poisonous alkaloids to any but well known and legally qualified medical practitioners. We refer to the case of the unfortunate boy supposed to have been poisoned by his brother-in-law, Dr. Lamson, a *soi disant* member of the faculty of medicine of Paris, London, and other colleges, of all of which the assumption was apocryphal. Dr. Lamson was an American, who had married, in England, a Miss John, who, with two brothers, inherited considerable property. The elder brother died suddenly, under now con-

sidered suspicious circumstances, while under the treatment of this brother-in-law. The younger brother expired suddenly after a short illness, during which he had taken certain capsules and powders administered by this same Simon Pure. A detailed and careful analysis was made of the viscera of the patient and also of the pills and powders by Dr. Stevenson, of Guy's Hospital, assisted by Dr. Dupré of the local Government Board. In his evidence, Dr. Stevenson stated that from the contents of the stomach he extracted a small quantity of morphine and an alkaloidal substance which was not morphine, but had the characteristic effect upon the tongue of aconitine. On the mucous coating of the stomach was found a spot which had the appearance of a blister, or inflammatory effusion of lymph. Some of the alkaloidal extract was injected in the back of a mouse, which exhibited signs of poisoning, and died in 31 minutes with symptoms of poisoning by aconitine. Comparative experiments were then made upon two mice with Morson's aconitine. Having ascertained the result of these, he reverted to the alkaloidal extract obtained from the liver, spleen, kidneys, and stomach, and injected it into the back of a mouse, which showed signs of poisoning, and died in 22 minutes, after exhibiting symptoms precisely similar to those of mice poisoned by aconitine. He then compared the effect of this on the tongue with some of Morson's aconitine; they were precisely similar, and lasted upwards of six hours. The pills and powders were next examined in a similar way, and some of them were found to contain aconitine in poisonous quantities, combined with quinine. One of the powders was found to contain enough aconitine to destroy 10 persons. Aconitine is an alkaloid to which chemical tests cannot be applied. It can only be detected by physiological tests, such as putting it upon the tongue, and by experimenting upon mice or other small animals.

It is, however, a most gratifying circumstance, and a matter of great importance to the profession and the public, that many vegetable alkaloids of poisonous drugs, formerly beyond the ken of the analyst, can now be detected by medical experts. But, whilst this is established, yet the fact remains that these dangerous active principles are not sufficiently guarded, or provided for by law against the sale by druggists, excepting to legally qualified

medical practitioners known to the vendor. In this instance, on the accused merely declaring himself a medical practitioner Morson's Aconitine, prepared from the most deadly variety grown in India (*Aconitum Ferox*), ten times more deadly than the German aconitine, prepared from the *Aconitum Napellus*, was, without scruple, sold in a quantity, on evidence by Drs. Stevenson and Dupré, sufficient to get out of the way ten persons interfering with inheritance. This case, and others of a similar character, which have recently occurred, both at home and abroad, point out the crying necessity for still greater precautions being imposed on druggists in the sale of poisonous alkaloids, such as aconitine, veratria, picrotoxin, curare, eserine, hyoscyamine and other vegetable poisons.

PROTECTIVE POWER OF VACCINATION.—Dr. Henry Tomkins, medical superintendent of the Fever Hospital belonging to the Manchester Royal Infirmary, England, in a paper which he read recently at Owens College, said: "The most striking of all evidences is, perhaps, that derived from the small-pox hospitals themselves. At Highgate, during an experience of forty years, no nurse or servant, having been re-vaccinated, has ever contracted the disease, and evidence of the same character I can myself bring forward, for during the whole time that I had charge of the fever hospital more than one thousand cases of small-pox have passed under my care, yet no servant, nurse, porter, or other person engaged there, has, after re-vaccination, ever taken it, though exposed daily to infection in its concentrated form. One woman, a laundress, who escaped vaccination, took the disease and died; one nurse, who some years before had suffered from small-pox, and was then considered protected, had a very mild attack; and this summer a workman, who did not live on the premises, but came in to work as a painter, was not vaccinated, and had rather a severe attack, and still more recently a servant, who by an oversight was allowed to go about her work three days before being vaccinated, had, before the latter had run its course, a slight abortive attack. Again, among all the students who during the past two years have attended the hospital for clinical instruction, not one has suffered, all having been re-

vaccinated before being permitted to enter the small-pox wards. I defy the most enthusiastic or conscientious of anti-vaccinators to produce evidence like this on his side of the question, or to bring forward even half a dozen persons, choose them whence he may, who have not been protected against small-pox, and expose them as the students are exposed, without more or less of the number taking the disease." Facts such as these should convert the most ardent anti-vaccinator from his folly, and convince him that a weapon of defence so powerful as vaccination should not be left to the pleasure of the individual, but that the State has the right and duty to look after its most thorough performance.

IODINE IN THE TREATMENT OF MALARIA.—Dr. Morrison, in an article in the *Maryland Med. Journal*, on the above subject, states that the tincture of iodine, in doses of fifteen minims three times a day, equals, if it does not surpass, cinchonidia in its action in acute malaria. It was tried in 250 cases at the Baltimore Dispensary during the year 1881, and was found more successful in effecting a cure than the usual malarial mixture of cinchonidia and arsenic. The *rationale* of its action is, that iodine destroys the organisms in the blood which cause the symptoms of malaria, or in other words, destroys the malarial poison.

TONGA IN THE LAW COURTS.—Under the heading of "Trademark Litigation," we noticed in the *LANCET* for November, 1881, a suit then pending in the U. S. law courts in reference to the use of the word "tonga," as a name for a certain drug. This was an action brought by the Messrs. Allen & Hanbury, of London, England, to restrain Messrs. Parke, Davis & Co. from the use of the word "tonga," which the former claimed was the trade mark name of the drug, and registered by them in England and the United States. Messrs. Parke, Davis & Co. were determined to defend the suit and appeal the case if necessary to the higher courts, but this has been rendered unnecessary by the complainants withdrawing the suit and assuming the costs. Tonga is a combination of barks collected by the natives of the Fiji Islands, who have employed it for many years as a remedy in neuralgia. Its efficacy was tested by Drs. Murrell and Sidney Kinger, of London, and many others, and it has been found of great value

in the treatment of neuralgic affections, especially in those of the cranial nerves.

CHRONIC ULCERS—The following is the treatment followed in the Notre Dame Hospital, Montreal, (*L'Union Medical*). In cases of ulcers of long standing, the nutrition of the skin in the neighbourhood of the ulcer, is generally at fault, the blood there stagnates more or less, and causes in a great degree, the difficulty in effecting a cure. Many modes of treatment have been tried according to the requirements of each case. Compression applied with the limb elevated, has given the best results in ulcers of this kind. The compression is applied by means of a roller, the wound having been previously dressed with carbolic acid or oxide of zinc ointment, and covered over with a thick layer of wadding, over which is placed another covering of pasteboard, for the purpose of equalizing the pressure. When the discharge is too exuberant, or when there is much redness or flabbiness, the edges may be cauterized with nitrate of silver, and powdered alum applied to the surface of the wound. The red lotion generally constitutes an excellent application, when the ulcer secretes a great quantity of pus. It will also be found beneficial to replace the ordinary wadding by absorbent cotton, which absorbs the excess of pus, and prevents it flowing over the edges of the ulcer. In certain cases of large ulcers marked success has attended the use of the rubber bandage, applied once a day, the limb having been previously covered with a thick layer of wadding.

"STILL HARPING ON THEIR SUCCESSES."—Every mail brings us newspapers containing notices of little surgical operations and procedures, successfully performed by medical men in different parts of the country. Some of these notices, from their technical phraseology, are evidently written by a professional hand, others are no doubt written by the reporters, as for example the following:—A lad 16 years of age, in handling a loaded pistol, met with an accident which "tore away the fleshy part of his right hand. Dr. — has the young man under treatment. A couple of stiff fingers will probably be the consequence." One thing however, is to be particularly observed in connection with these paragraphs which are "always written by the editor or reporter of the paper," viz.: that there is never a word about "unsuccessful

cases," although every medical man must necessarily have a few such cases, in which the public no doubt feel an interest. It is really very kind of the editors and reporters to suppress the names of the Drs. in attendance in all such cases. We are much pained to find the name of one of the Vice-Presidents of the Ontario Medical Association (Dr. Hamilton) figuring in a questionable manner in a recent number of the *Port Hope Times*.

SIR ROBERT CHRISTISON.—The death of Sir Robert Christison, M.D., F.R.S., of Edinburgh, at the age of 85 years, is announced in our exchanges. He was appointed to the chair of Medical Jurisprudence in the University of Edinburgh in 1822, and ten years afterwards he was promoted to the chair of *Materia Medica*, which he filled for 45½ years, until his resignation in 1877. He published a "Treatise on Poisons," one on "*Materia Medica*," etc., besides contributing numerous valuable papers to the medical journals.

GRINDELIA ROBUSTA IN ASTHMA.—In the February number of the proceedings of the King's Co. Medical Society, will be found an interesting report by the committee on therapeutics, with reference to the value of *grindelia robusta* in asthma. Three members of the committee report favourably of its use, and three adversely. The article used was Squibb's fluid extract, and it was given in half drachm doses four times a day, alone or mixed with equal parts of glycerine. All are agreed that certain cases of asthma are undoubtedly relieved by its use, but it does not fully bear out the high claims made for it, in all cases.

CANADIANS ABROAD.—H. E. Heyd, M. D., (McGill), of Brantford, has successfully passed the examination of the Royal College of Surgeons, Eng., and was admitted a member on the 19th of January last. Drs. W. H. Aikins, W. A. Allen, and W. C. Edmondson, were admitted Licentiate of the Royal College of Physicians of London, on the 27th of December last. Dr. Hamilton Meikle, of Oakville, has passed his final examination in the College of Physicians and Surgeons, Edinburgh, and received the double qualification.

A NEW BLOOD CORPUSCLE.—Prof. Bizzozero, of Turin, has recently announced the discovery of a new and important corpuscular element in the blood of mammalia. It is somewhat similar to,

not identical with, the third corpuscle of Norris. These elements are pale, oval or round bodies, about one-half the size of the red corpuscles among which they are scattered. They are best seen in the course of the circulation, but may also be observed in freshly drawn blood. They possess no stroma, contain no hæmoglobin, and rapidly degenerate into granules. These new elements are believed to play an important part in the production of thrombi.

SUBSTITUTE FOR CARBOLIC SPRAY.—The remedy which promises to become a substitute for carbolic acid spray is borax. It has no odor, and may be administered or applied in large doses without producing any unpleasant symptoms. From carefully conducted experiments by Dumas and Schnatzles, .75 per cent. of boracic acid will prevent the growth of bacteria in animal fluids. Borax has been used as a surgical dressing with marked success, and is deserving of a more extended use.

ELASTIC GUM TRUSSES.—John Bint, of this city, has shown us a sample of what he calls an "Elastic Gum Truss." The pad is soft and elastic, made from a composition similar to that used in the manufacture of bougies and catheters. From its appearance we think it will be found an improvement upon the hard rubber truss, inasmuch as it is soft and resilient, and therefore less likely to chafe the wearer.

EXAMINATION FOR LICENCE.—By reference to our advertising columns it will be seen that the professional examination of the College of Physicians and Surgeons of Ontario will be held on the fourth of April. Candidates are requested to send in their applications at least two weeks before the commencement of the examination.

Books and Pamphlets.

EPILEPSY AND OTHER CONVULSIVE DISEASES.—By W. R. Gowers, M.D., F.R.C.P. London: J. & Churchill. Toronto: Willing & Williamson.

We can confidently recommend to our readers this work of an accomplished scholar, as one of the best on the subject extant, both in the consideration and treatment of those forms of the disease which are the result of organic changes that can be recognized after death, as also of others expressive of a condition of the brain not evidenced after

death by any visible alteration. From the 1450 cases given, Dr. Gowers has attempted the difficult task of separating the severe cases of hysteroid convulsions from those of simple epilepsy; the various predisposing and exciting causes are carefully considered and commented on, the general character of the attacks, and symptoms in detail, the forms of warning, and the proportion of cases in which consciousness is lost so early that the commencement of the fit is unfelt. He states that loss of consciousness precedes or accompanies the first symptoms in half the cases, in the other half the patient is aware of the commencement of the attack. These proportions agree closely with those ascertained by Romberg and Sieveking. The various forms of warning, whether unilateral, bilateral and general, visceral, cephalic, psychical, or of the special senses, are minutely described. The sixth and seventh chapters are devoted entirely to hysteroid or co-ordinated convulsions. The important distinction between these and true epileptic convulsions, as pointed out by Charcot and Richer, are, 1st. The attack is often preceded by a peculiar mental state, with hallucinations. 2nd. The tonic spasm with which the epileptoid stage commences, is usually immediately preceded by violent movements of the limbs. 3rd. An attack may be brought on by compressing the ovaries or touching hysterogenic points on the surface. Dr. Gowers does not, however, consider that Charcot's views of exciting and arresting hysteroid convulsions by compression of the ovaries is to be relied upon. His experience of ovarian compression—so efficient at the Salpêtrière in inducing and cutting short attacks of hysteroid epilepsy—is, that in England it has failed to produce a marked effect on the patients suffering from this affection. We quote a few of the diagnostic characters of epileptic and hysterical fits. Onset in epilepsy sudden, hysteroid often gradual; scream in epilepsy at onset, in hysteroid during course; convulsions in epilepsy, rigidity followed by jerking, in hysteroid rigidity or struggling, throwing limbs about; micturition in epilepsy frequent, in hysteroid never; defæcation in epilepsy occasional, in hysteroid never; talking in epilepsy never, in hysteroid frequent; duration in epilepsy a few minutes, in hysteroid half-an-hour or several hours. In the treatment of the disease, Dr. Gowers finds often great benefit by combining the bromides with digitalis, belladonna, tincture of iron and

borax, according to existing condition. Our readers will find this work an admirable compendium of the diagnosis, prognosis and treatment of this formidable disease.

THE SCIENCE AND ART OF MIDWIFERY.—By William Thompson Lusk, A.M., M.D., Professor of Obstetrics and Diseases of Women and Children in the Bellevue Hospital Medical College, etc. 8vo., pp. 687, with numerous illustrations. Cloth, \$5. New York: D. Appleton & Co., Toronto: Willing & Williamson.

It appears there is to be no lack of American authors in this branch of medicine. A short time since we reviewed in these pages a treatise on midwifery by Dr. Glisan; and it was announced some time ago that Prof. Parvin, of Indianapolis, had a work in preparation. The work before us is fully abreast of the times, every recent advance in the science and art of midwifery being faithfully recorded. The work is a most creditable one, and will reflect honor on the American profession. The author has given special attention to the results of the labors of the French and German obstetrical writers. His style is attractive, the matter well selected, and the text fully and carefully illustrated. The work is deserving of the highest commendation.

A SYSTEM OF SURGERY, THEORETICAL AND PRACTICAL. In Treatises by various authors. Edited by T. Holmes, M.A., Cantab, Surgeon and Lecturer on Surgery at St. George's Hospital, London. First American, from Second English Edition. By J. H. Packard, M.A., M.D., Philadelphia, in three volumes. Vol. II. Philadelphia: H. C. Lea's, Son & Co. Toronto: Hart & Co.

The first volume of this excellent work on surgery, which we noticed a short time ago in these pages, embraces general pathology, morbid processes, injuries in general, complications of injuries, and injuries of regions. Volume II. embraces diseases of the organs of special sense, circulatory system, digestive tract, and genito-urinary organs. It is unnecessary to add anything to our former notice of this admirable treatise, except to congratulate the profession upon the issue of the present edition. The new binding in Russia adopted by this firm, is not only very substantial, but highly to be commended for its artistic beauty.

THE NURSE AND MOTHER. A Manual for the guidance of Monthly Nurses and Mothers. By Walter Coles, M.D., St. Louis. St. Louis: J. H. Chambers & Co.

TREATMENT OF HYDROCELE AND SEROUS CYSTS IN GENERAL BY THE INJECTION OF CARBOLIC ACID—Dr. Levis states that he has been experimenting with a view of determining what substance may best secure the obliteration of the secreting surface, and the adhesion of the walls of the cyst with the most certainty and the greatest freedom from suffering and danger. Having selected carbolic acid as an agent which would provoke simply a plastic inflammation, he injected one drachm of of the deliquesced crystals into the sac of a large hydrocele. The new procedure was entirely painless. A sense of numbness alone was experienced, and no inconvenience was felt until, on the next day, the desired inflammatory process developed. A nine years' hospital and private experience leads the author to believe that this method is the most satisfactory for the object. For the purpose of injection, crystallized carbolic acid is maintained in a liquefied state by a five or ten per cent. solution of either water or glycerine; the crystals are to be reduced to the fluid state with no more dilution than may be necessary for this. After tapping, inject with a syringe having a nozzle sufficiently slender and long enough to reach entirely through the canula. He has never been able to detect any general toxic effects upon the system, but believes that the action of strong carbolic acid on surfaces secreting albuminous fluids is to seal them, to shut them off from the system in such a way that absorption cannot readily take place. The occluding influence of strong carbolic acid he regards as an important surgical resource in certain cases of compound fracture, destructively lacerated wounds, and ulcerating surfaces, where septic infection is inevitable. All forms of serous cysts which are usually subjected to any form of operative treatment, on the principle of producing plastic adhesion of their walls, may be deemed amenable to the treatment indicated.—*Medical News*.

CHLORAL HYDRATE IN DIABETES.—Prof. Eckhard shares the opinion of Mering and Musculus that the urine of animals under the influence of chloral never contains sugar. The author has arrived at this conclusion from the following experiments: After injecting a certain quantity of chloral hydrate under the skin of a dog, the fourth ventricle of the brain was punctured; no sugar, however, appeared in the urine. In a second animal glycosuria was first produced by puncture of the floor of the fourth ventricle; chloral was then injected and sugar disappeared. Glycosuria may be pro-

duced reflexly by section of the vagus in the neck and stimulation of the proximal extremity; but the experiment fails in chloralised animals. Similarly no sugar appeared in the urine of a dog made to breathe carbon monoxide, when chloral (five grammes) had previously been administered. This evident influence of chloral over the excretion of sugar by the kidneys has been turned to account in the treatment of diabetes; in two patients who were subjected to this method of treatment a marked decrease was observed both in the quantity of urine and in the amount of sugar which it contained.—(*Arch. f. Exp. Pathol.*)—*Glasgow M. J.*, Nov.

THE LAW OF SLANDER AS APPLICABLE TO PHYSICIANS.—A paper on this interesting subject appears in the August number of the *American Law Register*, of Philadelphia. It is from the pen of Mr. Whitaker, attorney at law, of Cincinnati, and it teaches its lesson from a very good text. He says: "There is, no class of professional men more subject to abuse, and it is believed, more powerless to obtain redress, than physicians. About clergymen the law has thrown its protecting arm, and public opinion has been wont to overlook, if not pardon their shortcomings. The clergyman is a sort of privileged person, whose character is tried before and whose conduct is regulated by ecclesiastical tribunals to which the courts of law have relegated it. Lawyers can take care of themselves."—*Lancet and Clinic*.

Dr. Bristowe, in his address before the British Medical Association, touching homœopathy, said that, if we wish to live broad and unselfish lives, we must be slow to condemn all those who entertain convictions which to us seem foolish or mischievous and logically untenable, or to refuse to cooperate with them.

Births, Marriages and Deaths.

At Manilla, Ont., on the 3rd of January, Wm. Philip, M.D., aged 30 years.

At New Hamburg, Ont., on the 5th ult., Dr. William H. Boulee, aged 60 years.

In Toronto, on the 1st of February, Dr. J. P. Lynn, aged 42 years.

At Dorchester, N. B., on the 11th ult., William Wilson, M.D., aged 77 years.

At Chester, on the 31st of January, C. W. Hiltz, M. D., aged 41 years.

At Frankville, Ont., on the 29th of October, 1881, A. R. Lander, M. D., aged 62 years.

At Merrickville, Ont., on the 22nd ult., Wm. Weir, M. D., aged 48 years.

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PODOPHYLLIN ET HYDRAZ 3. {Podophyllin, 1/4 gr. Mass. Hydrarg. 2 gr.}	Laxative.	2 to 4	50	
" ET HYOSCYAMUS, {Podophyllin, Ext. Hyoscyamus, R 1/2 gr.}	Gentle Cathartic	1 to 2	60	
PODOPHYLLIN, 1 gr.	Cathartic.	1	75	
QUINIA SULPH. 1/2 gr.	Tonic, Antiperiodic.	1 to 4	90	
" " 1 gr.	Tonic, Antiperiodic.	1 to 3	1 40	
" " 2 grs.	Tonic, Antiperiodic.	1 to 3	2 75	
" " 3 grs.	Tonic, Antiperiodic.	1 to 2	4 00	
" COMP. {Quin. Sulph. 1 gr. Ferri Carb. 2 grs. Acid Arsenious, 1-60 gr.}	1 immediately after each meal.	Tonic, Antiperiodic.	1 to 2	1 75
ET EXT. BELLADON. {Quinins Sulph. 1 gr. Ext. Belladon, 1/2 gr.}	Nerve Tonic, Antiperiodic.	1 to 2	1 75	
ET FERRI, {Quin. Sulph. 1 gr. Ferrum per Hydrarg. (Quevenne's) 1 gr.}	Tonic, Antiperiodic.	1 to 2	1 75	
QUINIE ET FERRI, ET STRYCHNIE, {Quin. Sulph. 1 gr. Ferri Carb. (Vallet's) 2 grs. Strychn. Sulph. 1-60 gr.}	Tonic, Antiperiodic.	1 to 2	1 75	
QUINIE ET FERRI ET STRYCH. PHOS. {Phos. Quinia, 1 gr. Iron, 1 gr. " Strychnia, 1-60 gr.}	Tonic, Antiperiodic.	1 to 2	1 75	
" ET FERRI, Valer, 2 grs.	Tonic, Nerve Sedative.	1 to 2	3 50	
QUINIE ET FERRI CARB. {Quinia, 1 gr. Ferri Carb. (Vallet's) 2 grs.}	Tonic, Antiperiodic.	1 to 2	1 75	
" ET HYDRARG. {Quin. Sulph. 1 gr. Mass. Hydrarg. 2 grs. Oleo-resin, Piper. Nig. 1/4 gr.}	Tonic, Antiperiodic.	1 to 2	1 75	
QUINIA, IODOFORM AND IRON {Iodoform, 1 gr. Ferri Carb. (Vallet's) 2 grs. Quinia Sul. 1/2 gr.}	Tonic, Alterative.	1 to 2	3 00	
QUINIE ET STRYCHNIE {Quinia Sul. 1 gr. Strychnia, 1-60 gr.}	Tonic, Nerve Stimulant.	1 to 2	1 75	
QUINIA, Valerianate, 1/2 gr.	Tonic, Nervine.	1 to 2	2 00	
RHEI ET HYDRARG {Pulv. Rhei, 3 grs. Mass. Hydrarg. 1 gr. Soda Carb. Exs. 4 grs.}	Cholagogue Cathartic.	2 to 5	80	
RHEI, U. S. P. {Pulv. Rhei, 3 grs. Saponis, 1 gr.}	Gentle Laxative.	1 to 5	75	
RHEI COMP. U. S. P. {Pulv. Rhei, 2 grs. Aloes Socot, 1 1/2 grs. Myrrh, 1 gr. Ol. Marsh. Pip. 1 gr.}	Purgative.	2 to 4	75	
RHEUMATIC, {Ext. Coloc. C. 1 1/2 grs. " Colchic. Acet. 1 gr. " Hyoscyam. 1/2 gr. Hydg. Chlor. Mit. 1/2 gr.}	Anti-Rheumatic, Purgative.	1 to 3	90	
SANTONIN, 1 gr.	Anthelmintic.	1 to 3	1 00	
SCILLE COMP. U. S. P. {Pulv. Scille, 1/2 gr. Zingib. Jamaica, 1 gr. Gum Ammoniac, 1 gr. Pulv. Saponis, 1 1/2 gr.}	Expectorant, Diuretic.	1 to 3	50	
STOMACHICA, (Lady Webster's Dinner Pills, 3 grs.) {Aloes Soc. Gum Mastich, Flor. Rosae.}	Stimulating Purgative.	1 to 2	50	
SYPHILITIC, {Potass. Iod. 2 1/2 grs. Hyd. Chlor. Corros. 1-40 gr.}	Specific Alterative.	1 to 2	1 00	
TRIPLEX, {Aloes Socot, 2 grs. Mass. Hydrarg. 1 gr. Podophyllin, 1/2 gr.}	Purgative.	2 to 4	75	
ZINCI VALERIAN, 1 gr.	Antispasmodic.	1 to 3	1 00	

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MEDICAL PROPERTIES. Doses, Each

ACID, Arsenious, 1-20, 1-30 and 1-50 grs.	Antiperiodic, Alterative.	1 to 2	40
ACONITIA, 1-60 gr.	Nerve Sedative.	1 to 2	75
ATROPIA, 1-60 gr.	Anodyne.	1 to 2	75
CORROSIVE SUBLIMATE, 1-12, 1-20 and 1-40 grs.	Mercurial Alterative.	1 to 2	40
CAULOPHYLLIN, 1-10 gr.	Emmenagogue.	1 to 4	40
CIMICIFUGIN, 1-10 gr.	Tonic, Nerve Stimulant.	1 to 4	40
DIGITALIN, 1-60 gr.	Arterial Sedative.	1 to 2	75
ELATERIUM, (Clutterbuck's) 1-10 gr.	Diuretic Hydragogue, Cathartic.	1 to 2	95
EXTRACT Belladonna, (Eng.) 1/4 gr.	Anodyne.	1 to 3	40
" Ignatia Amara, 1/4 gr.	Nerve Sedative.	1 to 2	50
" Cannabis Indica, 1/4 gr.	Anodyne.	1 to 4	80
" Hyoscyamus, (Eng.) 1/4 gr.	Nerve Stimulant.	1 to 3	40
" Nuc. Vomica, 1/4 and 1/2 gr.	Nerve Stimulant.	1 to 3	40
GELSEMIN 1/2 gr.	Arterial Sedative.	1 to 4	50
" " 1/4 gr.	Arterial Sedative.	1 to 2	75
HYDRASTIN, 1/2 gr.	Emetic, Diuretic, Cathartic.	1 to 2	95
HELONIN, 1-10 gr.	Cathartic.	1 to 2	80
LEPTANDRIN, 1/4 gr.	Cathartic.	1 to 4	40
" " 1/2 gr.	Cathartic.	1 to 4	50
MERCURY, Iodide, 1/4 gr.	Alterative.	1 to 4	40
" Red, 1-16 gr.	Alterative.	1 to 4	40
MORPHIA, Acet. 1/2 gr.	Anodyne.	1 to 2	70
" Sulphate, 1-10 gr.	Anodyne.	1 to 2	60
" " 1/2 "	Anodyne.	1 to 2	70
" " 1-3 "	Anodyne.	1 to 2	80
" " 1/4 "	Anodyne.	1 to 2	1 00
" Valerianate, 1/2 "	Anodyne.	1 to 2	1 00
PODOPHYLLIN, 1-10 gr.	Cathartic.	1 to 4	40
" " 1/2 gr.	Cathartic.	1 to 4	40
" " 1/4 gr.	Cathartic.	1 to 2	50
" COMP. {Podophyllin, 1/2 gr. Ext. Hyoscyam, 1/2 gr. " Nuc. Vomica, 1-16 gr.}	Cathartic and Tonic.	1 to 2	75
SILVER, Nitrate, 1/4 gr.	Alterative, to Mucous Memb'ne.	1 to 4	75
" Iodide, 1/4 gr.	Alterative, to Mucous Memb'ne.	1 to 4	75
STRYCHNIA, 1-16, 1-20, 1-30, 1-32, 1-40 and 1-60 gr.	Nerve Stimulant, Tonic.	1 to 3	40

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Messrs. SCOTT & BOWNE: I have much pleasure in stating that for the last three years I have used your Emulsion of Cod Liver Oil and Hypophosphites in my practice, in cases of Phthisis, Nervous Prostration and Anemia, and always derived marked benefit from its use. That it does not decompose, is very palatable, and remains in the most fastidious stomach, are some of its greatest merits.
 St. John, N.B.
 I have the honor to be, yours truly,
 T. J. O. EARLE, M.D.

Messrs. SCOTT & BOWNE: I have used for some time, and prescribed Scott's Emulsion of Cod Liver Oil, and find it an excellent fixed preparation, agreeing well with the stomach, easily taken, and its continued use adding greatly to the strength and comfort of the patient.
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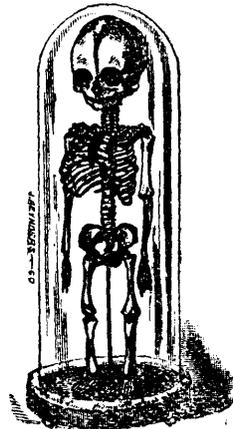
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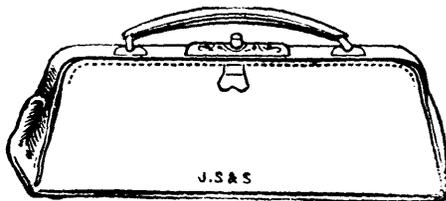
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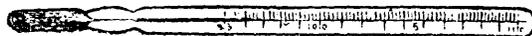
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THE COLLEGIATE YEAR in this Institution embraces the Regular Winter Session and a Spring Session.

THE REGULAR SESSION will begin on Wednesday, September 21, 1881, and end about the middle of March, 1882. During this Session, in addition to four didactic lectures on every weekday except Saturday, two or three hours are daily allotted to clinical instruction. Attendance upon two courses of lectures is required for graduation.

THE SPRING SESSION consists chiefly of recitations from Text-Books. This Session begins about the middle of March and continues until the middle of June. During this Session, daily recitations in all the departments are held by a corps of Examiners appointed by the Faculty. Short courses of lectures are given on special subjects, and regular clinics are held in the Hospital and in the College building.

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Yours truly,
 JOHN V. SHOEMAKER, A.M., M.D.,
 Physician to the Pennsylvania Free Dispensary for Skin Diseases.

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FROM E. J. DAY, ESQ., F.C.S., M.R.C.S., L.S.A.,
Med. Off. Health, Public Analyst, Etc.

DORCHESTER, DORSET, ENGLAND,

October 2, 1880.

DEAR SIR,—Feeling it my duty to the medical profession, as well as to the public, to make known the effects of FELLOWS' HYPOPHOSPHITES, I send you the results of my short but satisfactory experience. After using it in several pulmonary cases with good effect, I prescribed your Syrup for a middle-aged female patient, suffering from "MELANCHOLIA," who was, up to the time she commenced taking it, so bad that her friends and husband had made preliminary arrangements for her removal to an asylum; so great, however was the improvement under the new treatment, which consisted solely in giving your Hypophosphites, that she shortly was able so attend properly to her household duties; it is only right to mention, that the drugs prescribed before failed. Although your Syrup of Hypophosphites contains the active bitter tonics, with iron, etc., my young patients and invalids take the preparation readily. As a nervine tonic I consider it ranks very highly, and is a valuable addition to the list of pharmaceutical preparations. I can with great confidence recommend it in cases of general debility, consequently those gentlemen who dispense their own medicines should not be without it.

E. J. DAY.

To MR. JAMES I. FELLOWS, London.

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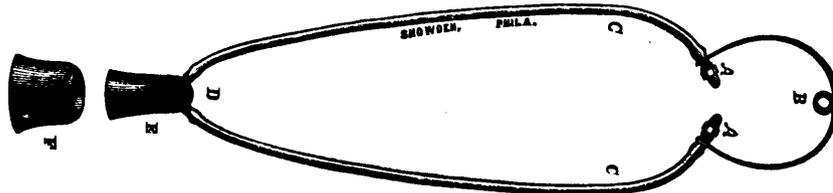
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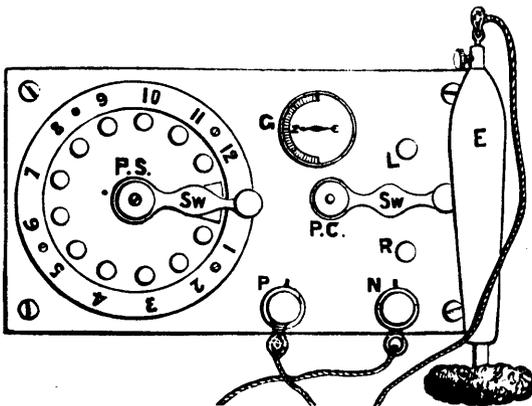


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