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Original Contributions.

GUN-SHOT WOUND OF KIDNEY: NEPHRECTOMY—THYROID TUMOR AND FIBROUS TUMOR OF LOWER JAW.*

BY THOMAS H. MANLEY, M.D., NEW YORK,
Professor of Surgery, New York School of Clinical Medicine.

MR. PRESIDENT AND GENTLEMEN,—The first specimen presented here is one of a gun-shot wound of the left kidney. This was removed from a young woman at 3 in the morning, June 12th, 1899, in the Harlem Hospital.

An irate husband, coming home unexpectedly, found his young wife in bed between two men. Without any parley, he at once opened fire on the trio, one ball opening widely the knee-joint of one man, leaving him *hors de combat*, another bullet pierced the leg of the other man. He then turned his attention to his erring partner, first sending one bullet into her right nates, and another into the lumbar region of left side.

I saw the young woman two hours after the shooting. At this time she was in great shock, and was bleeding freely from the wound in the loin. The wound had been packed, but yet the flow of blood was steady and copious. She was immediately given three pints of saline solution by the median-cephalic vein, and prepared for a laparotomy.

Making a large Semon incision, the kidney was quickly exposed and drawn into the wound. It was my intention to arrest the bleeding by deep suture of the cortex, but the kidney had so many

*Remarks on specimens presented at Society of Medical Progress, in New York, April 4th, 1900.

deep lacerations, this was found to be inexpedient. It was therefore drawn well outward, when the vessels and ureter were divided, and the organ removed. Recovery was tedious, but complete.

It is curious to note here how an organ is so terribly skivered and disorganized by a missile at close range; something so dreadfully conspicuous in the engagements at close quarters at the present time with the Lauser musket in South Africa. You will note that the kidney is nearly torn in two, the laceration extending deeply into the pelvis.

The next specimen is one of a parenchymatous tumor of the thyroid gland removed from a young woman.

She was sent to me for operation, because the growth had encroached so deeply and far invaded as to render phonation and respiration difficult, because it was steadily increasing in volume, and moreover; because of the disfigurement it produced. There was no exophthalmia or marked evidences of goitre.

The most common variety of tumor found in the thyroid body is cystic and parenchymatous. In this instance, neoplasia was limited to one lobe, and hence its removal was not attended with the prospects of myxedema, almost certain to follow the total ablation of the organ.

The operation in this case was attended with no special difficulties. Caution was observed to isolate the nerve and blood-trunks lying in the way, and the pedicle was securely ligated by the chain-suture before detaching the tumor near the isthmus.

Convalescence was rapid, with disappearance of all her former painful symptoms.

The third and last specimen is a recurrent tumor, removed from the lower jaw of a young woman. The great interest in the case is that, although histological elements in the mass stamped it as of the benign series, yet clinically its course was of the most malignant character.

When patient first came to me the growth was no larger than a cherry, of sub-periosteal origin, and easily dissected out under cocaine. But within six months it had returned, and attained such an enormous volume as to threaten life by asphyxia. It advanced downward into the sub-maxillary space, pressed the larynx toward the opposite side, and had so pressed in the esophagus as to render deglutition almost impossible. After excision, it weighed 27 ounces. Microscopical examination showed that the tumor consisted of simple fibrous tissue, with a rich reticulum, made up mostly of ground substance.

Although this mass was large, it was deeply lodged and well fixed; its removal was accomplished without a large loss of blood.

Reading some time before Mr. Watson Cheyne's able monograph, on the subject of sarcomatous growth in the region of the

pharynx, I adopted his valuable suggestion, and freely applied pure nitric acid to the base from which the tumor sprung. It is now five years since operation, and there has been no return.

PRE-COLUMBIAN LEPROSY—A CRITICAL ESSAY.*

BY ROBERT LEHMANN-NITSCHKE, M.D.,

Doctor of Natural Sciences in charge of the Anthropological Section of the Museum of La Plata,
La Plata, 1893.

(Continued.)

We have explained before that "llaga," mentioned by Jimenez de la Espada, had attracted our attention, because it appeared to be the cause of the mutilations which occupy us. Upon reading the original text, which we reproduce literally, we asked the question: How is it possible that a physician could write it? Its description is inaccurate, and without any data of etiology.

The word "llaga" signifies, in Spanish, ulcer, wound. See, for example, *Diccionario Nacional de la lengua espanola* por Dominquez, Madrid, 1860,—“Llaga, s. f. v., ulcera.” Or the *Primer diccionario general etimologico de la lengua espanola*, por don Roque Barcia, Madrid, 1881—“Llaga,” disunion de la carne, causada por corrosion o por herida.”

They call "llagas" "heridas (wounds) o contusiones" in one word, all external contusions (Rivero y Tschudi, p. 123). To make it more exact, I shall describe now that which signifies the word llaga, in the Argentine Republic, based on data which persons who know well the country have given to me. There does not exist in the Argentine Republic any disease called "llaga": that which the word signifies is the effect of different diseases. When they speak of "llagas" (generally in the plural), it is understood especially that they mean an affection of the throat; for instance, "Has llagas in the throat," is a very common phrase. More precisely, they use the name "benign llagas, when the affections are light, and on the contrary, if they are severe, they call them "bad llagas," or "black llagas." Lastly, it is applied by physicians, speaking with their patients, to distinguish especially diphtheria, vegetations on the tongue and in the larynx; they speak of "llagas on the tongue, in the mouth, or in the throat." In the case of a great affection, they also say, "had the whole mouth in a live llaga," or "the mouth in live llaga." Once I have heard mentioned "internal llaga."

The effects produced by blisters are called "llagas," as well as

* Review of the Museum of La Plata (Argentina), Vol. IX., page 337, and following.

"blisters" from burns, are called "llagas." To express an inflammatory affection of the lower part of the leg, they use the following expressions, "It has formed a 'llaga,' or 'a live llaga' in the leg." So also they apply it to superficial affections of the skin, which require a long time to cure. Ulcers and wounds also receive the name, especially those which suppurate. For example, speaking of the five wounds of Jesus Christ, they say, "the five llagas of our Lord." They speak of "llagas of San Roque," who is considered as the protector of believers, in epidemics or plagues. Very often they apply the word to venereal affections, so common here, during the long time of the first stage of the disease in man and woman, also to the later eruption (especially in the throat). Then they say, "Ah! he has 'llagas,'" or "he is with 'llaga.'" They use also, although more rarely, the verbal form, "llagado"; "this one was llagado." An individual who has four or five llagas (in the throat, for example) is wholly "llagado."

See now what Dr. Carrasquilla, of Bogota, says of it:

"As regards the special disease of Peru, called 'llaga,' to which Mr. Jimenez de la Espada believes should be attributed the mutilations on the ceramics, I can say nothing, because I do not know the description of the disease given by the Boletin de la Soc. Geograf. de Lima, which you quote, but there exists in Colombia a special disease, which it appears has very notable ranges of similarity to the 'llaga' of Peru. This disease is known here by the name of 'buba' or 'bubon de Velez.' Dr. Roberto Azuero has published on it a monograph, which I send you (*Revista Medica de Bogota*, Oct. 1897, No. 22), in which he describes the disease and considers it a special and specific nosological entity, distinct from cancer, scrofula, syphilis, and tuberculosis, *although the bacteriologic study of the disease is wanting.*" (The italics are the translator's; "bubas" in *old* Spanish, was syphilis.—A.)

"As the disease affects in its second period (according to Dr. Azuero) the nose, almost destroying it completely, and as it affects, moreover, the upper lip, although not destroying it, we may conclude that it is the same 'llaga' peruana, and that the comparison which you make of both may throw some light which will permit us to determine as to the identification, or better, the separation, of the two diseases. In any case, the mutilation on the ceramics do not, as Mr. Jimenez de la Espada wrongly thinks, pertain to 'llaga' nor 'la lepre,'" etc. (I shall give later on the opinion of Mr. Carrasquilla, according to which our Peruvian vessels can not represent mutilations produced by leprosy.—L.-N.)

"If the llaga," continues Mr. Carrasquilla, "is a lupus, as some contend, the same as 'el bubon,' we have neither place to consider the lesions represented on the ceramics, because tuberculosis appears to be as unknown in the New World as leprosy and syphilis,

precious gifts which the conquerors brought us; and believing the ceramics to be anterior to the discovery of America, they could not be present lesions, caused by diseases, which didn't exist."*

This is all that Mr. Carrasquilla has written relating to llaga.

Mr. Rodolfo Lenz, of Santiago, well known by his classical studies on the Araucanians has had the gallantry to place at my disposition all the data which he possesses respecting the use and signification of the word "llaga" in Chili and other South American countries. I desire, for my part, to gratefully thank him for so valuable and important contributions. I give in continuation the current of his communications, translated from the German:

"According to the knowledge we possess, in Chili and the greater part of South America, they denominate as 'llaga' open wounds, but which have not been produced by traumatism, especially all ulcers, suppurations, and similar affections. I can state that this is the case also in Honduras and Costa Rica, by the intermediary of my disciples. The signification of the word 'llagas' in speaking of the 'five of Christ,' does not correspond to what they give it to-day. In ancient times this acceptance of the word was of very general use, and perhaps the same has occurred in the literature. Thus, for example, we have the *Wundmale Christi*, which is used in no other acceptance. In Chil. there are frequent partial ulcers, especially on the shinbones, according to my data. Regarding this, I am completely of your opinion that llaga is not a special disease, but a symptom of diseases, whose causes may be very different.

"I know only casually the *Verhandlungen* of the Anthropological Society of Berlin, by having it sent to me by Dr. Polakowsky, therefore I cannot hold a proper medical opinion, but I do not believe in the existence of pre-Columbian leprosy. In Chili there have been found up to date three cases of this disease. The first two had been watched closely for some years by the German dermatologist, Dr. Fromel (deceased); the third case was observed some weeks ago in Valparaiso, in a Portuguese of Cape Verde, from which place the first two cases were introduced. If the disease had existed before in Peru and Bolivia, it would have devastated more or less the whole of South America. Lupus exists, but, I believe, in the same form as in other parts of the world, not endemically.

"It is more than probable that there exists among the Indians other corrodent ulcers, for whose derivation words are not wanting; some of them are characteristic of the case which occupies us."

Gratefully thanking my friend Don Rudolfo Lenz for his

* Tuberculosis and syphilis were pre-Columbian among Aymaras and Incas of Peru and Bolivia. See Forbes, British Anthropological Society Transactions.—ASHMEAD.

valuable contributions of data, I am obliged to show that as well in the Canary Islands as in the Republic of Uruguay, they employ the word *llaga* with the same significance, as we come to explain it even now.

As is seen, the word *llaga* signifies commonly affections of general ulceration, of different etiology, but *in no case* are the respective diseases the same. Very probably this signification of the word will be the same in Peru. Mr. Barraillier, in his description, little exact, of the diseases mentioned in the valleys of Peru, makes no conjectures on etiology, neither could he know as a foreigner, it appears to me, the meaning of the word "*llaga*," confounding the effect of one disease with that like it. That there exists a disease in the valleys of Peru, with similar symptoms, there can be no doubt, yet before acquiring data more exact, especially of its etiology, I do not believe that there is a disease peculiar to Peru, "an endemic variety of tuberculosis," as Mr. Jimenez de la Espada says. May be there is, but, for the present, we have to admit that any one of the like diseases (*lupus*, *lepra*, *syphilis*) could have produced also these "*llagas*" in Peru.

Regarding the Quechua word, "*hutta*," more exact informations are wanting. Probably it signifies analogous effects of different diseases. Neither have I data regarding "*Mal de los Andes*," quoted in a second place by Mr. Jimenez de la Espada. I have said that this word signifies in the mountainous regions of the Argentine Republic, the mountain disease called "*puna*," and in Chili and Peru, "*Soroche*." In every case they treat of provincialisms of little value, and do not explain scientifically a special disease, and are encountered in all regions. Thus, for instance, there exists in the low places of Moxos and Chiquitos of Bolivia a disease which, according to what Mr. Lafone Zuevedo has related to me, they call "*Espundia*," but no one has been able to adjust the data, unfortunately, so that we can not ascribe to it an exact medical signification.

Mr. Carrasquilla promised to help Dr. Polakowsky by giving him some bibliographical reference, proofs for the data he had furnished him verbally. I quote here the explanations which the distinguished physician of Bogota has had the delicacy to procure for me. I shall classify them under the following points of view:

1. *Dr. Carrasquilla does not believe that leprosy has existed in America before the discovery.* A like note in the literature is wanting in value.

"The only data which I have found in all that I have read referring to this point, is the notice of a population of lepers which existed in the plains; but as this notice is given by a Spaniard, who is not a physician, and as the Spaniards gave the name of *lepra* to another dermatosis, it has appeared to me of no value.

This datum is found in the 'Coleccion de documentos meditos,' etc.

You will find in the document to which I refer, taken from a register of annotations, which I here introduce, which includes all that can serve for our special studies (Copio del tomo, ii., p. 463), as follows:

"Lepra: This nation (Tunebos) is naturally marked with leprosy, with which they are all covered, and according to what is told me, it is the evil which will surely destroy them: the children inheriting it from the fathers. By this disease they are loathsome," etc., etc.

This notice refers to Pilar de Patuti, a town where ends the territory of the Jesuit fathers, to the north of the river Casanare, and although it is one of the oldest, it has so little prospered that its decadence is deplorable. Founded in the year 1661, by Father Juan Fernandez Pedroche, etc. (Coleccion de documentos meditos sobre la Geografia y la Historia de Colombia, re copilados por Antonio B. Cuervo—Seccion segunda, Tom. iii., 1893.)

This was the work Mr. Polakowsky cited, and as you see, it refers to the question of knowing whether or not leprosy existed in America before the discovery. The proof that the Spaniards called lepra another disease of the skin, and that which the Tunebos suffered of was not lepra, is given in the following passage from Padre Rivero: "Greatly opposed to this people is the nation Tuneba. I do not know a people more brutal, nor more filthy, nor more inclined to tales and bad reports, in all that range of mountains. The men, as well as the women, go clothed with a single linen sash, and dirty, somewhat like the costume of the Armenios, which cover them from above downwards. They care for nothing less than to comb the hair of the head, which they wear dishevelled, filled with some dirty little animals. They consider it a great recreation to place themselves in the sun, and sitting there, to catch and eat them all, without which none could die. They have no dish more agreeable to them than a piece of putrid flesh, and nothing more stinking is known than it.

"They are attacked by a certain filthy and loathsome disease, called 'carate,' which is a kind of lepra, with which are covered even the features and the hands, with spots blue and white, which give horror to see them. They are so savage, as a whole, that they pride and glorify themselves with this disease, to such a degree that if any girl of the district has not had 'carate,' nobody wants her for a wife; hence, by way of convenience, and in order that they shall not lose marriage, a certain drink is given, which gives rise to carate, and soon, without more patrimony or gift, is found the convenience to aid claimants, as if they found in the carate an heirloom, or family estate, or marquisate, or *Estate of Flanders*."

(Historia de las Misiones de los Llanos de Casanare y los rios Orinoco y Meli, escrita en el Año de 1736, por el padre Juan Rivero de la Campana de Jesus, Bogota, 1883, Capitulo xvi. The place and nations to which were sent our first missionaries, pp. 54 and 55.)

It is clear from this quotation that Alvarado interpreted for *lepra* the *carate* of Tunebos, with as great ease as Padre Rivero said that the disease (*Carate*) is a kind of leprosy, with blue and white spots. The place occupied by the Tunebos corresponds entirely, in the relation of Padre Rivero, with the population to which Alvarado refers. At once there is wanting not the least doubt of that when he says: "The nation Tunebo stand favored naturally with leprosy, of which they are entirely covered." It refers to *carate*, which is the same disease which Padre Rivero encountered in that nation.

2. According to the opinion of Dr. Carrasquilla, leprosy among savage Indians never existed. He adduces (for Dr. Polakowsky) several things. Now, leprosy does not exist among savage tribes or half-civilized, which are without contact with Europeans, or their descendants, or simply in commercial relations very restricted. He cites, among others, the vast peninsula inhabited by the Naturals to the north-east on the Atlantic coast. The eastern region, known by the name of Llanos de Casanare y San Martin, vast plains which extend to the eastern branch of the Cordilleras of the Colombian Andes, bathed by the affluents of the Orinoco and the Amazon, where exist some savage tribes and remains of ancient populations, half-submitting natives, without having among them any vestige of the existence of lepra: the hydrographic pit of the Opon, affluent of the Magdalena, where likewise are preserved some savage tribes exempt of said diseases.

3. The first case of real leprosy occurred in the person of the Conqueror of Colombia, Jimenez de Quesada.

Speaking privately with Mr. Polakowsky, on the existence of leprosy in America before the conquest, I said to him that in my conception that disease was absolutely unknown, and that it had been imported by the Spaniards, when they came to the discovery of these countries. In support of my opinion I said to him, that Don Gonzalez Jimenez de Quesada, the conqueror of the New Kingdom of Grenada, which constitutes to-day the Republic of Colombia, and the founder of its capital, Santa Fe de Bogota, was the first leper who had it, of which there is any notice in the territories of the Republic.

"In the notice of the 'Memoria sobre la lepra Griega en Colombia,' which I presented to the Conference of Berlin; I said: I had intended for this memoir numerous documents which I had put together, on the introduction, propagation, and extension which

leprosy actively holds in the Republic of Colombia. It was necessary for me to suppress that part. When I shall publish that part of the 'memoir' I shall remit to you a proof, by which you can rectify the data."

4. *Description of the character of leprosy: the ceramics do not represent such character, for that reason they are not lepers.*

The eminent Prof. R. Virchow, having presented some ceramics remitted by Dr. Albert S. Ashmead, of New York, in which were seen mutilations of the feet, the nose, and the upper lip, and as he insinuated in the Session of October 13th, that said mutilations were caused by leprosy, I protested, on looking at them, and said that leprosy had not existed in America before the discovery—the ceramics were, as was solemnly affirmed, anterior to the discovery—and that, in consequence, these mutilations were not caused by that disease, and would better be attributed to punishments imposed for certain delinquencies, which, being heard by Mr. Polakowsky, were put to the knowledge of the members of the Conference, without my authority, and without my supposing that he was going to make use of that subject.* By reason of the discourse of Mr. Polakowsky during the sessions, the respectable savant, Dr. Virchow, approached me, to inquire what it was I had said to Mr. Polakowsky about the mutilations. I declared to him that leprosy had not existed in Colombia, nor in any part of America before the conquest, of which I possess my proofs; that the form of the mutilations, in right angles, perpendicular to the axes of the members, did not correspond to those which leprosy caused, which consisted in absorption of some of the bones of the metatarsus, leaving the others unhurt; sometimes they extended to the bones of the tarsus, and not to all, giving irregular cicatrices; that the mutilations of the hands are more frequent than those of the feet, as I had observed in my practice; and that the ceramics, not offering these mutilations in any one evidently should remove the idea of leprosy; that in the nose, likewise, appeared straight lines, which does not correspond with lesions caused by leprosy, which destroys ordinarily the septum, and sparing the real bones of the nose, and soft parts, the skin, etc., whilst in the ceramics, that which appeared was a cutting off of all the organ, extending even to the upper lip, spared generally by leprosy so far as the mutilations are concerned; then the tubercles, if they invade it, always deform it without causing it to disappear.

This, a little more or less, was what I said to Prof. Virchow, and the subject was not returned to, to be considered in the sessions of the Conference.

The Peruvian ceramics which represent mutilations, cannot

* Carrasquilla never opened his mouth in the discussion in the Berlin Leper Conference. His opinion was privately expressed in conversation with Polakowsky, who courteously brought his name into the question and received, in return, only vituperation.—ASHMEAD.

be attributed to leprosy, because (a) leprosy does not mutilate in this form, leaving stumps of regular contour; (b) by the want of analogous mutilations in the hands, where they are more frequent than in the feet, in lepers; (c) because leprosy crushes the nose, by destruction of the cartilage, but leaves healthy the skin and the proper bones, and does not destroy the upper lip; (d) because the ceramics—in case it had been intended to represent the effect of lesions caused by leprosy—would have represented other lesions more characteristic, as the monstrous enlargement deformation of the ears, the *facies leonina*, with the forehead covered with lepromas, as well as the cheeks, the chin, and the lips, the dropping of the lower is very notable, and the ocular lesions; all these lesions of leprosy could have been easily represented, and would give it a typical seal if such had been the intent;* (e) from what is known in sculpture, it was not customary to represent diseases nor deformations;† on the contrary, they exhibited the healthy man, robust, with his attributes very remarkable, adorned with insignia of rank, of distinction, displaying powers, and not weakness, or well indicated, as is the case in the mutilations, the action of authority over the weak and delinquent.

In leprosy the form of the stumps does not exist to represent leprous mutilation, partial, irregular, and seldom extending as far as the tarso-tibial articulation. Ordinarily, they are made in the finger joints, and in part in the metatarsals. It ought to be said also that leprosy mutilates with more frequency the hands than the feet, and consequently, if they had represented leprosy, the mutilated hands would be found, as well as feet, and preferably these. On the other hand, if we should have to admit that these ceramics were intended to represent diseases, especially leprosy, it would be natural that in them would figure deformation of the ears, which is the characteristic which would be most likely to invoke the attention in lepers, joined with lepromatous masses of the forehead, the cheeks, the chin and the lips, which constitute the proper physiognomy of leprosy in the form that is called tuberculous or tubercular. They limited themselves to deformations of the nose, leaving aside others more remarkable and typical, and which to us is not presumable, for it does not give the precise idea of the deformation of the nose, but a cutting off by straight lines. It is to suppose that the artists or artificers of these ceramics had not studied very aptly. Look at all the engravings, photographs, models of lepers, and in all are found enormous ears, from lepromas, foreheads the same, likewise cheeks, lips and chin. To

* All this is repetition without mention of name of my argument in *Pre-Columbian Leprosy*, *Jour. Am. Med. Assn.*, 1895.—ASHMEAD.

† I do not agree with this opinion of Dr. Carrasquilla, but on the contrary I believe that it was customary with those ancient peoples to represent deformations and mutilations of the body. Dr. von den Steiner says the same.—LEHMANN-NITSCH.

represent the effect of a deformation caused by disease, they would have preferred the representation of all, and not of a single one, of the lesions. Now, the eyes are seldom spared by leprosy, acquiring characteristics so remarkable that they could not have escaped the sagacity of the makers.*

5. *Result of artificial mutilation, as Restrepo explains it.*

From which you will see that there are no well-informed Americanists who do not believe that there has really existed the use of mutilation in this way, as punishment. He wrote the following, which very quickly, for lack of time for greater investigation, I quote: "Don Vincente Restrepo, a man very well versed in the study of history, author of different works, and possessed of magnificent collections of American antiquities, and of works bearing specially on the matter, says, speaking of the *Chibchas*: "They cut off the hands, noses, and ears, and give lashes for other faults, which are considered less grave" (*Los Chibchas antes de la Conquista española*, por Vicente Restrepo, Caballero gran cruz de San Gregor Magno, ex-minister of foreign relations and of the Palace of Colombia, etc., etc., 1895, Bogota (Colombia), Cap. ix., p. 103).

In the same work, on page 117, he says: "Capt. San Martin, stopping in the town of Iza, there arrived at his camp an Indian, with the face, arms and body bathed in blood, bringing with him his left hand and both ears, freshly cut off, and all the hair of his head hanging. Telling that he came from Tundama, where having arrived the fame of the brave acts of the men of the Sol, he, as old and experienced, had advised the Cacique that they should depart from the country with some presents, as was the custom. Offended, the tyrant reproached him severely, and with cruelty mutilated the man, telling him that he was to say to the *Suachies* (espanoles) who arrived that they would treat them in this way, and those who would follow them." Here exists, in truth, the use of mutilation on the punished, and he can solemnly affirm it, on full foundation, as appears from the passages which are copied at the end, which are sufficient proof, and from authorized source. Therefore, Mr. Restrepo has passed in review the writings of all chroniclers, to write the history of the *Chibchas*.

All this, united with the certainties that we hold by the documents of the chroniclers of the conquest, by the absence of leprosy in populations who have not yet been contaminated by the civilized, would take away the doubts that leprosy did not exist anteriorly to the discovery, and that the Peruvian ceramics do not represent that disease, nor any other,† like lupus, that never existed in America before the discovery; nor syphilis,‡ which after-

* My own argument in *Pre-Columbian Leprosy*, *Jour. Am. Med. Assn.*, 1895.—ASHMEAD.

† Note of Translator. How does he explain the prognathous jaws, the curvatures of spine, the jaws drawn to one side as if paralyzed, and the irregular ulcerations of the cheeks on many of the Huacos pots?—A.]

‡ Both lupus and syphilis existed in Aymarás, and afterwards in Incas, perhaps seven hundred years before the conquest.—A. S. ASHMEAD.

wards was brought by the Europeans, with variola and various others. It cannot represent llaga, because in that disease there are no mutilations of the feet." Here ends the letter of Dr. Carrasquilla.

Even should we give excessive value to these observations of the ancient chroniclers, do they put in doubt the opinion of the wise physician, who denies the existence of leprosy before the discovery? There is no reason to think it. It stands admitted that in the Peruvian clay figures the mutilations of leprosy are not treated of. Other physicians and savants have said the same: Hansen, Brinton, Ashmead, Gluck, Sommer, Valdez, Morel. Only Virchow has maintained the contrary. Enough! As they do not treat of Mal de San Lazaro, it remains for us to suppose that they relate to another disease, or that the mutilations are artificial. Regarding this last, Mr. Carrasquilla has quoted the work of Restrepo. Unfortunately, I could not consult it.*

I do not doubt that the ancient Chibchas, as Mr. Carrasquilla says in his letter, have mutilated the face in the manner already described. But who can translate the justice of the ancient Chibchas to that of the Peruvians? According to my own knowledge, the Chibchas never held relations with the ancient Peruvians. In the work of Bastian (already cited), no data are encountered that refer to said relation between both people.

It is true that we cannot make deduction from the Chibchas what can be attributed to the Peruvians. Already Mr. Jimenez de la Espada has said, with all authority, that the Peruvians have not mutilated the body, but by punishment of death.

It remains for us only to attribute the mutilations of our Peruvian ceramics to one disease, although it would be unlikely to suppose that the eunuchs, already mentioned by Jimenez de la Espada and other authors, had been represented by these lesions.

But, notwithstanding, how is explained the existence of the stumps in the clay vessels? Does another disease exist which could affect, in like manner, the feet, and both equally, as Ashmead relates? I myself have said already in the Congress of Buenos Ayres, that it is doubtful if the mutilation of the feet had any etiological relation with the others. (Ashmead claimed that the feet were amputated, and had no etiological relation to the deformations on the face.—Translator.)

See how curious it is, what Mr. Rivero and Tschudi have written about it (*obra citada*, p. 123):

"Surgical operations were completely unknown to the Peruvian men of science. Llaga, wounds, contusions, in one word,

*I could consult only the following work of *Ernesto Restrepo Tirado*: *Estudco's sobre los Aborigenes de Colombia, Primera parte, Bogota (Colombia), 1892*, which is a compilation of the books of Fr. Pedro Simon Castellanos (*Historia de Nuevo Reino de Granada*, etc.), making a very neat description of the customs of the ancient Chibchas, describing their cruel punishments. In this book nothing is encountered which speaks of other mutilations; nor in that of Bastian.

all external lesions, were cured with balsams and medicinal leaves, without the least idea of amputations of members, nor of the opening of abscesses with cutting instruments, nor of sutures in severe wounds, nor of the application of fire, nor of all other surgical operations practised in Europe," etc.

How clear up this difficulty? I spoke of this point to my distinguished colleague and friend, Dr. Juan Ambrosetti. He told me that, in his opinion, the ancient Peruvian artists could not model in all their parts the body of the respective persons, but that they could perfectly make only the superior part, stretching out only the rest of the individual, as for example, the feet. In truth, it is the face which they have represented with greater perfection. My wise colleague quoted in his investigations on the antique Calchaquies, a *similar custom, the feet lacking*, by not having been modeled (the hands, indeed, had been modeled).

Mr. Ambrosetti treats of it in his "*Notes on Archeologia Calchaqui.*"*

In our figure 12, we reproduce the figure 28, p. 527, of the work of Mr. Ambrosetti—"A vase, derivation Belen." "The figure is seated; the legs are gross, disproportioned, and as almost always is the case, terminate by simple stumps, in place of feet, in such a way that they appear to have been amputated at the ankle."

In truth, in the figure 10, the toes of the feet are represented by simple streaks, as are the fingers of the hands; the figure 11 presents the aspect of seams; in figure 12, the feet end by buttons.

Can these unfinished extremities be identified with those of the Peruvian votives, as my colleague pretends? (Brinton claims that the Calchaque civilization is *the remnant* of Inca civilization.—A. S. Ashmead.) In my opinion, no! Certainly in the Peruvian ceramics they are not represented with more perfection; they have very similar vases to ours, but not one is encountered in the very rich collection of the Museum of La Plata, that presents stumps in place of the feet, *without having mutilation of the face*. (Italics mine; I myself have made this same point. I never saw an amputated foot clay figure of Peru, that did not show evidence of *disease* in the face or spine, lost nose, or upper or lower lip, prognathous or distorted jaw, or spinal curvature."—A. S. Ashmead.) Only the vases which possess these mutilations have the stumps so characteristic of the feet. Ashmead gives us an affirmative proof of our opinion in one of his clay figures. It is a personage seated, holding the stump with the

* J. R. Ambrosetti: Nota de Orqueologia Calchaqui; Boletin del Instituto Geografico Argentino, tomo XXII, numeros 7-9, 10-12 (see for example, work cited, figure 3. San José, Catamarca, Coleccion Zavalero). He describes there: "The body short and contracted, with the arms indicated in all their extent, or alone formed by a simple stump. The legs are found in the same conditions, and terminating each one by a stump in place of the feet, data characteristic of these idols."
He describes in pages 436 to 455 an "idol incased." The author says on page 453, "the legs end naked, according to the custom of the Calchaque idols, in a simple stump, which replaces the feet."

left hand, exhibiting it to the passers-by (in the other hand he holds a vase;* some of the others hold a stick to creep with. It results, in my opinion, that there is represented in reality the *stump* of the foot. Doubts which originate as to its derivation remain always the same.

I am unable to present to the reader anything more positive. It is not possible for me to affirm the opinion of Mr. Carrasquilla, according to which artificial lesions are represented. By what reason could we appropriate to the Peruvians the same justice of the ancient *Chibchas*? We find only a pathological course, but it is not known whether it is furnished by the same or different diseases; nor whether there has been etiological connection between the mutilations of the feet and those of the face. This is probable. A typical stump is always encountered in a clay figure, which presents equally lesions in the face. It is difficult to know how a disease could have destroyed to such a degree, and synthetically, the feet. It results that these mutilations have been produced by a disease, whose nature is unknown to us at present, and that perhaps it will likewise be impossible to discover it later. It is almost sure that they do not treat of leprosy.

APPENDIX.

Before printing this, we have received from Dr. J. de D. Carrasquilla, L., the following letter, which treats of the same theme:

BOGOTA (COLOMBIA), October, 1898.

DR. ROBERTO LEHMANN-NITSCHE,
Museum of La Plata, Province of Buenos Ayres.

DEAR SIR,—In addition to my letter of July last, it is a pleasure for me to communicate to you the following:

In the *Journal of the American Medical Association*, Vol. xxxi., No. 6, Chicago, August 6th, 1898, in the section "Correspondence" ("Pottery Evidences of Leprosy"), page 311, has been published a letter of Dr. Albert S. Ashmead, in which he sends to the editor of the *Journal*, one of Dr. Leopold Gluck, and in both is combated the error of Dr. Virchow on the causes of the mutilations attributed by him to leprosy, with the same arguments as I adduced in my letter directed to you,† from which it appears to me, and it will doubtless serve to demonstrate itself to you that the Peruvian ceramics do not represent leprosy lesions.

In the "Historia de Yucatan," por Elegio Ancona, 1st Vol., Barcelona, 1889, p. 137, cap. x., is found the following paragraph: "Penitence, public as well as private, was known also among the Mayas. They subjected themselves in the temples to painful operations, which consisted in voluntary shedding of blood and some slight amputations, whose vestiges were left on the altars. This paragraph has a note which says: "Who made sacrifices with their own blood, sometimes cutting the ears around in pieces or marking them in signs. Other times they would pierce the cheeks or divide parts of their bodies; or

* I do not think this a right interpretation. In my opinion the man is represented dressing the stump of one leg thrown across the knee of the other. He holds in his hand a kind of cup, which he is applying to the stump. The cup is not shaped like a drinking cup, but appears to be a surgical dressing cup.—A. S. A.

† Those "same arguments," and much more, will be found to have been published by me in my original article "Pre-Columbian Leprosy," *Journal of the American Medical Association*, April, May and June, 1895, a reprint of which was sent at that time to Dr. Carrasquilla.—A. S. A.

pierce the tongue obliquely on the side, or would pass through it needles and straws with greatest pain, etc." (Landa: Relacion de las Cosas de Yucatan, xxviii.)

From this quotation we may deduce that not only as punishment, but likewise as a penitence, amputation of parts of the body or mutilations were practised in America.

In the "Historia de la Conquesta de Mexico, by Don Antonia de Solis and Rivadeneyra, Madrid, 1776, second book, chapter xx., p. 152, we read: The designs already found out of Xicotencal by the confessions of his spies, led Hernan Cortes to furnish all the necessary means for the defence of his Quartel, and at once suffered to meditate on the punishment which these delinquents deserved, condemned to death according to the laws of war, but it appeared to him that if he killed them without notice to the enemies, there would be justice without warning, and as it was necessary to satisfy that agent of terror, it was ordered that those who were negatively guilty (which would be four or five) should have the hands cut off, of some, and of others the thumbs, and they were sent for and commanded that those who had spoken on their part to Xicotencal at once should cease hoping, and that they should be despatched of their life, because the notices disappointed him which had been carried from the fortifications. The bloody spectacle induced great horror in the army of the Indians (who came already marching in their fashion). They left all astonished, observing the novelty and the rigor of the punishment."

By this quotation you see that likewise the Spaniards employed mutilation as chastisement for treason. Either they had seen them employed by the Mexicans, or had used them in Europe. The first supposition appears to be excluded by this saying, in the same quotation, that they left all (the Indians) astounded, "observing the novelty." Without doubt, it has seemed to me proper to call your attention to this datum, for what use it may be to you.

I have the honor to subscribe myself your very attentive and constant servant,

JUAN DE DIOS CARRASQUILLA, L.

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Ophthalmology and Otology.

... IN CHARGE OF ...

JAMES M. MACCALLUM, M.D.

APPLICATION OF THE GALVANO-CAUTERY IN THE NOSE.

IN a discussion in the New York Academy of Medicine, Dr. Douglas said the cautery should never be used superficially or over a large area, but should be rapidly introduced into the deeper structures, and never drawn forward or backward. The ideal theoretical cautery point would be a stiff wire loop used as a knife, the old familiar cautery knife being discarded. The old method of linear cauterization should be abandoned, because this destroys, first, the epithelial layer and then the deeper structures down to the bone. The object of the cautery was to reduce the hypertrophy and disturb the surface as little as possible. The cautery point should be repeatedly introduced at intervals of about one-quarter of an inch. The cautery should only be used in dilatation of the venous sinuses. The middle turbinate should rarely be cauterized at its posterior end. The upper nasal region, the nasal roof, the ethmoid region, the outer nasal wall and the middle turbinated body, except its anterior and posterior ends, should never be approached with the cautery, because of the difficulty of limiting and controlling its effects within safe and proper limits. Owing to the peculiar edema following cauterization this method should not be used about the uvula, faucial pillars, in the arytenoid region or on the glosso-epiglottal fold, as here marked edema would be harmful. He deplored the fact that the galvano-cautery has come to be considered an essential part of the equipment of every tyro in nose and throat work. The country practitioner, if he makes any pretence to this department of surgery, has his cautery ready for action and begins firing whenever he imagines that an enemy—"the catarrhal microbe"—may be lurking in the dark and unexplored recesses of a nasal cavity. This practice—the universal use of the cautery in the nose—should be condemned by all who know its possibilities for evil.

Dr. Quinlan thought that rhinologists should collectively decry the *common use* of the galvano-cautery in the cavity of the nose. The reaction above the floor of the nose was very severe, and might very easily extend into the cranial fossa.

Dr. Holbrook Curtis spoke very forcibly against the use of the galvano-cautery on the cartilaginous septum. He might employ

it on an inferior turbinate hypertrophy, but nowhere else. For about fifteen years he had been using acids to the exclusion of the cautery, and had never had any bad results follow the use of the monochlor-acetic-acid.

Dr. Myles did not think any cautious person would use the cautery without great caution on the middle turbinate, but it was certainly very useful on the inferior turbinal. Much depended upon the size and thickness of the electrode and the manner of using it. He had been using the suprarenal extract combined with cocain, and a very small electrode. The contraction produced by the suprarenal extract allowed of using a higher degree of heat without the annoyance of hemorrhage. This, of course, gave a cleaner and sharper slough to the tissue. There should be very little reaction under these circumstances unless the bones were near each other or the periosteum was injured. He now never uses the electro-cautery knife to burn away the posterior tip of the inferior turbinal, but preferred the electric loop or cold snare.—*The Laryngoscope*.

J. M. M.

THE VEIL AS A CAUSE OF RED NOSE IN WOMEN.

FEW things are more annoying to a sensitive woman than persistent redness of the tip of the nose. This *erythrorrhinia* is particularly frequent among women with a delicate complexion. A Berlin physician, Dr. Rosenbach, is convinced that the veil is responsible. He found the redness most marked where the veil pressed most closely against the nose, and that when the wearing of the veil was abandoned the condition, in a majority of instances, disappeared. Although veils are very soft to the touch, the threads soon become rough with use, and are then capable of exerting a decided irritation upon the sensitive skin of the nose and cheek, against which the veil rubs. The evaporation from the nose is apt to moisten the veil, especially in winter, and then the veil acts almost like a moist compress. The shape of the nose is also slightly altered by the veil. The nose is depressed, flattened, and tends to lose its graceful form. With time this alteration becomes permanent. The pressure upon the tip of the nose renders the latter somewhat anemic, and drives the blood to neighboring parts, chiefly to the regions just above the point and along the lateral wings. On entering a warm room the abnormal distribution of the blood becomes intensified unless the veil is quickly removed. When the vessels have become permanently relaxed, owing to the improper dilation, the abnormal distribution of the blood remains to a greater or less degree even after the removal of the veil. The causes for this condition, then, are the pressure of the veil and the friction produced by it. A delicate skin and a catarrhal state of the nose act as predisposing causes. Occasionally a similar persistent redness is seen on the cheeks, here, also, in areas against

which the veil rests. That pressure by the veil is the cause is proved by the fact that the redness often ends below in a sharp, well-defined margin, corresponding to the line where the veil begins to hang loosely from the cheek.

The treatment consists primarily in the disuse of the veil. For a little while the patient should not expose herself to sharp winds or great degrees of cold. If this is impossible, she should take care not to pass from the cold directly into a warm room. It is also well on going out to cover the nose with a little lanolin, vasoline, or cold cream, and then to powder it with talcum powder or starch. A little massage—soft stroking with two fingers from the point to the root of the nose—is also advisable. If a veil must be worn during skating or riding the bicycle, it should be only half-size, so as to leave the nostrils uncovered in order that the moisture may evaporate unhindered. It is, of course, best to avoid the use of the veil altogether.—*Philadelphia Medical Journal*.

J. M. M.

The Negative Air-douche as an Aid to the Diagnosis of Diseases of the Nasal Accessory Cavities.—In cases in which empyema of the accessory cavities of the nose is suspected, after all polypi and hypertrophies of mucous membrane have been removed, position and transillumination often give negative or untrustworthy results. Probing or syringing the cavities by their natural openings is tedious, even when not impossible. These having failed, the surgeon generally proceeds to operative methods, e.g., puncture through the inferior meatus, amputation of the anterior end of the middle turbinal, etc. A much simpler method frequently gives as good results both from the diagnostic and from the therapeutic point of view. This method is that described by Seifert. The nose having been cleared of polypi, cocaine applied to the hiatus, etc., and all secretion carefully wiped away, a Politzer's air-bag is compressed, the nozzle entered into the effected side of the nose, both sides of the nose are closed in the ordinary manner, and, while the patient swallows, the air-bag is allowed to expand suddenly. Negative pressure is thus produced in the nose, and any secretion present is sucked out of the cavities. Careful inspection will then almost always reveal the seat of the disease. If this simple method fails and suspicion of empyema still remains, the severer operative methods can be resorted to. As a therapeutic agent, Réthi finds that, systematically applied, this nasal suction has a healing effect, "as far as healing is to be expected in such cases."—*Journal of Laryngology*, January, 1900.

The Significance of Earache in Children.—Dr. T. H. Halsted, of Syracuse, said that there were two principal varieties of earache in children, viz., (1) the neuralgic; (2) the pain accompanying inflammation. The former was usually caused by disease external

to, and perhaps quite remote from, the ear. If with the acute pain in the ear there were no tinnitus, no deafness, and no redness or swelling of the drum, it was probable that the pain was neuralgic. Earache in children was usually caused by inflammation of the middle ear. When an infant was in pain, without evident cause, the physician should at once think of otitis media. Purulent otitis media was nearly always present in acute infectious diseases of the gastro-intestinal and respiratory tracts of young children, especially in gastro-enteritis and broncho-pneumonia. In many of the acute infectious diseases and in gastro-enteric disorders death was the result of an unrecognized abscess of the middle ear. When children had recurrent attacks of deafness, it was almost certain that the cause was the presence of adenoids in the pharynx.—*N. Y. Med. Rec.*

J. M. M.

Dacryocystitis in Infants.—In the fetus the lowest extremity of the nasal duct is curved towards the median line. In proportion as the superior maxilla develops in height the nasal canal straightens. At birth it retains something of its original curve, and it is probable that to practise catheterism in the new-born in cases of congenital dacryocystitis it might be of advantage to give to the probe a slight curve. The nasal duct being derived from a cutaneous invagination does not at first communicate with the nasal fossa. The accumulation of detached epithelium in the lacrymal passages distends the closed lower end, causing it to give way. The time of perforation may be delayed till after birth, and the canal become dilated by the amount of accumulated epithelium. For the onset of dacryocystitis it is probably only necessary for some micro-organisms to get in, so that anatomical conditions will predispose to congenital dacryocystitis.—*Ophth. Review.*

The Use of Euphthalmin.—Euphthalmin is a white crystalline powder, very soluble in water. A 5 per cent. solution—one drop every two minutes for three drops—causes the pupil to reach its maximum dilatation in twenty to thirty minutes. Within two or three hours the pupil contracts pretty freely to light and on accommodation. One of the great advantages of euphthalmin is that it seems to have no effect on the eye whatever beyond its mydriatic effect and this very transient paresis of accommodation. It does not elevate the tension of the eye and no toxic symptoms have ever yet been observed from its employment.—*Ophth. Review.*

Diagnosis and Treatment of Sinus Affections.—O. Seifert has adopted for the diagnosis of this class of nasal troubles a procedure which he styles "negative politization." After cleansing and cocainizing the nasal fossæ, he introduces into one naris a compressed air-bag and then as the patient swallows a mouthful of water he slowly allows the bag to distend. This negative suction draws the sinus contents out into the nostril. He claims that this procedure will cure even chronic cases.—*N. Y. Med. Rec.*

J. M. M.

Public Health and Hygiene.

... IN CHARGE OF ...

J. J. CASSIDY, M.D., AND E. H. ADAMS, M.D.

CIRCULAR TO PHYSICIANS AND LOCAL BOARDS OF HEALTH ON THE PREVENTION OF TUBERCULOSIS.

TORONTO, June 15th, 1900.

To Physicians and Members of Local Boards of Health:

GENTLEMEN,—The Provincial Board of Health at its last regular meeting instructed the Committee on Epidemics to issue a circular containing, among other instructions, a copy, as follows, of the resolutions dealing with the problem of limiting the spread of tuberculosis, especially the more prevalent and contagious form of it, popularly known as consumption:

Moved by Dr. Cassidy, seconded by Dr. Bryce,

1st. That as tuberculosis is a contagious and infectious disease, all inmates of Provincial Institutions who are affected with this disease should be isolated in wards set apart for such patients, and not be permitted to associate with other inmates.

2nd. That when rooms or wards which have been occupied by consumptive patients become vacant, they should be disinfected according to the methods set forth by the Provincial Board of Health in the pamphlet issued by it containing rules for checking the spread of contagious disease.

3rd. That an individual affected with tuberculosis, and living in a private family, should be isolated, as much as possible, from other members of the household, especial care being taken in the destruction of his expectoration.

4th. That when the room occupied by such patient becomes vacant, it should be thoroughly disinfected, and, as a matter of prevention, the whole dwelling should be disinfected according to the instructions given in the pamphlet issued by the Provincial Board of Health, and that such other precautions be taken as are provided in Section 101 of the Public Health Act.

5th. That the Local Boards of Health be urged to establish rules for the notification of cases of tuberculosis to the Medical Health Officer or to the Secretary of the Local Board of the municipality.

It is apparent from the above resolutions that Local Boards of Health, by putting into force the recommendations contained therein, are expected to place themselves in the position to know, not only the number of cases of consumptives in the municipality over which they have jurisdiction, but also to supply them, through the physicians, whose duty it is to make notification of the occurrence of such cases, with short printed rules explanatory of the routine measures which should be adopted for the benefit of a consumptive patient, and, which is in one sense more important, for the benefit of the members of the household in which he may be domiciled. The rules referred to should obviously include directions for—

1. Receiving all expectorated matter and nasal discharges upon handkerchiefs of paper or cloths, which can and should be immediately destroyed.

2. The frequent disinfection of all body linen, of all bed clothing and of all woven fabrics exposed to infection through the patient.

3. The dispensing, as far as possible, with the employment of all curtains in the room or rooms occupied by the patient, and substituting linoleum or hardwood floors for carpets.

4. The wiping of floors, wainscoting and walls with cloths dampened in disinfectant solution, and the doing away with the dangerous practice of stirring up dust by sweeping.

5. The keeping of patients, as much as possible, in rooms specially arranged for them, which should, when at all possible, invariably face the south, in order to get the benefit of sunlight and its germicidal effects.

6. The providing of ventilation such as will at all times permit the patient to breathe pure air.

7. A thorough disinfection from time to time of any room or rooms used by the sick, and also the thorough disinfection, under the supervision of the Local Board of Health of any vacated house previously occupied by a consumptive patient before it shall be again occupied.

Such notification must in no case be understood to mean that Local Boards of Health are to make public the existence of the cases reported, or that houses are to be placarded or the patients isolated; but to enable them to assist householders to take steps to limit the danger of infection, and to have houses, once occupied by consumptives, thoroughly disinfected before other families are permitted to occupy them.

In view of the very great prevalence of the disease, of its chronic character, of the generally unsuccessful results of home treatment, and of the danger of the infection reaching others, the Legislature has passed the following Act to encourage and assist

municipalities in giving effective aid to persons afflicted with tuberculosis.

The objects of the Act, and the methods by which its provisions are to be made operative, are set forth therein so plainly that further explanations are unnecessary. As the Public Health Act, Sections 43 to 46, already contains provisions for the organization of County or District Boards of Health and the appointment of County Health Officers, it will be plain that this Act similarly provides for co-operation on the part of Municipal Councils and Local Boards of Health in dealing with a disease not dealt with readily by smaller individual municipalities. This co-operation can only be brought about by members of Local Boards of Health, physicians and the charitably disposed uniting to urge action in the direction indicated in the Act relating to Sanatoria, recently passed by the Legislature.

(Signed) J. J. CASSIDY,
P. H. BRYCE,
WM. OLDRIGHT,
Members of Standing Committee on Epidemics,
Provincial Board of Health.

CHAPTER 57.

An Act respecting Municipal Sanatoria for Consumptives.

Her Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:

1. Subject to the provisions of this Act, any municipality, or any two or more municipalities in this Province, may establish a sanatorium for the treatment of consumptives, and may for that purpose acquire lands and interests therein, and erect and equip buildings and other improvements thereon, and do such other things from time to time as may be necessary to complete, maintain and operate such sanatorium and carry out the objects and requirements of this Act.

2. Any municipality may procure or join another or others in procuring plans of proposed buildings and improvements for a sanatorium and estimate of the cost and such other information upon the subject (including a proposed site) as may seem desirable, and any two or more municipalities may confer together, by such representatives as their councils may appoint, with a view to agreeing upon a basis for establishing a joint sanatorium, and they may enter into a provisional agreement respecting the same.

3. If one municipality only is establishing the sanatorium, a provisional by-law respecting the same shall be passed, and the

plans, estimates, and the said provisional by-law, or said provisional agreement, as the case may be, and the proposed site (which may be anywhere within the Province) shall be submitted to the Provincial Secretary, who shall submit the same to the Provincial Board of Health for report. Upon receiving the report of the Board of Health, the Provincial Secretary may approve of the plans, estimates, provisional by-law or agreement, as the case may be, and the site; subject, however, to such modifications and alterations as he may think best.

Provided, that if a proposed site be not within the municipality or one of the municipalities proposing to establish the sanatorium, the Provincial Secretary shall, before approving of such site, transmit by post to the head of the municipality in which the proposed site is situate, notice of the application for approval or such remarks thereon as such municipality may desire to submit.

4. Upon the approval of the Provincial Secretary of the plans, estimates, etc., the council of the municipality, or of each of the municipalities concerned, as the case may be, may from time to time pass by-laws to raise the moneys proposed to be paid or contributed by such municipality in respect of the original cost of the sanatorium, or of the cost of extensions, alterations and additions, and to issue debentures therefor. The provisions of *The Municipal Act* respecting by-laws creating debts and voting thereon by electors, and all other provisions of the said Act applicable thereto, shall apply.

5. Upon the said by-law or by-laws being passed as in the preceding section is provided for, the municipality or municipalities concerned may pass by-laws to establish the sanatorium, or to enter into the agreement to establish a joint sanatorium, as the case may be, in accordance with the approval given by the Provincial Secretary above provided for; and, upon by-laws being passed to raise the moneys proposed to be paid or contributed in respect to the cost of extensions, alterations and additions, the approval by the Provincial Secretary of the plans thereof shall be obtained in the same way as provided for with respect to approval of the original plans, and upon such approval being given, the extensions, additions and alterations may be proceeded with by the municipality or municipalities concerned.

6. The by-law or agreement establishing a sanatorium, or a joint sanatorium, as the case may be, shall provide for the appointment of a board of not less than five trustees to take charge of and manage the same. The qualifications, term of office, which shall not exceed five years, and quorum of the trustees, and the manner of appointing their successors or of filling vacancies, shall be declared in the said by-law or agreement, and the trustees appointed from time to time shall

hold office until their successors are appointed. The agreement for a joint sanatorium shall state the proportion of the yearly cost of maintenance, operations and repairs to be borne by each municipality. The said by-law or agreement may also define the terms and conditions on which patients may be admitted into the sanatorium, and contain such other particulars as may be thought best.

7. The trustees and their successors shall be a corporation under the name of "The Trustees of (here name the sanatorium)," and they shall be free from all personal responsibility for acts done within the scope of their authority as such trustees. They shall have such powers and duties as are conferred by this Act, and such other powers and duties not inconsistent with this Act as may be conferred upon them by the said by-law or agreement, as the case may be, or by any future by-law or agreement passed or entered into with the approval of the Provincial Secretary.

8. The trustees shall elect yearly one of their number to be chairman of the board, to hold office for one year and thereafter until his successor as chairman is elected. A vice-chairman may also be similarly elected.

9. The lands and personal property acquired from time to time for the sanatorium shall be conveyed to and invested in the trustees for the uses and purposes thereof, and if proceedings for the expropriation of the site of a joint sanatorium become necessary, such proceedings shall be taken on behalf of the municipalities concerned in the name of the trustees, and for the purpose of such expropriation and the proceedings thereon and connected therewith the provisions of *The Municipal Act* shall apply, and the trustees shall have with respect thereto all the rights and powers of the council of a city or town, and the proceedings shall be the same, as far as applicable, as if they were taken by the council of a city or town.

10. The trustees shall, subject to the terms of the by-laws or agreements relating thereto, and to regulations made by the Lieutenant-Governor in Council as hereinafter provided for, have the control and management of the erection of the buildings and improvements and of the operations and maintenance of the sanatorium and of all matters and things connected therewith or relating thereto, and may from time to time make rules and regulations respecting the same not inconsistent with the terms of the said by-laws or agreements or of this Act, or of regulations made, or to be made, by the Lieutenant-Governor in Council hereunder.

11. The Lieutenant-Governor in Council may from time to time make regulations respecting the inspection and management of the sanatorium, and such regulations shall take effect and be complied with, notwithstanding the terms of any regulations made by the trustees, which, so far as inconsistent with those made by

the Lieutenant-Governor in Council, shall be and become inoperative.

12. The Lieutenant-Governor in Council may grant to the trustees of any sanatorium one-fifth of the cost of the site, buildings, improvements and equipment, extensions, additions and alterations, provided such grant shall not exceed with respect to any one sanatorium the sum of \$4,000 in all. All sums granted hereunder are to be paid out of the consolidated revenue of this Province.

13. The Lieutenant-Governor in Council may, out of any moneys voted by the Legislature for the purpose, pay to the trustees of any sanatorium, towards the maintenance and support thereof, a sum at the rate of \$1.50 per week for each patient therein from time to time, and the treasurer of the municipality (not having established, or not being a party to the agreement establishing the sanatorium) in which a patient was domiciled at the time of admission, and who has been admitted with the approval of the council of such municipality, shall, out of the moneys of the municipality, pay to the trustees a sum at the rate of \$1.50 per week for each patient.

14. The municipality or municipalities establishing a sanatorium, or joint sanatorium, as the case may be, shall, with the yearly rates and in the proportions provided for in the agreement, levy such moneys as may be required to meet the balance of the cost of maintenance, operations and repairs of the sanatorium for the year, and shall, from time to time pay over the same to the trustees. Provided always that nothing herein contained shall authorize the trustees to incur any liability or expenditure not authorized by the terms of the by-law or agreement establishing the sanatorium or by by-law or resolution of the municipalities concerned.

15. Nothing in this Act contained shall prevent the municipality or municipalities establishing a sanatorium from closing the same at any time or times, either temporarily or permanently.

16. If a sanatorium be closed for a period of nine consecutive months the Legislature may make provision for the sale or other disposition of the sanatorium and the properties and effects thereof and for the application of the proceeds, and may make such other provisions relating thereto as to it may seem just.

17. The real and personal properties acquired for a sanatorium and vested in the trustees shall, so long as the same are so vested, be exempt from all municipal or other taxation.

18. The trustees may accept from any person or corporation donations of property, real or personal, whether by will or otherwise, for the uses of the sanatorium, and may apply the same in accordance with the terms of the donations.

CONFERENCE OF THE LONDON SANITARY INSTITUTE.

THE Sanitary Institute of London has arranged to hold a Conference on the Housing of the Working Classes at the Institute, and in connection with it an exhibition of models and designs will be formed in the Parks Museum of the Institute. The Conference will be held at the end of July, and will continue for two or three days, probably those immediately preceding that on which the sections of the Annual Meeting of the British Medical Association, which meets this year at Ipswich, begin (August 1st). Papers will be read and discussed in the mornings, and visits to typical buildings will be arranged for the afternoons, and also demonstrations of the plans and models.

Plans and models coming under any of the following heads will be accepted:

Unhealthy Areas, and Improved Areas.

Urban Dwellings on the system of Self-Contained Flats.

Associated Flats; Family Houses; Poor Men's Hotels; Common Lodging Houses; Shelters.

Suburban Dwellings.

Rural Dwellings.

Hop and Fruit Pickers' Temporary Dwellings.

Model Estates, Villages.

Models and Plans illustrating the application of Buildings Acts and Regulations.

Silver and Bronze Medals will be awarded by the Institute for improved designs.

The Sanitary Institute has also accepted an invitation from the Societe Francaise d'Hygiene to hold a Conference in Paris on Tuesday, Wednesday and Thursday, August 7th, 8th and 9th. The date of the meeting has been so arranged that it will follow the Conference and Exhibition on the Housing of the Working Classes to be held at the Institute, and the Annual Meeting of the British Medical Association, and immediately precede the meeting of the International Congress of Hygiene and Demography in Paris. Matters relating to Municipal Sanitation and other sanitary work will be discussed in the mornings, the afternoons being left free for visits (which the Societe Francaise d'Hygiene will arrange) to important sanitary works. The French Society will also provide a reception room for the members and Associates of the Institute, so that they may be able to meet together during their stay in Paris. Foreign guests wishing to join the Conferences of the Sanitary Institute in London or in Paris can obtain further particulars from Mr. E. White Wallis, F.S.S., Secretary, The Sanitary Institute, 74A, Margaret Street, London, W., to whom all communications should be addressed.

**REPORT OF DEATHS FROM ALL CAUSES AND FROM CONTAGIOUS DISEASES IN ONTARIO FOR
THE MONTHS OF APRIL AND MAY, 1900.**

PREPARED BY P. H. BRYCE, M.A., M.D., DEPUTY REGISTRAR-GENERAL.

APRIL, 1900.

Total Population Reporting.	Total Municipalities Reporting.	Total Deaths Reported.	Rate per 1000 per annum from all causes.	Scarlatina.	Diphtheria.	Rate per 1,000 per Annum.	Whooping Cough.	Rate per 1,000 per Annum.	Typhoid.	Rate per 1,000 per Annum.	Tuberculosis.	Rate per 1,000 per Annum.
2,272,750 99%	732 94%	2,311	12.2	15	24	0.1	11	0.06	0	0.05	203	1.0

MAY, 1900.

2,237,800 93%	720 92%	2,162	11.1	8	27	0.1	8	0.04	15	0.07	230	1.2
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Population of Province 2,283,182
Registration Divisions of Province..... 777

• • Selected Articles. • •

ALKALOIDS AND THEIR ACTIONS.

BY WILLIAM MURRELL, M.D., F.R.C.P.,

Physician to the Westminster Hospital; Lecturer on Clinical Medicine and Joint Lecturer
on the Principles and Practice of Physic to the Westminster Hospital
Medical School; Examiner to the University of Glasgow.

NEARLY three-quarters of a century have elapsed since Friedrich Wilhelm Adam Sertuerner, an apothecary of Einbeck, in Hanover, discovered and isolated the first alkaloid, morphine; but the interest and use of the members of this particular group of chemical compounds is not only maintained but is steadily increasing; so that in the treatment of disease active principles have in very many cases superseded the crude drugs from which they are obtained.

Sertuerner had been engaged for eleven years in the study of the composition of the opium compounds before he gave to the world his great discovery. This was in 1816. It is true that in 1803 Charles Derosne, of Paris, had obtained crystals of narcotine, or anarcotine as we now call it, but he neglected to carry the matter further, and it was reserved for Sertuerner to recognize the basic nature and organic composition of the body which he had isolated. He knew that his product was related to ammonia; he prepared from it a number of crystalline salts, and demonstrated the toxic action of the drug by experiments on himself and others. He opened up a new world in pharmacy and pharmacology, and paved the way for the discovery of a series of bodies practically interminable and inexhaustible. His principles were universally adopted and followed, so that in a few years from the appearance of his chemical work many of the most important alkaloids now in common use were isolated. It is satisfactory to find that not only were his efforts recognized, but that he received a pecuniary award from the *Institut de France*, which in June, 1831, accorded him a prize of 2,000 francs, "*pour avoir reconnu la nature alcaline de la morphine et avoir ainsi ouvert une voie qui produit des grandes decouvertes medicales.*"

In 1818 Pelletier and Caventou obtained from St. Ignatius' beans—not from nux vomica—the alkaloid strychnine, and subsequently from the same source the secondary and closely allied

alkaloid brucine. A few years earlier Gomez, of Lisbon, had obtained from cinchona bark a substance which he called *cinchonio*, but Pelletier and Caventou pointed out that this product was a mixture of two alkaloids which they named quinine and cinchonine. They, too, were not unrewarded, for the *Institut de France* awarded them a prize of 10,000 francs.

In 1833 Mein prepared from the root of belladonna, and Geiger and Hesse from the leaves of the plant, the alkaloid atropine. In the same year these two last observers obtained hyoscyamine from henbane, but they had no suspicion that it was identical with the alkaloid they had previously discovered.

From that time the discovery and investigation of alkaloids went on apace, and their number was greatly increased.

The next important epoch was the preparation in 1869 by Matthiessen and Wright of apomorphine, an alkaloid not contained in opium itself, but derived from morphine. Two years later Matthiessen, working with Burnside, discovered apocodeine.

From a pharmacological point of view we are very largely indebted to the admirable researches of Prof. T. R. Fraser, and Dr. A. Crum Brown, of Edinburgh. There can be no doubt that a relationship exists between chemical constitution and physiological action, and they were instrumental in demonstrating that the properties of an alkaloid with regard to the action may be essentially altered by modifying the chemical composition.

From this brief historical account of the subject we turn to the consideration of the question, "What is an alkaloid?" The ordinary casual clinical student would probably answer: "It is the active principle of a plant." This definition is good as far as it goes, but it contains two important errors. In the first place, all active principles are not alkaloids, and in the second, all alkaloids are not obtained from plants, for some are derived from animal substances, and a few are prepared, or may be prepared, synthetically. Incidentally, and as a matter of curiosity, it may be mentioned that the term "alkaloid" was first employed by Meissner of Halle, who in 1821 published an account of an active principle, a basic substance, which he had obtained from cevadilla, and to which he gave the name *sabadilline*.

Definitions are notoriously difficult and unsatisfactory, and instead of attempting to define the word alkaloid, we will describe the leading features of this group of chemical compounds. In the first place, alkaloids have basic properties, and are formed on the type of ammonia, one or more of the atoms of hydrogen being replaced by a radical; they are in fact compound ammonias. Most of them are *amides*, and contain nitrogen, carbon, oxygen and hydrogen. Some of them are *amines*, and contain no oxygen. Alkaloids are as a rule solid substances, but when they contain

no oxygen they are oily substances; oily, that is, in consistence. As examples of solid alkaloids we have familiar instances in morphine, quinine, atropine and strychnine. The liquid alkaloids are few in number, and the best examples are nicotine, coniine, pilocarpine, and jaborine. The ordinary pharmacist, on being asked if pilocarpine is a liquid or a solid, will unhesitatingly assert that it is a solid, but the probabilities are that he has never seen pilocarpine itself, and is thinking of one of its salts, the nitrate or hydrochlorate, the commercial products with which he is familiar. The alkaloid pilocarpine, however, is a colorless, odorless, syrupy liquid. It is not used medicinally, and is only seen as a chemical curiosity.

Alkaloids have an alkaline reaction, and restore the color of reddened litmus paper. With the exception of codeine and brucine they are insoluble in water, although they dissolve readily enough in spirit. This would be a decided inconvenience, and would be an obstacle to their general use, especially hypodermically, but fortunately they all combine with acids to form salts, which are readily soluble in water. This explains many things which would otherwise be puzzling. For example, why is codeine official while morphine is not? The answer is that morphine, being insoluble in water, is practically useless to the pharmacist, whilst codeine readily forms aqueous solutions. If we want to give morphine we prescribe one of its salts, the hydrochlorate, or acetate, or sulphate, for example, which are readily soluble in water. They dissolve less readily in alcohol, but that is a matter of little importance, for it is the aqueous solution we require.

Most alkaloids have a powerful physiological action, and as a rule exhibit in an intensified form the properties of the crude drug from which they are derived. Thus strychnine and brucine represent the activity of *nux vomica*, quinine of *cinchona*, and so on. To this rule, however, there are some exceptions, as will be seen later.

With regard to nomenclature, the accepted distinctive termination is in Latin, "ina," or in the more familiar language, "ine." Thus we speak of codeina or codeine, strychnina, strychnine, and so on. The student who, on being asked to mention the names of some alkaloids, gave "glycerine" and "Maltine," was unfortunate. Glycerin is spelt without the final "e," and as for "Maltine," it is a coined word—the name of a proprietary article—over the spelling of which we have no control.

Now, let us consider one or two other points about alkaloids. We have seen that some have been prepared synthetically. We have an example in pilocarpine, which is made from pyridine, an alkaloid contained in tobacco smoke, and usually obtained by dry distillation from bone-oil and many organic substances. This

leads us to the consideration of alkaloids extracted from animal substances. They are formed during the process of decomposition and closely resemble alkaloids of vegetable origin, not only in chemical characters but in physiological properties. They are known as "ptomaines" or "cadaveric alkaloids." We have examples in sepsine, cadaverine, neurine, choline, and many others. They have not yet been employed as therapeutic agents, but there is no reason why they should not be. The difficulty probably arises from the fact that their pharmacological action has never been properly worked out. They are active enough, and on many occasions they have given rise to epidemics of poisoning on a pretty large scale. They are formed apparently spontaneously, often in potted meats and tinned foods only partly consumed on the day they are opened. They are also found in human bodies which have been exhumed, and in cases of suspected criminal poisoning the common defence is that the symptoms are due to cadaveric alkaloids and not to a vegetable poison.

When two alkaloids are obtained from the same plant, one of them is usually much stronger than the other, and is spoken of as the "primary" alkaloid. In some cases the "secondary" alkaloid is simply a weak reflection of the first, and has the same properties but in a minor degree; for example, strychnine and brucine. In other cases, however, the secondary alkaloid is antagonistic in action to the primary alkaloid, although they are both derived from the same plant. Take physostigma or Calabar bean for example. It contains two alkaloids, a primary alkaloid known as physostigmine or eserine, and a secondary or weak alkaloid, calabarine, which has exactly the opposite effect of physostigmine. Now, physostigmine is antagonistic in action to atropine, from which it follows that atropine and calabarine belong to the same pharmacological group. This is well shown not only by reactions but in all their actions. Atropine applied locally dilates the pupil, eserine contracts it. Calabarine being antagonistic to physostigmine or eserine belongs to the atropine group, and is a pupil dilator. A knowledge of simple facts such as this greatly facilitates the study of pharmacology, and makes it comparatively easy.

Sometimes there are four alkaloids in a plant, and then not infrequently they are arranged in pairs. For example, in jaborandi we have two primary alkaloids, pilocarpine and jaborine, which are antagonistic, pilocarpine producing salivation and sweating, and jaborine the opposite effect. Then we have two secondary alkaloids, pilocarpidine, which is a weak pilocarpine, and jaboridine, which is a weak jaborine. Belladonna and jaborandi are antagonistic in action, and so are atropine and pilocarpine; so that the result is that our four alkaloids obtained from

jaborandi naturally fall into two groups: (1) pilocarpine and pilocarpidine, which contract the pupil and induce sweating and salivation; and (2) jaborine and jaboridine, which act like atropine and dilate the pupil, and dry the mouth and skin.

That one alkaloid can be made from another we have seen in the case of apomorphine. The chemical formula of morphine is $C_{17}H_{19}NO_3$. By taking away a molecule of water, H_2O , we have an alkaloid having the composition $C_{17}H_{17}NO_2$, which is apomorphine. But this slight change in the chemical composition has worked a marvellous change in pharmacological action. Morphine allays pain and induces sleep, whilst apomorphine has none of these properties but is the most powerful emetic and expectorant known. So great is the change in the action of the original alkaloid that in cases of morphine poisoning we give apomorphine as an antidote.

Much of Fraser's work has been in this direction. For example, he prepared from strychnine the iodide of methyl-strychnine. Strychnine is represented by the formula $C_{21}H_{22}N_2O_2$, while its derivative is $C_{21}H_{22}N_2O_2CH_2I$, but this slight difference in chemical composition has altered the pharmacological action. Strychnine is the typical tetaniser whilst the iodide of methyl-strychnine has not the faintest trace of strychnine action and acts in the same way as curare. When administered to frogs, in place of violent spasmodic contractions and muscular rigidity there is a perfect flaccid condition of the muscles. It may be asked why the iodide of methyl-strychnine is not used in medicine, and the answer is that no one has taken the trouble to prepare it on a commercial scale. It is a perfectly definite chemical compound, and its action has been worked out with the utmost accuracy and with consummate skill by one of our greatest pharmacologists. If it could be obtained without difficulty it would rapidly replace curare. Curare and curarine are notoriously uncertain in their action, and in a recent case in which it was desirable to administer a drug of this class I was unable to obtain a specimen on which reliance could be placed. The iodide of methyl-strychnine has never been employed clinically, on anything like an extended scale, but there is no doubt that there would be a good opening for it in many spasmodic nervous diseases such as paralysis agitans, and possibly in hydrophobia and tetanus.

There is one other important point to remember about alkaloids, and that is that many so-called alkaloids are not pure alkaloids, but simply a mixture of alkaloids. Daturine is commonly said to be the alkaloid or active principle of datura stramonium, but as a matter of fact there is no such substance as daturine. What is sold as daturine is simply a mixture of atropine and hyoscyamine. Recent researches have

shown that atropine and hyoscyamine are one and the same body, prepared from different plants and by different processes. From which it follows that daturine is simply atropine under another name. There are many examples of this confused nomenclature, for example, duboisine is simply hyoscyamine, in other words, atropine. Pituri, obtained from *Duboisia Hopwoodii*, is simply nicotine, and the list might be extended almost indefinitely.

I am often asked to indicate what in actual practice are the most valuable alkaloids, and if I had to draw up a list of a dozen, the following would be my selection:

1. *Morphine*. This is the chief and most important alkaloid of opium, and represents its physiological activity. It matters little which of the salts of morphine is employed, the hydrochlorate, the acetate, the sulphate and the tartrate all being active. They may be given either by mouth or hypodermically. They allay pain and spasm and they induce sleep. Small doses of morphine frequently repeated are of the greatest value in allaying the cough of early phthisis. Codeine is simply a weak morphine, and if we have the primary and more active alkaloid we can readily dispense with the services of the weaker brother.

2. *Quinine*. This is commonly given in the form of sulphate dissolved in water, to which a little dilute sulphuric acid has been added, as many minims of the dilute acid as there are grains of the sulphate in the mixture. This forms a perfect solution. In two-grain doses three times a day it is a useful tonic, while in larger doses, ten or fifteen grains or more, it is by far the best anti-periodic, and is of great value in malaria, supraorbital neuralgia of malarial origin, and a number of similar diseases.

3. *Atropine*. This is the chief alkaloid of belladonna and some allied species, and will check the night sweating of phthisis and other forms of hypersecretion. It may be given either by mouth or hypodermically, and in the latter case a single dose of 1-60th grain or even less, will usually effect a cure.

Its action in dilating the pupil and its value in iritis, syphilitic or otherwise, are well known. Its derivative, homatropine, is undoubtedly useful, but in the hands of a skilful physician the major alkaloid will effect all that is necessary.

4. *Strychnine*. This, the chief alkaloid of *nux vomica*, is always found in conjunction with brucine. It is most useful as a nerve tonic and is usually given in acid mixtures. Employed hypodermically in doses of 1-12th of a grain once or twice a week, it improves the nutrition of the muscles and restores warmth to the limbs in infantile paralysis, and in many cases of chronic hemiplegia and paraplegia. Brucine is comparatively rarely employed and would only be indicated in the absence of strychnine.

5. *Pilocarpine*. This alkaloid has many advantages over the

crude drug jaborandi. Administered hypodermically in doses of from 1-3 to 1-2 grain, in the form of the nitrate or the hydrochlorate, it induces profuse sweating or salivation. The patient should be in bed at the time in a warm room and between blankets. In the initial stages of a cold, and in many forms of Bright's disease it is invaluable.

6. *Aconitine*. The active principle of aconite is of use in many forms of obstinate neuralgia, such as *tic douloureux*. It is difficult to give definite directions with respect to dosage, as different "makes" of this alkaloid differ enormously in activity, but with the very best aconitine 1-240th grain in pill, three times a day, a definite physiological action should be induced. As a local application the ointment of aconitine is most useful, but a certain amount of care must be shown in the employment. A piece not larger than a bean should be rubbed in, and care should be taken that it does not come in contact with an abraded surface, or with the mucous membrane of the eyes or mouth.

7. *Apomorphine*. This is a derivative of morphine and is obtained by heating morphine hydrochloride or codeine hydrochloride in sealed tubes with hydrochloric acid. The hydrochloride is the salt in use. Given hypodermically, it is the most powerful emetic known. It will completely evacuate the contents of the stomach in less than a minute without producing cardiac depression. The ordinary dose for the purpose is a tenth of a grain. Given by mouth it produces neither nausea nor emesis, but acts as a powerful expectorant. The dose for this purpose is from 1-10th to 1-4th grain. If the 1 to 100 solution is employed it may be made into a linctus or mixture with syrup of tar. Apomorphine speedily gets darker on being exposed to light, but this change in color in no way impairs its efficacy. It may be prevented by the addition of a drop or two of dilute hydrochloric acid.

8. *Physostigmine* or *Eserine* contracts the pupils when applied locally, and is invaluable in ophthalmic practice. Its chief use is in the treatment of glaucoma. For internal administration we have the hydrobromate, salicylate and sulphate, which in doses of 1-60th to 1-20th grain have been used with benefit in tetanus, chorea, and in chronic cases of paraplegia.

9. *Cocaine*. The use of cocaine as a local anesthetic is so well known that it is hardly necessary to say anything about it. It is difficult to know what one should do without so useful a remedy. One of its most valuable properties is that of dilating the pupil. Of course it has its disadvantages and many substitutes for it have been introduced—eucaine B for example—but it still holds its own.

10. *Caffeine* is only a weak alkaloid, but it forms salts which are more or less stable. The citrate is a good diuretic, but its chief

use is in the treatment of neuralgia and the various forms of migraine and sick headache. A combination much affected by the laity is four grains of phenacetin with one grain of citrate of coffeeine. Phenacetin even in these doses is not a particularly safe remedy and is apt to give rise to cyanosis, dyspnea, and other disagreeable symptoms.

11. *Gelsemine*. By gelsemine I mean the pure alkaloid, a yellowish-white micro-crystalline powder. It is not the same as gelsemin, the powdered alcoholic extract, which is of a pale brown color and is much less active. The alkaloid is usually given in doses of 1-60th grain, often in the form of a pill, with sulphate of quinine or butyl-chloral-hydrate. It is an admirable remedy for neuralgia, especially the form affecting the lower branches of the fifth nerve.

12. *Colchicine*. The alkaloid of *Colchicum autumnale* is far less appreciated than it ought to be. It is a very active remedy and a dose of 1-60th [grain], three times a day, is ample. An excellent pill is composed of one grain of calomel and 1-60th of colchicine. As a rule it does not purge if given three times a day, but very speedily affords relief not only in gout but in that far more common affection which we call goutiness.

The intelligent physician, armed with these twelve alkaloids, and knowing how to use them, would be in a position to treat almost any medical case that might fall to his lot.

Respecting glucosides and other active principles—picrotoxin, salicin, santonin, elaterin, saponin, digitonin, and strophanthin, for example—there is much to be said. But that is another story.

--*Alkaloidal Clinic*.

17 Welbeck St., London, W., England.

REPORT OF "EMERGENCY RATION" COMMITTEE.

As we made editorial reference in last issue to the "Emergency Ration" question, we herewith append the Report of the Committee in this matter. The report, as submitted in the House of Commons, was as follows:

The Select Committee of the House of Commons appointed to investigate the charges made by Frederick D. Monk, member for Jacques Cartier, against the Honorable Frederick William Borden, Minister of Militia, on the 15th day of June last, has the honor to report that the committee has inquired fully into the said charges, has heard the statement made under oath by the Honorable the Minister of Militia, as well as the evidence of all the witnesses produced before the committee, and has examined all papers, documents and exhibits produced as appears by the printed evidence, exhibits and report of proceedings herewith submitted.

The committee begs leave to present the following as the result of its inquiry and as its second and final report :

1. The gist of the charges against the Minister of Militia is, that having had experiments made at Kingston with a certain article of food, the basic element of which consisted of proteids in certain proportions, which experiments demonstrated the utility of the food as an emergency ration, the Minister of Militia negligently allowed a different and inferior article to be supplied to the troops in South Africa.

2. The official analysis of the food supplied to the troops shows that it contains 16.8 per cent. of proteids. The sample forwarded to the Director-General of Medical Affairs as and being a sample of the food on which the test of Kingston was to be made is found on analysis by Dr. Ruttan to contain only 13.7 per cent. of proteids, and Mr. Hatch, by whom the food for the tests at Kingston was supplied, is proved by evidence, which he has not been called to contradict, to have admitted to Mr. Muir of the firm of Torrance & Muir of Montreal that it contained only 15 per cent. There is no other evidence as to the actual constituents of the food supplied at Kingston excepting the direct statement of Mr. Hatch, which the committee seems justified in wholly rejecting; first, because it is in conflict with the evidence afforded by Dr. Ruttan's analysis; secondly, because it is in conflict with his own admission, proved by uncontradicted evidence and made to Mr. Muir at a time when he had no motive to misrepresent the facts, and thirdly because on cross-examination he admitted that the food used at Kingston had never been analyzed.

3. The committee, therefore, finds that the food tested at Kingston and that sent to South Africa were substantially the same article, the slight difference between them established by the analysis being in favor of the food sent to South Africa; this was in accordance with the directions of the Minister of Militia, who had expressly stipulated that the food to be furnished the troops should be the same as that tested at Kingston. The execution of this order was necessarily and properly left with the officials of the department. The medical director became absolutely responsible for the adoption of the standard sample supplied by Dr. Devlin as being equal in every respect to the food that had been used by him at the test in Kingston, and the goods furnished were not paid for until it had been ascertained by actual analysis that they were equal to the sample. The charge that they were paid for before they were delivered is wholly without foundation, as the delivery was made at Halifax on the 19th and 26th of January, while the payment was not made until the 14th day of February.

4. The charge of negligence founded upon the alleged omission of the Minister of Militia to take any action on the letter from Mr.

Hatch of January 25th, alleging that the food sent to South Africa was not the same as that used in the Kingston test, is equally without foundation. The Minister had understood that the standard sample in the office was a portion of the actual supply used at Kingston, and when, in response to his inquiry made after the receipt of the letter, he learned that steps were being taken to compare the sample with the food actually supplied, he had done all that was called for by a letter similar, as he has sworn, to numerous other complaints from disappointed applicants for contracts.

5. As to the price paid for the food, it is to be considered that it was a proprietary article, involving in its production a trade secret and supplied under circumstances of great urgency, which exposed the contractor to all the risk of having the whole product thrown on his hands without a market for his goods if any one of the number of contingencies should prevent him from delivering them within the eleven days at his disposal. The ingredients of the food supplied, so far as they consisted of materials imported from abroad, were entered for duty at thirty cents a pound. The imported materials that entered into the food prepared by Mr. Hatch, as shown by the return of the Collector of Customs, submitted under order of the committee, were entered by him all the way from two and a half cents per pound to twenty-eight cents per pound, which is the highest price shown for the ingredients by any of the evidence before the committee; yet Mr. Hatch's selling price, according to his offer to the Minister of Militia, was substantially the same as that of Dr. Devlin, and it is in evidence that the retail selling price of Dr. Devlin's food was \$3.00 a pound.

6. The committee finds that the food supplied at Kingston was not used as an exclusive ration, and that the medical director did not approve of that food or recommend the purchasing of similar food by the Government, with a view that it should be depended upon as an exclusive ration. It was meant to be supplementary to the other rations to be supplied, and the labels on the goods actually furnished contained distinct notice that it is not to be exclusively depended upon, but requires to be supplemented by other food constituents.

7. As to the statement that the substance brought from the United States was, under the direction of the Government, allowed to pass without paying customs dues, the committee finds the same to be wholly without foundation. The Collector of Customs at Montreal allowed first lot to go out of his control without payment of duty upon the undertaking of the importer to produce a certificate from the Militia Department. No such certificate was produced and yet several days afterwards a second lot was allowed to go out, also without payment of any duty. The committee con-

siders that the action of the collector in allowing the first lot to pass without payment of duty was excusable under the circumstances, and on the representation made to him by the importer. In allowing a second lot to pass without the production of any certificate for the first lot, and in wholly failing and neglecting for nearly six months either to collect the duty or report the facts to the Minister of Customs, the committee considers his conduct wholly indefensible.

8. The committee finds that the Minister of Militia, in supplying our soldiers with the food in question, acted with a laudable desire to lessen the hardships they should have to endure on account of forced marches and scarcity of rations, by giving them a supply of valuable food, put up in small and convenient packages, easily carried, and which, as indicated in the instructions issued to the medical officers of the transports, was not to be regarded as a substitute for other food, but to be available as a light and compact ration "of great value on occasions when extraordinary exertion is called for." The committee, for the reasons above set out, is of the opinion that the said Frederick D. Monk has failed entirely to prove his charges against the Honorable the Minister of Militia, and that the said charges were based on a misconception of the facts, and upon authority which slight investigation would have shown to be wholly unreliable.

All of which is respectfully submitted, together with the minutes of the proceedings of the committee, the minutes of the evidence, and all the exhibits.

NOTES ON VICHY WATER.

BY COTTON D'ENGLESQUEVILLE, M.D., PARIS.

In our days there is almost a universal tendency amongst all classes of society to eat too much nitrogenous food, and not to take a sufficient amount of exercise. This mistake is fallen into especially by business men, and is generally committed now all over the world. Such men as Fothergill, Grainger Stewart and Bouchard have drawn the attention of their pupils to its pernicious consequences—accumulation of poisonous, insufficiently oxydized bye-products within the body, and ultimately one of that group of diseases which Bouchard has so well called "*maladies par raler-tissement de la nutrition.*"

What must be the first preoccupation of a physician having to treat such a case? He must evidently try to re-establish the balance between the "*income*" and the "*outgoing.*" He must put his patient on a more moderate allowance of meat; he must,

too, sweep out of his system all the arrears which have been allowed to accumulate. The best agent to reach such an aim is in my opinion, one of the numerous natural mineral waters that we have now at our disposal. Of course one mineral water would not meet all cases. For one patient Vichy, for another Contrexeville, for another Carlsbad, etc., etc., would be better suited.

But against that group of diseases I have already mentioned, and Bouchard has called "diseases by slackening of the nutrition" (dyspepsia, gout, rheumatism, diabetes, asthma, eczema, biliary or renal lithiasis, and some forms of Bright's disease), we have no better agent than Vichy water.

Vichy water, in a suitable case, has two distinct effects on the patient: (1) Eliminating, by promoting more active endosmosis and by neutralizing and washing out of the system all incompletely burnt bodies; (2) Tonic, which is a consequence of the new activity impressed to all our secretions.

Some physicians will say that the same results can be reached by administering one or two bottles of medicine containing alkalis in various proportions, but such an opinion is a mistake. That we cannot, even in the most complete laboratory, imitate the complexity, the admirable combination of all mineral and organic elements produced by nature, is to-day a well-known fact, admitted by nearly all authorities (Drs. Burney Yeo, Hayern, etc.).

Dr. Burney Yeo, in his book on Therapeutics, recommends Vichy water for the following affections:

Stomach.—Acute and chronic catarrh; dilatation.

Liver.—Jaundice; congestion; cirrhosis.

Kidneys.—Uric acid lithiasis; Bright's disease.

Gout, diabetes, typhoid fever.

The space given does not allow me to discuss its indications and counter-indications in each of the above diseases. Only a few words on some points of importance.

In dyspepsia, if there is hyperacidity, Vichy water must be given in large quantity; if there is hypoacidity, in small quantity (half a tumblerful) about half an hour before meals.

I may add that I have at present a patient who suffered from severe gastric catarrh, complicated with gall stones. She has lived now for more than two years on milk and Vichy water alone, has gained three stone in weight, and is able to lead an active and useful life.

In Bright's disease, when the urine is of high specific weight and loaded with uric acid, a course of Vichy water will do good; but if the urine is pale, copious, of low gravity (interstitial nephritis) it would be positively harmful.

Some gouty patients are certainly made worse by Vichy and improved by Contrexeville.

Never give Vichy water to a *lean* diabetic unless in small quantities, carefully watched, but give plenty to the *stout* glycosuric.

I never give now in typhoid any other diet or medicine, from first to last, but milk and Vichy and out of thirty cases, some severe ones, I have not had one death.

I have chosen, in this short article, Celestins as an example among the numerous Vichy springs, because it comes out cold from the ground, and is therefore more stable and less influenced by journeys and climatic changes than the others.—*Australian Medical Gazette*.

THE TREATMENT OF CATARRHAL CONJUNCTIVITIS.

BY MILTON P. CREEL, M.D., CENTRAL CITY, KY.

EITHER as it appears as a simple catarrhal inflammation of the conjunctiva, affecting one individual, or when it is encountered in an epidemic, there is no doubt but that catarrhal conjunctivitis is an affection of great importance. This affection is essentially simple, but if allowed to go along without correct treatment it may terminate in an entire loss of vision. However, if the affection be given proper and timely attention, it yields with great readiness to treatment.

Either as simple catarrhal conjunctivitis seen in a single individual, or when the affection manifests itself in the epidemic form, the treatment is essentially the same. Of course, individual peculiarities in each case make certain indications fitting and even imperative. One thing which a large experience with the disease has taught me is, that prompt and systematic treatment must be instituted in every case. Often patients with strumous diathesis will have chronic conjunctivitis, and persons whose health is poor will also have protracted forms of the affection, with the loss or great impairment of sight, when if proper and timely treatment had been instituted a cure could have been effected within a very short time. In the treatment of catarrhal conjunctivitis there have been many mischievous measures brought to bear.

All and everything which produces irritation will render all the elements in the case worse. We must never employ strong solutions. A lotion composed of 10 grains of sulphate of zinc to an ounce of distilled water will aggravate any case. All lotions must of necessity be mild and soothing.

As a curative means I have come now to rely on what I term the antiseptic treatment. This has been productive of better results in my hands than the old-time remedies.

In carrying out this treatment I first have the nurse to bathe the eyes thoroughly with this antiseptic mixture:

R Hydrozone $\frac{5}{8}$ j.
 Aqua, q. s. ad..... $\frac{3}{8}$ iv.

This mixture is used three or four times daily, as the case may appear to demand. Just as often as this mixture has been copiously applied and the eyelids have been dried, I apply, by means of an ordinary glass medicine dropper, two drops of Marchand's Eye Balsam.

This remedy reaches every part of the conjunctiva by the movement of the lids, and it is not irritating; the patient generally makes rapid progress to recovery.

By this treatment I have found my patients to recover in from thirty-six hours to three days. In fact my success has been such that I now rely upon this treatment entirely in this affection.

Four months ago an epidemic of catarrhal conjunctivitis broke out in a boarding school. I was called and ordered these remedies used on every case that presented itself. The nuns told me that all the cases got well speedily.

Mr. Samuel S., aged 39. This patient had been suffering, as he put it, with "sore eyes" for three days. It was a simple case of catarrhal conjunctivitis, but gave him great discomfort. On the treatment described above he entirely recovered in two days.

Mrs. Laura S., aged 22. This patient thought she had something in her eye, but examination revealed catarrhal conjunctivitis. On this treatment she made a speedy recovery.

These are only two of the several hundred cases treated on the antiseptic principles.—*Medical Summary.*

SUMMARY OF RESULTS OF SEVENTY-EIGHT CASES OF PULMONARY TUBERCULOSIS.

BY KARL VON RUCK, B.S., M.D., ASHEVILLE, N.C.

Classes.	No. of Cases Treated.	Average Months Treated.	Recovered, Disease Arrested.	Per Cent.	Greatly Improved.	Per Cent.	Improved.	Per Cent.	Grown worse or Died.	Per Cent.	Corresponding to
Class A.....	20	3	20	100	..	..	..	..	..	..	1st stage
" B.....	37	4	27	73	7	19	3	8	..	..	2nd stage
" C.....	21	4	3	14.2	9	43	7	33.3	2	9.5	3rd stage
Total.....	78	3.75	50	64.1	16	20.5	10	12.8	2	2.6	all stages

The cases which are designated as "Recovered" on their discharge showed no physical symptoms in the chest whatever. Where there were still evidences of the previous inflammatory process or healed cavities, the term "Disease Arrested" was used, which, of course, is not indicative of an absolute recovery, but relative only, the best that could be expected under the circumstances.

Among the 78 cases were 14 with tuberculosis of the larynx. In nine instances of more or less extensive tubercular infiltration of the larynx the infiltration disappeared under treatment in four, was greatly improved in two, and improved in three.

The stage of ulceration was reached in five cases. In one the ulcer was healed; in two others, nearly healed on their discharge; while one case was improved and one grew worse.

In addition to the specific remedy the usual local applications were made, but no curettement or other surgical procedures were employed.

The general improvement in this series of cases may be inferred from the almost uniform gain in weight, all patients but two having shown an increase over their weight on admission; and in many instances the patient was losing more or less rapidly on admission. In class A, all patients gained weight, from 2 pounds to 22, averaging 11 pounds each. In class B, all patients gained from 2 to 44 pounds, averaging nearly 13 pounds each. In class C, 19 out of 21 patients gained from 1 pound to 25 pounds, averaging 10 1-2 pounds each.

A comparison of results obtained without specific treatment and with the various remedies employed was made in my last report. Adding to this the 78 cases reported here and treated with Watery Extract, the differences in results appear as follows:

COMPARATIVE TABLE OF RESULTS OBTAINED WITHOUT AND WITH SPECIFIC MEDICATION.

	Cases Reported.	Recovered. Per cent.	Improved. Per cent.
Without Specific Treatment	816	12.1	31.0
Treated with Koch's Tuberculin	379	35.5	37.5
Treated with Antiphthisin and Tuberculocidin	182	32.5	46.3
Treated with Tuberculinum purificatum... (von Ruck)	166	43.4	39.2
Treated with Watery Extract of Tubercle Bacilli "	78	64.1	33.3

These results speak for themselves, they were obtained in the same institution and under the same conditions in all respects and justify the conclusion that in the production of the Watery Extract of Tubercle Bacilli as prepared by me, we have made another and most valuable step toward the desired end.

**EXAMINATIONS AT THE ONTARIO MEDICAL COLLEGE
FOR WOMEN.**

THE results of the recent examinations at the Ontario Medical College for Women have been made public. The record of the year's work has been very satisfactory to all connected with the institution. Not only the graduating class but the students of all years have taken a uniformly high percentage of all examinations. Dr. Helen MacMurchy, at the recent examination at Toronto University for the degree of M.B., received over 80 per cent. of all marks awarded, and was only one per cent. behind the first silver medallist, and one-half per cent. behind the third silver medallist. Not the least gratifying evidence of success has been the appointment of three of the graduates to fill positions as house surgeons in three large American hospitals.

Dr. Belle Chone Oliver goes to the Women's Hospital, Philadelphia, where Dr. Margaret Gould, one of the class of '98, holds the position of assistant resident physician.

Dr. Mabel L. Hanington succeeds Dr. M. Ethel Fraser of the class of '99 in the New England Hospital for Women and Children, Boston, Mass., whose resident physician and superintendent, Dr. Stella M. Taylor, is also a graduate of the Ontario Medical College for Women.

Dr. Mary E. Crawford succeeds Dr. Minerva Greenaway in the West Philadelphia Hospital for Women.

Two of the class of '99, Dr. Janet Hall and Dr. Anna C. Macrae, have just returned from abroad, having spent a most profitable year in the hospitals of Dublin, Edinburgh, London and Paris. A noteworthy feature of the graduating class is that half the number have volunteered for service in the foreign mission field, and one of the number, Dr. Susanna McCalla, will leave in October for India.

The following have passed the examinations of the College of Physicians and Surgeons of Ontario:

Final examination (Fifth year)—Harriet Cockburn, M.D., C.M., Rowena Grace Douglas Hume, M.D., C.M., Kate McLaren, Helen MacMurchy, M.B., Margaret McCallum, M.D., C.M., Dorothea Orr, M.D., C.M., W. H. G. Skimin, M.D.

Intermediate examination (Fourth year)—Belle Chone Oliver.

Primary examination—Carolina Soia Brown, Emma Connor, Elizabeth McMaster.

Passed in medicine, clinical medicine, surgery, clinical surgery, obstetrics and pathology—Martha Doyle, Isabella Clow Little, Isabella Smith Wood. Passed in medicine, clinical medicine, surgery, clinical surgery, and obstetrics, Margaret Parks.

Degree of M.B., Toronto University—Helen MacMurchy, with honors in Groups I., II., III. and IV.; Belle Chone Oliver, with honors in Groups III. and IV.; Mabel Louise Hanington, with honors in Group III.; Kate McLaren, with honors in Group III., to take supplementary examinations in clinical medicine and clinical surgery before completing examination.

Final examination and degree of M.D., C.M., Trinity University—Susanna McCalla, with first-class honors, and honors in medicine, surgery, midwifery and gynecology; Belle Chone Oliver, with first-class honors, and honors in medicine, surgery, applied anatomy and pathology; Margaret McCallum, with first-class honors, and honors in medicine, surgery, gynecology, therapeutics and medical jurisprudence; Mabel Louise Hanington, with first-class honors, and honors in surgery, gynecology, therapeutics, and sanitary science; Mary Elizabeth Crawford, with second-class honors, and honors in surgery and midwifery; Caroline Sofia Brown, with honors in gynecology; Eleanor Edwards.

Surgeon for the G. T. R.—General Manager Hays, of the Grand Trunk Railway, has issued a circular, appointing Dr. J. Alexander Hutchison chief surgeon of the lines west of the Detroit and St. Clair Rivers.

The New York School of Clinical Medicine.—We are requested to announce to our readers that the report in circulation to the effect that the above-named teaching institution had closed, is erroneous, as it never was more prosperous or more largely attended by students.

The Island of St. Helena.—An English health journal says in regard to St. Helena as a place of military confinement, that from the health point of view, probably no place in the world could be found more suitable than St. Helena for the confinement of prisoners of war. There is not in the whole island an insalubrious spot. The temperature is remarkably equable, and although the island is so much nearer the equator than the Cape, it is very much cooler. The winters are much warmer than those of England, but the summer heat is rarely so great. The whole island is much above the level of the sea, and always breezy. The water supply from 160 wells is excellent, and almost all kinds of European fruits and vegetables are grown. Should the prisoners desire employment, there is much land needing reclamation, and abundant scope for gardening. As the island lies on the ocean highway, there should be no difficulty in supplying abundance of mutton, coffee, and other necessaries.—*N. Y. Medical Journal.*

The Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., must be in our hands by the fifteenth of the month previous to publication.

Advertisements to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month.

VOL. VIII.

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NO. 2.

Editorials.

THE PREVENTION OF TUBERCULOSIS.

To put it briefly, while the bacillus tuberculosis is the efficient cause of consumption, that pathogenic microbe will not feed on the lungs of a sound person. No more, to speak by analogy, will the streptococcus develop a tonsillitis, unless some intercurrent disorder has lowered the patient's normal power of resistance.

In attempting to arrest the ravages of the microbe of tubercu-

losis the two most effective remedies are a constant supply of pure air and a sufficiency of nutritive food. At an earlier period of his life, the consumptive has suffered from want of nutritive food, and probably at the same time from a deficiency of oxygen in the air he breathed, this gas being necessary to change ingested food into healthy pabulum for the blood, and also to remove effete matters from the organism. A deficiency in either or both of these principles of healthy living tends to produce a degradation in the quality of the tissues, which renders them an easy prey to the omnipresent bacillus.

Proteid food is given to the consumptive, because it stimulates the activity of the organism to carry on digestion, circulation, respiration, nutrition, muscular work, and all the other processes, upon which continuance of life depends. Proteid food is essential to the body; without it the powers of life would fail, and the body would perish. Then, proteids are largely digested in the stomach, and, being quickly assimilated, are rapidly changed into tissue, thus repairing body waste without delay and leaving but little refuse to be disposed of by the intestines. The best proteids are meat and eggs. When the appetite is poor and the stomach weak, a teaspoonful of scraped beefsteak several times a day is beneficial. Eggs, preferably raw or lightly boiled, are very nutritious, and milk taken from non-tubercular cows is the best drink.

Fats promote body heat; one pound of fat burned in the body generates 4,220 calories. A diet rich in fat will moderate the amount of fuel required to carry on the work of the body, and will, therefore, lessen the activity of the destructive processes of tubercular disease. Cream, in small quantities, so as not to "cloy the hungry edge of appetite," is very strengthening in tubercular cases. The carbohydrates, viz., bread, potatoes, rice, etc., may supplement without displacing the fats, and be used to round out the diet and prevent sameness.

Then, a great requisite is to assist appetite and digestion by gentle exercise in the open air, and by massage or the rubbing of the body every day with the hand or the flesh brush. Patients should also be instructed to practise exercises, which excite in them efforts at deep breathing, and thus cause expansion of the lungs.

Now, as pure air, exercise and nourishing food are curative of tuberculosis, their absence has much to do with its appearance in the individual. In this Province, in 1899, tuberculosis caused

the deaths of 2,315 persons, or a rate of 1.0 per 1,000 per annum. Few, however, would admit that this loss of life, be it great or small, depended on lack of food. Down-right starvation is rare in Ontario, but relative starvation is common enough. It may be that, owing to the influences of a sedentary life, some people do not eat meat or eggs, or do not drink milk, preferring to use bread, cake and tea. Dr. Bell, in an article entitled "Stamina," published in the June number of the *Sanitarian*, after stating that consumption among the negroes of the United States is more than twice as great as it used to be before the civil war, and explaining this untoward condition of affairs by the absence of pork from their present daily ration of food, continues: "Consumption is most prevalent among those who are stinted, or who stint themselves of 'bacon and butter.' I mention these as ideal, and as before remarked, because they are the most digestible of fat foods; other fat foods are commendable. Everybody has learned, when it is unfortunately too late in most cases, that cod-liver oil is good for consumptives; but few seem to have learned that food of the same character as cod-liver oil, suitable for the table, is *preventive* of consumption."

It may be also that others injure their digestive organs with alcohol and, though appearing to eat and drink a good deal, really assimilate very little nutritive food, thus starving their tissues, and in the opinion of experts such as Roussel, of Geneva, and Lancereaux, of Paris, laying the foundation of that special variety of the disease known as alcoholic tuberculosis.

It is quite true, that the systematized life and careful observances of a sanatorium lessen the dangers of infection to nurses and doctors. The educative value of such a training to patients and their friends is also considerable, while the fact that a respectable percentage of cures results when the treatment is begun in due time, is very encouraging. And yet, the prevention of tuberculosis would be more complete, or to put it differently, a greater number of the population would not become candidates for tuberculosis, if parents would provide suitable nourishment for their children, and if teachers would explain to their pupils the nature of the different foods, and the reasons why some of them are more nourishing than others. Children should be taught to use butter, cream, bacon, eggs and milk, to avoid cakes and soft bread, and to prefer hard bread and biscuit, the mastication of which helps

to keep the teeth in a cleanly and unaccayed condition. The necessity of breathing pure air should be constantly placed before them, so that, in after life, they will not tolerate re-breathed air. Boys and girls should be encouraged to continue taking exercise after leaving school. One of the chief advantages of the bicycle is that the rider takes his exercise in the open air. When tuberculosis has once firmly grasped a man's lungs, he may breathe pure air from his reclining chair on the veranda of a sanatorium, but he need not have visited the sanatorium had he developed his lungs by tramping over the hills or riding over country roads, avoiding crowded assemblies in ill-ventilated rooms and the office or the shop, where the windows are never opened. The air of Canada is as pure as that of any country. We find it cold in winter and shutting ourselves up in unventilated rooms, we enjoy the warm, re-breathed air. It seems rather late in the day for a patient, who is attacked by tuberculosis, to reform his habit in this particular, and yet a change to breathing pure outside air has, in numerous instances, accomplished cures of consumption, unattainable by other means. Suitable food is necessary in preventing tuberculosis; but, whether it be the cold air of January or the warm air of July, pure outside air is equally necessary for this purpose.

Physicians should be logical, and become teachers of medical science to their clients, showing the importance of fresh air and nutritious food in preserving health and preventing tuberculosis, instead of merely utilizing these agencies to cure a disease which has already undermined a patient's health. By establishing such a propaganda, fewer prescriptions would be sent to the pharmacists; but the butcher would sell more meat, the grocer more butter and eggs, and perhaps we would not hear so much emasculated talk about Christian Science and the Faith Cure.

If honors are to be divided for the prevention of tuberculosis, we would say, Give full praise to the Sanitarian, who disinfects the nests where "the companions of death" lie in waiting; but be just to the parents who give to the State well-fed boys and girls; to the teachers who train children to live wisely and well, and to the statesmen who, by lengthening the era of good times, "scatter plenty o'er a smiling land," and restrain the development of a disease whose tap-root is malnutrition.

J. J. C.

CANADIAN MEDICAL ASSOCIATION, PAST AND PRESENT.

In 1867, in the city of Quebec, the parent medical association of the Dominion was formed, with the Hon. (now Sir) Charles Tupper as President. This position he held for three successive years. Since then, among its presidents have been: The Hon. D. McN. Parker, of Halifax; Sir Jas. Grant, Ottawa; Wm. Marsden, Quebec; Le Baron Botsford, St. John; Hodder, Toronto; Sir Wm. Hingston, Montreal; Workman, London; Howard, Montreal; Canniff, Toronto; Fenwick, Montreal; Mullin, Hamilton; Sullivan, Kingston; Osler, Montreal; Holmes, Chatham; Graham, Toronto; Ross, Montreal; H. P. Wright, Ottawa; Jas. Ross, Toronto; Roddick, Montreal; Sheard, Toronto; Harrison, Selkirk; Bayard, St. John; Thorburn and Cameron, Toronto; with R. W. Powell, of Ottawa, filling that proud position for the coming meeting in his own city this year.

For the first two years of its existence the number in attendance exceeded one hundred, but since that time the Association has seen many ups and downs, to such an extent, indeed, that one of its presidents within the past ten years prophesied that at no distant date the Canadian Medical Association would be relegated to the pages of history. Some men, through ignorance it may be, persistently assert that the Association is going down. To show the inaccuracy of this statement we shall use a few figures taken from the books of the Association, dividing the table into periods of six years each:

From 1870 to 1875, inclusive,	the average attendance was	57.5
“ 1875 to 1881,	“ “ “ “	68.6
“ 1882 to 1887,	“ “ “ “	80.8
“ 1888 to 1893,	“ “ “ “	98.6
“ 1894 to 1899,	“ “ “ “	134.3

If we would leave out the business meeting held in 1897 at the time of the British Medical Association the average attendance would be 143.2.

Surely this shows a good healthy increase, and should dispel the idea that the Association is weakening.

Then again, others are lamenting that Toronto men take so little interest in the Association, and that therefore the meetings at Toronto are always smaller than they should be. It may be true that they have been smaller than they should be, but Toronto has the proud distinction of having had the largest number present

last year at any meeting the Association has ever held. And again, in looking over the books of the Association, we find a steady growth at every Toronto meeting, each having exceeded its predecessor, with an average attendance at Toronto meetings of 111.8; five meetings have been held here during the thirty-three years of its existence. Montreal leads the list, however, with average attendance of 112.4 for seven meetings during the same period.

We have no hesitation in saying that the phenomenal growth during the past six years has been largely due to the untiring efforts of the present General Secretary, for while the growth from year to year has been gradual, we have observed that the attendance recently has taken a great leap in advance, and we believe in placing the credit where it belongs.

The profession in Ottawa this year has put its shoulder to the wheel, and is straining every nerve to make the meeting on the 12th, 13th and 14th of September next larger and more attractive than the Toronto meeting of last year, and we wish them all success. From what we can learn, the indications are that they will not be disappointed. Dr. Roddick, of Montreal, and Mr. Irving Cameron, of Toronto, have gone to England, and in returning will form a sort of guard of honor to Mr. Edmund Owen, who will be present and deliver the address in Surgery. The other part of the programme is well in hand, and the General Secretary informs us that papers will be numerous and instructive. As to the social part, from past experience we know that the Ottawa men will look after the welfare of visiting members, in the superlative degree. Dominion Registration will come up for a free discussion, we hope for the last time before this thing to be desired is an accomplished fact.

Another fact that promises well for the meeting is the fact that many members of the profession have never been in the city of Ottawa, and as they will not, for some time, have as good an opportunity, they will naturally attend the meeting, and thus see the Capital City at comparatively little cost under the most favorable circumstances.

Any one desiring information about the meeting will do well to communicate with Dr. F. N. G. Starr, Biological Department, Toronto.

We will publish as full a programme of the meeting as possible in our October issue.

W. A. Y.

SUBCUTANEOUS AND CUTANEOUS ALIMENTATION.

HUGO LUTHJE, assistant at the Marburg Policlinic, writes on Subcutaneous Alimentation, in *Der Therapie der Gegenwart*, 1899, p. 220, and we herewith submit an abstract of his observations, together with some personal remarks on the inunction of oil in wasting diseases. It appears that subcutaneous alimentation, which is receiving a good deal of notice at the present time, was first tried at the end of the sixteenth century by Menzelet Perko, and experiments of an unpractical character were subsequently made with it by Krueg, Pick, Whittaker, and Touvenaint. To Leube and his pupils, however, belongs the credit of having placed subcutaneous alimentation on a useful basis.

Truth to tell, the problem is not yet solved, because experimenters have failed to inject subcutaneously specimens of the three primary groups of foods, in quantities sufficient for the needs of the organism. The injection of albuminoids offers the greatest difficulties, as they are either unassimilable or toxic in their action, there being no subcutaneous digestive system provided with fluids and elements of re-absorption. Natural albumens, such as casein, white of egg, etc., when administered subcutaneously, cannot undergo transformation into albumoses and peptones, neither can the last-mentioned substances themselves be employed, because they produce toxic effects, such as nephritis, albuminuria, etc., after they have penetrated into the blood in a considerable quantity. Neither can other albumens be injected, either because they excite inflammatory phenomena, or because they cannot be sterilized.

The saccharine substances give better results in practice, but are not quite free from inconveniences. Thus concentrated solutions of sugar are generally believed to exercise a very exciting effect, and may cause inflammation and abscess, in spite of the most careful sterilization. Muller felt severe pain, and noticed swelling in the muscular tissue, after injecting subcutaneously a ten per cent. solution of sugar into his own body. Leube also saw a case in which gangrene followed the injection of a few cubic centimetres of a twenty per cent. solution of sugar. However, an army surgeon named Burghart, who has made researches into this subject at the Leyden Clinic, claims that, by the aid of local anesthetics (orthoform or cocaine), painless injections of relatively large quan-

tities of solutions of sugar (12 to 15 per cent.) may be made into the bodies of anesthetized persons,

But of all the different food elements, it has been shown that up to the present time, the injection of oleaginous principles is the most practical and useful. From 80 to 100 grammes of oil may be introduced into the body subcutaneously every day. Oil has a nutritive value exceeding nine calories per gramme. Besides, when injected subcutaneously, it is in a condition to prevent that disassimilation of albumen, which is normally or pathologically increased in an organism suffering from lack of food (Du Mesnil de Rochemont.) The best oils for injection purposes are olive oil and sesamum oil. The operator uses a sterilized syringe of a capacity of 10 cubic centimetres, and the oil is slowly injected. Although it may not be so direct a method as the one just described, the practice of anointing the body of a patient with oil has yielded excellent results in consumption and other wasting diseases. When the nutritive forces of a patient have been reduced to a low state by obstinate gastric or gastro-intestinal inflammation, the daily inunction of olive oil supplies the body with nutritive material, prevents the waste of the natural body fat, and frequently turns the scale towards recovery.

J. J. C.

OF INTEREST TO OUR SUBSCRIBERS.

MARK TWAIN, upon being requested to name the twelve books he liked best, sent addressed to his correspondent a list of the names of his own most remunerative works. In a similar spirit of humorous complacency we feel called upon to acknowledge with many thanks and in all sincerity the numerous courteous letters recently received from our confreres in the medical profession congratulating us upon the general management of our JOURNAL. With not a little foreboding, we some years ago declared ourselves an independent journal, neither voicing the sentiment of any school nor clique, but holding the right to fearlessly discuss any question engaging the attention of the medical profession at large. In regard to the working out of this policy among the members of our staff, we some time ago outlined it as well as we could in the following words: "To tabulate a set of principles and adhere to them, hit or miss, is what this journal has tried to do; not to be-

come an automatic machine, where each collaborator must sing the same song or be mute, but rather an inkstand in common, wherein all may dip their quill and scribble their opinion, *appending their own initials*, harmonious upon the larger view of any medical or surgical question, but in the carrying out of the minor details each man a unit and free to voice his own opinion."

The idea referred to, the signing of each article or note contributed to our editorial columns, gives each man a certain freedom, because he claims personally the credit or responsibility of the sentiments expressed. We notice that this precedent has been followed by at least two other Canadian medical journals.

We likewise wish to incorporate an idea suggested by an American contemporary, and open a bureau for the benefit and accommodation of our subscribers, if they "*Want*" anything, such as a good purchasable practice, a partnership, an assistant, instruments, specimens, etc. In this department we will insert notices not exceeding thirty words, free for one issue. We hope our subscribers will show their appreciation of this offer by taking advantage of it.

W. A. Y.

ON SOME USES OF CATGUT.

ALL medical men are familiar with the genus cat, and a few have a passing acquaintance with the "kitty;" but the delicate and prudish maid who said the "pussy intestines" of her tennis racquet were relaxed had largely missed her guess. It is the gentle sheep which has from time immemorial yielded from his ruminant bowel those strands which have done so much for the development of musical, surgical, and piscatorial history. The sheep and his companion, the lusty billy-goat, furnish that marvelously fine translucent mater. ' for the stringing of the maestro's violin and the maiden's racquet, the ligation of arteries, and those fine "mist-colored" leaders which delight the gentle angler's heart. Not the fat Shropshire or Southdown whose "saddle" delights the gourmet's palate, but the lean and ill-fed sheep is said to yield the toughest gut. And the sheep that graze upon the Neapolitan hills together with those gaunt lactiferous nanny-goats, the ambulating milk-cans of Naples, furnish the strings of finest texture and greatest durability.

The Italian violin makers no doubt brought about the perfec-

tion which has been attained in the preparation of this material; and bound to the frame of the old Cremona, the vibrations of these cords of gut, under the hand of the virtuoso, have thrilled the hearts of thousands. But did Remenyi on his old Stradivarius ever evoke a strain more thrilling and inspiring than the strain of a two-pound trout on the slender, almost invisible leader? These strong, fibrous strands of humble origin have helped to fame all our illustrious Ole Bulls, have secured severed arteries and assured the glory of our Nicholas Senns, and to all our modern Izaak Waltons have brought untold success in the gentle art of angling.

Some few doctors there be who can please themselves and rejoice, perchance, their friends on the catgut stretched over a violin body, "scraping the hair of the horse over the gut of the cat;" we can all (some better than others) tie a ligature; but blessed, just now, are those favored medical men who can cast a bit of gut from the shady banks of some favorite pool or stream and lure to flies and hook the speckled beauties in the cool depths.

This is the time to exchange medical literature for the rich lore of angling. Van Dyke's "Fisherman's Luck," Kingsley's "Chalk Stream Studies," Walton's "Complete Angler"—these and the like are the works of reference that should now occupy the favored doctor's attention. This is the instructive recreation that will fit him to cope with next autumn's cares and ills. Let him "hang up the fiddle and the bow," bury the sutures or store them in his favorite sterilizing solution, and fare forth with what should now be the leading gut, the gut leader.

Summer is here.

Let us fish.—Editorial in *Medical Age*.

DR. JAMES H. RICHARDSON'S GOLDEN WEDDING.

"For better, for worse"—"and for fifty years"—whispered Dan Cupid one bright day early in the fifties, when two young lives joined heart and hand. The bridegroom, Dr. J. H. Richardson, has been closely associated with the practice of medicine in Toronto for over half a century. He matriculated in old King's College in 1843, and attended the first medical course there in 1843-44. He received the degree of M.B. in 1848, and was appointed professor of anatomy in the University of Toronto in 1850. Some

years after, the Medical Faculty was abolished by the Legislature, and in 1853 he was appointed professor of anatomy in the Toronto School of Medicine, retaining that chair until the Medical Faculty was restored to the University in 1887. About four years ago he resigned and was placed on the Emeritus staff.

We now, as Dr. and Mrs. Richardson this month celebrate their Golden Wedding, have the pleasure and honor of congratulating our revered confrere and universally respected townsman upon the long years of prosperity and married happiness that have been his, and wishing to his gentle wife and faithful co-worker, who has shared his success and graciously outdone him, perhaps, in her ministrations of comfort to the sick, with her ever a labor of love, many more years of life, that together, as they have finished the day's work, they may enjoy a long and restful eventide.

W. A. Y.

NEW APPOINTMENTS AT TORONTO UNIVERSITY.

THE Senate of Toronto University have recommended the following appointments:

J. J. Mackenzie, B.A., M.B., to be professor of pathology and bacteriology, in place of Dr. John Caven, who has resigned.

Dr. J. A. Amyot, to be associate professor in pathology and bacteriology, or professor of clinical pathology, at his option.

Dr. F. N. G. Starr, associate professor of clinical surgery and also demonstrator of anatomy.

W. Mackeown, B.A. M.D., demonstrator of clinical surgery.

C. L. Starr, demonstrator of clinical surgery, instead of assistant demonstrator of anatomy.

A. R. Gordon, M.B., demonstrator in clinical medicine, instead of assistant demonstrator of anatomy.

Dr. R. D. Rudolf, lecturer in medicine and clinical medicine, instead of assistant demonstrator in anatomy.

Dr. H. C. McIlwraith, demonstrator of obstetrics, instead of assistant demonstrator of anatomy.

Dr. W. P. Caven, associate demonstrator of clinical medicine.

E. T. Machell, M.D., associate professor of obstetrics and pediatrics, his work to be confined to pediatrics.

C. Chambers, M.A., M.B., demonstrator in clinical medicine.

Dr. G. P. McDonagh, professor of laryngology and rhinology.

W. H. Ellis, M.A., M.B., professor of toxicology.

Bertram Spencer, M.D., professor of medical jurisprudence.

Dr. W. H. Beemer, to be extra-mural professor of mental diseases.

The Senate also decided that in future there would be an examination at the end of the third year of the medical course.

AMBULANCE DOCTORS.

For years past we have heard expressed views strongly advocating the appointment to our civic service in Toronto of one or two ambulance physicians. There are very few cases indeed where the ambulance is called out in which the services of a medical man would not be exceedingly acceptable, and in many instances be the means of preserving that spark of life which otherwise might have fled ere the hospital were reached. We think that there are not many who would raise any objection to the necessary appointments being made by our city fathers. Possibly, perhaps, our over-zealous lecturers on "First Aid to the Injured," might rise to a point of order; but we hardly think so, as surely the existence of one or two ambulance doctors would not necessarily interfere with their work and labor of love (?). Some might hold that the fact of our police being instructed, as they are every winter, on "First Aid," would hardly necessitate the employment of physicians for that work. That might, perhaps, apply where the cases met with are very simple, such as fainting attacks, etc., but not where they are of a more complicated nature, and require the employment of considerable skill and judgment, which cannot, of course, be expected from those who receive but a smattering knowledge of "things medical." Why cannot our present Mayor rise to the occasion and initiate what we suggest, and thus the more thoroughly equip the Police Department? It would be a fitting step in advance at the very time when the various departments of civic rule are being moved to our new City Hall. We hope to hear of the subject being discussed at an early meeting of the Board of Police Commissioners.

W. A. Y.

EDITORIAL NOTES.

Medical Education.—Shall the education of the modern physician be liberal or practical? Dr. Buchner, who is reported in the *Deutsche Revue* as speaking on this subject before the members of Isis, the Medical Society of Munich, favored a liberal culture for the physician. He said: "Heretofore medicine has always been considered to be a liberal profession. A physician is, however, a complex personality; he is, at the same time, a learned man and a practitioner. Would not a practitioner be excellently formed by a purely professional training, in which the physical and natural sciences would hold the first place?" To this he replies in the negative, and he attacks the preponderance of the natural sciences by the following somewhat specious argument: "Haeckel has established as a principle in ontogenesis, a law to the effect that the development of every individual is an abbreviation of the history of the human race. So that, in educating an individual, a science should be made to play the same part as it has already played in the education of the human race. Now, it is certain that the physical sciences, which are the latest to be cultivated among us, have so far accomplished little in the formation of the human mind. It cannot be maintained, therefore, that they are entitled to play a leading part in the education of anyone, even a physician. In commenting on this deliverance, *Debats* says: "Dr. Buchner's argument easily admits of a rejoinder. It is strange, however, that a naturalist should look at educative value as a historic right, and that the most modern and the boldest of the sciences should prove the most conservative of them, and in regard to the question at issue, to her own detriment."

Treatment of Anal Chancroids.—Dr. Thelberg, in a paper published in the *New York Medical Journal* (May 26th), describes his treatment of anal chancroids, by means of a preliminary dilatation of the sphincter ani, followed by cauterization of the ulcers with the Paquelin cautery. Orthoform is then rubbed into the ulcers and the wound dressed with a good-sized rubber drainage tube, wound about with iodoform gauze, which in turn is dusted with orthoform, after which the usual gauze dressing and T bandage are applied. The subsequent treatment consisted in keeping

the bowels under control until the third day following the operation, when an enema of four ounces of castor oil and olive oil, in equal parts, was given, after a liberal dose of magnesium sulphate had been taken. When the catharsis had subsided, a cleansing enema was given, and a suppository with ten per cent. orthoform introduced. The operator adds that the patient complained of very little pain at any time following the operation, and that the wound healed quickly and without further treatment.

Department of Ethnology and Archeology, Pan-American Exposition.—Dr. A. L. Benedict, of Buffalo, N.Y., who has been entrusted by the Pan-American Exposition, Buffalo, N.Y., 1901, with the care of the Department of Ethnology and Archæology, asks us to make known the following request for assistance: "Many members of the medical profession are interested in the study of American Ethnology and Archæology, and not a few have valuable collections of Indian relics and skeletons from Indian graves. Those not directly interested in this study are so circumstanced as to be aware of the hobbies of their neighbors, and could doubtless furnish the address of collectors. I should be greatly obliged for information and for the loan of collections for the use of this department of the Exposition. Exhibits which represent study in some special line of American Ethnology and Archæology will be particularly suit. Je." We trust that those members of the profession who are able to render aid to so worthy a cause will communicate with Dr. Benedict without delay.

A Syrian an M.D.—Among this year's graduates in medicine at Laval University was a Syrian, Nagib Abdow by name. Born near Mount Lebanon, he worked as a boy in the silk factories of his native land. Being of a studious turn of mind, he pursued a classical course at Bayreuth and achieved success in his studies. He came to Canada with the intention of devoting himself to commercial pursuits. The educational advantages offered in this country determined him to seek a professional career. He was enrolled as a medical student at Laval University, and throughout his four years' course distinguished himself by his assiduity to his chosen work. Dr. Abdow speaks English, French, Spanish, Italian and Arabic with equal fluency. He will take a special two years' course of surgery in Paris, after which he will return.

to his native land. After having the certificate obtained in this Province countersigned in Constantinople, he will be authorized to practise the healing art among his own people, who are at present deprived in a great measure of the benefits of medical skill.

Treatment of Alcoholism in France.—At a meeting of the Academy of Medicine (Paris), May 10th, 1900, Dr. Crivelli claimed that a good number of inebriates had been considerably improved, and many others entirely cured of their disease, by the following treatment: At first injections of artificial serum were given, followed by complete rest, baths, massage, light diet, coffee, and hypodermic injections twice a day of a solution of strychnine, 1-100; three drops of this solution are administered at first, the dose being increased at the rate of two drops a day until the first signs of strychnine poisoning appear, generally after the administration of from 20 to 40 drops a day, corresponding to from 3 to 5 milligrammes of pure strychnine. The dose of strychnine is gradually reduced, until the same amount of the drug is administered as at the beginning of the treatment.

A New Departure in Municipal Hospitals.—The propriety of building municipal hospitals in densely populated centres is more than questionable, and it seems likely that hospitals will in future be erected in places remote from the uproar of the great city, where patients can enjoy the advantages of pure air and tranquility, as well as benefit by the aseptic conditions, and the plumbing, heating, lighting, and ventilation of a modern institution. Dr. Berthod, of Paris, speaking on this subject at a recent meeting of the Society of Public Medicine and Professional Hygiene, said: "It should only be necessary in the matter of hospitals, to have emergency hospitals in Paris. Naturally it would take time to bring about such changes, but a beginning could be made by establishing a consumption hospital in the country, and, at a later period, a hospital for sick children."

Asylum Doctors Transferred.—There have been a series of transfers of the assistant physicians employed at three or four of the public institutions. Dr. Robinson, assistant superintendent at the Toronto Asylum for the Insane, on account of ill-health, has been granted three months' leave of absence, and Dr. Ross, assistant

physician of the Brockville Asylum, has been transferred to the Toronto institution in the same capacity. Dr. Herriman, who has been assisting at the Toronto Asylum, returns to Hamilton. Dr. Smith, assistant physician at Hamilton, has been transferred to Brockville, where he will be assisted by Dr. Wilson, assistant physician at Mimico, who has been transferred to that institution, and Dr. McNaughton, second assistant physician at Brockville, assumes the duties formerly taken by Dr. Wilson at Mimico.

Circular Against Alcoholism in the French Army.—General Galliffet, Minister of War in France, has just issued to the commandants of corps d'armee in the French military service a circular, in which the sale of brandy, liqueur, or any of the numerous alcoholic preparations, known as appetisers, is strictly forbidden in canteens belonging to the French army. This regulation is to apply to every barrack, camp or place where military manoeuvres are held. Fermented drinks, such as wine, beer, cider and perry, may be sold in the canteens, as well as such non-alcoholic beverages as tea, coffee, chocolate, milk, etc. Evidently General Galliffet and General Roberts agree as to the unwisdom of putting strong drink in the way of the soldier.

Ernest Haeckel, Physician.—In a review of W. Baelsèhe's book on Ernest Haeckel, the following anecdote appears: "Philosophy is a vocation, but is not a career. Haeckel's parents wished their son to follow a regular profession, and Haeckel obeyed their wishes. He took out his degree as a doctor of medicine, and opened an office at Wursburg. On his office door the following notice appeared: 'Office hours: Every morning, from five to six o'clock.' During the first year—the only one—during which Haeckel practised medicine, he treated just three patients. 'None of them,' said he, 'died by my fault.'"

Tuberculosis in Roumania.—If the incidental reference to tuberculosis given by Diamant-Berger in "Les Eaux Minerales en Roumanie" (*Archives Orient. de Med. et de Chir.*, 1900) is trustworthy, which we very much doubt, the victims of tuberculosis are not nearly so numerous in Roumania as in Ontario. In Roumania, with a population of 5,670,000, he states that nearly one thousand die every year from tuberculosis, or a total rate per thousand per

annum of 0.17. In Ontario, Canada, with a population of 2,283,182, 2,315 persons died of tuberculosis in 1899, or a total rate per 1,000 per annum of 1.0.

The Canadian Medical Association.—Get ready for the Canadian Medical Association Meeting next month at Ottawa. We earnestly hope Toronto physicians will turn out *en force* and give their heartiest support to the meeting of 1900. A very successful meeting is promised, a magnificent list of papers having already been registered with the General Secretary. Several distinguished visitors will be present. The profession of Ottawa are arranging to give some novel and enjoyable entertainments.

PERSONALS.

DR. T. G. RODDICK, Montreal, sailed for England on July 11th.

DR. WM. BRITTON is now President of the Ontario Medical Council.

DRS. IRVING CAMERON and Allen Baines sailed for England last month.

DR. and MRS. MURRAY McFARLANE are spending the summer at the seaside.

DR. F. L. GRASSETT and Mrs. Grasett left to spend the summer at Metis on the 12th ult.

WE are very glad that Dr. Gilmour, Warden at the Central Prison, has recovered from his recent severe illness.

FOR SALE.—Good General Practice in best location in city of Detroit. Address H. C. Hall, Campau Building, Detroit, Mich.

DR. L. H. WARNER, of Brooklyn, N.Y., will be present at the Canadian Medical Association meeting next month, and will read a paper.

DRS. J. M. MACCALLUM, Crawford Scadding and A. H. Garratt, have purchased the racing yacht *Beaver*, and will race her this season.

DR. G. L. LIDDELL, of Cornwall, Ont., died suddenly last month at his home. The Doctor was a McGill boy of 1889, and was but thirty-two years of age.

WHO is going to be the first doctor in Toronto to make a new departure, and visit his patients in an automobile? Some say it will be a Carlton Street physician.

DR. R. J. DWYER, medical superintendent of St. Michael's Hospital, sailed on July 18th from New York for Germany to spend one year in the hospitals of Europe.

DR. G. S. RYERSON sailed for home *via* England three weeks ago. We congratulate the Doctor upon his effective work for the Red Cross Society while in South Africa.

DR. G. N. FISHER, who is retiring from the staff of the Home for Incurables, was recently presented with a gold-headed cane, a silver-mounted umbrella, and an ebony-backed hat-brush.

THE Toronto Western Hospital authorities have written the city offering the use of their hospital for any member of the Canadian Contingent, on his return from South Africa, who may want hospital treatment.

DR. AMYOT has been appointed bacteriologist of the Provincial Board of Health, that position having become vacant by the appointment of Dr. J. J. Mackenzie to the chair of Pathology in the medical faculty of Toronto University.

SIR WILLIAM HINGSTON, who sailed on the 7th ult. by the *Vancouver*, will, during his stay in London, receive the honorary fellowship of the Royal College of Surgeons of England, an honor never previously accorded to a Canadian.

W. R. MEMBERY, of Toronto, has received word from his son, Dr. Membery, from Acra, in Africa, stating that he has been promoted to the position of British Commissioner, and was about to start with a large retinue for the interior to interview tribal chiefs.

AMONG those who intend going from Toronto to Ottawa next month are: Dr. J. M. MacCallum, Dr. W. A. Young, Dr. Alex. McPhedran, Dr. D. C. Meyers, Mr. Irving Cameron, Dr. F. N. G. Starr, and many others. It is the intention to charter a private car, so that those going down east can travel in greater comfort.

WE take pleasure in extending heartiest congratulations to Dr. J. J. Mackenzie on his appointment as Professor of Pathology and Bacteriology, Toronto University, and to Dr. F. N. G. Starr upon his appointment as Associate Professor of Clinical Surgery in Toronto University. Both gentlemen are members of the staff of this journal.

THE doctors of Toronto who indulge in golf arranged a match last month to be played between the Medicos of the Rosedale Club *versus* those of the Toronto Club. The result of that match was a victory for Rosedale by six holes. Those who took part were Drs. J. M. MacCallum, W. A. Young, Harold Parsons, and Hood of the Rosedale Club, against Drs. Rudolf, W. H. Ellis, J. J. Mackenzie, and G. A. Peters, of the Toronto Club. A return match will be played soon.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

TREATMENT OF INEBRIATES IN MASSACHUSETTS.

CONFEDERATION LIFE BUILDING,
TORONTO, June 20th, 1900.

Editor CANADIAN JOURNAL OF MEDICINE AND SURGERY.

SIR,—I spent the first week of June in the State of Massachusetts in the interest of prison reform and the treatment of inebriates. As you are perhaps aware, I was requested by the Provincial Secretary in March last, to draft a bill providing for the treatment of inebriates in Ontario. With the assistance of Dr. Gilmour and Mr. Hamilton Cassels of the Prisoners' Aid Association, and Dr. Gilbert and Dr. Oldright of the Ontario Medical Association, a bill was drafted and submitted to the Hon. Mr. Ross and the Hon. Mr. Stratton. Whether from pressure of other business, or from whatever cause, the bill was not presented to the Legislature. In visiting Massachusetts, one of the objects I had in view was, firstly, to compare the provisions of the proposed bill with the Massachusetts system of treating inebriates, and, secondly, to canvass the opinion of recognized authorities with regard to the various features of the proposed Ontario bill, my ultimate object being, firstly, to remodel the bill if necessary, and, secondly, to strengthen the hands of those who are endeavoring to promote the passage of a bill in Ontario for the reformation of the unfortunate inebriate. This bill, as you know, is based on the Massachusetts probation system, and this was an additional reason for my desire to visit this State.

The probation system was adopted in the State of Massachusetts several years ago in dealing with youthful offenders under 16 years of age, and the results were so satisfactory that about five years ago the system was extended to cases of adult first offenders

and to the more hopeful cases of inebriety. The results, it is claimed, have been most gratifying. In every criminal court throughout the State an officer, called a probation officer, is appointed by the Court, who takes the supervision of cases placed on probation under suspended sentences. The probation officer makes friendly visits to the probationers, not in the capacity of an informer, but in the capacity of a friendly visitor, and he does what he can to place the probationer on a higher plane of life and living. At the end of the probationary period, the probationer appears in court, and if the report of the officer is favorable the person on probation may be discharged or the probation may be continued. If the report is unfavorable, the probation may be continued, or the person may be committed either to prison or to a House of Correction.

While in Boston, I made it my business to look into the practical working of the probation system. I accompanied the probation officers while making their early interviews with prisoners in the police cells awaiting trial. I made the rounds with one of these officers outside to ascertain the truth or falsity of the statements made, and I followed the cases as they were afterwards dealt with in court. I also attended the weekly probation court held for the purpose of dealing with cases whose term of probation has expired. Besides this, I interviewed the chief probation officer and several of his assistants, two of whom are ladies, regarding the working of the probation system. I also interviewed others who are in a position to judge regarding the results attained by the system of probation. As a result of this investigation and these inquiries, my conclusions are as follows: That from 80 to 85 per cent. of those placed on probation for petty offences, and about 45 to 50 per cent. of those placed on probation for drunkenness, are either reformed or at least are not known to be again arrested. It is claimed that 80 per cent. of all those placed on probation are reformed, but unfortunately the statistics are not compiled in such a manner as to demonstrate this. I found, however, that there is a consensus of opinion—among those who are in a position to know—that the probation system in Massachusetts is giving great satisfaction. The Secretary of the Massachusetts Prison Association said to me that although the statistics are not as complete as they might be, “We know that probation is doing a good work.”

I found, moreover, that there is now a bill before the State Assembly which, when adopted, will extend very materially the scope of the probation law.

I visited the State Institution for the Treatment of Dipso-maniacs, which is situated at Foxboro about thirty miles from Boston. It is on a farm containing 100 acres, most of which is under cultivation. The hospital is on the cottage plan, and there were 198 patients under treatment the day of my visit. Dr. Woodbury is the Superintendent, and he has one medical assistant. The institution is thoroughly equipped, including gymnasium, baths, lecture hall, etc., at a total cost of about \$200,000. The income is about \$48,000 a year, \$13,000 of which is from municipalities, \$11,000 from industries, \$2,500 from pay patients, and the balance made up by the State. Patients are admitted on the certificate of two licensed physicians, and the municipality where the patient is committed is liable for the payment of the expense of maintenance the same as in the case of lunatics. In cases, however, where the patient has no "legal settlement," the expense is borne by the State. Besides farming, the principal industry is broom-making. Patients are committed for a period of two years, but they may receive a conditional discharge (on parole or probation) any time after six months' detention. The average cost per patient is \$5.30 per week. This includes all expenses, as follows: Provisions, \$1.32; clothing, etc., \$1.77; wages, \$2.21. The results of treatment in the report for 1899 are as follows: Doing well, 37.12 per cent.; improved, 13.77 per cent.; unimproved, 32.93 per cent.; dead, 1.19 per cent.; could not be found, 14.97 per cent. In reply to my question, the Superintendent stated that the chief cause of relapse after discharge is lack of employment; a second cause is lack of efficient supervision.

While in Boston, I also visited the Washingtonian Home for Inebriates, which is under the charge of Dr. Ellsworth, and I had an interview with Dr. Temple, surgeon to the Massachusetts Home for Intemperate Women. I submitted the provisions of the proposed Ontario bill for the treatment of inebriates to these specialists, as well as to Dr. Woodbury, of Foxboro, and also to members of the Massachusetts Prison Association, and I was gratified to find the consensus of opinion was in its favor. Dr. Woodbury was very emphatic in his commendation of the idea of combining medical

treatment with the probation system, and he assured me he was convinced that very great good would be accomplished by making provision for home treatment, in addition to general hospital treatment in connection with the probation system, and as provided for in the Ontario bill.

Yours truly,

A. M. ROSEBRUGH.

Obituary.

DEATH OF DR. J. H. PARSONS.

DR. JOHN HANBUEY PARSONS, who died on July 9th, at Oakville, was for many years a resident of Toronto, and his death is regretted by a host of friends here. He was born nearly fifty-four years ago in Newcastle, Ont., but came very early in life to Toronto. He graduated from the Medical College here in 1885. A great part of the next four years was spent abroad, studying in the London and Vienna hospitals to equip himself as a specialist in the diseases of the sense organs. He was one of Dr. Morell Mackenzie's assistants at the time of the treatment in London of the late German Emperor. After practising a short time in Toronto, Dr. Parsons moved to Meaford, where he remained until he was forced about two years ago to give up active duty by reason of failing health brought about by being thrown from a buggy many years ago, and which now has resulted in death. Three sisters survive him—Miss Fannie Parsons, who has lived with him, Mrs. Prittie, of Toronto, and Mrs. Carr.

WE feel certain that we voice the feeling of the entire medical profession of Canada in extending heartfelt sympathy to the Hon. Dr. Borden in his very trying bereavement last month, when his gallant son was shot down on the veldt near Pretoria while defending our flag in that far-off land.

The Physician's Library.

BOOK REVIEWS.

Diseases of the Intestines. A Text-book for Practitioners and Students of Medicine. By MAX EINHORN, M.D., Professor of Medicine at the New York Post-Graduate Medical School and Hospital, and Visiting Physician at the German Dispensary. New York: Wm. Wood & Co. 1900.

This book is a continuation of the author's excellent work on "Diseases of the Stomach." All the principal disorders of the small and large intestines are included in it. The opening chapter deals with the anatomy and physiology of the bowel, and is followed by one on "Methods of Examination and Treatment." The author discusses all the diagnostic methods employed in examining patients in a very thorough and satisfactory manner. He gives details for the microscopical examination of the feces. As to the advisability of making such examinations the author says: "I do not think it necessary to examine microscopically the feces of every patient presenting intestinal symptoms. In cases, however, in which the diagnosis is not quite clear and the symptoms point to an intestinal lesion, a microscopical examination of the feces should be made."

In the third and fourth chapters the author deals with "Acute and Chronic Intestinal Catarrh" and with "Dysentery." Regarding the specific cause of dysentery he says: "The consensus of opinion, however, is that while harmless amebæ may occur in the intestinal tract, there exists a pathogenic variety of this organism which is specific for dysentery. It is generally believed that the amebæ enter the system along with the food and drink. Sodré believes that they can be taken in with the air. Certain waters, however, apparently constitute the principal means of propagation of these amebæ."

The three following chapters are devoted to "Ulcers of the Intestine," "Neoplasms of the Intestine" and to "Hemorrhoids." Appendicitis is considered in an able and interesting manner. Dr. Einhorn takes moderate ground in regard to its treatment, and does not advise indiscriminate operative interference for every case. He is an advocate of rest and opium, and condemns the use of cathartics and the exploring needle.

Constipation is considered under the heading of "Nervous Affections of the Intestines." The prophylaxis and treatment of this common disorder receives a liberal share of attention. "With regard to the prophylaxis of constipation, we should avoid administering cathartics in slight transient disturbances of digestion and rather let nature take its own course. Never put a patient on a one-sided diet for too long a time; the exclusion of vegetables, fruits, and starchy foods in general from the diet is frequently the cause of marked constipation. An hygienic mode of living, regular habits, less business strain and worry, and more outdoor life and exercise are of the greatest importance in the prevention of constipation."

"Intestinal Parasites" is the subject of the last chapter in the book. Very clear illustrations are given of many of the animal parasites which are found in the intestinal canal, and these serve to make this chapter extremely interesting and instructive.

Dr. Einhorn has produced a good book in which the various subjects are

presented in concise and readable form. The practical points regarding diagnosis and treatment are made prominent so that the busy practitioner need not wade through a mass of comparatively unimportant matter in order to get at the facts he requires.

A. E.

Sajous' Annual and Analytical Cyclopaedia of Practical Medicine. Volume V., Methyl-Blue to Rabies. The F. A. Davis Co.

The fifth volume of this valuable cyclopaedia contains several well-written articles on subjects of perennial interest to physicians. "Diseases of the Pleura" and "Pleurisy," by Professor McPhedran, will be read with interest by Canadian physicians and medical students, as indicating the matured views of the new Professor of Medicine of the Medical Faculty of Toronto University on these topics.

The article on "Broncho-Pneumonia" shows that the writer, Dr. Solis-Cohen, of Philadelphia, has availed himself of the extensive opportunities for clinical research in the Philadelphia hospitals. His conclusions are all the more convincing, as they have the stamp of an independent individuality. The connection which may exist between broncho-pneumonia and an ante-tubercular or a post-tubercular condition, adds peculiar interest to the diagnosis of the former disease. As an acute disease it is, of itself, sufficiently disquieting; but the probability that it may serve as an indication of or an introduction to pulmonary consumption makes its prognosis uncertain or even gloomy.

Two articles which will prove readable to obstetricians are "The Diseases of Pregnancy," by Dr. Currier, and "Abnormal Parturition," by Drs. Grandin and Marx.

In his article on "Lobar Pneumonia" Dr. Ashton reiterates an opinion, which is steadily gaining ground, even among active therapeutists, viz., "No medication should be resorted to (in lobar pneumonia) that tends, in the slightest way, to embarrass the action of the heart. Such drugs, therefore, as aconite, veratrum viride and the coal-tar antipyretics have none but a harmful influence."

At the present time, when physicians are frequently consulted as to the latest methods of nourishing bottle-fed babies, the article on "Nursing and Artificial Feeding," by Drs. Holt and LaFetra, is instructive and will well repay perusal.

It would be difficult in a short review to do more than indicate a few of the many articles which deserve reading and study in the fifth volume of "Sajous' Cyclopaedia." Like its predecessors, the present work is highly creditable to the industry and talent of its accomplished editor. The typographical work is excellent.

J. J. C.

Deaver. A Treatise on Appendicitis, by JOHN B. DEEVER, M.D., Surgeon-in-Chief to the German Hospital, Philadelphia. Second edition. Thoroughly revised and considerably enlarged. Illustrated with 22 full-page plates. Octavo \$3.50 net. Philadelphia: P. Blakiston's Son & Co. 1900. -

It does not often fall to the lot of an author to be called upon to publish a second edition of any particular work inside of three or four years. This, however, is the case with Dr. Deaver, whose book upon Appendicitis has received, since it first appeared in the fall of 1896, so flattering a reception and wide a circulation. The author has practically re-written his book, every chapter having been subjected to at least a most complete revision. There is one point, however, upon which we take the liberty of disagreeing with the doctor, and that is the non-advisability of his having omitted from the second edition quite a number of the plates illustrating the different styles in the operation for appendicitis. Plates, especially such beautifully executed ones as those referred to, are always a source of most valuable assistance to even the most advanced reader of any subject, and we would suggest that they form a part of the third edition of the work, when being published. A chapter of

nearly 100 pages in length has been added to this edition upon the Pathology of Appendicitis, written by Dr. Kelly, of the German Hospital. This is an addition of the greatest value, forming as it does the very foundation of the subject. This section is divided into four chapters, The Lesions of the Appendix, The Peritonitis and its Consequences, The Bacteriology and The Pathogenesis. This part of the subject is clearly written and is very beautifully illustrated in color. Some of the plates show (1) acute ulcerative appendicitis with perforation, (2) empyema of the appendix, (3) gangrene of the appendix, and others. The second edition of Deaver is larger by 125 pages than that one published nearly four years ago, the material is as recent as it can be made, and as a work it greatly exceeds in value the author's previous effort.

W. A. Y.

Post-mortem Examinations, Methods and Technique. By JOHN CAVEN, B.A., M.D. (Tor.), L.R.C.P. (Lond.), Professor of Pathology, University of Toronto Medical Faculty. Illustrated. Toronto: J. A. Carveth & Co.

Brevity is said to be the soul of wit, but the author in this small book has made it also the soul of knowledge; for after a careful review of the work we find in it the very soul of all that is useful and necessary in conducting a thorough and scientific *post-mortem* examination. The subject is divided into (a) *post-mortems*, scientific; (b) *post-mortems*, medico-legal. Before considering the technique there are a number of good suggestions on equipment and instruments required in making a complete examination, and the care of hands and wounds made during the operation. Under the head of care of body, the author rightly emphasizes the importance of keeping the body free from all unnecessary disfigurement, which can only be done by carefully following the advice given in the chapters on opening and closing of the body.

The examination proper is taken up under two heads, *viz.*, Inspection and Section. The technique of Section is full of original ideas, only obtainable by long practical experience. The author recommends the opening of the head first, then the thorax and abdomen. The minute examination of the heart, brain and lungs is clearly explained. With short chapters on criminal poisoning, the examination of the new-born infant, and the preservation of tissues, with a rapid method of making sections for microscopic examinations, this practical little book is brought to a close.

We take this opportunity of complimenting our old friend and fellow, John Caven, on his success as a writer, and can safely recommend his manual to all who are making *post-mortem* examinations, but particularly to the student and general practitioner.

W. H. P.

A Manual of Medicine. By W. H. ALLCHIN, M.D. (Lond.), F.R.C.P., F.R.S.E., Senior Physician and Lecturer on Clinical Medicine, Westminster Hospital; Examiner in Medicine in the University of London and to the Medical Department of the Royal Navy. Vol. I., General Diseases, Diseases excited by atmospheric influences and infections. New York: The Macmillan Co. London: Macmillan & Co., Limited. 1900.

There are so many systems and manuals of medicine upon the market that without careful study and consideration it becomes a difficult matter for any one not versed in the subject to make a choice and know what to purchase. True, it largely depends upon whether the buyer desires a many-volumed system of medicine wholly for reference, or whether on the other hand it is his wish to secure a work giving in a manner "short, sweet, and to the point" the information he may be anxious to secure in somewhat of a hurry. In "Allchin's Manual of Medicine" we have (at least judging from Volume I.) a small, succinct work giving shortly, and yet quite thoroughly, the sum and substance of medicine, without going into too great detail and becoming wearisome. The author has covered fairly well in Vol. I. diseases brought on by atmospheric influences, *e.g.*, whooping-cough, chicken-pox, smallpox, scarlet fever, measles, typhus fever, leprosy, glanders, diphtheria, cholera, typhoid fever, erysipelas,

etc., etc. Amongst the contributors we find such men as T. C. Fox, of Westminster Hospital; B. E. Dawson, of London Hospital; Jas. Cantlie; F. F. Caiger; J. Rose, Bradford; G. N. Pitt; Sims Woodhead, A. H. Tubby and others. It can be seen, therefore, at a glance that the author has determined from the first that if his book is to be judged by his list of collaborators, it will not be lacking as far as the quality of the material presented is concerned.

The Redemption of David Corson. BY CHARLES FREDERIC GOSS. Toronto: William Briggs, Publisher.

During this hot month, the physician who does not get a few days' fishing and a few hours to nod over the novel of the moment is certainly a man to be pitied. So popular with story-writers has the name *David* become recently that almost every grip going holidaying has a David Somebody tacked in amid its contents of tackle and wearing trumpery.

This David Corson is a queer one, but to know him might have been to love him, and one is not likely to meet his prototype in this part of the world. His treadmill existence from the heights to the depths, to the level, and then to paradise (earthly) again is a circuitous route. The author describes it well and keeps the interest of the reader, because his hero travels his up and down road at a quick pace, and like the darkey considering "the goin' was so bad" the reader is very thankful when poor David "has come"! But apart from it all the first and last chapters of the book stand out alone in beauty of description and make it more than worth the reading. In the first part the posing of the young saint as he stands at life's doorway in nature's wonderful garden is beautiful.

Even more striking is the man who understands life, as in the latter part of the story he stands in the forest clearing and lifts his eyes to heaven in an unspoken prayer for the benediction of the great Life-giver: "He drew into his nostrils the sweet odors, into his lungs the pure air, into his soul the beauty and glory of the world, and then, filling his hand with the golden grain, he flung it into the bosom of the waiting earth."

W. A. Y.

A Double Thread. By ELLEN THORNEycroft FOWLER. Toronto: William Briggs.

Another hammock novel, not much in construction, perhaps, but rich with witty conversations, with which Miss Fowler's books always teem. So refreshing and sparkling, take one example: "You can't play or sing anything, can you, Captain Le Mesurier? Because, if you can, I shall have to ask you to do so." "No; I cannot perform any parlor tricks, I regret to say." "What a comfort!" exclaimed his hostess, sinking on a sofa. "I can't bear having people here who can do things; because then they are always wanting to do them, and that is so tiresome for everybody else. Besides, I think it is so commonplace to be accomplished, don't you? From a society point of view it is better to murder one's mother-in-law than to play the piano after dinner." "And much better sport, I should fancy," answered Jack.

A reader who pitches his ears early tent two hundred feet from a conservatory of music knows how to appreciate this trifle light as air.

W. A. Y.

The Ophthalmic Patient: A Manual of Therapeutics and Nursing in Eye Disease. By PERCY FRIDENBERG, M.D., Assistant Surgeon New York Eye and Ear Infirmary. New York: The Macmillan Company. 1900.

One of the most striking changes in the therapeutics of disease is the attention paid to nursing—the outcome of the acceptance of the principles of antiseptics and aseptics. While the broad principles of nursing govern, yet there are many minutiae peculiar to the eye not related in text-books on diseases of the eye nor in those on general nursing. Combining these with some special ocular therapeutics, Dr. Fridenberg has given us a readable and practical handbook, a valuable and welcome addition to the literature of nursing.

J. M. M.

MAGAZINES RECEIVED.

"SCRIBNER'S MAGAZINE."—Richard Harding Davis's "The Relief of Ladysmith" in the July *Scribner's* is probably the most brilliant piece of war correspondence since his famous story of the fight at Las Guasimas. He gives a vivid impression of the ways of living, the privations, suffering, and the constant danger in the besieged city, and of the fine spirit of endurance that enabled its defenders to hold out until the last. He shows, too, how difficult it was for the advancing column under General Buller to make its way through the surrounding hills that afforded the Boers an almost impregnable natural defence and describes the stirring scenes attending the entrance into the city of the relief column. The illustrations are from photographs in the city and of the country about. The first of the papers on "The Slave-trade in America," by John R. Spears, appears in this number. These will supply the first complete narrative dealing with the subject in all its aspects. Beginning with the conditions of life among the ignorant and superstitious blacks of the west coast of Africa, Mr. Spears tells of the inception and gradual development of the business of dealing in the lives of human beings, with its attendant brutality and general moral degradation. The entire narrative is based upon a careful study of actual contemporary records, both English and American. A remarkable series of illustrations by Walter Appleton Clark accompanies the text. Another article, by Thomas F. Millard, the correspondent who has been on the Boer side throughout the war, and who has made a careful study of their methods of fighting, deals with "The Boer as a Soldier." He points out with great clearness the Boers' methods in the field, and shows how the dominance of individualism in the ranks and a lack of willingness to yield the conduct of affairs to the proper leaders have caused a large percentage of their defeats and deprived them of many opportunities for taking advantage of British mistakes and reverses. Senator Hoar contributes an entertaining article on "Harvard College Fifty-eight Years Ago," dealing with college customs, classes, and many of the famous men who made up the university world of the old days. There are interesting personal reminiscences of Presidents Quincy, Everett, Walker, and of Professors Longfellow, Pierce, Channing, Judge Story, and others. A delightful sense of humor pervades the entire paper.

"THE LADIES' HOME JOURNAL."—There is, perhaps, but a single place in America where almost all the newspapers of the United States are read. To the Exchange Bureau of *The Ladies' Home Journal* practically every paper comes—an aggregate of nearly 9,000. It is the rule to read each one within a day after it is received, so a large staff of trained readers is kept employed constantly. By this plan it is possible for the editors to keep in close touch with the reading public, and accurately informed as to the topics that are uppermost in the public mind in every section of the country. In this reading, such selections are made as may be of special immediate interest, as well as matter for future reference and notes that may serve as memoranda or suggest articles. Moreover, everything relating to the *Journal* is clipped and filed. Thousands of dollars a year are spent in this work alone, but Editor Bok regards it as a very profitable investment, as invaluable information is thus supplied that could be obtained in no other way.

LITERARY NOTE.

R. L. Polk & Co., Detroit, Mich., publishers of *Polk's Medical and Surgical Register* of the United States and Canada, request that all practising physicians notify them of removals, new-comers, deaths, physicians retiring from practice, new medical societies, hospitals, asylums, sanitariums and mineral springs in their vicinity. This information will materially aid in revising the *Medical and Surgical Register*.

“REFERENCE HAND-BOOK OF THE MEDICAL SCIENCES.”

There are indeed few medical men who have been engaged in the practice of medicine for any length of time who do not know of the firm of Wm. Wood & Co., New York City. This house began business as publishers well-nigh one hundred years ago. At that date they were, as could be expected, in quite a small way, as the expression goes; but as years rolled by and the confidence of the medical men in them as a concern grew, they widened out and out, till today they occupy a very high position in the eyes of the medical publishing world. The books they have published from year to year have had an enormous sale, it having always been the case that the imprint of Wm. Wood & Co. upon the title page of any book at once stamps it as being *sans reproche*. Wm. Wood & Co. about sixteen years ago published a work which had meted out to it praise almost unlimited. We refer to “The Reference Hand-Book of the Medical Sciences.” It involved at that time an enormous outlay of money, money enough to swamp most firms, but it did not in the least cripple its publishers; instead of that, placing them as almost without rivals amongst medical publishers. We are given to understand that Dr. Albert Buck, of New York City, intends publishing at once a new and thoroughly revised edition of The Reference Hand-Book, and that the first volume of the new set will be out the latter end of this month. We feel sure that this announcement will be a source of great satisfaction to a large number of medical men. It will, as before, cover the entire field of medicine, surgery, and their allied sciences. To re-write a work of this size is a task almost incomprehensible; but it is already under way and will become ere long an accomplished fact. There is to be in connection with the work a splendid list of Department Advisers and in addition 300 or 400 writers, making when complete almost 500 contributors in all. The work will be freely illustrated and the paper of a considerably better quality than before, so as to bring out the beauty of the execution and the general elegance of the work. The first volume will alone contain fourteen beautiful chromo-lithographic plates.

Everyone must admit that any house willing to risk nearly a quarter of a million of dollars in issuing a system, such as The Reference Hand-Book in its second edition will be, at least deserves success. We feel that in this case Wm. Wood & Co. will receive from the medical profession the just and liberal recognition deserved by so great an expenditure as this investment involves.

Empyema of the Frontal Sinus.—Spiess refers to the uncertain results obtained by transillumination of the frontal sinus, as according to Vohsen the frontal sinus is wanting on both sides in 14 per cent. of cases, and in one side in 20 per cent. Hence the obscurity of one frontal sinus, associated with pus in the front of the middle meatus on the same side, might raise a suspicion, but would not do more than this. He then refers to the use of the Röntgen rays, and to the probing and washing out of the sinus through the infundibulum. He states that it is always difficult to know when the frontal catheter has actually entered the sinus, and had not strayed off into one of the infundibular cells. Puncture of the frontal sinus by boring under the control of the X-rays could be done easily, quickly, and with absolute certainty, so that a diagnosis can be made every time. As regards treatment, the endo-nasal trephining ought to be first employed in every case, external operation only if success is not obtained by his method, or if the patient insists upon operation.—*The Laryngoscope*.