

## Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- Coloured covers /  
Couverture de couleur
- Covers damaged /  
Couverture endommagée
- Covers restored and/or laminated /  
Couverture restaurée et/ou pelliculée
- Cover title missing /  
Le titre de couverture manque
- Coloured maps /  
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /  
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /  
Planches et/ou illustrations en couleur
- Bound with other material /  
Relié avec d'autres documents
- Only edition available /  
Seule édition disponible
- Tight binding may cause shadows or distortion  
along interior margin / La reliure serrée peut  
causer de l'ombre ou de la distorsion le long de la  
marge intérieure.
- Additional comments /  
Commentaires supplémentaires:

Continuous pagination.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /  
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /  
Qualité inégale de l'impression
- Includes supplementary materials /  
Comprend du matériel supplémentaire
- Blank leaves added during restorations may  
appear within the text. Whenever possible, these  
have been omitted from scanning / Il se peut que  
certaines pages blanches ajoutées lors d'une  
restauration apparaissent dans le texte, mais,  
lorsque cela était possible, ces pages n'ont pas  
été numérisées.

THE  
MONTREAL MEDICAL JOURNAL.

---

---

VOL. XXXVII.

AUGUST, 1908.

No. 8.

---

---

A WINTER CRUISE TO THE ORIENT.

(Extracts from a private Log Book.)

BY

CASEY A. WOOD M.D.

Although Funchal is several hundred miles south of a direct line to Cadiz from New York and the Azores would be a more convenient port of call, there is no doubt but that the wisdom of the director of this cruise was shown in preferring the former to the latter for a mid-Atlantic visit. I had never been in Madeira and thought of it chiefly as a resort for consumptives, and as the country of certain kinds of wine, of a fruit cake, and of a garden creeper. I found it also a winter paradise.

We arrived during the early morning and anchored in a harbor fringed with houses built in an amphitheatre of hills that were covered with verdure. At their base was the blue ocean; on their tops were white caps of snow. From these snowfields (some 6000 feet above the level of the sea) ran mountain streams that formed dozens of waterfalls, generally utilized for irrigating the gardens and groves below. Thus it happens that even in February one eats fresh pineapples, bananas, and oranges from Funchal trees and may pick any sort of tropical or semi-tropical flower. I saw small cottages and garden walls almost covered with climbing roses, trumpet flowers, and the beautiful purple and red bougainvillia; while two miles up the mountain there were plenty of nasturtiums, geraniums, and other familiar plants.

There is only one decently level and broad street in the town and, so far as I could learn, all Madeira possesses but ten horses and two automobiles. The whole town—sidewalks as well as streets—is paved with rounded seashore pebbles, mostly small and black, arranged in fantastic patterns, smooth ends up. Over these polished, greasy pavements glide ox-carriages (or *carros*) mounted on runners almost exactly like a French-Canadian sleigh. The private conveyances of the well-to-do are quite handsome affairs—well groomed beasts with colored tassels attached to their long horns their foreheads ornamented with shin-

ing brass chains and the polished harness set with bright metal mountings. This sleigh-like carriage is often finished in broadcloth, has a hood, and holds four people. The driver generally walks beside the vehicle and prods the oxen with a long bamboo, while a boy or man runs ahead to warn pedestrians and to place under the runners a sort of greased mop when a steep or dusty part of the road is reached. With such a conveyance one may make, according to local standards, a fairly expeditious and comfortable journey up and down the hills, at a rate not to exceed three miles an hour. But nobody seems to hurry in Madeira.

Another imitation of our winter transportation is the Madeira toboggan. A couple of miles of greased pebble roadway has been built up the mountain side and down it sleigh-like vehicles are guided-by a man on either side holding a rope attached to the forward end of each runner—right into the centre of the town. Before a start is made the pleasure seeker is asked whether he wishes to ride slowly or “to let her go.” We voted for a mixture of sensations—and got them. Although the fastest rate is, perhaps, not equal to that of the Canadian prototype yet it was fast enough for enjoyment. With the temperature, sunshine and surroundings of an American June, it was an experience to be remembered. E.’s enjoyment of it was rather beclouded by the fact that the men had to carry the basket-like sleigh (weighing about 100 pounds) on the return journey, two miles up the hill.

We took luncheon at the Bella Vista (never was hotel better named) and walked all over the quaint old town before returning to the *Arabic* with our fellow passengers, tired out but happy in the possession of many “snap-shots,” bottles of old Madeira, embroideries, cane chairs (they make wonderful wicker baskets here) and loads of flowers.

Among the pictures I took were some of E. standing in front of a *rede*, or hammock. I wished to take her *in* one but a kindly English woman told her that these public conveyances are also patronized by humbler forms of life, after which I could not induce her to enter one!

There are many English residents here and the street signs, notices and advertisements are mostly in that language. Our Canadian fellow-travellers, of which there are about thirty on board, did not fail to point out that the only warship in the harbor besides a Portuguese gunboat was a four-funnel British cruiser with several long guns pointing ominously from their turrets—in case the *insurrectos* might become troublesome.

Among our first visitors were native divers—boys from five to twenty years of age,—the most graceful and expert swimmers I have

ever seen. There must have been 20 or 30 boats with them—generally a rower and two boys—who waited from early morning till night (and incidentally yelled at the four decks of Arabicers) for silver coins to be thrown into the water. They capered about, performing all sorts of feats, such as diving under the boat, from her upper decks, from one another's shoulders, etc., taking as payment coins tossed overboard, which they generally recovered, between their toes or in their mouths. We all had our favorites among the crowd and they, in their turn, rechristened us with such English names as they were masters of. One curly-headed rascal got some of E's money and then mine by always greeting her with a broad grin and a "good morning." Me, he kindly called "Buster," and Buster I have been ever since. When the boat sailed they followed us, shouting and yelling, far out to sea, waving their scanty garments as long as we could make them out in the distance.

To the medical man the climate of Madeira is of interest. The average summer heat is 74° F.; the average winter temperature 64°. Except in the mountains, frost is unknown. Owing to these conditions, and to the fact that the near-by mountains furnish any altitude required at all seasons of the year it ought to be an ideal resort for tubercular patients.

Cadiz (better pronounce it as you would the plural of the small boy who carries your golf clubs) is built on the tip of a peninsula running miles out to sea, of marble, whitewashed stucco and stone. There are only sixteen stoves and one factory chimney in the town, so that from the *Arabie* it looked at sunrise and sunset like a veritable white city rising out of the ocean—beautiful to behold. A nearer view was not quite as satisfactory owing to the narrow streets, but the street scenes were very interesting. We have seen the Andalusian dances (by some called the "delusion dances") with the accompaniment of the tambourine and castanets, but they were not particularly graceful or animated. I suppose the Vaudeville and the "Follies of 1907" have spoiled Americans for the Tarantella type of dance. Even the old lady from Worcester said she didn't think there was much "in them tarantulas anyway."

The ever useful, overladen, patient little donkey shines like an effulgent star in the labour firmament here. In Andalusia it seems as if "nobody works but *burro*;" certainly he labors more persistently than any Spaniard our eyes rested upon. Often we saw one of these little animals, not much larger than a Great Dane, with two enormous panniers, filled with vegetables, that almost touched the ground on either side of his body, come ambling along with a big Spanish brigand seated

on his back and smoking the eternal cigarette. And such cigarettes ! R. bought a package and smoked about an inch of one. He said he *could* smoke the other half but would like my opinion as to its probable effects upon his constitution before doing so. Eventually he presented them to a bearded pirate with a frayed cloak that passed his way.

Real cigars and genuine cigarettes cost about three times the American price owing to the enormous internal and import tax on tobacco ; indeed, everything is taxed to the limit here. Even salt, mostly made by evaporating sea water in the marshes along the coast, is a government monopoly. On our way to Seville we passed hundreds of dirty-white pyramids of salt (15 to 20 feet high) awaiting transportation, manufactured in the adjoining trenches by the rays of the hot summer sun.

The thing that interested us most in Cadiz was Los Capuchinos, in the chapel of which Murillo painted his last picture. Falling from a scaffold during his work he received injuries from which he died soon after.

They don't like us in Cadiz, and I don't blame them because undoubtedly the so-called Spanish-American war added to the grinding taxation from which they now suffer. E. and I went for a drive about the town and we were several times greeted with hisses, surly faces and cries of "Americanos." Although the climate of Cadiz is usually balmy and pleasant in winter, it is, owing to its exposed situation, liable to sudden changes. It cannot, therefore, be recommended to invalids. Interior towns, like Seville, are more attractive for a winter residence, although even they are quite cold at night and are subject to occasional disagreeable falls of temperature.

We had perfect weather for our trip to Seville, and found the first-class railway carriages clean, well furnished and very comfortable in spite of the native equipment and the little 1865 Belgian locomotives. It is about 100 miles from Cadiz and we "did" the distance in 5½ hours. But that was because, as S. explained, "we" stopped at so many "cantinas." S. is making grand progress in his Spanish since he discovered, without extrinsic help, that cantina is that part of a railway station where "vino" can be had for 40 centimos a drink. After that discovery he invited me to partake. I did so *once*—and *such* wine. I told him wine did not agree with me; I would smoke one of his cigarettes.

The conscription in Spain seems to take in some very young men. In the train was a carriage containing a number of these boy soldiers returning home — youths of apparently sixteen or seventeen. They were dressed in parade uniform, smoked many cigarettes and looked

pleased all over. At a small village two of them got out as the train drew up, when a mob of about 100 men, women and children rushed from the platform and welcomed them in true Spanish fashion. With cries of "Pepe" the crowd literally fell upon one boy's neck and almost choked him. Four men, six women, and two small girls tried to kiss Pepe at one and the same time. As this proved unsatisfactory they divided into sections and Pepe was systematically hugged and kissed, first on one cheek and then on the other, by the whole village. When we last saw them, each boy, surrounded by a small company of fellow-citizens, was being escorted home. I hope they all had a good time that night—and that my camera has a faithful picture of their homecoming.

As we approached Seville (I much prefer the liquid, Spanish pronunciation Sevillyah) the fields become more green, and we noticed acres of clover, peas, lentils, etc., gardens of flowers, groves of oranges (flowers and fruit) as well as peach trees in bloom. The fences were mostly made of cacti (occasionally in flower); while browsing in the fields were flocks of sheep and herds of cattle. It is in this region that the famous Andalusian bulls are raised, of which we saw many good samples. They were big, black, shiny fellows with long horns, and certainly deserved a better fate than being sacrificed to make a Spanish holiday. Incidentally, some of us visited the bull rings at Cadiz and Seville, but I don't think even Stars, who made much money in cotton last year and is now taking in everything on this trip, tried to see a bull fight. The smoking room opinion is against it. At least, R. told him we "wouldn't stand for it," but would get him a permit to see the hog slaughtering in Chicago if he liked. In spite of all the glamour sought to be thrown about it in Seville, where they have one of the largest rings in Spain, I believe the "sport" is just as cheap and nasty, as nauseating, cowardly and brutal as it is in Mexico.

The stuccoed, whitewashed towns along the road to Seville are very attractive—in the distance—and all have the towered churches so common in Southern Spain. Fordyce pointed out that most of these had at least one stork on the roof and then, he added in a pensive tone, they are overworked birds all over Spain.

Young girls with bright fresh faces, beautiful eyes and a wealth of black hair, are seen everywhere, but always accompanied by a duenna, dressed in black with a mantilla thrown about her head. E. does not like that form of head dress, but I think it is becoming—and so cheap.

The Hotel de Madrid in Seville is a comfortable house of entertainment in winter if you have plenty of blankets and a hot water bottle;

because, like most dwellings in semi-tropical countries, it becomes quite cold as soon as the sun sets. We found in the pretty hotel courts palms and other plants, including climbing roses in full bloom, but no heating apparatus.

The guide book tell us that the *sereno*, or night watchman, cries the hours to the accompaniment of the *Ave Maria* at the street corner. We kept awake until midnight but no *serenade*. I am going to ask McClurg to return to me the \$2.50 I paid for such unreliable literature.

E. found the lock to our bedroom door; it consists of an iron bar six feet long with attachments strong enough to keep out even a Spaniard, but we decided to trust to the other lock, the key of which is seven inches long and turns in the huge lock with a noise loud enough to call the chambermaid. No danger of carrying off that key, or, if carried away, in a forgetful moment, of returning it for two cents by way of the mail.

Our main object in visiting the city of Seville was to see the Murillo pictures, the Cathedral and the Alcazar.

For years a Braun photograph has hung in my office out of whose frame the lovely face of the Perla de Sevilla shone upon me and I looked forward with the greatest pleasure to seeing the original. We found it in the Museo with some twenty other Murillos but, somehow, whether it was the poor light or what not, we were dissatisfied; it did not seem to be as attractive or as well preserved as the Immaculate Conception of the Louvre. The gorgeous blues and browns that are (to me) Murillo's chief charm, were present, it is true, in the Perla but they did not impress me as I expected they would, and I went away sorrowing—into the balmy air and blue skies of the streets. Outside the endless procession of pannier-laden donkeys, strange men and women, barefoot friars, and dark-eyed senoras and señoritas through the narrow, winding streets made me forget my disappointment in the pictures. Altogether I subscribed to the German phrase: "Wen Gott lieb hat, dem gibt Er ein Haus in Seville."

The King and Queen are now visiting Seville and we were not allowed to enter any part of the Alcazar. In place of this we had to content ourselves with driving through the public gardens and with seeing gold-laced officers and other court attendants.

It was not that the Cathedral is, next to St. Peter's, the largest in the world or that we were lucky in hearing High Mass with all the grand organ accompaniments, but the magnificent interior with its beautiful stained windows and elaborate carvings appealed to us more than any of the other European temples—more even than St. Peter's or St.

Paul's. The General and his wife returned with us next day for a three hours visit and we found that the impression remained. Between the four of us we tried to recall Milton's lines from "Il Penseroso." My own contribution was a very meagre one: "Storied windows richly dight," but it seemed appropriate to the wonderful panes through which the colored sunlight streamed to the floor below. I think I shall never forget that interior, or the Giralda Tower—the Cathedral Campanile—of the exterior.

Whatever else our party buy or do not buy they always invest in picture postal cards. E. has investigated the subject and believes an average of one dozen a day is not an excessive estimate for each *Arabicer*. I happen to know an exception. One tradesman from whom we purchased a few castanets and things confided to me that an "Americaine" had been in his shop since early morning, had "borrowed" his boy to show her the way to the Cathedral and had then taken most of the afternoon to examine his stock—and made no purchase! I tried to console him by explaining as nearly as I could our plan of "shopping," but I must have failed because he could not understand. The General, who overheard the conversation, said I should have told him he was no worse off than the apostles "who had toiled all day and caught nothing." Later on I discovered the reason of the shopman's excessive indignation. *El Pais*, a Seville paper, in describing our excursion to the city, had described us as "a party of four hundred American millionaires."

E. and I had "done" Gibraltar pretty thoroughly on a previous visit so we contented ourselves with staying on the ship to watch our compatriots bargain with the visiting Jews, Spaniards, Moors and Portuguese, who brought their wares on board as soon as the tenders had taken the various parties ashore. The *Arabic* was soon converted into a sort of bazaar that exhibited as many varieties of goods as Westport Street and Gunner's Lane together; the decks resembled an overcrowded Kermesse. Spanish and Maltese laces, mantillas, tablecloths, scarfs, every sort of jewellery, leather work, etc., were offered by dark-skinned men who talked and laughed and haggled and gesticulated and expostulated until the sound of bargaining must have attracted the attention of the sentinels about the Great Rock. The rules of the game are those that govern purchases all over the East. There is an upset price below which the seller will not go; but no one except himself knows it. He at first asks from three to four times the amount he is eventually willing to take, and the purchaser, if he understands, bids from one-fourth to one-third this sum, which is modified alternately by purchaser and peddler until, after a time, an agreement is reached. It is a curious performance and often worth seeing.



The Canadians on board have just returned from the Signal Station and other exclusive parts of the fortified rock, each saying beneath his breath, "*Civis Britannicus Sum*" to their envious American fellow-travellers, for only British subjects may penetrate the secrets of Gibraltar.

E. was watching the sun set across the harbor yesterday when she happened to look into the water below and noticed a black cat—one of our ship cats—struggling in the waves alongside. Pussy had fallen overboard and was making desperate efforts to swim and was encouraged in these attempts by a couple of sailors who had noticed the tragedy and were making signs to a native boatman to pick up the struggling cat. Soon a hundred people were leaning over the taffrail, adding their advice. Native boys finally threw a coil of rope around the cat's body and succeeded in pulling her aboard amid loud applause. She was then hauled, after much pawing of the air and twitching of the tail, on to the *Arabic* by means of another small rope applied behind her shoulders. On reaching the deck she emitted several loud "miaows" indicative of disgust, indignation and injured innocence, and disappeared to her quarters. Meantime E. donated one peseta to the fund for impoverished native sailors which was deposited in the floating bank beneath her. R. believes the whole affair was concocted by the imp. nat. sailors aforesaid who will repeat the performance at their earliest convenience. But R. is a sceptic at all times. I heard him tell a lady who paid sixty pesetas for a *genuine* Spanish mantilla (marked down from 130 pesetas) that it was cotton, machine made and was worth in Paris (where it was manufactured) about a dollar and a half.

Not even Lorenz's "*Mediterranean Traveller*" prepared us for the surprises of Algiers. Surely a more picturesque city does not exist. The water front shows a fine modern town—very like a section of Paris near the *Madelaine*—with imposing jetties, buildings, boulevards and gardens extending for miles. Higher up on the hillside, white, windowless, stucco houses of Eastern aspect begin, and these constitute the chief part of the remarkable picture one sees from the Bay below. We took a two-hours' drive through both the French and the Arab quarters to the heights above on a road bordered with gardens of flowers and groves of oranges, quite as good and far more imposing than the *Corniche Road* or the roadway along the *Italian Riviera*. In the city itself we met Moors, Arabs, Turks, Egyptians and all other manner of Easterners. For fuller particulars see the guide book.

R. bought a pair of opera glasses on shore from a descendant of the prophet, for \$2.50. He said they must be cheap because the man's first price was \$14.00. At any rate he said the man and he consumed about

50 cents worth of the former's time and he learned \$2.00 worth of French and some other language he "didn't quite catch"—so that the account is square. R. said he also assisted in an "antique," oriental rug sale, held in a dark arcade near the boat's landing. Twenty-seven first-class cotton rugs (made in Lyons or Marseilles and colored with anilines) were sold by orientals to *Arabicers* at prices that defied competition. R. says the rugs were not the only objects sold at *that* sale. He intends taking his future deck walks at night for fear he may see the "antiques" by daylight.

Capt. H. is always joking about the quality of the milk served on board and drags in a number of ancient remarks about the *Arabic* "cows." To-day his daughter induced him to rush on deck to see some animal that had fallen overboard. He found a crowd of his party who pointed out a two-gallon tin of condensed milk that had been condemned and ejected from the cook's galley. Probably we have heard the last of the cow joke.

There will be a concert by the ship's Musical Club this evening to celebrate Washington's birthday, but we have decided not to go; we heard them rehearsing in the aft saloon.

E. thinks she would like to go on to Biskrah and see the "Garden of Allah," but as we cannot do this without missing Malta, Athens and Constantinople, we shall have to forego that pleasure. Anyway, "A Woman's Hardy Garden" ought to satisfy any suburban resident. It has often been more than enough for me.

E. is reading up Malta in Lorenz, but I notice that her studies are confined to such topics as "hand-made laces," "native jewelry" *et hoc genus omne*. I asked her the name of the Granmaster who surrendered the island to Napoleon, and she replied, "Ivanhoc." I have had similar answers to questions about the language of the natives, the names of the other islands of the group, etc., from which I conclude that my wife thinks Malta belongs to Italy and that the chief exports are cats, and the art products just mentioned. Well, perhaps they are; we shall see to-morrow.

If there were any indignities practiced on our fellow Arabicers by the Algerines the former retaliated in kind—by talking French to them. The General says he overheard one self-satisfied lady, who had previously confided to him that she always speaks that language when abroad, ask the "cocher" the name of a large hotel seen on a distant hill that overlooked the Champs de Mars where a cavalry regiment were parading. He replied that they were "*chasseurs d'Afrique*" engaged in manœuvring and then proceeded to explain the origin of that particular branch of

the French arms. When pressed by bystanders to interpret she said, with a superior air, "Oh, that's the Hotel of Africa; it holds 300 guests and cost a million francs." While buying some stamps at the Algiers post-office I assisted the very patient and polite clerk in convincing some compatriots from Pennsylvania that although *their* country is undoubtedly the largest in the world the Algerine postmaster is forbidden by law to accept American nickels for French postage and that probably even they could not buy many U.S. postal cards at Pittsburg with a two-franc piece. On my way out an indignant fellow-citizen said the French were so mean, they would not sell him any stamps at all, although he had addressed the clerk in his own language and had even held out a handful of hated French money. I returned to the charge with him and found he had been trying to buy postage labels from the weary official who presides over the money order department! I imagine Algiers was gladdened by the noise of our anchor-raising.

E. and I are curious to see Malta, although William, our stateroom steward, who is a great chum of my wife's, has just been telling her terrible stories about the thieving propensities of the native population. "You see, ma'am, they'd sell you a beautiful singin' Canary bird lookin' right hinto your high and change it heven when yer back wasn't turned." William also avers that they come on board laden with screw-drivers, knives and skeleton keys prepared to relieve the innocent passengers of their shekels instead of impoverishing them, as they might easily and more honestly do, by way of the silver filagree and lace route. William believes that nothing but their excessive weight keeps these people from running off with the ship's anchors. However, every day except that spent in New York harbour has been so extraordinarily fine and the sea has been so smooth that we feel we shall be able to look even Malta in the face and—

*"Quidquid erit, pati."*

## II.

The Maltese boatmen did not belie the character attributed to them by William, our stateroom steward. Even before we had anchored, the water about the *Arabic* seemed to be covered with a confused mass of gondola-like boats crowded with shouting, gesticulating, sailor-peddlers who acted as if they intended to take our ship by boarding as in the old piratical doys. Their cries reached E. in her berth. She dressed hurriedly and reached the deck just as the gangways were being lowered to permit the first detachment of Arabicers to go ashore. The Maltese pirate closed around the ladder-like stairs like flies. "Do please, kind gentlemen, let me up." "Kind sir, here is my license," said they, holding

up a paper. The boats provided to take us ashore were violently pushed aside and a dozen pirates jumped upon the lower gangway and tried to force their way up the narrow steps past the quartermaster. They grabbed the ropes, threw their bundles ahead of them and tried to swarm up the ship's sides. The quartermaster yelled to them to keep off and asked the officer in charge for help. He hurriedly ordered three sailors to the rescue and they did their best to repel the boarders. But in vain, because from a confused mass of struggling legs, arms, boxes, bundles and brass buttons there emerged, one by one, a victorious Maltese who raced on deck, pre-empted the most favorable spot he could find for the purpose, spread out his goods and was ready for business. It seems that only a certain number of these peddlers are allowed on board, and it is a case of "first come first served." The disappointed ones, after much noisy display, rowed about the *Arabic*, holding up various objects of merchandise and calling upon the passengers to buy. They were also quite ready to pass up ("on suspicion," as E. H. might say), by means of a basket and rope, any article that a passenger might have been unwar-y enough to evince an interest in.

R. and I, while our wives were leading themselves into temptation by inspecting the Maltese laces, embroidery, carving, etc., spread out along the promenade deck, had a preliminary look at the wonderful harbour and town of Valetta. We were anchored not more than a hundred yards from shore and had a good opportunity of studying the strata of fortifications that rose with the city, tier upon tier, almost mountain-like, to the sky line. It was a wonderful sight, almost as remarkable as the storied view of Algiers. The stairlike streets that led to the upper town began in a broad esplanade below that formed the water front and that was finally lost in the extensive stone fortifications and piers that stretched for miles around the enclosed harbour. We were told that these massive cut stone, granite towers, bastions and walls, pierced for hundreds of guns, represented successive additions to early Phœnician works and were built by Moslem, Knightly, French and English conquerors. The real defences, however, are, we were informed, not visible to the ordinary observer, but are concealed by pits, trees and other screens, behind the town or on convenient artificial islands in the harbor. William says, "them (indicating the martial array of cannon mounted on the casemated and embrasured walls) is only for show; there's the real forts," and he pointed to some dozen or more dark, grim-looking monsters lying at anchor half a mile away—the British cruisers and battle ships. Our William is a proud patriot who has sailed these seas for twenty-five years, and probably knows as

much about the subject as the numerous guides, who resemble the light that lies in the depths of my lady's eyes,

“and lies, and lies.”

The small leaflet of instruction that is issued to each *Arabicer* on the day before we reach port, warns us against buying Maltese dogs, owing to their cost, their delicate health and the impossibility of bringing them to America. This, of course, stimulated our curiosity to see these abnormal pets and we applied to the General who has been over this route several times. He maintains that there are, strictly speaking, no such animals as Maltese dogs, although there may have been at one time a special race of canines on the Island. And cats—well, they are like the dogs. R. and I, consequently, called for cats and dogs every time (about once in two minutes) the street guides, pedlars and cabmen offered us cathedrals, postal cards or carriages. This persistence finally produced an effect, because the news soon spread that two (mad) Americans wanted animals. We were, after a time, surrounded by a yelling mob with (American) cats and white French poodle pups—not to forget a fringe of milch goats whose owners came determined to furnish milk from the “source,” in our immediate neighbourhood and presence. The net product of those offerings was a doubtful snapshot which, I trust, will show what we flushed in Malta of the feline, canine, caprine and human species. R. thinks our lives were saved on that day only by a determined charge of two native policemen. At any rate we proved to our own satisfaction that there are now no Maltese cats or dogs in Malta.

Of course, we had to visit the ornate, as Capt. H. says, “built in the higgledy-piggledy style of architecture,” Cathedral of St. John. The begilded, bebarbled church is a huge mausoleum, mostly tenanted by the ghosts of Grandmasters of the Order of the Hospitallers of St. John of Jerusalem. According to the pompous Latin inscriptions on the coloured marbles that form the pavement of the chapels, they were the incarnation of all the vigorous virtues. Fordyce stood in front of one tomb of this kind and repeated:

“The Knights are dust  
And their good swords are rust—  
Their souls are with the Saints, we trust.”

At any rate they stirred the European “pool” during the time they sailed up and down the Mediterranean, and medical men must not forget that they had their rise in the first Christian Hospital in the East and only melted away before the sun of Napoleon's glory.

The nice girl who sits at our table has been reading "The Talisman" "to get the local colour." She took the long journey (seven miles there and back) to view St. Paul's Bay, which we passed in the morning on our way to Valetta. William called me early and said, "if you will get hup and look hout of your porthole you will see, just opposite, the place where St. Paul was shipwrecked." E. reached our "window" first and said, "why, it looks just like any other coast." I dressed at my ease, and going aft, encountered R. We climbed to the hurricane deck and found one of the officers, who said, "we shall be passing St. Paul's Bay in about fifteen minutes; better look at it." We did so with R.'s lately purchased glass. We saw an indented landscape with no trees and some low-lying rocks. In about half an hour I wandered back to the promenade deck, where the Reverend Mr. Jones, surrounded by a breathless flock, was reading from Acts the original description of the place "where two seas met," and, suiting the action to the word, was indicating with his hand each coast feature as we passed it. "Probably, ladies and gentlemen, that spot," pointing to a pasture-like elevation on the nearest shore, "is where the apostle shook the deadly serpent off into the fire—and stood scathless." Later, we spoke to the second mate on the subject; "Oh, St. Paul's Bay, *that's* on the other side of the Island; we can't see it from the boat."

On our way back to the *Arabic* that evening Mrs. R. and E. suggested that we walk down the stairs to the landing, and we felt amply repaid for our trouble. The glimpses we obtained of the harbour, shipping and fortifications, framed by the outlines of the houses in the narrow streets, were entrancing. Incidentally, I got some snapshots of the Maltese women, most of whom still wear the *faldetta*. This is a combination of sunbonnet and silk cloak that takes the place of parasol and coat under which one may safely and privately carry any burden, whether it be a loaf of bread, a basket or a bundle. Only E.'s assurance that "we had too many things already" prevented my getting one for M.'s private theatricals; it was so picturesque.

We steamed out of Valetta harbour with flags flying, the band rendering "God Save the King," and the officers standing at attention. The nice girl at our table remarked to my wife at dinner, "Isn't it fine of those British officers to stand with their hands to their caps while the band was playing 'America'?" And E. said it was.

During the twenty odd years E. and I have been crossing the seas we have never ceased to wonder at the marvellous quality of the bread and coffee served on British ships. With all other things of the best these have continued to be the worst. It isn't that they *are* of the

worst, but the exasperating consideration is that in spite of the example set by French and German boats, one should steadily encounter chicory and "grounds" that masquerade as coffee, as well as that sodden, potato-pancake denominated bread. Of course your table-steward knows all about the Continental and American complaints, but he thinks, if he thinks anything, that U. S. passengers are unaccountable particular in some things. The General believes that the persistence of the British bread and coffee is merely one expression of that fundamental virtue in their character—a sterling conservatism. Having served that brand of coffee and that sort of bread on the *first* ship and brought her safe to land, they stolidly keep at it until the end.

We had a lecture on Athens by a reverend gentleman, who gave us eloquent scraps of Greek history. After the usual reference to Phidias and Lycurgus, "and other dagos," quoting the man who sits at the head of the opposite table who made money in Cincinnati real estate, he could not finish his essay without referring to the "*poluphosphoio thalasses* through which we are now ploughing to the Athenian harbour." "What's that?" asked the nice girl at our table of her companion—a youth who sat next her. "Oh, he's only showing off his French," was the reply.

They have celebrated canary singers at Malta, and nearly everybody bought a bird. The General bought two, and now he says he wishes he had also found that Maltese cat. His two birds sing both day and night. Our William purchased one, guaranteed to break into generous strains in a day or two, after it had got accustomed to its new surroundings. I saw him chirping to the bird, and asked him why it didn't sing. "I don't know," he answered, and then, with a kind of sigh, "the smoke-room steward says hits a bloomin' 'en"; all of which is a considerable consolation to E. after she had acquired that hand-made lace in Algiers. I understand that a self-appointed committee of ladies has decided that it also is a "bloomin' 'en."

On the morning of the 26th of February we awoke to find ourselves approaching the Piræus, the seaport of Athens. It was cooler and more cloudy—the latter consideration preventing our seeing the Acropolis and Lycabettus until we were fairly near. I suppose if we had been homesick Greeks of the old days on a return voyage from Alexandria or the Pillars of Hercules, we would have strained our eyes to catch from the Parthenon foreground the glint of the sunlight on Minerva's gilded spear-head. As it was, we had to be satisfied with imagining just what the statue of her ladyship looked like.

The *Arabic* is the largest vessel that has yet entered the inner harbour, and we approached the task very gingerly. The Greek boatmen con-

stitute a strong guild and have prevented the government from building piers that will permit the approach of deep-draught steamers. Consequently, we landed by way of small sailboats and tenders—quite romantic in smooth weather, but not so pleasant when there is a stiff wind blowing. E. was not feeling well enough to brave the fatigue of an all-day drive to and about Athens, so I allied myself with the General and his wife and we greatly enjoyed our trip. The weather was cool and sunshiny, although we learned that there are other towns besides Chicago that can “raise the wind.” On the Acropolis Mrs. General took a number of pictures (with the other two members of her party for a foreground generally holding their caps and coat-tails to keep them from being blown into the theatre of Dionysius below) which she feared would be found rather shaky when they were developed in Jerusalem. The General proposed that we retire to the nearest *zendo-decheion* and pour out a libation to Aeolus, but as he afterwards confessed that he had never indulged in Greek wine, I forgave him.

The last time we were here the northwest angle of the Parthenon was “shored up” with timber work to repair a portion of it. I was now glad to see that it had been taken down, although not so pleased to find that the timbers are being employed to “restore” the pretty little temple of the Caryatides. The Athenian ruins, except the lovely temple of Theseus, are truly ruins, but I don't think, as a choice of evils, that extensive restoration is desirable except when, as in the case of the marble Stadion, it is necessary to make structures available for a useful purpose.

After the drive our party, having done its duty to the antiquities, proceeded to luncheon and to shopping. My companion and I called on our Consul-General, known to both of us as an old Chicagoan, and author of “Modern Athens,” as well as a number of other books. It is a pity that so few people have read that pretty little story dealing with modern Greek life, entitled “In Argolis.” Howells says of it: “In ‘Argolis’ is one of the most charming books that any American has written about the life of another people, and in describing the little Greek town where Mr. Horton spent a summer, he has done one of those instantaneous classics. . . . it is delightful, every word of it, with just that mixture of the epic and idyllic and domestic and divine that is peculiarly American.” In my poor judgment, the chapter devoted to the account of moving his household goods from Athens to the Piraeus, by means of two Greeks and a native waggon, is one of the funniest narratives ever put in print. The sad history of the poor rooster that formed a portion of these effects is particularly well told.



I have been advising those Arabicers who wish to obtain a good idea of the people of modern Greece to read Horton's books.

After luncheon R. and I went about on foot to see the street life in the poorer quarters. These were clean, in spite of the narrow streets, and of their marble-dust covering converted into paste by the recent rains. We stopped to buy beads of two kinds. One variety the Greeks all over the East use to occupy themselves as a relief to their nervous system, instead of twirling the mustache, chewing gum, etc. It is certainly a curious sight to see men of all ages and occupations, turning these beads about, generally pulling two or three of them back and forth on the string when they have nothing else to do. Perhaps, after all, this occupation is better than twiddling one's thumbs or "whistling for want of thought." The other purchase was a set of beautiful blue beads with a pendant blue heart set with white cowries, with which the natives are wont to decorate the heads of their goats, horses and oxen (particularly the last) for the purpose of averting the "evil eye." The evil eye is said to be attracted by the beads and neglects to injure their wearer—all of which, R. says, is about as reasonable as some other means he has heard about of accomplishing the same end.

When we were waiting for our change in one of the shops we watched the method of converting English shillings into drachmæ by means of the abacus. These calculating machines are apparently not so much in evidence now as they were when E. and I visited Athens ten years ago. Probably the shopkeepers have since been taking lessons in mental arithmetic.

We went into what in America would be called a "low" saloon to get some *vinos resinatos*, the resinous wine of the poorer classes, and some of the "refreshments" that go with it. The latter consist of rancid goat's cheese, pickled nasturtium seeds, pickled horse beans, carrots, and what R. declared to be "pickled eel's feet"—for I wasn't equal to tasting them. We took as much as half a teaspoonful each of the pine-gum wine, and "let it go at that."

The General heard of our adventures with this Greek drink and at my invitation partook of it. He fared no better, and was in addition obliged to listen to my imperfect rendering of his favorite author in this connection:

"Vile potabis modicis Sabinum  
Cantharis, Græca quod ego ipse testa."

Even Horace cannot remove the taste of shellac from one's mouth!

We rode back to the Port over the beautiful, broad, tree-fringed boulevard stretching straight as a die to the Piræus, the gift of a rich Greek

from Alexandria. The General sat on the box and "talked Greek" with the driver; that is, he and I contested the honour of deciphering the street signs and notices, and then asked that authority how to pronounce them. How proud we were when we recognized a familiar word! And yet some people say there is no use studying Greek at college for more than three years! The General says several Arabicers bought the Athens "Chronos" for the purpose of securing the latest American news, but he has failed to hear from them since, although we are assured that anyone who can translate Xenophon at sight may also read the Greek newspapers, barring such words as 'pickaninny' and 'steamroller.'

Louis the barber, who does "developing" and a roaring postal-card, photograph and flags-of-all-nations business, told me that my films turn out better than those of any other Kodacker on board, better even than the best talker in the Arabic Camera Club. I was puffed up exceedingly for nearly four days until I overheard him confiding in another amateur photographer that "his films were the finest, etc." Louis understands exactly not only how to extend, but how to bolster up trade.

Our run to the entrance of the Dardanelles past the "shining" Cyclades, as Horace has it, was classically correct because, as we sailed by night through the Aegean Sea, our course seemed to be marked out by the lights on the shores of such islands of the Archipelago as hove in sight. And, of course, we were reminded that an *archipelago* is a body of water that resembles this sea (the sea of seas) in being filled with islands.

E. thought we had better try to engage the dragoman we had on our previous visit to Constantinople and to "do" the town independently. I accordingly wrote from Chicago asking him to meet us at the boat. When the tender reached our side (after the passport ceremonies had been completed by the aid of certain Turkish custom house and police officers dressed like Major Generals) we spied Paruta, wearing the only cowboy hat I had seen for three weeks. It was a damper on our enthusiasm, however, when we found that the same Paruta had risen in the world and had charge of the whole party in Constantinople. Nevertheless, he was very glad to see us, got us an excellent guide and was of considerable help to us in many ways.

In striking contrast to other towns we had visited the Turkish capital seemed more oriental, more weird, more hopelessly out-of-date and more solemn than before. Perhaps it was because it was winter (we saw it before in the summer time) that it did not seem as beautiful as on our previous visit. It was not until the sun was setting behind the lovely mosque of the six minarets (Achmed First) that the extreme pic-

turesqueness of this city of seven hills burst upon us. A pink light was reflected upon the houses of Scutari opposite, while a golden glow spread to the background of the Galata Tower, Pera and the European quarter to the north. If to this could have been added its usual summer verdure (for the city is really a town of trees) we would have said, as we did before, that *from the water* Constantinople is certainly the most beautiful city in the world.

There are several stamp collectors on board who hunt up the post-offices in every town we visit and spend their money in acquiring samples of all the stamps they issue. No one has done this in Constantinople, because not only Turkey, but Great Britain, France, Germany, Russia, Austria, Roumania and, for all I know, other countries, have post-offices in the larger Turkish towns, that all issue an imposing array of stamps. R. says if a man wishes to be safe, he ought to mail an original letter in the Turkish office and send carbon copies by way of the others. At the Pera Palace Hotel, where we took luncheon, the rotunda has six brazen letter-drops for corresponding post offices. They were all polished like the rising sun and must have consumed much annual sapolio to keep them in good condition.

If the distant view of the city did not impress us as it did ten years ago, the Galata bridge and the so-called Tomb of Alexander in the Imperial Museum affected us more. The former resembles the Canyon of the Colorado in that no words can describe it, especially when the full tide of eastern humanity is pouring across. E. and I drove over several times, and we both wished we could stay a week and do nothing else but drive back and forth from Pera to Stamboul, across the Golden Horn! The General thinks the irregular plank road that constitutes the bridge pavement would soon shake us to pieces.

The bazaars were as bewildering as ever, and in them we would have been hopelessly lost without our guide. E. has not entirely recovered from her repugnance to bargaining, and generally leaves the matter to me. As long as she does not express a too evident admiration for an article, and retires to a distance where our voices cannot be readily heard, the process is rather simple; the oriental dealer asks a certain price which (in Constantinople), if one goes about it properly, falls to about one-half to one-third the original sum.

In the midst of our visit to the large bazaar of the son of Faraway Moses (proper name, Levy) E. found she had somewhere lost her muff. Everybody scurried about to find it, when the General said, "let us telephone to the hotel; perhaps she left it there." I had my misgivings, but we sought Mr. Levy. He is, among other things, an

admirer of our Republic. "We cannot telephone, because we have no telephone. There are none here, because the Sultan does not like them; nor can you send a code telegram. But," said he, sinking his voice to a whisper, "*some day*, we shall have them." However, just then a clerk came to say that the lost had been found behind a counter. E., with her thoughts wrapped up in Turkish embroideries, had dropped it.

St. Sophia was the only mosque we visited, although we tried to see the interior of the Pigeon mosque and of Achmed I., the ones we liked best when we were last here. It seems that since the violent death of the King of Portugal the Sultan has had another fright, and the visits of strangers are not encouraged—not even Americans, who have more privileges in Turkey than any other people. We live far away and haven't, so far, had any large hand in Turkish politics. At first we were told that even St. Sophia would be closed to us, but finally our ambassador "arranged" the matter. The Captain says, he supposes the Minister of Religious Instruction got the entrance money. We were admitted in small bodies, and a Mollah accompanied each one to see that we didn't steal any prayer rugs, laugh or talk out loud, write our names on the marble walls, make fun of the slippers we had to wear about the sacred edifice, or disturb the groups of worshippers that were prostrating themselves before Allah all over the place. Our Mollah, a young priest about 23 years of age, bundled us out *sans ceremonie*, and I was not sorry, as I did not much enthuse over St. Sophia the last time I saw it, and it seemed cold and forbidding this time. When we got inside it was mid-afternoon and we were just in time to hear the call to prayer from the surrounding minarets. The roar of the big city, especially of the carriage wheels on the cobble stone pavement almost drowned the priests' voices, although most of them "helped out" by holding their hands to their mouths. "Why don't they use a holy megaphone?" said the real estate man from Cincinnati, who was waiting to hear that. "Allah is great."

When we reached the boat to prepare for sailing next day, E. insisted on having William shake our outer clothing over the ship's side in memory of our previous sojourn in the town, and yet we had not noticed as many dogs as before, and had certainly not stopped more than twice to admire a family of puppies.

Every man, woman and child on board purchased a fez, and most of them are wearing it. We have a goodly number of Armenian and Greek guides on board, and when a brunette American assumes this head-dress and a cigarette, it is difficult to distinguish his place of birth, unless he talks. Fordyce applied to one of these pseudo-orientals

for information about the trip to Galilee, and was told that on account of the desert, the party would go from Caifa by balloon, and float down the Jordan to Jerusalem. He also learned that we land at Joppa by means of rope-baskets and journey to Damascus in automobiles, all of which Fordyce repeated, with his usual watery smile, to two biblical enthusiasts who were waiting for the information.

To-morrow morning we land in Smyrna, and if E. can only see the bazaars and another camel train she will be happy for the rest of the day. As for the Captain and myself we have sworn to have a cup of real coffee and real bread—such as his cook at home makes—if we have to break into the *Club des Etrangers* to get them. I understand the Captain has a letter to one of the members. Yet the ship's coffee has improved lately, because if you leave out the cream, it can be differentiated from the tea, whereas earlier in the trip it couldn't.

### III.

We sailed in the afternoon as far as the Black Sea so that the Arabicers might see the sights along either bank of the Bosphorus—past the narrows across which Leander, Lord Byron, Xerxes and many another bold adventurer has swum, sailed and rowed. To remind us that the environs of Constantinople is a summer resort we passed the country villas of merchants, foreign embassies, and the palaces of the Sultan and his nobility. The residence of the Ottoman Emperor (Yildiz Kiosk) is plainly seen from the steamer deck. It is a huge enclosure—a small town in itself—with buildings of all kinds brilliantly lighted by electricity. And thereby hangs a tale, for the truth of which the Senator vouches. The Sultan had for some time been flirting with a proposition to adopt the new form of illumination which, at first, he had not regarded with favor. Finally, he gave an order to an English firm to submit plans and to exhibit its apparatus. A part of the grounds was at first wired and the power plant shown to his Majesty: "What are these?" he demanded. "Oh, those are the dynamos," said the proud agent. "Then," replied the Sultan, "stop the machinery and get out; I shall allow no dynamite or anything related to it here." In vain did the representative of the company assure his Majesty that this part of the machinery was not even remotely related to explosives, but in vain; the Sultan went back to the Standard oil product. Hearing this, an American agent, after much diplomatic manœuvring, brought to the attention of the palace a new form of electric lighting in which there were no dynamos, but *generators*, and these innocent machines were installed to the perfect satisfaction of the astute monarch.

The students of Robert College have been visiting us in considerable numbers, the boys acting as guides, flirting with the girls on board and making themselves generally agreeable. As the College is a co-educational institution (400 pupils, mostly residential) I was not surprised to hear the Colonel had been doing the honors for the fair students that came aboard to visit us. He showed me his note-book inscribed with some dozen names in girlish hands—all of whom promised to send him a card at Xmas and all received a hearty invitation to visit him in Chicago. The Colonel does nothing by halves.

We made a wide sweep at the entrance of the Black Sea, and on our return passed the College grounds that skirt the water's edge of the Bosphorus. On the tops of buildings, in the grounds, on the neighboring walls the boy and girls were grouped, waving handkerchiefs, sheets and towels and singing American songs of all kinds, while from the highest tower floated the stars and stripes. It was a pleasant sight to most of us.

The sun was setting behind the hills of Stamboul as we headed towards the Sea of Marmora and realized the wonderful outline of the city. Perhaps the most prominent object was the six-minaret mosque of Achmed First, standing out in its delicate beauty against the orange sky. Towards Pera the white houses of the embassies and the palaces of the rich were next lighted, up in all shades of yellow, orange and red until, as the *Arabic* passed Seraglio Point and entered Marmora, a faint, pink light tinged every mosque, minaret and tower and made one forget the rags, the filth and the misery of the poor quarters below.

Farther down the coast, after we passed the Dardanelles, we had good views of Lemnos, Mytilene, Rhodes and many another island that stirred strange memories in most of us. The real estate man from Cincinnati allows nothing to escape, nor does he permit his wife and daughter to go uninformed. He brings them tit-bits of information much as the mother-bird dispenses dainty worms and flies to her growing family. I overheard him tell them to-day about a group of young men who borrowed his overworked field glass for the purpose of examining a distant part of the coast where was, once upon a time, he said, a "place called Troy." O! towers of Ilion, O! pater Aeneas, O! mount Ida—"a place called Troy."

The General says he found him early the next morning straining his eyes to discover on a large island near by some traces of the "Colosseum" of Rhodes. He was much comforted to learn that this wonder of the world had been removed several years before.

Smyrna looks exactly as we expected it would, and that is saying much, because the mental photo we had preserved of the Eastern cities we

visited some ten years ago has not always been an exact duplicate of the reality. We kodacked the camel trains in the streets, wandered about the bazars and wondered how much duty we would have to pay on the wonderful rugs we saw. For the sake of old times we took a meal in the hotel we stopped at when we were here before and R. mailed some forty postal cards and letters his wife had written the day and evening before. That there might be no ill-feeling among the nations we posted, as directed, a letter and eight cards in each of the five European post-offices that are to be found in the city. Mrs. H.'s method of buying Turkish stamps is well worth mentioning. Having engaged the full attention of the official in charge (and that may occupy several minutes if he hasn't finished his cigarette) she exhibits a letter with a stamp (generally an American stamp) on it, meantime expressing in the purest English her wish to purchase Turkish stamps not only for the postal cards but for the letter—also shown. The clerk, having just listened to several voluble American women (who have told him all about it) counts out the stamps and waits for the money. "How much do you say these are?" The official, not having said anything for obvious reasons, shrugs his shoulders and puts the stamps back into the drawer. Mrs. H. knowing the Government to be "hopelessly corrupt," tries to buy them with such local money as she thinks they ought to be satisfied with, to the weary confusion of the fez-wearing official. Finally she decides that the "mean thing would only read and not send the cards and letter anyway," so she patronizes the British office where they are more attentive.

The proceedings of our Traveler's Club form almost entirely an "experience" meeting except when the Chairman or some fervent speaker plays a confidence game on the defenceless passengers and delivers a lecture on some historical, ethnological or sociological aspect of the country, generally cribbed from Murray, Baedeker, Lorenz or some other guide book he has meantime "read up." These meetings are amusing and often very instructive. We find that the towns and the objects they contain vary much in their attractive powers as regards individuals, but the most trivial incidents may prove the most interesting. During a preliminary discussion of Smyrna (informally convened in the aft smoking-room) one of the smokers, to an unanimous request that he tell us what interested him most in Smyrna, after some deliberation decided that although the Caravan road with its tinkling camel-train and the picturesquely garbed drivers were strangely queer they still had, in his judgment, to yield the palm to a copper stove-pipe he had found doing business in a back street of the city of figs. Camels he

had ridden—he would never do it willingly again—at the World's Fair and even as a boy he had been acquainted with them in Barnum's Circus, but a good-sized American stove pipe, made of copper, was unique in the experience of a long life. There were no remarks.

Smyrna is the point of departure for Ephesus—two or three hours distant by train—and our party returned with larger or smaller fragments of Diana's temple, which they will, without doubt, stow away for distribution among their friends and Sunday-school pupils.

With the appearance of mighty Mount Hermon, over 10,000 feet high, and at this season of the year deeply covered with snow, Biblical talk began and the members of the Damascus, Damascus-Samaria and the overland Galilee-Jerusalem parties have had protracted meetings in the various saloons. The nice girl at our table hopes there will be moonlight on the Sea of Galilee, because the Rev. Mr. X. (the Episcopal curate with the mild blue eyes and soft voice who is of her party) has promised to take some of them (probably *one* of them) out in a boat and deliver an evening lecture on the Biblical references to that celebrated lake.

We passed down the shallow bay that has Acre at one end and, twelve miles farther south, Caifa (or Haifa) at the other. At the latter apology for a port we anchored and disembarked the Palestine "side trip" parties just referred to. E. did not feel well enough to brave the discomforts (and wetting) incident to landing, but the General, who wanted to buy a cane, and I took a boat and were rowed ashore by a lot of yelling, gesticulating, backshish-demanding Syrians. Near the site of the Carmelite Convent, on the hills overlooking the bay, the prophet Elijah is said to have lived and worked. We walked along the single, narrow street and attended market with, apparently, every man, woman and child in Caifa. Donkeys, camels, goats, kids, Arabs, Armenians, Arabicers, Jews and other forms of life pushed and struggled and raised a perfect babel of sound. Suddenly above the din came a hoarse cry; from around a corner rode two Turkish cavalymen who charged through the crowd, almost running over the General and two heavily laden donkeys. Everybody rushed to what, in happier climes, would have been the sidewalk. From the vantage of a friendly shop door we saw a carriage drive past with an armed soldier on the box and four heavily armed and mounted men surrounding it. It was the Governor of Southern Palestine on an official visit to the town. He need not have been so afraid of us, since two days afterwards, while waiting at Ramleh on our road from Jaffa to Jerusalem, we saw him arrive with only three soldiers, go into the waiting-room and afterwards shake hands (at an



improvised reception) with a train load of Arabicers, every one of whom *might* have asked him how he liked his job, how many wives he had and what his annual salary is.

The Cincinnati man, now that he can bring his biblical lore to bear on us, is full of strange Hebrew saws. He invited E. to make free use of his opera glass and see Mount Carmel "where the ravens fed Lazarus."

The General bought two unbarked canes (one for himself, one for me) made of the wood that grows on the sides of Carmel and *probably* an offshoot of the original tree on which the raven sat while ministering to the hungry prophet. At least that's what the native merchant told us. However, the General spoiled the story for me by pointing out marks on the wood made by the toes of the bird where he alighted on the branch.

We took a sailboat across the mile of water that lay between us and the "Arabic." The Syrian sailors are fine boatmen albeit their sails and rigging are more than primitive. Barefooted, turbaned and wearing the baggy Turkish trowsers, they run about the slippery decks and crawl up the masts like cats. It was quite windy when we reached the ship. Without slacking speed or furling a sail we ran straight at the steel side of the steamer. When it seemed too late to prevent a collision four of them sprang to their twenty-foot oars and tried to "back water." This greatly decreased our speed but did not prevent the sail-boat from running into the *Arabic* with a crash that was heard above the yells of the crew and the roar of the waves. The bowsprit yielded to the strain, was torn from its bed and fell into the water. The impact, however, decreased the shock, and, after a scene of wild confusion, during which some 20 or 30 boatmen in waiting, with a clamor that reminded one of a board-of-trade panic, assisted (?) in the rescue of the floating bowsprit, we found ourselves not one penny the worse.

From the upper deck of the steamer we saw the long, hot, white, sandy seashore stretching towards Acre. In the background were the date palms, the gardens and the hills of Palestine. The shore road is built upon the sand shelf that runs north and south of us. At any minute, almost, trains of from two to six camels pass by, each animal tied to his companions, while in front trot the horses or donkeys of the armed escort. In the distance it looked so oriental, so picturesque; near at hand it was so quaint, so "wobbly" and so dirty.

The General has come in to tell us that none of the sail-boats have a permanent bowsprit; they are simply *tied* in place by tag-ends of rope and their owners *expect* them to be knocked out of place—when convenient. And he led me to the gangway and showed me our crew "repairing" damages. So most of our excitement was not justified.

When we finally left Caïfa the Owl Club (in the aft smoke-room) went into executive session over the forthcoming landing at Jaffa or Joppa ("you pays your money and you takes your choice") and the wildest plans were proposed. If the wind were too high and we were unable to anchor in that harborless port, or the sea were too rough to permit passing safely to land through the narrow opening in the rocks could we swim? Several passengers told weird stories of boats obliged to steam up and down the coast for hours, days and even weeks, waiting for calmer weather to land their passengers and cargo. Altogether E. and I went to our stateroom rather disturbed by the news. In the morning we found ourselves quietly anchored off Jaffa, having arrived in the night. The wind was "fresh" and off shore, and when the dreaded disembarkation began it was amusing to watch the boatman bodily remove each waiting passenger, male or female, and literally hand him or her over to another until from the gangway he finally reached the bottom of the boat. Fat women and obese men were handled with wonderful facility. Mostly, the Arab put his arm around the waist of the passenger and swung him forward. It was great fun—watching the others.

Since there are no streets (for carriages) in Jaffa we were obliged to take a good long walk towards the Jerusalem railway station, our baggage having been sent ahead. And it was a walk. Jostled by every sort of oriental and rubbing against every form of beast of burden from a Turkish carrier to a camel, the way led through the most curious water-side town we had yet encountered. E. discovered that there are no delivery wagons in Jaffa, and certainly we saw porters laden with every burden imaginable. The General counted 18 eight-foot, two-inch planks on the back of one wretch while a number of mason's assistants were employed in transporting, in the same fashion, large blocks of stone! Packing cases, huge trunks, bags of hydraulic cement, even a large sideboard and other household furniture, were transported by men and women quite as often as by the lower animals.

We were glad to reach the pure country air and to see the extensive olive and orange groves of the Vale of Sharon. We bought the most delicious, ripe, fresh oranges, for which Jaffa is celebrated, for a shilling a basket—including the very pretty basket.

It is the early Palestine Spring and ploughing (with the ancient plow used here for thousands of years) is going on. For this purpose oxen are mostly used but in a few instances we saw a camel and an ox hitched together. The leafless almond trees—the earliest of the year—were in

full bloom and the ground was covered with all sorts of wild flowers. The pretty (and dirty) little Arab children sold scarlet and orange-colored roses of Sharon (a sort of anemone) and, incidentally, collected the eternal backshish. The General had a pocket full of copper coins with which he made an intimate study of these sturdy infants and their (occasionally clean) mothers. At the station where the Turkish Pasha held the reception he, in the excitement of the moment, put his hand into the wrong pocket and presented one dirty little tot with a two-shilling piece instead of an English penny. At which Mrs. General invited him to retire to his seat in the railway carriage. Thus are our most benevolent efforts rewarded!

We had to review our preconceived notions of the road to Jerusalem. To understand the situation one must remember that the Holy City is built on a mountain peak nearly 3,000 feet above the level of the Mediterranean and that as soon as we leave Jaffa we begin to ascend through defiles in a mountain chain of Alpine character until, after many windings, we reach a town with a winter climate, where snow is frequently seen and freezing weather is not unknown. No wonder the Crusaders had a hard time of it! It is by rail about 54 miles to Jerusalem, but the bankrupt railway with its little Turkish engine and its small, shaky carriages, takes over five hours to make the journey. I always thought Jerusalem was built more or less on a plain and that it was many miles around the city walls. As a matter of fact, it is only a mile across the town and one can easily walk about it in an hour. Even at this season of the year (March) it is uncomfortably hot in the sun but cold enough for a light overcoat in the shade. Our faces were burned a fine Indian red from the Syrian sun, and many an Arabicer is suffering from a severe cold because he neglected ordinary precautions during these sudden transitions from the middle of July to the middle of November.

At Jerusalem we took carriages from the station, which is about three-quarters of a mile outside the walls, and drove to our various hotels, most of them clustered about the Jaffa gate.

I shall not attempt to describe Jerusalem except to say that when one has formed a certain notion of it from the guidebooks he can be sure that they will turn out to be radically incorrect. It is necessary to visit the Holy City and study it for a time to realize what a fearful jumble of "good, bad and indifferent" it is. Regarding one aspect of the city I suppose that in no other area of similar size has ever been gathered such an aggregation of fakes, frauds, filth and misery as may be daily encountered in this town. It appears as if the scum of the nations had been segretated within its four walls, and appropriately presiding over

all is a cunning despot whose care it is to stifle all efforts at improvement and even to frown upon every attempt to alleviate the sufferings of the wretched people who crawl and squirm about the sanctuary. There may be a holy place or relic in Jerusalem, that is what the Greek or the Armenian or the Coptic or the Roman Catholic or the Latin Church asserts it to be, but I was not fortunate enough to find it. The Church of the Holy Sepulchre, probably the most venerated of all the ecclesiastical structures in the whole world (from which every Easter miraculous, holy fire bursts), contains within a few square yards, the site of Calvary, the grave of Adam, the tomb of Christ, the "centre of the earth" (whatever that may mean), and a dozen other revered objects. Over all preside the priests of the sects I have just mentioned, who wrangle and fight above the alleged grave of the gentle Prince of Peace. These fanatics are prevented from flying at one another's throats only by a Turkish guard who generally have their hands full to prevent a breach of the peace that may embroil (indeed, has often embroiled) half a dozen European governments in their unseemly quarrels.

It is no better in the *soi disant* Church of the Nativity in Bethlehem, where the bejeweled manger and other mementoes of the Birth are displayed for the benefit of Mother Church and the satisfaction of the credulous. There the fights have been serious. During one of these priestly riots several soldiers of the church militant were killed and a Turkish officer, in trying to restore peace, was so badly injured that he lost an eye. If there were any beauty in these fake objects or localities one might forgive the superstitions that gave them birth, as mere incidents in our rise from barbarism, but, mixed with costly marbles, rare jewels and precious metals one sees paper roses, cheap lamps, and other alleged decorations, all thrown together as on the bargain counter of a department store. As I looked at the Moslem soldiers in these sacred places I wondered what *they* thought about the ethics of that religion which successive generations of Christian invaders have, with fire and sword, attempted in vain to impose upon them? What did the educated officers in charge think about it and about us who, for value received, were shown the holy relics pretty much as country bumpkins explore the interior of a dime museum? Probably five times that day these Turkish soldiers, having, as the Koran directs, "put aside all worldly things," thanked Allah, the Merciful, the Compassionate, that they were Mohammedans, and not Christians.

The information that follows regarding the status of Mohammedan women is from our guide-book and to be passed over if desired, although these things excited our interest after we had been invited to a native wedding.

The family life of the Mohammedan women is restricted to female society. At the age of about ten, the girl begins to veil her face, which indicates that she is of a marriageable age; in fact it often happens that a girl *does* get married so early. When once a girl has begun covering her face with a veil, she is not permitted to unveil before any man, excepting a blood relation. Owing to these restrictions being enforced so early in life, Moslem women do not feel the want of liberty, and are generally content with their lot.

It is usually the female relatives who suggest to the boy or man that it is time to take to himself a wife, that he may have children and thus perpetuate his name. The women visit the home of any girl they may have heard about from the neighbors as likely to make a good wife. They observe her and her surroundings closely, and after the usual topics of conversation, leave without broaching the principal object of the visit. Should the relatives of the girl have any suspicion of it, however, they will cause her to appear to the best advantage as regards dress and capabilities. The girl appearing satisfactory, they tell the nearest male relatives of the bridegroom-to-be, the result of their visit. If the scheme is approved by him, he consults the nearest male relative of the girl in question, and formally demands her hand. Consent being given, he replies that he considers it a great honour to be related to the family by marriage. The girl is then asked her wish, as the law permits her to accept or refuse; but as a rule she leaves it to her relatives to decide; also the amount the bridegroom shall give as dowry to enable the girl to purchase her trousseau and household furniture. For a family in easy circumstances the sum is from \$600 to \$800, the greater part of which must be paid to her nearest male relative before the wedding. He, together with the bridegroom's relatives, buy the necessary outfit, each keeping a strict account of every item. The portion of the dowry not paid down (generally about one-fifth) is a debt due the bride, payable at any time after the wedding. This sum is seldom demanded, except in case of divorce, a proviso that makes the husband careful not to resort to divorce whilst in a temper, or for a frivolous cause. After the engagement the girl is considered to be legally married, although she has not yet been seen by the bridegroom, and is still living at her father's house.

Polygamy is not as frequent among the better class of Mohammedan as formerly, since the poor have not the means to indulge in such luxuries. The law stipulates that every wife is to have a separate home and equal attention. A wife or her relatives can enforce this legality. Moreover the bride's relatives can remove her from the

husband's house should she desire it, if he treat her badly or if he show preference for any of his other wives. A woman thus leaving her husband, not being divorced, cannot marry again, neither can she divorce him. He, however, can at any time divorce *her* by saying three times, in the presence of reliable witnesses, "I divorce thee." Should he repeat this formula only twice, he can after some difficulty with her male friends and a few presents to her female relatives take her back again. Should he, however, say this three times and later ask her return (her relatives being willing) she must first be married to another man, and be divorced by him before she returns to her first husband. This procedure is generally only a form. The second marriage is made with a man advanced in years who on seeing her for the first time divorces her forthwith in the manner just described. After all this the husband can take her back without the same ceremony and expenditure displayed in the first instance although it *does* cost him something to pacify her family.

All the furniture, household effects, dress and jewelry, are the personal property of the wife, having been purchased with her dowry-money. In addition to this her family frequently give her much of their own furniture, and when divorced *finally*, she can take all away with her; no one else can claim anything. If necessary she can appeal to her male relatives and the law to uphold this claim. She then returns to her father's house, till she is either married again or dies.

It must not be supposed that there are no bright spots in the sombre picture usually seen by the Jerusalem tourist. I know at least three. One of these is the so-called American Colony, at whose house we, with some twenty other Arabisers, were hospitably received and well entertained. Not only did E. and I have "home" cooking, clean, comfortable beds, a large airy room, well lighted and heated, but we were able to see something of the admirable benevolence of which they form the centre. A band of devoted workers that a quarter of a century ago left Chicago under the leadership of a Mr. and Mrs. Spafford, to do "settlement" work where it was most needed, have so increased in numbers and influence that their fame has spread all over Palestine. Their friends are counted as well from wild tribes of Bedouins (one of their Sheiks was visiting at the house while we were there) as from the other Orientals that make up the mixed population. They now own two or three large houses and have a fair income from a number of industries they have inaugurated. These give employment to several hundred people. Something of what they have accomplished may be imagined from the fact that about ten years ago the Turkish

authorities invited Mrs. Vester (*née* Miss Spafford) to take charge of the public school for Mohammedan girls and to teach them pretty much what she considered most useful. In a short time this struggling school of 30 girls increased to 350 and for several years was a great success. Mrs. Vester now has the proud distinction of being the only woman permitted to enter alone and unattended any of the Moslem holy places about Jerusalem. The Arabicers who were fortunate enough to live at the American Colony were the envy of all their compatriots, for while *they* lived on pumpkin pie, good bread, excellent butter, *real* coffee, doughnuts and other American luxuries and had a special entertainment every night in the large parlor of the principal house, most of the others had to put up with the roast goat, greasy vegetables, insufficient service and (in) "conveniences" of the second-class Palestine caravanseries for which the Holy City is famous. We left *that* oasis with deep regret and a hearty invitation to come again.

Then there are several missions and hospitals that, under various European and American auspices, are doing much to alleviate the sufferings of the poor people of Palestine. A most worthy example of these is the British Ophthalmic Hospital (with 30,000 patients annually) that, with insufficient equipment, does what it can to combat especially that almost universal eye disease—trachoma—the cause of most of the blindness one encounters everywhere here. I gave up an afternoon to a visit to this centre of benefaction and wished I were in a position to endow the institution.

If I have spoken rather sharply about the superstitious displays that force themselves upon one in Jerusalem, I cannot help feeling that the places held sacred by so many millions of people for so many centuries do afford solace and comfort to the countless thousands of pilgrims that have taken the weary journey to Jerusalem. For example, we watched one of a large band of Russians—an ill-fed, hollow-eyed peasant—who had bought a poor little candle from the greasy Greek priest who sold them at a profit of about ten thousand per cent. Instead of pushing his way to the front of the sepulchre, like most of the others, he placed the tallow dip in an obscure corner and, all unmindful of the crowd, humbly offered up his earnest petition. Surely, somewhere in the Beyond notice will be taken of that pathetic soul, thus bared before the infinities and the eternities, and he will find the peace he had come so far to seek.

The valley of Hinnom (or Gehenna) contains most of the water supply of the City—Solomon's Pools—and thereabouts, on Friday is held the cattle market, which we saw. On its deep sides, also, we

witnessed the Greek church carnival, and wondered what fun the people that covered its north bank and the dusty Jaffa road beside it could find in such hilarious excitement as sitting in the hot sun, eating nuts, playing dominoes, drinking resin wine, and, incidentally, getting covered with the limestone dust that abounds in the dry season.

E. says I have quoted the Gehenna proverb so often since our arrival in Jerusalem that she is certain I will carry home a sense of loss if I do not repeat it here for the twentieth time. So, please do not read the following sentence because in "Her Majesty the King" you have read it before. "Blessed is the man in whose tent dwell both his own mother and his wife's mother, for even if he gain not Paradise he will not fear Gehenna!"

After listening to many councillors and obtaining thereby the most varied forms of advice we decided to visit the Dead Sea and Jericho, especially as E., under the influences of Mrs. Spafford and the other members of the Colony, was feeling "in the seventh heaven." We did some mental arithmetic and decided that as Jerusalem is, say 2,600 feet above the level of the Mediterranean and the Jordan Valley about 1,400 below it, we would have to descend in the 35 mile ride, some 4,000 feet. "No, it is not *warm* there," said our dragoman, "it is *hot* there." And it was. He failed, however, to add, "it is dirty and dusty there." Still, we enjoyed every hour of the pilgrimage—even when, on our way back, we had, to relieve the horses, to take an hour's walk before reaching the Mount of Olives, straight up the mountain side.

In a gorge of Alpine dimensions we were shown the Convent of St. George, built half way up a perpendicular cliff. It is accessible only by a narrow winding path mostly cut in the face of the rock. Along this dizzy path are rude dwellings, cut out of the solid rock—mere burrows—in which "holy" hermits exist from year to year, fed upon pilgrim and tourist charity eked out by occasional donations from the Convent. However, I do not blame these ascetics for withdrawing from the life-in-death of Jerusalem and Jericho. Unable to accomplish any good in the world they immure themselves in these dungeon-like resorts and, perhaps, have the satisfaction of believing that, in some way or other, they perform a meritorious work. *Chacun à son goût.*

Sometime in the past single travellers and even caravans were attacked by Bedouins on the war path, so we were accompanied by a good-looking, armed and mounted guard—a sort of municipal soldier of the most picturesque type. He proved an agreeable addition to our party. Halting in a striking attitude (for easy photography) he expressed a willingness to sell his horse, dagger, sword, rifle, bridle, etc., smiling



the while on everybody who spoke to him. His English vocabulary consisted of the numerals, "good-day" and good-bye."

Of course, when the journey ended he received an adequate amount of backshish for his eminent services.

As we approached the tropical valley of the Jordan and had our first glimpse of Jericho and the Dead Sea, we realized as never before, what is meant by the expression "the shadow of a great rock in a weary land;" in the blinding sunlight if we exposed our faces, unused to such treatment, for even a few minutes, it felt as if we were looking into a blast furnace, while in the shade of the mountain it was cool and pleasant. When we started on our journey from Jerusalem a steamer rug and heavy clothing were not disagreeable; at the Dead Sea we longed for a straw hat and tennis flannels.

The five-mile approach to the *Mer Morte* was carried through a scene of desolation resembling the Dakota Bad Lands—no vegetation and no sign of flocks or herds. We stayed long enough to "sample" the waters, a few of us took a bath (and tried in vain to sink beneath the waves) in the bitter-salt-asphalt waters, inspected the boat that plies between two "ports" on its shores, annexed a few pieces of bitumen, a few salt covered stones and a few snap-shots and then turned our horses' heads towards the Jordan.

After a couple of hours driving we reached a very beautiful part of the river bank lined with trees and carpeted with flowers. Jordan overflows its banks when the snows of Mount Hermon melt in July; not to mention the streams that flow from "Nebo's lofty height" and the other peaks of the mountains of Moab that form the eastern boundary of the valley. At that season it is quite a wide river and justifies the line, "On Jordan's stormy banks I stand," but *now* it is little more than a creek—albeit a charming creek, winding, like the Meander, through a most fertile country some 50 odd miles from the sea (?) of Galilee. This, the garden spot of Palestine, is the personal property of the Sultan, who has so far declined all offers—and they have been many—to develop its resources. Some intrepid soul planted cotton near Jericho and found it grows as easily as on the Nile, but the incubus of Moslem rule will likely prevent any good of the venture.

The old lady, whom we call No. 8, is happy. She has reviewed her early studies of the Old Testament and is much pleased with the guide, who has been pointing out the mountain from which Moses saw the promised land, Elijah's fountain, the recent excavations of the ancient walls that fell down at the sound of the priests' trumpets, etc. She confided to E. that she can now easily understand how the children of

Israel crossed the *Dead* Sea—of course, in a shallow part—“because you see, it is narrow—not wide like a real sea.” The General succeeded in finding for her the pillar of salt that once was Lot’s wife, whereupon she prevailed upon the Captain’s wife, to kodak it and promise to send her a print.

If there is a worse “hotel” in the world than the one in which we spent that night at Jericho I would give several piastres to hear about it. It was not that this hostelry was dirty, but it exhibited conditions that I am sure are peculiar to Jericho. Our table attendant, for example, combined beneath one filthy turban and the other remnants of an Arabic dress, the functions of waiter and hostler. E. says I am “down on him” because he rested the platter of fish on my head while he helped her at the alleged *table d’hôte*; the fact is, I objected to his combining his double duties within the same ten minutes. I saw Abdullah, between the soup and the fish, rush into the stable yard and hastily harness a donkey, carefully cleansing the back of the faithful beast with the towel which later on was utilized for wiping our plates. Abdullah’s method of serving our Apollinaris, for we dare not drink local water, is almost unique and afforded him infinite amusement. As the bottles are indifferently cooled the effervescence is quite marked. Opening a bottle in our presence with his small pocket corkscrew is a performance that occupies some time and is watched by the whole party. The cork, in several fragments, is finally extracted when “swish,” goes the carbonated fluid. Abdullah first endeavours to prevent the outpour by placing his palm on the opening, and when that fails by inserting a forefinger or a thumb as a sort of human cork. We do not remonstrate with Abdullah because he would not understand our Arabic, and, anyway, if he did he might wipe the bottle with his hostler’s towel. Our dietary while we rested in Jericho consisted of such articles of food as do not come in contact with the native population, *e.g.*, boiled eggs, oranges, and bananas. The rest of the pilgrims “turned in” similar reports. Although we slept in our clothes E. enjoyed the pleasures of imagination in that she assured me next morning she had, in her troubled dreams, been bitten by every insect that crawls, creeps, flies or jumps.

The Colonel had a dream in which he saw from a convenient hill-top the “Arabic” in a storm that threatened to send her to the bottom of the Aegean Sea. As he watched she careened in such a fashion that the portholes burst open and whole trunkfuls of silver spoons cascaded forth and sank beneath the waves! The visual shock was so great that he awoke and found his steward trying to tell him that it was seven-thirty and time to dress for breakfast.

We were up, had our morning meal by lamplight and resumed our homeward journey long before sunrise. In this way we were able to get a good start and reach the cool mountain passes before the heat of the day. It was a glorious sight to view, across the Jordan Valley, the tropical sun slowly rise from behind the mountains of Moab.

The pleasure of our visit to the pretty Garden of Gethsemane was not enhanced by a near view of the lepers that are allowed to beg in its neighbourhood. A German society provides a home for about one-half of these unfortunates and the municipality makes some sort of provision for the remainder, but, as might have been expected, does not prevent them from annoying the community during the tourist and pilgrimage season. Even the comfortable quarters of the German hospice are during this time deserted by most of its inmates for the outdoor life and liberty of the beggar's bowl.

The tents of the Sheik that we met at the American Colony are pitched on the east bank of the Jordan, and shelter over 500 armed and mounted Bedouins. He renewed his invitation to visit him and I wish I had time for the excursion, especially as they say he has, on several occasions, exhibited towards Americans the best example of a proverbial hospitality.

Our usual luck brought us safely to the boat from the landing stage at Joppa, and early next morning we were in the harbor of Alexandria. As our Nile excursion is to precede our visit to Cairo we had to be content with driving through that city on our way to the Kaser-el-Nil bridge where we took the boat. The Pyramids of Ghizeh appeared to follow us for miles up the river, and at length faded away.

The Nile is rather low at this season and I understand the "Puritan" is making her last trip until next Fall. For this reason we shall "do" the upper Nile first, and, later, make a special trip to the pyramids and temples about Cairo. We have a stateroom on the upper deck facing the East. We prefer it as it is cool in the morning and does not interfere with our Nile sunrise. And what sunrises! From the early cool of dawn until an hour after the sun comes up the east is one glorious study in blue, orange, red and all combinations of these colours. We also made a deliberate study of the various water-raising devices—as all other Nile tourists have for untold thousands of years—of the endless procession of picturesque sail boats laden with the spoils of field and factory—grain, sugar-cane, water bottles, cut stone, not to mention human freight in the guise of Egyptians, Arabs and Soudanese.

One of the most attractive sights we saw are the fields of opium poppies with their many coloured flowers, most of them for smoking purposes, I fear.

It was not difficult to find evidence on every side of a prosperous land. We missed the down-trodden, hopeless appearance of the populace so marked in Palestine. It seemed as if the fallahin had a chance here (probably for the first time in thousands of years), and we thanked the British government for at least giving us that comfortable assurance. Even backshish was not demanded with that frequency and persistence which we always expected in Turkey; again thanks to the British, who are doing all in their power (by placards posted wherever tourists are found) to discourage this degrading practice.

And so we slowly steamed up the river lotus eating, which is mostly equivalent to lounging on some comfortable part of the boat and watching the ever interesting shore. No one can fail to be impressed by these scenes—the strange objects we were always encountering, a fellah at prayer, a native village, a shaduf at irrigating work, with its labourers drawing water from one level to another, singing the while; the antics of a buffalo calf, a baby camel or a frisky donkey—no wonder E. hoped we could go on for a month or two in just this way.

Last night our boat ran on a sand bar, and in spite of backing up, putting on all steam and the "poling" of the Arab crew, there we stuck for half an hour.

The blindness and eye diseases of the natives pursued us from the Holy Land. The reason for the prevalence of trachoma is not far to seek. At Assiout (where the shawls come from) we drove about the bazaars and town. Every hundred yards or so we noticed children whose faces were covered with flies, no attempt being made to remove them. We are told that the fatalism of their race prevents the Egyptians from disturbing these vile insects, thus allowing them to carry infection from one person to another. If anyone makes a study of the Egyptian fly on his native heath he will find one of the most persistent, most aggressive animals in existence. He simply will not move on but, in spite of "horse-tails," fans and other weapons of offense, sticks to the face and hands with a tenacity worthy of a better cause. When E. first experienced him, she said, "Oh, now its going to rain, the flies stick so." But it hasn't yet.

The main difference between the possibilities of uprooting trachoma in Egypt and the same enterprise in Palestine is that in the former country public sanitation and education now go hand in hand; under Turkish rule the country must still suffer because no "dirt" disease can be eradicated where there are no opportunities or inclination towards general hygiene.

They say that after a week in upper Egypt nobody ever mentions the

weather because it never rains, snows or hails, and the sun always shines. There is no excuse for comment when there is no variation.

Our dragoman, Hosein Mahommed, is a glorious creature who arrays himself in a new gown every day, sometimes silk, sometimes cloth of gold. He daily explains the "ruins," answers a thousand questions, beams on everybody and sells rings, scarabs and mummy beads. At dinner he announces the program for the next day, and then tells a story which always begins: "Once upon a time there was, etc.," and generally drags in the "God of Love." I wish I had time and space to jot down Hosein's stories, because, outside of the Arabian Nights Entertainments, there never was anything like them. Why dragomans are not imported (with all their resplendent clothing) into America for lawn fêtes and dinners I cannot imagine. But then, I presume one would need an Arabian environment to make such an undertaking effective.

The ladies of our party have much trouble with their reckonings in Egyptian piastres and milliemes. From the lounge-steward, who speaks little English and less French, I overheard "No. 8" trying to buy a bottle of mineral water. "I want Hunyaddy, Hunyaddy Janness, a French drink—fizz, fizz, like this," and she suited action to the word. She finally got a bottle of apollinaris, although she said she "took no stock in them Eye-tallian waters."

The son of the Kansas city banker brought a couple of trunks filled with an appropriate outfit for a Nile traveller. When we went out this morning, per donkey, to visit the wonderful temple of Denderah, he appeared with an English riding suit, helmet and whip—the admired of all admirers. He also possesses a shooting outfit and fires unremittingly and, so far, I am happy to say, unsuccessfully, at the vultures, cranes, ibises, hoopoes, pelicans, and fish-hawks that we pass on our way south. I wish somebody would gently lift that youth into the turbid waters of Father Nile.

As our better halves declined the trip to Denderah, the General and I took donkey and set forth with some twenty other pilgrims. His animal, Bulbul, so named from his voice, and my beast, Kalamazoo (all donkeys that carry me are so christened), impelled from behind by two boys, won over the other contestants by forty yards. The General swears if he ever catches his donkey boy when the other passengers cannot see them he will damage the ebony cane he bought at Assiout beyond recognition. He says he didn't mind having Bulbul belaboured as long as they are both on the level desert, but he will not permit any tail-twisting when he and Bulbul are descending canal banks. However, the General

had a good time in the temple, and I saw him later in the day "backshishing" his boy, the boy's reputed father (who said he owned the donkey), his little sister, and a neighbour that kindly held the bridle for him while he dismounted.

The temple of Denderah must have been an imposing building before the early Christians tried—let us be thankful that those efforts partially failed—to chisel and hammer off the faces of "images" with which the walls are covered. In many places one sees the coloured pictures and hieroglyphs that decorate the ceilings and sides of the chambers. The roof is composed of immense blocks of stone, dovetailed so as to resist earthquake and human vermin. Signs of the latter are everywhere to be seen, and we noted among them the names of "R. R. Lindsay" and others deeply cut in the stone. The Senator said that although the early Christians had failed to utterly deface the monuments, the Lindsay tribes were continuing the enterprise, and if given time and a free hand would eventually succeed. Some of our party smiled and made jokes about the myth of the illness, death and resurrection of Osiris, the Egyptian saviour, as we find it so marvellously portrayed (over twenty centuries ago) on the walls of this wonderful temple dedicated to Horus, Set and Osiris. I well remember, however, that they treated what was probably a second edition of the same legend in quite a different fashion because it was told in the Holy City. It depends, you know, upon whose ox is gored!

Three chums of the man from Cincinnati got on at Minia. They are now assisting him in "lining up" the monuments. The fat one seems to be chairman of the club, that generally holds sessions in the smoking room after each meal. This afternoon I heard him say, "Well, if I were doing a god business in Egypt, I would take the job of that feller Horrors. The Irishman, O'Cyrus, was hot dog, all right, but Horrors had the call." His description of the pictured wall on the Denderah temple representing the sacrifice of Cleopatra to Ammon-Ra would have delighted the soul of Mark Twain. It is too funny to spoil by attempting to repeat it.

The servants on the boats and in the hotels are mostly Soudanese, they say, and certainly they seem much cleaner, more alert and more intelligent than the Egyptian fellahin. Probably that is the reason the Anglo-Egyptian soldiers are so largely recruited from the Soudan.

We landed early at Luxor, and took up our quarters in the fine Winter Palace Hotel—to which E. says she is coming for a rest every February and March.

It so happens that we have the full moon just now and are taking complete advantage of it. We never expected to see the gigantic columns

of Karnak or Luxor by the pale light of the moon and feel as if we have been particularly fortunate in being here to witness the glories of that view. This morning we rose early, and from our balcony saw the moon set across the hills and the desert, and almost at the same moment, the sun rise across the Arabian mountain tops. We were so much impressed with it all that I was within an ace of missing the trip to the Tombs of the Kings, for which long journey it is well to start before the sun is an hour high, unless one wishes to be burned a deep Egyptian brown that persists for weeks.

In a week or two we shall be on the Mediterranean again, and, although we have before us the South Italian spring and the delights of Amalfi and Sorrento, yet "everybody" has been there, and it seems hardly worth while to write about it—anyway it would not be appropriate to a Levantine Log.

---

## THE DIFFERENTIAL DIAGNOSIS OF SOME FORMS OF MENTAL DISEASE, WITH A NOTE AS TO TREATMENT.

BY

JOHN GERALD FITZGERALD,

Clinical Director-Pathologist, Toronto Asylum; Demonstrator in Psychiatry,  
University of Toronto.

In the preparation of this paper I had one primary object in mind, which was to present in a concise and concrete form a brief summary of some of the clinical types of mental disease recognized by the present day of psychiatry. To even deal with all varieties from the point of view of differential diagnosis is no small undertaking in a paper of moderate length, so it will be necessary to confine the subject strictly to symptomatology, which will of necessity be gone into in the differential diagnosis. Since I have been asked to prepare a paper that the general practitioner would be interested in, I have thought it well to suggest certain therapeutic measures that may be of value in dealing with these cases. It will be out of the question to touch on every clinical condition that various authors describe, and it will greatly simplify matters if we have only a few groups and remember that many cases, possibly one-third, cannot at the present time be categorically dealt with. So we must remember that a certain number which present obvious symptoms suggesting that they belong to a given group, may also show other symptoms which would tend to modify our conception; therefore we can only suspend judgment until we know more of the individual's life-history and have a better opportunity of analysing the

---

Read in the Section of Nervous and Mental Diseases of the Canadian Medical Association, Ottawa, June, 1908.

present reaction. Let us just for a moment consider certain fundamentals in clinical psychiatry. In the branch of general medicine with which we are dealing, the reaction of the organism, not from the physical side alone, but chiefly from the psychic point of view, interests us. We are all aware that we react, under normal conditions, after a given fashion, to the influences acting upon us in our environment. When we react in a fashion that makes it possible for us to fit in comfortably in our surroundings, evidence the least amount of friction and generally subscribe to the given fashions of the day, we are adjudged normal. In other words, we are capable of adjusting ourselves to varying circumstances, to earn an independent livelihood, and not to come into violent conflict with ourselves or other individuals in our environment. In the event of some modifying influence becoming active, and so changing our reaction that we lose this perspective, display gross errors of judgment, or indicate in some other way that our psychic functions are impaired or modified, we are said to be insane. I do not, as a rule, attach much value to definitions of insanity, but there is one which seems to me the best that has yet been enunciated: it isn't especially new, but it is more or less concise and somewhat comprehensive: it is this: "Insanity is a disorder of the mind due to a disease of the brain manifesting itself by a more or less prolonged departure from the individual's usual manner of thinking, feeling and acting, and resulting in a lessened capacity for adaptation to the environment." The definition appears in White's "Outlines of Psychiatry," and while it is probably true that no definition of insanity is entirely satisfactory, this one approaches more nearly what we exactly mean than any other. Many men ask what is insanity, is it a disease, a group of diseases, a condition, or is it something of which we know little or nothing in a tangible way, but are ever ready to define? From the above definition we are led to see that it is firstly a disorder of a fairly definite character, and as we have learned above, this disorder manifests itself primarily in the individual when there is a definite deviation from his standard norm. This norm we need to know before we can in any way appreciate the nature of the patient's mental trouble, or as we have described it, his abnormal reaction to the influences under which he comes, in his daily life. The utter impossibility, at present, of adopting a classification that would be entirely satisfactory is self-evident because the differences in the normal mental make-up of every individual would imply that this same individual with special traits of character would be bound to show a reaction which would be more or less characteristic of himself only. This is appreciated by those working in psychiatry,



but it is necessary for practical purposes to adopt a classification which will meet certain requirements and serve to aid in the crystallization of our conceptions of diseased mental states at a given time. Kraepelin's classification or modifications of it are just now most popular, although the followers of the Wernicke school are an important element, and even the old symptomatic school still has a few adherents; the majority, however, who formerly were led by the chiefs of this school are now found in the camp of clinical psychiatry. Clinical psychiatry deals with a longitudinal section, a view of the entire life history of the individual to date. The method previously followed led to an examination of the individual as seen at the time of his illness, but a large share of regard was always reserved for the old, favourite pastime of classifying the case.

If I might be permitted to dwell for a moment on a discussion of certain words in the current phraseology, it seems probable that we will be more likely to clearly understand one another. The word psychosis is used at the present time in place of the phrase: "Some form of mental disease," to designate a clinical type or a definite symptom-complex. All psychoses, from the clinical view point, may be roughly subdivided into: (a) The symptomatic-prognostic group, including dementia præcox, maniac-depressive insanity, paranoia, involuntal depressions and allied types of each of these; (b) intoxication psychoses, including the various forms of alcoholic conditions and drug psychoses; (c) the infective-exhaustive and allied types; (d) psychoses having an exact etiologic basis, these including senile psychosis, arterio-sclerotic psychosis, post-apoplectic psychosis, and paresis; (e) psychoses associated with nervous disease and constitutional defect, and here we would include psychopathia conjugal and imbecility. There will be a residue more or less large, even after cases have been assigned to all these groups and the size of the residue may vary from three to thirty-three per cent. of all admissions. Thirty-three would be unusually high, and if we follow Meyer and speak of allied types, three per cent. would probably include all the unclassified cases. On an analysis of the admissions to the Toronto Hospital for Insane last year we find in a total of 262 new cases admitted, that 153 belonged to the symptomatic-prognostic group, 78 cases were of dementia præcox, and 50 cases of maniac-depressive psychosis. There were 19 cases of alcoholic psychosis, 2 of other drug intoxications, 12 of the infective-exhaustive group, 48 cases where there was a definite pathological basis, and 15 belonging to group (e); 8 patients could not be classified. The admission service at the Toronto Hospital for the Insane is more active than any other institution of a similar

character in Canada, but the types are fairly uniform, and it will serve to exemplify in a general way the varieties of cases with which we have to deal, and the types of cases that you as general practitioners may be called upon to treat at any time. First, let us consider briefly the condition *dementia præcox*, pointing out some of its essential characteristics and the conditions with which it is likely to be confused, concluding with a word as to what can be done in the way of treatment. *Dementia præcox* is a psychosis of puberty and early adolescence: its victims are, as the French say, "stranded on the rock of puberty," but many cases do not show marked symptoms of their disease until later on in life, and their friends resent very much the close scrutiny which often leads to facts clearly indicating early development of the malady. Three varieties are understood clinically: the Hebephrenic, the Katatonic, and the Paranoid, and there are also certain mixed conditions. The symptoms of hebephrenia show themselves, to a pronounced degree, usually when the patient is eighteen, or even younger. And the symptom which is often most striking and the one which is a fundamental symptom in all forms of *dementia præcox* is a lack of interest and a weakness of voluntary attention: ranking in importance with this is the emotional indifference and apathy. Owing to the great importance of these elements in the future mental development, deterioration shows itself early and to quite a profound degree; the patient is careless and untidy about his personal appearance, indifferent as to his own interests and those of his friends, and because of the weakness of his voluntary attention may show some memory defect: recent mental experiences not having impressed themselves on consciousness with any degree of vividness are recalled only with difficulty. There is no clouding of consciousness, the patient is quite clear as to time, place and person. There is usually a pronounced falling off in the quantity and quality of the work done. He frequently develops hallucinations of hearing, and perhaps of taste or vision; on the basis of his hallucinations he may elaborate a delusional fabric, the content of which is often vague and fleeting, and the form more or less grotesque. The apathy and indifference persist until emotional dementia eventually results. The outlook is very unfavourable for the complete restoration although symptomatic treatment, and later on re-education, may fit a very small percentage to again take up some work. This is usually to be done only when the patient is under direct supervision for a time, and with many, always. The shallow character of the spontaneous thought production and the childish egocentric nature usually strike one, even where so-called recovery has taken place. It will be seen then

that hebephrenia is a simple dementing type of mental disease. Kata-tonia shows the fundamental features of hebephrenia, that is, a lack of interest and emotional deterioration, but in addition shows the condition which gives to it its name, namely, muscular hypertension, and it is further characterized by the appearance of four more or less clearly defined stages, that of katatonic excitement, katatonic depression, stupor or pseudo-stupor, and finally, the terminal stage of dementia. These stages do not always appear in this definite order, and the states of excitement and depression may appear alternately for some time before the stage of pronounced deterioration. With the symptom of muscular rigidity certain other signs are also present: first, negativism, which is a blind resistance and opposition to every stimulus. Any wish to get the patient to do anything brings about a response diametrically opposed to the desired act. This is evidenced by mutism, refusal of food, etc. A symptom quite opposite in character often present during the course of the disease process is suggestibility or command-automatism; as White says patients in this condition do mechanically just what they are told, the reaction is entirely automatic, reason and judgment play no part in the choice of the given reaction. With suggestibility another condition exists which is quite unlike muscular tension: it is waxy flexibility when one can mould the limbs, placing them in any uncomfortable position where they will remain for long periods; this condition is also described as catalepsy. Patients when suggestible show a tendency to repeat words or phrases heard, which is called echolalia, the imitations of actions echopraxia. Verbigeration, the senseless repetition of a given phrase is also a symptom. Impulsive outbreaks of extreme violence are not infrequent and mannerisms are seen. In the stage of stupor or pseudo-stupor the patients are likely to be negativistic and quite inaccessible, later on they may again show excitement or pronounced deterioration. A certain number of these cases improve and are able to again take up work. The treatment is similar to that of hebephrenia but the symptom of excitement may be dealt with by giving warm baths. The other variety of dementia præcox, the paranoid, is characterized by delusions of persecution, more or less fantastic and bizarre in character, loosely organized and poorly systematized coming on in the early part of the third decade and showing the fundamental lack of interest with apathy and indifference. The outlook is absolutely bad regarding recovery, but many of these patients can be taught to do useful work in the institutions but the stress of living on the outside is almost invariably too great for them. Dementia præcox often initially suggests the depressive phase of the maniac-depressive

psychosis, but the depression is shallow and more fleeting. The hallucinatory experiences are more vivid and more persistent and the early and steadily progressing signs of deterioration more evident in dementia præcox. Some cases are extremely difficult to diagnose and at times it seems almost impossible. It is important however that all the symptoms be carefully considered and every phase gone over, because in dealing with dementia præcox you have to do with a condition where the prognosis is usually poor, whereas in the other form of alienation the probability is that your patient will at least recover from his present attack. I have dwelt at length upon this psychosis because as I pointed out it is relatively very frequent—78 cases in 262 admissions emphasizes this. Just before leaving dementia præcox, I have spoken of the katatonic variety. Now katatonia may occur in certain other conditions, and it is sufficient here to say that in some of the psycho-neuroses it is not uncommon, particularly in hysteria. Do not be misled by this, and where there is any question look for other stigmata, mental and physical, of hysteria. There are conditions with which dementia præcox might be confused. Early atypical cases of paresis might offer some difficulties, but keeping in mind the physical signs and the value of early lumbar puncture the solution of the difficulty should be easy. Sexual neurasthenia in young adults occasionally misleads one and it is most apt to be confused with the hebephrenic variety of dementia præcox. Do not be misled by the apparent indifference of this sexual neurasthenic: it is only surface deep just as the apparent interest of the true hebephrenic is of like depth. View the life history of the individual to date, give the matter serious consideration, and although you may have to suspend judgment, it is wiser to do so than make a grave error. One point in the differential diagnosis of dementia præcox which I have purposely refrained from going into until now is the vaso-motor condition. In practically all the forms at one stage or another, there is most pronounced vaso-motor disturbance, the hands are cold, clammy and cyanotic, the dermatographia often diffuse, intense and persistent. Keep this in mind in your examination of young individuals in whom you suspect there is a psychosis developing. As to treatment the great point for the general practitioner to keep in mind is prophylaxis. The young child who is unusual should be carefully guarded and protected from itself and often from over-anxious friends who would gladly see the child at the head of its class even at the expense of health. The rock of puberty and trying period of adolescence are ahead—"mens sana in corpore sano" must be the watchword. You may not stave off the condition more than once in forty or fifty times, but it is worth all your work and every effort if you only

did it once in a lifetime. A visit to a chronic lunatic asylum, where terminal phases of dementia præcox may be seen, will convince you of this. These cases cannot as a rule be treated by the outside practitioner, they usually require to be committed early. Until that time they may need sedatives. Avail yourself of any hydrotherapeutic measure before you resort to drugs, and the gratitude of the physician who has to take charge of the case on admission to the asylum will satisfy you that your treatment has been along right lines. I have dwelt at very considerable length on dementia præcox for several reasons—firstly, because of the frequency of its occurrence; secondly, because of the importance of early care and watchfulness on the part of the general practitioner in preventing the development of many cases, and lastly, because it is a grave sociological and economic problem and deserves our earnest attention.

I want now to deal somewhat more briefly with the next important clinical type in the symptomatic-prognostic group, that is the maniac-depressive psychosis. This very comprehensive and much embracing group takes in the cases of pure depression, many of which in the old days were classed as melancholia; secondly the cases of excitement of various grades, formerly called mania, the alternating cases and the mixed types. It may seem to you a useless refinement to take cases of mania and melancholia, group them together, speak of them as the mania-melancholia group, and then say we have now a new psychiatric plan and call it the clinical method. Fortunately for us this is not what we have done. Kræpelin, one of the master-minds, by careful clinical studies and a consideration of the life histories of many of these individuals came to the conclusion as other earlier observers had done that there was an underlying fundamental psychological relationship between excitement and depression, that the symptoms in the one were often seen in the other, and that excitement and depression frequently followed closely on one another and were intimately associated. But more important than all else the broad, comprehensive survey of the life history of the patient in contrast to the narrow, cramped and constricted view of the symptomatic school of observers led to the elimination of many cases that did not rightfully belong either to mania or melancholia. Merely because a man showed motor restlessness or conspicuous elation for short periods, it led to his being classified as a case of mania, and naturally caused all sorts and conditions of patients to be included in the mania group. Cases of paresis, exhaustive conditions, precocious dementers were all piled in together and labelled acute mania. Comparative order has come out of chaos, and though the group is still very far from perfect we do know type cases when we see them, and are able in

many instances to make a correct differential diagnosis and give a prognosis that will have some value to say nothing of the gain from the point of view of treatment. The conception of maniac-depressive insanity is briefly this: a patient who develops an attack of excitement or depression, or both, providing that in these attacks the patient exhibits the characteristic triad of—(1) elation, (2) flight of ideas, (3) psycho-motor excitement, if he belongs to the maniacal phase, or (1) depression, (2) slowing of the stream of thought, (3) psycho-motor retardation if he is in the depressed phase, belongs to this clinical group and is not in the excitement or depression of paresis, of dementia præcox, of paranoia, of alcoholism, of senility or of any other clinical entity. A patient may have only one attack of excitement or depression in a lifetime, or may have alternating attacks of depression and excitement throughout a long life, or may have only pronounced attacks of one phase with but slight evidences of the other phases. I have mentioned the chief diagnostic points in the maniac-depressive: in addition the patient in the excited phase exhibits distractibility of attention, busy activity, emotional instability of attention, and at times slight disorientation because of the pronounced lesion of attention. In the depressed period the attention is weak and is not dirigible, there is a marked feeling of subjective insufficiency and there is general emotional and physical depression. The patient speaks in a low tone of voice, tears well up into the eyes and the whole picture is one of sadness and despair. The delusional fabric is nearly always of a depressive character and has often to do with some harm that is going to befall the patient. There are one or two features that may assist in the differential diagnosis of the maniac-depressive psychosis and dementia præcox. Vivid hallucinatory experiences are rare in the maniac-depressive but very common in dementia præcox. Irrelevancy, emotional indifference and other classical signs of dementia præcox are all absent here. If a patient shows a tendency to sudden, impulsive outbreaks without cause, does some absurd thing without rhyme or reason, look out for dementia præcox. He may be excited, but he is most likely a case of dementia præcox. I can distinctly recall two cases of just this sort. One was a young man who had stood at the head of his class in a dental college for two years, and was to graduate in a month. He suddenly became sleepless, gave up his work, went to a down-town theatre one evening and later went to a supper at one of the hotels, and as a very prominent and well known actress came into the hotel, he rushed up and tried to embrace her. He was escorted to the door, where he jumped into a hansom and drove madly down street, causing no end of trouble before

being arrested. On admission, the day following, he was excited and elated, but he was also irrelevant and hallucinated: he was a case of dementia præcox, and within a year showed pronounced mental enfeeblement. The symptomatic picture might have been taken for acute mania, and the physician would be greatly discomfited when the patient, instead of recovering, grew progressively worse. The symptom-complex, not the most obvious symptom, must lend colour to the picture. Cases of maniac-depressive, whether of the excited or depressed phase, have, as a rule, a good prognosis, probably 80 per cent. recovering. The cases of depression, of whatever type, coming on in the involuntional period, have a less favourable outlook and the cases last longer. Treatment in the maniac-depressive condition depends primarily on what state we have to deal with, but first of all in both, the state of nutrition must be carefully watched. After that, proper sedative and eliminative measures. Here again hydrotherapy is a most useful adjunct, in fact, is the sheet anchor in many cases of excitement.

Paranoia, I am merely going to speak of. It is a rather rare condition. Last year, at Toronto Hospital for Insane, there were two cases in two hundred and sixty-two new admissions. The classical picture you are doubtless familiar with. An unusual individual develops systematized delusions of persecution, becomes grandiose and extremely egotistical. The warp and woof of the delusional fabric spreads until it embraces nearly all intellectual activity and entirely dominates the individual's consciousness; judgment is greatly impaired. Deterioration, however, advances slowly, and the paranoiac may never become an inmate of an asylum. It is to be distinguished from the paranoid form of dementia præcox, this is not essential from the point of view of the general practitioner since the prognosis is the same in both, that is poor. The case of true paranoia never recovers and rarely can live outside an institution. These cases are frequently dangerous when at large, and should be committed at an early date. We have now dealt briefly with three-fifths of the admissions to the average asylum.

The alcoholic psychoses are quite numerous, particularly in large centres. There are three or four clinical subdivisions: acute alcoholic delirium I do not propose dealing with. Then we have acute alcoholic hallucinatory psychosis, where the psycho-sensory disorders persist after the clouding of consciousness has all disappeared. The patient hears voices and may see visions, occasionally also the gustatory and olfactory paths are involved. These patients have usually had an active alcoholic history with, perhaps, an exacerbation prior to the development of the acute symptoms of the psychosis. They are tremulous, have anorexia,

are often greatly worried by their unusual experiences and may show profound physical depression with great liability to the emotional tone. When this condition persists and emotional indifference appears with fewer depressive episodes, the condition has become chronic and the outlook is much worse and treatment often of little value. The acute condition must be treated carefully by building up the patient's general health and promoting active eliminative measures. Most important of all is the diet. Psychotherapy in order to help restore the patient's confidence in himself may help. The history, the hallucinatory experiences, the physical signs and the labile emotions are of chief value in the differential diagnosis. The chronic alcoholic delusional psychosis is characterized by the development of more or less systematized delusions usually founded on hallucinatory experiences and on a well marked pathologic suspiciousness. The condition is common in middle-aged men. Ideas of jealousy are often prominent. The patient's delusional fabric is largely sexual in character, he imagines that his wife has been untrue to him, sometimes that some band of persecutors are going to annoy him. This patient may baffle the physician for a long time, as he is frequently inaccessible. Although very suspicious, he will often not tell of his delusions, even though he may have reacted violently, harming some one near and dear to him. These cases slowly deteriorate; the prognosis is bad and they have to be cared for in asylums. There is one other form of alcoholic psychosis which I wish to discuss when speaking of paresis, since it most commonly is confused with paresis.

The fairly large group of cases which are put under the head of exhaustive-infective conditions are most interesting from the point of view of the general medical man, since, as a rule, they have a fairly good prognosis. These cases may follow any debilitating condition or be brought about by a septic process, or occur during the course of or after an acute infection, such as typhoid fever. Certain symptoms are common to all type cases of this condition. They usually show clouding of consciousness, and in this way suggest an ordinary delirium, but they are more than this. They show also marked discrimination, often as to time, place and person. They may or may not have some fever. They usually exhibit marked motor-restlessness, jump about, often refusing to remain in bed; their answers are frequently irrelevant, and they usually suffer from hallucinations. Not uncommonly they are dull and stupid, but may show marked emotional instability. Gastro-intestinal disturbances are present, and almost invariably there is a great excess of indican in the urine: sometimes these patients have delusions which are more or less fleeting and changing in content from time to time. Distractibility of attention is sometimes a feature of the case.



The patients are much below weight, have anorexia and frequently refuse food. They are obviously very sick and may show grave symptoms of collapse. The picture of this condition is seldom confused with any other condition. Katatonic stupor is usually readily differentiated, and if the confusional condition is engrafted on any other condition the history will show it. The prognosis in these acute confusional conditions and exhaustive-infective states depends entirely on the ability of the individual to withstand an attack of severe illness; if the patient's physical condition is very poor and he has little reserve strength the outlook is usually bad, but if the patient can weather the physical storm he usually recovers his normal mental condition. The cases of insanity developing during and after pregnancy may belong to this group, but occasionally such cases belong to the dementia præcox or maniacodepressive groups. The treatment of exhaustive-infective cases is largely symptomatic. The patient must be stimulated and nourished, eliminative measures promoted and hot packs are often very useful. The writer has seen cases of this sort in general hospitals, where the pernicious habit of using restraint was in vogue, and with such measures the patients are distinctly worse and may be greatly injured in this way. Give all the nourishment that can be assimilated, use hot packs as sedatives and to facilitate elimination. When the patients recover they should be warned that anything that greatly debilitates them is likely to lead to a nervous break-down, that they should therefore take all precautions to prevent a recurrence of the trouble in the future.

Senile psychoses require very few words; the symptoms of a senile psychosis are first a gradual increasing memory defect and a general childishness. The progress of the disease may be rapid and the judgment of the individual may become so bad that his business affairs are soon hopelessly entangled. This is an important consideration, and the early application for the appointment of a committee should be thought of. Conspicuous ethical and moral lapses in men over sixty years of age, who have previously borne good reputations, would lead one to suspect that senility was approaching and that definite pathological signs were being manifested. These patients require care and restraint, and although, if possible, they should be cared for at home, still it becomes necessary sometimes to have them committed. Many interesting conditions are at the present time being studied in connection with the neurohistology of senile brains, especially in those cases that have shown focal signs.

The arterio-sclerotic cases usually come on during the involutional period, and are characterized by a marked feeling of insufficiency, an

inability to concentrate, and are further characterized by the symptom of fatigueability, that is, the early appearance of fatigue when any work is undertaken. There are often more or less marked emotional disturbances, irritability and feelings of depression predominating. There may be slight memory defect, the patient can no longer continue at his work. The most remarkable feature is the preservation of the patient's insight. He appreciates his condition and bemoans his fate. Epileptiform or apoplectiform attacks are common, and other focal signs may be present, such as hemianopsia. I have seen a number of these cases and they have complained of a curious subjective feeling of numbness along the thumb and index finger, and one patient complained of the same feeling along the upper lip. No objective disturbance of tactile or pain sense could be demonstrated. Such cases progress but slowly, and may never have to become inmates of asylums. Potassium iodide is believed to be of value, nitroglycerin and sodium nitrite are useful also. Patients of this sort do not always show the cardinal symptoms of arterio-sclerosis, namely, high blood pressure, hardened arteries, accentuated aortic second sound and enlargement of the left heart. So it is generally accepted that cerebral arterio-sclerosis may exist without there being many evidences of it elsewhere.

Post-apoplectic conditions, as their name suggests, follow apoplexy, and are evidenced by the ordinary signs of organic brain disease, hemiplegias, etc., with or without aphasia. The psychic symptoms are emotional irritability, memory defect, weakened attention and early deterioration. The outlook is distinctly unfavourable and treatment of little value. All that can be done is to make the patient as comfortable as possible and retard the progress of the mental decay.

Paresis I have left until this late date, because, on a previous occasion, at a meeting of this Association, I went into the question of the differential diagnosis at some length. The point that seemed worth emphasizing at that time was that an early case of paresis was not at all unlikely in many instances to be mistaken for a case of acute maniacal excitement, because in many of its features at this early stage it simulates maniacal excitement, the elation and great psycho-motor restlessness are both present, and at times there is even flight of ideas. Do not be misled by these signs, but go thoroughly into the physical condition, and in every instance where it is possible, do a lumbar puncture. The value of lumbar puncture, particularly if negative on more than one occasion, cannot be over-estimated. The French authorities unite in saying that the cerebro-spinal fluid shows changes which antedate in the time of their appearance the eye symptoms." Another diag-

nostic point in connection with paresis is this: when the cases are seen at an early date by the practitioner, the eye symptoms are not, as a rule, those described in the text book. The Argyll-Robertson pupil is rarely seen early in pure paresis, there will probably be a reaction to both direct and consensual light, but it likely will be a sluggish contraction and a limited excursion. The irregularity in the outline of the pupil may be striking and inequality may also be present. The speech defect, tremors, defect in memory, the feeling of well-being are all too well known to require more than passing consideration. Alcoholic pseudo-paresis is the other alcoholic psychosis which must be differentiated from paresis. Many of the physical signs are the same in the two conditions, but lumbar puncture may be of great assistance. The history of alcoholism and the early disappearance of the speech defect as the psychosis progresses, and the rapid general improvement instead of progressive physical and mental deterioration will aid one in making the diagnosis.

I have to deal with the psychoses associated with nervous diseases and constitutional defect. Epileptic conditions are usually accompanied by certain motor phenomena which are familiar to you all. The interesting condition known as psychic epilepsy, where there is no motor disturbance, but a psychic equivalent, may be less familiar. It should, nevertheless, be kept in mind. Hysterical psychosis can usually be determined by the previous history and by the presence of mental or physical stigmata. Neurasthenia is rightly a psycho-neurosis, not a pure psychosis, and with the time left at my disposal I cannot touch on it here. Constitutional defect and the other psychopathic conditions given in the form of classification, while they are of very considerable interest, have not the same importance as the other groups which I have dwelt on at length.

---

## THE VALUE OF THE REFLEXES IN DIAGNOSIS.

### ADDRESS IN MEDICINE.

BY

J. S. RISIEN RUSSELL, M.D., Eng.

*Mr. President and Gentlemen:—*

It has been my good fortune to receive many kindnesses from our profession, and it has been my privilege to address distinguished audiences. Fully as I appreciate the honours I have enjoyed, and grateful as I am of the consideration that has been extended to me in the past, I feel that

the honour your Council has done me far exceeds anything that I have hitherto experienced.

I can imagine no greater compliment than to be entrusted with the delivery of the Address in Medicine at so important a meeting as the Canadian Medical Association is holding in Ottawa to-day, and I am confident that those who have been good enough to honour me in the past would be the first to admit that the position in which your Council has now placed me is the most honoured I have ever filled.

There are, Sir, some moments that cannot find adequate expression in words. My gratitude is very sincere, but I am too conscious of my inability to find a portal sufficiently wide to convey the full depth of my feelings, to make me risk the attempt that would be sure to end in failure.

No words of mine can ever thank you enough for the great honour which you have done me.

When attempting to decide upon what subject to address you it naturally occurred to me that it must be on something of neurological interest, as it was improbable that any general survey of medicine would be expected from one who had devoted so much time to a special department.

On reviewing the neurological subjects that seemed most suitable, the usual difficulty was experienced in deciding which to select. It was not without many misgivings that the value of the reflexes in diagnosis was finally chosen as likely to be the most profitable, for I am very conscious of the large amount of work of the greatest possible excellence that has been done on this side of the Atlantic. Three considerations mainly encouraged me to adhere to my decision. One was that the same objection could be urged in regard to any subject I might choose. Another was that so much work has been done on the reflexes during recent years, and so much that is contradictory has been written about them, that there is a danger that the profession may become sceptical as to their value. The third consideration that influenced me was that so many new methods of diagnosis are now in vogue that there may be too great a tendency to rely on these to the exclusion of the reflexes, which they should only be allowed to supplement, not supplant.

We cannot too carefully safeguard the reflexes, for we can ill afford to do without them, and what is especially satisfactory to the practitioner is that no laboratory or special apparatus is needed when applying the tests necessary to derive information from them.

When selecting the subject I did not lose sight of the fact that there would be many present at this meeting to whom I could not presume to

offer any remarks that would prove either of interest or profit, but it seemed certain that the bulk of those attending the congress would be men busily engaged in the toils of general practice, with but little leisure for reading. Much as you may be interested in the scientific investigations of the age, and the great discoveries that are constantly being made, you naturally wish to know how far the results obtained by these researches may be utilized by your endeavours to minimize the sum total of human suffering and to promote the general well-being of the community.

I cannot help feeling that those of you who have perused the literature that has grown up around the subject of the reflexes must be inclined to doubt the value which attaches both to the tendon-jerks and the superficial reflexes in diagnosis, for fresh from reading a paper in which the author insists on this or that phenomenon as a sure sign of organic disease, you take up another in which the writer as confidently asserts that certain alterations of the reflexes have not the value that has been ascribed to them, as he has met with the abnormal sign in functional as well as in organic conditions of the nervous system. You accordingly find it difficult to decide which of the conflicting statements to believe, for the opportunities of putting these matters to the test do not occur sufficiently often in your practice to permit of your coming to any satisfactory conclusion from your own observations.

It is, therefore, natural that you should look to those whose work brings them into daily contact with these problems, and who have endless opportunities of testing the conflicting views expressed by different authors, to assist you to decide what is true, and what is not; on what evidence you may place confidence, and what you should mistrust and discard.

It thus seems probable that no better use can be made of an opportunity like the present than to attempt to show that, in spite of much that you may see written to the contrary, the reflexes are of the utmost value in the diagnosis of affections of the nervous system.

Time will not permit me to quote case in support of what I have to say, but I can assure you that all the facts to which I propose to call your attention are based on practical experience of these matters, and that actual cases which substantiate the statements occur to me as I recount the facts which I deem worthy of your acceptance as likely to prove helpful to you in the problems that confront you from time to time in the routine of your practice.

An attempt will be made to show that the reflexes are of value:

1. In the diagnosis of organic from functional affections of the nervous system.

2. In the diagnosis of one organic disease from another.
3. In localizing the seat of the morbid process.
4. In determining the extent and severity of the mischief.
5. That there are limitations to the value of the reflexes.
6. What part they play in the diagnosis of maladies outside the realms of neurology.

It will, of course, be impossible to deal with all of the reflexes in the time at our disposal, and it will be equally impossible to discuss more than some of the more important aspects of the subjects I have outlined, without pretending that any exhaustive consideration of them in their many bearings is at all possible.

### 1. DIAGNOSIS OF ORGANIC FROM FUNCTIONAL AFFECTIONS.

One is inclined to question either the observation or the judgment of the author who, having elicited the extensor type of plantar reflex after an attack of convulsions, nevertheless concludes that the attack has been hysterical and not epileptic.

That true epilepsy may occur in a person otherwise hysterical, and that an epileptic attack may be followed by an hysterical state, are facts too well recognized to call for more than passing notice; but it is difficult to refrain from a desire to have the opportunity of observing the attack from its inception to its conclusion, before accepting the statement that hysteria was alone responsible for the convulsions which permitted the extensor type of plantar reflex to be elicited in the subject of the fit.

Abolition of the knee-jerks, followed by their exaggeration, coupled with ankle clonus, and supported by the extensor type of plantar reflex, form a combination which we have good reason to agree must be aids to the diagnosis of genuine epilepsy, as contrasted with either hysteria or malingering.

It is equally difficult to accept the opinion of the observer who asserts that the paralysis from which the patient suffered was hysterical, and yet the plantar reflex was of the extensor type, especially when he has no better proof to offer than that the patient got quite well, and that this phenomenon, like all the other abnormal signs, disappeared.

The names of such distinguished authorities are associated with statements of this kind, that the only way which seems possible to reconcile their views with one's own experience is to suppose that certain types of disseminate sclerosis, so common with us in England, must be rare in other countries, so that the vagaries of these varieties of the malady so much insisted on by Dr. Thomas Buzzard in his writings on the subject, have not as yet been recognized by observers who are mistak-

ing for hysteria cases that are in reality examples of disseminate sclerosis. That this is so in some instances is evident even from the information given of the clinical history of the patient's illness. The remarkable way in which the clinical picture may clear up in a case of this disease after the most pronounced signs of organic change have been determined, makes it difficult to believe otherwise than that there is a time in the course of the malady when the lesion is of a kind that permits not only of restitution of function, but also of repair of structure, so that the nervous system is not only able to perform its work again in a normal manner, but is also free from any evidence of persisting structural damage.

These considerations open up a most interesting question that I dare not do more than touch on in connection with the diagnosis of neurasthenia. May not a functional condition of the kind occasion nutritional changes in the nervous system sufficiently profound to lead to alterations in the reflexes that are indistinguishable from those produced by organic disease?

Time will not permit me to discuss this matter in the way that its importance demands. Let me but say that from the practical standpoint it matters but little, for the majority of cases of neurasthenia present no such difficulty in diagnosis, and if such a condition of things as has been suggested be possible, there would be every reason to regard with as much concern the nervous system of such a patient as that of one suffering from some known organic disease, for such a condition cannot but be attended by grave consequences if unchecked by treatment.

## 2. THE DIAGNOSIS OF ONE ORGANIC DISEASE FROM ANOTHER.

Let us take a common example. A patient experiences difficulty in walking, owing to the inco-ordinate condition of his lower limbs. Two of the most common diseases likely to be responsible for this are tabes dorsalis and disseminate sclerosis.

How quickly it can be determined which of these diseases exists! No knee-jerk, no ankle-jerk, and the plantar reflex not altered to the extensor type in tabes make striking contrasts to the exaggeration of the knee-jerk, exaggeration of the ankle-jerk, amounting, it may be, to clonus, and the plantar reflex of the extensor type in disseminate sclerosis.

Even if, in the latter disease, the knee and ankle-jerks fail us by being absent instead of being exaggerated, the plantar reflex is not likely to play us false. And if it does, is there not still the pupil reflex on which we can fall back for assistance? The pupil which fails to re-act to light while it preserves the possibility of re-acting on accommodation, is

a phenomenon sufficiently rare in disseminate sclerosis, and common in tabes, to make it a further point of contrast between these two diseases.

Take another example. The patient has atrophy of the small muscles of the hand. One of the first things we are anxious to know is whether or not the reflexes are altered, for much depends on whether they are, both in regard to diagnosis and prognosis. Exaggerated knee-jerks, ankle-clonus, and the extensor plantar reflex tell their tale, for it is clear from them that the spinal cord is involved by the morbid process that is responsible for the muscular atrophy. Thus, by testing these reflexes, we at once glean information that is of the greatest import. By testing the arm-jerks and the jaw-jerk, the diagnosis may be carried a stage further, for in the presence of an exaggerated jaw-jerk or clonus there is little likelihood that any condition other than amyotrophic lateral sclerosis is to be held accountable for the muscular atrophy. Although the Röntgen rays have done much to facilitate diagnosis under these conditions, it cannot be said that they have in any way robbed the reflexes of the value that attached to them before the rays were put to such use. It may be safely said that the rays have supplemented, not supplanted, the reflexes in this sphere of their usefulness, for while they may reveal an accessory rib, caries or other disease of the cervical vertebræ to account for the muscular atrophy, in the absence of these conditions they cannot tell us whether the atrophy is of central or of peripheral origin, nor can they further give us the good idea the reflexes can as to which of the several affections of the spinal cord is likely to be responsible for the condition.

Two affections that may easily be confounded, and that present considerable difficulty of diagnosis at times, although at other times the clinical pictures are so widely different that there is no possibility of confounding them, are cerebellar tumour and disseminate sclerosis. A proper appreciation of the different behaviour of the reflexes in the two conditions will go far towards clearing up the question that is in doubt; indeed, the diagnosis may largely, if not entirely, depend on what, if any, alterations are determined in the reflexes. While various alterations of the tendon-jerks obtain in tumour of the cerebellum which may accord with what is found in disseminate sclerosis, the superficial reflexes prove of distinct service in differential diagnosis, for the plantar reflex commonly assumes the extensor type at an early stage of disseminate sclerosis, while it only does so as a late event in a case of tumor of the cerebellum, and is then to be ascribed to some complication rather than to the morbid condition of the cerebellum itself.

The reservation that has had to be made in regard to the plantar



reflex does not apply to the other superficial reflexes on which a diagnosis may be based, for, assuming that the local conditions of the abdominal walls be such as to permit the abdominal reflexes to be obtained, their absence may be regarded as of considerable importance in diagnosis, for, while they are unaffected in cases of tumour of the cerebellum, they are absent in a large proportion of cases of disseminate sclerosis. The reflexes may thus serve to determine whether we are in the presence of an affection in which operative intervention may be expected to bring relief, or whether the morbid condition is one in which operation would not only be useless, but actually harmful.

It is impossible to leave this part of our subject without referring to the value that attaches to the extensor plantar reflex in the diagnosis between multiple peripheral neuritis, in which it is absent, and that fatal disease, subacute combined degeneration of the spinal cord, in which it is present, for, while the former condition may be expected to result in recovery under appropriate treatment, the latter runs its course to a fatal termination with unerring certainty in most, if not in all cases.

### 3. LOCALIZING THE SEAT OF THE MORBID PROCESS.

The abolition of the reflexes in affections of the peripheral nerves, the variety of ways in which they may be affected in diseases of the spinal cord, and their unilateral exaggeration, diminution or special modification in affections of the brain, need no more than passing notice. It is impossible, however, to leave this part of our subject without a word of comment in regard to the part the reflexes play in the early diagnosis of morbid conditions of the brain and spinal cord, for it repeatedly happens that some departure of the reflexes from the normal standard is the first indication that we have, not only that organic disease exists, but as to what part of the nervous system is affected. Special note must also be taken of the important rôle they play in the localization of focal lesions of the spinal cord, in which connection nothing is more important than the aid to be derived from them in the diagnosis and localization of tumours of the cord.

The abolition of the reflexes which correspond to certain segments of the cord, the escape of all the reflexes above this level, and other exaggeration or other modification below it, must be regarded as the most valuable indications we have in determining the position of a focal lesion.

Similarly, unilateral alteration of the reflexes may be the first indication of which hemisphere of the brain is affected, and, while it may happen that hemiplegia or some other condition makes it superfluous

for us to seek assistance from the reflexes, there are cases in which there is so much uncertainty that every source from which information can be gleaned must be welcomed, and then it is that the reflexes may prove invaluable. No better example of this can be found than what obtains in tumours of the frontal lobes of the brain. The difficulties of localization in such cases may prove well-nigh insurmountable, so that unilateral exaggeration of the knee-jerk or the appearance of ankle clonus on one side is welcomed. Of similar significance is the appearance of the extension of the plantar reflex, or, as my colleague, Dr. Grainger Stewart, has shown, diminution or abolition of the superficial abdominal reflexes on the side opposite to that on which the tumour is situated.

Another class of case in which the reflexes may prove helpful is that in which the question to be decided is whether the disease is in the cerebellum or pons. The determination of this point becomes particularly important when a tumour is responsible for the symptoms, for, while those which occupy the pons are inoperable, no more successful class of intracranial tumour is met with from this standpoint than many of those which involve the cerebellum. They supply us with some of the most brilliant results of modern surgery. While there are many points on which the diagnosis must rest, it is not too much to claim for the reflexes that they play an important part in deciding the question at issue, for the earlier they become affected in the clinical history of the case, the more likely is the tumour to be situated in the pons, while the longer they remain unaltered the greater is the likelihood that the seat is the cerebellum. The knee-jerks cannot be said to be of material assistance in this connection, for, as already noted, they may become altered in uncomplicated cases of tumour of the cerebellum. It is, however, otherwise as regards ankle-clonus, and alterations of the superficial reflexes, for unilateral diminution or abolition of the abdominal reflexes, or alteration of the plantar reflexes to the extensor type, cannot be regarded otherwise than of importance in diagnosis, if they are determined sufficiently early in the clinical course of the patient's illness to make it improbable that they are the outcome of some complication rather than due to the original malady.

#### 4. THE EXTENT AND SEVERITY OF THE MISCHIEF.

It would appear to be self-evident that, inasmuch as the various reflexes have different segments of the spinal cord on whose integrity they depend, the fewer that are lost the less extensive the lesions, and the wider the extent of their affection, the more widespread the dis-

tribution of the morbid process. It must be clearly recognized, however, that this is by no means necessarily the case, for, in reality, this only applies in some instances, for a very limited lesion may give rise to widespread alterations of the reflexes. Take, for example, a case in which the lesion is limited to the cervical region of the cord, and abolishes the scapulo-humeral and other arm reflexes. Many other reflexes will also be altered, though not necessarily abolished, so that among the abnormal phenomena to be looked for are exaggeration of the knee-jerks, ankle clonus, and the extensor type of plantar reflex.

No better example of the value of the reflexes in determining the severity of a lesion can be suggested than is supplied by the knee-jerks in cases of transverse lesions of the spinal cord above the lumbar enlargement, for when, instead of being exaggerated, they are abolished and remain absent, the gravest fears are justified. When the knee-jerks do not return there is every reason to fear a severance of the cord so complete as to preclude the possibility of re-establishment of the paths through the damaged segments of the cord. Ankle clonus, a phenomenon that we view with concern under other conditions, would indicate possibilities of recovery which would not have been justified had the knee and ankle-jerks remained absent.

##### 5. LIMITATIONS TO THE VALUE OF THE REFLEXES.

There are instances in which the reflexes only partly clear up the diagnosis problem. Take, for example, a case of myelitis with paraplegia as the result. From the reflexes alone the diagnosis may be made as to whether ordinary myelitis or polio-myelitis exists, but further than this they cannot take us. The X-rays may reveal tuberculous disease of the bone, which has not as yet produced spinal deformity, or the opsonic index may raise the suspicion of a tuberculous origin of the paraplegia in a way that is impossible to the reflexes.

Similarly, syphilitic pachymeningitis may not as yet have occasioned any alteration in the reflexes by which an organic condition can be diagnosed, and yet lumbar puncture may permit the determination of a leucocytosis that allows a positive diagnosis to be made. Or the behaviour of the superficial reflexes may justify the diagnosis of an organic hemiplegia, while it requires the ophthalmoscope to say that a tumour is responsible for it, or lumbar puncture to indicate that the thrombosis which underlies it is of syphilitic origin.

Furthermore, it must be remembered that there are some affections of the nervous system in which a diagnosis is to be made without any necessary assistance from the reflexes. Chorea supplies an example, for,

although in this affection the special alteration of the knee-jerks, to which Gordon, of Exeter, called attention, may be present, in which the limb remains suspended in mid-air too long in response to a blow on the patellar tendon, the diagnosis has to be made without any such assistance from the reflexes in the majority of cases. The extensor of the response, and special alteration of the superficial reflexes to which Babinski called attention, are too infrequent to justify any reliance being placed on them.

The fact must not be lost sight of in this connection that the negative may be of little less value than the positive in some cases, and that, accordingly, there are instances when the fact that the reflexes are not affected in a case proves almost as helpful as if they were, for this serves to distinguish the malady from one in which alterations of the reflexes were to be expected.

#### 6. THE PART THEY PLAY IN THE DIAGNOSIS OF GENERAL DISEASES.

The question that next arises is as to whether the reflexes give any assistance in diagnosis in realms outside those of neurology. There can be no doubt that there are many cases in which, in the absence of any known disease of the nervous system, the reflexes are altered in the course of some general disease or special affection of some other organ of the body.

It will be remembered that in an affection like diphtheria absent knee-jerks may give the first clue to the nature of a sore throat that ought to have been long since determined by bacteriological examination of secretion from the fauces. Similarly, absence of the knee-jerks may call attention to the possibility of glycosuria, which routine examination of the urine should have forestalled.

Some attempt has been made to derive direct advantage from alterations of the reflexes in favour of one as opposed to another disease in which the nervous system plays no part, except that the toxins of the one malady have a more profound effect on the nerve centres, and occasion alterations of the reflexes in consequence, in a manner that does not obtain in the other disease. Thus, the knee-jerks have been found absent in a large proportion of cases of pneumonia due to the diplococcus or the diphtheria organism, while they are not affected in septic pneumonia and are found exaggerated in tuberculous cases (Stanley Barnes).

The chief value, however, that attaches to these observations in the present state of our knowledge is that they prevent us from concluding that some organic condition, as, for instance, myelitis or meningitis, has of necessity developed because these alterations in the reflexes are de-

terminated. Those interested in the welfare of the patient are thus spared the anxiety that would be caused by the opinion that might have been expressed in ignorance of the fact that the alterations noted are compatible with transitory effects due to toxic conditions without any permanent organic change.

In conclusion, Mr. President, ladies and gentlemen, let me thank you most sincerely for the patient hearing you have given me. No one is more conscious of the shortcomings of this address than I am. I wish it had been possible for me to prove more worthy of the trust that has been placed in me, and the honour which that trust implies. I can only take comfort in the fact that I have spared no pains to make the address a success, so that any failure to do so cannot be ascribed to a lack of appreciation of the great responsibility which I have accepted, and of which I have been only too painfully conscious. One other consideration brings me comfort in my ordeal; that is, that I am in the midst of friends who will deal leniently with my shortcomings. In his letter of invitation your worthy secretary, Dr. Hackney, told me that I would meet many friends who would be ready to welcome me to Canada. I have, indeed, met with friends, and have been overwhelmed with kindness. Let me take this opportunity of thanking you all most cordially for the welcome you have so generously extended to me.

---

## ON THE USE OF LENSES SPECIALLY ADAPTED FOR THE ESTIMATION OF BI-FOCAL VISION.\*

BY

FRED. J. TOOKE, B.A., M.D.,

Demonstrator of Ophthalmology, McGill University, Montreal.

In describing the features of bi-focal lenses the ophthalmic surgeon has heretofore found that a great deal has of necessity had to be left to the imagination of his patients. The first actual experience of their particular points of vantage, as well as some of the disagreeable features which these lenses may produce, may only be appreciated by the patient after his prescription has been dispensed, and when he is wearing his glasses for the first time.

Patients very frequently, if not almost invariably, complain that they notice a rim before their sight, and that they frequently stumble on going up and down stairs; that when looking down towards their feet they notice that objects rise up close to them. Many frequently experience giddy sensations as a result. These difficulties may be very largely if not altogether avoided if the patient is instructed how to

---

\* Read before the Canadian Medical Association, Ottawa, June 10th, 1903.

use his lenses by the oculist, and taught to avoid looking down through the wafer, except when actual near vision is desired.

To assist in the explanation of a great deal of what bi-focal lenses will and will not do, and to avoid a great deal of misunderstanding to which both patient and consulter have been subjected, I have arranged this simple device. I employ a trial frame with three cells, or one that will accommodate three lenses. When I am refracting a presbyopic patient with compound hypermetropic or myopic astigmatism, or with mixed astigmatism, in the cell nearest the eye I place the sphere and in the middle one the cylinder required, thus registering distance vision. Should the condition be one of simple astigmatism the sphere is, of course, dispensed with, while in ordinary hypermetropia or myopia one naturally does without the cylinder. In order to estimate the presbyopic effect of a bi-focal for reading I insert in the front cell a special lens which Messrs R. N. Taylor & Company, of Montreal, were kind enough to make for me at my suggestion. This lens consists of a plano, to the lower half of which is cemented a wafer corresponding approximately to the presbyopic correction required. In this manner, on looking forward, regular distance vision is unimpaired by the plano, but on looking down through the wafer my patient is able to appreciate his reading correction. I have had these made up in pairs of + 1.00D, 2.00D, and 3.00D, finding that these spheres are sufficient to give both my patient and myself an approximation of the bi-focal effect.

I, of course, estimate the exact presbyopic correction in the usual way before writing my prescription.

I have found these lenses particularly useful in cases where patients fully understand the value of bi-focal glasses, yet when wearing them complain of the change from distance to near work being too sharply defined. Many patients are made quite happy and comfortable by a slight over correction for distance and a correspondingly slight under correction for near work, thus making the difference in the two somewhat less marked. Such a correction and the effect that it would at first produce could only be shown and appreciated by the lenses which I have described above.

---

E. P. Robinson, New York, after going over the physiological effects of ergot, states his belief that it is of great value in pathological conditions of the blood-vessels and is of special use to the skin specialist. He submits three cases out of several hundred that he has treated by intramuscular injections of ergot, to show its value and method of use. The cases which he has submitted are acne, varicose veins, and sluggish venous circulation.—*Medical Record*, July 11, 1908.

THE

# Montreal Medical Journal.

*A Monthly Record of the Progress of Medical and Surgical Science.*

EDITED BY

J. GEORGE ADAMI,  
GEO. E. ARMSTRONG,  
A. D. BLACKADER,  
G. GORDON CAMPBELL,  
F. G. FINLEY,

WILLIAM GARDNER,  
H. A. LAFLEUR,  
JOHN McCRAE,  
F. J. SHEPHERD,  
J. W. STIRLING

ANDREW MACPHAIL, MANAGING EDITOR.

Remittances, advertisements or business communications are to be addressed to the Montreal Medical Journal Co., Box 273; all others to the Managing Editor, 216 Peel Street, Montreal. All communications intended for insertion in this Journal are received with the understanding that they are contributed exclusively to this Journal. A limited number of reprints of articles will be furnished to authors at cost price, if a request to that effect accompany the manuscript.

---

VOL. XXXVII.

AUGUST, 1908.

No. 8.

---

## THIS CONCERNS YOU!

On July 17th a man who was dying of consumption lay for three hours on the floor of one of the charitable offices of this city—lay, because he was too weak to sit in a chair, and no place could be found to which to send him! The blame did not lie with the hospitals—they are not permitted to admit these cases, and at that very moment, to our certain knowledge, each of the three large general hospitals was overstepping its rules for charity's sake and was caring for at least one other such case. The two institutions which take such cases were both overcrowded, and could admit no more.

Should anyone care to consult the papers of July 17th he will find that Montreal on that day was boasting a population of 454,000 argued upon a conservative estimate from directory sources, and that some authorities think 120,000,000 bushels of grain may come from our North-west—and we are buying a battlefield, and keeping an \$18,000 athletic team at the Olympic Games—and a dying man lies three hours on a floor because there is no place to send him. He is not a criminal, he is just a citizen, dying of the most widespread disease within our borders, and you have, as citizens of Canada, not made provision of one dollar for him and for hundreds like him. The writer knows how splendidly private enterprise and even municipal activity in some places has made provision for the prevention of tuberculosis, but it is nearly

all at the one end of the illness—while the disease may be cured. *Now*, we have to make provision that the advanced case can be separated from his fellows, can be made no longer a centre from which the disease can spread, and can be cared for as a man about to die should be. At our present position in the fight with tuberculosis, we have to recognize that for many years to come, hundreds and thousands of cases are going to die—each one a centre from which the disease spreads, and we have got to separate these people just as we rationally separate a man who has yellow fever.

The time has come that this farce of municipal and private philanthropic care shall be allowed to cease. The time has come that Canada at large should face her duty, and the Federal Government face a problem it has shirked for many years. This question is higher than party—it is not the duty of party—it is a question that is as widespread as the Confederation itself, and it is a measure of enlightenment that any government ought to be proud to recognize and ashamed to leave unrecognized. It is so important, even in dollars and cents, to Canada, that it is worthy of a Cabinet Minister for its work alone. We know that the country can fold its hands and say, "We cannot interfere with the provinces and the municipalities," but the laws which prevent that have to be altered, and why should members not go to Parliament pledged to work to that end? Proper financial aid must be abundant, must be properly apportioned according to population, and must be from the treasury of the country at large. There is enough money in the country; there has been for these many years. Canada can afford a million dollars a year to house her advanced tuberculous cases, and if she does, will find that *as an investment*, she is making one of the best and most conservative kind; that annual sum spent to-day *will buy hundreds of useful citizens, who will be inoculated from advanced tuberculous cases of 1908 and will die in 1909 and 1910 and 1911.* Is the country as such paying one dollar to the segregation of its worse-than-lepers? Not one!

Get a commission appointed, if necessary, to sit at once and find out the way it can best be done! Put a lawyer upon the commission who shall be able to unlock the Act of British North America, if that be necessary, and let Canada begin to do something against the most widespread and most mortal enemy she has to fight!

---

#### A TEAPOT TEMPEST.

A small but noisy section of the British public has been shocked, and we all know how severe shock, not surgical, but of the moral nature,



can be in Anglo-Saxon individuals. The British Medical Association is erecting a new building on the Strand, and a number of statues have been placed at a height of forty feet from the ground, statues which those competent to judge say are executed in good taste and feeling. Two frequently sane evening papers, supported by Father Bernard Vaughan and some other shriekers, have declared that these statues are indecent, indelicate and what not. The "Lancet" has an editorial upon "The Old Maid with the Spyglass" which is much to the point with regard to such prudery; the British Medical Journal has obtained and publishes a large number of letters upon the subject, written by prominent men, who are indignant at the silly spectacle that has been made of English taste in decorative art by the objectors to these statues. We have not yet seen the comments from Paris, but we feel sure they will be much in evidence, and they will be deserved, thanks to the self-righteous foolishness of the shouters. We are glad to see that the Association has directed the architects to proceed with the work.

---

### Reviews and Notices of Books.

---

STATE BOARD QUESTIONS AND ANSWERS. By R. MAX GOEPP, M.D., Professor of Clinical Medicine at the Philadelphia Polyclinic. Philadelphia and London: W. B. Saunders Company, 1908; Canadian Agents: J. A. Carveth & Co., Ltd., Toronto. Cloth, \$4.00, net.

The State Board examinations, like those of our Provincial Boards, loom large before the eyes of the student, and this work is for the student who contemplates such an examination. It may help him: Professor Goepp has set down concise answers to the questions, and has done his part; but what is to be said for the student who learns his medicine in this haphazard way; or for the gambler who studies these questions on the chance that the same questions will be asked again?

There is a large amount of information in the book, but it is necessarily in a chaotic state, save that the subjects are roughly divided one from another. "A fool can ask a question," runs the saw, and we fear that Professor Goepp's wisdom has been taxed pretty severely in places. What are the varieties of eczema? is a question; and another is, What metal is liquid at ordinary temperature? which latter seems to be eminently suited to a parlour game. But, apart from a few foolish questions, which are not the author's fault, the seven hundred pages that the book contains, possess much information which can be reached by the assistance of a very excellent index.

## Medical News.

The following paragraphs in the *Gazette* of July 28th, 1908, did not inspire the editorial which appears in this number relative to the disposal of cases of advanced tuberculosis, but it speaks forcibly in favour of the need of action:

"Nineteen cases of advanced tuberculosis, for whom there is no accommodation, are now before the Charity Organization Society," said Secretary Lane yesterday in *The Gazette*. "And unless Montreal finds for those homeless people some place where they can be cared for," he continued, "we shall be obliged to allow them to die, like Packwood, in the common jail."

Mr. Lane emphasized Montreal's need for an hospital for tuberculosis cases, and dwelt on the conditions which had led to Packwood's death in the jail on Saturday. The circumstances were of peculiar hardship. Found prostrate in Notre Dame street east, Tuesday afternoon by a pedestrian, he was taken to the Notre Dame Hospital, the authorities of which were compelled to refuse admittance to him, when they found he was in the third degree of tuberculosis. Admission was sought to other institutions, with similar failure. So he died in jail. The inquest was held yesterday before Coroner McMahon.

"Something must be done at once," said Secretary Lane. "For all these nineteen urgent cases there is not a bed available. The hospital authorities are not to blame. Notre Dame de Grace and the Grace Dart Home are doing all they can, and the same may be said of the other institutions. Practically all the hospitals in Montreal to-day have advanced cases of tuberculosis, which should go to a home. With regard to the question of letting homeless cases die in jail, it is not only inhuman, but there is the danger of probable infection to be considered. The whole situation is deplorable, and calls for speedy remedy."

But Montreal's lack of accommodation for such cases does not only apply to penniless people. There is the fact to be considered that even if a tuberculous patient has a little money, boarding house-keepers are naturally averse to have such cases in the house. A prominent local priest, of the Anglican Church, yesterday, related a striking case which came under his notice last winter. A man in an advanced stage of tuberculosis, rooming on Champ de Mars street, was given notice by his landlady. The other boarders had threatened to leave if the patient was not removed. Application for admission to the various hospitals had been made, but in vain. A fellow boarder, who had worked with him

at a freight shed, had said that since there was no other accommodation the patient should share his bed. So for the better part of a week, the freight worker and his dying friend shared the same room and bed. The boarders at length objecting, through fear of infection, the case, the clergyman stated, was brought to the notice of the Montreal General Hospital, the authorities of which, in view of its urgent nature, admitted the patient, who died within forty-eight hours of admission.

"A special hospital is the only remedy for the situation," said the clergyman, who dwelt upon the fact that for tuberculosis patients to be treated at the ordinary hospitals was perilous for nurses and other patients, the latter a likely result, in view of their especially receptive condition. There was also the fact that whereas risks of infection were lessened during the summer months by opened windows and fresh air on the verandas, in winter there was less chance of minimizing risks.

---

The Philadelphia Academy of Surgery announces that the Samuel D. Gross Prize of Fifteen Hundred Dollars will be awarded upon Essays received in competition until January 1st, 1910.

The conditions annexed by the testator are that the prize "Shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens."

The essays, which must be written by a single author in the English language, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 219 S. 13th Street, Philadelphia," on or before January 1st, 1910.

---

The twenty-eighth annual convention of the New Brunswick Medical Society was held at St. Stephen. A motion by Drs. T. Walker and A. Murray that a flat rate of \$4 be accepted for insurance examinations was lost by a vote of 15 to 4, and a motion then carried to enforce a rate of \$5 after October 1st. St. John was chosen as the next place of meeting. The following officers were elected:—J. R. McIntosh, president; C. T. Purdy and A. J. Murray, vice-presidents; G. G. Melvin, treasurer; J. N. Anglin, corresponding secretary; Geo. C. Corbett, recording secretary; Drs. Young, Deinstadt and McNally, trustees; Drs. McInerney, Gaudet, Inches, McLaren and Deacon, members of the Medical Council.

The Johns Hopkins Hospital is the recipient of a gift of the greater part of a million dollars from Mr. Henry Phipps, whose name is so well known in connexion with his efforts against tuberculosis. The object of this donation is to build, equip and maintain for a stated period a psychiatric hospital and clinic for the treatment and study of acute mental diseases. The *Lancet* states that in no small degree the stimulus of this gift has come from Professor William Welch. The donor and the recipient alike are to be congratulated upon so excellent a use of great wealth.

---

Recent honours of interest to the medical profession are the conferring of Baronetcies upon Dr. T. Lauder Brunton, and Professor W. Watson Cheyne; and of Knighthoods upon Colonel David Bruce, Dr. R. W. Burnet, honorary physician to the Prince of Wales, Mr. Peter O'Connell, of Belfast, and Dr. W. H. Power, of the General Medical Council.

---

Sir Henry Alfred Pitman, who was at one time Registrar of the Royal College of Physicians, recently celebrated his 100th birthday, and on that occasion, was waited on by a deputation from the College who presented him with a memento of the unusual event.

---

## Retrospect of Current Literature.

### OBSTETRICS.

UNDER THE CHARGE OF DRs. CAMERON, EVANS AND LITTLE.

---

SEMONS, J. M., and GOLDBOROUGH, F. C. "The Obstetric Significance of the Blood Pressure and its Relation to the Work of the Heart." *Zeit. f. Gyn.*, No. 21, 1908.

Through Erlanger's discovery of a sphygmomanometer, with which it is possible to obtain a record of the systolic or the maximum as well as the diastolic or minimal arterial tension, it is possible to take observations on the blood pressure in obstetric conditions. The difference between the two he designates the pulse pressure. From this latter and from the diastolic pressure the average arterial tension can be calculated according to the method recommended by Dawson. By this means it is possible to get some index of the work of the heart.

The authors' observations were carried out on ten normal pregnant women, five primiparæ and five multiparæ. They were enabled to obtain in all 279 records during pregnancy. The observations were made both

before and after birth, at 11 o'clock in the forenoon, with the patient lying in bed. Attempts were made to obtain records during labour, but restlessness of the patients rendered exact observations extremely difficult.

*Pulse frequency.*—The average frequency of the pulse was, during pregnancy, 80.5, and during the puerperal period 70.5. In 20 per cent. of their cases the typical slow puerperal pulse was noted, which corresponds to the observations of Hemey and Hiel.

During the puerperal period the pulse frequency in primiparæ and multiparæ were, on the average, the same, but during pregnancy it was much higher in the former.

If the labour has a normal course, the pulse shows little or no variation from the frequency noted in pregnancy, except during uterine contractions. In multiparæ there is a rapid reduction in the frequency of the pulse after delivery, while in primiparæ but a slight reduction follows.

*Systolic pressure.*—The average systolic pressure the authors found to be 127 mm. Hg. during pregnancy, while Erlanger gives 110 mm. Hg. as the average obtained by means of his experiments in normal non-pregnant individuals between twenty and twenty-five years of age. In not a few of the cases there was a notable reduction in the systolic pressure for about a day before the onset of labour.

A pressure of 180 during pregnancy is not always significant of the existence of toxæmia, as Vaquez, Beau and Fogeler have maintained, and they mention several observations upon a IX-para whose average systolic pressure during pregnancy was 169 mm. Hg.

The authors agree with previous observers in noting an increase of pressure coincident with every uterine contraction, and a somewhat higher pressure between the pains than the average observed during pregnancy. The lowering of the systolic pressure, which is generally noted as occurring at the time of the birth of the child they consider as depending chiefly upon the action of the anæsthetic, as this reduction was not noticed in cases where chloroform was refused.

*Diastolic pressure.*—Erlanger states that 65 mm. Hg. is the normal diastolic pressure according to his instrument.

The authors' observations show that 74 mm. Hg. during pregnancy, and 72.5 in the puerperal period was the average.

*Pulse pressure.*—Their observations showed an average pulse pressure for the puerperal period, which seems to be about the normal. There is no marked difference between primiparæ and multiparæ.

Pregnancy is accompanied by a somewhat higher pulse pressure, which is more marked in multiparæ, being 60 as compared with 49 in primiparæ. The pulse pressure is highest during the expulsion of the child,

but is much reduced when chloroform anæsthesia is employed. The pulse pressure is free from variations, both before and after birth, and is more permanent in character than any of the other circulative factors.

*Mean pressure.*—Dawson has shown this to be in the non-pregnant about 80 mm. Hg. The authors noted no difference between multiparæ and primiparæ in this respect, the average being between 90 and 92.

*Heart power (Herzleistung).*—It is clear that the pulse pressure which shows the index of the heart power per systole, multiplied by the pulse frequency, gives us an index of the total heart power per minute. If the normal pulse pressure is 45 and the average pulse frequency 72, then the average index of the power of the heart in normal individuals is 3,240.

The average in primiparæ, the authors find to be 3,137, and in multiparæ 2,921.

*Work of the heart.*—According to Dawson, an index of the work which the heart does can be ascertained through the multiplication of the mean arterial pressure with the work of the heart per minute. The average for a normal adult is 259,000.

The average of this index in the authors' patients was 418,000 during pregnancy, and 267,000 in the puerperal period. Their results show that the hearts of multiparæ, without exception, did less work in the puerperal period than during pregnancy, the average difference being 50 per cent. The difference between these two in primiparæ, on the contrary, is only 10 per cent. The increased work of the heart during pregnancy is probably the result of two factors, a relatively strong systole, and a relatively high pulse frequency. It is possible that the weight of the child has something to do with the difference of the work of the heart in multiparæ between pregnancy and the puerperal period, though the authors have not been able to show any definite relationship in these two factors.

SHAW, W.F. "Chorea During Pregnancy." *Jour. Obstet. & Gyn. of the Brit. Emp.*, Vol. XIII., No. VI.

The author quotes theories advanced during recent years as to the causation of chorea during pregnancy. These theories all gradually lead up to the conclusion that chorea is due entirely to a toxæmia.

A little more than a year ago the author published a series of nine cases on the toxæmic theory, with extremely fortunate results to both mothers and children. He now publishes three further successful cases.

*Case I.*—Primipara, aged 18. Seven months pregnant. Had been the subject of much mental anxiety through the pregnancy. Vomiting persisted. Had chorea severely when a child. The choreic movements

were general and sufficiently severe to prevent her from drinking out of a cup. The patient was kept in bed, the bowels regulated. A simple saline diaphoretic and diuretic mixture was given and the diet restricted to malted and peptonized milk. Vomiting ceased in four days. Nine days after admission to hospital all choreic movements had ceased. The general condition rapidly improved and she was delivered at term of a living female child.

*Case II.* Primipara, aged 21. Choreic movements suddenly commenced at the fourth month of pregnancy. No history of previous chorea or rheumatism. Treatment as in the previous case. Patient developed pneumonia ten days after admission, during the course of which a still born fœtus was delivered. There was no further chorea.

*Case III.*—Primipara, aged 23. Seven months pregnant. Had chorea as a child. Movements so severe as to require two nurses to keep her in bed. Had not slept for three nights before admission to hospital. The treatment at first consisted of milk diet and one grain of calomel every four hours. After two days of this treatment, she was much worse, she had not slept at all, the movements were violent and she had delusions. The bowels were not satisfactorily moved, and a pint of normal saline solution was injected into the bowel every four hours. She was given thyroid extract 5 gr. every four hours, and a diuretic expectorant mixture. After twenty-four hours of this treatment the patient slept naturally for sixteen hours, and on awaking showed marked improvement. For the next twenty-four hours she slept almost constantly. The thyroid and saline were withdrawn after a 48-hour administration. Improvement now rapidly followed and the patient went to term and was delivered of a healthy child. On admission the patient passed 20 ozs. of urine in twenty-four hours, after four days of treatment the daily quantity amounted to 66 ozs., the proportion of urea and uric acid contained being markedly increased.

The author concludes that the chorea of pregnancy is due to a toxin which appears to be identical with, or to closely resemble that of acute rheumatism.

It affects human subjects under two circumstances, both of these being characterized by instability of the nervous system, namely, childhood and pregnancy. An obscure toxæmia of pregnancy gives rise to the instability and irritability above mentioned. The treatment must be eliminative. Pregnancy should not be arrested.

MATHES, F. "Beobachtungen an mit Placentasaft Durchstromten Hundenieren." *Zeits. f. Geb. und Gyn.*, Bd. LXII., Hft. I.

The author has carried out four experiments on the kidneys of dogs, at the same time employing control animals. As a result of his experi-

ments he draws the conclusion that in pressure extracts of the human placenta there exists some material which stimulates the escape of fluid from the walls of the blood vessels of the dogs' kidneys employed. This unknown substance is not influenced by heat; an exposure for three quarters of an hour to a temperature of  $64^{\circ}$  failed to effect it.

ALBEC, V., and LOISE, J. E. "Ein Versuch das Eklampsiegift auf Experimentellem Wege Nachzuweisen," *Ibid.*

The authors endeavoured to ascertain if the toxins of eclampsia exist in the liquor amnii. By injecting this fluid into guinea pigs and cats and ascertaining if the specific pathological abnormalities found in the organs of eclamptic women, especially the hepatic changes, could be thus produced. They employed the liquor amnii obtained from five cases of eclampsia, all of which had suffered from one or more convulsions. The urine in all these cases contained a large quantity of albumin. All recovered after delivery.

The liquor amnii was obtained by means of a special instrument passed into the uterus, puncturing the membranes. Intraperitoneal injections were employed of at least 30 c.c.m. Control experiments in which the liquor amnii from normal pregnant women was employed were carried out with exactly the same technique.

The authors conclude that the liquor amnii of eclamptic women contains a definite eclampsia toxin, because when it is injected into guinea pigs changes are induced in the liver which appear to be absolutely similar to those found in the livers of eclamptic women. Such characteristic changes absolutely fail to appear following the injection of liquor amnii from healthy pregnant women.

MAYER, K. "Skopolamin-Morphium Bei Geburten." *Zeil. f. Gyn.*, No. 21, 1908.

The author sketches the history of the employment of scopolamin-morphia in surgery and obstetrics, and then gives a study of fifty cases in which this combination was used in labour, at Stockel's Clinic in Marburg. Following the lead of Gauss, Mayer made use of the preparation only after a certain definite progress in labour had been made. The head must be engaged and the os uteri dilated to the size of a fifty cent piece. It should be used only in those cases having strong, painful uterine contractions occurring at brief intervals. Scopolamin-morphia should not be used in enfeebled persons, where there is any degree of temperature or marked anæmia, nor in cases of placenta previa.

He draws attention to the importance of employing only fresh solutions of the drugs. He employed a 0.03 per cent. sterilized solution of Merck's preparation. To test the condition of the Scopolamin the



author recommended adding one drop of the scopolamin mixture to one drop of 1 per cent. potassium permanganate solution. If a brown colour develops, the solution is bad, but if a red colour persists, it is fit for use.

He employs the solution as follows:—After a definite advance in labour he gives a hypodermic injection of 1-200 gr. of scopolamin and 1-6 gr. morphia. From one-half to one hour later the influence of the drug becomes marked. The woman is quieter, drowsy, and sleeps lightly between the pains, but is easily aroused when spoken to. In many cases the face becomes very red, even sometimes slightly cyanotic, while the patient complains of thirst and dryness in the throat. About one hour after the first injection, a second is given, the same dose being applied unless the effects of the drug are profoundly marked.

To test the patient's mental condition, her attention is called to a thermometer or some little object, and in the course of half an hour it is shown to her again, and she is asked if she remembers having seen it before. If the patient can name what it is but cannot remember having seen it before, she is fairly well under the influence of the drug. In this case one hour later she is given a third injection of scopolamin, about 1-400 gr. At this time the patient knows what the object is, but cannot remember having seen it before, and is conscious of the occurrences in the course of labour, but her memory of them absolutely fails.

The object of the obstetrician is to vary the dose in each case so as to avoid a condition of hypalgesia on the one hand and complete narcosis on the other.

In the fifty cases coming under the author's observation, in but two was there any failure in the regular occurrence of the uterine contractions or in their vigor, and in these cases it was uncertain if the blame could be placed upon the scopolamin-morphia.

The pressure upon the abdominal muscles is reduced as a result of the interference with the reflex. In these cases the patient must be urged to exert the abdominal muscles in the latter part of the second stage. In but one case of the fifty was it necessary to use forceps to effect delivery.

With regard to hæmorrhage in the third stage, in 70 per cent. of the author's cases there was no bleeding, in 24 per cent. there was slight hæmorrhage, and in but 6 per cent. was it severe. In two cases severe vomiting was noticed, otherwise the only unpleasant effect of the injections was the severe thirst. There was no motor unrest noticed in any of these cases.

The influence of the scopolamin-morphia on the child usually manifests itself by reducing the irritability of the breathing centres so that

the child is slow in attempting respiration after birth. This delay on the average being extended for the period of about one minute. This condition of oligopnea was observed in three cases, two vertex presentations and one breech extraction. In all cases there had been somewhat larger doses than usual employed.

In one case the child was born dead, but the cord was bound tightly around the neck with two turns, and the autopsy revealed very marked compression of the trachea as the result of enlargement of the thymus gland. No other effect was ever observed on any of the children. Out of the 50 cases, 23 of them, or 46 per cent, showed the complete action of the combination. In 21 cases, or 42 per cent, hypalgnesia was manifest only; and in 6 cases, 12 per cent, no influence of the drug was apparent. The highest dose of scopolamin was 1.50 gr. with 1.6 gr. of morphia, which was given in the course of eight hours. The lowest dose was 1.200 gr. of scopolamin with 1.6 gr. of morphia, which was given one hour before delivery took place. The usual dose varied between 1.150 gr. and 1.70 gr. extended over a period of about ten hours. Thirty-one of these cases were primiparae, and 19 multiparae.

The author concludes that as a result of the use of scopolamin-morphia the physiological course of birth can be effected by inhibiting the reflex resulting in the usual co-operation of the abdominal muscles. Sometimes an idiosyncrasy against scopolamin occurs. Without the most careful control the condition of the child can be seriously impaired by the employment of scopolamin, especially if large doses are used at short intervals. He also concludes that with care the preparation is most useful in reducing the suffering of labour, but that it should only be employed in institutes where the patients are under constant observation.

## OTO-LARYNGOLOGY.

UNDER THE CHARGE OF DRs. BIRKETT AND JAMIESON.

YONGE. "Resection of the Nasal Nerve for Paroxysmal Coryza." *Lancet*, June 13, 1908.

In the *Lancet* of June 13th, 1908, Dr. Eugene S. Yonge, Edinburgh, presents an original article on "The treatment of intractable hay-fever, and paroxysmal coryza by resection of the nasal nerve."

The method is based on the theory that the stimulus which induces the reflex manifestations that are observed in those diseases is conveyed to the centres by the nasal nerve, that is, the nasal branch of the fifth. In support of his theory, Dr. Yonge cites: First, the distribution and

functions of the nerve; secondly, the effects of cauterization of the nasal mucosa, and thirdly, the effects of bilateral resection of the nerve.

The method of resecting the nasal nerve is best described in the operator's own words: "The nerve was reached by an incision at the inner edge of the orbit, commencing just above the inner canthus and extending upwards and slightly outwards for about two-thirds of an inch. The cellular tissue having been cleared from the inner upper wall of the orbit by means of a blunt dissector, and the nerve located at the anterior ethmoidal foramen, the latter was separated from the artery and divided close to the foramen, about a quarter of an inch of the nerve being removed. Horse-hair sutures were inserted, and the wound was dressed with gauze and collodion. The stitches were removed on the fourth day."

The results of what might be called a radical operation were eminently satisfactory, for two months later the patient reported, "an entire absence of the attacks of paroxysmal coryza, and sneezing, and a complete cessation of the asthma. . . . . and increased freedom of nasal respiration."

Several cases of vaso-motor rhinitis that were similarly operated upon gave equally good results. The only after-effects of the operation were diminished sensibility of the septal mucosa, and some increase of myopia, from which the patient had suffered.

Time and further investigation will alone determine the permanence of the results of the operation, and the absence of unfavourable effects. Whilst it is rather premature to draw conclusions from so limited a number of cases, still it can safely be said that the future of the sufferers from this triad of diseases has been made much brighter by Dr. Yonge's valuable observations.

J. T. R.

---

## NEUROLOGY.

UNDER THE CHARGE OF DRs. SHIRRES AND RUSSEL.

C. E. BEEVOR. "Muscular Co-ordination by the Nervous System."  
*Jour. A. M. A.*, July 11, 1908.

Beevor analyzes the muscular mechanism of movements, understanding by this term, the single movement of one joint, and not the combination of movements as in walking. He classes the muscles, first, into the prime movers, which come into action in a definite order according to the amount of work to be performed. The will does not appear to have any power to alter this order (except perhaps by trained exercises); second, we have the synergic muscles, which come into play when the

prime movers have an additional action that is not wanted in the particular movement to be executed. For example, the biceps is the chief supinator, but it is also a powerful flexor, and when supination without flexion is done the triceps contracts as a synergic muscle and counteracts the flexion of the elbow by the biceps. The relations between the prime movers and the synergics are very close, and apparently the brain has no power to moderate the impulse sent to the latter to make them act proportionately to the weak prime movers in case of their paresis or paralysis, hence, we have in such cases movements other than those desired. Lastly, we have the fixation muscles fixing the joint when such fixation is made necessary by pressure or displacement. A certain amount of stress on the joint is required to call these into action. The antagonists to the prime mover muscles are relaxed under normal conditions, except in case of some unopposed movements which are required to be suddenly stopped, but in certain cases of functional paralysis this inhibition of the antagonists may fail, and Beevor considers their contraction as a symptom of functional as opposed to organic disease. It also occurs, however, in tetanus and from the toxic action of strychnin, which, according to Sherrington, "change the reciprocal inhibitions, normally assured by the central nervous mechanism, into excitations." Beevor considers all the physiologic evidence to be in favour of the location of the linkage of the ultimate co-ordination of movements being in the spinal cord, and that most probably this nervous mechanism is situated in the cells of the posterior cornua, where, as shown by von Monakow and Schafer, the pyramidal fibers end, instead of the anterior horns, as was formerly supposed. Whether this mechanism is the same as that used for reflex movements, he considers uncertain.

OSTERHAUS, K. "Nerve Anastomosis in Infantile Paralysis," *Medical Record*, July 11, 1908.

Osterhaus says that a great deal of the deformity which occurs in infantile paralysis could be prevented by early treatment of the acute stages of the disease tending to limit the area involved, and by fixation of the limb in a normal position when the acute symptoms have subsided. Later these deformities require some form of operation to correct them, such as tenotomy, myotomy, tendon and muscle transplantation, astragalectomy, arthrodesis, or osteotomy. All of these procedures are of value in selected cases. The attempt to cause innervation of the paralyzed muscles by connecting them with a healthy nerve is of great value. This operation can do no harm, and in many cases does much good. End-to-end anastomosis of split-off segments of the two nerves promises the best results by means of closer union. Massage and electricity should be used after the operation to aid in regeneration of function of the affected

muscles. The author describes a case operated on in this way, with beneficial results.

GORDON, A. *Drug Insanities.* *Jour. A. M. A.*, July 11, 1908.

A study of 171 cases of mental derangement from morphin and cocaine includes 80 cases of acute and 91 of chronic intoxication; 60 of the acute cases were from morphin, and 52 of these patients recovered. In 7 cases there was apparent recovery, but a second attack of coma ensued, terminating fatally. It is probable that a new absorption occurred of poison which had lain for hours inactive somewhere in the digestive tract. Some of the patients had had only one dose, others several. There was no relation between the amount taken and the symptoms. Thirty-five presented notable mental disturbances for weeks, slowness of thought, inability to grasp complicated subjects and striking mental fatigue. All were annoyed by dreams. There were 15 patients with acute cocain intoxication, 9 of whom recovered completely in a short time. Four others had convulsions without a previous history of epilepsy, followed by a comatose condition for from one to three days and insomnia, vertigo, anorexia and delirious attacks for six weeks or more; two died, one in syncope in twenty-four hours, the other in four days from exhaustion following extreme agitation and delirium. In all the cases there was vertigo and ataxia and peculiar visual and tactile hallucinations. Five acute cases were from mixed cocain and morphin poisoning; the prominent symptoms in all five were marked with stupor with paroxysms of delirium and visual hallucinations. The tactile hallucinations were wanting. Mental dulness and apathy continued for two weeks after the acute symptoms in one case, and for seven weeks in four cases. All these patients recovered. Of the chronic cases, 70 patients were morphin or opium habitues. In 10 of these there were only the general symptoms of mental weakness, failing memory, apathy and profound impairment of the moral sense; in the other 60 there were special mental manifestations characteristic of the different psychoses. Eight were melancholic and suicidal; in nine the condition simulated manic-depressive insanity, 5 had systematized delusions, while in the others dementia was the prominent feature, mild in the cases with unsystematized delusions and marked in the others. There were 10 patients with chronic cocain intoxication; in which, besides the physical signs of tachycardia, pallor and impotence, there were also interesting psychic disturbances. Insomnia was a constant symptom, and there was a restlessness and craving for muscular and intellectual activity. The characteristic visual and tactile hallucinations of the acute poisoning were still more marked and auditory hallucinations were also present. These induced delusive ideas, rarely systematized, mostly of a persecutory nature. To-

gether with these symptoms, there was a gradual mental and moral deterioration and final dementia. There were 11 patients with chronic mixed (cocain and morphin) intoxication; in these the special hallucinations of cocainism were observed, but what particularly characterizes these mixed cases is the more rapid development of the mental and moral reduction. The effects of sudden and rapid withdrawal of the drug are described. Gordon concludes, from his observations, that any attempt to find in acute or chronic morphinism and cocainism any of the well-known forms of psychoses will be futile. When, also, we compare intoxications from other sources we do not find any essential difference. Each agent may add a new special symptom, like the tactile hallucinations of cocain, but the fundamental syndrome remains the same. The chronic forms all lead to ultimate dementia.

STARR, "Epidemic Infantile Paralysis." *Ibid.*

Starr gives an account of the epidemic of infantile paralysis in New York City and vicinity in the summer of 1907. It began about May, the number of cases steadily increasing until it reached its height in August and September. Cases continued to appear in October and some were reported as late as December. The summer was warm and unusually dry; other infectious diseases were not particularly prevalent. It is estimated that 2,000 cases occurred in this epidemic with a mortality of probably from 6 to 7 per cent. Attacks of diarrhœa preceded the attacks in many cases, but it was impossible to trace any connection with the water or milk supply in this epidemic. The symptomatic picture was in some cases that of poliomyelitis of the ordinary type; in other cases, of poliomyelitis with bulbar paralysis; in others, of poliomyelitis with polienccephalitis of Wernicke. In a few cases there was true infantile hemiplegia, and this seems to have been more common last summer than usual, suggesting that the infectious agent attacked the cortical motor nuclei. Pain was a symptom particularly prominent in this epidemic. In many cases in which the arms were involved the respiratory muscles were also affected and when death occurred it was more from respiratory paralysis or heart failure than from any febrile affection. The acute onset usually subsided in a week or ten days and improvement was noticed beginning at the end of the second to the fourth week. In the great majority this has continued, and as a rule is likely to go on for two years. In many cases, in which the paralysis was not very intense, but still marked, there was a complete recovery, and the frequency of such abortive cases was rather unusual. On the other hand very rapidly fatal cases occurred, the mortality reaching the unusual figure of about 7 per cent. The paper includes a biologic study of the cerebrospinal fluid in

twenty cases which seems to indicate that the diagnosis of poliomyelitis by means of a serum reaction is not possible and throws no light on the etiology of the disease. The pathologic findings are discussed; the results of the later work in this direction have merely confirmed the statements of previous observers. As regards the bacterial origin of the disorder, authorities differ. Starr concludes from the facts, so far as known that while the clinical history of the disorder implies an infection, it must be admitted that up to the present time the organism responsible for the disease has not yet been discovered, and that it is still a matter of uncertainty whether the causative agent is a micrococcus or a toxin. The weight of evidence, however, is in favour of the latter. Starr has collected accounts of thirty-seven epidemics of poliomyelitis of which he gives brief summaries. Some interesting points regarding prognosis are noted. The mortality of sporadic cases is very low, but in the epidemics it reaches the rather alarming figure of from 6 to 10 per cent. On the other hand they have shown that in 25 per cent. of cases there is complete recovery, compared to the very general persistent paralysis in sporadic cases, and while in many cases some permanent paralysis remains, a marked improvement almost always occurs. Thus a certain hopefulness is warranted in all non-fatal cases. For treatment, he advises dry cupping of the back to relieve the congestion in the early stages, or ice bags may have a like effect, and cool sponging may help to keep down the fever. Sedatives are usually required for pain; the child should be kept very quiet, a brisk purgative should be given, and the food during the first two or three days should be chiefly milk. Cushing has shown that the administration of hexmethylenamin results in the presence of formaldehyd in the cerebrospinal fluid, a fact which Starr has been able to confirm, and he suggests therefore the use of small doses of this drug during the onset of the disease or until fever subsides. Salicylate of soda has been used and good results reported. Starr prefers salicylate of strontium as less likely to irritate the stomach. After the onset is over and pain has subsided, it is best to suspend treatment for two weeks, and begin the use of strychnia, which should be pushed as far as consistent, with safety. Massage, manipulations and electricity are also useful. It is especially important to ward off deformities by the proper use of orthopedic measures and it is never wise to delay them till deformity has been produced. The orthopedic treatment of these cases is more important than any other.