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APARTMENTS FOR LADIES AND CHILDREN.

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DOCTORS' FEES.

There are no body of men throughout the world who are more charitable in the broadest signification of the term than members of the medical profession, and there are no body of men who are so imposed upon. The subterfuges and dodges for "doing the doctor" are endless—and unfortunately these disgraceful acts are by no means confined to the lower stratas of society. In all classes numerous instances are to be met with. Among the practices pursued in cities where leading members of the profession give their services gratuitously to the poor at various institutions, people moving in good social positions, fairly rich in this world's goods, abuse the physician's generosity by appearing among the pauper patients to secure that advice gratis, which they were well in a position to pay for, and after cheating, for no other term can so well designate this action, return to their carriages, which await them around some contiguous corner, congratulating themselves on saving another guinea. It is well known that the charitable institutions intended for the benefit of those who are unable to pay for competent medical and surgical advice are grossly abused. Many go the rounds of the profession, getting deep into the books of medical men, who will trust them, and transferring their patronage as soon as a request for a settlement is made, relying on the well-known objection of the profession to use *legal means for* the recovery of their fees. It is time that this unwritten law should be entirely abrogated and the same proceedings which govern the clergyman in the collection of his tithes, the legal practitioner for the payment of his charges, should be unhesitatingly resorted to by the medical man for the recovery of his well earned fees. The profession are realizing this rapidly and medical debt recovery agencies are established in all the large centres. Many of the profession in this city mourn, not in absolute silence, the comparatively large sums owing them and the scant desire of their debtors to discharge or even liquidate their indebtedness. A medical man is seen driving about and entering many domiciles, eliciting the remark "That fellow must be making piles of money." No doubt he is *booking* a fair sum, in many cases his sole reward, for the expenditure of his time and the exercise of his skill. How many times in the year does the medical man find a patient come to his office, opening fire with the preliminary observation, "Doctor, I am sorry I cannot pay you until—" such and such a day, generally of *next month*; the seeming honesty wins the doctor's heart, and his services are freely given *as long as they are required.* But, alas; how few are the times when the individual appears at the stated period with all or any of the promised reward, and yet he or she have no qualms of conscience about the matter; their voices sound loudest in church and chapel, self-righteous, like the Pharisee of old, they remember their few good actions and forget their numerous bad ones, including that of "doing the doctor." So numerous have become the adepts at this little game, that in self defence the profession by combined action are

compelled to protect themselves. The butcher, baker, grocer, etc, supply their goods to the doctor with one hand, holding out the other for the value of them. No booking these: the times are too hard to give credit, a difficult matter to get along, etc. But the medical man is expected to give his time and care at all seasons, and under every circumstance, in numerous instances with a perfect knowledge that scant thanks even will be the return. Far be it from us to advocate curtailment of that open handed unostentatious charity which distinguishes our profession. Without fee or hope of reward, thousands of men in our ranks are daily thus working combating the ravages of disease and relieving the pangs of suffering humanity. Not one word would we say to hold them back in the exercise of those virtues which will assuredly obtain their reward. But while as a body taking the lead in the exercise of that greatest of all virtues, "charity," it has become necessary to discriminate and define what is charity, and the line of demarcation which divides it from injury to others. Persons who find out with what facility they can "do the doctor" mayhap try the plan with others, and thus the foundation for a career of dishonesty may not impossibly commence. It is hard to say when the turning point from the straight to the crooked way commences. It is proposed that the medical men of this city should come to some united arrangement concerning "medical dead beats," who go the round from one office to another changing their medical man each time; a demand for payment is made. To work well any arrangement adopted must be comprehensive in its nature and strictly adhered to. A simple way would be for no office debts to be allowed, that is, let consultation at the office mean payment of the fee then and there, and quarterly accounts be regularly furnished in all other cases. A register to be kept of all such persons who are in the *habit* of "doing the doctors," this register to be open to the inspection of the profession only. It is for the profession in Winnipeg as a body to take such steps and form such rules as they may consider necessary for checking the evil in question. The journal will assist the movement in any way that may lay in its power.

THE PASTEUR TREATMENT.

Grave doubts are expressed regarding the efficacy of the prophylactic practice pursued by Pasteur. A rude shock was given to it in the entire failure met with in the case of Lord Doneraile, who, together with his coachman, was bitten some months since by a pet fox at the time suffering from rabies. The position of the patient would be a guarantee that Mr. Pasteur would exhaust all his reputed means for averting any ill consequences from the bite, but, as it has proved, unavailingly, Lord Doneraile having since died of hydrophobia. A letter in the London *Globe*, written by Mr. Lloyd Price, from the Carlton Club, urges that the servant, who was also bitten, but who has as yet shown no untoward symptoms, should be subjected to the treatment known as Buissons, carried out by means of sudorific baths, which, it is claimed are not only a preventative but also a curative remedy, cases being cited where symptoms of the dreaded disease had absolutely manifested themselves, where the sweating bath used twice a day resulted in a perfect cure. A rather pertinent observation occurs in Mr. Price's letter. He says: "It would be extremely important to know from what particular form of the fell disease Lord Doneraile suffered —whether the ordinary and violent symptoms of rabies which follow the bite of a mad animal, or the paralytic

or Pasteurian symptoms, which are observable in those victims who acquire the disease from the intensive inoculations, to which latter so-called, preventative treatment no less than twenty-six persons have already, it is reported, succumbed."

In the interests of all human and animal life, it is essential that supposed preventative and curative measures for combating probably the most repugnant of all diseases, and to the contraction of which all living creatures are hourly exposed, should be exhaustively investigated. Because Lord Doneraile succumbed after Pasteur had pronounced his case as completely cured and assured him that he might return home without fear, is certainly not sufficient to condemn his measures as useless. One person in fifty contracting violent variola after vaccination does not prove that vaccination is useless for the prevention of the contagion or the mitigation of small pox. Many difficulties surround the question of rabies. In numerous instances it is impossible to prove whether the animal which inflicted the bite was in a rabid condition or not. The Pasteur method somewhat resembles the old practice of inoculating for the small pox—a practice which had to be made illegal before it could be stopped. The liberal grants made both by the French and other Governments, to thoroughly test the theory advanced by Mr. Pasteur, will secure its thorough investigation. It not alone interests medical circles, but the practice and results are closely watched by the whole civilized world. Adverse criticism it is sure to awake. All scientific progress has had to fight an uphill battle, and though strong doubts are legitimately cast on the Pasteur treatment as a sure prophylactic to the probable consequences of a bite by a rabid animal, it is too soon to form a final judgment.

LONDON "LANCET" ADDRESS.

The London *Lancet*, in its annual opening address on the 3rd of September, of this year, says of hospital experience in the days of pupilage: "Hence hospital experience more than all else makes the student what he will be for life; hence the well-known fact that certain hospitals impress upon all their alumini a certain mental tone and colour, which constitutes their tradition; hence the paramount duty that hospital instruction should be genuine, thorough, honest, free from bigotry, prejudice or partiality."

In another part of the address we read: "It is for us to consider whether changed circumstances do not call for changed methods; the remedy is beyond question in our own hands. The public take from us their cue, in their estimation, of professional services, and are amenable to influences which it is in our power to exert. We need among ourselves a higher estimate of the dignity of our profession and of the value of the services which it is in our power to render; a more scrupulous honor in shunning every suspicion of sacrificing the interest of a brother practitioner to our own advantage. There can be no doubt that we suffer much and undeservedly, from the abuse of medical charity. The public need not to be reminded that if a man or woman accept gratuitous medical advice, who can afford to pay, he or she is guilty both of a meanness and a dishonesty. The hard logic of statistics shows that medical life has more than an average share of hardship and some dangers peculiar to itself. The mortality rates of the three learned professions—Divinity, Law and Medicine—are respectively 15, 20 and 25 per 1000, and if we take the period of active professional life (between the ages of twenty-five and sixty-five), we find that the death rate among

doctors is half as much again as among lawyers, and actually twice as great as among clergymen.

DIPHTHERIA IN ANIMALS.

Dr. Turner has presented an interesting report on this subject to the Local Government Board. After mentioning the spread of diphtheria by personal communication, and the increased severity of the disease where the surroundings are unhealthy, he refers to instances where neither of the above conditions apparently come into play. In the year 1882, a pigeon was brought to him for dissection, in which the whole of the windpipe was covered with a well marked, consistent membrane, which hung loosely in the tube like a wind sail just as in cases of croup. Pigeons were inoculated in the fauces with this membrane, and a disease of a similar character resulted. In 1883 an epidemic of diphtheria occurred in the village of Braughing. The first cases were connected with a farm, on which the fowls were dying of a disease seemingly identical to that above referred to as occurring in pigeons. Diphtheria subsequently made its appearance on other farms, where it was also preceded by a similar affection among the fowls. Dr. Turner has since noticed the same association in other instances. In 1886, a similar disease caused great havoc among chickens and pheasants in the neighborhood of Tongham. At Tongham a man bought a chicken from an infected farm at a low price, because it was likely to die of this disease; he took the bird home, and diphtheria broke out in his house shortly afterward; this was the first case in that village. Dr. Turner's attention was at first directed almost exclusively to this disease among fowls, but he had noticed a similar disease in swine and horses. During January, 1886, he was called on to investigate an epidemic of diphtheria at Brent-Pelham, and found that, in a cottage in which the first cases occurred, a kitten had previously suffered from a throat affection, which was attended by swelling of the neck, foul discharge from the nostrils, and running from the eyes. He also mentions several instances in which cats had apparently become infected from man, and in the *Journal* of January 3rd, 1885, there is an account of some experiments by Dr. Renshaw, who appears to have been successful in inoculating cats with diphtheria from the human subject. Horses also suffer from sore throat, and Dr. Turner mentions a case at Moulton, where the first case of diphtheria at a farmhouse occurred shortly after a horse on the farm had died of strangles. At Yately diphtheria in the human subject was, in two instances coincident with strangles among the horses. Dr. Ogle mentions one instance in which diphtheria occurred in a shepherd's family shortly after a throat disease had prevailed among the sheep.

The unmistakable analogy between certain diseases in the lower animals and human diphtheria, both in regard to the organs infected and to the products of the disease, has been referred to by several writers, and some have described the disease in the lower animals under the name of croup or diphtheria. Fiedberger has paid special attention to this disease in pigeons and fowls, and has described appearances in these animals closely resembling those of human diphtheria. That the disease is contagious has been generally admitted, and several observers have been successful in infecting healthy animals. Loeffler, in his investigations on diphtheria, has studied this disease in fowls, from a bacteriological point of view, and has demonstrated that it is caused by a particular species of bacilli. He has

also investigated a similar disease in calves, and has there also found long bacilli which he considers to be the cause of the disease. The most interesting part of Loeffler's researches is, that the organisms found in these two cases differ from each other, and from those found in human diphtheria. This fact tends to show that these diseases are not identical, but on the other hand it is quite possible that certain lower animals may become infected with human diphtheria. That this can occur in cats has been stated by several observers, and it would be very important to ascertain this point definitely by experimental investigation. We hope that Dr. Turner will have the opportunity of continuing his studies on this subject, on which he has already furnished such interesting and important facts.—*British Medical Journal.*

LARVÆE OF FLIES AS HUMAN PARASITES.

In the first volume of the *Journal* for 1883, page 573, will be found a paragraph on the larvæe of flies which have been detected in the human intestine. A case under the care of Dr. Wacker, of Landsberg, Bavaria, was then described where a farm-boy, after attacks of nausea, had passed two litres of the larvæ of *Anthomya cuniculina*, a dipterous insect allied to the common house-fly. Similar symptoms have been observed in cases where the larvæ of the common tabbymoth (*Aglossa pinguinalis*) have appeared in the fæces; this caterpillar usually lives in butter, suet, or greasy table-cloths. The larvæ of the house-fly (*Musca domestica*) the blue-bottle (*Musca vomitoria*), the lesser house-fly, (*Anthomya canicularis*), and an allied species (*Anthomya scalaris*) have been found in human fæces. Dr Wewer, of Meiningen, has recently published (*Deutsche Medizinal Zeitung*, July 18th) a case where the larvæ of some dipterous fly was found in the skin. He was called in to attend an infant, eight months old, who had suffered for a month from choleraic symptoms. The mother declared that she had, during the period of the child's sickness, pressed out from the integuments of the face a great number of small gentles resembling cheese-maggots. The situation of each parasite was indicated by a swelling which bore a black point, as in acne punctata. For the last eight days the swellings had grown less and less, and had finally disappeared. After careful scrutiny, Dr. Wewer succeeded in finding a few of these swellings on the temple close to the hair. Each was hard and elevated, about the size of a grain of wheat, but exhibited no trace of inflammation. Unfortunately, only one larva could be extracted, and that was done by the mother, not, it appears, in the presence of the physician and the specimen was dead, so that its metamorphosis could not be observed for identification of the species. No larvæ had been observed in the stools. The child died, but no necropsy was performed. Dr. Wewer seems satisfied that the larva of a dipterous insect was really hatched under the skin, and believes that it was that of the blue-bottle—in fact, a common gentle (Fr. *asticot*, Ger. *Made*), although he naturally expresses surprise that the blue-bottle can lay eggs under the skin. It is not provided with an ovipositor specially adapted for boring, as in the case of gad-flies and horse-flies (*Estrus*). The larvæ of the latter insects, however, cause suppuration, whilst in Dr. Wewer's case there were no signs of the slightest local irration. This case, in fact, remains somewhat obscure. The larvæ of the genus *Musca* and its allies mostly live on decomposing matter, and even the ova and the newly-hatched gentles are too large

to lie in the orifice of sebaceous or sudoriparous ducts; moreover, there is the difficulty above noted about the ovipositor. At the best, the larvæ of common dipterous flies must be parasites of the most adventitious kind, rarely found excepting in the children of peasants, who put their lips to everything, swallow grass and earth, and drink water from stagnant pools teeming with organisms.

SCARLET FEVER PROPOGATED BY MILK.

EXTRACTS FROM PAPER BY GEO. THIN, M.D., LONDON.

The contagium of scarlet fever has been quite recently brought before the profession in England in a very prominent way by careful, prolonged, and minute investigations and observations made by Mr. Power, Dr. Klein, Dr. Allan Jamieson, and Mr. Edington, and I purpose to devote the remainder of my paper to explaining to you how the evidence adduced by these observers presents itself to my mind.

On December 14th, 1885, Mr. Wynter Blyth, medical officer of health for the parish of St. Marylebone, London, received a communication from Dr. Hickman, to the effect that there were several cases of scarlet fever in Dorset Square. He at once made investigations, which showed him that the only connecting link between the various households affected was a common milk supply. The milk came from Mr. Panter's farm, near Hendon, to which attention was immediately directed by Mr. Blyth, Dr. Cameron, medical officer of health for Hendon, and Mr. Power. This was the beginning of an investigation which promises to have some historical importance. Facts connected with the outbreak have formed the subject of reports by Dr. Cameron and Mr. Power, and their substance has been so recently published in the medical journals, that it is unnecessary for me to repeat the information they contain. Suffice it to say that it is established beyond doubt that numerous cases of scarlet fever were caused by the scarlatina poison being conveyed in the milk from Panter's farm. It is also beyond dispute that at the same time that scarlet fever was being propogated by the milk, cows from which the milk was obtained were suffering from an eruption on the teats and udders. It is also certain that, up to the present time, it has not been shown that the milk was contaminated by the scarlitina poison being derived from any known ordinary human source. Mr. Power concluded, partly from observations made regarding the connection of the infective power of the milk with certain sheds amongst which the cows were distributed, that the poison was conveyed from a disease of the udders of the cow to the milk, and the assumption was made that the disease in the cow communicated scarlatina to the human subject. The hypothesis was a bold and important one.

From visits to Hendon and Child's Hill, and by conferences with medical men at both places, I learned that at the latter place a district called "The Mead" consists very largely of laundries, great quantities of linen from the northern and western districts of London being constantly brought there. "The Mead" is a colony of laundries, such as can only exist in the neighborhood of a large city like London. From these laundries there is little doubt, I am asured, that contagious diseases arise and spread, that in lighter cases medical men are not called in, and that there is a desire amongst the laundry people to conceal the existence of infectious diseases on their premises.

I find in Dr. Cameron's sanitary report to the Hendon Local Board for

the year 1885 that on September 4th, a woman residing at the village of Child's Hill was attacked by scarlet fever, and that on October 10th two children living near her were infected. In the last week of November Dr. Cameron states that two mild cases of scarlet fever came to his knowledge in "the Mead" at Child's Hill. As the district is full of laundries he considers that it is possible the disease was introduced from London. There was no other evident source for it. The fever here, he remarks, did not spread beyond either of these houses, We have, therefore, on the authority of Dr. Cameron, scarlet fever at Child's Hill in September, October, and the last week of November.

Two men, I am assured, who were engaged as milkers at Panter's farm, lived in "the Mead," walking to and fro to their work, a distance not over half a mile. There is not the slightest proof that these men conveyed the scarlatinal infection from "the Mead" to Panter's farm, but it is quite conceivable that they may have done so; the very fact that "the Mead" contains so many laundries, that scarlet fever existed at Child's Hill, and that there was daily communication between "the Mead" and the milking sheds, justifies a suspicion, or at all events affords a possible explanation, of how the milk became infected.

It seems that dairymen, even when they do not dilute their milk with water, are in the habit of adding something to it which they call "colour," and this "colour," is mixed by the dairyman plunging his naked hand into the milking-can, and stirring round the colour in the milk. My authority for this statement is a large dairy farmer.

HYDROCELE IN THE FEMALE.

The New York *Medical Journal* has recently published a report of three cases of this rare condition, read before the New York Clinical Society by Dr. Wright. He notes that hydrocele in women has been ignored by most surgical writers till within the last few years; not forty cases have been reported. It is liable to be mistaken for irreducible hernia, and, when inflamed, for strangulated hernia In doubtful cases, the diagnosis may easily be settled by the hypodermic needle. In the first case there was a fluctuating tumour, the size of a pigeon's egg, juust above the inner half of Poupart's ligament, on the left side; it had existed for several years; there was no impulse, and it was irreducible. It was aspirated twice, straw-colored serum being withdrawn. On the second occasion, the inside of the sac was scarified with the point of the needle; the sac inflamed and was completely obliterated six months later. The patient had borne four children In the second case there was a soft fluctuating tumour the size of a pigeon's egg in the right inguinal region, just above the middle of Poupart's ligament; it seemed to consist of a large superficial and a smaller and deeper sac. There was no impulse, and the tumour was reported as irreducible, but the patient had noticed it present occasionally ever since the birth of her first child, and she used to push it back with her hand. Three weeks before examination, while lifting a child, the tumour described by Dr. Wright appeared, and she could not reduce it. Colic, flatulence and constipation came on, and the tumour was tender. On November 15th, 1883, after ice had been applied to the swelling, it was aspirated. The two cysts required a separated application of the needle, clear yellow serum was withdrawn, and the small sac had to be aspirated again three days later. The tumours had never refilled when the patient was seen three years later.

The third case was in the practice of Dr. Quimby; the patient was a single woman, aged 42. A fluctuating tumour, about as large as the last joint of the thumb, was found just above and parallel to Poupart's ligament on the right side. Six or eight years before the patient had, it appeared, been operated upon for hernia of the same side. The tumor had existed "for some time," and caused a dragging pain. The patient used to reduce it herself. It was aspirated seven times in nine days, and then ceased to fill any more.

THE MENTAL DIFFERENCES BETWEEN MEN AND WOMEN.

The *British Medical Journal* says: —The progress of female education during the brief period in which it has been intelligently and thoroughly cultivated is surely very striking. women are everywhere justifying the hopes of their champions, and disappointing the gloomy vaticinations of their opponents. Their university successes have exceeded the most sanguine anticipations, and such a brilliant achievement as that of Miss Ramsey, at Cambridge this year, is enough to cause grave questionings to believers in the natural and inherent intellectual inferiority of women.

While we thus take exception to some of Mr. Romanes' lines of argument, we are thoroughly with him in his condemnation of the fatuous notion of some feather-brained reformers that there is no such thing as sex in mind; and that, granted an identity of training and environment, men and women would be in all respects mentally alike. We can not give space to discuss this theory, and must rest content with the statement that biology and psychology alike emphatically repudiate it. We doubt whether woman is necessarily and essentially inferior mentally to man; we are quite sure she is mentally dissimilar. The great maternal function alone could not operate without gradually inducing intellectual differences which are perpetuated by sexual transmission. All experience tends to show that woman shines in intuition, man in judgment; that woman is strongest when impelled by emotion, man when impelled by will; that man is creative, woman administrative; that woman is greatest in self-sacrifice, man in conquest and achievement. Be these differences inherent in sex, or the outcome of evolution, their existence can hardly escape any observer who does not start with some preconceived theory. Mr. Romanes concludes with a careful and dispassionate examination of the question whether the higher culture is often physically injurious to women.

MR. HAMILTON in his address before the British Medical Association says, "Carbolic acid, corrosive sublimate, iodoform, thymol, have each for a time enjoyed the crown for a few months, only in their turn to be deposed and dismissed as imposters with ignominy.

There is, however, another side of antisepticism which has been almost entirely neglected. It would appear as if, up to the present attention had been exclusively fixed on infective germs, sufficient regard not being had to the important influence of environment. Every effort has been strained to discover the most infective and deadly germicide, when we know that these atoms, no matter how virulent they may be, cannot undergo their life changes, cannot produce these infective results unless the environment, like the cultivation liquids of the histo-pathologist, was capable of developing and sustaining these changes. Deposited on clean metal, glass, or porcelain, they died of inanition; they exercised no influence

whatever, and were amenable to none. In contact with dead organic matter, or living matter in certain conditions of altered or reduced vitality, they become a teeming source of infection, decomposition and decay. If pathological surfaces could possibly be brought to and maintained in such a condition that they would not afford a suitable cultivation ground, would not almost as much be accomplished as when they were destroyed?" He need hardly, Dr. Hamilton interpolated, "quote examples of this influence of environment, such as the protection afforded by vaccination against the germ of small-pox, and the protection of the blood by previous action of exanthemata. The bacilli of splenic fever, so destructive to the herbivorous animals, take little effect on carnivora, and none at all on the pachydermata. The bacteria which will cause septicæmia in the mouse are wholly inert against the field mouse. We could learn much that would enlarge our views if we studied human by comparative pathology, and our researches must not be confined within the narrow limits of even the animal kingdom. Much can be learned by the pathology of the vegetable kingdom. Some of the most troublesome diseases which the surgeon has to deal with are derived from the invasion of vegetable parasites.

HERING'S TEST FOR BINOCULAR VISION.

The general interest that has lately been aroused on the subject of concomitant squint, and especially Professor Landolt's paper (read at the Annual Meeting in Dublin) on the restoration of binocular vision after the cure of squint, lead us to call attention to a simple and efficacious method of ascertaining whether stereoscopic vision is present, which, although not new, is neither as well-known nor as much used as it deserves to be. The test depends upon and illustrates the principle that the two eyes together enable one to judge of the relative distance of two objects with a certainty which cannot be obtained by using one eye alone. At a convenient distance from the eyes a tightly-drawn transverse thread is placed, on which the patient is directed to fix his attention. It is well to shut off the peripheral parts of the visual field by viewing the thread through a wooden framework. Small bodies are then dropped close to the thread, either on its proximal or distal side, and the patient is asked to say on which side of the thread they fall. To anyone who possesses normal binocular vision, the answer presents no real difficulty, although an occasional error arises from inattention; but with one eye alone it will be found quite impossible to judge of the relative positions of the string and the falling body. Some of Professor Landolt's cases seem to show that, even when the visual capacity of one eye is very much below that of the other, there may be stereoscopic vision. We believe that in England this test has really been very little used, yet it is obviously superior to others, in that it is applicable to children who have not learnt to read, and to eyes which are too amblyopic for the test of Snellen's colored letters, even if this latter fulfilled quite the same purpose, which probably is not the case.

MILK SUPPLY AND SCARLET FEVER.

An important relationship between the milk supply of large towns and the dissemination of scarlet fever was established by Dr. Anderson, medical officer of health, Dundee, at a meeting of the Dundee Police Commission held last week. He read a letter

which he had sent to the clerk of the local authority, stating that an outbreak of scarlet fever took place recently at a dairy farm close to Dundee, and from which milk was sent into the town. The sanitary inspector for the district (the parish of Tealing) was informed, and he suggested some trifling attentions to be given in the storage of the milk, but the scarlet fever patient was not removed, and the milk continued to be delivered in Dundee. The medical officer of health thought it a great hardship that the public health of Dundee should suffer from the gross laxity with which rural local authorities enforced the regulations for the protection of milk. He further added that the attention of these authorities should be specially drawn to this matter. Scarlet fever prevailed very extensively in Dundee at present, and this was not to be wondered at when such a state of matters existed. Recently he discovered that for three weeks the milk of forty cows had been coming into Dundee twice daily from a farm in which fever existed, and he reminded the Commission that, as more than half of the milk supply came from places outside the burgh, it was necessary that very particular precautions should be taken and that local authorities should be informed and asked to enforce the powers which they possessed. He contended that there should be a more careful and vigilant inspection of milk in country districts, and he held that it ought to be distinctly known by all engaged in the milk trade that for the future the excuse of ignorance would not be sufficient. It was the duty of everyone to know the rules applying to his or her particular trade, and he desired to warn all milk dealers that if there were any more cases of gross negligence or carelessness they would be dealt with in an exemplary manner. The meeting agreed to send copies of Dr. Anderson's letter to the Board of Supervision and to the local authority for the parish of Tealing.

THE PREVENTION OF SUMMER DIARRHŒA.

We have on more than one occasion drawn attention to the excellent work which has been done by Dr. Victor C. Vaughan, of the University of Michigan, in regard to the production of the poison tyrotoxicon in milk and cheese, and as to his views that the development of this substance in milk is a frequent cause of choleraic diarrhœa in infants. According to a report recently presented to the State Board of Health of Michigan, the poison has been found not only in milk and cheese, but also in ice-cream and oysters; and pending the publication of the completed document, so much of the report as bears upon the prevention of cholera infantum has been issued for the information of the public. By the poor, as is well known, milk is often not obtained until after it is no longer fresh; it is badly stored until used; and it is on such milk that children are fed. The cleansing of feeding bottles is also less attended to by the poor than by others, and the crusts of decomposing milk which form round the neck of the bottle and in the tube and nipple tend to the rapid decomposition of the contents of the bottle itself. It is also essentially amongst the poor that diarrhœa is so fatal to the infant population. Dr. Vaughan, under these circumstances, lays down certain rules which should especially be borne in mind in the warm months of autumn weather, and which concern the collection and storage of milk. Only the milk of healthy cows should be used, and to favor healthiness, swill and the refuse of breweries, or fermented food should not be given to the animals. The pastures should

also be free from noxious weeds. Stagnant water, as a drink for milch cows, should be avoided; the animals should not be worried or heated, and their udders should be washed before milking. The milk should be at once cooled down to at least 60° Fahrenheit within an hour; and, in addition to certain usual cautions in methods of delivery, it is laid down that only tin, glass or porcelain vessels should be used for the storage of milk It is not known how the poison tyrotoxicon is produced, but it is believed either to be the butyric acid ferment or some ferment which is frequently developed along with the *bacillus butyricus*, and if milk be inoculated with this and kept at the temperature of the body the poison will appear. The butyric acid ferment often develops in the stomach, and the bacillus grows best in the absence of air. Having regard to these considerations, Dr. Vaughan points out how largely children are allowed to drink milk in the summer months as food or merely to quench thirst, and he believes that when summer diarrhœa occurs, one of the first points to be attended to is to stop the administration of milk in any form. The ferment, he holds, is in the alimentary canal, and to give milk is simply to supply the germ with material for the production of the poison. This no-milk treatment is by no means a new idea, but Dr. Vaughan holds that the main reason for adopting it—namely, the fact that a powerful poison is formed from the putrefaction of milk—has not been understood. He suggests that, under the circumstances referred to, chicken and mutton broths, beef juice, and rice or barley water should take the place of milk.—*London Lancet.*

NOTES UPON STROPHANTHUS.

F. J. B. QUINLAN, M.D. DUBL., F.K.Q.C.P.I.

Looking to the therapeutical actions of strophanthus, I have found it a valuable cardiac tonic and strengthener of the heart-muscle in cases of typhoid fever with enfeebled first sound and tendency to cardiac failure. This is by far the best thing that strophanthus can accomplish; and the increment of the first sound both in length and volume, and increase of the radial pulse, was distinctly perceptible both to finger, ear, and sphygmograph, within fifteen minutes of taking the remedy. This clinical observation is interesting in relation to the paper read before the Section by Dr. Wild, of the Owens College, Manchester. That observer, testing the effect of different drugs on the contraction of muscle just removed from the body, proved by experiment that strophanthus causes marked contraction of the muscular fibre in ten minutes, a contraction which arrives at its maximum in fifteen minutes. It is important to find two observers arriving at similar conclusions, one at the bedside and the other in the pharmacological laboratory: in fact, the dose of strophanthus proper in each case can best be gauged by watching the effect upon the pulse or upon the heart's action. In œdema of the legs, the result of cardiac obstruction, great diminution of the swelling is obtained: and in cardiac obstruction generally great assistance is given to the laboring heart. In fatty hearts cardiac action is steadied and irregularity is diminished, but no permanent good is accomplished. Finally, strophanthus is in no respect a stimulant, but a pure cardiac tonic. It does not lose its effects by the system becoming habituated to it; on the contrary, its action from first to last is uniform. Contrary to digitalis it does not accumulate in the system, nor, while increasing cardiac muscular impulse, at the same time accentuate vascular muscular resistance, but acts upon the heart only.

It encourages the action of the kidneys. In anæmia with weak heart, or anæmic murmur of the heart, it strengthens cardiac action and accelerates the action of the iron.

REPORT OF THE COMMISSIONERS OF THE NORTHWEST MOUNTED POLICE FORCE.

We are indebted to Dr. Jukes, surgeon Northwest Mounted Police, for the Commissioners very exhaustive report. Besides the official, it contains a considerable amount of very interesting matter, a large proportion from the pen of Dr. Jukes and the assistant surgeons to the force scattered over the great Northwest. This fine body of men now numbers over a thousand and in the ranks are to be found not a small sprinkling of the blue blood of Europe. It is composed of men of unusually fine physique, they are also, as a rule, educated and of superior intelligence. To this force may now safely be entrusted the preservation of peace and order in this vast tract of country under their supervision. Dr. Jukes, as well as the various reports of the assistant surgeons, indicate a very healthy condition of the men under their charge. Endemic fever from malarial influence seems to be the only disease calling for notice. It is one which we might expect the men to suffer from, but the type would appear to be of a mild character and the cases few. Dr. Jukes urges that greater attention should be paid to the medical examination in the selection of recruits. In 1886 thirty-four men were invalided, twenty-five of these being for diseases from which they have suffered in entering the force. Gross carelessness must be attributable somewhere, and no doubt the proper authorities will now take steps to guard against a recurrence of it. A significant fact is stated, that out of a batch of thirty-five sent from Battleford and Calgary to be invalided for various diseases, fourteen were given their choice to return to full duty forthwith or go to the guard room at hard labor, and elected the former. Under Dr. Jukes' guidance the medical department of the Northwest Mounted Police is in a highly efficient condition.

EXT. ERGOT AS AN APPLICATION IN ERYSIPELAS.

BY A. CODD, M.D., SURGEON MOUNTED INFANTRY SCHOOL.

I observed in a recent number of the LANCET an extract from the *St. Louis Medical Review* on Fluid Extract of Ergot as a local application in *Spreading Erysipelas.*

Having a case on hand in the fort at the moment, I used the fluid extract of ergot, painting the foot and leg thoroughly; the inflammation was rapidly extending from the foot up the leg. At the same time I administered tinct. ferri thirty drops three times a day internally. In twenty-four hours after the application I was considerably surprised to find my patient's foot free from pain, swelling and an arrest of the the extending inflammation. He expressed great relief and desired to return to his duty, this I declined to allow him. I repeated the application of ergot four times, covering the leg with cotton wool. On the fourth day from the outset of the inflammation he returned to duty cured. It would be interesting to have the results experienced by others in this treatment of erysipelas.

Fort Osborne, Winnipeg

FOTHERGILL says of insomnia; "Opium is the agent where insomnia is due to pain; chloral where it is due to high blood pressure in the arterial system; the bromides where there is any peripheral irritation.

WE call the particular attention of our readers to the advertisement of Messrs. Martin, Toms & Co., of Toronto. From experience we can confidently recommend this firm to the medical practitioners and chemists of Manitoba, the Northwest and British Columbia. Their promptitude in executing all orders and the superior character of their preparations will no doubt secure for them extensive patronage throughout this large district.

MEDICAL ETIQUETTE.

To the Editor of the Lancet:

DEAR SIR,—I could well allow Dr. Good's reply to my direct charge of a *gross breach of medical etiquette* to pass without further comment, as no words of mine could disparage him in the eyes of the profession more than the impudent and clumsy attempt at low sarcasm by which he desires to squirm out of the issue is calculated to do.

As he has, however, dared to impugn my veracity, I must reiterate the charge, which he only aggravates by his own words when he acknowledges that he was summoned by a Mr. Droximan, whom Dr. Good knows well, to attend a woman, the patient of another medical man, and that he did go and attend to said patient without having ascertained from the proper source, the husband: that the medical man in attendance had been duly notified that his services were not further required, and, as he guilelessly admits, without having ascertained that he was sent for with the approval of the husband. As he states, he has only learned since, but from whom he has learned, he does not say—presumably, however, from his friendly champion, Mr. Droximan—certainly not from the husband, because some days after the occurrence he called at my office to ask me what he should do to protect himself against the interference of this friend of Dr. Good's, who had employed Dr. Good without his consent and was now creating other trouble in the household. Indeed, it was only then that I became aware to its full extent of the outrageously unprofessional conduct of Dr. Good, and felt it my duty in the interests of the profession to call the attention of my medical confreres to the matter, more especially so as Dr. Good occupies a position in the Manitoba Medical College as well as on the staff of the General Hospital.

Hoping that this exposure may be the means of initiating a more courteous and gentlemanly bearing on Dr. Good's part towards his medical brethren in this city and thanking you for the space in your journal, believe me

Yours faithfully,
GEO. T. ORTON.

MISCELLANEOUS.

Dr. James Kerr has returned to his residence on Graham Street, after an extended tour in the United Kingdom and on the continent of Europe. Dr. Kerr's trip was professional in as much as his entire time when not travelling was occupied in visiting the various hospitals of the old world. The startling changes—it has yet to be proved if they are all advances—in the practice of medicine and surgery within the last quinquennial period, mark an epoch in our professional history of unparalelled activity. For the surgeon of to-day to rest content with the practice of even five years ago would be somewhat like unto a locomotive engineer contenting himself with an engine in all respects similar to Stephenson's first model. The medical practitioner is a student from the day he enters on his professional career to the time of shuffling off the mortal coil. Science on its on-

ward march is ever yielding fresh food for conjecture, opening up wider fields for investigation, paths are ever appearing, some leading to unquestioned advance and others pursued only, to necessitate retrace. *Labor omina vincet* is a good motto, but so long as men live the practitioner of medicine will never have conquered his art. In our next issue we hope to place before our readers Dr. Kerr's gleanings from his hospital visits, which will prove of much interest.

SOLUTION OF CARBON BISULPHIDE in typhoid fever is recommended by Dr. Dujardin-Beaumetz (*Jour. de Med. de Pasis*, 1887, xii, 183), to be prepared as follows:

Bisulphide of carbon.....	25 gm.
Water.....	100 gm.
Oil of peppermint.....	30 drops.

This is put into a bottle capable of holding 700 gm. (22 oz) well agitated and then allowed to settle. Of the clear watery solution from 8 to 12 tablespoonfuls are given during the day, each dose being mixed with a half tumblerful of aromatic water or milk. A quantity of water should be added to the bottle equal to the solution taken by the patient

CHLORAL-HYDRATE AS A VESICANT. —Ivanowsky recommends (Vratch, 1886, No. 16) the external application of chloral-hydrate instead of cantharides. The former, he says, is quite as strong a vesicant as cantharides, and has not its disagreeable bye-effects. Finely powdered chloral-hydrate is dusted on an ordinary piece of strapping; on warming this the chloral-hydrate melts; it is then applied to the skin, which should previously have been anointed with oil or grease. Vesication is produced rapidly and nearly without pain, and the skin does not suffer as after cantharides. After removing the fluid from the blister the skin appears nearly normal. The chloral plaster ought to be removed as soon as the blister forms, *viz.*, after ten minutes—or at the utmost after fifteen minutes. If left no longer, or if the skin has not been protected by oil, the skin suffers. Deep ulcers, which heal with difficulty, would form if the chloral-hydrate were kept on for an hour.—*Med. Chronicle*, March, 1887.

HYPNOTISM is said to be making great advances in France, where people are now being mesmerized for all sorts of diseases, and even bad habits. The latest outcome has been the attempted curing of the drink habit by what is called "suggestion," the patient while "under control," being ordered to avoid intoxicating liquors of all kinds and it is claimed that success has been obtained in this respect.

CESARE BRAICO. — Braico was a right hand man of Bertani in the care of the sick and wounded, and so frequently in aiding the latter did he venture under fire that he had on eleven occasions to fight like a common combatant to extricate himself from a position of jeopardy. Singularly enough, his wounds were never more than of the slightest, even when on the famous 1st of October, 1860, at Capua, he earned the praise of Garibaldi for heroism shown in the grand assault, when hundreds of red-shirts were falling around him. When Italy was proclaimed a kingdom, in March, 1861, his fellow-townsmen of Brindisi elected him as their representative in the parliament just assembled at Turin. Then in the peaceful arena of debate he encountered many of his old comrades of the prison and of the battle field, and again made himself conspicuous as alternately the opponent or the auxiliary of Cavour or Garibaldi, Poerio or Crispi, Spaventa or Cavioli, Fanti or Bertani, Ricasoli or Nicotera.

COCAINE INTERNALLY.—Dr. L. Frey of Békes, having as a patient a young woman who had mitral insufficiency and hypertrophy of the heart associa-

ted with hyperæsthesia of different parts of the body, which caused extreme irritability of the stomach and constant vomiting, so that for some days she had scarcely twenty minutes intermission, tried digitalis, opiates, ice, cold applications, etc., but without any effect. He then determined to try cocaine internally. He gave three-quarters of a grain dissolved in water, which was followed by a cessation of the attacks of vomiting for two hours: another dose gave the patient six hours rest, after which a violent attack of vomiting came on. The third dose stopped the vomiting altogether, after which all the other symptoms from which the patient suffered rapidly improved.

MANUFACTURE OF WHITE LEAD BY MEANS OF MAGNESIUM ACETATE.—M. Kubel—A strong solution of magnesium acetate rapidly transforms lead oxide into a soluable hydrate with an alkaline reaction. The precipitation of the lead in the state of carbonate is effected by means of carbonic acid so completely that the magnesium acetate may serve for a fresh operation. The proportions used are one part of magnesium acetate to one and a half of litharge; the acetate is made by acting upon magnesium carbonate with acetic acid at 7° Baumé; the liquid should contain 10 to 20 per cent of crystalline acetate.—*Chemical News.*

INTEMPERANCE IN BELGIUM.—A law consisting of sixteen articles has just been passed in Belgium with the object of checking alcoholic excesses. One of the clauses provides for the periodical examination of the character of the holders of licenses and their mode of doing business, and another clause prohibits the giving of credit for drink.

CARBOLATE OF NERCURY IN SYPHILIS.—Dr. Schadeck has employed carbolate of mercury both internally and hypodermically in syphilis with remarkable success. He gave it in thirty-five cases in the form of a pill without finding it give rise to any gastric disturbance. The formula was—R Hydrargyri carbolici oxydati, 3 dr.; pulv. glycyrrh. q. s. ut. f. massa pil. ex qua form. pil. No. 60; from two to four pills daily after food. This preparation was originally used by Camberini in 1886. Dr. Schadeck also employed the carbolate of mercury in ten cases in the form of hypodermic injections, which he administered in the gluteal region, causing the needle to penetrate the muscles deeply. The liquid used was a mucilage containing 2 per cent. of carbolate of mercury in suspension. In this way his results were as satisfactory as when the preparation was given by the mouth.

CYANIDE OF ZINC IN CARDIAC AFFECTIONS.—Cyanide of zinc exerts, according to Professor Lashkevich, a beneficial effect on some cardiac cases which cannot be obtained by other means. In cardiac neuroses it acts quickly and certainly. Palpitation, want of rhythm, and pain in the region of the heart are quickly affected, sometimes indeed cured, by this drug. The dose is from a tenth to an eighth of a grain three times a day. Similar beneficial effects are produced when there is organic cardiac disease. The regulating action of cyanide of zinc in valvular insufficiency is less marked than its effect on cardiac neurosis; nevertheless, there were cases in the wards where it acted better than other cardiac remedies, as digitalis, convallaria majalis, adonis vernalis, etc. In this respect it acted particularly satisfactorily in cases where other remedies could not be given without producing derangement of the gastro-intestinal system. Here it improved the action of the heart, thus increasing the secretion of urine, moderating the pulse, and diminishing the dropsy due to irritation of the gastro-

intestinal canal. In a case of nervous palpitation with hysterical anuria, cyanide of zinc diminished the palpitation, and at the same time caused the secretion of urine to recommence.

DR. B. W. RICHARDSON lately told the Association of Public Sanitary Inspection that in England they are better off than the Americans and Australians in the matter of sanitation. It will probably be news to a good many to hear that "in Sydney, Melbourne and Adelaide, the death-rate of children is three times as great as in the worst London slums." So dear, dirty old London is not such a bad sort of a place after all.

PARIS comes out badly in comparison with London, and with the other English large towns. The general town rate of mortality is but 22 per 1,000—in London it is lower—but the Paris rate exceeds 27 per 1,000. Moreover the rate from diphtheria amounts to 0 70 per 1,000, and is rising, while in London the mortality from that disease is less by five-sixths. And Paris is one of the healthiest of Continental cities—far in advance of Vienna and Berlin.

NEPHRECTOMY IN BELGIUM.—Dr. Thiriar, of Brussels, recently performed nephrectomy on a lady patient at Antwerp, this being the first occasion of the performance of the operation in that city. Indeed, it does not seem to have been performed more than four or five times in Belgium. The case was diagnosed as sarcoma, but turned out to be a large renal abscess. The pain had been very severe. Notwithstanding what was said at the Medico-Chirurgical Society on the advantages of the abdominal method, Dr. Thiriar prefers to operate through a lumbar incision. He commences at the inferior border of the eleventh rib at the distance of eight centimetres from the spinous processes of the vertebræ, and, keeping parallel to these, he carries the incision to within a centimetre of the iliac crest, and then, changing its direction forwards, brings it almost to the iliac anterior spine. The external border of the quadratus lumborum is then in view; the attachment of this muscle to the iliac crest is then divided for two or three centimetres, a proceeding recommended by M. Ledentu, of Paris, which Dr. Thiriar finds of great value in giving plenty of room for the subsequent steps of the operation.

ANTISEPTIC INSUFFLATIONS FOR WHOOPING-COUGH.—According to the *Arch. de Phar.*, July, several practitioners, convinced of the microbian nature of whooping-cough, are using intra-nasal insufflations of antiseptic powders for it. Michael (of Hamburg) recommends powdered benzoin once a day. Moizard uses a powder composed of benzoin and salicylate of bismuth of each 5 gm., and sulphate of quinine 1 gm., three or four times daily. Each nares must be insufflated. A rubber tube is used; the powder is introduced into one end, which is fixed in the nares; the other end is placed in the mouth, and the powder blown to its place.

A CASE is reported, in the *Sei-i-kwai*, a medical journal of Japan, of the resuscitation of a woman apparently dead, by the hypodermic injection of nitro-glycerine. The *Medical Press* also gives a case of collapse a few days after childbirth, the woman being at the point of death. Dr. Sackersteen, after exhausting other means, was about to abandon the case as hopeless, when it occurred to him to try nitro-glycerine. He injected ten drops of a solution of the substance into a vein. A minute elapsed before his patient gave a slight gasp; in another minute this was followed by three or four gasps; and after the third and fourth minutes the pulse was felt, and the heart was distinctly heard. A flush came over the face of

the patient, the eyes opened, the muscles, which had assumed the rigidity of death, gradually relaxed, and she became conscious. In a few days the woman made a good recovery. It is suggested that the hypodermic injection of nitro-glycerine should be tried in other cases of collapse, as from overdoses of chloroform, or shock from surgical operation.

CASE ILLUSTRATING THE VALUE OF THE INDUCTION BALANCE FOR DETECTING A NEEDLE IN THE THUMB.—The use of the induction balance and telephone, as applied in the case recorded, was undoubtedly of the greatest value in proving the presence and localising the position of the foreign body. The publication of this case will again bring before the profession the value of its use in those obscure injuries in which foreign bodies of a metallic character are lodged, when other definite indication of their presence is absent. For proof of the lodgment of bullets, slugs, etc., at the time of their infliction, the military surgeon has to trust to the evidence obtained by examination of the part, etc., and cannot utilise such a delicate instrument as that described by Mr. Hawksley. In cases, however, where the missile has been lodged for some time and search with the ordinary instruments has failed, it will doubtless be more employed in the future, and that with success. The notes of the case were taken by Mr. Gordon Green, dresser.

T. D——, aged thirty-seven, late corporal 40th Foot, was admitted into the Mark ward on March 17th, 1887. Ten weeks previously the man was scrubbing a floor, and felt something sharp enter the ball of his right thumb. He went to a hospital, and a surgeon probed the small wound, ordered the man poultices, and kept him under observation for six weeks. He had obscure pain about the ball of the thumb, for which blisters had been applied. Not feeling satisfied, and believing that a needle was yet in his thumb, he came to Westminster Hospital.

When seen, the man's right thumb was painful, and at a small spot in the palm was an eczematous rash, at which point the needle had entered. Surgical examinations proved nothing for no needle or foreign body could be felt on careful manipulation, nor could the patient feel any foreign body, though he had sat long by night and day trying to settle all doubt as to whether or not any needle was there. Under these circumstances Mr. Davy and Mr. Lownds paid three visits to Mr. Hawksley, on March 18th, 19th, and 22nd, with the patient. Mr. Hawksley not only showed every attention, but favoured Mr. Davy with a report, which is as follows:—

"The apparatus used was essentially the same in principle as that invented by Professor Hughes, and named an 'induction balance.' Its first application for the purpose of detecting a bullet in the human body was that made by Professor Bell in the case of the late President Garfield. There are three uses of this beautiful electrical arrangement: (1) for the detection of the presence of metal in the human body, (2) as an audiometer and (3) as a means of detecting most minute differences in the mass or alloy of gold or silver coinage. It consists of the following parts: from two to six Leclanche or bichromate elements; a simple microphone, arranged to indicate the ticking of a clock or other source of constant regular sound; then two double bobbins or pairs of reels of wire, one reel in each pair being of thick wire and forming a primary coil, which is in circuit with the battery and microphone, the other reel in each pair being of fine wire, in the circuit of which is a telephone; the current

passing through these latter reels and the telephone is a secondary or induced current, induced by the proximity of the two primary reels. One of the pairs of reels is attached to a box, and is not used for searching. The two reels comprising this double bobbin are held together by elastic bands, but may be separated at will by means of the fine adjustment of three ivory screws. To this latter bobbin is attached the other double reel, or "searcher," by means of long conducting cords. This reel is of a convenient size and shape to move about with facility, is made hollow so that prominent parts may be enclosed by it, and moreover, it may be made of various sizes. Some art as well as technical skill and experience are required to so adjust the fixed coils that the sound of the microphone is not heard in the telephone; but by careful adjustment, absolute silence may be produced, and the two sets of coils or bobbins are then said to be balanced. When this is done the search for a needle or bullet may be commenced by means of the movable coil.

"This instrument need not be used if the presence of the metallic foreign body is evident by the sense of touch or probe explorations; but where these have failed to detect its presence or localise it sufficiently to warrant the surgeon operating, then it is well to use the balance. The evidence it gives is unmistakable, if it be a witness at all, for it simply says metal is or is not in the region examined. It is sufficient, therefore, to know about the neighborhood where the metallic mass is suspected to lie, and the balance will localise it, often with great precision. The 'searcher,' which the movable reel may be called, is taken in one hand and applied to the surface of the body, the telephone is carefully placed to the ear, and the balance tested for silence. This being found correct, the searcher is slowly moved in parallel lines over the part supposed to contain the metallic body On detecting the slightest sound in the telephone the searcher is removed and tested for silence. This being found still correct, the searcher is again applied to the body, and, if the silence is again broken, mark the spot through the aperture in the reel. Then begin the search at right angles to the former lines of examination until the silence is again broken, and at the point of maximum disturbance mark the position. A very little manipulation will now enable the searcher to be placed over the spot on the body where the greatest resonance is obtained, and beneath that the metallic object will be found. To define the depth of the metal beneath the surface or its size need not be entered upon here.

"In the case of the needle in question, no indication whatever of its presence was obtained by searching outside the thumb, but on inserting the thumb inside the hollow reel of the searcher, at one particular angle, the pattering sound of the microphone was faintly but unmistakably heard, and the correctness of the indication of the instrument was demonstrated by the result of the operation.

"In a previous case under the care of the late Francis Mason, the patient, an American, had shot himself by placing the muzzle of his revolver into the external orifice of the auditory meatus. Where the bullet was could not be determined; it was searched for by means of the electrical probe of Trouve, and also the chemical probes of Hawksley. On applying for the first time practically the balance test, and after a little searching, a loud sound was heard in front of the patient's ear, though the area of this sound was rather large for a bullet. Nothing else was suspected until the brother of the patient, who was present, inquired if 'gold filling'

would interfere with the indications. An examination of the patient's teeth in the upper jaw showed them to be extensively filled with gold, hence the loud sound and its extensive area. From the elementary description of the apparatus which has been given it will be evident that its indications will be very reliable in the hands of an expert; the presence of any other metal in the neighborhood of the searcher, whether that of a coat-button, a watch-chain, or the ironwork of an ordinary bedstead, must be borne in mind in the endeavor to discover such an inferior electrical body as a common leaden bullet. 'If,' as Professor Bell remarks, 'people would make their bullets of silver, copper, or iron, there would be no difficulty in finding them in any part of the body.'"

The man's suspicion and the surgical opinion being fortified by Mr. Hawksley's examination, Mr. Davy proposed operation to the patient, but not before he had subjected Mr. Hawksley to a crucial test. He showed Mr. Hawksley one needle and a dead hand, informing him that he would place the needle in the hand while he was absent from the room, and then he, by the aid of the searcher, should tell him where it was. During Mr. Hawksley's absence Mr. Davy cut the needle into two and rammed them deeply by means of a pair of tweezers into two fingers. On re-entering, Mr. Hawksley at once spotted correctly the long and ring fingers, and accused Mr. Davy of having used two needles instead of one.

On March 24th, the man being placed under the influence of chloroform, Mr. Davy made a small puncture in the belly of the man's thumb with a tenotomy knife, about midway over the metacarpal bone; using the tenotome as a probe, the needle was, after some searching, felt distinctly. The puncture was enlarged, and the sides of the wound gently retracted; the end of the needle was lifted upwards by tilting, and retracted by an ordinary pair of small pliers. It was the broken point of an ordinary stocking needle, and measured three-quarters of an inch long.

Remarks by Mr. Davy.—This bit of needle seems to have been lodged between the flexor brevis pollicis and adductor, in some position parallel to the metacarpal bone, and under cover of the bone. The shelter seems to have prevented the patient from experiencing pricking pain. The plan for getting at the needle reminds me of the bet made by oak-rippers that their axe shall hit the same mark on a tree twenty times running. They make their first cut, and then nineteen strokes follow at right angles to the first. So in this case the needle was discovered by using a tenotome (as a probe, at right angles to the suspected track of the needle. In all these doubtful needle cases any diagnostic help is of value; wavering was steadied, suspicion was confirmed, and all were pleased at the valuable assistance rendered in this instance by the induction balance.—*London Lancet.*

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