

BACTERIOLOGICAL RESULTS.

Occasionally it may appear difficult to reconcile a series of negative results reported by the bacteriologist with the clinical opinion. In one instance five successive specimens were plated before a suspicious colony was picked off, and shown to be the specific bacillus. In other cases, in which an organism was isolated in the early stage of the disease, further bacteriological examinations were almost uniformly negative, though the patients, after treatment, still exhibited ulceration of the lower gut attended by the passage of blood-stained mucus. A positive Widal reaction of 1 in 50 or over frequently confirmed me in the opinion that the case was one of bacillary dysentery, though the examination of the stool was negative. On the other hand, on two occasions the "Y" bacillus was isolated when the serum reaction was 1 in 20 only, and in one instance Shiga's bacillus was obtained when the serum of the patient did not agglutinate the organism even in that low dilution. The strains isolated conformed with the usual sugar reactions, etc., and were tested against specific agglutinating serums of high titre. In what position is one to place inagglutinable strains? In one case the serum of the patient produced clumping of his own strain in the dilution of 1 in 20 when with specific "Y" serum no agglutination was observed in the same dilution.

DYSENTERY CARRIERS.

Two convalescent patients, transferred, were admitted, showing no signs or symptoms. Each had been on full diet for some days and the stools were formed and natural. The Widal reaction was positive 1 in 50 Shiga. In the course of the routine bacteriological examination before discharge Shiga's bacillus was isolated, in one from the first specimen sent, in the other from the second. From three subsequent samples, taken after the administration of a saline purge, no bacillus was isolated in either case and the individuals were discharged.

I beg to express my sincere thanks to Captains C. W. Smith, R.A.M.C., and J. D. Graham Stewart, R.A.M.C., for kindly assistance.

THE IMPORTANCE OF THE EARLY PROPHYLACTIC INJECTION OF ANTITETANIC SERUM IN "TRENCH FOOT."

BY

SURGEON-GENERAL SIR DAVID BRUCE, C.B., F.R.S.

Cases of tetanus following on "trench foot" have lately been numerous. On account of the hurt not being of the nature of an ordinary gunshot or shell wound they have not, until quite lately, received the usual prophylactic dose of antitetanic serum at the front. For the same reason, it may be supposed, they have not received the later prophylactic doses which have been so strongly recommended by the Committee of the War Office for the Study of Tetanus in their memorandum published in the *BRITISH MEDICAL JOURNAL* on November 11th, 1916.

During the last few weeks fifteen cases of tetanus caused by "trench foot" have been reported, but full reports, giving the result, have only been received in eight. The following table gives the outstanding features of these eight cases. A prophylactic injection was not given in any of them.

No.	Incubation.	Duration of Disease.	Died.	Recovered.
1	12 days	2 days	+	
2	12 "			+
3	24 "	2 "	+	
4	?	2 "	+	
5	15 days	1 "	+	
6	?	1 "	+	
7	16 days			+
8	14 "	5 "	+	

From this table it will be seen that of the eight cases only two recovered, and the average duration of the

disease was only 2.5 days. This is a return to the picture of tetanus familiar before prophylactic injections were introduced. The disease wastes no time in local manifestations, but bursts out as generalized tetanus and runs its acute and fatal course in twenty-four to forty-eight hours.

It is to be hoped that no medical officer in charge of a case of "trench foot" will hesitate for a moment in giving a prophylactic injection of antitetanic serum, and repeat the same at intervals of seven days until the wounds are clean. If something is not done speedily, these cases of tetanus following on "trench foot" will run up in a most disastrous way the rate of mortality in tetanus, which every one, by the use of prophylactic and early therapeutic antitetanic serum, is trying to lower.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

AN OVARIAN CYST COMMUNICATING BY A VALVULAR CANAL WITH THE FALLOPIAN TUBE.

On August 26th I removed intact, from a patient aged 34, a small cystic tumour, firmly and extensively adherent in the pelvis. The Fallopian tube, like a pyriform pod, dilated at its fimbriated end to the size of the index finger, was seen coursing the surface of the ovarian cyst. The tube looked like an ordinary hydrosalpinx, and on compressing it clear limpid fluid flowed from its cut uterine end. It was then observed that the ovarian cyst was gradually decreasing in size and that the Fallopian tube remained semi-distended. The ovarian cyst was then opened, and at a spot about two inches from the uterine end of the Fallopian tube there was observed in the cyst wall a crescentic fold, guarding, as it were, a canal of about an inch in length, which opened directly into the tube. The fluid in the cyst presented exactly the same appearance as the fluid which flowed at first from the tube.

I have never before seen a tubo-ovarian tumour of this character. I have heard that ovarian or tubal cysts have been known to empty themselves through the uterus. In the case here described there seems to be no reason apparently why fluid did not escape from the tumour by the uterus, for the uterine end of the Fallopian tube seemed to be quite normal and allowed the fluid to pass, in, it is true, an extremely small stream.

London, W.

JAMES OLIVER, M.D., F.R.S. Edin.

THE TREATMENT OF CANCER BY CUPRASE.

A WOMAN not long past the menopause had four years previously undergone a radical operation for carcinoma of the right breast, which had evidently been very extensive. There was no local recurrence either in the scar or on the chest wall, but there was some involvement of the mediastinum, causing pressure both on the trachea and oesophagus, and also implicating the vagus and sympathetic nerves on the right side; some enlarged glands were to be felt above the clavicle on both sides. X rays had been tried for a time, but without apparent benefit, and the patient had become too weak to undergo the exertion of transport to the radiologist. The prognosis was, of course, hopeless, and alleviation of suffering appeared to be the utmost that medical science or art could offer.

It was at this stage that cuprase suggested itself, if the advertisements and reports supplied by its makers were to be credited, as worthy of trial; at least, according to the reports, and especially to Dr. Herschell's eulogistic statements, it could do no harm. The matter was explained to the patient and her relatives, and although, of course, I would promise nothing in the way of cure, they decided it should be tried. Accordingly I obtained a box of eight ampoules (price 25s.), no less amount being supplied, and no "trial sample" being permitted. I injected the contents of one ampoule according to directions. Not only was the injection immediately painful, but there was very marked local reaction—pain, redness, heat, and swelling—which persisted for nearly a week and caused the patient a large amount of suffering. Not only was there marked local pain, but the patient's general condition was much

worse in every way—there was aggravated sickness with vomiting of greenish bile-stained fluid, no food of any sort could be retained, there was generalized pain, insomnia, weakness; the patient could not even sit up in bed, though previously she had been able to sit out of bed a little, and go to the bathroom each morning. The throat symptoms—hoarseness, dysphagia, and slight stridor—were more marked, and even attempts to swallow a mouthful of water caused excruciating pain. Unfortunately this marked worsening of the patient's condition persisted; she steadily sank, and died about two weeks after the injection of cuprase. Naturally the injection was not repeated. My impression was that the patient, although of course in a hopeless condition, would probably have lasted two or three months.

I think it only right to record this experience, which I do without any comments. No one would have been more delighted than I had the result been otherwise. I would only say to those who may be induced by favourable reports to try this remedy in desperate cases to consider also the other side of the picture.

Bowdon.

P. R. COOPER, M.D., F.R.C.S.

Reviews.

"ORGANIC TO HUMAN."

DR. MAUDSLEY, in the preface to his new book, alludes to a dictum of Montaigne on the unfitness of old age for the business of writing or any other business, and remarks that he may be open to Montaigne's censure, for this work was undertaken to occupy the time and ease the burden of the dreary decline from three to four score years. But the author has proved that Montaigne's dictum is too absolute, for it certainly does not apply to Dr. Maudsley's psychological and sociological studies and reflections. The book *Organic to Human*¹ was not born to-day or yesterday; it is the crystallized expression of thoughts and reflections more or less in flux during a lifetime of long and varied experience of human character, individual and collective. The author is a physician, philosopher, and philanthropist endowed with a rare natural intelligence, developed and nourished by study and analysis of the great masters of philosophy. Moreover, the work shows that Dr. Maudsley has read much and well, and thus kept abreast of the times in knowledge of the general principles and facts of the biological sciences and their application to the complete understanding of human psychology; consequently he is able to adduce the most cogent arguments in support of the position he has always maintained of the inseparability of body and mind. The work exhibits throughout a wide knowledge of the classics of literature, which is apparent not only by short quotations but also by numerous references, but he has wisely refrained from long quotations in the text which might have broken the thread of his arguments and reflections. Had the work appeared when it was ready for the press and before the outbreak of war, "when (as the author says) exultant self-adulation was at its height," the book might have been denounced for its materialistic pessimism and sarcastic references to modern ethics and culture. A criticism in the *Times*, which referred to the underlying satire as reminiscent of Dean Swift, is surely a high compliment to Dr. Maudsley. In an essay on literature and life A. C. Benson concludes with a saying of Dr. Johnson's—"A book should show me how to enjoy life or how to endure it." This work of Maudsley's, if it does not show how to enjoy life, does show how to endure it; for its teaching all through is that life does not contradict itself, but that the workings of organic nature, whether they appear to our minds right or wrong, delightful or dreadful, fit into each other in a marvellous way.

The discussion of the theme of the book begins with the thesis that in organic nature "there are gradational ascents of consciousness from the faintest sensible glimmer in low organisms to its full brightness in the highest organism." The hypothesis of a universal mind more subtle than the universal ether which enters into the individual brain to act upon it, and through it on every organ of the body, is criticized, and it is remarked that "mind was not invented by man, nor especially for him."

¹ *Organic to Human*. By H. Maudsley, M.D. London: Macmillan and Co., Limited. 1916. (12s. net.)

Every function of the metaphysical entity into which the word has been translated exists in animal germ and rudiment and sometimes in explicit function. Man's distinction is to combine in his mind qualities which are variously scattered rudimentally in the lower animals and to be more conscious directly of their superior workings in himself and inferentially in others like him.

There is not a part of his body which has not participation in the constitution of consciousness and does not by its changes affect fluctuating consciousness.

The author then points out that a change in the quality of the blood may produce an altered state of consciousness, causing melancholia. The appetites and desires essential to self-preservation and propagation are common to the lower as well as the higher organisms, and the highest feelings and consequent conduct of human beings are rooted in the desires incidental to the organic needs. Recent events have made manifest the fact that highest feeling and control of civilized races is but a thin veneer, which, when stripped off by war, reveals the primitive emotions and animal passions in all their nakedness.

One chapter which cannot fail to interest the medical reader is that on the fundamental instincts and social atonement; its keynote is expressed in the following passage:

The work of social development is to humanize and as far as possible moralize the two fundamental instincts or needs of human nature, from which the primary passions and secondary emotions spring and evolve—namely, hunger and lust—the one urging to maintenance and the other to reproduction of self. Not, certainly, to eradicate them, which would be folly, but to spiritualize them, which is their anticipated end.

It is true, as the author says, "that there is a stubborn disinclination to look the reproductive instinct frankly in the face, and to deal with its functions in a natural way; a scrupulous reserve and reticence concerning it being enjoined and practised, as though it were something of a moral degradation, whereas it is neither moral nor immoral, but simply animal and non-moral."

The author's well-known views regarding genius and insanity are stated, and his criticism of eugenics and Galton's investigations regarding hereditary genius, as illustrated by the descendants of great judges, is in the following scathing terms:

That the child of a judge is five or fifteen hundred times more likely to inherit mental capacity than the child of a peasant, as the eugenic enthusiast has said, is an assertion which, plausible as it looks, is certainly not warranted by observation and could not be proved by experiment.

Chance, opportunity, and imitation play a great part in the foundation of success.

There is heredity of influence as well as heredity of capacity.

The author discusses in a trenchant manner the instinct of propagation and restrictions of childbirth, and he asserts:

That mental states physiologically affect and are affected by the delicate and complicated biochemical processes upon which all life depends is not hard to conceive now, as once it was when mind reigned as a separate and supreme entity in its realm, inhabiting and using the body, but owing no evolutionary homage to it.

In a chapter on the microbe and man, he says of microbes, even when pathogenic: "Certain it is that in weakened life, its lawful prey, the microbe will always find its sphere of opportune and useful function." Speaking of war and disease, he says: "To do away with these natural processes might possibly be to do great disservice to the human race."

In the second part of his book Dr. Maudsley first deals with the current of social feeling, and this discussion is particularly interesting, seeing that after the war great changes may be anticipated. He says:

That which in feudal times seemed the natural, necessary, and immutable order of things—that the few should be privileged and rule in luxury and the many toil in subjection and poverty, content to honour and obey their pastors and masters in the humble station in which it pleased Providence to place them—is beginning to excite wonder that the great majority so long and patiently endured it.

There is a valuable chapter on the practical morality of a nation, in which are discussed many social evils arising from specialization of industries and frauds—tacitly sanctioned frauds, legal complexities and delays, the hired

Medico-Legal.

OPINION OF MEDICAL ASSESSOR.

AN example of a somewhat "thin" case under the Workmen's Compensation Act came before the First Division of the Scottish Court of Session on December 19th, 1916, in the form of a case stated by the Sheriff Substitute of Glasgow. The respondent was the widow of Joseph Connolly, who had been employed as a labourer by Messrs. Alexander Cross and Sons, Limited. On January 13th, 1916, a slate had fallen from a building in the appellants' works on to Connolly's foot. He attended work on the two following days, but on the third was brought home unwell, and the foot was then observed to be swollen. No external wound was, however, visible. After being treated for several days at home Connolly was removed to an infirmary, where he died on January 23rd from blood poisoning. The Sheriff Substitute, fortified by the opinion of a medical assessor which he embodied in his statement of facts, held that Connolly's death was caused by an accident which arose out of and in the course of his employment, and awarded £250 compensation.

The Court of Session held that the Sheriff Substitute had improperly included the opinion of his medical assessor in the facts stated by him to that Court, but that there was, nevertheless, evidence on which he could properly find that the blood poisoning and resulting death was caused by the accident to the foot.

A CASE OF LEPROSY.

AN appeal was recently heard in the Court of Appeal, composed of Lords Justices Swinfen Eady and Banks and Mr. Justice Lawrence, from the decision of Mr. Justice Darling, in the King's Bench Division, in the case of *Humphreys v. Miller* and others. The facts, as already reported in the issue of this JOURNAL, dated June 10th, 1916, were shortly these. The plaintiff was a lodging-house keeper in Bayswater. The defendant Miller was the daughter of a gentleman who was afflicted with leprosy. Father and daughter took rooms from the plaintiff, and shortly after they took up their residence Mr. Miller was attended by a Dr. Harbord, by whom he continued to be attended until his death, and who was also a defendant to the action. On the occasion of one of Dr. Harbord's early visits the plaintiff's manageress inquired of the doctor whether Mr. Miller was suffering from any complaint from which there might be any risk of contagion or infection. The doctor had replied that the risk was "practically nil"; he did not tell her the nature of Mr. Miller's complaint, and, indeed, Mr. Miller's daughter had no more than a suspicion of it. Finally, Mr. Miller died, and the plaintiff, becoming aware for the first time that he had suffered from leprosy, was put to expense in connexion with the disinfection of the rooms which had been occupied by the patient, and brought his action for conspiracy and fraud.

In the court below the judge left questions to the jury, which, with the jury's answers, were as follows:

1. Was Mr. Miller, when he took the rooms, liable to infect persons or the furniture with leprosy, and did Mr. Miller or Miss Miller know this?—Yes.
2. Is leprosy infectious or contagious so as to be, in England, communicable from the leper to another?—Yes.
3. Did Miss Miller and Dr. Harbord fraudulently misrepresent that Mr. Miller was a fit and proper person to occupy the plaintiff's rooms?—Yes.
4. Did Miss Miller and Dr. Harbord conceal from the plaintiff that Mr. Miller was a leper, which made him unfit to occupy the lodgings?—Yes.
5. Did Dr. Harbord, acting as agent for Miss Miller and Mr. Miller, state to Mrs. Humphreys that Mr. Miller was not suffering from any infectious or contagious disease?—Yes.
6. Were these statements untrue to the knowledge of Mr. Miller, Miss Miller, and Dr. Harbord?—Yes.
7. Did Mr. Miller, Miss Miller, and Dr. Harbord conspire to conceal the state of Mr. Miller from the plaintiff, and make false statements to him for that purpose?—Yes.
8. Damages?—£250.

Upon these findings, Mr. Justice Darling, after hearing legal argument, gave judgement for the defendants, and from this the plaintiff appealed.

Lord Justice Swinfen Eady, in giving judgement, said that the first question was as to whether a person taking a furnished house or apartments gave by implication of law any warranty that he was not suffering from any infectious or contagious disease. There was no authority in law for that proposition, although a person letting apartments did warrant by implication that the apartments were reasonably fit for occupation. As regards the alleged concealment and misrepresentation, he pointed out that there was no evidence to support the jury's finding that Miss Miller was aware, when she took the rooms, that her father was suffering from leprosy, or that he was suffering from any contagious or infectious disease. Then, as to Dr. Harbord, he did not see the patient until he had been in the rooms about a fortnight. The doctor's view had been that in England the risk of infection from leprosy was infinitesimal. That opinion he had quite honestly expressed when speaking to the plaintiff's manageress on the subject. There was nothing to support on the evidence the jury's finding against the doctor.

Lord Justice Banks, in giving judgement to the same effect, said: "I see no evidence whatever on which it can be suggested as against this medical man that he did not honestly believe that, practically speaking, there was no danger of infection or contagion from this particular disease. Then, when he is asked—and, of course, he was placed in a very difficult position towards his patient and towards this good lady when she put to him the direct question whether it was an infectious disease—he was not obliged to answer, and all he was obliged to do, if he did answer, was to give what his honest belief was."

Mr. Justice Lawrence agreed with the above, and the plaintiff's appeal was accordingly dismissed, with costs.

Universities and Colleges.

CONJOINT BOARD IN IRELAND.

The following candidates have been approved at the examination indicated:

FINAL PROFESSIONAL.—Elizabeth Budd, E. C. H. Ewart, W. O'G. Hunt, G. W. Jackson, D. C. Kelleher, J. McDonagh, J. T. McDonnell, E. T. McElligott, J. McGuire, P. O'Connell, M. E. Murphy.

Medical News.

DR. W. AWUNOR-RENNER of Freetown, Sierra Leone, was among the mayors elected on November 9th, 1916.

DR. H. FIELDEN BRIGGS has been elected direct dental representative on the Transvaal Medical Council as from January 1st, 1917.

THE Chelsea Hospital for Women has received from the trustees of the Zinn Bequest £5,000, being the balance of £10,000 promised by the trustees towards the rebuilding of the hospital.

A SUPPLEMENT to the *London Gazette*, issued on January 10th, contains a list of awards for gallantry in the field. The list includes the names of twelve medical officers who have received the Military Cross, which will be printed in our next issue, together with particulars of the services for which the awards have been granted.

IT is reported from Washington, under date December 2nd, 1916, that a resolution has been drafted for immediate presentation to Congress, calling for an appropriation of 250,000 dollars (£50,000) to be expended by the United States Public Health Service on an intensive study of poliomyelitis.

A MEETING of the British Hospitals Association will be held at St. Bartholomew's Hospital on Friday, January 26th, when Dr. W. J. Haworth, M.O.H. for the City of London, will read a paper on the treatment and control of venereal diseases, with special reference to the voluntary hospitals. The chair will be taken by Lord Sandhurst at 3.30 p.m.

ON December 19th, 1916, the Paris Académie de Médecine passed a resolution proposed by M. Chantemesse, expressing anxiety as to the fate of Greek doctors, former pupils of the French medical faculties, who have been imprisoned during the recent disturbances at Athens on account of their Francophile sympathies, and urging the French Government to take measures for their protection.

AT the request of Sir Edward Ward, Director-General of Voluntary Associations, Mr. John Penoyre is appealing for mufflers, which have a short life, as well as for sweaters for men on active service. The muffler should measure 58 in. by 10 in. and be made on two No. 7 needles, taking 10 oz. of fairly thick drab or khaki wool. The sweater pattern can be obtained on application to him at 8, King's Bench Walk, Inner Temple, E.C., and the finished articles should be sent either to the Voluntary Associations' depôts throughout the country or to the D.G.V.O.'s dépôt at 45, Horseferry Road, S.W.

WE learn from *Nature* that the secretary of the U.S.A. Department of Agriculture has decided to erect on the coast of Southern California a Government plant for the production of potash from kelp. It is the intention not only to produce potash at the minimum cost, but also to conserve nitrogen, iodine, and other by-products. The kelp will first be dried in a series of rotary driers, and will then be distilled in a moderate coke-oven in such a way as to prevent loss of the by-products mentioned. The potash salts will be dissolved with water out of the resulting charcoal, which may afterwards be used as fuel, as may also the combustible gas obtained by the distillation. The experts consulted believe that by such economical methods the process can be made to pay even in times when the price of potash is at its ordinary level.

A COURSE of lectures on public health problems under war and after war conditions has been arranged by Professor E. W. Hope of Liverpool, and Dr. T. N. Kelynack, for the Royal Institute of Public Health, and will be given in the lecture hall of the Institute, 37, Russell Square, London, W.C., on Wednesdays in January, February, and March, at 4 p.m. on each day. There is no fee for the course, and full particulars can be obtained on application to the secretary of the Institute. The first lecture, on the principles of organization and administration in child welfare work, will be given on Wednesday next by Dr. Janet Lane-Claypon. The chair will be taken by Sir Robert Morant, and among the speakers will be Lieut.-General Sir Robert Baden-Powell, and Mr. F. J. Willis, assistant secretary, Local Government Board. The second lecture, on the prevention and arrest of venereal disease in women, will be given by Dr. Mary Scharlieb, on January 24th, when Dr. Newsholme will be in the chair; and the third lecture, on the prevention and arrest of venereal disease in men, on January 31st, by Dr. C. J. Macalister of Liverpool, when Lord Sydenham, late chairman of the Royal Commission on Venereal Diseases, will be in the chair.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS forwarded for publication are understood to be offered to the BRITISH MEDICAL JOURNAL alone unless the contrary be stated.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

THE telegraphic addresses of the BRITISH MEDICAL ASSOCIATION and JOURNAL are: (1) EDITOR of the BRITISH MEDICAL JOURNAL, *Aitology, Westrand, London*; telephone, 2631, Gerrard. (2) FINANCIAL SECRETARY AND BUSINESS MANAGER (Advertisements, etc.), *Articulate, Westrand, London*; telephone, 2630, Gerrard. (3) MEDICAL SECRETARY, *Medisecra, Westrand, London*; telephone, 2634, Gerrard. The address of the Irish Office of the British Medical Association is 16, South Frederick Street, Dublin.

Queries, answers, and communications relating to subjects to which special departments of the BRITISH MEDICAL JOURNAL are devoted will be found under their respective headings.

LETTERS, NOTES, ETC.

GARLIC IN WHOOPING-COUGH.

DR. EDWARD KNIGHT (Gravesend) writes: It is curious to note that more than a century ago garlic was commonly administered through the skin of the soles of the feet as a cure for whooping-cough. Thus, in Buchan's *Domestic Medicine*, 1788, it is stated, "The garlic ointment is a well-known remedy in North Britain for the chin-cough. It is made by beating in a mortar garlic with an equal quantity of hog's lard. With this the soles of the feet may be rubbed twice or thrice a day; but the best method is to spread it upon a rag, and apply it in the form of plaster. It should be renewed every night and morning at least, as the garlic soon loses its virtue. This is an exceeding good medicine both in the chin-cough and in most other coughs of an obstinate nature." Now, apparently, garlic is not so much used in the treatment of whooping-cough (or chin-cough) as in times past. A chemist, however, tells me that he usually keeps some syrup of garlic in stock, as his customers now and then require it as an internal remedy for the complaint.

TWO PICTURES OF MALARIA.

DR. J. BEARD (Edinburgh) writes: "Although malaria has still been the prevailing disease, yet I feel certain that these careful precautionary measures have been greatly instrumental in lessening its intensity. The move to the valley of the Struma in June tested all the preparations made, and severely tried the medical resources. The area occupied was found to be highly malarious."—General Milne's dispatch on the operations of the British army in Salonica. *The Times*, December 7th, 1916.

"The 'Prevision,' to use Pasteur's word, of the mode of treating scientifically, not to add easily, and of curing tuberculosis and relapse malaria. Clinically, the truth of these forecasts has been established abundantly by Dr. W. Baetznier (tuberculosis) and by an officer of the Royal Army Medical Corps in Burma (malaria). As over one million persons die of malaria annually in India alone, and as it has been found that even the worst relapse cases of malignant malaria are cured by but one to at most three injections of genuine trypsin and amylopsin, and as the treatment, besides being highly efficacious, is very cheap, it is perhaps not necessary to dilate upon the importance of this, almost my latest, work."—Abstracted from a pamphlet by the writer, dated March 26th, 1915.

Nor, be it added, is it necessary to dilate upon the fact, that all the various attempts made to bring these finds to the

notice of the War Office have resulted solely in the receipt of two official replies upon "Form 1," to the effect, that the matter "shall receive attention."

✓ ABDOMINAL SYMPTOMS PRODUCED BY MEDICINAL DOSES OF OPIUM.

DR. H. P. WINSBURY WHITE (House-Surgeon, Royal Infirmary, Edinburgh) writes: Four cases of severe abdominal pains following large medicinal doses of opium or drugs containing its derivatives have recently come under my observation. In each instance the symptoms were such as might easily lead the observer to believe at first sight that he was confronted with an abdominal condition requiring surgical interference.

Case 1 was a man, aged 25, suffering from toothache, who took 1 grain of morphine hydrochloride by the mouth. Two hours after the administration he woke with violent abdominal pains coming on in spasms. He was sent to hospital as possibly a case of perforated duodenal ulcer.

Case 2 was a man, aged 37, suffering from influenza. During the course of an evening he took five tablets of 5 grains each of Dover's powder, which contains 10 per cent. of opium. The patient woke about two hours after the last dose with violent abdominal pain.

Case 3, a man, aged 23, admitted to hospital suffering from an injury to the lower part of one thigh; he complained of great pain, and was given a hypodermic injection of heroin, grain $\frac{1}{4}$. A quarter of an hour afterwards he began to cry out with intense pain in the upper part of the abdomen. He was apparently suffering very much, as he began to writhe about, forgetting for the time being the injury to his thigh. He continued thus for half an hour, when he was given another dose of heroin, grain $\frac{1}{4}$, which apparently afforded no relief, and the dose was repeated; after this he became quiet, and ceased to complain.

Case 4, a man aged 24, suffering from nasal catarrh and bronchitis, who took 2 oz. of Brompton mixture, which contains liquor morphinae hydrochlor. Between two and three hours later he was awakened by severe cramp-like pains in the region of the stomach.

These cases resembled each other very closely in their symptoms. Spasms of gripping pain in the epigastric and left hypochondriac regions, coming on at intervals of a few minutes, lasting about a quarter of an hour, and so severe as to double the patient up, and cause him to groan. The symptoms in the first two cases lasted for about an hour, and then passed off completely without treatment other than hot bottles. The third case at the end of an hour was also free from pain, but by that time he had received in all $\frac{1}{2}$ grain of heroin hypodermically, and it is likely that the last injection placed him so deeply under the influence of the drug as to relieve him of the consciousness of pain. Case 4 suffered for about half an hour, when he was given $\frac{1}{16}$ grain of atropine hypodermically, after which he got almost immediate relief. In none of the cases was there any vomiting or nausea. The pupils in each instance indicated by their contraction that probably opium had been taken, and on inspecting the abdominal wall the upper part was distinctly rigid and respirations were short.

In one case both recti stood out very prominently. The patients resented palpation of the abdomen, as it appeared to tend to start the spasms. On inquiring into the histories of the individual cases, none of them had had previously any condition resembling that described, and subsequent to the attacks passing off all seemed perfectly well.

It would be interesting to know if other practitioners have had cases of this kind, as these seem to demonstrate an action of the drug which is not generally recognized. Inquiry amongst my medical friends reveals only one instance of acquaintance with this peculiarity of the action of opium, and in this case a well-known surgeon had a personal experience of these unpleasant symptoms. Opium causes convulsions in cats and amphibians, and a veterinary friend informs me that a severe colic is known on occasion to follow in horses after an administration of morphine.

. In the late Sir Lauder Brunton's *Textbook of Pharmacology, Therapeutics, and Materia Medica* the fact that opium in certain conditions stimulates intestinal peristalsis is noted. He seems to have used it occasionally, in very small doses, one drop or even half a drop of tincture of opium, in certain forms of constipation—for example, that caused reflexly by ovarian irritation.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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