

to find a cure for the disease, or to discover a vital law which might remove or prevent pain in animals as long as the world lasts, I should be branded as a cruel and immoral wretch, not by well-informed people, but by a small clique of feminine minds who are ignorant of the laws of living things, and who wish to continue in their ignorance; and, besides, I should subject myself to the operation of penal laws. Such a state of our laws is, in my opinion, a disgrace to the boasted intelligence of the nineteenth century.

I remain, Sir, yours truly,

ALFRED THOS. BRETT, M.D., &c.

Watford House, Herts, Aug. 29th, 1881.

P.S.—I was so impressed with the defective state of our laws, that in my anniversary presidential address in 1879 to the Hertfordshire Natural History Society I went somewhat out of my way to express my views on the subject, and as they are pertinent to my present letter, perhaps you will allow me to quote them:—"I should like to make a passing remark on what I consider some retrograde and ignorant legislation. I allude to the Act to amend the Act for Prevention of Cruelty to Animals, commonly called the Anti-Vivisection Act. This is often considered to be a doctor's question, but it concerns the public more than it does the medical profession. I can speak with impartiality because, although I have been a student of medicine for thirty-four years, I have never performed vivisection (except on the human subject), and I do not recollect seeing it done. Yet I can quite understand that to those who wish to extend the boundaries of knowledge it is an important means of research, and such students of nature should have every encouragement and help given them. For a knowledge of the laws of life is necessary for the treatment of disease, and if the public wish to keep the science of physiology imperfect, and succeed in their object, the treatment of disease will be more imperfect, more painful, more prolonged, and more expensive than it need be. As to cruelty, I do not believe it. Nothing is so cruel as ignorance, and those who wish to hug their ignorance of biology are the truly cruel. If the public knew their own interest, instead of listening to the blatant cry of a few amiable, but misguided sentimentalists, they would establish physiological laboratories in every large town in the kingdom. There are very few sciences that would be likely to yield such grand results as physiology, and to pay, not only in a pecuniary point of view, but in relieving human suffering as well as that of the animal kingdom for all future ages."—*Transactions of the Watford Natural History Society, vol. ii., p. 157.*

THE PORTABILITY OF DRUGS IN FIELD SERVICE.

To the Editor of THE LANCET.

SIR,—During the recent campaign in Afghanistan, I was struck with the importance of diminishing as far as possible the bulk of drugs for use in the field. I would urge the attention of wholesale chemists and others to the advantage which would result from compressing quinine, ipecacuanha, and other drugs. Quinine can be compressed into one-fourth its bulk, and even less by using higher pressure. Tablets of quinine would be a very easy way of preparing it, and they could be carried in boxes, and not in bottles. Every bottle carried in the field is but a new risk of the loss of its contents. I would like to see them reduced to a minimum, and all possible medicines packed dry in squares, like chocolate, for transport. We should copy the army, and have "medicine cartridges" as far as possible. Thus quinine pills could be sent out to the base of operations, or even made up there in cartridges of 100 or 1000 each, in tinfoil and cardboard or tin boxes. Astringent pills of acetate of lead and opium, a well-known formula, could be and should be prepared in 100 or 1000 cartridges, so that one could telegraph "Send me 5000 astringent pills, No. 12 formula, by field-post." Dover's powder, opium, calomel, tartar emetic, and a number of essential drugs all lend themselves to this cartridge treatment. On the side of an Afghanistan mountain a requisition is sent in to a field-hospital for drugs. The drugs I may have in plenty, but bottles for them are the difficulty. The medical stores in India issue quinine in 1 lb. units in bottles; but smaller quantities, 2 oz. units compressed and packed in tinfoil and cardboard boxes, or compressed to one-fourth in tin boxes as

large as an ordinary match-box, would be very convenient, and easily lend themselves to separation.

I take it that a formulary of prescriptions for our army hospitals is absolutely essential. It need not be too elaborate, but should contain a very full list of pills and powders. These two modes of administering drugs will be always important in the field; and by having such formularies one could telegraph for the drug wanted, and get it by field-post, and not by the slower transport train. We want above all things to reduce compounding in the field. We want that work done as far as possible at the base. The carriage of chloroform will always necessitate bottles, unless some means can be found to invent a more portable anæsthetic. Chemists might well turn their attention to such a subject.

Water and rum are always with an army, and the dry component elements of mixtures should be issued in boxes ready for water to be added to produce a large bottle of the mixture needed. Rum can be used to make tinctures of certain drugs in the field. It always forms part of our commissariat supplies. Concentrated tinctures, needing only extra rum added, would also be of use in the field.

As regards the issuing of a definite formulary for use in army hospitals in the field or in quarters, we must remember that the system of issuing cartridges to infantry and artillery in the army is merely an attempt to simplify the supply of ammunition to the fighting men. Artillery officers, were they allowed, would be striving to modify the weight of the powder and the class of powder used. But necessity has forced the authorities to fix the weight and character of the powder used, and has left the experimental part to be done in times of peace. In like manner, we need a definite formula for war service in all the commoner prescriptions.

Thus it would be better to fix a formula for an astringent pill than run the risk of having no compounder on the spot to combine the opium and the lead. The sickness or death of a compounder in the field is a great loss, but we exaggerate the loss by not minimising the work needed of him. Again, in the field, medical officers and the medical staff are concentrated from scattered peace hospitals. I order a sick soldier a diaphoretic mixture, and I find the compounder does not use the mixture I have been accustomed to order. It is unfair to ask him to make up a separate mixture for every medical officer in a large hospital. We should agree on a fixed formula, and add any special drugs to that formula if so needed. The experience of officers gained in field service should be put on record for others. I know of no book which an army doctor can read to learn hints to make field service responsibility less onerous than it now is on the medical officers. There is certainly room for a paper on such an important subject.

The supply of drugs in the field, and particularly in the wars we fight in, in wild and uncivilised countries, where transport is so important an item, will always be an interesting subject. I think something might be gained by following the lines I have endeavoured to sketch out.

I remain, Sir, yours truly,

G. J. H. EVATT, A.M.D.,

Royal Military Academy, Woolwich, Sept. 1881. Surgeon-Major.

DUGAS' PATHOGNOMONIC SIGN OF DISLOCATION OF THE HUMERUS.

To the Editor of THE LANCET.

SIR,—Having had a case of dislocation (subcoracoid) of the humerus under my care a short time since, in which the above sign proved of great service, I wish to draw the attention of your readers to its value.

The patient was a strong, stout, healthy man, weighing 237 lb., and came by his injury through a violent fall sideways upon the inside of his right elbow. The shock was severe, but reaction soon occurred, and it was found impossible to reduce the dislocation in the usual way. There was some question as to the exact nature of the injury, for a feeling like that of crepitus could be obtained on examination, due either to effusion into or about the joint, or to relaxation and displacement of the tendon of the long head of the biceps muscle. This being the case, and there being also very little deformity and no increased mobility, the depression under the acromion corresponding with the glenoid cavity, and the presence of the head of the bone beneath the coracoid not being pronounced, on account of

obesity, I was led into error in supposing the case to be one of an injury very uncommon in adults—viz., fracture of the anatomical neck of the humerus. There was also a question as to the existence of dislocation complicated with fracture.

Dr. Briggs of Nashville, Tenn., Professor Darling of New York, and one or two other surgeons, however, who happened to be present, obliged me by their assistance and their advice, and set the matter at rest by the use of the method of diagnosis introduced by Dr. Dugas of Augusta, Georgia—viz., by bringing the hand of the injured arm across the chest to the opposite shoulder and showing that the elbow could not be approximated to the chest. This sign depends upon the fact that it is impossible for a straight line (the humerus) to touch the convexity of a curved line (the thorax) at more points than one at the same time. Its value was very apparent in this case on account of the condition and habit of the patient. He was placed under the influence of ether, and Dr. Briggs himself reduced the dislocation by the process of manipulation.

Dr. Robert Smith refers to the distinction between the two injuries of which I have spoken; and Mr. Bryant, in his new edition, notices this method of diagnosis, and acknowledges his obligation to Dr. Briggs for having called his attention to it.—I am, Sir, yours faithfully,

Liverpool, Sept. 1881. J. R. STOCKER, M.B., B.S. Lond.

MEDICAL DIPLOMAS.

To the Editor of THE LANCET.

SIR,—The enclosed letter was received by me a few days since, and it has occurred to me that the best redress I could obtain for the insulting proposition would be to have the same published in the columns of your valuable journal, for which you have so many subscribers here even on this side of the Mississippi.

I am, Sir, your most obedient servant,
P. GERVAIS ROBINSON, M.D.,
Dean of Mo. Med. Coll.

Missouri Medical College, St. Louis, Sept. 12th, 1881.

“DEAR DOCTOR,—I request you will kindly inform me on what conditions I could obtain *in absentia* a M.D. diploma. You can rely on my discretion; the cash will be forwarded beforehand. Waiting your reply,

“I remain, dear Doctor, yours faithfully,

“ * * * * *, Aug. 27th, 1881.” “ * * * * *

PARIS.

(From our own Correspondent.)

IN spite of all the endeavours of the military authorities to keep matters quiet, the truth about the health of the troops in Algiers and Tunis is now known. Thanks to the antagonism between the medical departments of the army and the commissariat, hospital organisation has been completely paralysed, and the state of things is not unlike that which obtained during the Crimean war. In Tunis there is an epidemic of typhoid fever. The Hospital at Bone has two hundred cases, and the commissariat officers daily refuse admission to others for want of beds. Medical aid is also deficient, and an appeal for help to the civil practitioners of the country has just been made. If the *Tribune Médicale* is correct in its information, this appeal is probably the most astounding impertinence ever offered by any administration to the medical profession. The terms, as stated by this journal, are fifty francs (£2) a month, and the prospect of a hospital appointment later. Of several thousands who have received this brilliant offer five only are said to have responded; and it is highly probable that the War Department will have to elaborate more satisfactory conditions. In the first place, the relations between the medical and commissariat officers must be placed on another footing. As regards pay, the civilian surgeons will do well to recollect what the English authorities were obliged to give on an analogous occasion at the outbreak of the Zulu war. Those will be very foolish who allow themselves to be tempted by the promise of future honours. The tenour of such appointments is much too precarious in France; and the engagements of a dying Ministry are by no means sure of being honoured by that which will succeed it.

A report was prevalent a few days since that an English ship had put into Dunkirk with several cases of yellow

fever on board. This turns out to be “Senegal,” or “pernicious,” fever, with typhoid symptoms.

A Commission appointed by the Faculty of Medicine to report upon the study and practice of dentistry in France makes known the result of its deliberations. It is proposed to create a special dental diploma, candidates for which would have to fulfil the following conditions: 1, To be at least twenty years of age; 2, to have passed a preliminary examination; 3, to have attended lectures for two years at a school of medicine on anatomy, physiology, medicine, and surgery; 4, to have attended the practice of a surgical service for one year; 5, to have studied two years either with a dentist or in a school of odontology. The examination for the diploma will consist of a theoretical, a clinical, and a practical test, the candidate being required to perform some dental operation, and to execute a piece of mechanical dentistry. If this project becomes law all dentists, whether French or foreign, who have practised less than ten years, will be required to qualify themselves by submitting to examination within three years.

At the Academy of Sciences M. de Lacerda states that he has found an antidote to the virus of the Bothrops in permanganate of potash. A solution of this salt injected hypodermically, after the venom of the serpent had been introduced beneath the skin, prevented the appearance of any local disturbance where the virus had been injected. When the antidote was not used swellings and abscesses always occurred. The same thing was observed when poison and antidote were injected into the veins.

THE GARRISON HOSPITAL AT METZ.

(From a Correspondent.)

A DESCRIPTION of the above hospital may be of interest to at least some of the readers of THE LANCET. I have to tender my sincere thanks to the military, and especially to the medical, authorities of the famous fortress, the capital of Lorraine, for the kindness shown to me, and also for the trouble taken in explaining everything of interest both in the hospital and in the newly-built cavalry barrack, constructed on the latest principles.

The garrison hospital at Metz, two-storeyed, stands close to the Moselle; it is built round, and completely encloses, a large open space, with trees and shrubs, on a well-kept lawn, divided into two gardens by a cross block, also two-storeyed, connecting the two wings. The accommodation is for 800 beds, though at present the patients number only about 200, out of a garrison of nearly 17,000. Detached are washhouses, a mortuary, and wards for small-pox, &c. The ground-floor is taken up by offices, kitchens, pharmacy, and immense magazines—never touched in peace time—containing complete stores and equipment to the smallest details for 3000 sick for three years, in view of a possible, many say, a probable siege; everything in the most marvellous order. On the first and second floors are the wards, large, lofty, and very roomy, each containing thirty-five to forty beds; floors of polished wood, walls painted to a height of about seven feet, above that distempered; ventilation by opposite windows, provided with curtains, opening quite to the ceiling, and where no windows exist, as at the ends, by ventilating shafts. Latrines are supplied with constantly running water. The sanitary arrangements seemed perfect. Since the Germans came into possession many improvements have been made. Hot and cold water has been laid on everywhere, and gas provided. Upon the iron bedsteads, standing well away from the wall, lies a wire mattress, with headpiece, allowing a free current of air underneath, and making by its springiness a most comfortable bed; upon it, again, a hair mattress in three pieces, sheets and blankets. Over the patient's head hangs a black board, giving his regiment, name, date of admission, diet, medicines, in white chalk. The foot of the bedsteads supports a long narrow ledge, used as a table by the surgeons and attendants for writing upon, &c. Near the head stands a small table, with cupboard for patient's food, necessaries, &c. On admission he is provided with blue-and-white-striped lined coat and trousers, slippers, shirt, and socks. The hospital is divided into three departments—a surgical, a medical, and a venereal “station,” each presided over by a surgeon-major, assisted by one or two assistant-surgeons, the whole being under the surgeon-in-chief, who is responsible for all sanitary arrangements, and for discipline, he having the