

residence, should register this as his preliminary professional examination, and commence his professional studies. After this, I would recommend *four years* for lectures and hospital practice, when he should be allowed to present himself for the M.B.: the last of these years to be spent in London or elsewhere. The maximum period would be five years, and the minimum four years. The subject of scholarships and fellowships for members of our profession is worthy of our gravest consideration in connexion with the scheme I have so faintly sketched.

I submit these rough notes with great deference to your editorial judgment for correction and modification wherever requisite; and, if I shall succeed in attracting the attention of some one of position and experience, I shall be much gratified, and will gladly leave this matter in the hands of those most competent to deal with it.

I am, etc., WILLIAM SMITH.

Redditch, Worcestershire, December 1867.

DISINFECTANTS IN HOSPITALS.

SIR,—Seeing, in your impression of the 30th ult., a paragraph in your Dublin correspondent's letter which would be likely to create the idea amongst its readers that the authorities of the Fever Hospital in that city were indifferent to the means placed at their disposal by the corporation for disinfecting purposes, I request you will permit me, in justice to the governors of this extensive hospital, to state that their reason for not availing themselves of the corporation hot-air chamber is the fact that there are, and for very many years have been, attached to this institution a disinfecting washhouse and hot-air chamber, which have been found to satisfy perfectly the requirements of the hospital. Perhaps some of the other Dublin hospitals have declined the corporation offer from similar causes.

I am, etc. T. F. EUSTACE,

Registrar to the Cork Street Fever Hospital and House of Recovery, Dublin. December 1867.

THE CHASSEPOT RIFLE AND ITS AMMUNITION.

SIR,—The qualities of the new weapon and projectiles which have been recently issued to the French army must be of interest to Englishmen; and, whatever precautions may be taken to prevent it, it is not difficult to obtain precise information respecting them. In a recent letter in the BRITISH MEDICAL JOURNAL, I remarked that the bore of the Chassepot rifle is nearer four-tenths than five-tenths of an inch. I see that, in the JOURNAL of the 7th instant, Dr. Bruce objects to this statement, "as he has seen a drawing from an eminent French gunsmith, which makes the bore much nearer five-tenths than four-tenths of an inch." On further inquiry, I think your correspondent will find that the *government* Chassepot rifle has a diameter of only three-hundredths of an inch (omitting decimals of thousandths) over the four-tenths of an inch.

The following particulars respecting the "Fusil Chassepot" and its cartridge are from actual observations made at the Camp of Châlons, from specimens issued to the French troops assembled there in July last. Weight of rifle, without bayonet, *kil.* 4.54; sabre, bayonet, and scabbard, *kil.* 1.33. Weight of charge of powder, *grammes* 5.25; weight of bullet, *grammes* 24.50; total weight of cartridge, including powder, bullet, paper, cap, silk, etc., *about 32 grammes*—the weight of paper, silk, etc., not always being precisely the same. Diameter of barrel of rifle, *11 millimètres* (or .433 of an English inch). The bullet, which is *cylindroconique* and *spherique* (as Dr. Bruce says, with an apex more rounded and blunted than he represented it), has a base of *11.8 millimètres*, so that it may be forced to take the grooves of the rifle. The bullet is full; that is, there are no openings in it.

The table below, which almost exactly accords with the above in all particulars, and exactly, as regards the width of the bore of the rifle, is copied from the official Report on Portable Arms, Class 37, at the recent Universal Exhibition at Paris, by Captain V. D. Majendie, R.A., prepared by order of the Committee of Council on Education. This Report is published in a supplement to the *Illustrated London News* of November 2nd last.

Chassepot Rifle.	French Measurement.	English Measurement.
Weight .....	4 kilos. 50 grammes.....	8 lb. 14 oz. 13 dr.
Calibre .....	11 millimètres .....	.433 in.
Range .....	1000 mètres .....	1094 yards.
Weight of cartridge.....	11 grammes .....	578.4 grains.
Weight of ball .....	24 grammes .....	370.4 grains.
Weight of charge.....	5½ grammes .....	84.8 grains.
Initial velocity .....	450 mètres.....	1476.4 feet.

It is not improbable that other forms and weights of bullets from

those given above have been tried and used with the Chassepot; just as the Boxer cartridge, as now issued, has not been the only one used with the converted Enfield rifle. But the calibres of both weapons, and therefore the diameters, of their respective bullets, have always been the same as they are now. I am, etc., T. L.

December 1867.

"GOVERNMENT APPOINTMENTS."

SIR,—Is it not high time the profession raised its voice on the subject of government appointments? The church has its bishoprics, deaneries, alluring positions in our universities, crown livings, etc. The law its judgeships innumerable, both small and great; commissionerships without end, *cum multis aliis*; the army and navy many places of honour and emolument at home and abroad; while the profession of medicine has scarcely a single piece of state patronage which it can hold out to those who enter its ranks. That such a state of things is unfair, and eminently unsatisfactory, cannot be denied; and it behoves us well to consider the causes which help to bring it about. One cause is to be found in the opinion prevalent, and too long allowed to remain unchallenged—that we, as a body, are wanting in business habits and administrative ability—an opinion erroneous in theory, falsified by experience, and capable of disproof by instancing the examples of those few of our brethren who have been fortunate enough to obtain employment under the crown. A second, and I think more cogent, reason, is connected with the fact that, as a body, we are not political—a circumstance which may have contributed to our satisfaction individually, but which, I am persuaded, has worked to our prejudice collectively.

Were all classes of subjects equally eligible, all would have an equal claim to a proportionate share of the good things of the state. As it is, however, offices under government, as elsewhere, require of those who fill them special qualifications; and such qualifications being obtainable only by special education and training, it clearly follows that certain appointments ought to be limited to, and, as it were, the perquisites of the members of those particular professions or bodies wherein the education and training specially needed is inculcated. Whether we ground our claim on the score of equitable distribution, or on that of special training and aptitude, it is evident we receive far less than we have right to expect. There are numerous appointments at the bestowal of the State, such as those of Poor-law and Prison Inspectors, Lunacy Commissioners, and, I would add, though not strictly a State appointment, Coroners, which demand of those who hold them (that is, if the several duties thereof are to be satisfactorily discharged), a knowledge of the subjects of medical study; and it is surely not presuming too much to seek that these offices may be bestowed upon, and considered as the recompense of, deserving members of the medical profession.

I trust the medical press will continue sedulously to guard our interests in this important particular, by steadily, yet fairly, endeavouring to establish our claim; and by firmly, yet modestly, showing forth our qualifications. The result must be, ere long, that an impartial public will acknowledge the justness of our cause, and they in authority be induced to accord to us an increased share of Government appointments.

I am, etc., J. WEST WALKER, M.B.

Spilsby, November, 1867.

SUBCUTANEOUS INJECTION.

SIR,—Having read your article on the report of the "Hypodermic Injection Method of Medication", I beg to send two or three cases in which I have found it very useful with anodynes. I would premise, that I am in the habit of injecting much more concentrated solutions than you speak of being used. Whatever may be the strength of the doses, never inject more than fifteen minims of the fluid; so that the danger of local irritation is diminished.

In a case of cancer of the liver, right kidney, and adjacent bowels, which involved the right spermatic nerve, causing intense agony in the right testis, I have found that for six weeks the injection of half a grain of morphia under the skin of the scrotum, twice a day, in the course of half a minute removed the pain for the space of twelve hours. I then had to increase the dose to three-fourths of a grain; and, for the last fortnight of the man's life, one grain was required. The effects were simply to relieve pain, and enable the patient to sleep, but not to narcotise him.

A lady who had abscess of left breast fifteen months ago, after the birth of a son, two months since had painful lumps in both breasts from excessive arm-nursing of the same child, who had difficult dentition. The pain extended to the shoulders and between the scapulae. The injection of a quarter of a grain of hydrochlorate of morphia under the

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