the ear, that East Indians, in Cheltenham, have told me, that deaf people frequently lose their deafness on arriving in the East Indies; and I have known some of the Company's officers recommend an East Indian voyage to relations to get rid of their deafness. "A chronic discharge from the ears, with inflammation," says M. Lallemand, "is generally diminished under the influence of a dry and warm temperature, exercise, and low living. In simple cases, it will entirely disappear under these circumstances; it is easily renewed or augmented by the reverse, and especially by cold and moisture, too much intellectual exertion, and excesses of the table. Bonet states, that "A nobleman from the climate of Rome, which is very damp to live in, having removed to the climate of Naples, especially on the sea-coast, found his sight and hearing much improved. Indeed he became perfectly well after going for his recovery to the sulphureous watering-places and to the sudatories (cells in baths for exciting perspiration without washing), which are hot-houses in myrtle groves."—*Sepulchretum de Auriculis affectibus*, tom. I. p. 435. Mrs. Macklyn, the sister-in-law of the state-surgeon of Ireland, four days before her death, when under my care, had so much insensibility of the ears, that she experienced sensations of severe cold from the injection of hot water, till it was raised to a degree at which I could not bear my fingers in it. She had ear-ach from a carious affection of the lower jaws. Quite different is the effect of cold water; it causes painful frigidities, catarrhs, and even an increase of deafness. After warm injections, the rush of cold air is felt more sensibly, and increases the liability to colds. I ascribe to this circumstance that instinct of the deaf which renders them so generally averse from subjecting their ears to treatment during winter. These phenomena are all explained by the exquisite structure and sensibility of the organ to both impressions, hot and cold.

Enlarged tonsils contribute to deafness even when those glands, in their enlarged state, are not so adapted as to compress and close the Eustachian tubes; for I have found the hearing often improved by the reduction of large tonsils, though they did not obstruct the passage of probes through the Eustachian tubes when at their greatest magnitude. Whether in these cases the tonsils contribute to deafness by defeating the impulses of the air, or by modifying the reverberations of sound in the posterior palate and nares, or by association of function with the ears, or by the relative position of the posterior part of the enlarged tonsil to the Eustachian tube, is not ascertained. In deafness of one ear, generally,

a single gland only is enlarged. It should be understood, that simple tonsillar enlargement in deafness coincides, and is complicated, with other causes of deafness, and that such simple tonsillar enlargement often occurs without deafness. The brother of a respectable druggist here, and another person, lately came to me with tonsils immensely enlarged, without any effect on the hearing. Apparently enlarged tonsils often give rise to dyspepsia and disordered states of the stomach, for I have known those affections yield, in deaf persons, in proportion as the tonsils were reduced to their natural bulk.

Feb. 1831.

REMARKS ON THE MECHANICAL MEANS
EMPLOYED IN THE TREATMENT OF

FRACTURES OF THE LOWER
EXTREMITIES.

By W. H. NEVILLE, Esq., Surgeon.

(With two Plates.)

It often happens in fractures of the leg, where both bones are broken nearly in the same relative part of their shaft, that, whether the limb be laid on its side, in a state of semiflexion, or extended in the straight position, it is found difficult to keep the broken ends of the bones respectively in such accurate contact, as finally to preserve the proper figure of the limb. The weight of the foot, and the hollow form of the leg at its back and lower part, together with the projection of the heel, constitute some of the difficulties both in simple as well as compound fractures, and a reference to the anatomy of the bones as well as of the soft parts will show us that such difficulties are to be expected. In compound fractures too, a necessity may arise for frequent changes of dressings and bandages, and this is seldom accomplished without some disturbance which it would be very desirable to avoid. The absolute necessity of occasionally moving the patient in bed, is another source of disturbance to the fracture, and the pressure of splints against some prominent part of the limb in order to give proper stability to the whole, is a matter very annoying, and very often complained of.

In the endeavour to obviate some of these difficulties, and to fulfil the primary purposes of the surgeon simply and effectually, I have constructed a new sort of splint for the leg, the utility of which I have proved in some very bad fractures, to the satisfaction of several professional friends, besides having received the complimentary testi-

mony of other surgeons who have employed the same plan in their own practice. I have shown the splints to many surgeons of great experience in military, naval, and private practice, and in every instance they have expressed the most decided approbation of them, both in regard to the accuracy of their mechanical power, and their ability to meet the pathological requirements of fracture. I am therefore induced to publish this account of them, in the hope that they may become useful auxiliaries in many instances, and I shall be highly gratified to find that a more extensive trial may confirm the favourable opinion which so many have already expressed of them. The plan of the instruments is very simple, and the materials of which they are composed exceedingly durable. Mr. Thompson, of Windmill Street, to whom I have given the plans and any advantages that may arise therefrom, has taken great pains to manufacture the splints neatly, and he has spared neither trouble nor expense in procuring a set of engravings which accompany this paper so as to exhibit and explain the matter pretty accurately.

I need only say, therefore, that the splints are made of iron, and the padding of flannel eight times folded, and enveloped in a cover of linen or of chamois leather. The substance of the under splint, is such as to bear the weight of the limb easily, and yet to bend so as to meet any shape that may be required; the substance of the side splints is almost the lightest that is to be obtained, and such as will enclose the limb laterally with great exactness, and maintain its shape without any painful pressure; the padding is sewed on the splints, through holes bored in pairs at proper distances.

It is thus assumed that a flexible splint with soft and regular padding will perform its office more accurately, and with less pain to the patient, than an inflexible splint and graduated cushion.

Several different sizes will of course be required, to meet the length and width of different limbs from childhood to the adult age, as the object is—to provide a firm and easy resting-place for the limb, additional to the pillow, by carrying a splint at the back of the limb from the point of the toes to half way up the thigh—to retain the limb thereupon in its natural form by fastening the foot and ankle to one end by a figure-of-8 bandage—and to extinguish for a time the action of the knee-joint, by binding it with a broad linen roller, moderately tight only, upon the other end of the splint, carrying the roller a little below the knee and as far above on the thigh as the splint extends.

The side splints will assist in maintaining the accurate position of the limb, as from their flexible nature they will accommodate themselves to the existing state of the limb,

and having a bearing on the foot part of the under splint, and extending thence above the knee, they will yield an efficient and accurate support in their whole line.

A little oiled silk being laid on the back splint, under the fractured part of the limb, and the eighteen-tailed bandage upon this, the latter may be changed at pleasure by means of a spatula; or what in many cases is easier, the eighteen-tailed bandage may be altogether applied under the back splint, and yet encircle the limb with sufficient power.

This arrangement of the fracture will provide for—

- 1st. The easy and natural position and length of limb.
- 2nd. The necessary change of dressings.
- 3d. Passive motion, without disturbing the fracture.

But as there is a great variety in the nature of fracture, and as all mechanical means are limited in their power, so in those which I have now the honour to submit, there will arise occasional difficulties in adapting neatly the means to the end we have in view.

In putting up a fractured leg, as it is termed, some surgeons make use of an upper splint to lie along the anterior part of the limb. In order to obtain much advantage from this, it should probably extend through the whole course of the tibia; but as the foot rises from the end of this bone, at an obtuse angle, there is often much inconvenience felt by the end of the solid splint pressing against the instep. To obviate this I have suggested a flexible splint, made of very narrow strips of thin metal sewed on a pad, in imitation of the wooden splint. This may be turned up at the end, so as to accommodate the instep, and, as Mr. Thompson manufactures it, the splint has a very neat appearance.

OF FRACTURED THIGH-BONE.—From the diversity of means proposed for the management of fractured thigh-bone, it may be inferred that this accident is a matter of serious consideration for the surgeon, and of this fact every man's experience will sooner or later convince him. Every eligible proposition for managing such cases is, therefore, a matter of interest to him who desires to perform his work neatly as well as securely. Those who have been accustomed to use the long splint, as it is called (a plan, I believe, emanating from French surgery), and who have witnessed the successful results of its operation, will not readily be persuaded to abandon it, in the majority of cases, for any other means. Admitting then the preference which many surgeons entertain for that instrument, I have ventured to think that the alteration I have made therein will be received as an improvement; such at least is the assurance which

I have received from persons practically competent to offer an opinion.

The instrument described in Mr. Thompson's plate is made of iron and padded throughout, on the simple plan already described; it is strong enough to maintain the length of the limb when duly applied, and requires, like the old splint, the agency of additional short splints to compress the powerful muscles of the thigh. In the construction of the old splint, a separate one was required for each limb; in this of mine the shaft is moveable on the foot-piece, and the instrument is thus convertible into right or left at pleasure. In the old splint a great distress was generally experienced from the pressure of the lateral foot-board, or from the stricture of bandages required to preserve the foot motionless; in mine, by providing an easy and accurate resting-place for the heel and lower part of the leg, and at the same time the sole of the foot having a support accommodated to its shape, the whole of these parts may be bound easily, yet securely, so as to constitute the one grand *point d'appui*. The shaft being then added the ankle will be received against a soft cushion, and will escape all violent pressure, whatever be the form or size of the malleolus. In making the upper point of resistance against the ischium, one end of the bandage, pierced by the hook, may be thus neatly fastened thereon, and the few other turns will be easily received into the sinus which the hook makes with the shaft, and kept secure from slipping. The two principal points for giving the limb its due length being thus secured, it will naturally occur to the operator, that the next part requiring attention will be the centre of the shaft, viz., that in contact with the knee. To those who may prefer wood to iron for the shaft of the thigh splint, I beg leave to say, that Mr. Thompson has manufactured both, having adapted the iron foot-piece to a wooden shaft of the same size as in the old splint.

In conclusion, I may say that I have made a variety of experiments with different sorts of metal, and also with the same metal, in various states of ductility, for the purposes above mentioned, and I have preferred such as are here described. In what I have done my aim has been merely to be useful, and if in the endeavour to multiply useful means, or to simplify such as would admit of improvement, I have effected any thing worthy of imitation in principle, or of adoption in practice, I shall be sufficiently rewarded for the pains I have taken.

Esher, Surrey, Feb. 1st, 1831.

MEDICAL EDUCATION AND GOVERNMENT IN IRELAND.

To the Editor of THE LANCET.

SIR,—I did expect that the letter signed "A. J.," which appeared in a late number of your excellent Journal, would have been noticed on this side of the water, although in many points of view it appears not worth the trouble of a rejoinder. **** Say what you will of the venerable few in the big house in Lincoln's Inn Fields, their practices, as concerns the student at least, are excellent compared with ours. They have declared the law, and have bound themselves to respect that law, such as it is. Any one producing the qualifications specified in their printed paper, may claim his examination as matter of right, and those claims will be allowed. But *here* there is a *discretionary* power, a *judge-law* to be made for the occasion, which, under similar circumstances, may or may not be allowed as a precedent, without cause shown in either case, where whim or interest can inflict injury on a faultless individual, where the agents are irresponsible, and against whom there is no appeal. The by-laws relating to education begin thus:—"Candidates shall be admitted to an examination for letters testimonial as apprentices, and shall be entitled to the privileges reserved for apprentices, if they shall have been duly registered as such on the College books. Every apprentice so registered shall be admitted to an examination for letters testimonial, if he shall have laid before the Court of Censors the following documents." Then, after requiring a certificate of a previous examination in classics, his indentures, with the master's certificate, and his bank receipt for thirty guineas lodged to the College account, it continues:—"4th. Such certificates of attendance on the practice of a hospital or county infirmary, and on lectures on anatomy and physiology, surgery, practice of medicine, chemistry, materia medica, midwifery, and medical jurisprudence, and of the performance of dissections, and attendance on anatomical demonstrations, as may satisfy the court that the candidate has had sufficient opportunity of acquiring information." Such certificates as *may satisfy the Court*! "Aye, there's the villany," as some one says in the play: there are no specific forms—no specific number and class of certificates for the exclusively privileged. How does this work? in various ways, but always to the advantage of the junta; at least if it is not so, they do not lack the power to make it so at pleasure. A young man, say, indentured to a member or licen-