

and want of carefulness is often shown, and it is to be feared that it arises partially from a want of practical knowledge on the part of the architect, and from an imperfect education on practical subjects.

Young men wishing to become members of the profession should be duly articulated and pass an examination under a Board of Examiners authorized by an act of Parliament, the same as for Provincial Land Surveyors. It would be the duty of that Board, from the status of its members, to give to young architects such evidence of their ability by their diplomas and by the strict examination they would have to undergo—both theoretical and practical—as to enable the public to know that they were incurring no risk in employing any one in the capacity of an architect who did possess the necessary qualifications; and it is a matter that should be taken up by the whole profession, for this is one of the reasons why the public employ so many builders to erect for them buildings without calling for the services of an architect. Now, there should be a statute law prohibiting any builder practising in the double capacity of architect and builder; he ought to have no more right to take upon himself the duties of an architect, than an advocate should have to perform the duties of a notary public. The architectural profession stands high on the list, and its members should staunchly combine to maintain its position and their privileges. But the dignity of the profession must of course be upheld by a careful study and preparation for its duties, and a strong determination to withstand any attempt at lowering its standard. The public must have confidence and reliance on the part of him whom he employs, and as a rule submit to his opinions on all subjects connected with his art. The feeling that often exists in the minds of clients, that an architect is in league with the builder, would cease to exist, were there an unanimous desire on the part of its members to raise and maintain their position to the highest possible standard.

In concluding these remarks, it may be well to observe that, although the strictest surveillance over the execution of the work, while in progress, is requisite on the architect's part, the public are not to expect that he can give the whole of his time to the superintendence of a building. This, however, is an error that many clients fall into. Another error also of the public, is that an architect is responsible for the delays and faults of the builder, when perhaps the contractor, on account of his tender being the lowest, has been accepted by the client in opposition to any caution given by the architect as to his unfitness. One or two visits a day is all that is sufficient to be made where an honorable builder is employed, who thoroughly understands his business; in the present unstable condition of the profession, it is not to be wondered at that often the architect, best qualified for his duties, is compelled to submit to treatment ungenerous and disgraceful, brought on by the contempt felt by the public for members of the profession, who have either grossly neglected their duties or have not upheld its dignity.

We have to acknowledge our indebtedness to many excellent articles in the *London Builder* on this subject, from members of the highest standing in the profession. We will continue the subject, in our next, on the advantages of introducing into practice properly recognized Architectural Surveyors, Valuers, Clerks and Foremen of Works.

ALLEN'S FRACTURE BED.

We illustrate on page 132 a surgical bedstead, the invention of Oliver Allen, of Petaluma, which is constructed in such a manner as to be of great assistance to both the surgeon and the patient in cases of fractured limbs, and which has many new features to recommend it. We examined carefully last week one of these beds in the surgical ward at the City and County hospital, and although a detailed description of it may make it appear a complicated affair, a little study of its construction from the engraving presented will show that its general features are quite simple. Upon it fractures can be cured without shortening of the limb, while the patient is kept comparatively comfortable and all his wants supplied without disturbing his position. A fractured leg or thigh, especially if it be compound, is surely a matter of too much importance to both surgeon and patient to submit it to packing in a hot fracture box, or lashing it to a strip of board with the padding necessary to make it endurable, and which for the purpose of inspection, requires such manipulation that the fractured bone will be jostled about, and any efforts at reparation thus interfered with. The ability to examine any part of the injured limb at any time without its disturbance, and without interfering with the extension, is certainly very important, and perfect control of the positions of the foot is equally desirable, both of which are secured in this appliance.

It is certain, moreover, that the surgeon must have both limbs extended alike, and have a more accurate method of measuring than the old one before he can be certain he is not deceiving himself in measurement. It is stated that the difference in length between a limb in its extended and unextended condition is about half an inch—sometimes more, sometimes less—as any one can easily convince himself. It is at least probable that this error in measurement, and the heretofore imperfect manner of measurement, are the two principal reasons of surgical authorities teaching that “in spite of our best efforts there always will be some shortening,” and “if a case results in but half an inch shortening, it is a good cure.”

The “fracture bed” and its appliances compose an apparatus which is the result on the part of the inventor of an effort to make something durable, convenient and satisfactory to both patient and surgeon, and in which any forms of fracture in either limb or limbs of any length, a perfect tension may be kept up with little discomfort, a perfect dressing may be quickly effected, and in which after dressings require no removing of appliances, or the least disturbance of the fractured parts. These results are practically attained; in addition to which the surgeon cannot fail to feel perfectly secure and the patient comparatively comfortable. The apparatus is really simple and is adapted to many purposes by purely mechanical arrangement.

The bedstead itself is provided with all the necessary appliances and conveniences for reducing and curing fractures of those bones in the human anatomy which require extension in order to keep the fractured parts in apposition while union is taking place.

In the engravings, *A* represents the bed bottom, which the inventor makes solid, as a board bottom is best adapted to the various devices which are to be attached to it. The bed frame or bottom is supported on legs which are arranged so as to be removed if desirable. The removable head-board is secured to one end of the bed by screws and is supported by side brackets. In order to provide for the evacuations of the patient, a hole is made through the bed bottom at the proper place and a corresponding hole through the mattress and sheet, as shown in the sectional cut. The hole is lined with metal, and the lining projects upward above the level of the bed bottom, so as to form an upward projecting flange which entirely surrounds the hole. The hole in the mattress is also lined with sheet metal, and this lining projects downward on the under side of the mattress, so as to pass inside of the lining of the hole in the bed bottom, thus forming a perfectly water tight passage through the mattress and the bed bottom. The metal lining of the hole in the mattress is screwed to the top of the mattress around the edge of the hole by a horizontal flange, and this flange is upholstered so that it will form a soft cushion.

A space is also left around the metal lining of the mattress, so that when the mattress is pressed down, the upward projecting flange of the hole in the bed bottom will enter the space and allow the mattress to be compressed.

Underneath the bed are secured two transverse rails, *h, h*, one on each side of the hole. The inner edges of these rails are grooved so as to receive the opposite flanges of a pan or chamber vessel, *I*, and allow the vessel to be moved along underneath the bed until directly under the hole. When the vessel is not in use, an