

any reasonable amount of swelling. Some cases of Pott's fracture with marked eversion of the foot require more powerful pressure to maintain reduction than this appliance can give. For the cases however to the treatment of which it is adapted it will be found a comfortable and efficient, as well as a light, safe and æsthetic dressing. While I would hesitate to advise the adoption of the spiral bandage as a routine dressing for recent fractures, I feel free to say that its advantages can be secured and its risks avoided by the use of the splint just described. Swelling may not, and in the vast majority of cases will not occur if this be early applied. Such swelling is no more a necessary accompaniment of the repair of a fracture than of the healing of a strictly aseptic wound.

*For what fractures is the treatment by gypsum to be recommended?*—For those of the lower jaw, in which an inter-dental splint either is not required or is not obtainable. Six layers of cheese-cloth (or two of Canton flannel) cut to the proper size and shape, soaked in plaster cream, moulded to the part, coated when hard with spirit varnish to afford protection from saliva and lined with cotton or Canton flannel, will make an appliance as serviceable as any other. A Barton's bandage will retain it in position. I show you one made in this way. A broken clavicle can be treated in half a score of ways, any one of which would fulfil the indications as well as any application of plaster of Paris with which I am acquainted. The humerus broken in any part may be safely and securely retained with its fragments in normal position by shoulder caps, internal angular splints or some combination of these made rigid by plaster. The internal angular splint is also, in my opinion, the best for fractures at or near the elbow. I show you outlines of the shapes into which cloth may be cut to form these supports, and also have here completed splints. The angular ones have no special advantage over those of similar shape which may be made from softened binders-board. No single fracture of the forearm is as well treated by plaster as by properly padded wooden splints. A plaster bandage seems to me to be the worst of all dressings for those which occur near the carpal end of the radius. It tends to press the bones together and to obliterate or narrow the intervening space. It prevents the frequent examinations so requisite here. It constricts a part which being dependant

is apt to swell and it has not even the excuse of adding to the patient's comfort. Just here let me protest against the dangerous doctrine that all may be considered to be progressing favorably if only the fracture gives no pain. The worst results I have ever seen have come from an acceptance of it by those who are using plaster in an unskilled manner. The problem presented by a Colles' fracture is best solved by, first, a perfect reduction and, second, the accurate pressure of a dorsal pad over the lower fragment and a palmar pad over the lower end of the upper one. Such correctly limited pressure is what we cannot get with a plaster bandage, and so I condemn its use here. Under exceptional circumstances a plaster jacket might be advisable over broken ribs, but unilateral strapping with imbricated strips of good moleskin plaster has sufficed in all the cases which I have so far seen. A recent fracture of a thigh bone may be put up by experts in a hospital, where from hour to hour it will be under observation, but under other circumstances this method is not to be commended. The dangers are greater and the results are not proven to be better than by the alternative plans. Drs. St. John, Marcy, Cowling, and Sayre, have urged the adoption of the plaster bandage as a routine dressing for these lesions, but the vast majority of those who, like myself, have fairly and without prejudice tested the plan, have given it up in favor of the two others which have a right to our entire confidence. These are Buck's modification of the weight and pulley extension of Hildamers, and the Smith-Hodgens' oblique suspension. A surgeon at the present day who has had shortening or deformity after a thigh fracture to account for to a jury, will be less likely to be mulcted in damages if he can prove that with intelligent and conscientious care he has used one of the above plans, than if he has put his trust and his patient's limb in plaster, or as Rip Van Winkle might, has depended on the long splint of Lister.

My conviction is that continuous and equable extension, indispensable here, is not maintained by the most perfectly applied plaster bandage, still less by any plaster splint. After fairly firm consolidation I do not object to this form of support, although by it I have seen a knee so stiffened that its patella was fractured in the attempt to regain motion by *Brisment forcé*.

Taking up next the patella I shall only state my