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PREFERABLE METHODS OF FIXATION IN THE TREATMENT OF SIMPLE AND OF COMPOUND FRACTURES OF THE LEG.*

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How to treat successfully a simple fracture of the leg is a mechanical problem which may be solved in numberless ways. Reduction secured and fixation maintained, consolidation almost uniformly follows. No one plan of treatment is so much better than all others yet advanced as to be the one first thought of by a majority of surgeons anywhere. If I attempt to classify a number of the methods now in use, to contrast their relative merits and deficiencies and to collect for your inspection a quantity of apparatus, it will not be because I have anything original or even new to present. Some, at least, of the appliances to which I shall call your attention are not heard of in practice here. There are those present who have had vastly more experience than myself in the use of certain other of the technical resources of surgical art here presented, and from them I hope to elicit such a practical discussion as shall more than make up for the defects in my own presentation of the subject. "Every surgeon," wrote Bell, in 1815, "sets a broken limb as he writes his name, after a fashion of his own."

We get our creeds in our cradles and our routine ways of immobilizing fractures from the offices and schools in which our student days are spent. Once in the rut it is easier to jog along than to make an effort to reach higher ground. Yet it is chiefly by the labors of those discontented ones, who are constantly striving to improve the means we have and to devise more perfect ones, that we make progress. The *un*fittest sometimes survives and the iconoclast is needed. To seek out and set in order the demerits of appliances which under the influence of certain great names have outlived their usefulness, is to do the surgical world a service which might rank equal with the services of those who have genius for construction rather than destruction.

I trust that both types are represented here tonight, and that the loose joints in this part of our surgical armour will be found and pierced, while at the same time we are strengthened by the free exchange of helpful suggestions. Young—that is very young—physicians are apt to have a special remedy for each disease or symptom, and to think they should have a special splint for each fracture. With ripening experience the tendency is to lessen the number of drugs used and to recognize that the essentials for fracture treatment are few and simple. An ample outfit, one with which many of us could get along very comfortably, need contain nothing ponderable beside thin basswood, mill-board, batting, bandages, cheese-cloth and plaster-of-Paris. The imponderable essentials are anatomical knowledge, the training of the hand, and what I once heard Mr. Erichsen call, "surgical horse-sense."

From my point of view it hardly seems that profitable discussion can be had regarding a choice of methods in the treatment of the later stages of simple fractures of the leg. There does not appear to be room for much divergence of opinion. The complete-encasement of the limb by plaster-of-Paris bandages is admitted to be the procedure which gives to both patient and surgeon the greatest degree of security and comfort. So well known has this method become that I shall refer to but a few points regarding it. It has seemed to me worth while to have the crinoline or cheese-cloth, from which the bandages are made, boiled in a solution of washing-soda and then in clear water. This makes it an absorbent gauze; it will sink at once if thrown into water, and plaster will set in its meshes as well as on its surface. Plaster dressings made with it wear out like felt, instead of scaling off and cracking. If a web of cheese-cloth be rolled tightly on a wooden cylinder and

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