

## A NEW WRENCH FOR USE IN THE CORRECTION OF STUBBORN DEFORMITIES.

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IN the correction of deformities either in children or adults all surgeons, of course, agree that there is no other power which is so useful as that exerted by the subtle, intelligent, naked human hands. There is in power so applied a precision and nicety of direction and adjustment which cannot be imitated in any mechanical appliance. Moreover, the skin of the hand produces no injury to the skin of the part operated upon; so that in the correction of any deformity in which sufficient strength is supplied by the surgeon's hands, the use of any such apparatus as the one described is not to be countenanced. But there are cases within the experience of every surgeon, such as stubborn deformities in children of eight years or over, and in practically all cases of club-foot in adults, and of the knee joint in both children and adults, in which he feels that the powers of his own hands are totally inadequate. It is in such cases that the use of the apparatus described below is of great value. It is not contended that any such powerful apparatus as this wrench shall do away with the necessity of tenotomy and fasciotomy—in fact any retaining structure that can be divided safely and subcutaneously should be divided just as in the case of correction by hand power; but it is within the experience of every surgeon to find cases in which, after every possible retaining band has been divided subcutaneously, the power exerted by the human hand alone is quite inadequate to overcome the remaining obstruction, and in order to achieve his object he must then have recourse to mechanical aid.

It was with a view to meeting and overcoming these difficulties that the author devised the apparatus about to be described.