

necessary, one should never hesitate to do it. Prof. Sprengel, of Germany, and others, use the weight and pulley in all fractures of the leg, arm and forearm as routine practice, claiming to get less shortening. When union does not take place in the average length of time, it is called delayed union, and when, after further treatment, no union takes place, it is called non-union. Rheumatism, lactation, syphilis, old age, anything that tends to lower the vitality of the patient are constitutional causes of non-union, while local causes are: malposition, foreign bodies between the fragments and trophic changes. Electricity causing tonic contractions of the muscles prevents atrophy and trophic changes. Massage aids by bringing more blood to the parts and relieves passive congestion. Indeed we should use massage as routine treatment in a great many fracture cases. Operative means will correct malposition and remove anything between the fragments. But, should there be much swelling or inflammation present, it is preferable to wait until it subsides, thereby putting the tissues in the best possible position to resist the infection to which they are liable to be exposed. Silver wire is ordinarily used for suturing, though absorbable sutures which will last three weeks do very well. Dr. Sick, of Hamburg, has introduced ivory and silver plates used with ivory and silver screws, respectively. Silver is better than ivory, as it does not corrode. Dr. Sick also uses an ivory peg three-eighths of an inch thick, which is inserted in the ends of the bone. This latter requires a great deal of mobility to accomplish, but, when feasible, makes the strongest joint. After these methods have all failed and non-union still exists, the treatment suggested by Dr. C. H. Mayo commends itself, that of keeping it an open fracture and packed, so it will granulate from the bottom, as one would an ordinary case of necrosed bone.—G. R. Curran, M. D., in *St. Paul Med. Jour.*

### TREATING CARBUNCLES WITHOUT INCISION.

Dr. Salvatore Gucciardella (in the *Gazetta degli ospedali e delle cliniche* of October 5, 1902), tells of spraying a hot 2 per cent. carbolic-acid solution over the carbuncle, followed by hot antiseptic compresses. The vapour consists of steam from a boiling solution, guided to the part by four long tubes narrower at the end nearest the patient, which is about ten to twenty inches distant from the carbuncle. Screens