

## THE USE OF BONE CHIPS IN OSSEOUS CAVITIES.

A common method of treatment of cavities in bone, especially those resulting from necrosis, is, after removing the sequestrum and scraping away the diseased tissue down to healthy bone, to pack the cavity with iodoform gauze. In time granulation tissue gradually fills up the defect in the bone, requiring, therefore, less and less of the gauze until, ultimately, the cavity is entirely filled with new tissue. The great defect in this method is the length of time it takes to bring about a successful result, while occasionally the production of granulation tissue stops short of completely filling the cavity, especially if the latter has been of considerable size. To hasten the process, then, a number of different methods have been employed in place of the gauze packing. Thus, Neuber proposed, after chiselling away the involucrum, to cover the floor and sides of the cavity with flaps of skin raised from the adjoining surfaces of the bone retaining them there with aseptic nails. Blood clot, gutta percha, formalin gelatin, have been tried, the object being to fill the cavity thus making a frame-work or support for the new granulations. Martin speaks highly of the method of Barth, viz., the use of calcined bone, claiming that it supplies lime salts for the bone forming tissues. Senn employs decalcified bone chips and as this is the substance we have used for the last five years we will speak more particularly of it.

The chips are prepared as follows: Take the shaft of a recently killed ox, saw it in portions two inches in length, remove the marrow and place the fragments of bone in a 15% sol HCL. Change the solution every twenty-four hours. In from 2 to 4 weeks the bone will be decalcified. Wash in distilled water, place the pieces of decalcified bone in a dilute solution of potash to neutralize the acid and then immerse for twenty-four hours in distilled water. The pieces of bone are now cut into strips  $\frac{3}{4}$  of an inch wide and kept in an alcoholic solution of Hyd. bichlor (1:500). The following are some of the cases in which the bone chips were utilized:—