

or more, and that a freshly extracted tooth would grow fast in an entirely foreign tissue such as a cock's comb, why would it not grow fast in an artificial socket made in the maxillary bone of a human being? Certainly the soil ought to be better suited to it than a cock's comb. After considerable reflection upon the subject he concluded to try it. This he did, I believe, first some three or four years ago, since which time he has done the operation some forty or fifty times (perhaps more), and, I believe, in the majority of cases, with marked success.

The operation is performed in the following manner: A tooth for the place is first selected, the pulp-chamber opened, and the pulp from that and the canal as perfectly removed as practicable, and the canal and drillhole are filled; it is then placed into an antiseptic solution (bichloridè of mercury, 1 to 2,000). A cross is then cut through the gum to the bone, at the point where the socket is to be made to receive the tooth. The corners of the gum thus made are slightly dissected from the bone, and a trephine the size required is then inserted through the opening in the gum, and driven with the dental engine to within about a fourth of an inch of the depth desired; the remainder of the socket, owing to its tapering shape, is finished with different-sized and shaped burrs and reamers. When in the judgment of the operator, the socket is about the size and depth to receive the tooth, he tries it in; if the tooth fits as desired the operation is proceeded with, if not, the tooth is removed and the socket enlarged in this manner, cutting and fitting until the tooth stands in the socket in a correct position. The tooth is then removed and again placed into the antiseptic. The socket is now washed out thoroughly with the antiseptic, and the tooth placed in position. In some cases it is necessary to ligate it to adjoining teeth for a time, in others it is held as firmly as required by the impinging walls of the new socket. The gum over the tooth is then painted with equal parts of the saturated tincture of acornite root and the tincture of iodine. The pain attending the operation is caused chiefly by cutting through and dissecting up the gum, and the trying in of the tooth. This may readily be controlled by the application of a small quantity of muriate of cocaine crystals to the parts for a few minutes, before the cutting is done.

I may add that different kinds of instruments are used by different persons for making the socket, such as drills, spear-shaped burrs, etc., but those described are the kind Dr. Younger uses, and prefers to any others.

The question which more particularly interests us all, in connection with the operation of implantation of teeth, is, does a union of the bone and the periosteum upon the root of the tooth take place? So far it has been impossible to satisfactorily settle this question, as no one who has undergone the operation has felt disposed, after the lapse of sufficient time for the union to have taken place (if

such be the case), to have the tooth removed even for scientific investigation. I have known of two, however, which have been taken out, one after three days and the other after five days from the time they were inserted, and it was thought in each case that a partial union had taken place.

From the fact that many of the apparently successful cases of Dr. Younger and others have been done with teeth which have been out of the mouth three, four, six, and in one of Dr. Younger's thirteen months, it would seem that it cannot be that any growing together of these tissues really occurs, but rather that the tooth is mechanically held in its new socket. I will now ask you, gentlemen, to examine a case which I have here, and as far as possible satisfy yourselves upon this point. The case is in the mouth of a colored man, Calvin Brooks; he resides in this city, is a hard-working, industrious man, but takes not the best care of his teeth.

Some four and a half years since, he had the right central incisor of the upper jaw extracted. After going without a tooth for some time he had a plate inserted with a tooth upon it (this, I believe, was renewed subsequently), which he wore, with more or less discomfort, until October 5, 1886, when at a clinic, a patient was wanted for Dr. Younger to operate upon. This man was requested to submit to it, which he did, and the operation was done as before described.

No tooth suitable for the place being at hand, one was obtained from the Colton Dental Association. When presented for insertion it was dry, so much so, that the enamel was as white as chalk, and the periosteum upon the root was apparently as lifeless as a bit of parchment. As near as could be ascertained, it had been extracted some three or four months previously.

In examining the case it will be observed that the tooth is even more firmly fixed in its new socket than the adjoining teeth, that the gum upon the labial surface and between the teeth presents a normally healthy appearance, while upon the palatal surface, on account of the removal of the amount of bone necessary for the reception of of so large a root, it has slightly receded. Its irritated appearance at that point is in a measure due to a slight deposit of tartar upon the neck of the tooth. It will also be observed that a thickening of the anterior plate of bone over the tooth has taken place, an apparent reformation of the alveolar process.

This tooth was not ligated to adjoining teeth, but was placed in position and allowed to take care of itself.

The instruments I have here are Younger's, with an improvement by Dr. W. W. Walker, of this city, who kindly loaned them to me to exhibit this evening. The improvement consists in a slight tapering of the trephine upon the outside. This prevents binding of the instrument while it is being driven into the bone. The burrs and reamers I have been unable to obtain. In summing up the subject, it would seem that there are but