April 25, 1944. H. M. SMALLEN 2,347,340

PARTIAL REMOVABLE DENTURES

Filed March 3, 1941

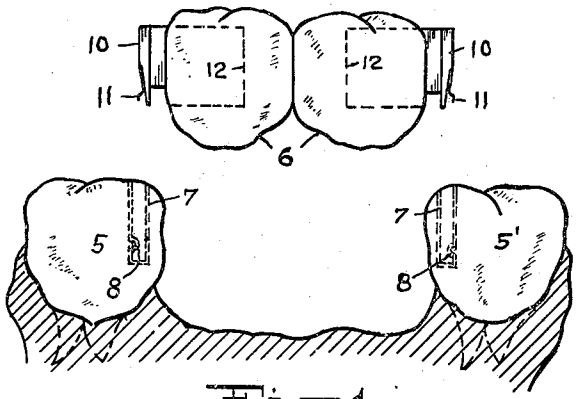


Fig-1

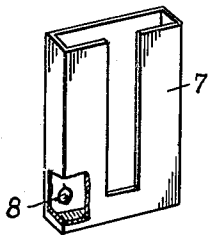


Fig-2

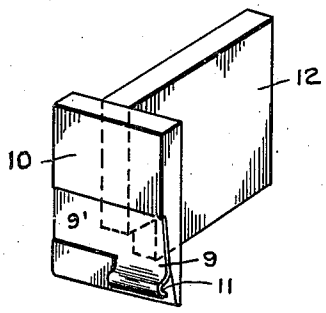


Fig-3

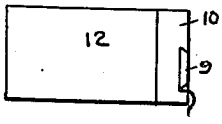


Fig-5

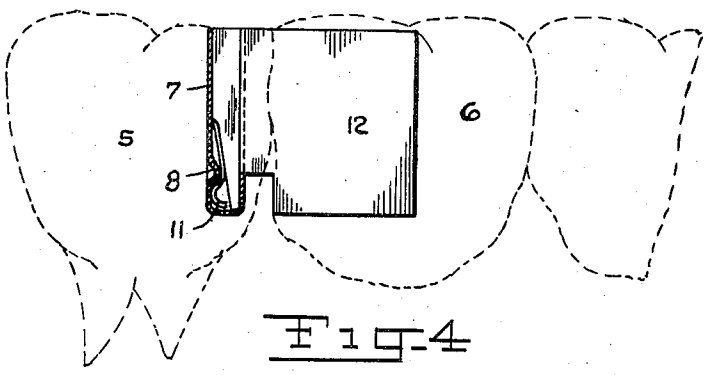


Fig-4

Harry M. Smallen, INVENTOR.

BY

Shumaker & Hill.

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2,347,340

UNITED STATES PATENT OFFICE

2,347,340

PARTIAL REMOVABLE DENTURE

Harry M. Smallen, Brooklyn, N. Y.

Application March 3, 1941, Serial No. 381,516

1 Claim. (Cl. 32—5)

My invention relates to improvements in dentistry and more particularly to an appliance for holding a partial denture in the mouth. Heretofore various difficulties have been experienced in properly securing the denture, and in maintaining proper relationship of the denture and the other teeth.

Referring to the accompanying drawing, I have illustrated upon an enlarged scale in Fig. 1, in front elevation, a suitable arrangement of removable denture and teeth showing an application of my holding or anchoring means. Fig. 2 shows an enlarged detail in perspective, parts broken away, illustrating the socket member of my holding device. Fig. 3 a similar view of the insert member thereof, Fig. 4 an enlarged detail of the left side of the combination shown in Fig. 1 with the denture in removable position, and Fig. 5 an enlarged detail showing the mode of securing part of the interlocking means.

5, 5' indicate the pier teeth, and 6 the denture. The pier tooth 5 is suitably cut away to receive and hold the socket member 7, having a protrusion 8, extending inwardly thereof, to allow the resiliently projected element 9 of the insert member 10 to snap beyond the inwardly projecting teat 8, when pushed into position, the enlargement 11 preventing the removal of the insert 10, without sufficient exertion to pull the enlargement 11 past and over the teat 8.

The shanks 12 of the insert members are embedded and secured in the end teeth 6 of the denture as shown, and in order to insure proper alignment and good sliding fit, the socket and insert members or either of them need not be permanently secured in position in the teeth, until such alignment of proper positioning has been attained. Also part 9' of the interlocking means is preferably beveled at the top and bottom as shown to advantage in Fig. 5, to slidably engage the upper and lower under-cuts for receiving and holding the part 9' as shown.

Unlike most removable securing means for dentures of the character described, there is no forcing apart or spread between the coupled or connected teeth at the piers, such as where springs or other extended means are used at those points and accordingly, the teeth retain their normal position in the mouth, and do not spread apart or release the denture, while at the same time the denture remains snugly and correctly in position until removed.

Of course it will be understood that various modifications may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

I claim:

In a removable denture of the character described where there is a permanent tooth and a removable tooth, a socket member on one tooth, a substantially T-shaped anchor member on the other tooth and having a head fitting in said socket, said head having an L-shaped recess in the outer face thereof, one leg of said recess extending laterally across the head, the other leg of said recess extending along one side edge of said head from the laterally extending leg to the bottom edge of said head, an L-shaped insert slidably received in the L-shaped recess, said insert being of a thickness substantially equal to the depth of the laterally extending leg of said recess, the vertical leg of the insert being resilient, a bead on the lower free edge of the resilient vertical leg, the vertically extending leg of the recess being tapered downwardly and rearwardly to provide a space within which the beaded portion of the resilient leg of the insert may be depressed, all of the parts of said insert being disposed substantially within the surface of said head, and a teat in the socket member for cooperation with the bead on the resilient insert to removably retain the head within the socket member.

HARRY M. SMALLEN.