C. J. DUFFY.

MOLD GUIDE FOR ARTIFICIAL TEETH.

APPLICATION FILED AUG. 11, 1919.

1,423,921. Patented July 25, 1922.

FIG. 1

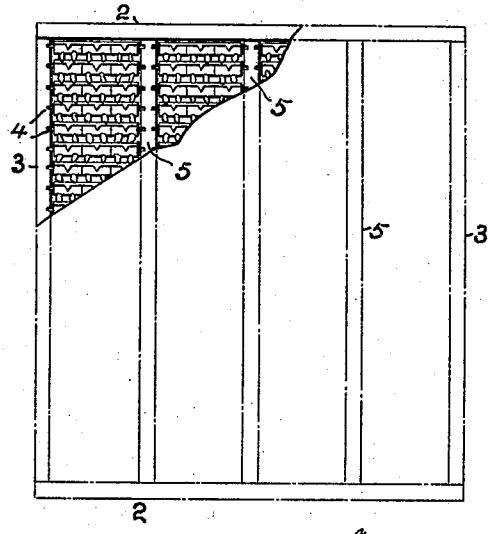


FIG. 2

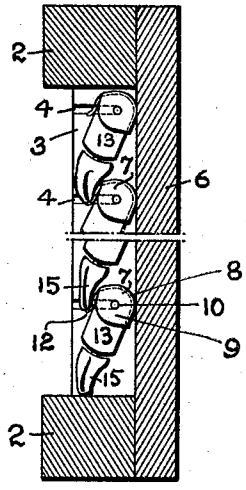
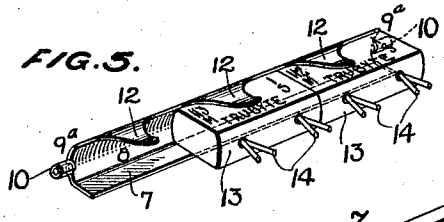


FIG. 5.



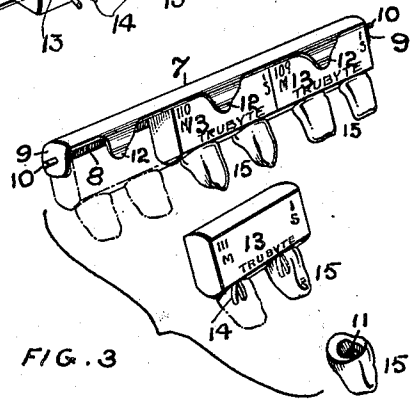
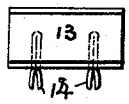


FIG. 3

FIG. 4



Inventor

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By

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MOLD GUIDE FOR ARTIFICIAL TEETH.

1,423,921. Specification of Letters Patent. Patented July 25, 1922.

Application filed August 11, 1919. Serial No. 316,524.

To all whom it may concern:

Be it known that I, CHARLES J. DUFFY, a citizen of the United States, and resident of Yonkers, county of Westchester, and State of New York, have invented an Improvement in Mold Guides for Artificial Teeth, of which the following is a specification.

The object of my invention is to provide dentists with a practical guide means for selecting special mold forms of crowns, whereby they may have in convenient view a large variety of different mold forms from which to select the desired crown, as to shape and color, and also be provided with means which will enable them to return to the factory or warerooms, a single tooth form to be matched when its companion crown has been removed for use. Heretofore guides of this character have been made as detachable bars adapted to a case and each bar provided with a plurality of six holders for crowns and when a tooth was selected and removed from a bar, the dentist returned the bar with the remaining crowns to the factory or warerooms to be filled out with a new crown, as to form and color, and returned to the dentist. During this time the dentist is without the remaining five forms and may be inconvenienced thereby. More specifically, my object is to so construct the bars that the crowns are removable as pairs with portions of the bar and in this manner only a single crown and a portion of the bar is returned to the factory for filling out or matching with a new crown, the remaining four crowns being preserved intact in the guide case or cabinet.

My invention consists in the guide bar or tooth supporting frame when formed of metal having means for positioning it in the case or cabinet and also having a plurality of socket portions preferably provided with a plurality of independent clamping means, said frame supporting a plurality of independently detachable crown carrying bar sections, each adapted to a socket portion and separate clamping means, so that any section with its attached crowns may be separately removed without disturbing the remaining sections and their crowns.

My invention also comprehends details of construction and which, together with the features above enumerated, will be better understood by reference to the drawings, in which:—

Fig. 1 is a diagram illustrating a portion of a tooth guide outfit embodying my invention; Fig. 2 is a cross sectional view of the same on a larger scale; Figs. 3 and 5 are each perspective views showing one of my improved tooth supporting frames removed and with a section of the bar also separated; and Fig. 4 is an elevation of one of the bar sections.

2 are top and bottom bars and 6 the back board of the case; 3 are the side bars thereof. In addition to the side bars 3 there are a plurality of parallel intermediate bars 5 extending between the top and bottom bars 2 and secured to the back 6. The inner side faces of the side bars 3 and both side faces of the bars 5, are provided with notches or slots 4. This case is quite shallow and needs no lid. In the spaces between the bars 3 and 5 and between the adjacent bars 5 are detachably arranged the crown holding frames 7, shown more fully in Fig. 3. When these frames 7, with their attendant tooth carrying bar sections, are in position in the case, the end pins 10 of the frames fit into the opposite slots 4 to hold the frames in parallel relation, permitting them to be detached or turned up to remove a crown. Normally, the crowns carried by a frame overlie the next frame to make the arrangement of the parts more compact and to more fully expose the crowns to view, all of which will be understood by reference to Fig. 2.

Considering now the specific construction of the crown molding frames and their associated parts as shown in Fig. 3, 7 is a sheet metal socket frame having a longitudinal socket or groove 8, shoulder ends 9 and spring clamping means 12 in the form of tongues. The end portions 9 are each provided with a pin 10 for positioning the frame in the case as above explained. In Fig. 5, the end portions 9^a which constitute the shoulders are at the ends of the frame 7 and inner end portions forming the pins 10 adjacent their union with frame 7, whereas in Fig. 3, these shoulders are in clearly formed end plates 9. In either case, how-

ever, the shoulder portion 9 or 9a, as the case may be, prevents the blocks 13 extending beyond the ends of the frame 7. 13 are three wooden bar sections of preferably rectangular form and are adapted to fit end to end and be received in the socket portions 8 of the frame 7, the respective sections 13 being clamped in position by one of the clamping tongues 12. In Fig. 3 is shown two of these bar sections 13 clamped in position in the frame 7 and the third section 13 detached for more convenient understanding of the capacity of these means. Each of the sections 13 is provided with two spring prongs or holders 14 over which the crowns 15 may be placed and detachably held by the spring prongs or holders 14 entering the holes or recesses 11 in the crowns. The crowns have their numbers burned indelibly in the labial or buccal surfaces and these numbers determine the desired mold and shade, and corresponding designations are printed or applied to the bar sections 13, some of these being indicated in Fig. 5 and on the removed section (Fig. 3). I do not confine myself to any particular guide designations. The sections may be removed from the case for holding the teeth to the patient to determine the color or shade and thereafter the crown itself may be removed.

In practice there are right and left crowns constituting a pair and these may be attached to a single bar section and when one crown is removed for use, the section with the remaining crown is returned to the factory or wareroom of the manufacturers, to be matched with a new crown. In this way, the dentist is only missing temporarily one crown instead of at least 5 crowns as heretofore has been the practice. It is manifest that I am not to be restricted to supporting the two similar right and left crowns on a single section 13, as they may be arranged in other orders if so desired. Likewise, it will be understood, that while I have found three sections 13 for two crowns each best suitable to the purposes of the invention, the frame 7 may be adapted to 2 or more of such sections, as may be desired.

It will now be apparent that I have devised a novel and useful construction which embodies the features of advantage enumerated as desirable, and while I have in the present instance shown and described the preferred embodiment thereof which has been found in practice to give satisfactory and reliable results, it is to be understood that I do not restrict myself to the details, as the same are susceptible of modification in various particulars without departing from the spirit or scope of the invention.

Having now described my invention what I claim as new and desire to secure by Letters Patent, is:

1. A mold guide for artificial teeth consisting of a case containing a plurality of detachable teeth supporting frames, each comprising a metal frame having means for positioning it in the case and providing a socket structure open throughout its length at one side and having clamping means, and a plurality of bar sections fitting end to end in abutting relation in the socket structure and detachably secured in place by the clamping means, said sections each having means for detachably holding a plurality of teeth, the construction being such that any section with its teeth may be removed without disturbing the remaining sections.

2. The invention according to claim 1, wherein the detachable teeth supporting frames are hinged in parallel relation at a distance apart, so as to avoid direct contact but sufficiently close that the artificial teeth carried on the blocks of one supporting frame will overlap and rest upon the next adjacent supporting frame, whereby said teeth are fully exposed to inspection.

3. The invention according to claim 1, further characterized by having the clamping means of the teeth supporting metal frames formed of spring tongues along the top edge of the socket structure, said frames also having their ends provided with oppositely directed fulcrum pins, and in which further the bar sections are detachable and replaceable in the socket structure and are of general rectangular cross section presenting flattened surfaces to insure stability and provide a surface for the tooth designating indicia.

4. A supporting frame for a plurality of teeth and suitable for a mold guide for facilitating selection of teeth, consisting of a metal socket frame having pivoting means at each end and open on one side along its entire length, and also provided with spring clamping means at intervals along its length, combined with a plurality of detachable teeth carrying bar sections arranged end to end in abutting relation and fitting the socket of the frame, said sections each separately removable without disturbing the remaining section or sections and each having means for detachably holding a plurality of teeth in separated relation.

5. A cabinet for artificial teeth consisting of a case, combined with a plurality of detachable teeth supporting frames, each comprising a socket structure formed of sheet metal bent into U shaped form in cross section having a wide seating lower portion and a series of spring tongues opposite to said supporting portion and having its ends provided with oppositely projecting pins adapted to fit in the case for holding the socket frames in parallel relation and permitting them to be oscillated, a plurality of substantially rectangular blocks arranged end to

end and fitting the socket frame and respectively clamped therein by the spring tongues, said blocks provided with a plurality of tooth supporting devices for detachably holding a plurality of artificial teeth to each block and permitting them to be separately removed, the construction being such that one or more of the blocks may be removed from each socket frame without interfering with the operative relation of the socket frame with the case.

In testimony of which invention I hereunto set my hand.

CHARLES J. DUFFY.