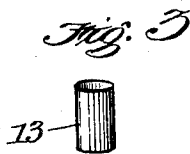
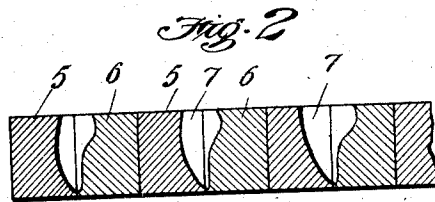
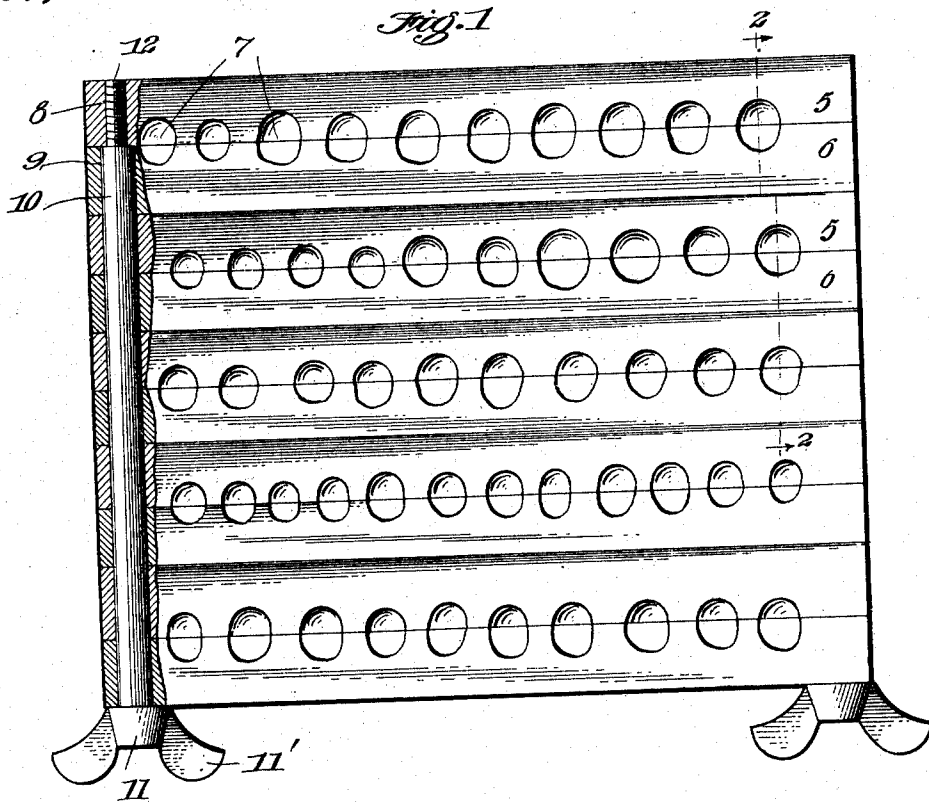


W. R. GWIN.
 MULTIPLE DIE PLATE.
 APPLICATION FILED JULY 26, 1906.

Patented July 6, 1909.

927,406.



Witnesses
 Edmund A. Strauss
 Amiel Gackelers

Inventor
 Walter R. Gwin
 By Hazard & Morphan
 Attorneys.

UNITED STATES PATENT OFFICE.

WALTER R. GWIN, OF LOS ANGELES, CALIFORNIA.

MULTIPLE DIE-PLATE.

No. 927,406.

Specification of Letters Patent.

Patented July 6, 1909.

Application filed July 26, 1906. Serial No. 327,865.

To all whom it may concern:

Be it known that I, WALTER R. GWIN, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Multiple Die-Plates, of which the following is a specification.

My invention relates to a die plate for forming perfect crowns for the six anterior superior and inferior teeth and the object thereof is to provide a die plate in which such crowns can be perfectly and quickly formed.

Heretofore no convenient means has been found whereby a dentist could quickly form from the cartridge perfect crowns for the six anterior superior and inferior teeth because there have been no convenient die plates to use for such work.

In the drawings forming a part of this application Figure 1.—is a plan of my multiple die plate partly in section. Fig. 2.—is a section on the line 2—2 of Fig. 1. Fig. 3.—is a perspective of a cartridge ready for use to be formed into a crown.

My multiple die plate consists of two metallic bars 5 and 6 or any multiple of two of such bars. In the opposing faces of the metallic bars are cups or depressions 7 which are of a configuration of the tooth for which the crown is to be substituted. These cups have the forms of centrals, laterals and cuspids both right and left superior and inferior as these are the crowns which are particularly difficult to make. There may be other forms if desired. If only two bars are used holes 8 and 9 would be bored transversely therethrough near both ends thereof. One of these holes 8 is smaller than the other and is interiorly threaded. A bolt 10 provided with a head 11 has the end 12 thereof reduced and threaded so as to screw into the threaded hole 8. The head is provided with wings 11' for convenience in rotating the bolt. When there are a multiple of bars used, as shown in Fig. 1, the holes through the ends of all the bars except one are of the same size and snugly fit the shaft of the bolt so that there shall be no lateral play.

In forming crowns with my die plate the cartridge 13, which is usually of gold and which can be purchased from dental supply houses in assorted sizes, is selected that will form a crown for the desired tooth. A soft pine stick is then fitted into the interior of the cartridge with the end thereof projecting therefrom and considerably larger than the

cartridge. The bars containing the cup of the requisite form are then slightly separated by partially unscrewing the bolts and the cartridge is pushed into the desired cup and the bolts are rotated to squeeze the cartridge to cause it to assume somewhat the shape of the cup, the bars not being brought completely together. I then take a hammer and tamp the cartridge down into the cup still farther and then rotate the bolts to bring the bars into contact which still further compresses the cartridge and causes it to more nearly assume the shape of the cup. I then withdraw the stick from the cartridge and fill the lower portion of the cartridge with corn meal or some similar substance. I then put in a small piece of beeswax about the size of a small pea or a little smaller depending upon the size of the crown and then place a little more corn meal upon the wax and then thoroughly tamp the corn meal which finishes the cartridge into the perfect crown. The bolts are then unscrewed and the crown can be taken out for use as the parts of the die plate readily separate and the crown will then separate from one of the parts and can be removed from the other. By the use of my die plate of separable members any one can form perfect crowns even though he be not a dentist. It will be understood that the metallic bars are sufficiently heavy so as not to give when the cartridge is being tamped.

Having described my invention what I claim is:—

1. A die for forming crowns comprising two separable members having cups in their adjacent faces, said cups being of the configuration of perfected crowns, said members also having holes through the ends thereof, the holes in one member being smaller than in the other member and being interiorly threaded and bolts having heads provided with wings on one end thereof and the other ends reduced and threaded to screw into the threaded hole of the said member whereby the said members may be held firmly together or may be permitted to separate.

2. A die for forming crowns comprising a plurality of separable members arranged in pairs, each pair of members having cups in their adjacent faces, said cups being of different configurations, each configuration being that of a perfected crown, said members also having holes through the ends thereof, the holes in one member being smaller than

those in the other members and being in-
teriorly threaded; and bolts having heads
on one end thereof, said heads being pro-
vided with wings and the other ends of said
5 bolts reduced and threaded to screw into the
threaded holes of the said member, whereby
the said members may be held firmly to-
gether or may be permitted to separate.

In witness that I claim the foregoing I
have hereunto subscribed my name this 21st 10
day of July, 1906.

WALTER R. GWIN.

Witnesses:

G. E. HARPHAM,
B. M. WILKINSON.