

1,367,477.

J. HOMER.
DENTAL CUSP.
APPLICATION FILED SEPT 20, 1920.

Patented Feb. 1, 1921.

Fig. 1

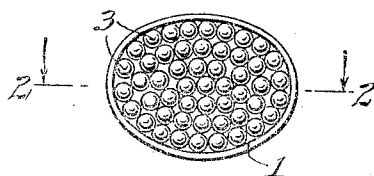


Fig. 2,

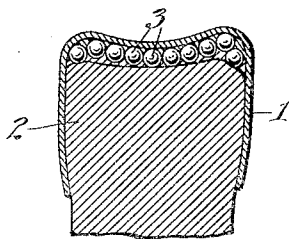


Fig. 3,

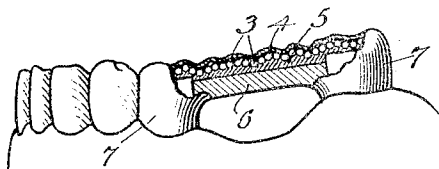
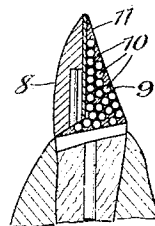


Fig. 4.



WITNESSES

Edw. Thorpe
W. Foster

INVENTOR

Joseph Homer
BY *Mumford*
ATTORNEYS

UNITED STATES PATENT OFFICE.

JOSEPH HOMER, OF BOSTON, MASSACHUSETTS.

DENTAL CUSP.

1,367,477.

Specification of Letters Patent.

Patented Feb. 1, 1921.

Application filed September 20, 1920. Serial No. 411,392.

To all whom it may concern:

Be it known that I, JOSEPH HOMER, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Dental Cusp, of which the following is a full, clear, and exact description.

This invention relates to improvements in dental cusps, and more particularly to cusps for crowns, bridge-work, and porcelain faced or other teeth, an object of the invention being to provide an improved cusp in which relatively small spherical metal particles, such as "Boston Balls", known as "B. B's", are employed, said "B. B's" being soldered or otherwise secured in the cusp of the teeth or crown and preferably located under the metal of the crown so as to provide a bearing which can readily be shaped or shape itself to the proper cusp of masticating surface.

A further object is to provide an improved construction of crown which readily conforms itself to the cusp of the teeth and which reduces to a minimum the labor of properly shaping the outer portion of the crown and permits of a certain compensation or variation in surface due to the action of engaging teeth to give the proper cusp after the crown is in place.

With these and other objects in view the invention consists in certain novel features of construction, and combinations and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings—

Figure 1 is an inverted plan view illustrating a crown provided with my improvements.

Fig. 2 is a view in vertical longitudinal section on the line 2—2 of Fig. 1.

Fig. 3 is a view partly in elevation and partly in longitudinal section illustrating my invention as applied to bridge-work.

Fig. 4 is a view in longitudinal section illustrating my invention as applied to a porcelain or other faced tooth.

1 represents a crown which may be made of gold or any other material ordinarily employed in the making of crowns for teeth and in the construction of crowns in connection with bridge-work.

The crown 1 fits over the tooth 2 which is

ground down so as to receive and fit the crown and in the upper end of the crown and bearing upon the tooth 2 I provide a relatively large number of relatively small shot 3. I would have it understood that I employ this term "shot" in its broadest sense to include any small independent relatively strong particles which have a certain independent movement to allow the surface of the crown to shape itself and give the proper cusp thereto. I preferably employ small metal spheres which are soldered or otherwise secured to the inner surface of the crown, but it is obvious that these metal spheres or shot as I term them, could be secured or held in various ways and I do not wish to limit myself to the exact manner of shaping and forming the shot, nor the manner of securing them in place, but desire to cover broadly the idea of the provision of independent articles or particles located under the crown and between the same and the tooth as I believe the provision of such shot will facilitate the proper cusp formation to the crown and will result in great improvement in the work as over what has heretofore been done.

In Fig. 3 I illustrate my invention as applied to a bridge, the cusp 4 of the bridge constituting an outer metal covering under which the "B. B's" or spherical particles 3 are secured in solder or other metal 5 on the supporting bar or bridge 6.

The cusp of the bridge is, of course, made to conform to the surfaces of the teeth which it replaces and the supporting crowns 7 at the ends of the bridge being likewise formed with my improved cusps.

In Fig. 4 I illustrate a tooth having a porcelain facing 8 and a crown 9 in which the "B. B's" or particles 10 are embedded in the metal 11 and located under the biting surface of the crown to aid the antagonizing crown in more readily forming cusps.

It is, of course, to be understood that while I have illustrated several forms of crown, bridge, and tooth in which the cusps are made having the spherical particles or "B. B's" embedded therein, it is obvious that this idea of forming cusps can be carried out with almost any form of artificial teeth or bridge-work, and hence I do not limit myself to the precise details set forth, but consider myself at liberty to make such changes and altera-

tions as fairly fall within the spirit and scope of the appended claims.

I claim:

1. As a new article of manufacture, a
5 crown having independent balls located under the top of the crown.
2. As a new article of manufacture, a dental cusp comprising a plurality of balls, and means for securing the balls together.
- 10 3. As a new article of manufacture, a dental cusp comprising an outer metal surface, and a plurality of balls embedded in supporting material under said outer surface.
4. As a new article of manufacture, a

tooth crown, and shot located under the top 15 of the crown.

5. As a new article of manufacture, a tooth crown, and shot located under the top of the crown, said shot embedded in solder and secured thereby to the inner face of the 20 crown.

6. As a new article of manufacture, a tooth crown, and balls associated therewith and located under the biting surface of the crown and adapted to aid the antagonizing crown 25 in forming cusps.

JOSEPH HOMER, D. D. S.