

E. B. CRANE.
DENTURE.

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956,843.

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Fig. 1.

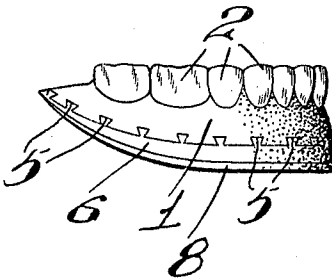


Fig. 2.

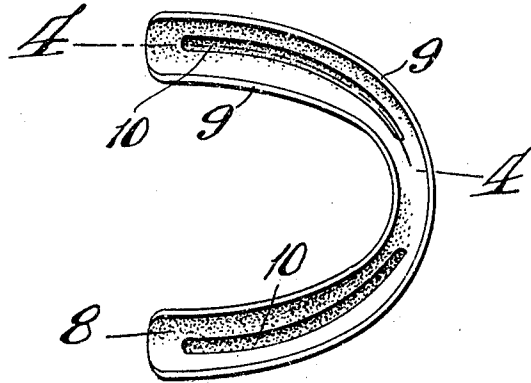


Fig. 3.

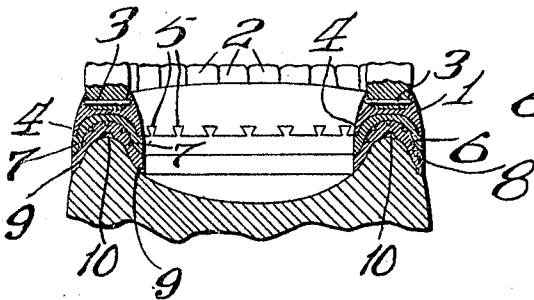
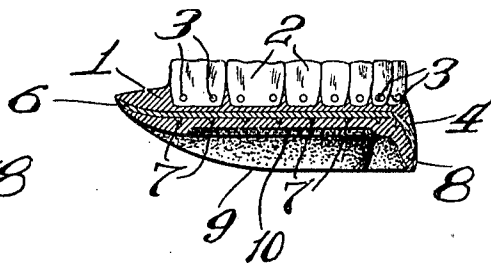


Fig. 4.



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DENTURE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWARD B. CRANE, a citizen of the United States, and resident of California, Moniteau county, Missouri, have invented certain new and useful Improvements in Dentures, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in dentures, the object of my invention being to construct a denture having a metallic section in which to embed and secure the teeth, a section of vulcanizable rubber overlying the metallic base and a section of flexible or unvulcanizable rubber having projecting walls, there being air chambers formed in the unvulcanizable rubber co-acting with the walls forming a vacuum tip to act as a cushion for the ridge and to retain the denture upon the ridge by suction.

For the above purposes my invention consists in certain novel features of construction and arrangement of parts as will be hereinafter more fully described, pointed out in the claims and illustrated by the accompanying drawing; in which—

Figure 1 is an elevation of a complete denture of my improved construction; Fig. 2 is a plan of the complete denture in an inverted position relative to Fig. 1; Fig. 3 is a vertical, sectional elevation of the denture showing its application to the ridge; and, Fig. 4 is a longitudinal, sectional elevation taken on the line 4—4 of Fig. 2 in a position inverted relative to Fig. 2.

Referring by numerals to the accompanying drawing: 1 designates the metallic base section in which the teeth 2 are embedded in the usual manner and secured therein by the pins 3. The face of the base 1, opposed to the face in which the teeth are embedded, is provided with projecting flanges 4 the margins of which are provided with dove tail recesses 5. Applied to the base section 1 and conforming in shape therewith is a layer of vulcanizable rubber 6, which vulcanizable rubber is secured to the base by the recesses 5 by reason of a portion of the vulcanizable rubber being held in said recesses. Formed on the face of the vulcanizable section 6, opposed to the face in contact with the base 1, is a series of spurs or corrugations 7. A layer 8 of unvulcanizable rubber is then secured to the vulcaniz-

able rubber by means of the spurs and any suitable adhesive substance. The section 8 is provided with integral flanges 9 and with cavities 10 forming air chambers which may be varied in size and number to suit the ridge to which they are applied. When the denture has been thus formed and applied to the mouth of the wearer and seated, the air is exhausted from the chambers formed in the unvulcanizable rubber and by suction the denture is held in place upon the ridge. According to this construction the section of unvulcanizable rubber with its air chambers not only holds the denture in place on the ridge but acts as a cushion between the denture and the ridge.

In a denture constructed according to my invention the unvulcanizable rubber section may be removed and replaced at any time when it is disintegrated or deteriorates and a new section applied.

By the construction as shown the teeth are firmly embedded in the metallic base to which is applied a section of vulcanizable rubber held mechanically to the metallic base and, applied to the section of vulcanizable rubber is a section of flexible or unvulcanizable rubber which is secured to the vulcanizable section by adhesion. By this construction, I am enabled to employ a metallic base and attach thereto a section of flexible unvulcanizable rubber which performs the double function of cushioning the denture upon the ridge and holding it in place upon the ridge by suction.

I claim:

1. A denture, comprising a metallic base in which teeth are embedded and secured, a section of vulcanizable rubber held mechanically to the base section and a section of flexible unvulcanizable rubber secured to the vulcanizable section.

2. In a denture, the combination with a metallic base section having teeth embedded and secured therein and having integral walls provided with recesses, of a section of vulcanizable rubber applied to the base section and secured thereto by means of said recesses and a section of flexible rubber having projecting walls and air chambers formed therein, which last mentioned section is secured to the vulcanizable section by adhesion.

3. In a lower denture, the combination with a metallic base section having teeth embedded and secured therein and integral projecting walls formed on the base section

there being dove tail recesses formed in the margins of said walls, of a section of vulcanizable rubber applied to the base section and held thereto by means of said recesses, 5 there being an irregular surface formed on the lower face of the vulcanizable section and a section of flexible rubber secured to the vulcanizable section by means of said irregular surface and any suitable adhesive 10 substance, projecting walls formed integral with the flexible section and air chambers

formed in the upper face of the flexible section between said walls, whereby the denture is cushioned against the ridge and secured in place upon the ridge by suction. 15

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

EDWARD B. CRANE.

Witnesses:

F. DAUSMAN,
J. A. HAWARD.