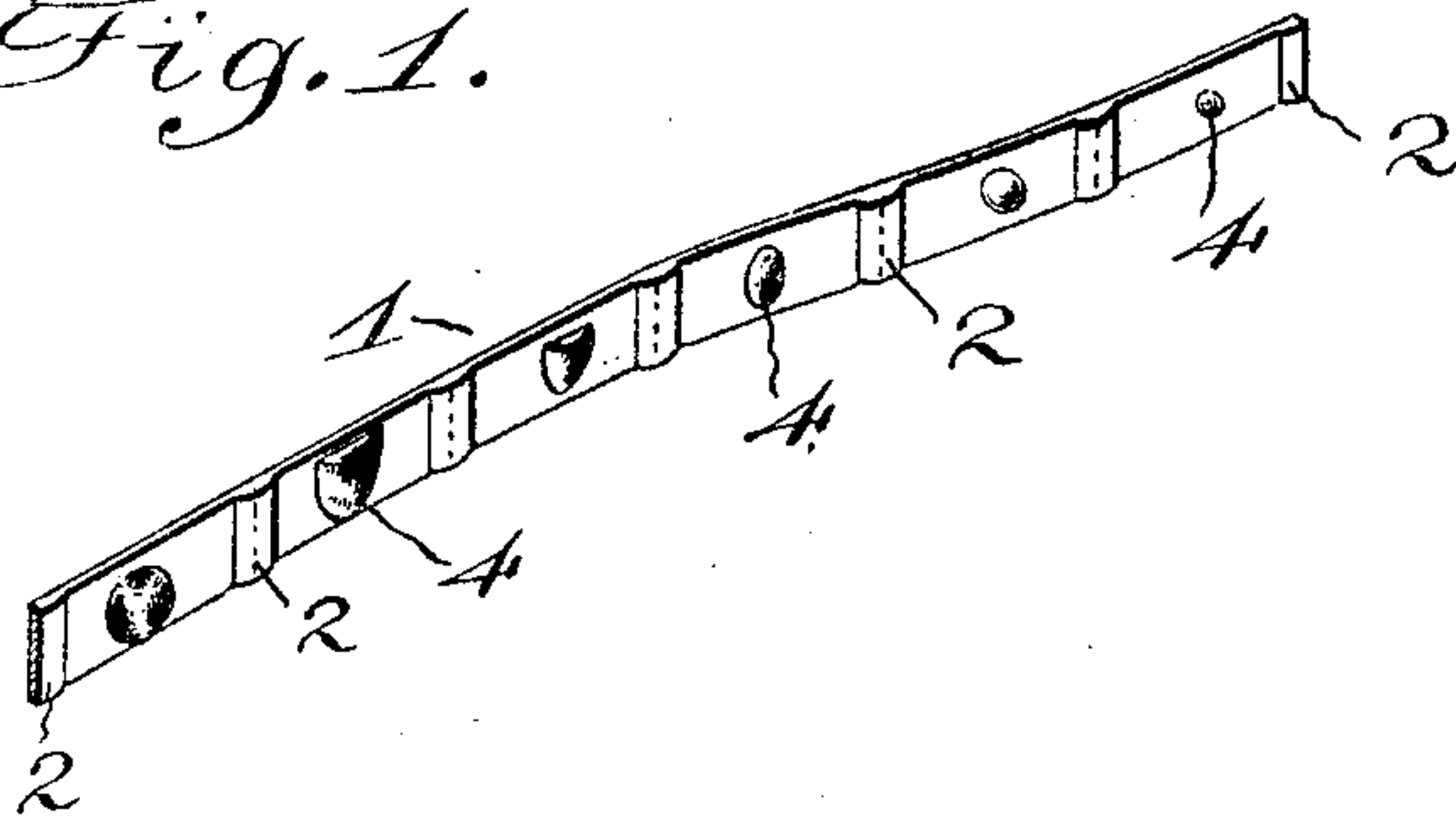


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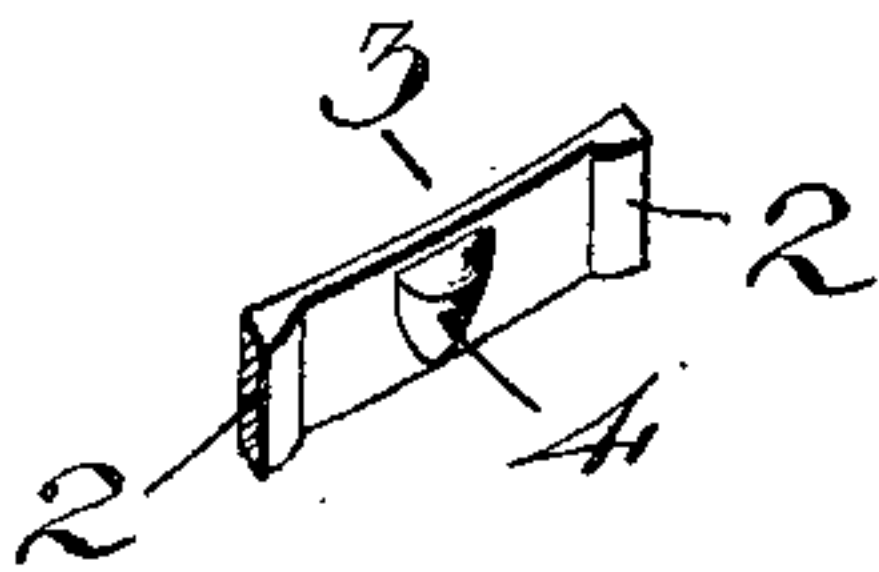
PATENTED NOV. 7, 1905.

R. M. CHASE.  
APPROXIMAL MATRIX FORMER.  
APPLICATION FILED APR. 18, 1905.

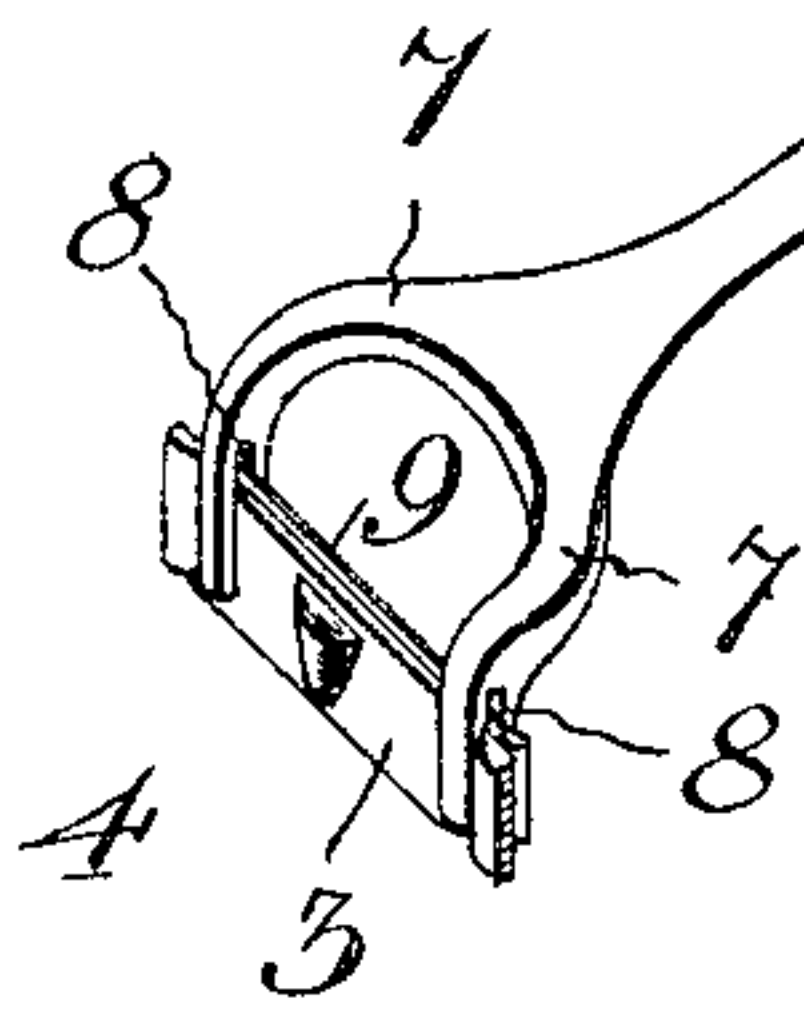
*Fig. 1.*



*Fig. 2.*

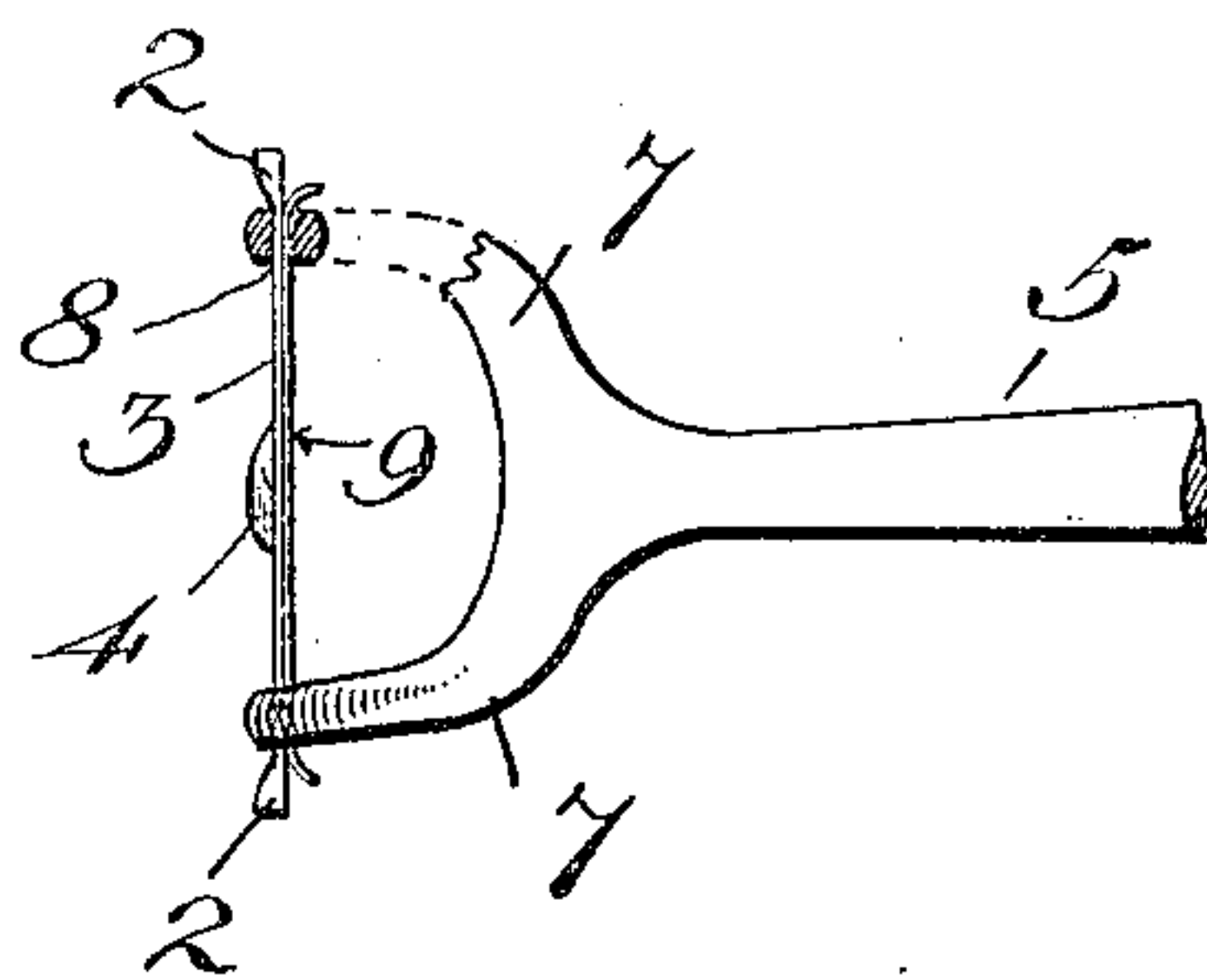
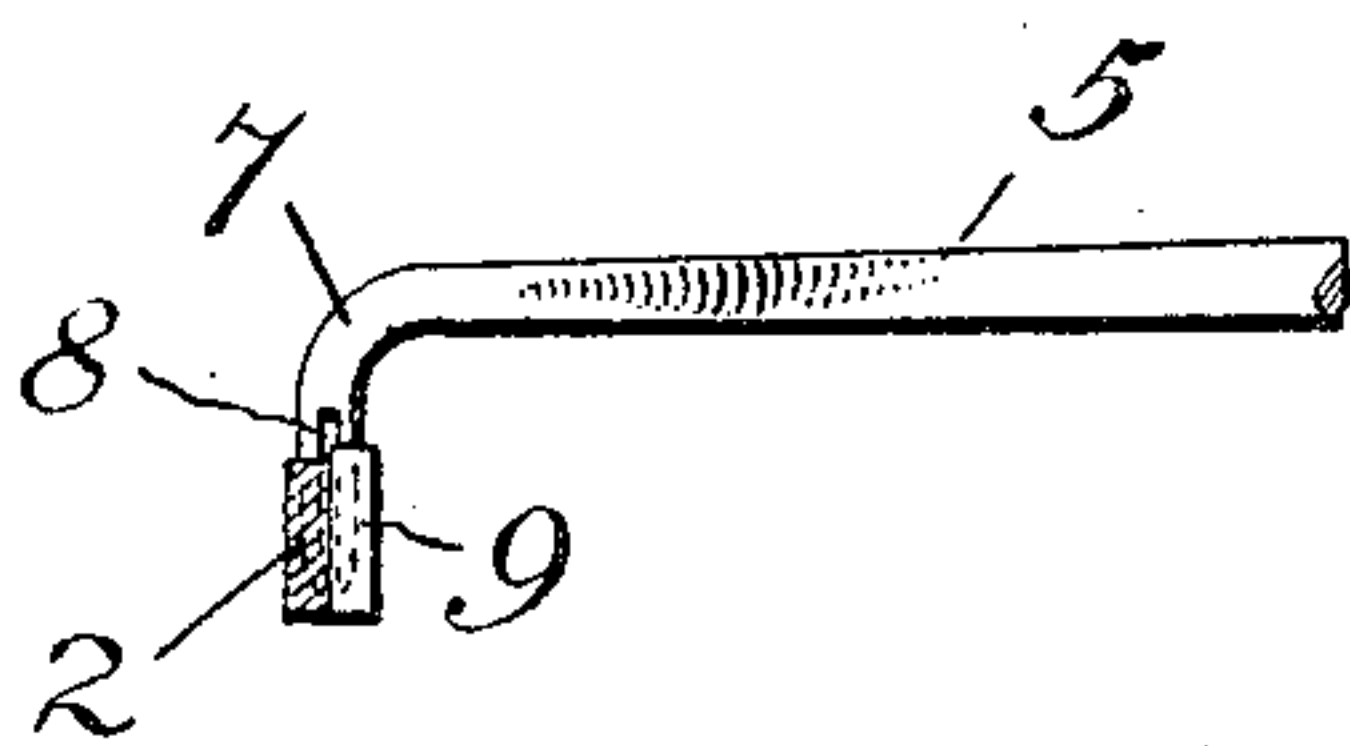


*Fig. 3.*



*Fig. 5.*

*Fig. 4.*



Witnesses

*C. H. Griesbauer.*

Inventor

*R. M. Chase*

by

*A. B. Wilson*

Attorney



# UNITED STATES PATENT OFFICE.

ROLLA M. CHASE, OF BETHEL, VERMONT.

## APPROXIMAL-MATRIX FORMER.

No. 804,099.

Specification of Letters Patent.

Patented Nov. 7, 1905.

Application filed April 18, 1905. Serial No. 256,182.

*To all whom it may concern:*

Be it known that I, ROLLA M. CHASE, a citizen of the United States, residing at Bethel, in the county of Windsor and State of Vermont, have invented certain new and useful Improvements in Approximal-Matrix Formers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in approximal-matrix formers for use by dentists in making foil matrices for labial and buccal dental cavities by pressing a sheet of metal foil into a tooth-cavity or in a matrix, as hereinafter described and claimed.

One object of my invention is to provide an improved form of elastic material for forcing or pressing the foil into a tooth-cavity, and which is provided with an offset or die portion approximating the size and shape of the cavity into which the foil is to be pressed to facilitate the making of the foil matrix.

A further object of my invention is to provide an improved implement for use in connection with my improved form of elastic material for forcing a metal foil into a distal or mesial tooth-cavity.

In the accompanying drawings, Figure 1 is a perspective view of a ribbon of my improved form of elastic material providing a plurality of sections which are adapted to be cut apart and each of which is provided with an offset or die portion approximating the size and shape of a dental cavity after the latter has been shaped in the usual manner for porcelain inlays, the respective offsets or die portions of the respective sections of the ribbon varying in size and shape to correspond with variations in the size and shape of such dental cavities, so that the ribbon provides sections for use in operations on the various teeth. Fig. 2 is a similar view showing a detached section of the ribbon. Fig. 3 is a perspective view of my improved implement for use in connection with my improved form of elastic material, showing a section of the latter attached to the said implement. Fig. 4 is a detail side elevation of the implement; and Fig. 5 is a detail view, partly in top plan and partly in section, thereof.

In the embodiment of my invention I provide a ribbon 1, which is preferably made of rubber, but which may be made of any other suitable elastic material. The said ribbon is provided on one side at suitable regular dis-

tances with cross-bars 2, which are formed therewith and project therefrom and which serve to divide the ribbon into sections 3, which may be cut apart on lines which intersect the said cross-bars 2. Midway between the said cross-bars the several sections of the ribbon are formed with offsets or die portions 4, which are adapted to enter the tooth-cavities. The said dies or offset portions of the respective ribbon-sections vary in size and shape to fit the cavities of various sizes in the teeth after said cavities have been shaped in the usual manner for porcelain inlays, so that the ribbon of my improved elastic material is provided with dies or offset portions which are adapted to fit such cavities as may exist or be shaped in any of the teeth.

In connection with my improved ribbon of elastic material I provide an implement 5 for use in pressing the dies or offset portions of the ribbon-sections into dental cavities. The said implement is provided with a handle 6, having fork-arms 7 at one end appropriately spaced apart and the outer portions of which are bent at right angles to their inner portions and provided with slots 8. A strip 9 of steel or other suitable material of a length and width to correspond with the length and width of one of the ribbon-sections is adapted to be placed in the said slot, together with one of the ribbon-sections, as shown, so that the said metallic strip will bear against the flat side of the ribbon-section and strengthen the latter and enable the offset or die portion thereof to be placed against a metal foil to force the latter into a dental cavity and adapt the foil to the shape of such cavity, so as to convert the foil into a matrix. The fork-arms bear against the inner sides of the bars 2 of the ribbon-section, said bars forming offsets or shoulders which prevent longitudinal displacement of the ribbon-section from the fork-arms. By appropriately placing the ribbon-section in the implement so that it faces outwardly or inwardly therein, as the case may require, the implement may be employed after the teeth have been spaced apart to provide the necessary space between them by the usual means to press the foil into either a distal or a mesial cavity, as will be understood.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion,



and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

5 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

10 1. In combination with an implement having a handle and slotted fork-arms, a strip of elastic material adapted to be pressed into a dental cavity, disposed between said fork-arms, engaged in the slots thereof and provided with shoulders to bear against said fork-arms, and a backing-strip, of relatively inelastic material, on the rear side of the strip  
15 and also disposed with its ends in the slots of said arms, substantially as described.

20 2. A matrix-former, of elastic material, comprising a strip having an offset or die portion on one side adapted to be pressed into a dental cavity, for the purpose set forth.

25 3. As a new article of manufacture, a ribbon of elastic material, providing a plurality of sections which are adapted to be separated from one another, each of said sections hav-

ing an offset or die portion on one side, adapted to be pressed into a dental cavity, for the purpose set forth.

4. A matrix-former of the class described, comprising a strip of elastic material provided  
30 on one side with transverse shoulders at its end and with a die or offset portion at a point between said shoulders, said die or offset portion being adapted to be pressed into a dental cavity, for the purpose set forth. 35

5. In combination with an implement having a handle and slotted fork-arms, a strip of elastic material adapted to be pressed into a dental cavity, and a backing-strip of relatively inelastic material, said elastic and rela-  
40 tively inelastic strips being placed in the slots of the said fork-arms and held thereby.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ROLLA M. CHASE.

Witnesses:

C. D. COURTNEY,  
JOHN J. WILSON.