

Aug. 20, 1935.

W. G. MAISON

2,011,818

SPRUE FORMER

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Fig. 1.

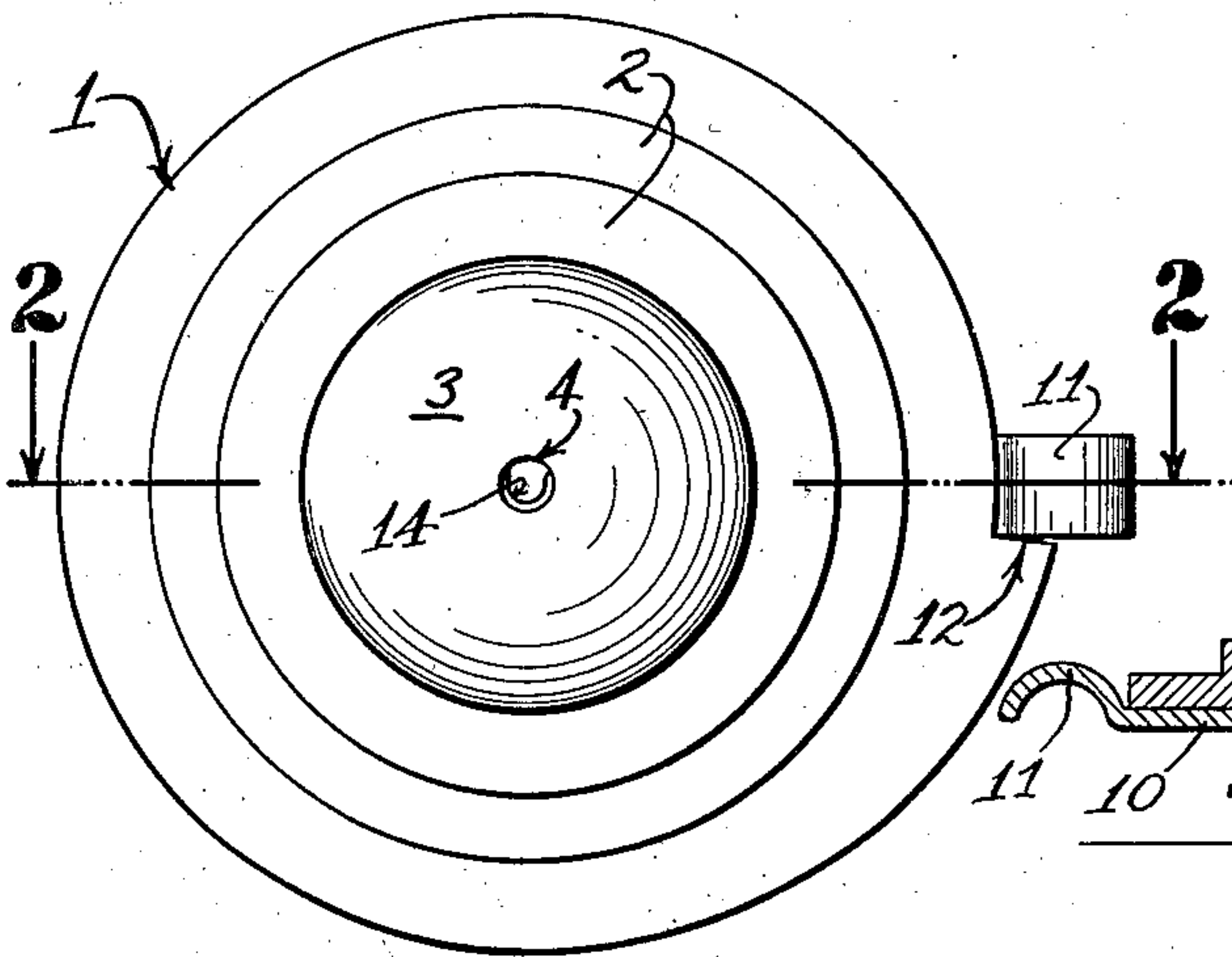


Fig. 2.

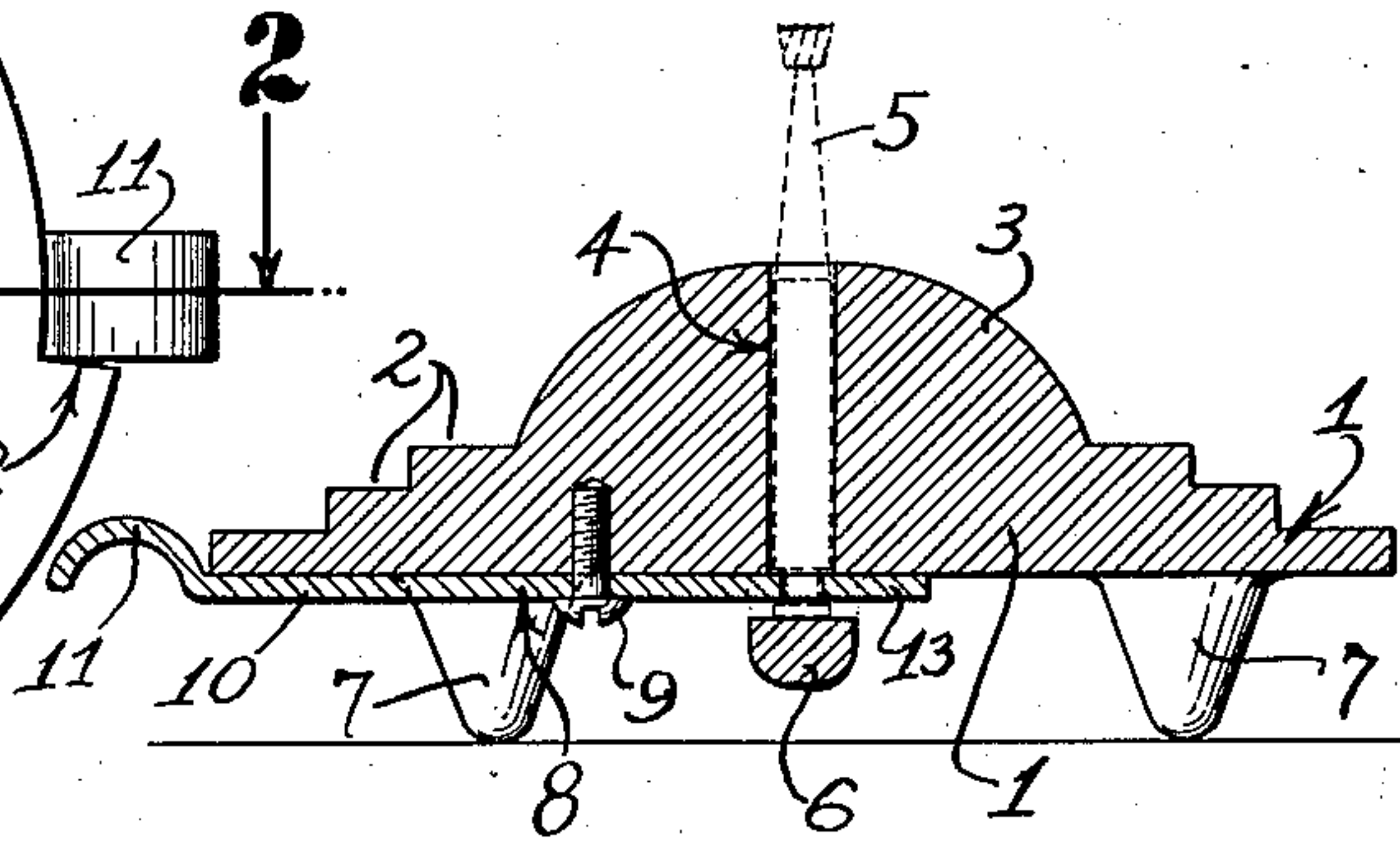


Fig. 3.

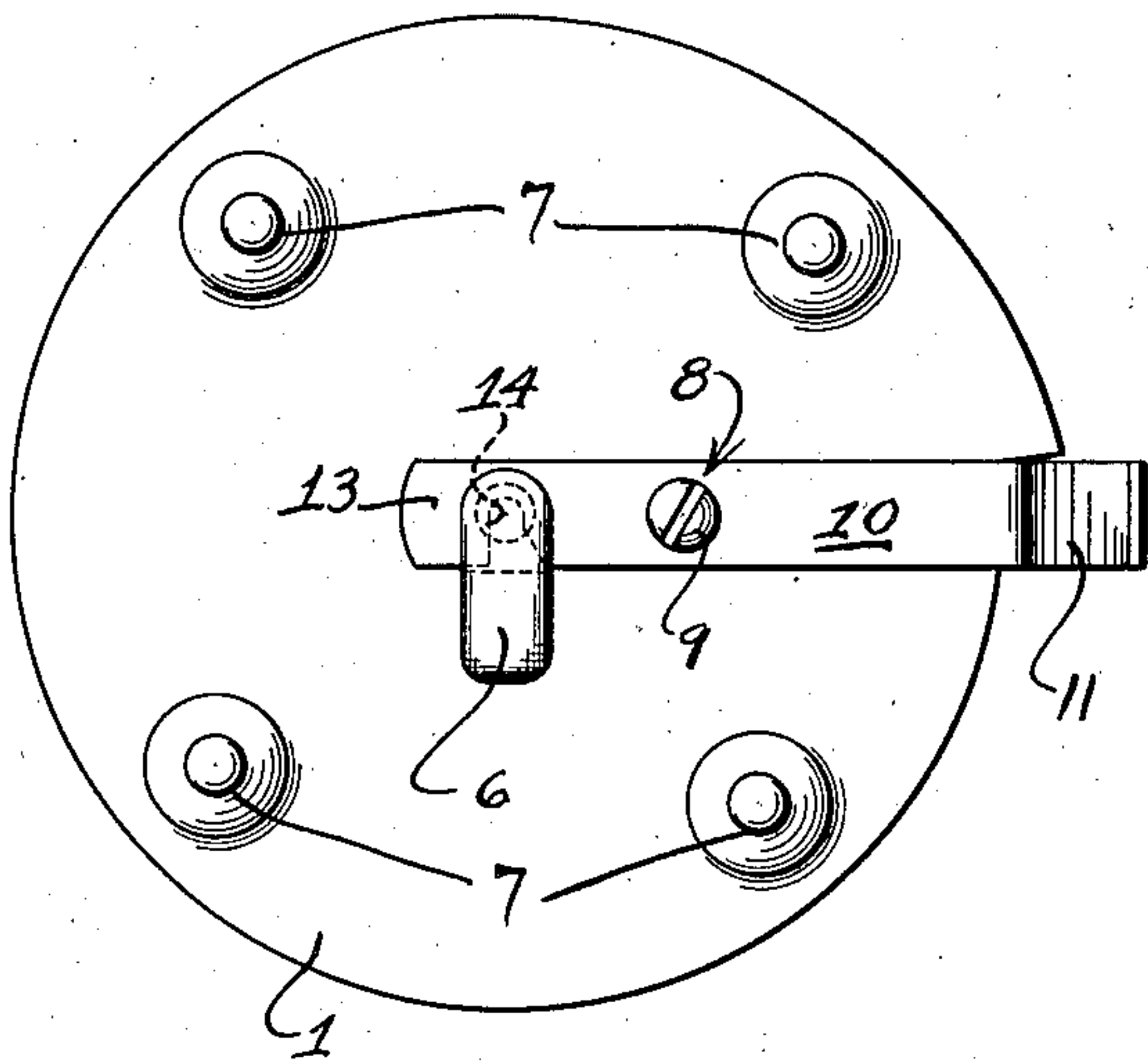
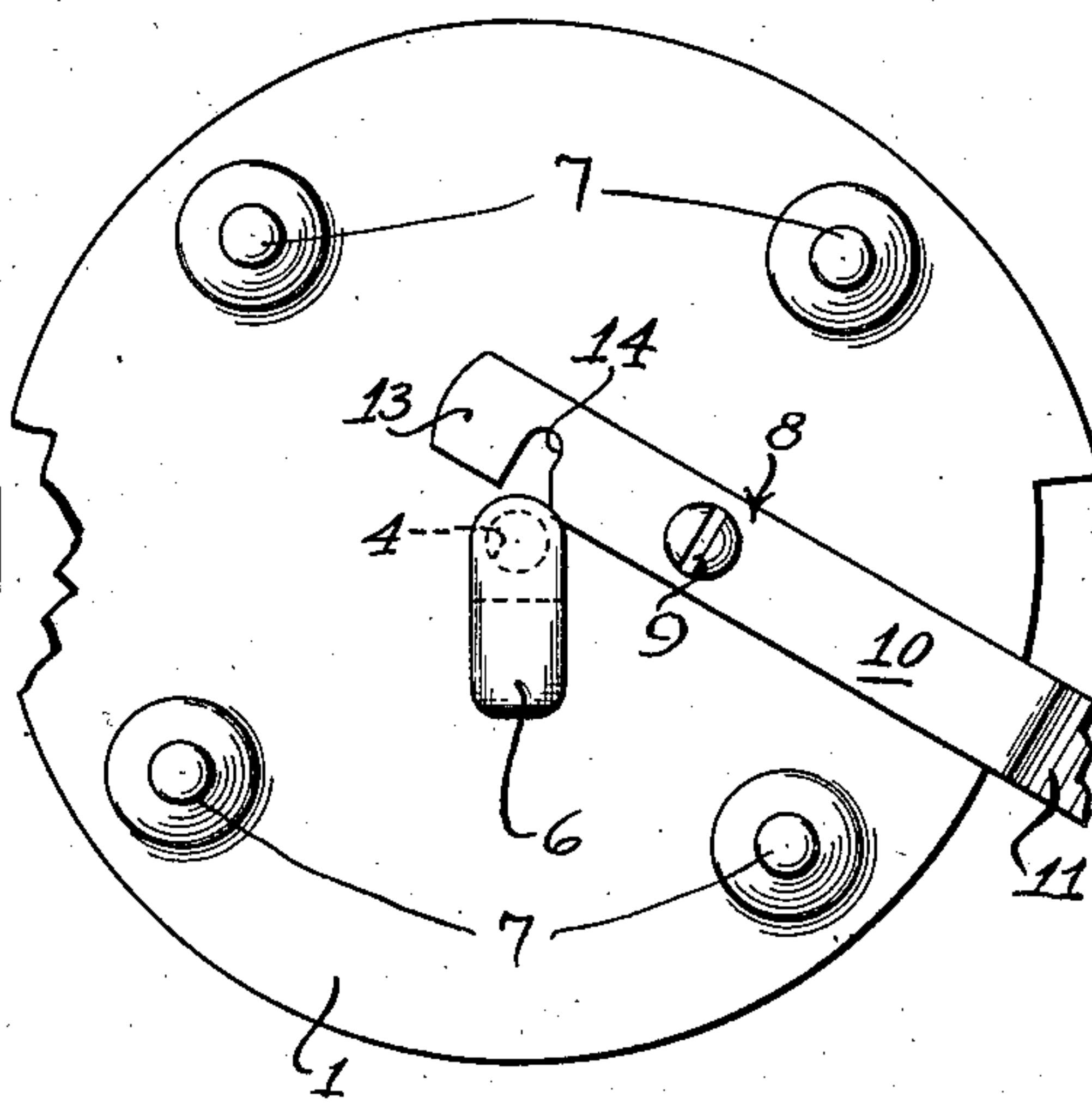


Fig. 4.



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## UNITED STATES PATENT OFFICE

2,011,818

## SPRUE FORMER

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Application July 21, 1933, Serial No. 681,513

## 1 Claim. (Cl. 22—162)

This invention relates to improvements in sprue formers and is used by dentists and others, who do small castings, to hold the sprue and to form a perfect crucible for the molten metal.

5 The principal object of the improvements is to provide a sprue former capable of gripping the groove or key at the large end of a dental burr (with the head or cutting blades removed), when used as a sprue, so as to facilitate the  
10 handling of delicate wax patterns for small castings commonly used in dentistry such as inlays, crowns, etc.

Other objects are to enable the user to easily pick it up, set it down, or otherwise manipulate  
15 it, and to release the contra-angle dental burr (with the head or cutting blades removed) when used as a sprue from the body of the sprue former with ease and rapidity, eliminating the necessity of having to tap the base to free the sprue  
20 former from the casting ring and investment, thereby eliminating the cause of possible damage to the investment around the sprue.

With the above and other objects in view, the invention consists of the novel construction and  
25 combination of parts hereinafter described, illustrated in the accompanying drawing, and set forth in the claim hereto appended, it being understood that various changes in the form, proportion, material, size, and minor details of  
30 construction within the scope of the claim may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

To more fully comprehend the invention, reference is directed to the accompanying drawing wherein:—

Fig. 1 is a top plan view of my invention.

Fig. 2 is a sectional view taken on line 2—2 of Fig. 1.

40 Fig. 3 is a bottom view of the sprue former showing the latch or lever in an engaged position.

Fig. 4 is the same as Fig. 3 except that the latch or lever is shown in a disengaged position.

45 Referring more particularly to the drawing, wherein like characters of reference designate corresponding parts, the base or main body portion 1 is formed on its upper surface with a plurality of raised concentric circles 2, adapted to fit  
50 various sizes of casting rings. Extending upward from the circles 2 is a spherical dome or

top 3 concentric with the circles 2, which forms a crucible when the investment is poured upon it. The dome 3 is formed with a central vertical bore 4 which extends downwardly through the entire thickness of the main body 1 and is adapted to receive a dental burr 5, (shown in broken lines  
5 Fig. 2), when used as a sprue. The head or cutting blades of the burr 5 are removed so as to form a point or a continuation of the tapered shank which when heated is attached to the wax  
10 pattern. Positioned below the lower end of the bore 4 and in space relation thereto is a lug 6 rigidly attached to the bottom surface of the body 1 and so formed as to intercept the lower end of the burr 5. Legs 7 support the main body  
15 1 in an elevated position on the table or work bench allowing the sprue former to be easily grasped and handled by the operator. A lever 8 is fulcrumed on the base of the body 1 adjacent to lug 6 by the screw 9. The end 10 of the  
20 lever 8 extends parallel to and beyond the base of the body 1 and is curved to form a handle 11 which is adapted to contact a projection 12 on the periphery of the body 1. The end 13 of the  
25 lever 8 is formed with a notch 14 of smaller dimension than the bore 4 and is adapted to engage the groove on the lower end of the burr 5 and serve as a latch when the handle 11 contacts the projection 12.

I am aware that prior to my invention sprue  
30 formers have been made in various sizes and materials operating to grip the sprue pin or wire, but none have been invented to grip the groove or key at the large end of a contra-angle dental burr. I, therefore, do not claim such a com-  
35 bination broadly.

I claim:—

A device for the purpose described comprising a base formed with a plurality of raised concentric circles on its upper surface, a bore extending  
40 through the said base, a lug formed on the under surface of the said base and extending below the lower end of the said bore in spaced relation thereto, the said lug being adapted to intercept a dental burr, the head or cutting blades of which  
45 have been removed, or a mounted stone shank, the mounted point of which has been removed, when placed within the said bore, and means for releasably retaining the said burr shank against the said lug.

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