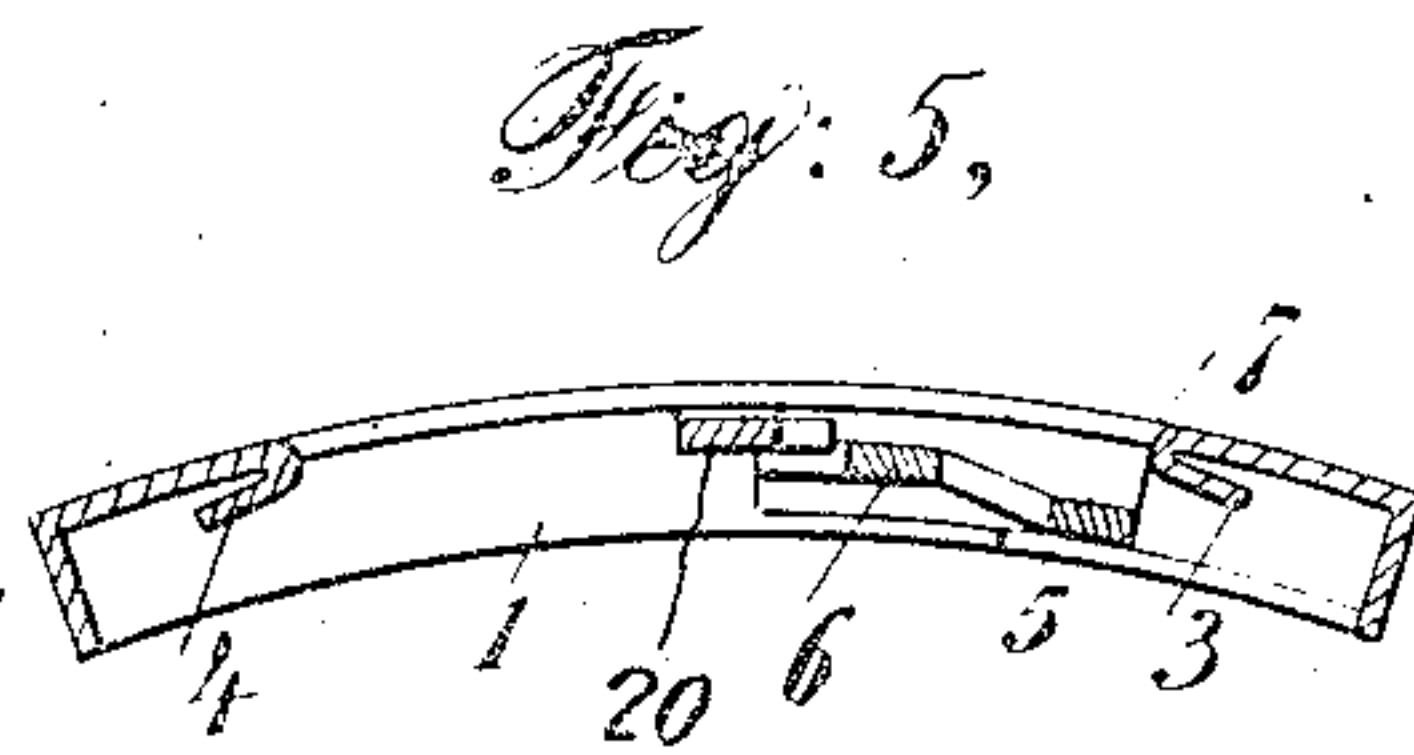
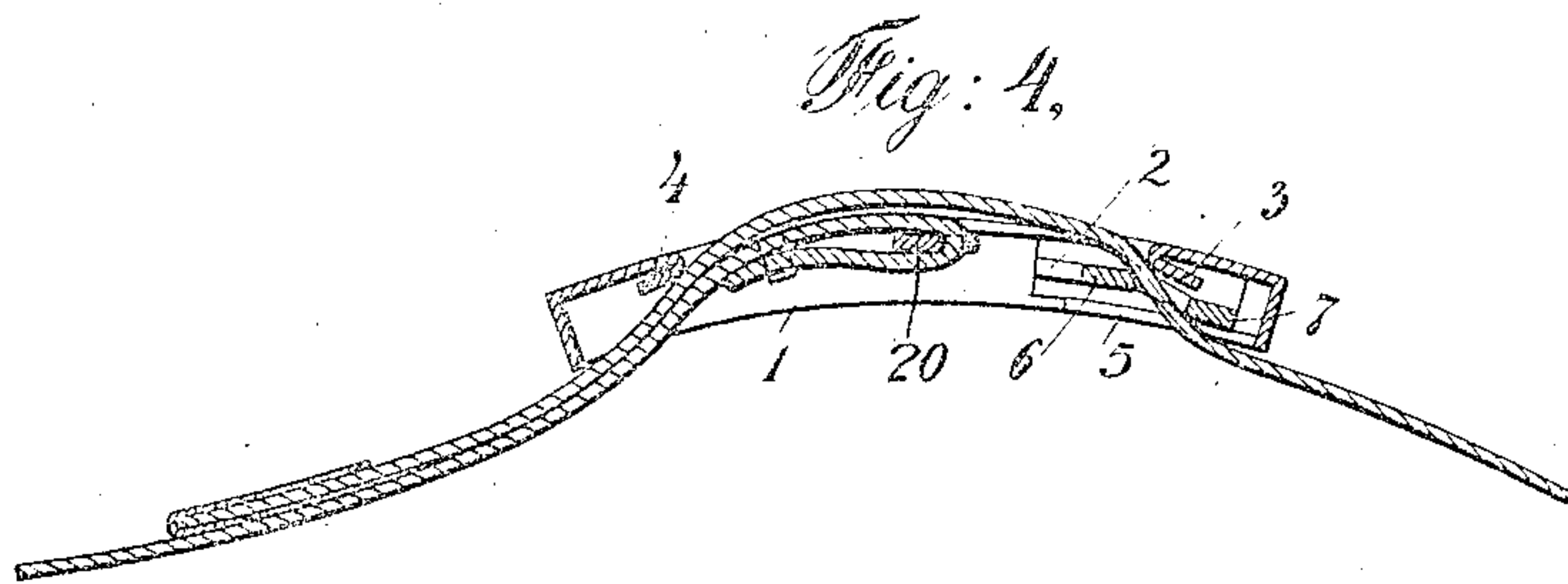
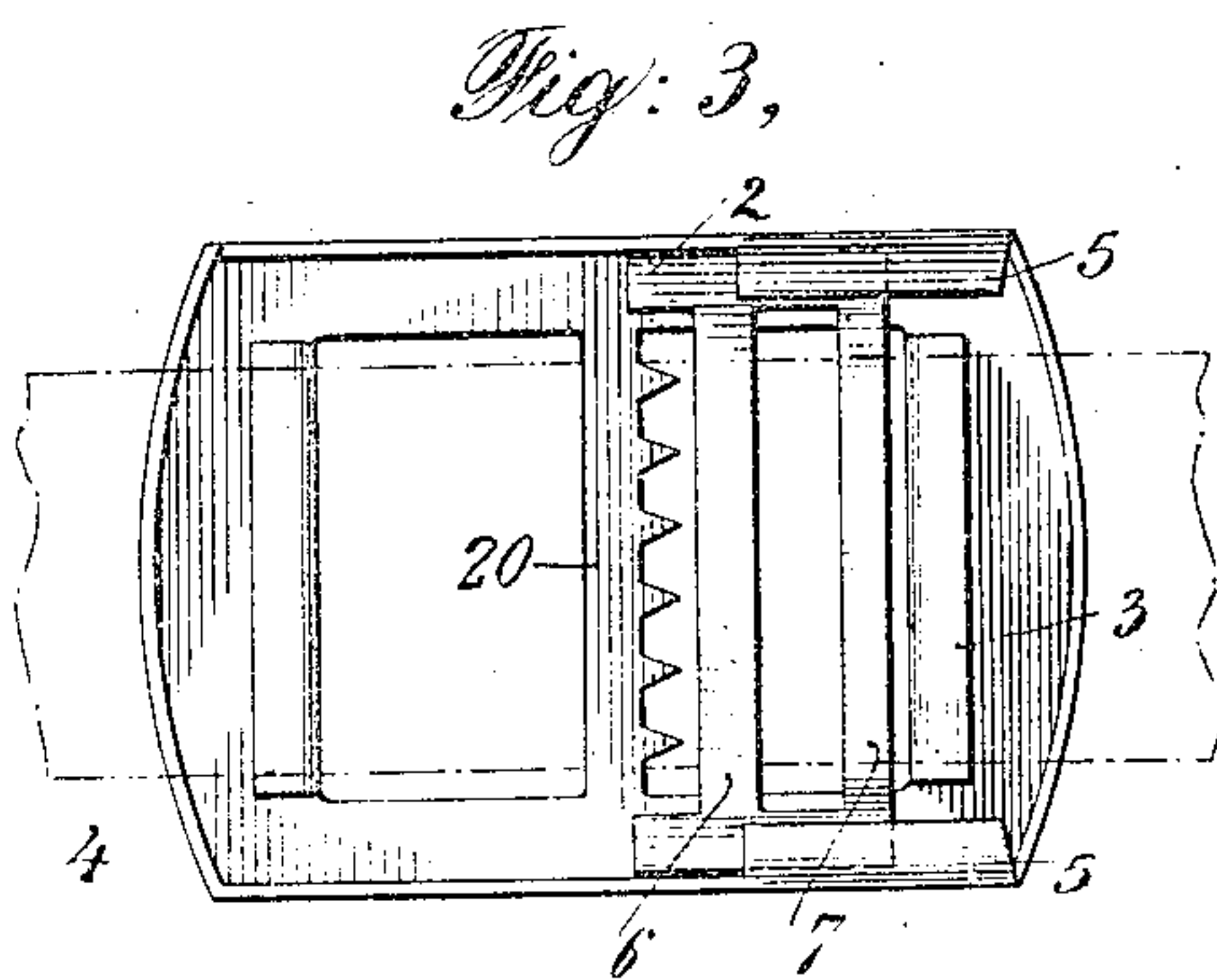
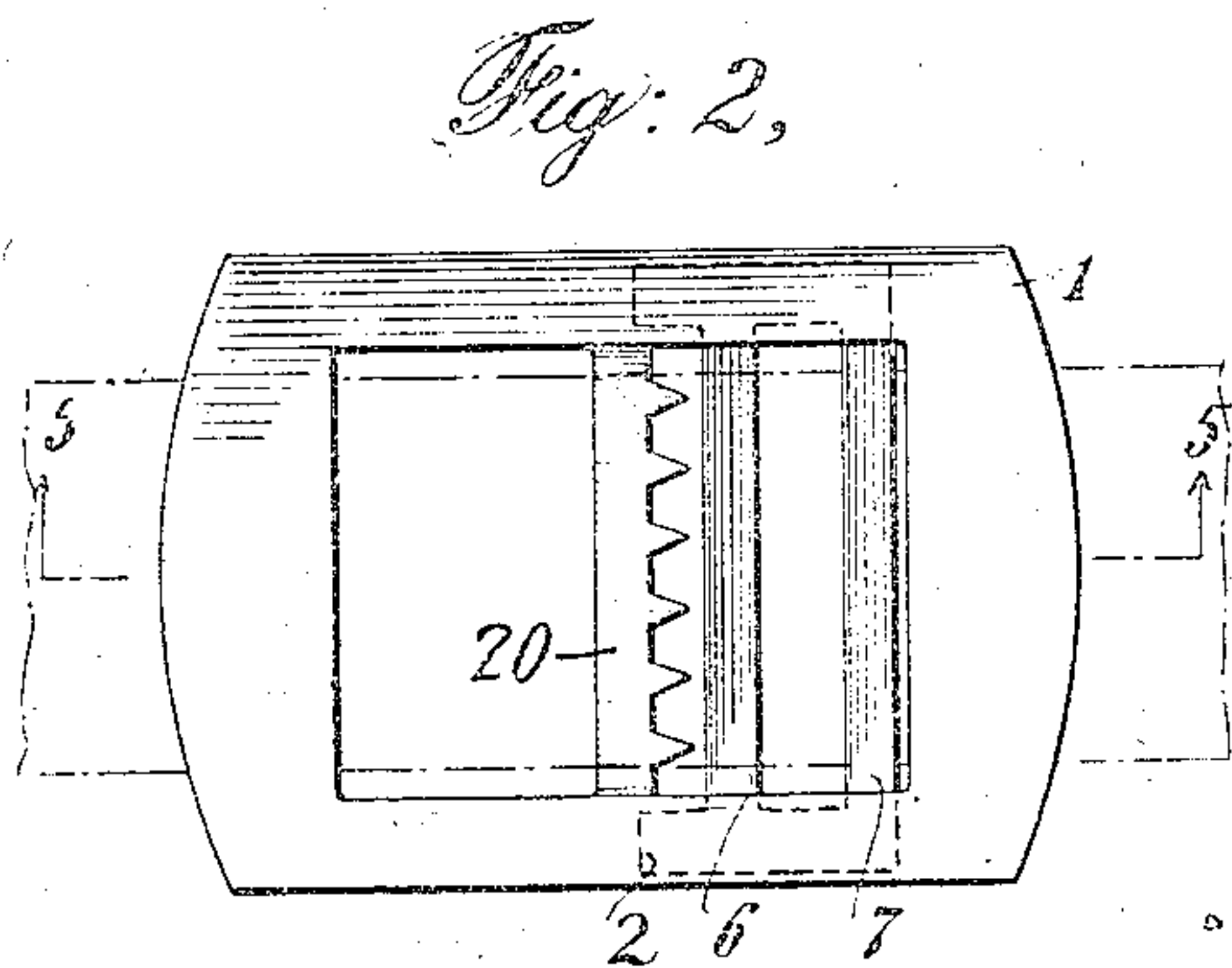
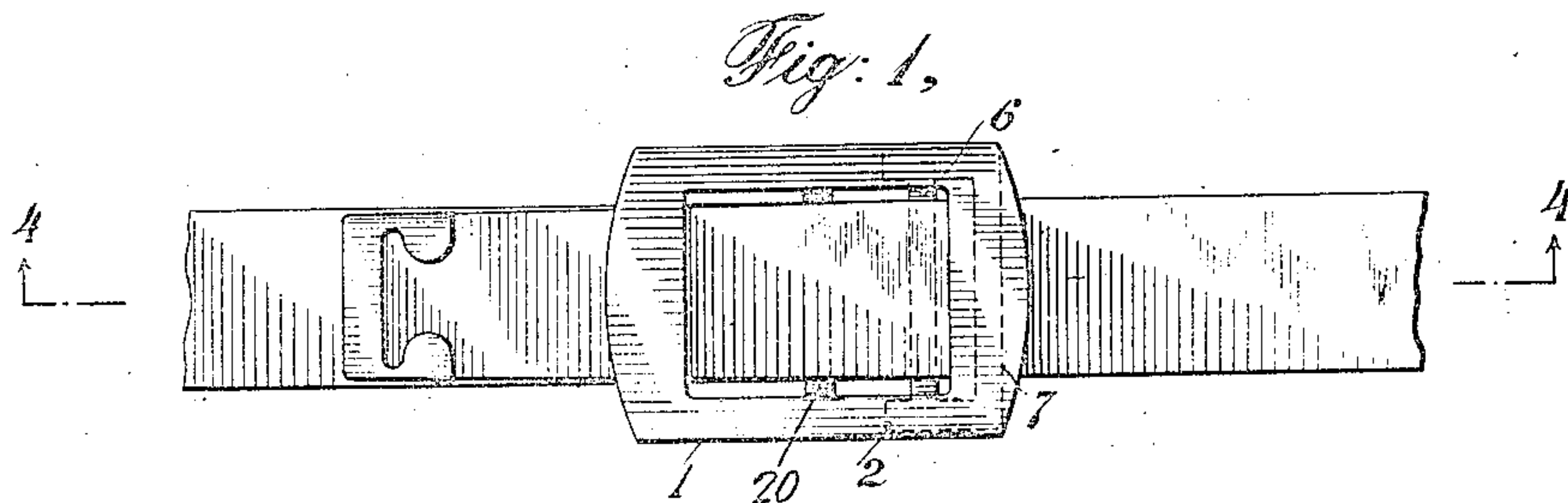


R. A. BROWN.  
BUCKLE.  
APPLICATION FILED JAN. 7, 1909.

993,320.

Patented May 23, 1911  
3 SHEETS—SHEET 1.



Witnesses:  
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Royl Andrew Brown.  
Inventor.  
By His Attorney, C. H. Stoppenso.

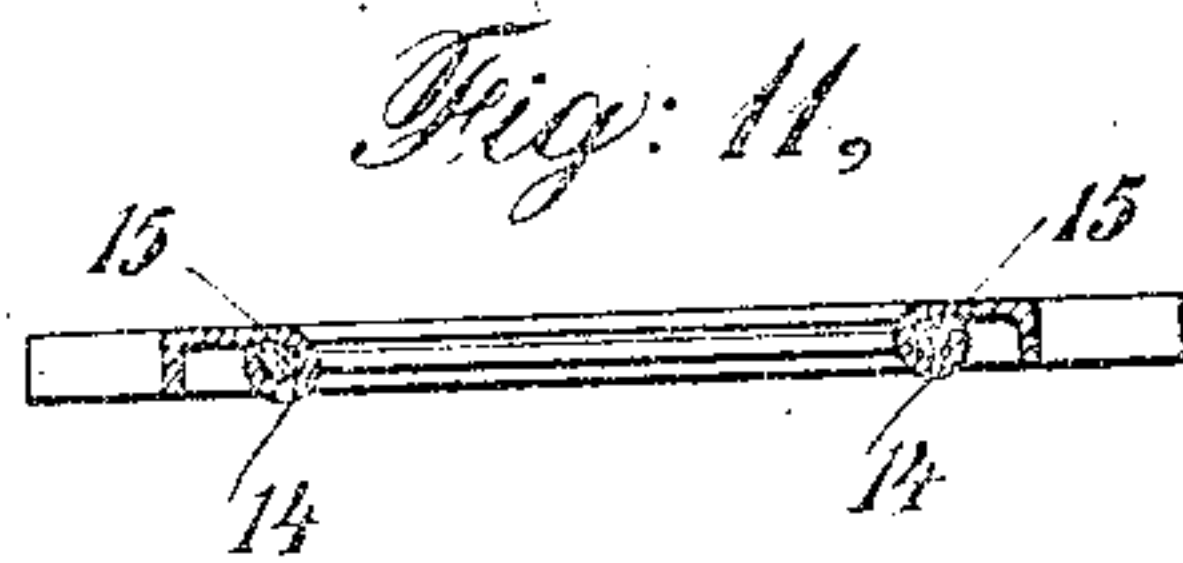
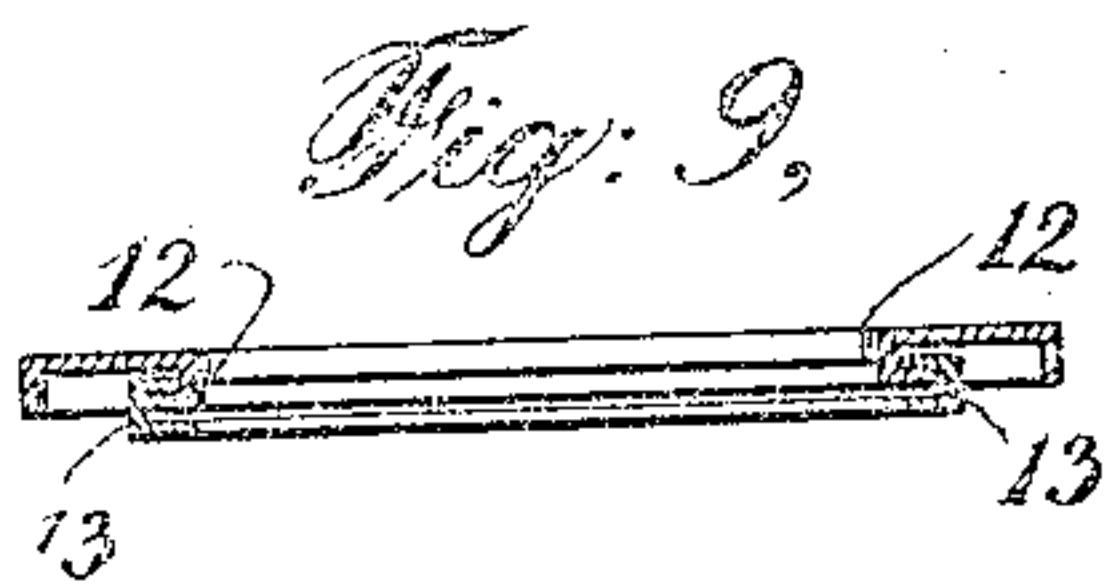
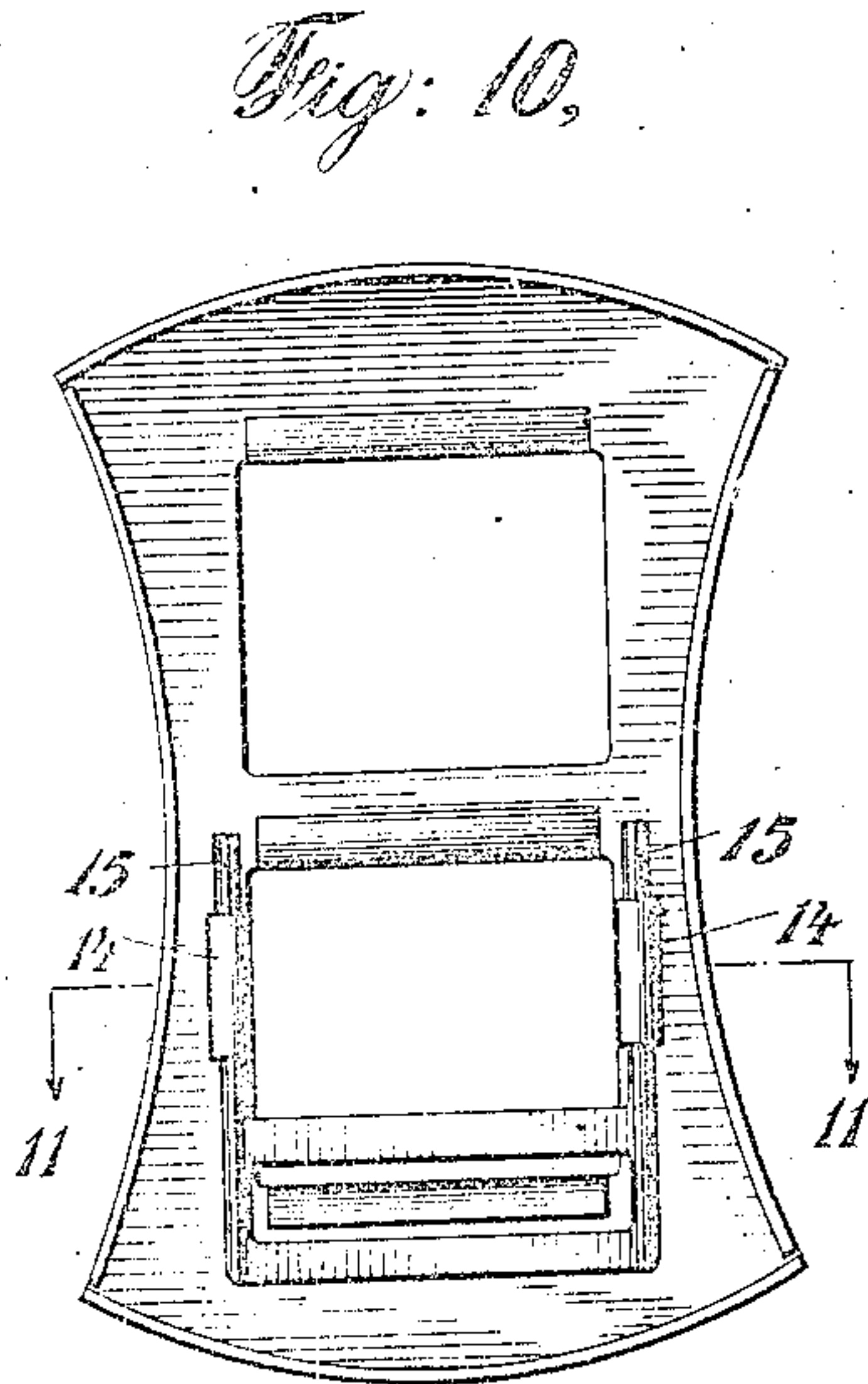
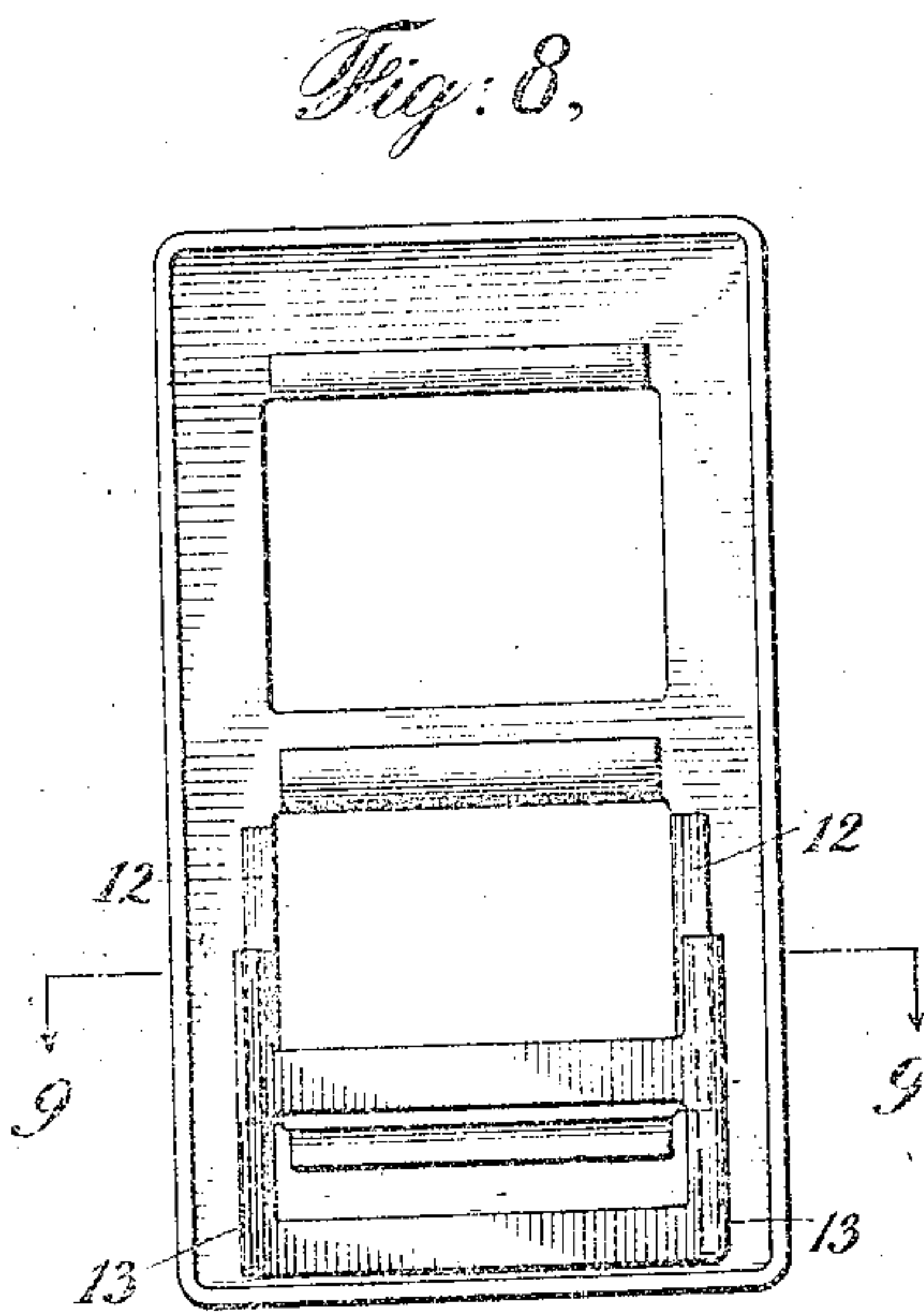
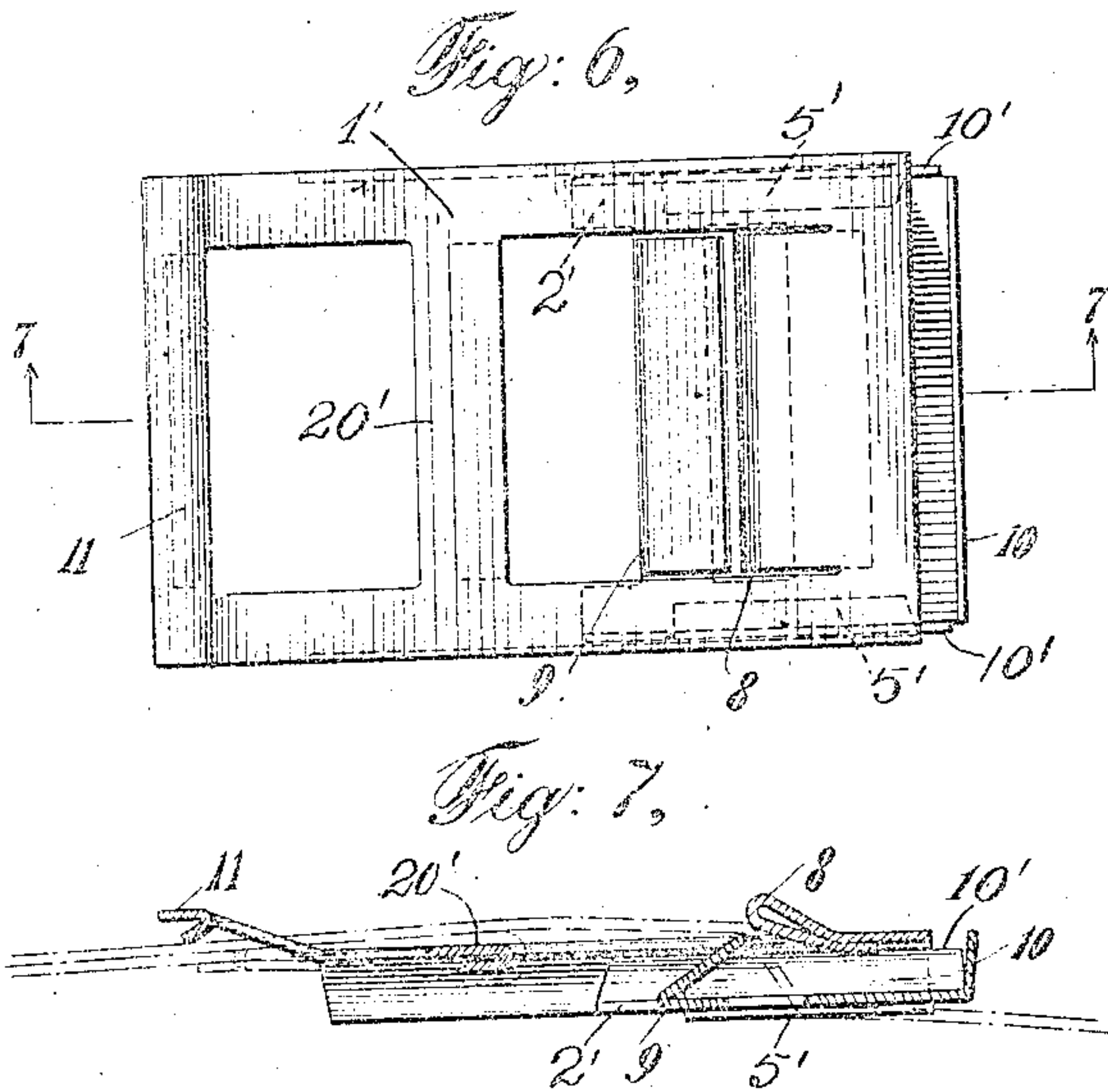
R. A. BROWN.  
BUCKLE.

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Patented May 23, 1911.

3 SHEETS—SHEET 2.

993,320.



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R. A. BROWN.

BUCKLE.

APPLICATION FILED JAN. 7, 1909.

Patented May 23, 1911.

3 SHEETS—SHEET 3.

993,320.

Fig: 12,

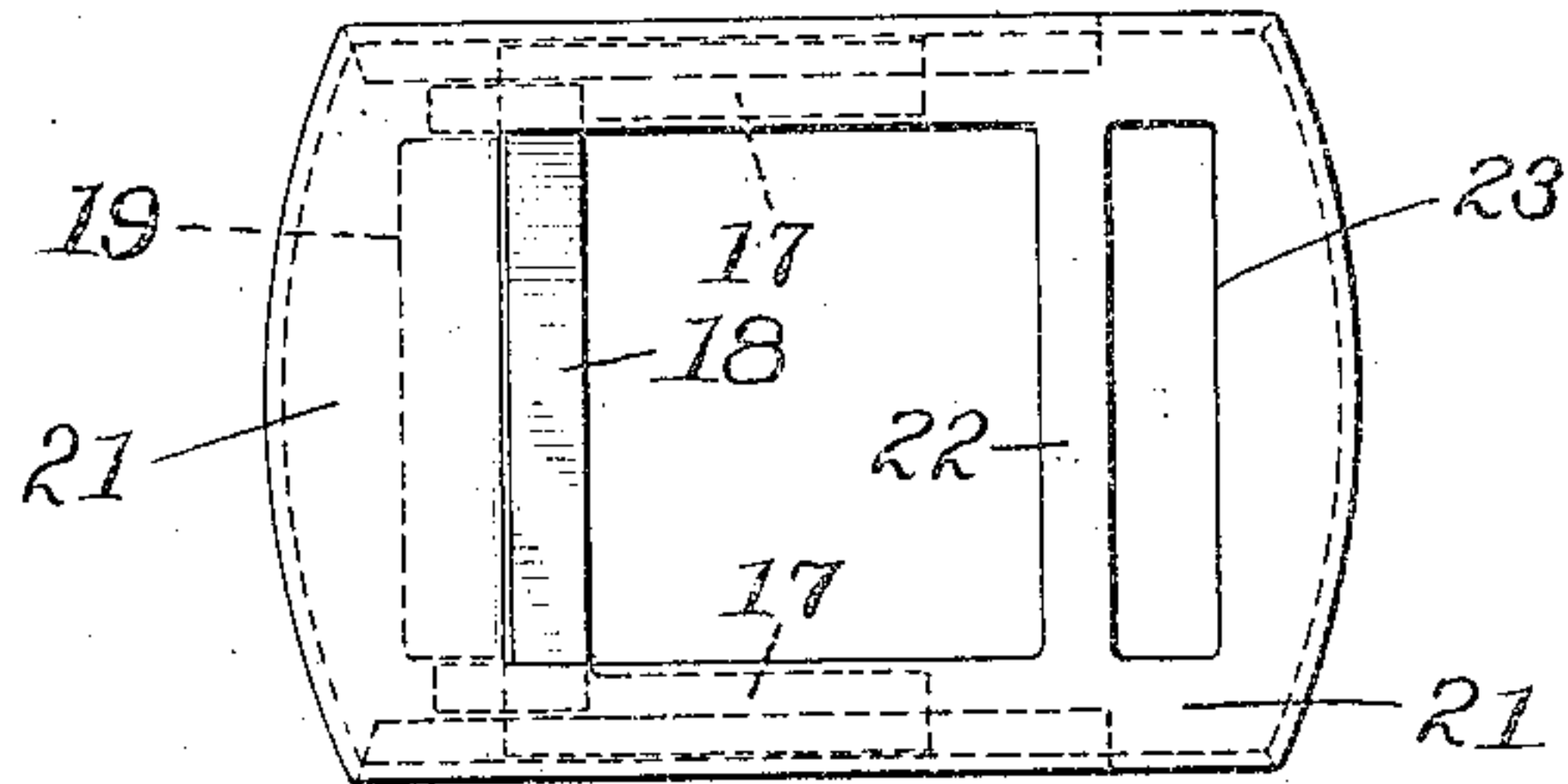


Fig: 13,

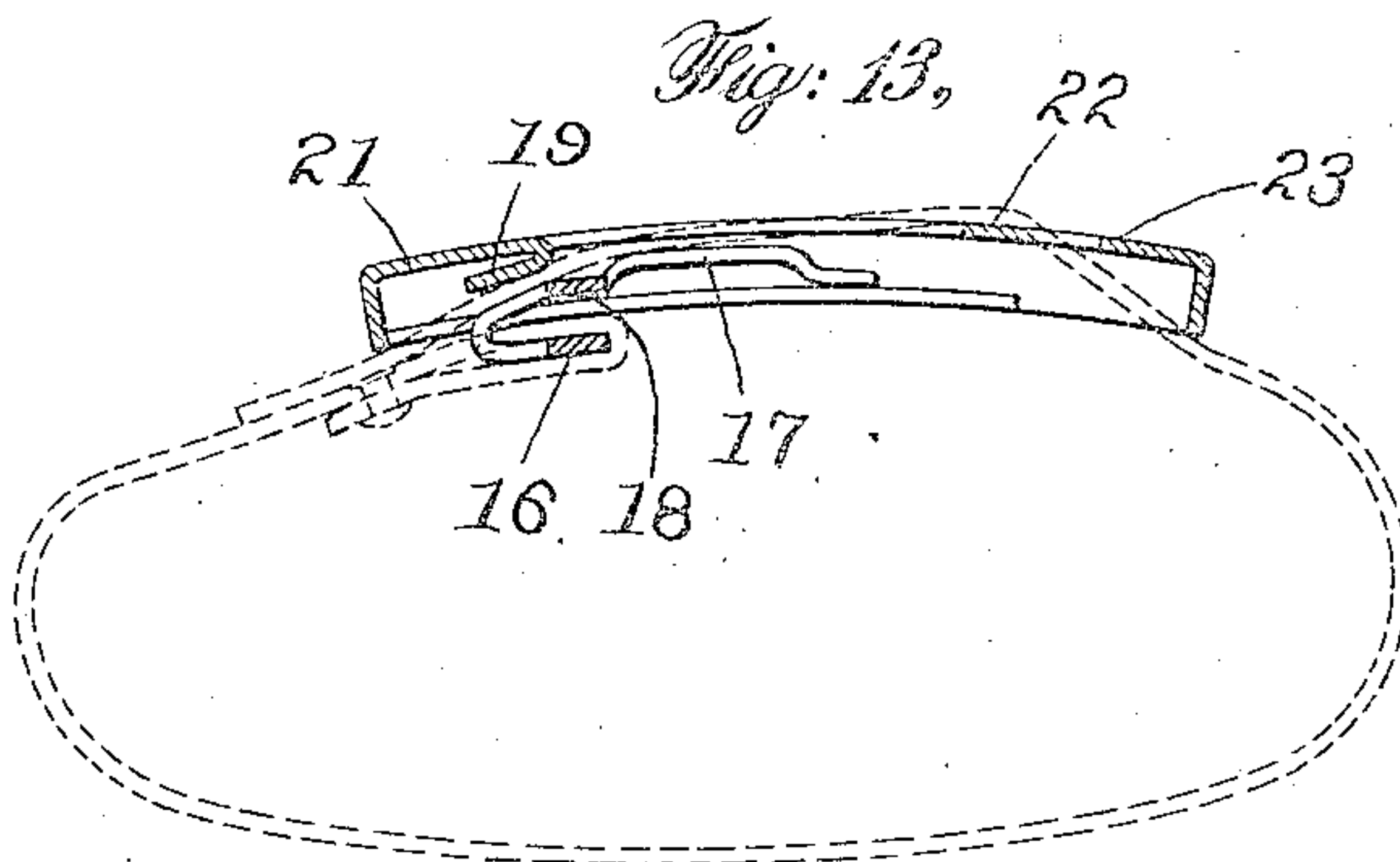
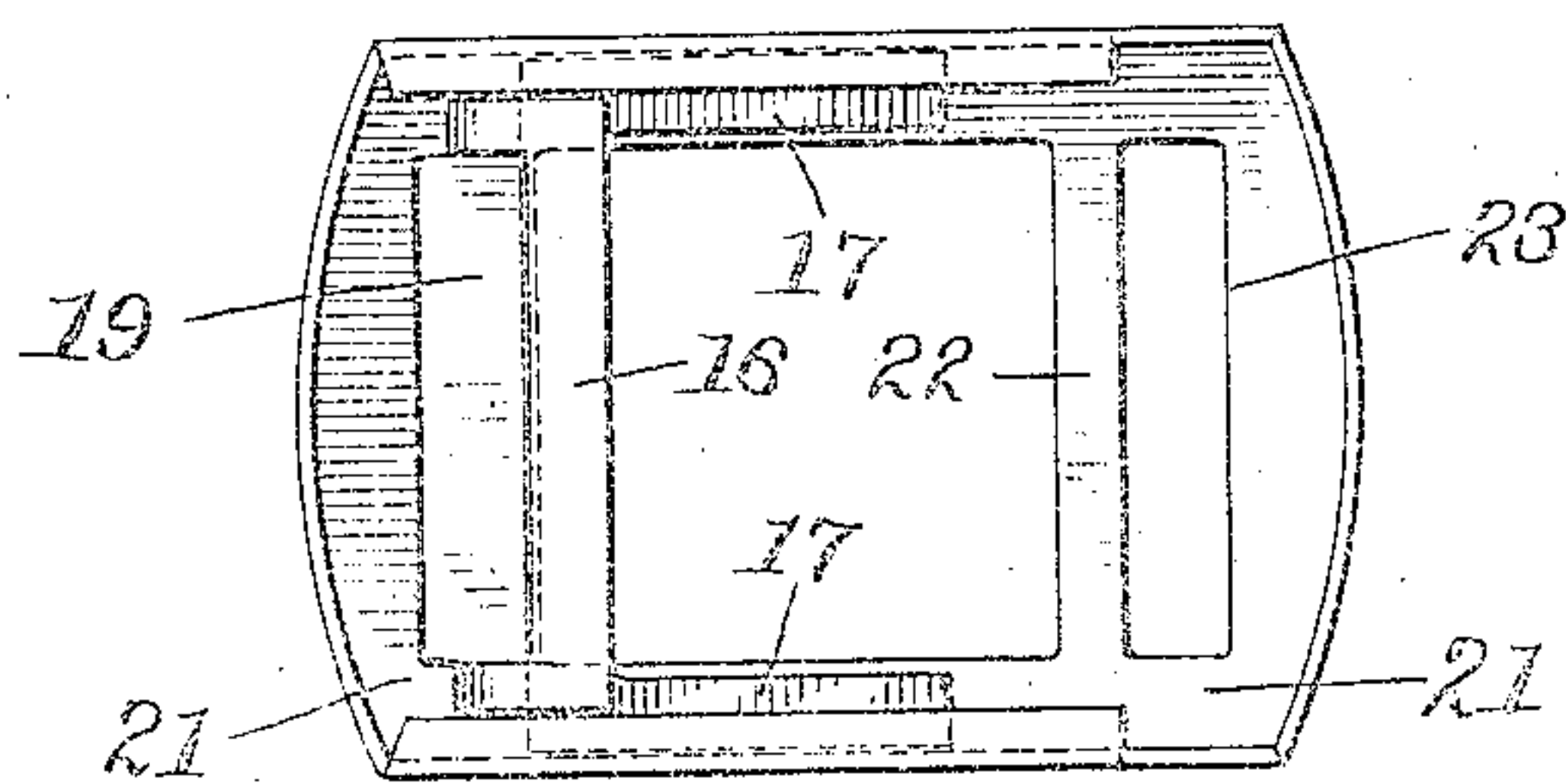


Fig: 14,



Witnesses:  
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By His Attorney  
Ernest Hopkinson



# UNITED STATES PATENT OFFICE.

ROYL ANDREW BROWN, OF ASHLAND, OHIO, ASSIGNOR TO NEW YORK BUCKLE COMPANY, A CORPORATION OF NEW YORK.

## BUCKLE.

993,320.

Specification of Letters Patent.

Patented May 23, 1911.

Application filed January 7, 1909. Serial No. 471,034.

*To all whom it may concern:*

Be it known that I, ROYL ANDREW BROWN, a citizen of the United States, residing in the city of Ashland, county of Ashland, and State of Ohio, have invented a new and useful Improvement in Buckles, of which the following is a specification.

My invention relates generally to buckles, and particularly to buckles which are intended to secure the strap by means of a gripping action which may be effected at any part, as distinguished from tongue buckles in which registration of the tongue and a given portion of the strap is required to effect positive action.

An important feature of the invention consists in providing in such a buckle a main member and a secondary member sliding thereon and so positioning and forming the parts by which tension is given to the end portion of the belt and the same is securely gripped that a wiping grip or wedging clamp action results and is utilized for securing the free end of the strap. This object is accomplished in various modified ways in the different embodiments of the invention illustrated in the drawings, but the principle as here illustrated is obtained by making on an incline or bevel one or both of the opposed surfaces co-acting to grip the strap. Besides this there are other features of importance which will appear from the description and drawings, in which—

Figure 1 is a front view of the buckle as applied to a belt. Fig. 2 is a front view on an enlarged scale, the belt being removed and indicated in dotted lines. Fig. 3 is a rear view. Fig. 4 is a transverse section on line 4—4, Fig. 1, but on the enlarged scale of Figs. 2 and 3, the buckle being closed. Fig. 5 is a similar section, the buckle being open and the belt removed. Fig. 6 is a front view of a modified form. Fig. 7 is a sectional view of the same on line 7—7, Fig. 6. Figs. 8 and 10 are rear views of two other modifications, and Figs. 9 and 11 are sectional views of the same on lines 9—9 and 11—11, Figs. 8 and 10 respectively. Fig. 12 is a

front view, Fig. 13 a section and Fig. 14 a rear view, of still another modification, in which the fast end of the belt is differently attached to the buckle.

Referring to the drawings in detail and particularly to Figs. 1, 2, 3, 4 and 5, 1 designates the main frame, on the under side of which there is slidably mounted the secondary frame 2. The main frame is preferably made of sheet metal and dished by overturning the sides and end portions, whereby added strength is attained, while lightness of construction is permitted without sacrifice of strength. The main frame consists in its operative parts of an attaching bar 20 which is here shown as provided with serrations designed to keep the fabric loop stretched along the width of the bar to prevent it from wrinkling or sagging. The metal of the end portions is turned inward to form at the one end an inclined clamping part 3 and at the other end a rounded tuck-under surface 4. Extending laterally on the under side of the buckle and projecting toward the central longitudinal line of the buckle on each side and at the clamping end are two slide-ways 5, in which the movable member 2 is adapted to move to and fro in the act of clamping and releasing the free end of the strap. This sliding member consists of two transverse bars connected at the end, one bar or part being the clamping bar 6 and the other the tension bar 7. The upper outer corner or angle of the clamping bar 6 constitutes the clamping portion of the bar which primarily contacts with the under side of the strap. The tension bar and the clamping bar of the sliding member are located in different planes relative to the plane of the buckle and the upper surface of the clamping bar 6 is located on a plane lower than the entering edge of the clamping portion 3. When the buckle is in use the upper or outer strand of the strap passes between the tension bar 7 and the clamping bar 6 of the sliding frame 2. The longitudinal pull of the strap across the edge of the tension bar 7 positively draws the clamping bar 6



of the sliding frame 2 with it so that its clamping edge and adjacent marginal portion is forced toward the clamping part 3 at an acute angle and firmly engages the surface of the strap without undue abrasion. From this there results a sliding grip or wedging clamp action on the interposed strap between the operating face of the bar 6 and the opposed inclined surface of the clamping portion 3, as distinguished from the mere abutting of square edges usual in this general type of buckle. From the present construction the buckle is able to effect an increased grip upon the interposed strap or fabric and at the same time permits of wide variations in the thickness of the material thereof, it being apparent that even with very thin fabrics the sliding member will ultimately effect a wedging grip or wiping clamp at some portion of the inclined extended surface 3.

In Figs. 6 and 7 I have shown a modification of the construction illustrated in Figs. 1 to 5 inclusive. In Figs. 6 and 7, numeral 1' indicates the main frame of the buckle and has depending side portions terminating at one end in inward extensions or guides 5'. One end of the main frame terminates in the extension 11 which forms a raised tuck-under portion as indicated in Fig. 7. The inclined clamping portion indicated at 8 is slightly raised from the surface of the buckle. A sliding frame 2' has upwardly extending side portions 10' and terminates at its outer end in a turned-up portion 10 constituting a thumb piece. The sliding member also has a clamping bar 9 extending upward at an angle to the buckle, its upper end terminating on a line slightly below the end of the inclined portion 8 of the main frame. The attaching bar 20' is arranged transversely of the buckle between the tuck-under portion and the inclined clamping member 8.

Figs. 8, 9, 10 and 11 show constructions embodying the same principles as those illustrated in the previous drawings, but being provided with modified means of association of the sliding member with the main member, Figs. 10 and 11, also illustrating the possibility of giving any desired outline conformation to the main member for ornamental purposes. Referring to Figs. 8 and 9, the method of associating the sliding member with the main member consists in providing the main member with a downwardly and outwardly turned flange or lip 12 and the sliding member with an upwardly and inwardly turned member 13 interlocking with the member 12. In Figs. 10 and 11 the main member is provided with a downwardly curled lip 14, while the lateral portions of the sliding member which connect the tension bar and the clamping bar consist of rods 15.

In Figs. 12, 13 and 14 I have shown a construction in which both the main and sliding members are given concentric curves, thus increasing the holding effect of the buckle on the strap. In these figures numeral 21 indicates the main frame, and numeral 17, the sliding frame. The attaching bar 16 is carried by the sliding frame 17 adjacent one end thereof, and the transverse bar 18 is carried by the same end of the sliding frame 17 and projects upwardly at an angle so as to cooperate with the opposing inclined portion 19 of the main frame. The opposite end of the main frame carries the tension bar 22, and the end bar 23 which cooperates with the opposing edge of the main frame to increase the holding effect of main frame on the strap and with the parts of the other end of the buckle above mentioned tend to slide the main and inner frames relatively to each other. This form of buckle operates in a slightly different way from the forms previously described, inasmuch as the free end of the strap is first passed between the bars 22 and 23. The end is then passed between the inclined portion 19 of the main frame and above the transverse bar 18. Since the pull on the looped end of the strap which engages the bar 16 tends to pull the sliding frame 17 toward the left, the strap will be more tightly clamped beneath the inclined portion 19 as the tension increases.

From the foregoing, the method of operation will be readily understood. Referring to any of the illustrations contained in the drawings the free end of the strap is passed through the space adjacent the tension bar and between the clamping parts and is then drawn taut in a direction away from the buckle. The moment the free end is released the tension of the strap is exerted on the tension bar to cause the clamping bar to positively act upon the under surface of the strap at an acute angle to the inclined clamping portion and hold it by a wiping clamp or wedging action against the opposed inclined surface of said clamping portion of the main member. The loose end of the strap may then be passed under the tuck-under portion of the main member or not, as may be desired.

Of course, I do not intend to limit myself to the precise constructions illustrated in the drawings, as modifications may no doubt be made without departing from the spirit of the invention as defined by the appended claim.

What is claimed as new is:

A buckle comprising, a main frame having a clamping part, and a sliding frame having a tension bar and a clamping part whose clamping portion is located in a different plane from and movable in a plane parallel to that of said tension bar, the plane of movement and the plane of the tension



bar being parallel to the plane of the adjacent parts of the main frame, the clamping part of one of said frames being provided with an inclined surface, the opposing  
5 clamping part of the other frame being mounted to move and be forced toward said surface at an acute angle thereto.

In witness whereof, I have signed my name in the presence of two witnesses.

ROYL ANDREW BROWN.

Witnesses:

MARY E. BROWN,

DOROTHY HIRSCHLER.