

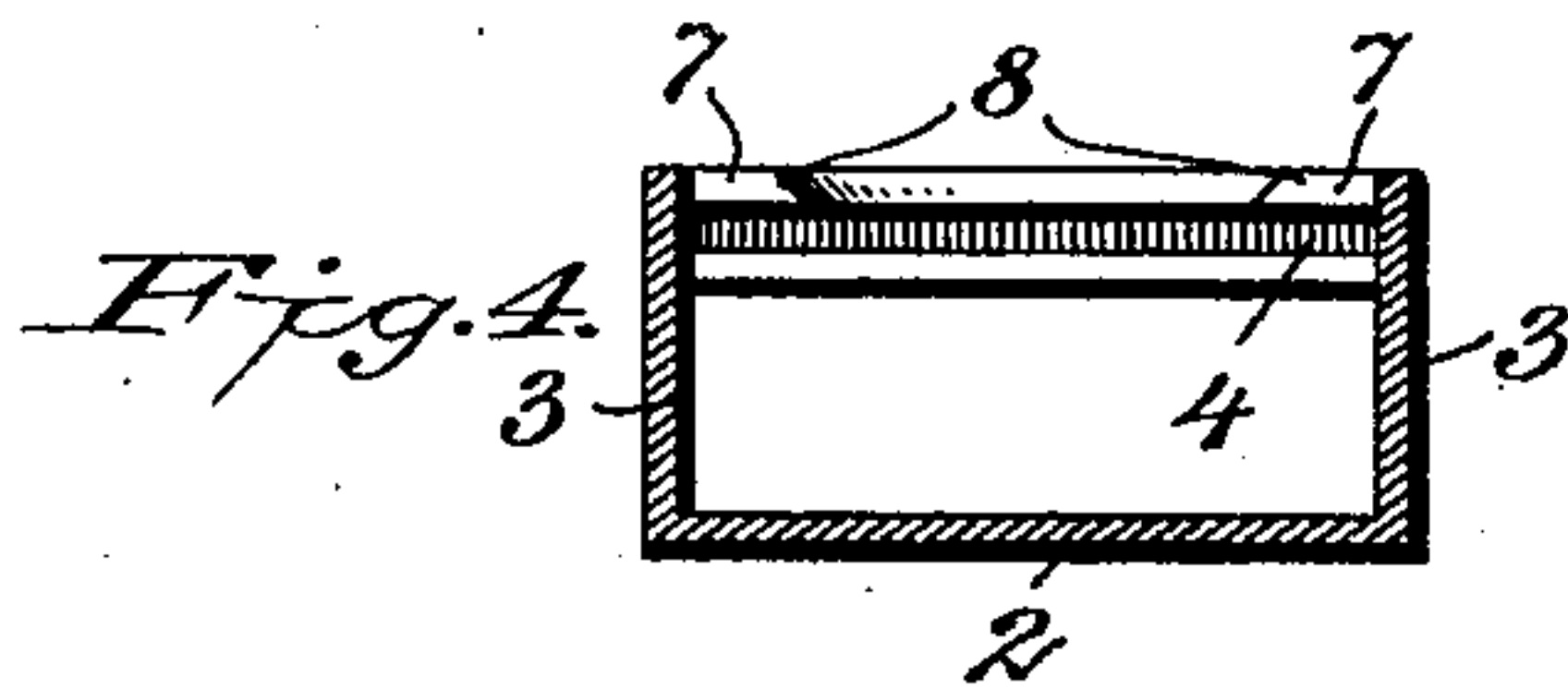
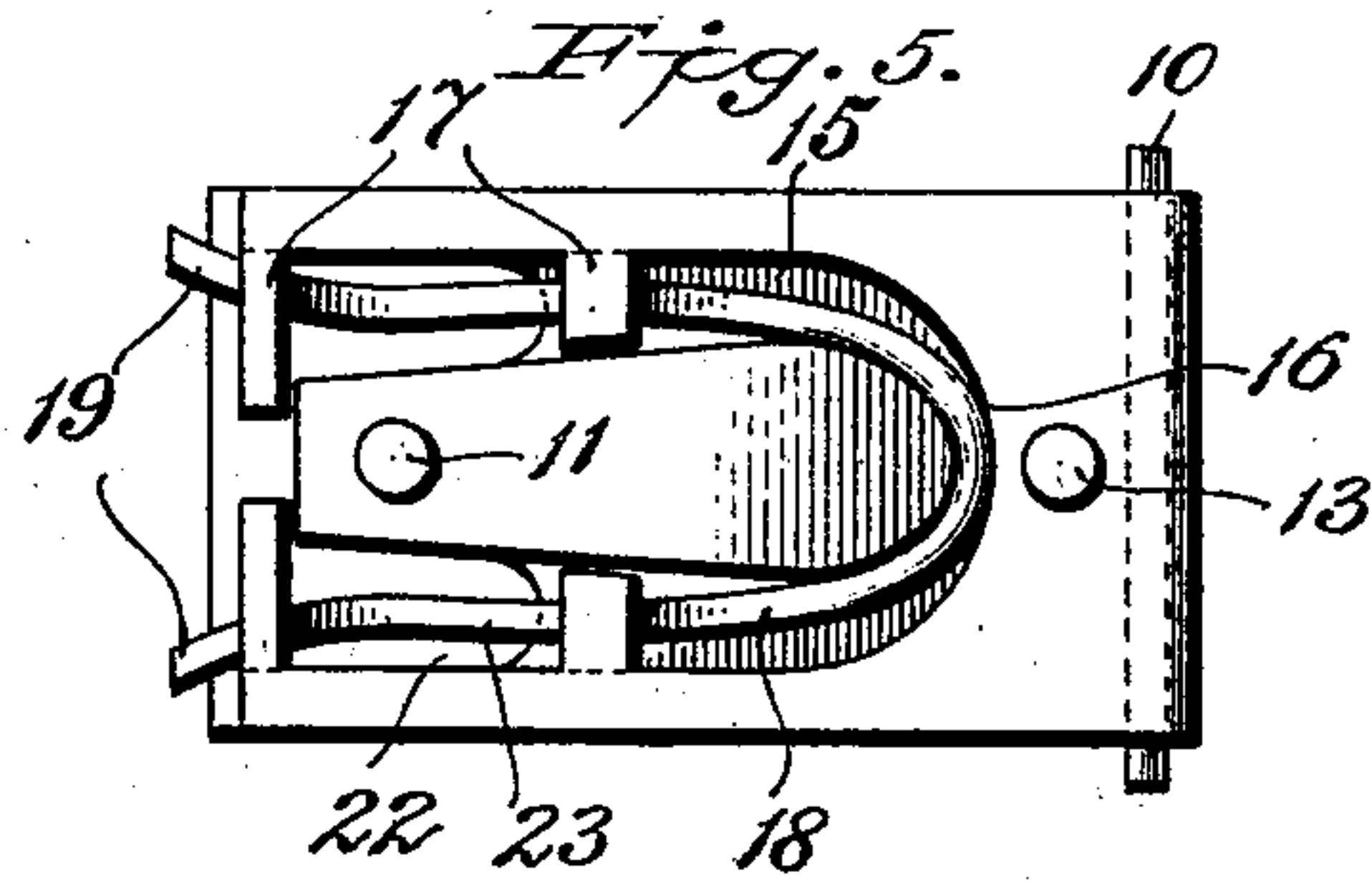
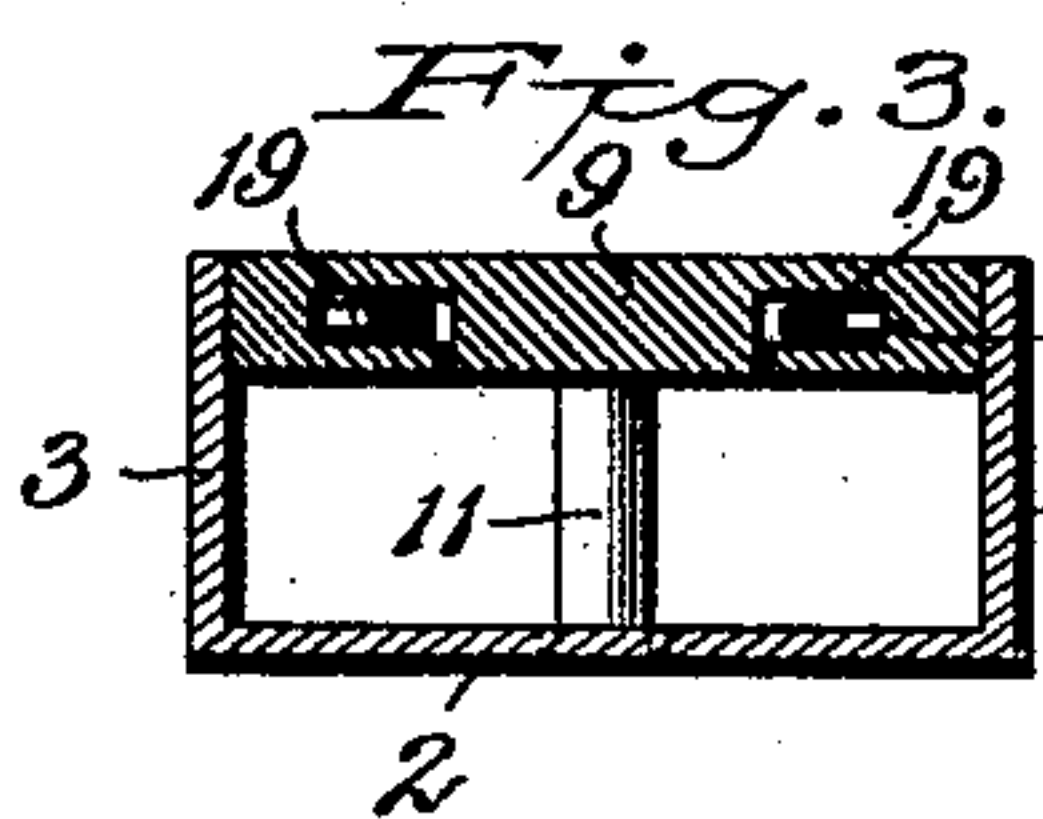
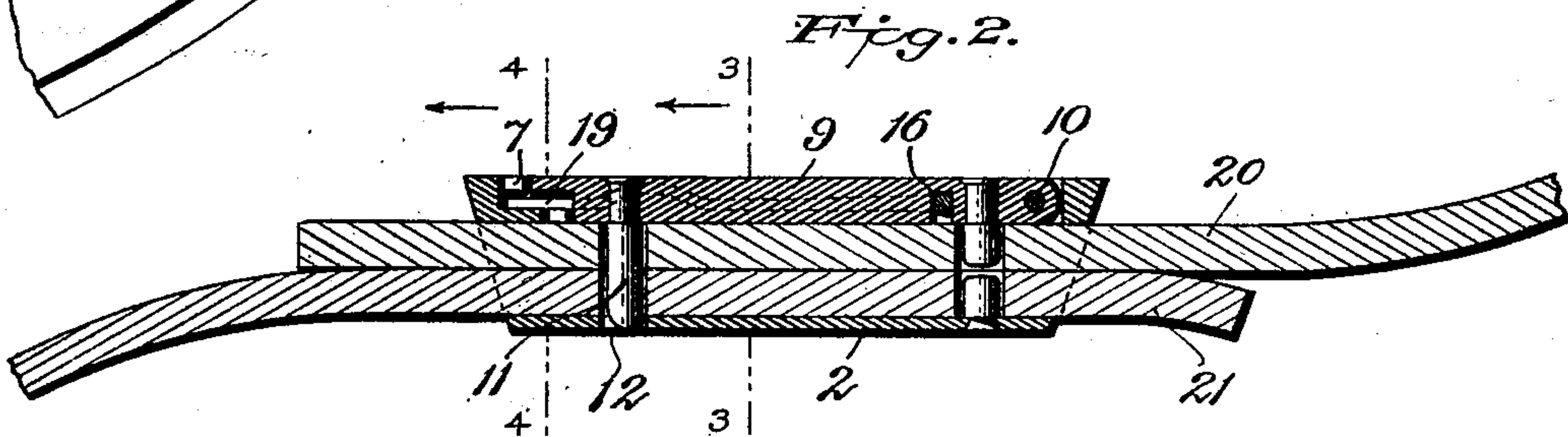
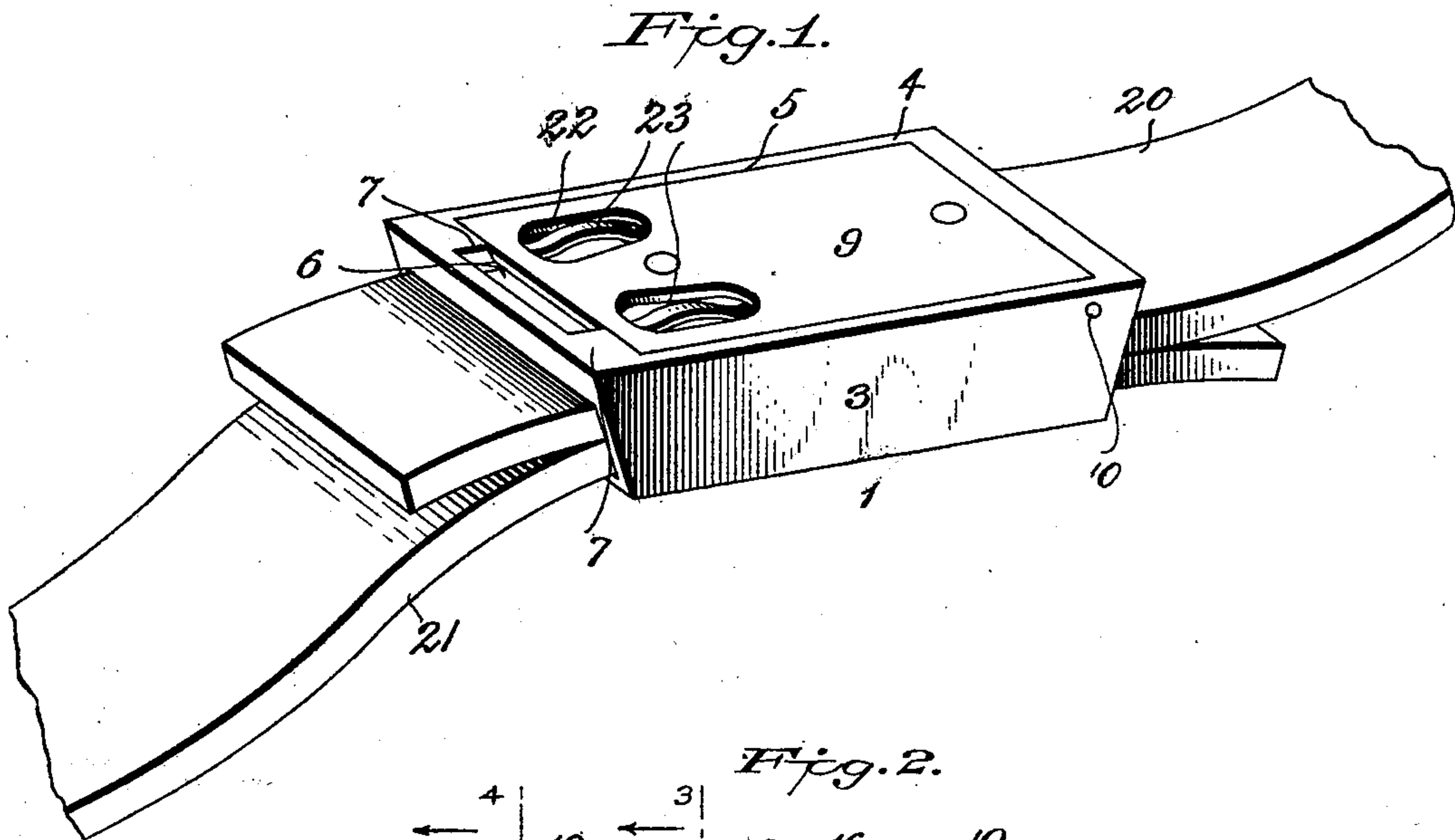
No. 668,609.

Patented Feb. 19, 1901.

R. GARRARD.  
BUCKLE.

(Application filed Apr. 22, 1899. Renewed Jan. 14, 1901.)

(No Model.)



Witnesses:

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# UNITED STATES PATENT OFFICE.

ROBERT GARRARD, OF BEDFORD, IOWA.

## BUCKLE.

SPECIFICATION forming part of Letters Patent No. 668,609, dated February 19, 1901.

Application filed April 22, 1899. Renewed January 14, 1901. Serial No. 43,254. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT GARRARD, a citizen of the United States, residing at Bedford, in the county of Taylor and State of Iowa, have  
5 invented certain new and useful Improvements in Buckles; and I do hereby 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  
10 make and use the same.

This invention relates to improvements in buckles for harness, &c.; and the prime objects in view are the production of a buckle that is economically and simply constructed  
15 and which is adapted to receive and secure in an efficient manner the overlapping ends of heavy straps—such, for instance, as hold-back straps and the like—which will permit of a ready adjustment of such straps through  
20 the same or a disconnection, as may be desired, and which when closed subsequent to such an adjustment may be closed and automatically locked against disconnection, and, finally, to avoid in the construction of the  
25 buckle any protruding tongues or other projections that are at all calculated to engage with different portions of the harness and tend to open the buckle or in any way disturb or destroy the adjustment or connection.

30 Other objects and advantages of my invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the appended claim.

Referring to the drawings, Figure 1 is a  
35 perspective view of my improved buckle, showing the same as connecting two heavy straps, such as described. Fig. 2 is a longitudinal sectional view through the center of the buckle and the connected straps. Fig. 3 is  
40 a transverse sectional view on the line 3 3 of Fig. 2. Fig. 4 is a similar view on the line 4 4 of Fig. 2. Fig. 5 is a detail in bottom plan of the locking-plate.

45 Similar numerals of reference designate similar parts in all the figures of the drawings.

50 In practicing my invention I employ a buckle-frame 1 having a general oblong shape and comprising the plain bottom 2, opposite sides 3, and the upper connecting-plate 4, the whole being preferably formed integral and producing a frame or hollow structure open from end to end, as shown.

The upper plate 4 is provided with an angular opening 5, the front end of the opening being extended into the plate 4, forming a  
55 recess 6, producing at each side thereof shoulders 7, which may or may not be chamfered or beveled on their upper inner edges, as indicated at 8.

Within the opening 5 is adapted to some-  
60 what snugly fit and completely close the same a locking-plate 9, the same having its rear end pivoted or hinged in position within the opening 5 by means of a transverse pintle 10, whereby the plate may be opened and closed.  
65 Near its free end the said locking-plate is provided upon its inner or under side with a depending rigid stud or tongue 11, the lower end of which may be slightly beveled, as shown, and when the plate is closed extend  
70 into an opening 12, formed for its accommodation in the bottom plate 2. A similarly-disposed, though shorter, stud or tongue 13 depends from the locking-plate, nearer its point or pivot with the frame 1, and when  
75 the plate is closed abuts or contacts with a reversely-disposed stud or tongue 14, which extends upwardly from the bottom plate 2, in line therewith.

The under side of the locking-plate 9 is  
80 provided with a curved or U-shaped recess or groove 15, the same being preferably narrower at its middle, as indicated at 16, and having located at and between its ends suitable keepers 17. Located within the groove  
85 15 and of a width or diameter about agreeing with the narrowest portion 16 thereof, is a U-shaped spring 18, somewhat longer than the groove and therefore terminating beyond  
90 the same in the form of locking-fingers 19, adapted to spring under the beveled shoulders 7 of the top plate 4 when the locking-plate is closed within the recess 5. The  
95 keepers 17 take under the terminals of the spring 18 and in connection with the contracted portion 16 of the groove retain the spring in position within the groove, the groove being sufficiently wide except at its contracted portion to give the terminals of the  
100 spring free lateral play or vibration, whereby they are enabled to engage or disengage with the locking-shoulders 7. It will be obvious that the spring may be readily replaced by a new one should it at any time become broken.



20 and 21 designate two overlapping straps, the ends of which are inserted from opposite ends of the buckle-frame into the same, the locking-plate being raised during such operation, a convenient hole or eye in the strap 21 being caused to engage over the stud 14 of the bottom plate 2, after which the remaining strap is moved along until its holes or eyelets register with the same, and the locking-plate is swung to a closed position, which causes its longer stud or tongue 11 to pass entirely through the two straps and into the bottom plate and its shorter or rear stud or tongue 13 to enter the upper strap 20 and approximately abut against the lower stud or tongue 14. This closing of the plate causes the spring-fingers 19 to spring over the beveled edges of the locking-shoulders 7 and engage under the same.

The locking-plate is preferably formed with opposite finger - openings 22, immediately above the terminals of the spring, whereby the fingers of the operator may be inserted to press the terminals of the spring together, and to facilitate engaging the spring the latter is preferably slightly crimped upwardly into the finger-openings, as indicated at 23.

It will be obvious that when my buckle is locked there is no danger whatever of any

accidental disengagement of the locking-plate and that such can be caused only by inserting the thumb and forefinger in the openings 22 and compressing the spring, so as to cause the spring-fingers to become disengaged from the locking-shoulders.

Having described my invention, what I claim is—

In a buckle, the combination with a hollow buckle-frame open throughout its length and having its upper side provided with an opening, one edge of which is recessed to produce opposite locking - shoulders; of a locking-plate hinged at the opposite edge of said opening and provided near its free end with finger-openings; rigid tongues located in the frame; and a spring secured to the under side of said plate and having its terminals extending beyond the free end of the same and adapted to engage the aforesaid locking-shoulders, the terminals of the said spring passing under and kinked up into the said finger-openings of the plate, as specified.

In testimony whereof I affix my signature in the presence of two witnesses.

ROBERT GARRARD.

Witnesses:

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