

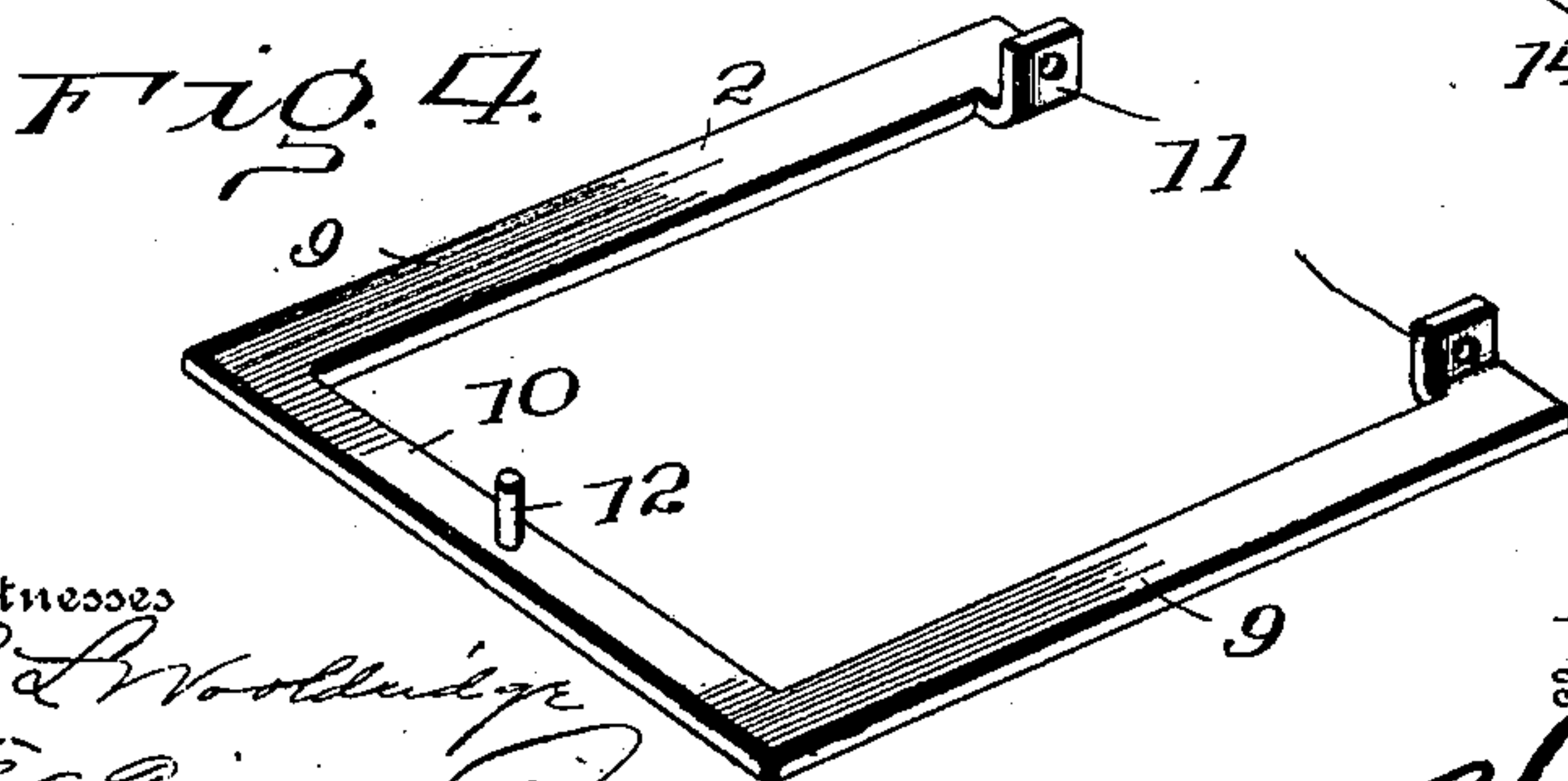
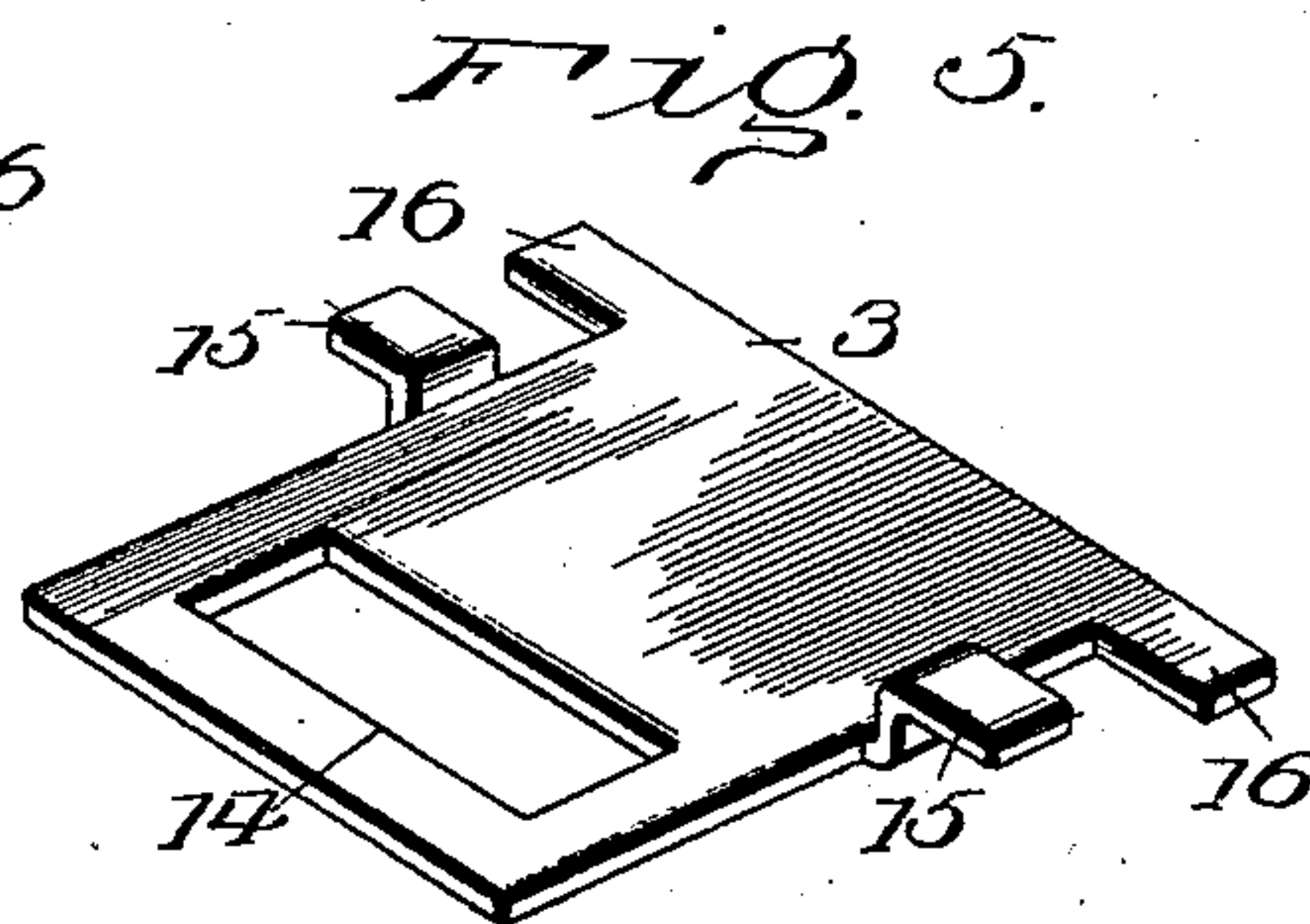
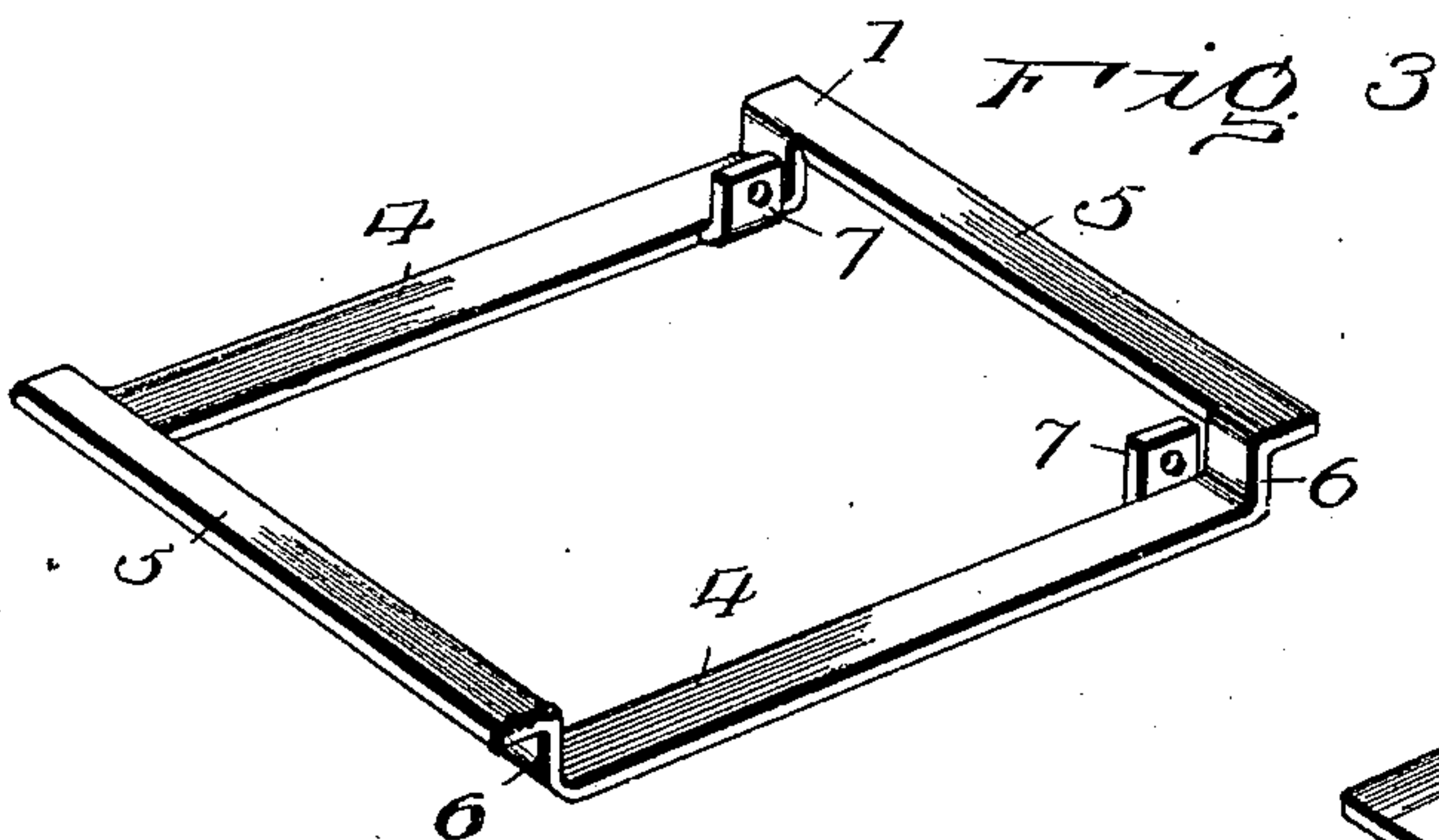
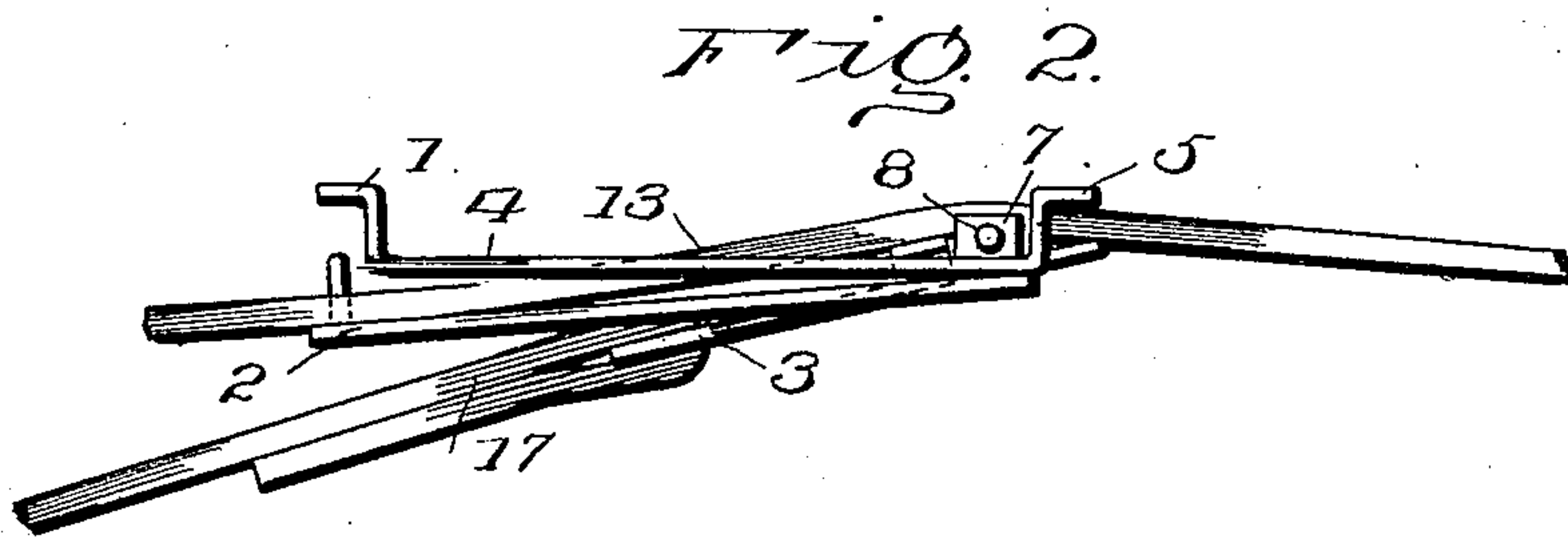
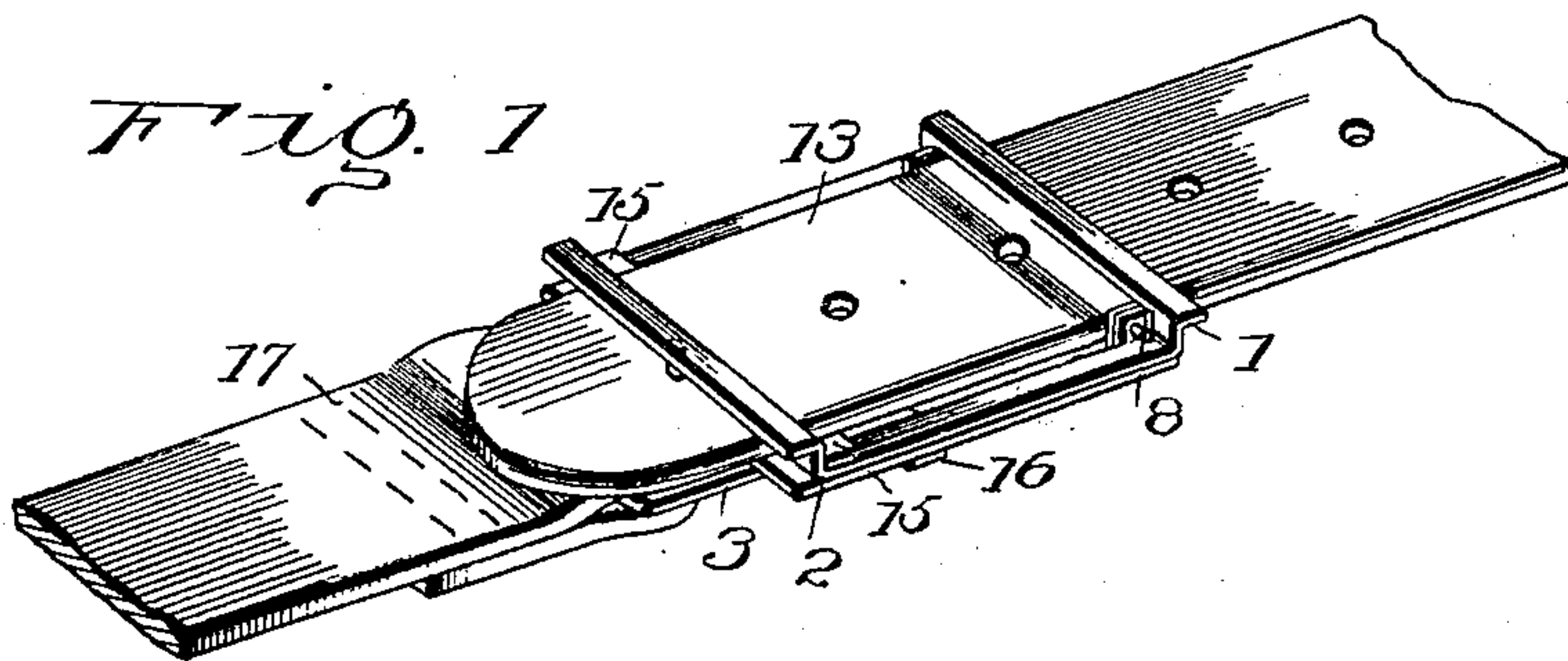
No. 689,384.

Patented Dec. 24, 1901.

E. C. BRUNER.  
HARNESS BUCKLE.

(Application filed July 10, 1901.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

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## HARNESS-BUCKLE.

SPECIFICATION forming part of Letters Patent No. 689,384, dated December 24, 1901.

Application filed July 10, 1901. Serial No. 67,734. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD C. BRUNER, a citizen of the United States, residing at Tekoa, in the county of Whitman and State of Washington, have invented certain new and useful Improvements in Harness-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 make and use the same.

The buckle forming the basis of this application is designed most especially for use in connecting traces to the hame-tugs, although it may be used for the connection of straps wherever desired. The buckle is so constructed as to obviate lateral pressure on the trace and admit of the latter being quickly lengthened or shortened, as desired, it not being necessary to bend the end of the trace to withdraw it from the end of the buckle and to again bend it to thrust it beneath the end bar of the buckle, as generally required with trace-buckles commonly used.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the results reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are necessarily susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a buckle embodying the invention. Fig. 2 is a side view thereof, showing the relation of the parts when adjusting the trace. Fig. 3 is a perspective view of the fixed member of the buckle-frame. Fig. 4 is a perspective view of the pivoted member of the buckle-frame. Fig. 5 is a perspective view of the slide to which the hame-tug is attached and which locks the free ends of the members of the buckle-frame after the trace has been properly adjusted.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The buckle comprises a frame and a slide,

the frame being composed of a fixed member 1 and a pivoted member 2, the part 3 being slidable upon the members to admit of their separation when it is required to adjust the trace.

The fixed member 1 of the buckle-frame comprises longitudinal bars 4 and transverse bars 5, the end portions of the longitudinal bars being offset, as shown at 6, so as to throw the transverse bars 5 in a different plane from the plane of the bars 4, whereby the trace, or the end portion thereof, may occupy a position between the planes of the bars 4 and 5, as indicated most clearly in Figs. 1 and 2. Ears 7 project from the inner edge of the bars 4 adjacent the offset portions 6 near one end and are transversely pierced to receive the pivot-bar 8, by means of which the members 1 and 2 are connected.

The pivot member 2 is composed of longitudinal bars 9 and a transverse connecting-bar 10, the three bars being in the same plane and the bars 9 underlapping the longitudinal bars 4 and having ears 11 at the inner ends of their free ends to come alongside of the ears 7 and pierced to receive the pivot-bar 8. A stud 12 projects centrally from the transverse bar 10 toward the proximal transverse bar 5 and touches the same. The end portion of the trace 13 is formed with a series of openings, any one of which is adapted to receive the stud 12, by means of which the trace is adjustably connected with the buckle. As previously stated, the end portion of the trace occupies the space formed between the planes of the bars 4 and 5 of the member 1, and, as shown, it passes over the pivot-bar 8 and beneath the proximal transverse bar 5 and over the transverse bar 10 and beneath the proximal transverse bar 5. It will thus be seen that the end portion of the trace is confined at both ends of the buckle and is prevented from lateral displacement by passing between the offset portion 6.

The slide 3 consists of a plate or bar having a loop 14 and spaced extensions 15 and 16 at its ends, the extensions 16 being straight and in the plane of the slide, so as to underlap the bars 9, and the extensions 15 being bent or offset to overlap the longitudinal bars 4. The loop 14 receives the hame-tug 17, which is at-



tached thereto in any desired way. By having the extensions 15 and 16 embrace opposite sides of the longitudinal bars 4 and 9 the latter are held against separation when the buckle is in service and the parts properly adjusted. When it is required to adjust the trace either to lengthen or shorten it, the slide 3 is moved toward the pivot end of the members 1 and 2 until the extensions 16 clear the ends of the longitudinal bars 9, when the members 1 and 2 can be separated at the ends remote from the pivot-bar 8, as shown in Fig. 2, thereby permitting the trace 13 to be disconnected from the stud 12 and moved to the required position, and after the adjustment has been effected and the stud 12 passed through one of the openings in the end portion of the trace the members 1 and 2 are brought together at their free ends and the slide 3 drawn forward to the position shown in Fig. 1, when the members 1 and 2 are held fast, the draft upon the hame-tug 17 and trace 13 serving to hold the slide in its outward adjustment, thereby preventing casual loosening of the parts or members of the buckle.

The component parts of the buckle may be cast, stamped from sheet metal, or formed in any desired way, and the size and form may be varied to meet any required demand.

It is to be observed that the end portion of the trace is straight and free from lateral pressure and that it can be easily adjusted, since it is not required to bend the same, as is necessary with the use of the ordinary buckle in general use.

Having thus described the invention, what is claimed as new is—

1. A buckle comprising a frame composed of members pivoted together at one end and separable at the opposite end and having a stud at the free end of one of the members for engagement with the strap or part to be adjustably connected with the buckle, and a slide comprising spaced extensions to embrace opposite sides of the corresponding

bars of the members and hold them together at their free ends, substantially as set forth.

2. In a buckle, pivoted members adapted to receive between them the strap or part to be adjustably connected with the buckle, and a slide for securing the members when brought together, said slide having spaced end extensions, one of the extensions being straight and the other extension being offset, the straight and offset extensions embracing opposite sides of corresponding bars of the members of the buckle-frame, substantially as set forth.

3. In a buckle, a member comprising longitudinal and transverse bars in different planes and having apertured ears projected from the said longitudinal bars, a second member comprising a transverse and longitudinal bars, the latter having ears to come alongside of the first-mentioned ears, a pivot-bar passing through corresponding openings in the ears, and a slide for holding the members together at the ends remote from the pivot-bar, substantially as set forth.

4. In a buckle, a member comprising longitudinal and transverse bars, the longitudinal bars having their end portions offset to throw the transverse bars in a different plane from the main portion of the longitudinal bars, a second member comprising a transverse and longitudinal bars, the latter registering with and underlapping the longitudinal bars of the first-mentioned frame, means for pivotally connecting the two members near an offset end of the longitudinal bars of the first-mentioned frame, and a slide having portions embracing opposite sides of the overlapping bars of the members for securement thereof, substantially as set forth.

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

EDWARD C. BRUNER. [L. S.]

Witnesses:

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