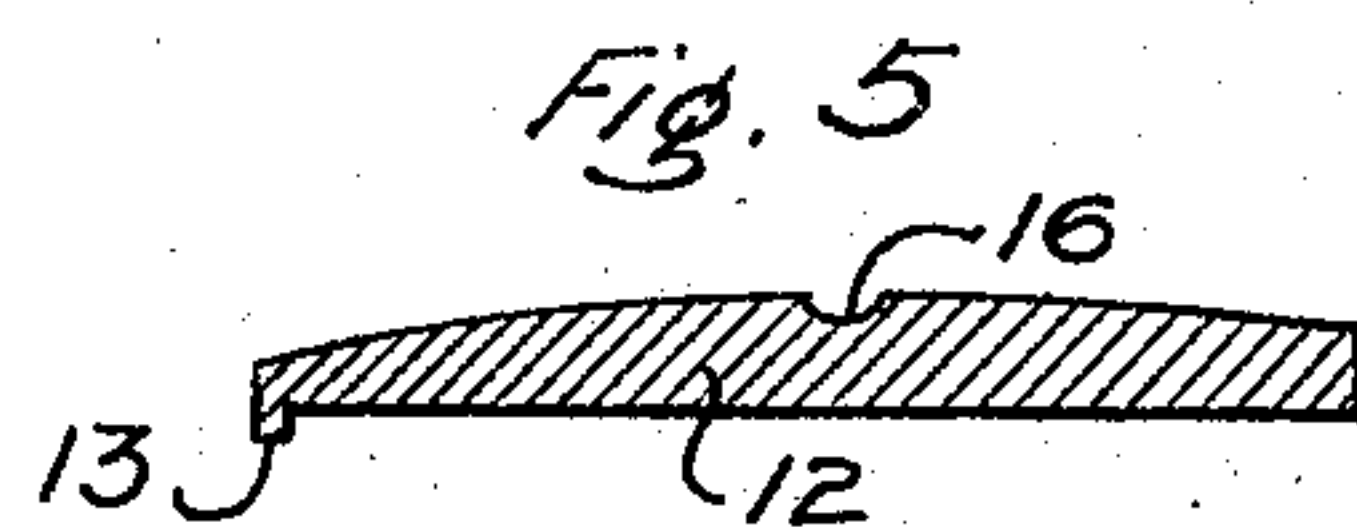
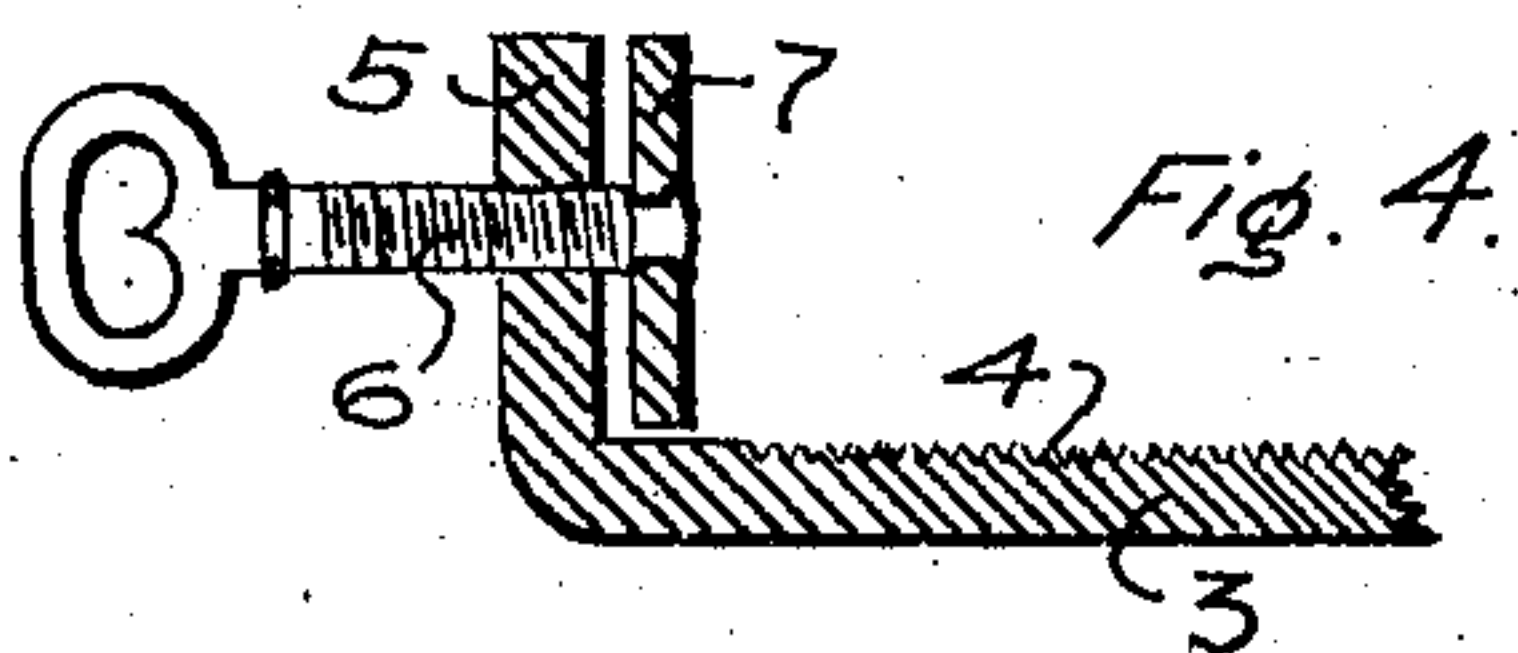
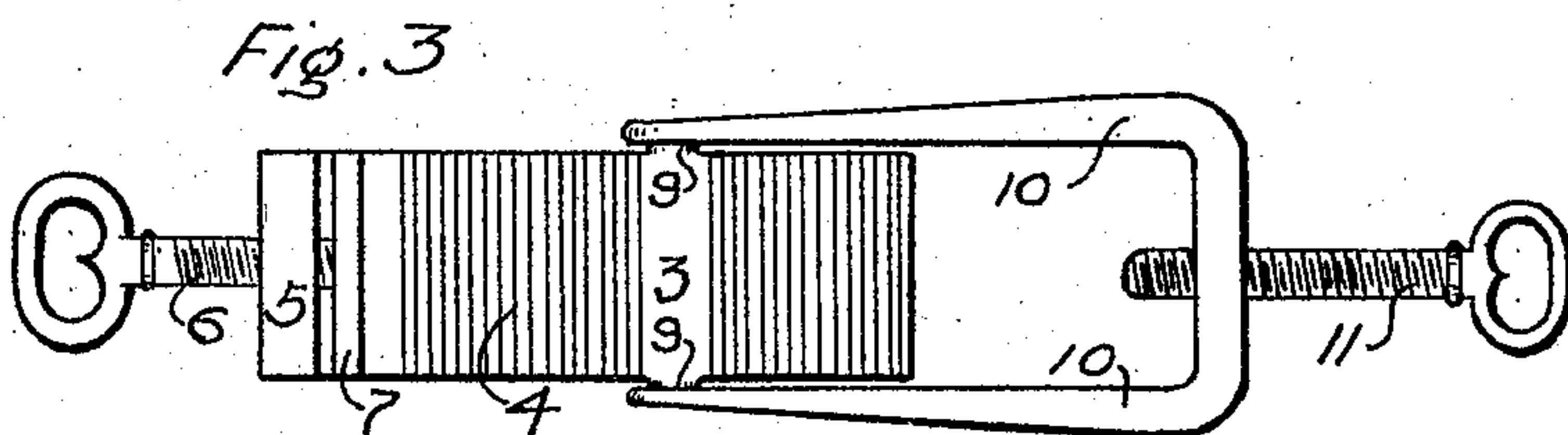
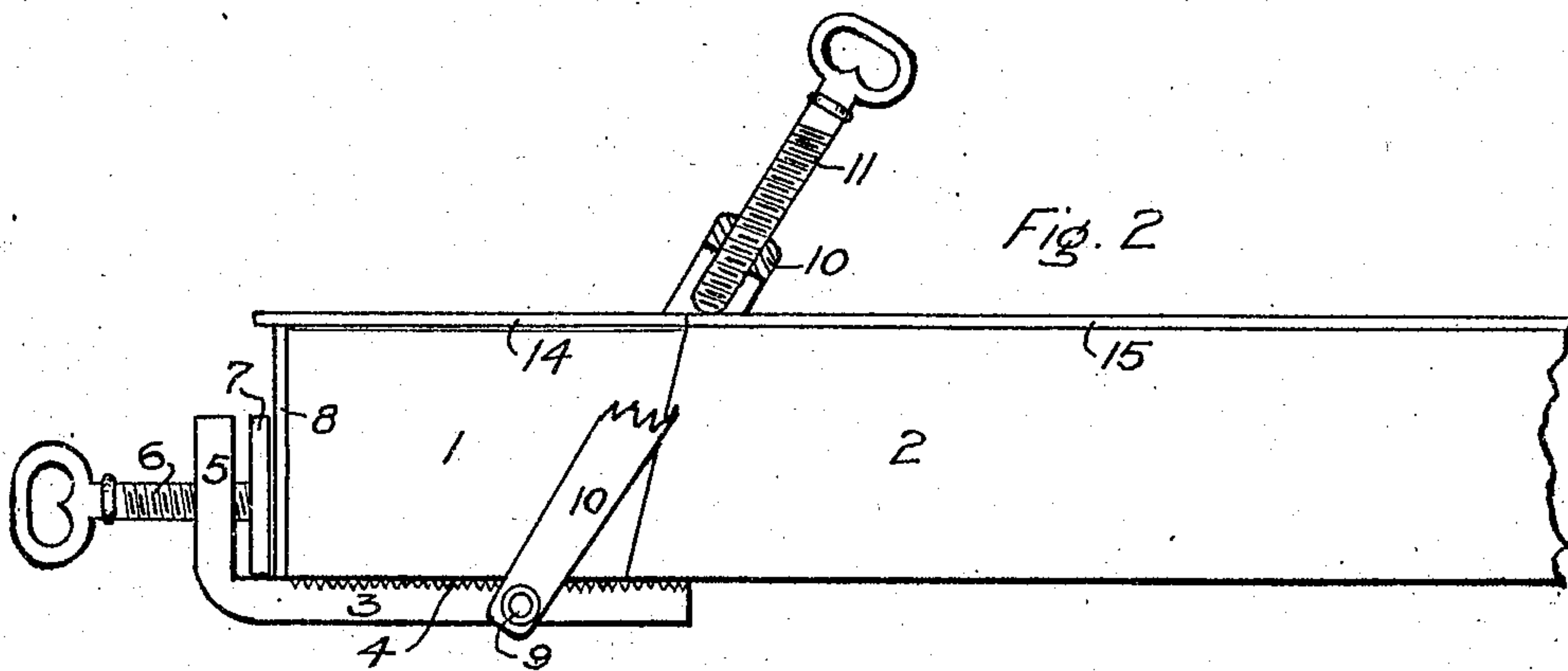
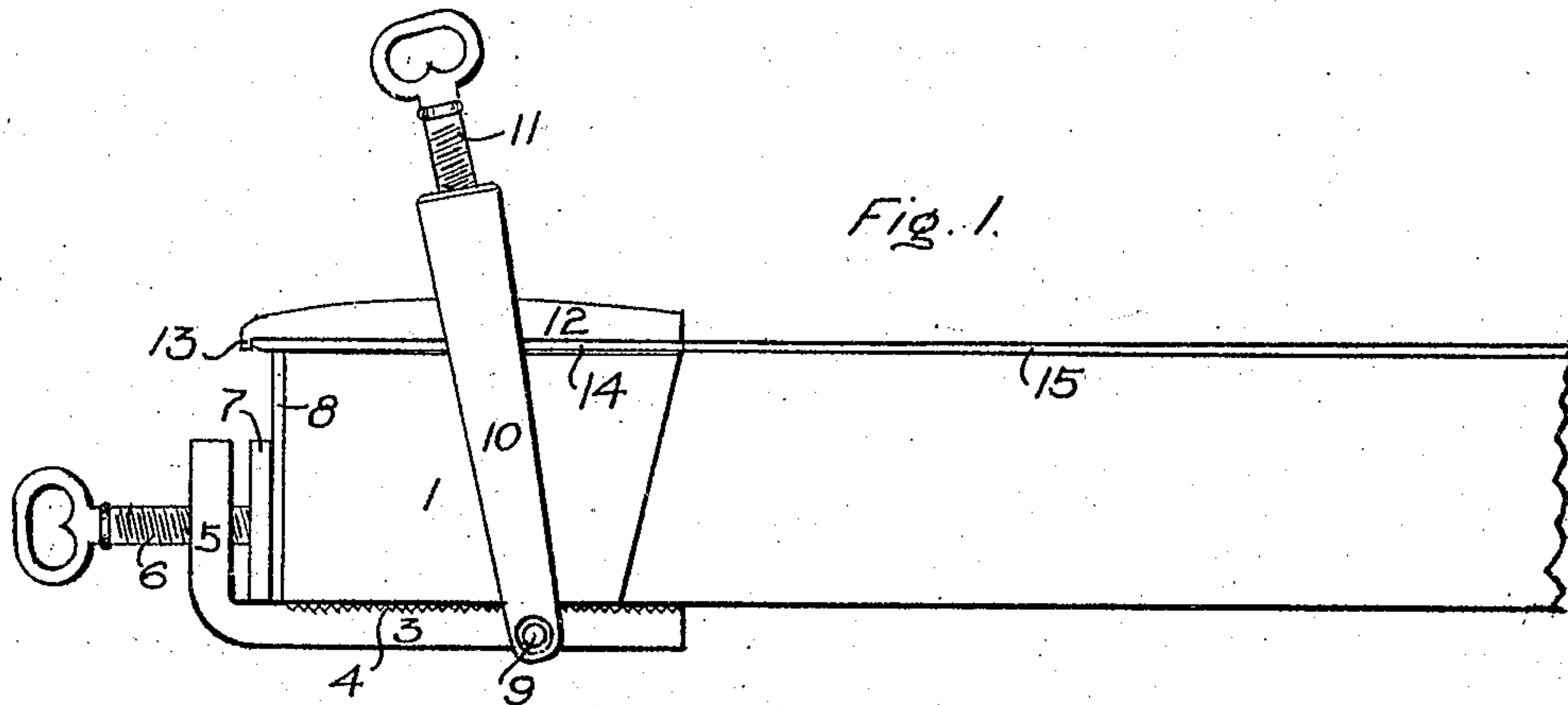


No. 806,219.

PATENTED DEC. 5, 1905.

R. H. WALKER.
PIANO KEY REPAIR CLAMP.
APPLICATION FILED NOV. 11, 1904.



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ROBERT H. WALKER, OF TACOMA, WASHINGTON.

PIANO-KEY-REPAIR CLAMP.

No. 806,219.

Specification of Letters Patent.

Patented Dec. 5, 1905.

Application filed November 11, 1904. Serial No. 232,350.

To all whom it may concern:

Be it known that I, ROBERT H. WALKER, a citizen of the Dominion of Canada, residing at Tacoma, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Piano-Key-Repair Clamps, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to piano-repairers' tools, and more particularly to clamps for holding the ivory veneer to the key while the glue is setting, and has for its objects to provide a clamp which will engage both the front 15 ivory and the head ivory at the same time; second, which will tend to push the head ivory against the tail ivory, so as to prevent the glue from entering between them, and, third, which may be turned back out of position so as to leave the space for the head 20 ivory free from obstacles, so that the glue may be applied and other work performed without being interfered with by the clamp. I attain these objects by the devices illustrated in the accompanying drawings, in which—

Figure 1 is a side view of my device applied to a key. Fig. 2 is a similar view showing the clamp turned back out of the way and being partly in section. Fig. 3 is a plan of my 30 clamp. Fig. 4 is a longitudinal section showing the connection between the front clamp and screw therefor, and Fig. 5 is a similar section of the plate for the head ivory.

35 Similar numerals of reference refer to similar parts throughout the several views.

The head and the tail of the key are indicated by the numerals 1 and 2, respectively. These parts are usually covered with a veneer 40 of ivory on their upper surfaces and also on the front of the head, and as the head and front ivories receive practically all the wear and damage due to misuse or accident I have devised a clamp by means of which the ivories 45 on either or both may be replaced with the greatest convenience and the least waste of time. The base of this clamp consists of a portion 3, adapted to be placed beneath the head of the key and having serrations 4 across 50 its upper surface adapted to engage the under surface of the key to keep the clamp from slipping, and a vertical portion 5 at the end, through which the thumb-screw 6 passes. This screw 6 is loosely riveted to the front 55 clamp-plate 7, which is adapted to press against the front ivory 8 while the glue there-

under is setting. The portion 3 has two trunnions 9 extending from opposite points on its sides and adapted to receive the ends of the clamp-yoke 10. This yoke is formed so 60 as to span over the key from one trunnion to the other and is sufficiently long so that when turned back in the position shown in Fig. 2 it will be removed entirely from the head ivory. The thumb-screw 11 passes through the cen- 65 ter of the yoke 10 and is adjusted to press into the socket 16 in the clamp-plate 12 for the head ivory. This clamp-plate 12 is shaped substantially as shown in Figs. 1 and 5, having a slight downward projection 13 formed 70 at the front end of its under surface adapted to engage the front edge of the head ivory 14. When the clamp is in use, the yoke is in the position shown in Fig. 1, so as to push the head ivory 14 against the tail ivory 15 to make 75 a close joint therewith and to prevent any glue from getting between them.

The operation of my clamp may be briefly described as follows: If both the front and head ivories are to be replaced, the surfaces 80 are prepared, and then the clamp is applied in the position shown in Fig. 2. The glue is then applied and the front ivory put in place. Then the head ivory is placed in position with the plate 12 on top of it, the projection 13 85 engaging the outer edge of the ivory. Then the yoke 10 is swung on the trunnions 9, so that the screw 11 will engage the depression or socket 16 in the top of the plate. Then the screws 11 and 6 are tightened. It is evi- 90 dent that the pressure of the screw 11 will be downward and slightly toward the tail ivory, thus pushing by means of the end projection 13 the ivory 14 against the end of the ivory 15. The serrations 4 in the part 3 keep the 95 clamp from slipping.

If the head ivory alone needs replacing, then the action is the same, except that the screw 6 does not need tightening. If the front ivory alone needs replacing, then the 100 surface is prepared and the clamp applied and the screw 11 tightened. Then the front ivory is inserted in place and the screw 6 is tightened.

Having now described my invention, what 105 I claim, and desire to secure by Letters Patent, is—

1. In a piano-key-repair clamp, the combination of a frame engaging the lower surface of the piano-key and being bent upward at 110 its end to receive the front pressure-screw, an inclined clamping yoke and screw extend-

ing over the piano-key and pivoted to said frame and bearing on the head ivory to force it forward and downward and clamping the frame to the piano-key, and a front horizontal pressure-screw passing through the upward extension of said frame and adapted to engage and press the front ivory against the piano-key.

2. In a piano-key-repair clamp, the combination of a frame engaging the lower surface of the piano-key and being bent upward at its end to receive the front pressure-screw, an inclined clamping-yoke extending over the piano-key and pivoted to said frame, a pressure-plate resting on the head ivory below the yoke and having a downward projection

adapted to engage the front edge of the head ivory, a pressure-screw passing through said yoke and engaging said pressure-plate to force it and the head ivory forward and downward and clamping said frame to the piano-key, and a front horizontal pressure-screw passing through the upward extension of said frame and adapted to engage and press the front ivory against the piano-key.

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

ROBERT H. WALKER.

Witnesses:

C. F. WOLF,
GEO. W. GANTZ.