

W. W. McCALL.
 PIANO FLANGE.
 APPLICATION FILED DEC. 17, 1906.

899,064.

Patented Sept. 22, 1908.

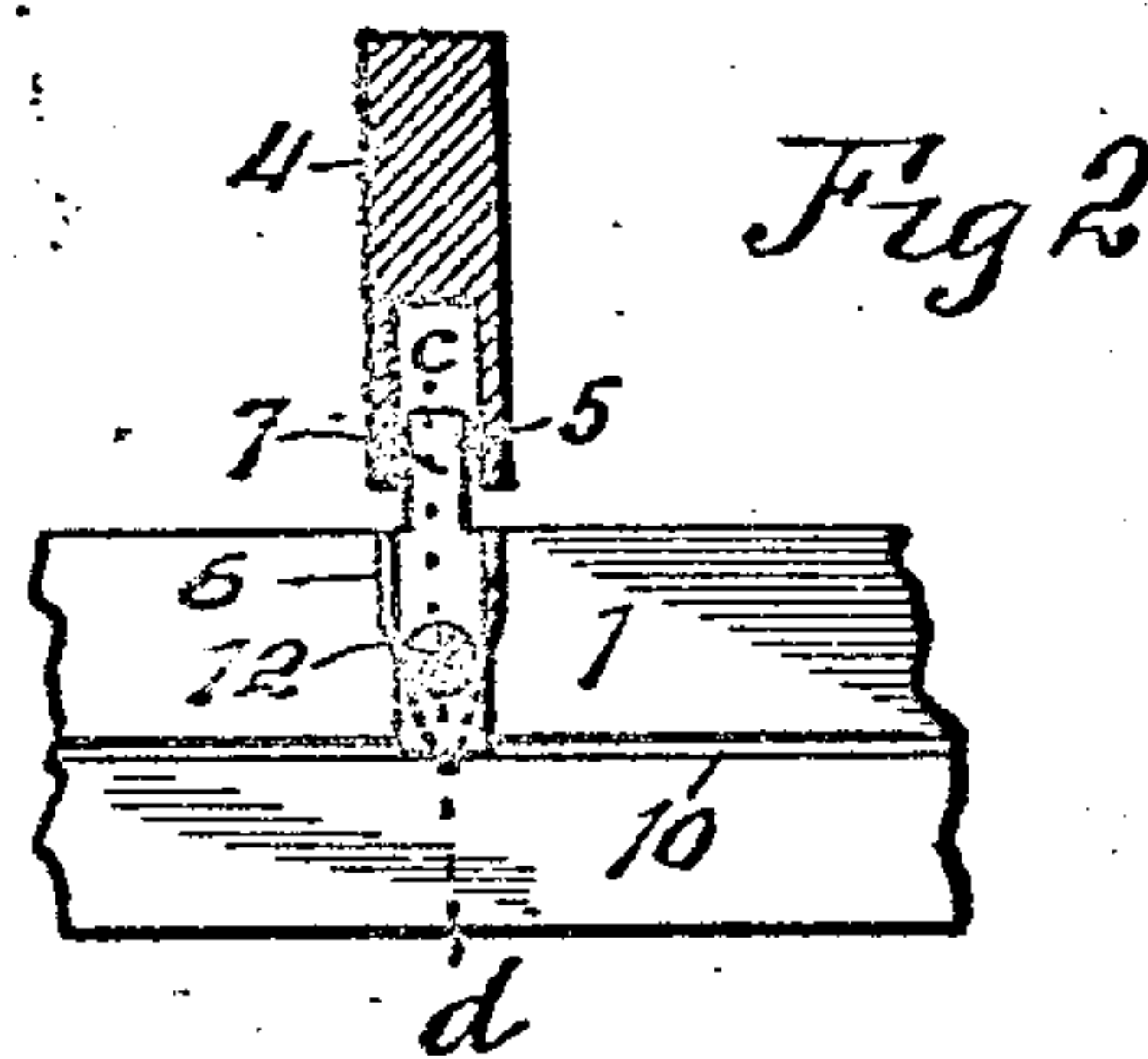
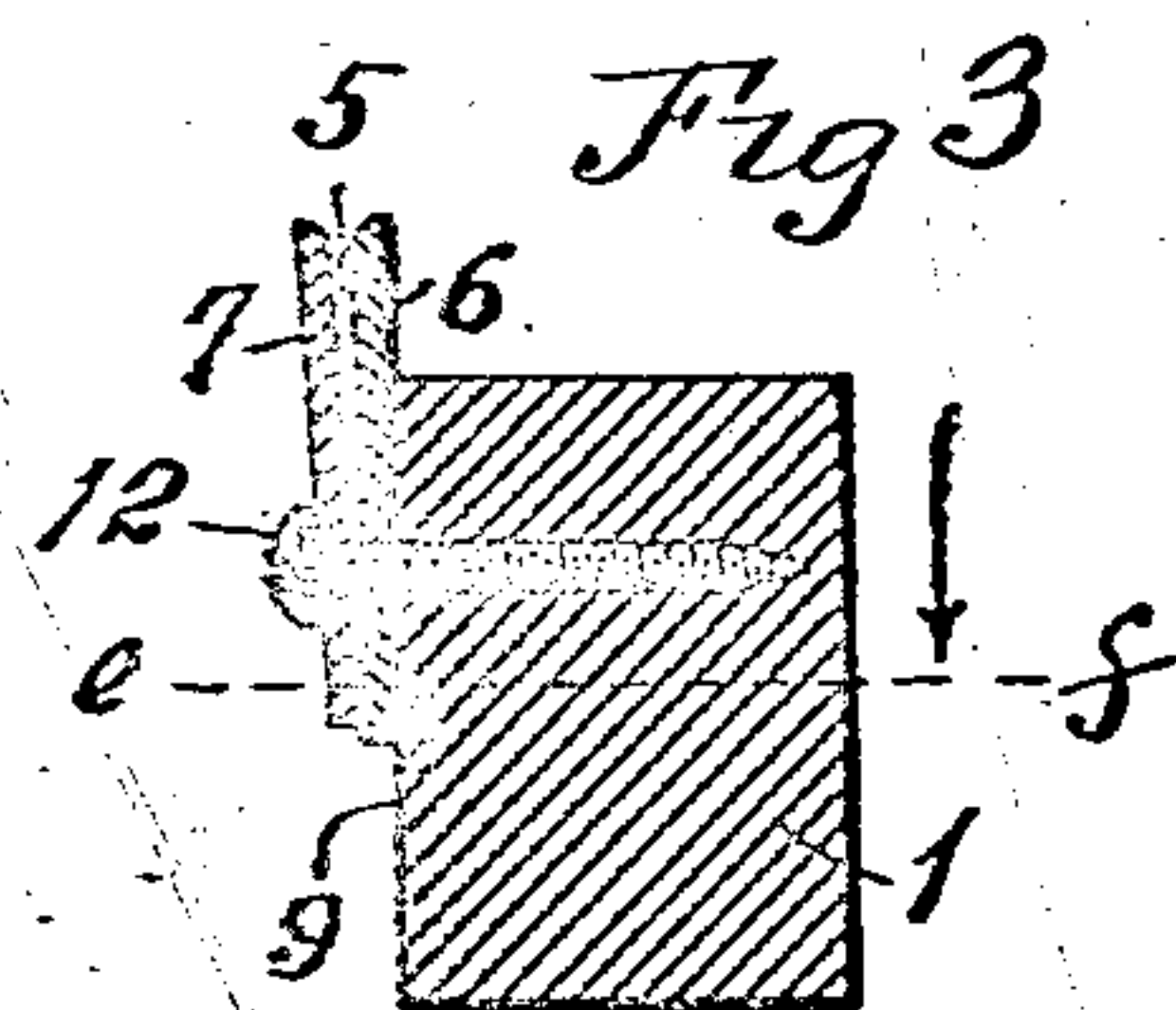
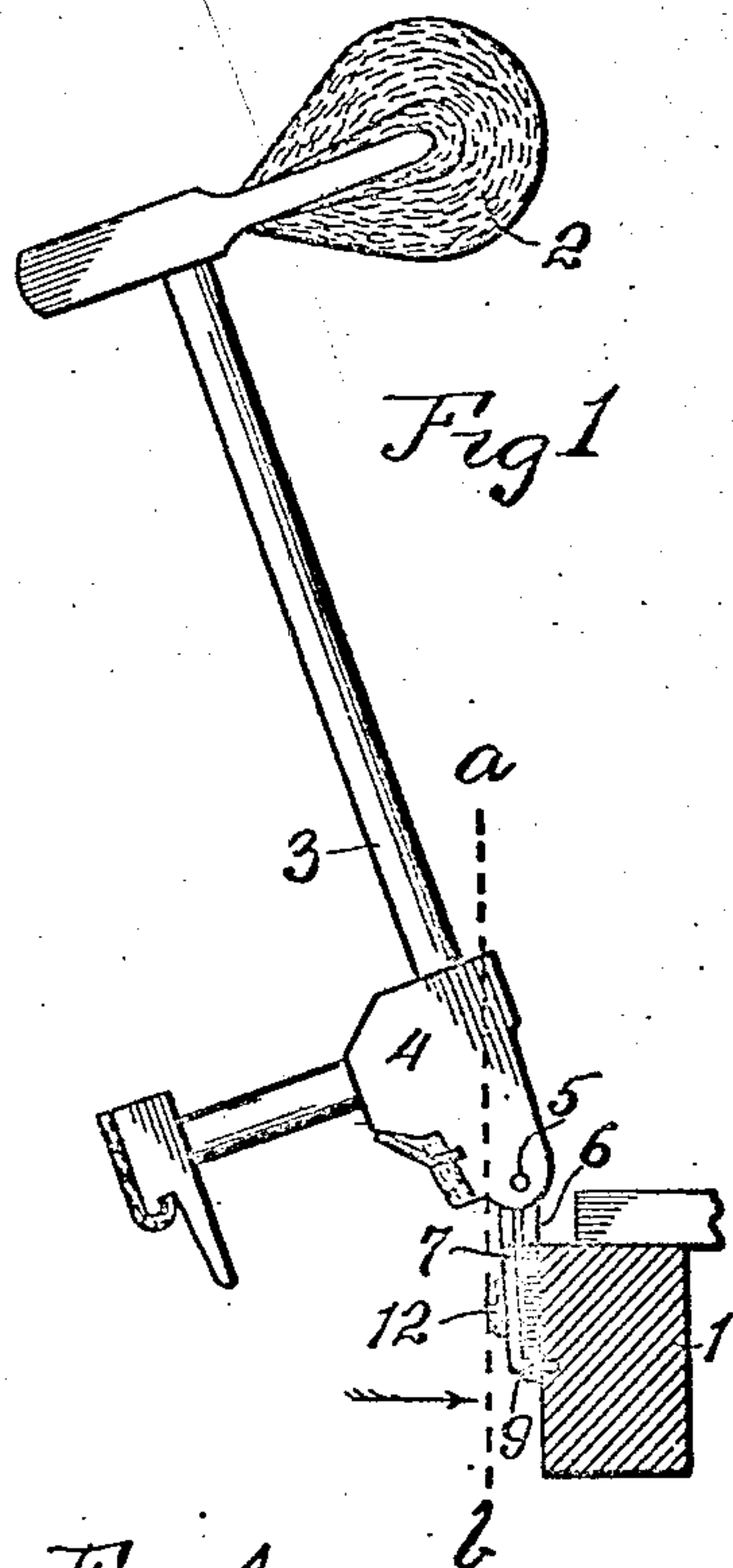


Fig 4

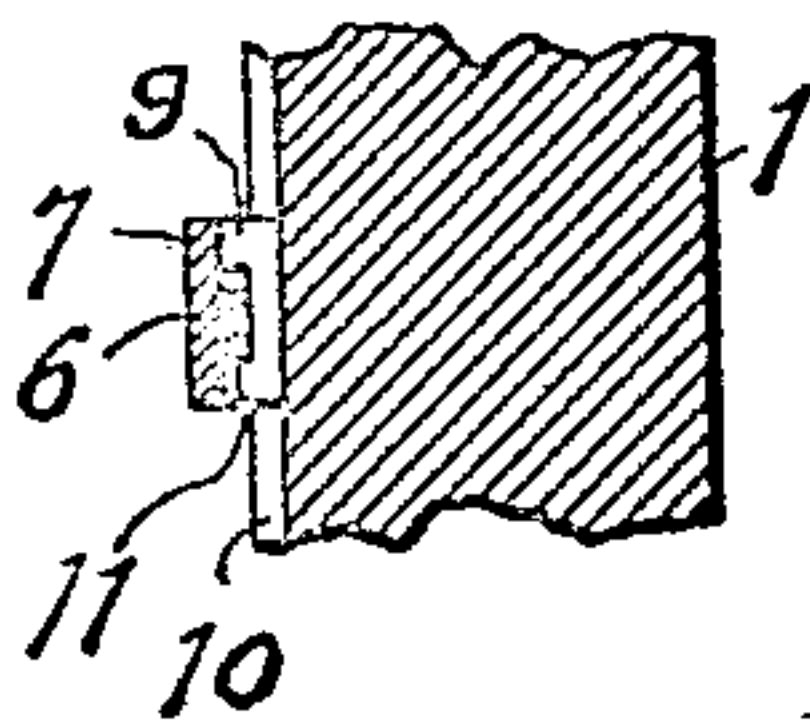


Fig 10

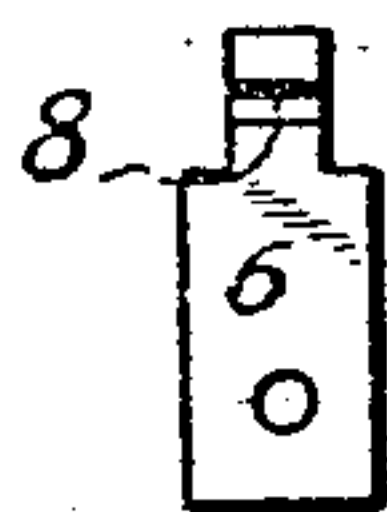


Fig 8

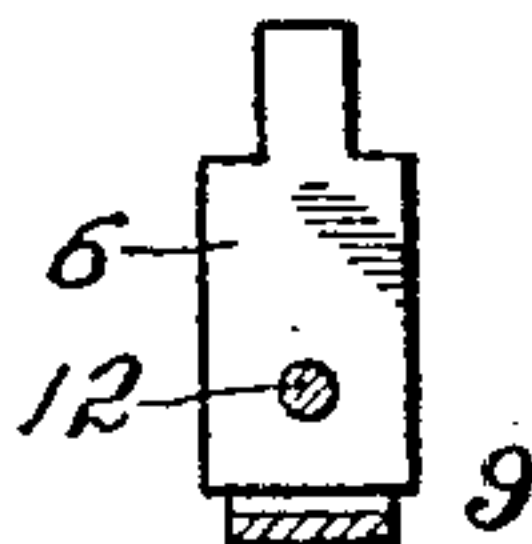


Fig 9

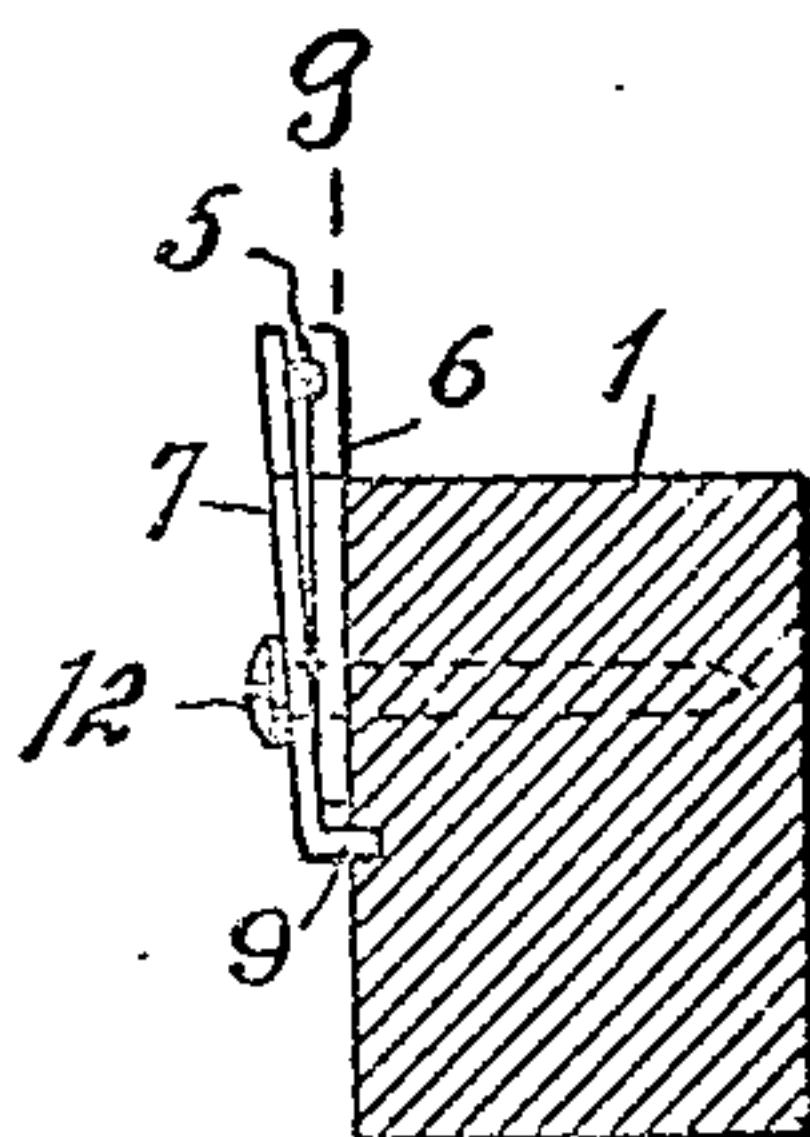
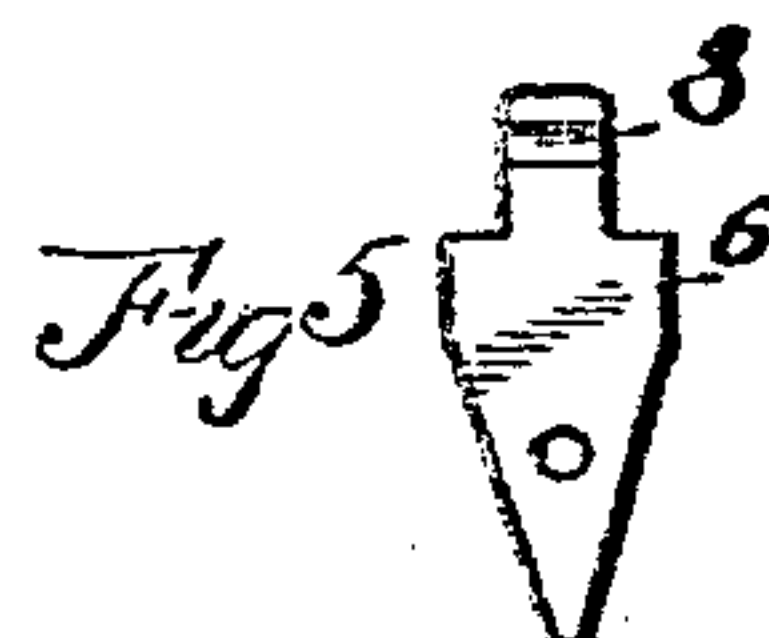
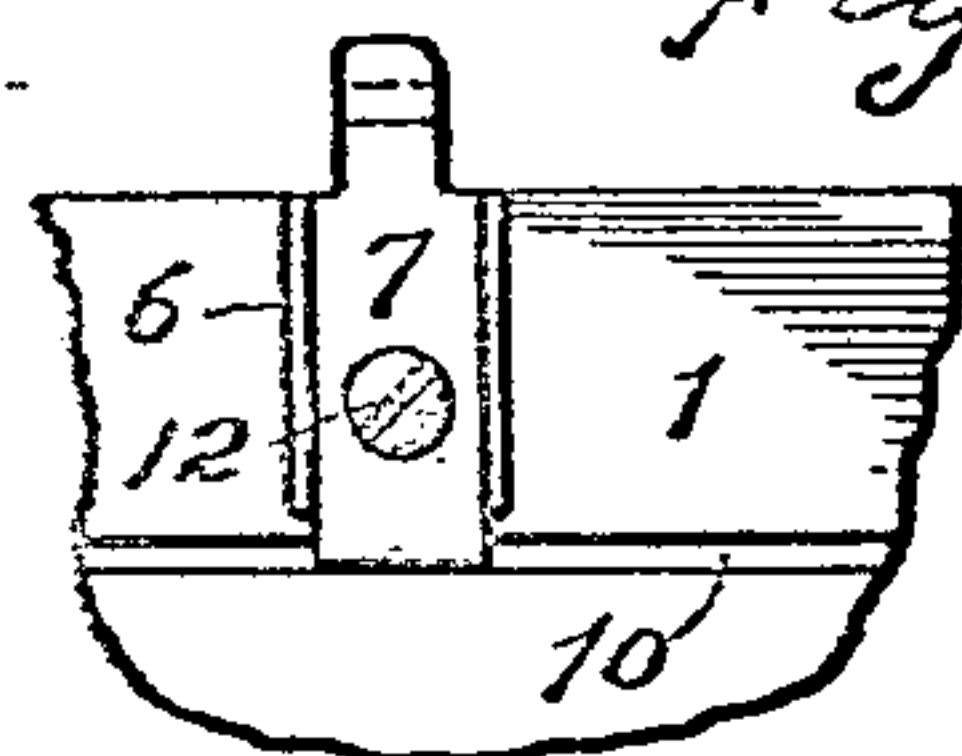


Fig 7



Fig 11



Witnesses:

R. Hamilton.
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By His Attorney Warren D. House

UNITED STATES PATENT OFFICE.

WILLIAM W. McCALL, OF KANSAS CITY, MISSOURI.

PIANO-FLANGE.

No. 899,064.

Specification of Letters Patent.

Patented Sept. 22, 1908.

Application filed December 17, 1906. Serial No. 348,247.

To all whom it may concern:

Be it known that I, WILLIAM W. McCALL, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Piano-Flanges, of which the following is a specification.

My invention relates to improvements in piano flanges.

The object of my invention is to provide a piano flange by which the hammer may be easily and quickly adjusted in its proper position and then securely held in the adjusted position irrespective of use or shrinking or warping of the rail.

The novel features of my invention are hereinafter fully described and claimed.

In the accompanying drawings, illustrative of my invention, Figure 1 is a view showing part of the hammer action in side elevation, the rail being shown in cross section, said hammer action being provided with a flange of my invention. Fig. 2 is a vertical sectional view taken on the dotted line *a—b* of Fig. 1. Fig. 3 is a vertical sectional view of the flange and rail, taken on the plane of the dotted line *c—d* of Fig. 2. Fig. 4 is a horizontal sectional view taken on the dotted line *e—f* of Fig. 3. Fig. 5 is an elevation of the grooved side of the pivotally adjustable member of the flange. Fig. 6 is an elevation of the other member of the flange. Fig. 7 is a cross section view of the rail having secured to it a modified form of my invention, the flange being shown in edge elevation. Fig. 8 is an elevation of the form of my invention shown in Fig. 7 looking toward the grooved side of the rail, a portion of which is shown. Fig. 9 is a vertical sectional view taken on the dotted line *g—h* of Fig. 7. Figs. 10 and 11 are elevations of the two plates forming the flange illustrated in Fig. 7.

Similar characters of reference denote similar parts.

1 denotes the rail, 2 the hammer, 3 the hammer shank, 4 the butt block and 5 the hammer center pin to which the butt block is pivoted in the ordinary manner.

In the form of my invention illustrated in Figs. 1, 2, 3, 4, 5 and 6, the flange comprises two plates 6 and 7 disposed vertically and adapted to clamp between them adjacent their upper ends the hammer center pin 5, the side of the plate 6 next the plate 7 having a transverse groove adapted to receive and hold said pin, said groove being denoted by

8. The depth of the groove 8 is such that the plate 7 will press against the pin. The lower end of the plate 7 is provided with a projection 9 adapted to enter a longitudinal groove 10 in the adjacent vertical side of the rail 1 for the purpose of preventing pivotal movement of the plate 7 relative to the rail. The projection 9 is provided with a vertical opening 11 through which extends the lower end of the plate 6, said opening being large enough to permit pivotal movement of the plate 6 on a single horizontal screw 12 which extends through openings provided in the plates 6 and 7 and into the rail 1, said screw serving to secure the plates 6 and 7 together and to the rail. The projection 9 serves to limit the pivotal adjustment of the plate 6.

Preferably one of the plates forming the flange is of resilient material, and preferably this resilient plate is the plate 7, such provision prevents the plates becoming loose in case the rail 1 shrinks or warps.

In case it is desired at any time to adjust the hammer, the screw 12 is slightly loosened, after which the plate 6 may be moved pivotally to the proper position and the screw then tightened so as to tightly clamp the pin 5.

In the form of my invention shown in Figs. 7 to 11 inclusive, the parts are made as described with reference to the form of my invention just described, excepting that the projection 9 of the plate 7 is not provided with a vertical opening to receive the lower end of the plate 6, but the plate 6 is made shorter than the plate 7 and at its lower end extends to a point a short distance above the upper side of the projection 9 of the plate 7. With this construction, the plate 6 may be pivotally adjusted on the screw 12 as above described, the projection 9 by striking the adjacent lower corner of the plate 6 serving to limit the pivotal adjustment of said plate 6. In other respects than just noted, the two forms of my invention are identical.

My invention may be modified in other ways within the scope of the appended claims without departing from its spirit.

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

1. In a piano flange, the combination with a hammer center pin, of two plates pivotally adjustable one relative to the other, one plate having a groove to receive the hammer center pin on the side adjacent to the other plate, and one of said plates being resilient,

the plates having means for engaging with each other for limiting said adjustability, and means for clamping said plates together.

2. In pianos, the combination with a rail, of two plates, one plate being pivotally adjustable relative to the other, and one plate having means for engaging the other to limit said adjustability, and means for securing said plates together and to the rail.

3. In pianos, the combination with a rail, of a hammer center pin, two plates for clamping between them the hammer center pin, one plate having a groove for receiving the said pin, the grooved plate being pivotally adjustable relative to the rail, and one of the plates having means for engaging the other plate for limiting such adjustability, and means for securing the plates together and to the rail.

4. In pianos, the combination with a rail, of a hammer center pin, two plates adapted to clamp between them the hammer center pin, one plate having a groove to receive said pin, one of said plates being resilient, and the grooved plate being pivotally adjustable relative to the rail, the other plate having a projection for engaging the rail to prevent pivotal movement of said other plate, said projection having an opening to receive the grooved plate and also serving to limit the pivotal adjustment of the grooved plate, and means for securing the plates together and to the rail.

5. The combination with a rail having a longitudinal groove, of two plates, one plate having a groove, the grooved plate being pivotally adjustable relative to the rail and the other plate having a projection entering the groove of the rail, and means for securing the plates together and to the rail.

6. The combination with a rail having a longitudinal groove, of two plates, one plate having a groove, the grooved plate being pivotally adjustable relative to the rail, one of the plates being resilient, the plate other than the grooved plate having a projection entering said groove in the rail, and means for securing the two plates together and to the rail.

7. The combination with a rail having a longitudinal groove, of a hammer center pin, two plates adapted to clamp between them the hammer center pin, one of the plates having a projection for entering said groove, the other plate having a groove to receive the said pin, the grooved plate being pivotally adjustable relative to the rail, and a single screw extending through said two plates for securing the plates together and to the rail.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

WILLIAM W. McCALL.

Witnesses:

E. B. HOUSE,
C. S. HOLT.