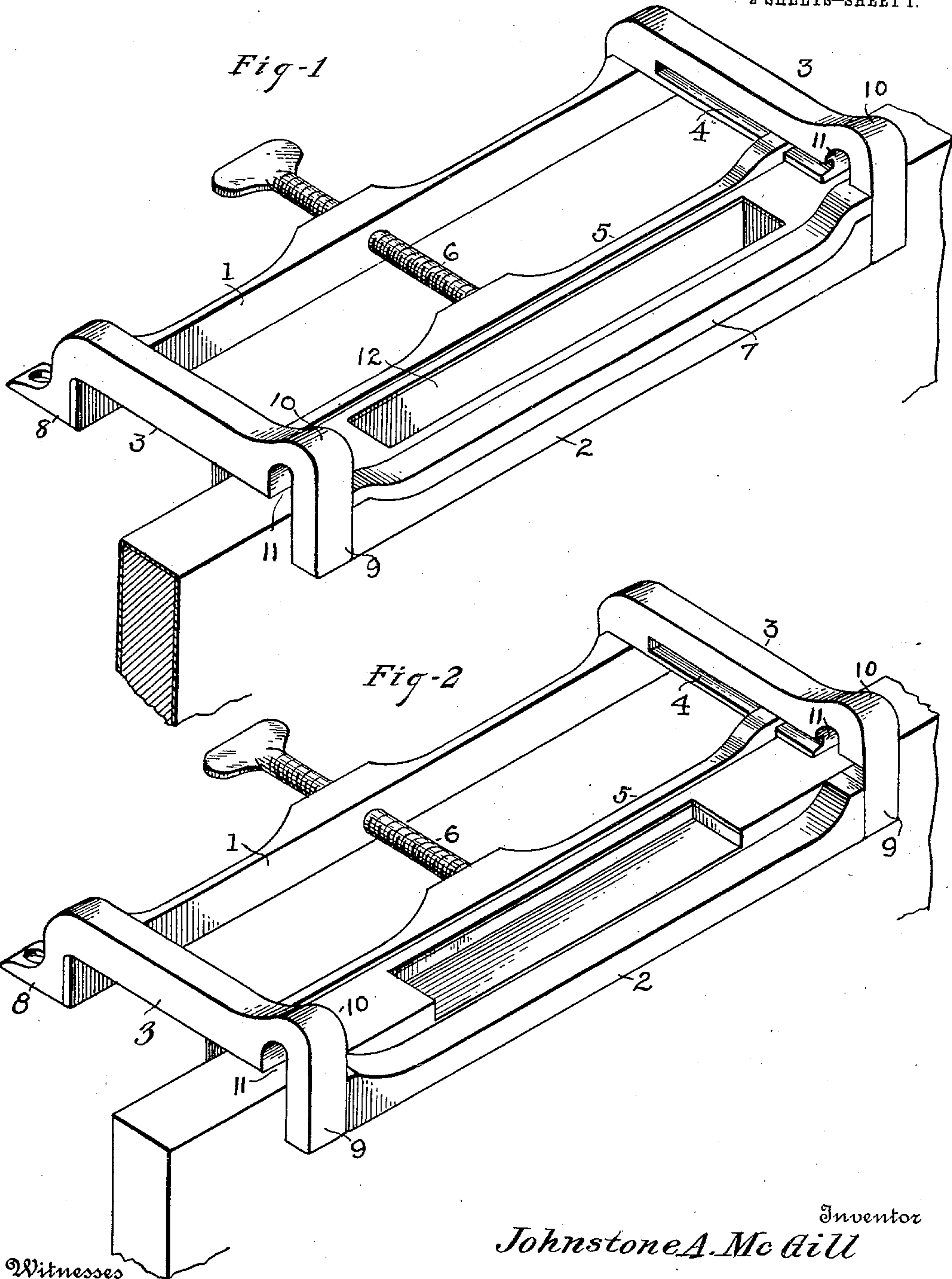


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APPLICATION FILED MAR. 28, 1911.

999,174.

Patented July 25, 1911.

2 SHEETS—SHEET 1.



Witnesses

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Fig. 3

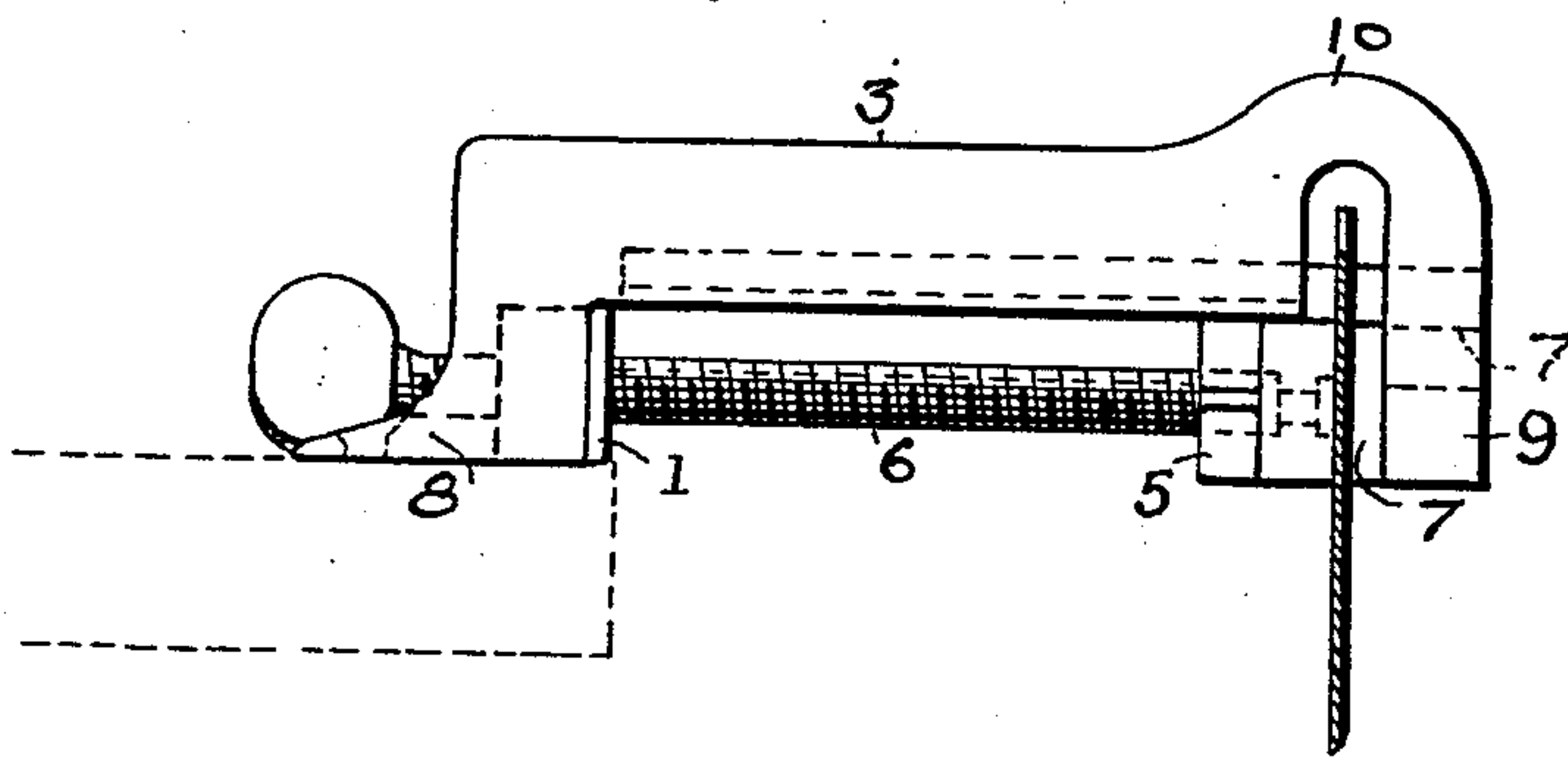
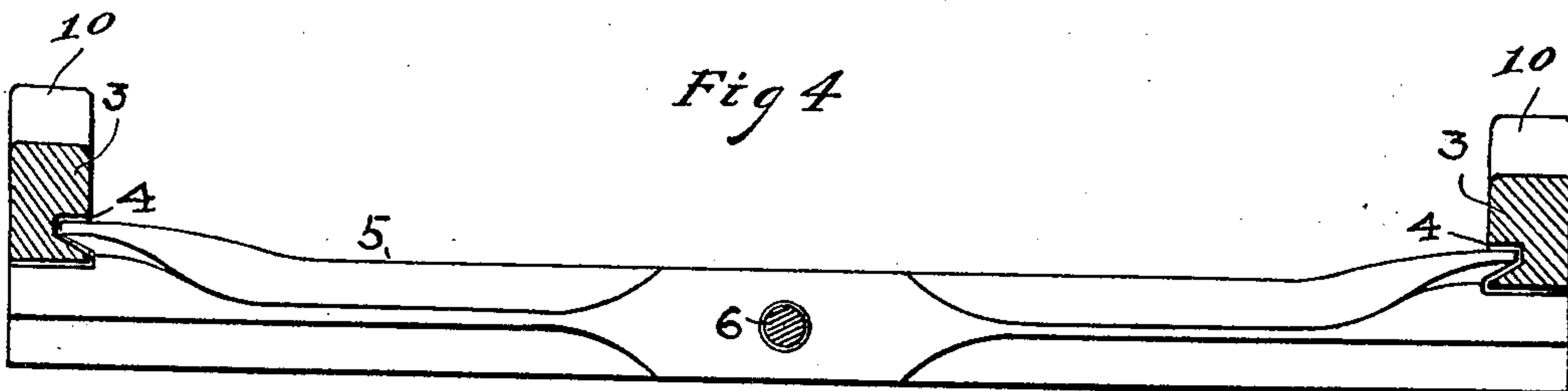


Fig. 4



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# UNITED STATES PATENT OFFICE.

JOHNSTONE A. MCGILL, OF NEW YORK, N. Y.

CLAMP FOR METAL-COVERED DOORS AND SAWS.

999,174.

Specification of Letters Patent. Patented July 25, 1911.

Application filed March 28, 1911. Serial No. 617,408.

*To all whom it may concern:*

Be it known that I, JOHNSTONE A. MCGILL, a subject of the King of Great Britain, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Clamps for Metal-Covered Doors and Saws, of which the following is a specification.

Doors covered with sheet metal to protect them against fire are coming into use because of the fire underwriters' requirements. These doors are shipped from the factory to the building without lock mortises or hinge seats and skilled and careful workmen are required to hang and fit locks to such doors. And when the hardware is fitted to the doors under the most favorable conditions the metal around the cuttings oftentimes presents a bulging and ragged appearance due chiefly to the lack of a proper clamp to hold the metal in place. This gives the impression of poor workmanship.

This invention provides a clamp specially designed to hold the metal covering in place and prevent bulging thereof when cutting therethrough to prepare the lock mortises, hinge seats and other openings for the hardware. And which clamp may be used for sharpening saws and for other purposes.

The invention further provides a clamp which is light, quick working, capable of being conveniently carried in the tool kit of a carpenter for use on any kind of metal or kalsomined door or trim, and which may be attached to a bench or other support to hold a saw when sharpening it, or which may be used in a variety of ways for clamping work.

The invention consists of the novel features, details of construction and combination of parts, which hereinafter will be more particularly set forth, illustrated in the accompanying drawings, and pointed out in the appended claims.

Referring to the drawings, forming a part of the specification, Figure 1 is a perspective view of a clamp embodying the invention, showing it applied to a door when cutting the lock mortise therein. Fig. 2 is a view similar to Fig. 1, showing the clamp adapted for cutting hinge seats. Fig. 3 is an end view of the clamp, showing it adapted for use as a saw sharpener. Fig. 4 is a central longitudinal section of the clamp.

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 clamp embodies a rectangular frame comprising longitudinal bars 1 and 2 and end bars 3. The longitudinal bars 1 and 2 are about in the same plane which is relatively lower than the plane of the end bars. Grooves 4 are formed in the inner sides of the end bars 3 near the lower edges thereof to provide guide ways for the ends of the clamp bar 5 which is adjustable toward and away from the bar 2 which is the fixed clamp bar. A set screw 6 is threaded in the bar 1 and connected with the adjustable clamp bar 5 by means of a swivel joint. The upper surface of the fixed clamp bar 2 is in a lower plane than the upper surface of the adjustable clamp bar 5 to admit of the side cut in the door stile or trim when preparing the hinge seat or recess, as indicated in Fig. 2. A lift 7 is fitted to the bar 2 to come flush with the bar 5 to clamp the sides of the door flush with the edge thereof to prevent bulging of the metal when cutting the lock mortise. This is shown most clearly in Fig. 1. The lift 7 is a bar of L form, one member extending over the bar 2 and the other member extending along the inner side of said bar. The end bars 3 have bent terminal portions 8 and 9. The bent ends 8 have outwardly extending portions which are adapted to receive fastenings for securing the device to a bench, trestle or other support when it is required to hold a saw for filing. The bent ends 9 have arched portions 10 connecting them to the bars 3. The spaces 11 formed by the arches 10 receive the toothed edge of the saw blade when the latter is clamped between the bars 5, 2 and 7 for sharpening.

In practice when it is required to cut a lock mortise 12 in the edge of a door the clamp is placed so that the bar 5 engages one side of the door and the bars 2 and 7 the opposite side, the stile being clamped between said bars by turning up the set screw 6. The end bars 3 rest upon the edge of the door. When the clamp is properly adjusted and tightened the metal covering the door may be cut through without bulging or producing a ragged edge. When cutting a hinge seat or recess the clamp is fitted to the door about as shown in Fig. 2, the bar 7 being removed to admit of the side cut corresponding with the depth of the seat.



The frame may consist of a single casting, thereby avoiding joints and resulting in a light and strong structure.

The clamp as a whole may be conveniently carried as part of the tool kit of a carpenter and may be used for a variety of work, although specially designed for use on metal covered doors to retain the metal in place when making cuts to receive the hardware.

From the foregoing description, taken in connection with the accompanying drawings, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the device which I now consider to be the embodiment thereof, I desire to have it understood that such changes may be made when desired as are within the scope of the claims appended hereto.

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

1. A clamp for the purposes specified comprising a rectangular frame formed of longitudinal and end bars in different relative planes, one of the longitudinal bars constituting a fixed clamp bar, an adjustable clamp bar held to the end bars of the frame and directed in its movements thereby, means fitted to the other longitudinal bar for pressing the adjustable clamp bar toward the fixed clamp bar to grip and bind the work, the clamp bars having their upper or outer surfaces in different planes, and a lift fitted to the lower clamp bar and having its outer surface about flush with the outer surface of the other clamp bar.

2. A clamp for the purposes specified comprising a rectangular frame formed of longitudinal and end bars in different relative planes, one of the longitudinal bars constituting a fixed clamp bar, an adjustable clamp bar held to the end bars of the frame and directed in its movements thereby, means fitted to the other longitudinal bar for pressing the adjustable clamp bar toward the fixed clamp bar to grip and bind the work, the clamp bars having their upper or outer surfaces in different planes, and a lift fitted to the lower clamp bar and having its outer surface about flush with the outer surface of the other clamp bar, said lift being of L form and having one member overlapping the clamp bar, and having the other member extending along the inner side of the said clamp bar.

3. A clamp comprising spaced longitudinal bars in different relative horizontal planes, the lower bar constituting a fixed clamp bar, end bars in a higher plane than the longitudinal bars and connecting them and having arched and pendent portions adjacent the said clamp bar, and having longitudinal grooves along their inner sides, an adjustable clamp bar having its ends fitted in the grooves of the end bars, and a set screw threaded into the relatively higher longitudinal bar and adapted to press the adjacent clamp bar toward the fixed clamp bar.

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

JOHNSTONE A. MCGILL.

Witnesses:

ISAAC GOLDEN,  
GENNARO PERROTTI.