

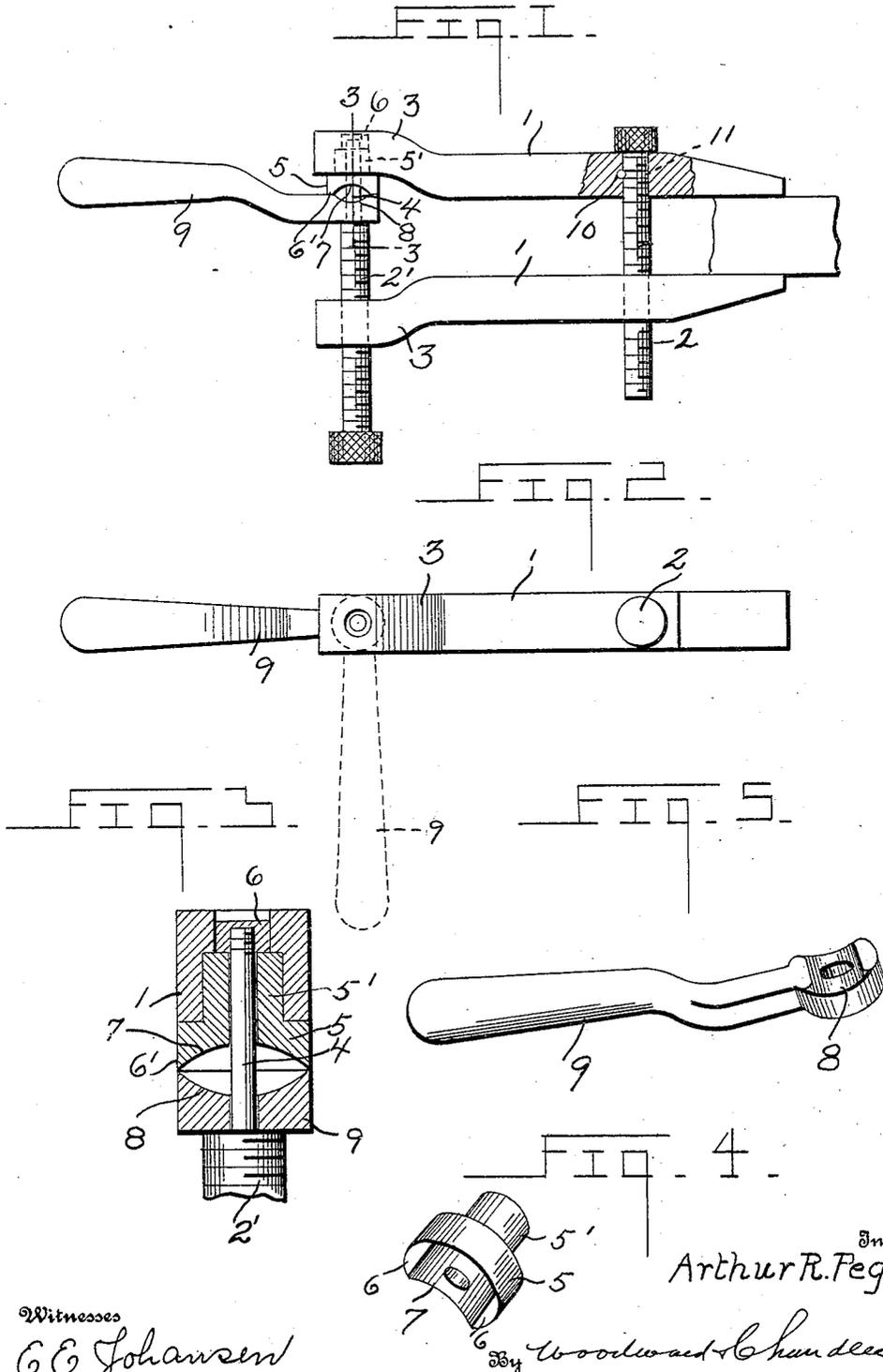
A. R. PEGLAR.

CLAMP.

APPLICATION FILED MAY 19, 1909.

946,152.

Patented Jan. 11, 1910.



Witnesses

G. E. Johansen
E. S. Chandler

Inventor
Arthur R. Peglar.

Woodward & Chandler
Attorneys

UNITED STATES PATENT OFFICE.

ARTHUR R. PEGLAR, OF COLUMBUS, OHIO.

CLAMP.

946,152.

Specification of Letters Patent. Patented Jan. 11, 1910.

Application filed May 19, 1909. Serial No. 497,051.

To all whom it may concern:

Be it known that I, ARTHUR R. PEGLAR, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Clamps, of which the following is a specification.

This invention relates to new and useful improvements in hand clamps, such as are used by carpenters, machinists, etc., and aims to produce a device to securely hold a piece of work between the opposed jaws or bars after the actuation of the screws carried thereby.

The primary object of my invention is to provide new and novel means, by which after the first approximate adjustment of the bars is secured and the work has been placed between the ends thereof, the jaws may be further adjusted and securely clamped upon the same.

With these and other objects in view, the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and particularly pointed out in the appended claims, it being understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a part of the specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of my improved hand clamp. Fig. 2 is a top plan thereof, the lever being shown in its lowered position in dotted lines. Fig. 3 is an enlarged detail section taken on the line 3—3 of Fig. 1. Fig. 4 is a detail perspective view of the cam member secured in the end of the clamping bar. Fig. 5 is a similar view of the operating lever.

Referring to the drawings, 1 indicates parallel clamping bars or jaws, and 2 and 2' indicate headed screws which extend through the same adjacent to either end thereof. The screws are each threaded in one of the bars and disposed revolubly in the other, which will be termed the stationary bar. One end of each bar is curved outwardly as at 3, one receiving the reduced end 4 of the screw 2' revolubly in a suitable opening therein. The inner end of the opening through the bar is enlarged, and has set therein the reduced portion or stem 5' of a cam member 5, the top of the enlarged portion of which is

transversely concave forming projections 6' at opposite sides. The end 4 extends revolubly through a longitudinal opening in the cam member 5, and has threaded upon its outer end a nut 6 which is disposed in a suitable recess formed in the outer end of the bar 1. It is by means of the concave surface and projections of the member 5 that the cam action thereof is produced, as will be subsequently described. Engaged revolubly upon the reduced portion of the screw 2' inwardly of the cam member, there is an operating lever 9 adjacent the inner end of which there is a concave portion extending longitudinally and opposed to the cam member 5, being designated by the numeral 8. The shoulder formed at the inner end of the reduced portion of the screw 2' bears upon the lever, and it will be seen that the lever and cam member 5 are both retained securely in their operative position by the single fastening means represented by the nut 6, and which it will be understood may be replaced by any other suitable means. To prevent any possibility of the stationary bars from threading inwardly upon the outer adjusting screw 2, I have provided a pin 10, which is inserted into a suitable opening in the bar 1, its inner portion lying in an annular groove 11 formed in the periphery of the adjusting screw 2. Thus it will be seen that the stationary bar 1 is held at all times against any movement upon this screw 2, the head thereof being kept in constant contact with the upper surface of the bar.

In operation when it is desired to clamp a piece of work in the ends of the bars 1, the latter are first adjusted by means of the screws 2 until they are engaged upon either side of the work. The lever 9 is now grasped by the operator and raised from its inoperative position which is shown in dotted lines in Fig. 2, to a position in alignment with the clamping bars 1, as shown in Fig. 1. When in this position the cam faces of the end of the lever and the member 5 are in frictional engagement, and tend to force the rear ends of the bars 1 apart, as the end of the lever 9 bears upon its outer face against the shoulder formed by the reduced portion of the adjusting screw 4. Thus the other ends of the bars 1 are forced inwardly toward each other and are securely clamped upon the work which has previously been placed there-between. To remove the clamp it is only necessary to throw the lever to one

side or the other, as the cam surface of the same is disposed upon either side of the reduced end 4 of the adjusting screw, and the action will, consequently, be the same. The lever being in the position as shown in dotted lines in Fig. 2, the adjusting screw 2 in the forward ends of the bars 1 is turned so that the bar 1 in which it is threaded will be moved outwardly toward the end thereof, any movement of the other of the bars being prevented by the pin 10 and groove 11, as above described.

From the foregoing it will be seen that I have provided a hand clamp, the action of which is extremely quick, and in which the work may be securely clamped, so that any possibility of the same slipping between the bars is obviated. It will be understood that the device may be made of any size desired for use by different trades.

My improved clamp is very simple in its construction and may be inexpensively manufactured as no delicate parts are used thus producing a clamp which is very durable in use.

What is claimed is:

1. A clamp comprising a pair of parallel bars, a fulcrum screw in threaded engagement with one and revolubly secured in the other of said bars adjacent one end thereof; a second screw threaded in one of the bars, a cam carried by the other of said bars, a reduced end upon the last named screw revolubly mounted in said cam, retaining means engaged upon the extremity of said reduced end, and a lever disposed revolubly upon the reduced portion of said screw, and

adapted to engage with said cam to move said bars relatively after adjustment of the screws, said cam and lever being secured in place by the retention of the reduced end of the last named screw, as and for the purpose described.

2. A clamp comprising parallel bar members, a screw threaded in one of the bar members adjacent one end and secured revolubly in the other, a second screw threaded in one of the bars adjacent the opposite end, the adjacent end of the opposite bar having an opening therethrough enlarged on its inner side, a cam member seated in the enlarged portion of the opening, said cam member being enlarged outwardly thereof and having a passage therethrough, the outer face of the member being transversely concave to provide projections at opposite sides, said second named screw having a reduced portion disposed revolubly through the cam, an operating lever engaged revolubly upon said reduced portion inwardly of the cam and having a similar concave portion therein opposed to the cam member, said concave portion being adapted to receive the projections of the cam member therein at times, and means for securing the reduced portion of the screw in the bar carrying the cam.

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

ARTHUR R. PEGLAR.

Witnesses:

FRANKLIN RUBRECHT,
BLANCHE N. RUBRECHT.