

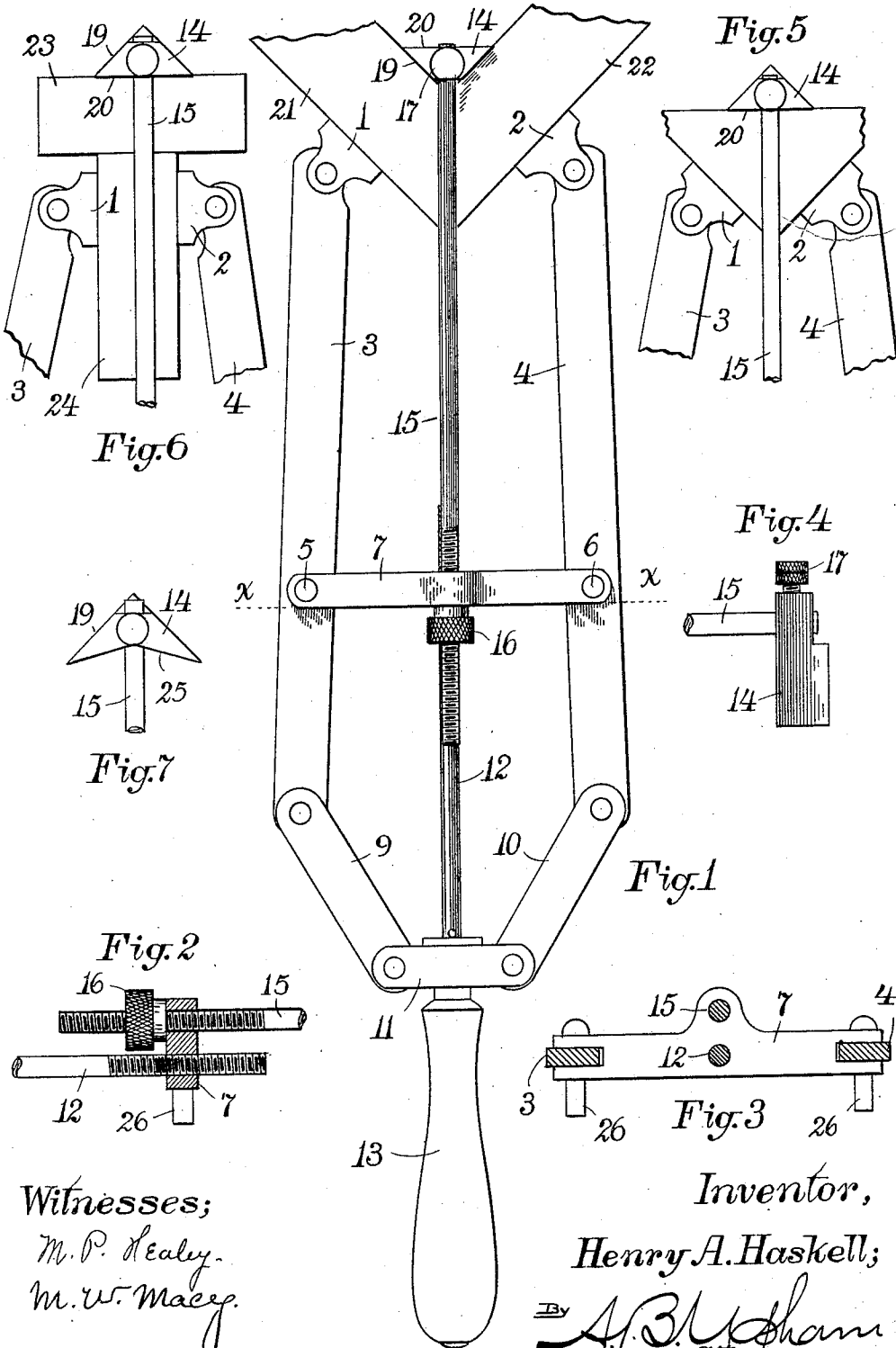
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CLAMP.

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1,047,519.

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UNITED STATES PATENT OFFICE.

HENRY A. HASKELL, OF BRAINTREE, MASSACHUSETTS.

CLAMP.

1,047,519.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY A. HASKELL, a citizen of the United States, and a resident of Braintree, in the county of Norfolk and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Clamps, of which the following is a specification.

The object of this invention is the construction of a three-jawed clamp by means of which to hold together various shaped parts while being glued or otherwise permanently united.

This clamp is especially adapted for temporarily holding together the mitered ends of picture frame members, and of irregular blocks of wood being shaped into patterns.

Referring to the drawings forming part of this specification, Figure 1 is a plan view of a clamp embodying my invention. Fig. 2 is a sectional view of a part thereof. Fig. 3 is a sectional view on the line X—X in Fig. 1. Fig. 4 is a side view of the third clamping jaw. Fig. 5 is a plan view of the three jaws represented as holding a triangular block. Fig. 6 is a similar view showing the jaws clamping a block to the end of another. Fig. 7 is a plan view of a modified form of the third jaw.

The twin jaws 1 and 2 of this clamp are pivotally attached to the outer ends of the lever-arms 3 and 4 which are fulcrumed at 5 and 6 to the cross bar 7. For swinging these jaws toward and from each other, the inner ends of the lever arms are joined by links 9 and 10 to a cross head 11 in which is rotatably mounted a terminally threaded rod 12. One end of the latter is rigidly held by the handle 13, while its threaded end turns in a correspondingly threaded hole in said cross bar 7. When said handle is turned in one direction, said cross bar and cross head are drawn together and the links 9 and 10 are made to force the inner ends of the lever arms apart, and hence the twin jaws toward each other. When the handle is turned oppositely, said jaws are moved apart.

The third jaw 14 is removably secured to the outer end of the rod 15 whose inner end is threaded and slidably fits an opening in said cross bar. A milled nut 16 turns on this threaded section and thereby serves to draw said rod and the jaw 14 inward.

As shown in Fig. 4, the rod 15 is inserted within a hole in the jaw 14 and held therein by a set screw 17, in order that said jaw may be changed to present either its mitered face 19 or its plane face 20 to the work.

In using this clamp for mitered frame members, as 21, 22 shown in Fig. 1, the milled nut 16 is turned and also the handle and rod 13, 12, until the three jaws are presented to said members substantially as illustrated, the twin jaws being angularly adjusted to seat flatly against said members. Said handle is then turned up slightly more to force the twin jaws toward each other and thereby tightly clamp the parts together. For this work, the third jaw is shifted to present its mitered face inward.

For the block shown in Fig. 5, the third jaw is shifted to present its plane face inward; as also for clamping a block 23 to the end of another block 24, as shown in Fig. 6. For curved or circular work, an extra third jaw is provided with a concave face 25 instead of the plane face first described, as shown in Fig. 7.

I usually provide the clamp with short legs 26, as shown in Figs. 2 and 3, for better supporting the clamp when it and its work is laid upon a bench or other flat surface.

It is evident that the twin jaws can be employed for clamping purposes without the third jaw, it being only necessary, in the event of the third jaw's being in the way, to unscrew the milled nut and remove the same.

It is also evident that by applying the milled nut to the rod 15 between the cross bar 7 and the third jaw, and by presenting the twin jaws opposite to each other, the three jaws can be made to press outward from a common center and thereby be used for clamping parts to the sides of an opening in the work.

This tool may fairly be called a universal clamp, because of the variety of the uses to which it can be put.

What I claim as my invention and for which I desire Letters Patent is as follows, to wit:—

A clamp comprising two lever arms, a cross bar terminally pivoted to intermediate points of said arms, a cross head, a threaded rod operatively engaging said cross bar and rotatively held by said cross head, means whereby the rotation of said rod forces said

arms to swing relative to each other, a threaded rod longitudinally slidable in said cross bar, a mitered jaw carried by the latter, and a thumb nut turning on the last-named
5 rod for moving said mitered jaw toward the said arms.

In testimony that I claim the foregoing

invention, I have hereunto set my hand this 23rd day of June, 1911.

HENRY A. HASKELL.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."