A. M. SCHAPPA.
Hand Screw-Clamp.

No. 197,672. Patented Nov. 27, 1877.

fig. 1.

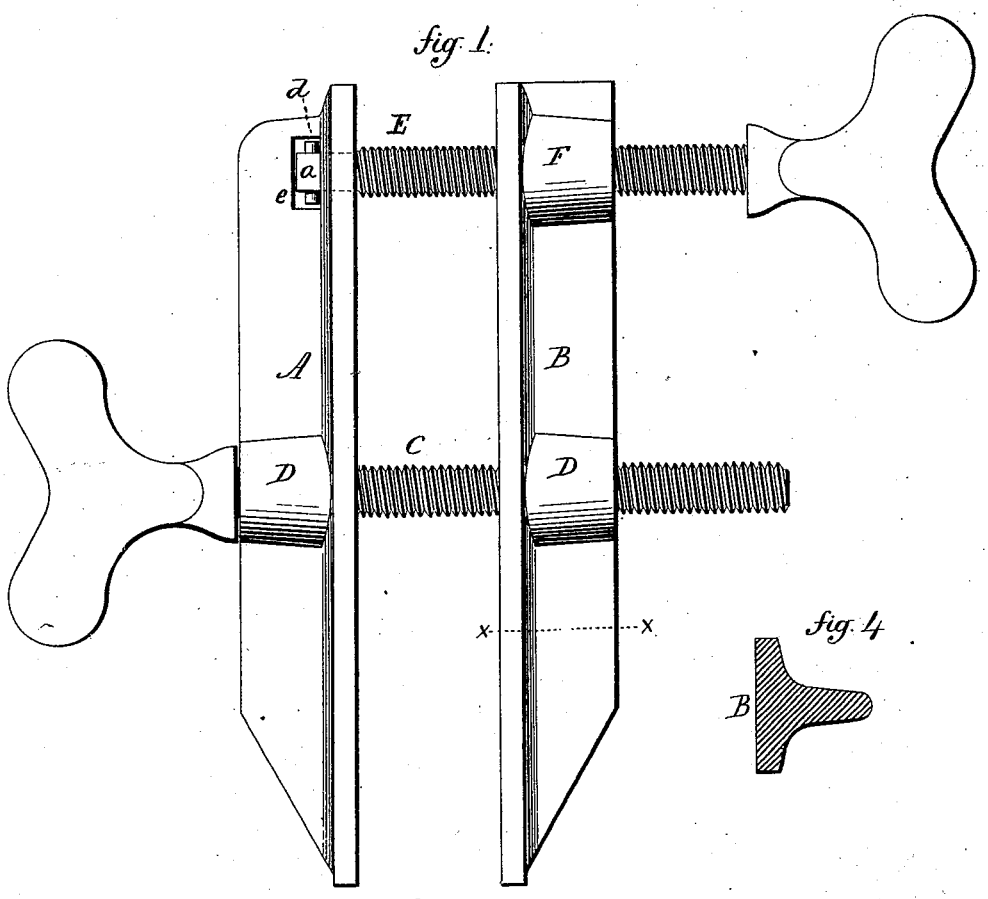


fig. 4

fig. 2

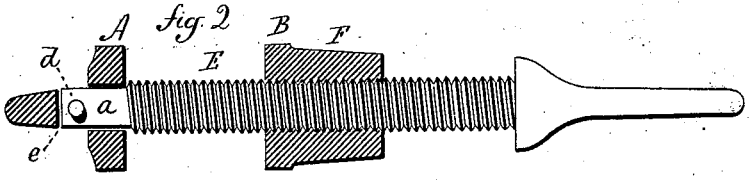
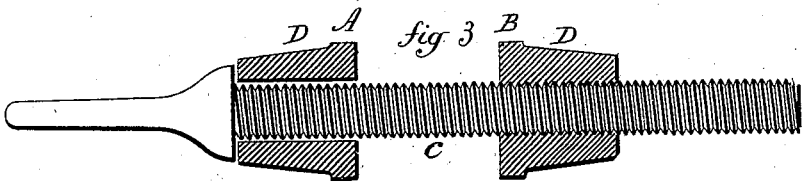


fig. 3



Witnesses.
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H. A. Wilson

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UNITED STATES PATENT OFFICE.

ALBERT M. SCHAPPA, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO W. AND E. T. FITCH, OF SAME PLACE.

IMPROVEMENT IN HAND SCREW-CLAMPS.

Specification forming part of Letters Patent No. **197,672**, dated November 27, 1877; application filed October 26, 1877.

To all whom it may concern:

Be it known that I, ALBERT M. SCHAPPA, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Hand Screw-Clamp; and I do hereby declare the following, when taken in connection with the accompanying drawings, and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view; Figs. 2, 3, and 4, transverse sections.

This invention relates to an improvement in that class of hand screw-clamps used by joiners, cabinet-makers, &c., and such as is composed of a pair of jaws combined with two screws, the one entering from the right and the other from the left, both screws threaded in the one jaw and free in the other. These have usually been made from wood.

The object of this invention is to construct these articles of metal, and in a more convenient form than the usual construction.

The invention consists in constructing the jaws T shape in transverse sections, the cross or flat portion forming the opposing faces of the two parts, with bosses or enlargements on the rib, through which the screws pass.

A is one jaw and B the other, constructed of cast metal, and in transverse sections of T shape, or such as seen in Fig. 4, so that the flat surface forms the opposing faces of the two jaws. At the points where the lower screw C is to pass through the jaws, an enlargement, D, is made on each jaw, with a perforation through the enlargement D on the jaw A, so as to allow the screw C to pass freely; but the enlargement D on the jaw B is threaded to correspond to the thread of the screw. For the upper screw E a similar enlargement, F, is made on the jaw B and threaded to correspond to the thread of the screw. The tip *a* of the screw E enters a recess in the face of the jaw A, but so as to turn freely therein, there being no thread on the tip.

In order to prevent the disengagement of the jaw A from the screw E, which it frequently does in the common construction, the tip *a* is constructed so as to be retained in the recess, but yet allow its free movement, here represented as by a pin, *d*, passed transversely through the tip. An opening, *c*, made in the rib in rear of the recess in the jaw allows such free movement. Each of the screws is provided with a suitable handle, by which to adjust it. By this construction for the same capacity the dimensions of the parts are very greatly reduced, and yet very much stronger. The T-shaped jaw affords the same bearing-surface as the jaws of the usual construction.

By swiveling the free end of the upper screw to the free jaw the frequent displacement of the screw from the seat in the jaw, as in usual construction, is avoided, as well as the inconvenience attending such displacement.

I claim—

As an article of manufacture, a hand-screw clamp consisting of a pair of cast-metal T-shaped jaws, constructed with enlargements for the passage of the screw through the respective jaws, and combined with two parallel screws, substantially as described.

ALBERT M. SCHAPPA.

Witnesses:
J. H. SHUMWAY,
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