

W. H. PAYNE & H. IMHOF.

Clamps.

No. 142,938.

Patented September 16, 1873.

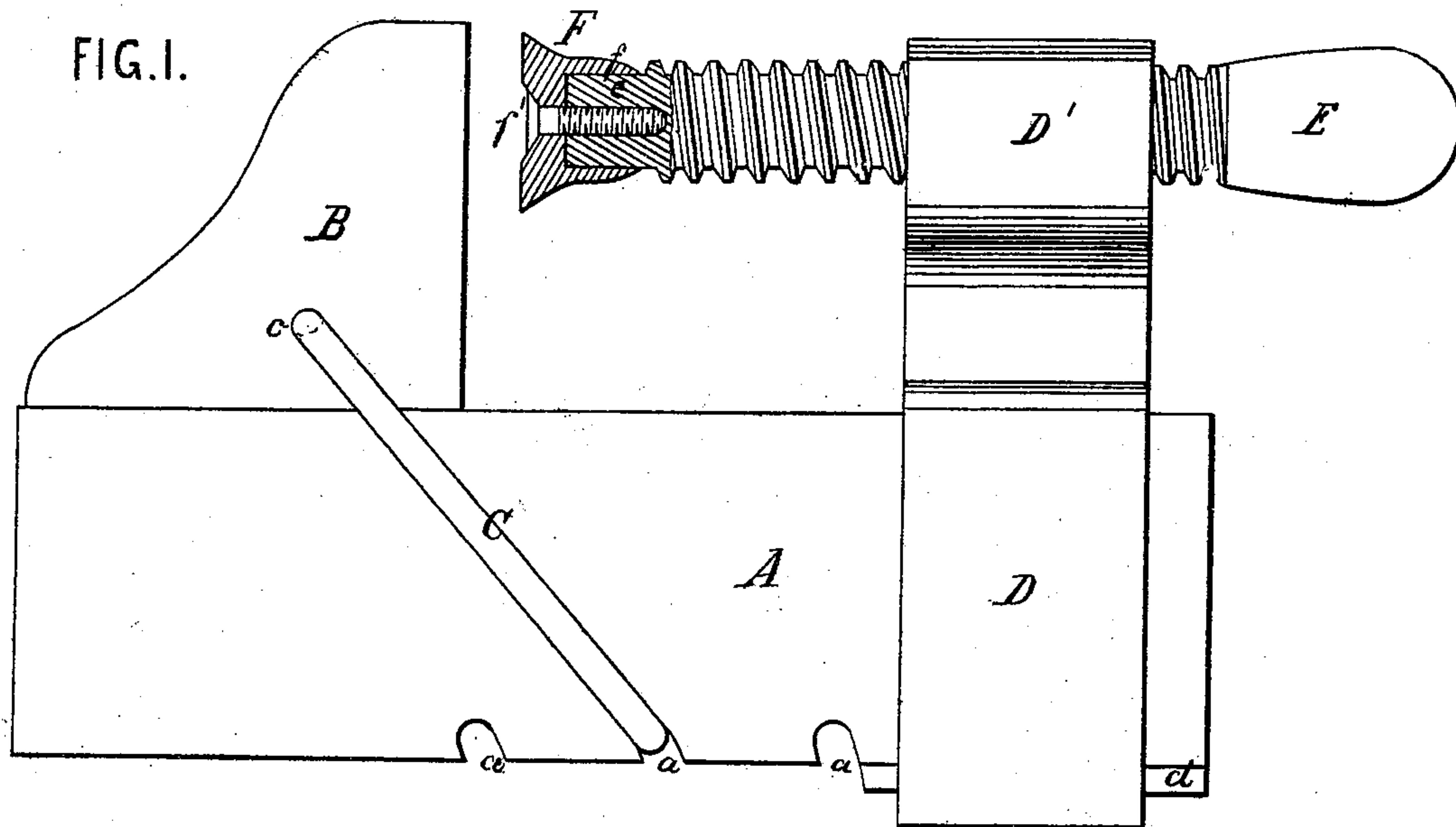
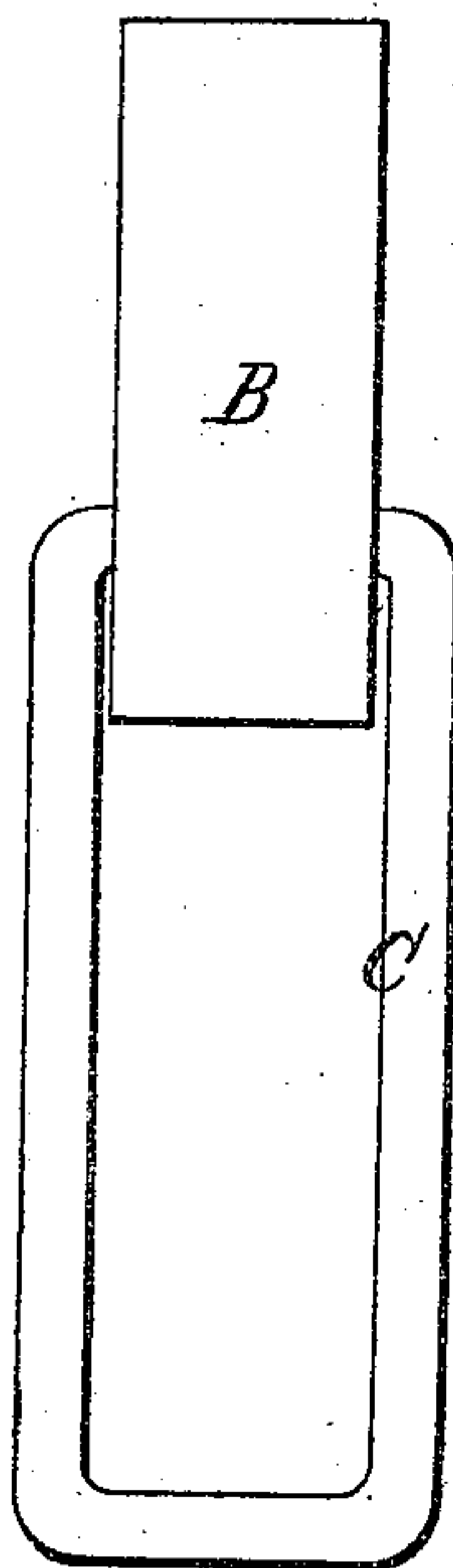


FIG. 2.



WITNESSES.

George E. Upham,
Emory H. Bates

INVENTOR.

Wm H. Payne,
Henry Imhof,
Attys.

UNITED STATES PATENT OFFICE.

WILLIAM H. PAYNE AND HENRY IMHOF, OF LOCKPORT, NEW YORK.

IMPROVEMENT IN CLAMPS.

Specification forming part of Letters Patent No. **142,938**, dated September 16, 1873; application filed June 28, 1873.

To all whom it may concern :

Be it known that we, WILLIAM H. PAYNE and HENRY IMHOF, of Lockport, in the county of Niagara and State of New York, have invented a new and valuable Improvement in Clamps; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of our improved cramp-head, by an elevation. Fig. 2 is a detailed view of the same.

Our invention has relation to cramp-heads for carpenters and cabinet-makers; and the novelty consists in the construction and arrangement of the parts, hereinafter more fully described and claimed. The object of our invention is to make a very durable cramp-bar, which is easily managed, and may be applied to a greater variety of work than the cramp-bar of old construction.

In the drawings, A represents a stretcher or cramp bar; B, the foot-block, connected therewith by a square metallic link, C, fastened to the said foot-block by passing it through the hole *c* and then welding the ends together. The said link C engages in one of the notches *a* in the lower side of the cramp-bar, and thereby holds the foot-block B firmly to the bar A. The head-block D is constructed of metal, and consists of a head with a square hole, into which the bar A is fitted so that it may slide through, and to which the said bar is fastened by a key or wedge, *d*. With this head D the boss D' is connected, which is provided with an inside screw-thread, into which a hand-screw, E, is fitted. The screw E is made of wood, and is provided with a metal cap, F, at its end *e*, which cap receives the

foot *e* in a socket, *f*, and is fastened to it by an axial screw, *f'*, so that the foot *e*, in wearing off its substance against the said socket, will wear centrally and never lose its lateral fit.

The old cramp-heads have to be permanently fastened to the stretchers, as the nature of the material forbids the use of wedges for very secure fastening. The inconvenience arising therefrom is this, that every stretcher has to be provided with a head; and, unless a tradesman has a large variety of cramp-heads with bars of different lengths, he is compelled to buy those heads with the longest bars or stretchers, to do long and short work with them.

We fit a set of stretchers of different lengths into the head D, which can in a very short time be attached to any of them, and after having been used may just as easily be detached and put in a safe place.

We make the set-screw E of wood, because it has a decided advantage over metal of the same torsional strength by its great longitudinal steadfastness. Another advantage is that of cleanliness, which, on account of the necessary lubrication, cannot be obtained with metal screws.

What we claim as new, and desire to secure by Letters Patent, is—

The cramp-head described, having the wooden screw E, provided with metal cap F at its end *e*, the adjustable metal head D, with the wedge *d*, and the cramp-bar A, substantially as shown and described.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

WM. H. PAYNE.
HENRY IMHOF.

Witnesses:

SAMUEL SCOTT,
WM. JOHNSON.