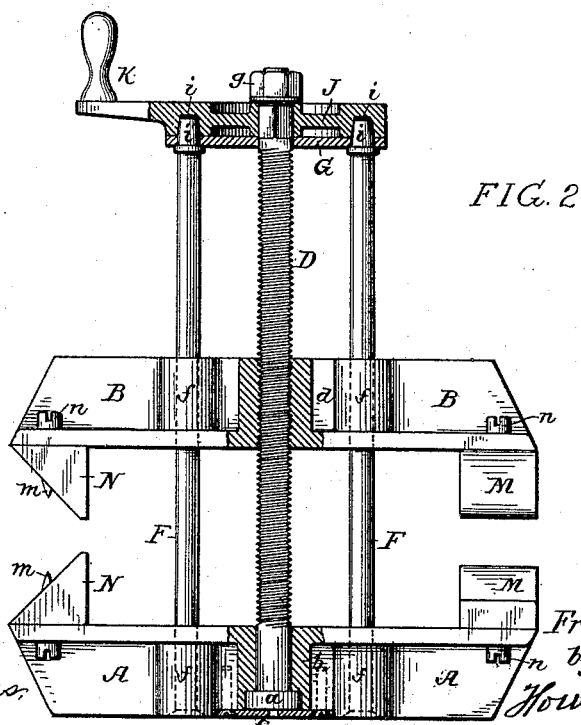
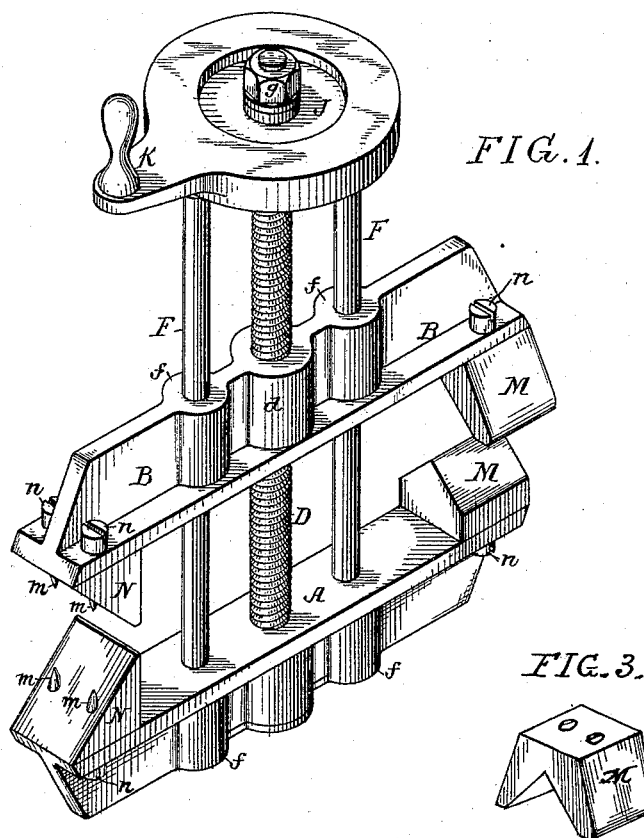


(No Model.)

F. HUBER.
CLAMP.

No. 417,919.

Patented Dec. 24, 1889.



Witnesses:
Murray C. Boyer
Robert T. Sanders,

Inventor:
Frederick Huber
by his Attorneys
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UNITED STATES PATENT OFFICE.

FREDERICK HUBER, OF DOWNINGTOWN, PENNSYLVANIA.

CLAMP.

SPECIFICATION forming part of Letters Patent No. 417,919, dated December 24, 1889.

Application filed August 10, 1889. Serial No. 320,376. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK HUBER, a citizen of the United States, and a resident of Downingtown, Chester county, Pennsylvania, have invented certain Improvements in Clamps, of which the following is a specification.

My invention consists of certain improvements in that class of clamps used by carpenters, machinists, and others, and consisting of a pair of clamping-bars caused to move from and toward each other by means of a screw carried by one of the bars and adapted to a nut formed upon the other bar, the objects of my invention being to provide for the rigid and accurate guidance of the movable bar in a clamp of this character, and to readily adapt the clamp for holding beveled surfaces—as, for instance, the bars of a frame where they are joined at the corner. These objects I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a clamp constructed in accordance with my invention. Fig. 2 is a side view of the same, partly in section; and Fig. 3 is a detached view of one of the clamping blocks or jaws.

A and B represent the two bars of the clamp, and D the operating-screw, which in the present instance has an enlarged head *a*, adapted to a countersunk boss or projection *b*, centrally located on the bar A, the enlarged head of the screw being confined to said boss by means of a plate *c*, bolted to the under side of the bar, as shown in Fig. 2. The screw-bolt D is thus confined longitudinally to the bar A, but is free to turn therein. The bar B has a central nut *d*, for the reception of the screw-bolt, and both bars are provided with bosses *f*, for the reception of guide-rods F, which are secured within the bosses of the bar A, but pass freely through the bosses of the bar B, so that said bar can be moved to and fro on the rods, but will be guided and steadied by said rods in this movement. The upper ends of the rods carry a plate G, through which passes the upper end of the screw-bolt D, that portion of the bolt above the plate being squared or otherwise shaped for the reception of the hub of an operating wheel or disk J, which

has a projecting handle K, and is confined to the end of the screw-bolt D by a nut *g*. In the under side of the wheel or disk J is formed an annular groove *i*, for the reception of the upper ends *i'* of the guide-rods F, which project above the plate G, and thus serve to guide and steady the wheel or disk in its rotative movement; hence, when the screw-bolt is turned by means of the wheel or disk J, the bar B of the clamp is caused to move from or toward the bar A, so as to grip or release the work inserted between the two bars.

In order to provide for holding work the sides of which are at an angle in respect to each other—as, for instance, the bars at the corner of a frame—I provide the clamping-bars A and B at the ends with blocks adapted to confine such inclined surface, these blocks being either V-shaped, as shown at M in Fig. 1, or being simply beveled blocks, as shown at N. In the latter case, however, the inclined faces of the blocks should be provided with retaining spurs or barbs *m*, to prevent the work from slipping from between them when pressure is applied thereto. The blocks M and N are secured to the blocks A B by means of set-screws *n*, so that they can be readily removed when their use is not required.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. The combination of the two clamp-bars, the operating-screw swiveled to one of said bars and adapted to a nut on the other bar, the guide-rods secured to one bar and passing through openings in the other bar, and an operating wheel or disk secured to the projecting end of the screw-bolt, substantially as specified.

2. The combination of the two clamp-bars, the screw-bolt swiveled in one of said bars and adapted to a nut on the other bar, the guide-rods secured to one bar and passing through openings in the other bar, and a wheel or disk secured to the projecting end of the screw-bolt and having an annular groove for the reception of the ends of the guide-rods, substantially as specified.

3. The combination of the bars of the clamp, the operating-screw, and the guide-rods therefor, with beveled blocks secured to

the adjoining faces of the clamp-bars at the ends of the same, substantially as specified.

4. The combination of the clamp-bars, the operating-screw and guide-rods, and the leveled blocks secured to the ends of the clamp-bars and having projecting spurs or barbs on their inclined faces, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FR. HUBER.

Witnesses:

PETER SHERIDAN,
L. T. BREMERMAN.