

D. M. BIRDSEYE.
Bench-Dog.

No. 205,717.

Patented July 9, 1878.

Fig 1.

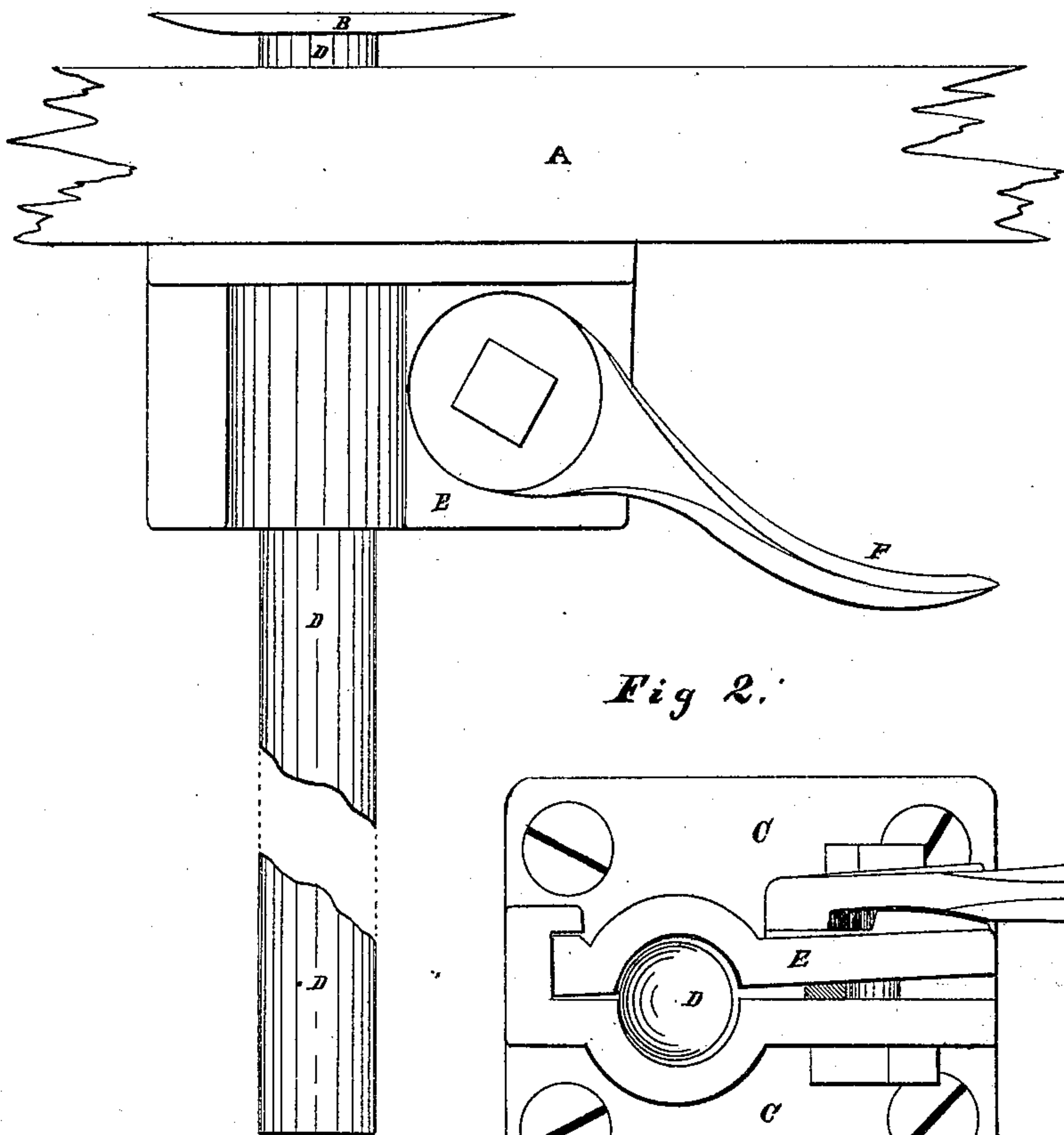
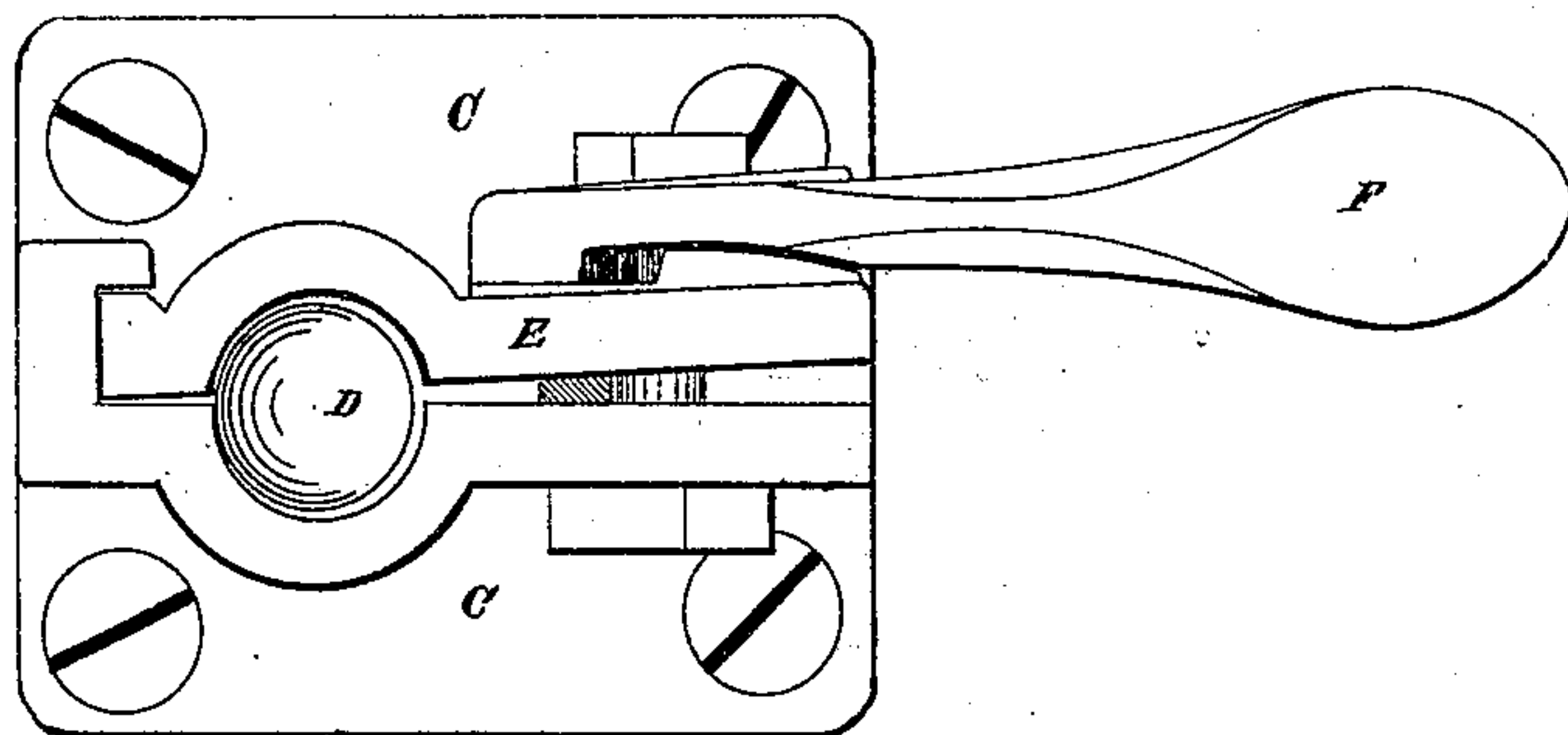


Fig 2.



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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN BENCH-DOGS.

Specification forming part of Letters Patent No. 205,717, dated July 9, 1878; application filed December 15, 1877.

To all whom it may concern:

Be it known that I, DANIEL M. BIRDSEYE, of Syracuse, Onondaga county, and State of New York, have invented a certain new and useful Improvement in Bench-Hooks; and I declare the following to be such a full and clear description of the same as will enable those skilled in the art to which it appertains to make and use the same.

This improvement relates to the class of bench-hooks having their sustaining and operating devices on the under side of a work-bench, and being so constructed as to operate freely in adjusting to hold the thickest plank or thinnest veneer with sufficient firmness to dress down or smooth off with a jack or finishing-plane, as desired by the operator.

To this end my invention consists of a flat-headed hook, made preferably of steel, provided with teeth, and connected at its center with a circular stem or shank extending down through an aperture in the top of the bench, and a frame-plate with operating devices, the plate being attached to the under side of the bench by screws, the construction of the various parts being more fully set forth hereinafter.

In the accompanying drawing, forming a part of this specification, like letters therein indicating corresponding parts, Figure 1 is a side elevation of my bench-hook applied, and Fig. 2 an end view showing the operating parts.

The letter A represents the front edge of the top of a work-bench with the hook B connected to the circular stem or shank D passing down through the top and through the bench-plate C, secured underneath. The bench-plate is constructed with a case or frame consisting of two parts, each having a semicircular concave, through which, when in position, the circular stem passes, the semicircular concaves forming a shell or case for the circular stem. One part of the case is cast onto the plate at right angles to its face, and is provided with a groove extending its entire length, into which the other part, which is movable, is shouldered. The semicircular concave is made longer on the shoulder end, in order to allow the movable part to act as a binding strap or bar, the binding device consisting of a circular cam upon its outer side, operated by a cam-lever pivoted thereon by a

bolt passing through the stationary and movable parts, the bolt being retained in place by a common set-nut.

In order to facilitate the raising or lowering of the hook, I insert between the two parts of the case or shell a small piece of flat rubber, which acts as a spring when the cam-lever is raised, releasing the hook.

The movable clamp, strap, or bar forms a lever, having its fulcrum at the point where it is shouldered to the stationary part, and, in combination with the operating-cam and cam-lever, forms a binding device of great strength and durability.

It will be observed that the shape of the stem and its case allows, when pressure on the cam-lever is removed, the hook to play up or down freely, as desired, while a slight pressure on the cam-lever retains it at any desired point of its length, thus providing an adjustment capable of securely holding or stopping the thickest plank or a very thin veneer in the operation of planing.

All of the parts of my improved bench-hook are made of metal and combined in a compact body, so as to be light and at the same time durable.

To apply my device a hole is made through the top of the bench of sufficient diameter to allow the stem to move freely, and the bench-plate secured in position underneath. It is then ready for use.

The advantages in using my hook are its easy and rapid adjustment, its adaptability to any style of work-bench without marring or disfiguring the top, and the fact that when used on a portable out-door bench the hook can be removed and placed in a chest under lock and key with other tools, without removing the operating devices, which are out of sight underneath the bench.

Having thus fully described my invention, I claim—

The bench-plate C, adapted to be secured on the under side of a work-bench, the hook B, with circular stem D, with each other, and the lever clamping bar or strap E, operated by a cam and lever, substantially as herein specified.

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