

(No Model.)

H. COOPER.

ADJUSTABLE BENCH HOOK.

No. 302,385.

Patented July 22, 1884.

Fig: 1.

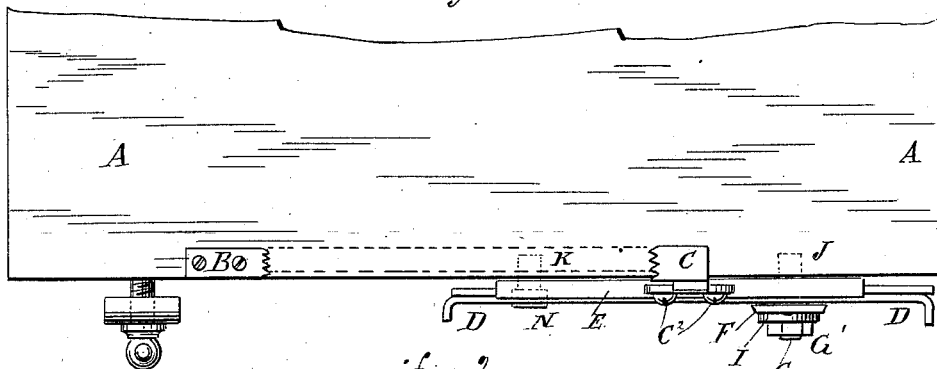


Fig: 2.

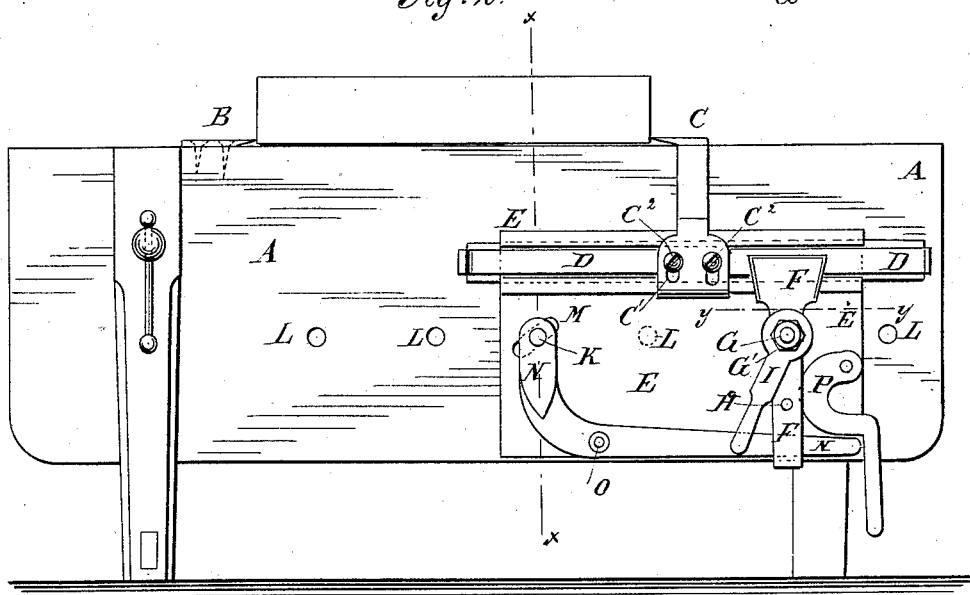


Fig: 3.

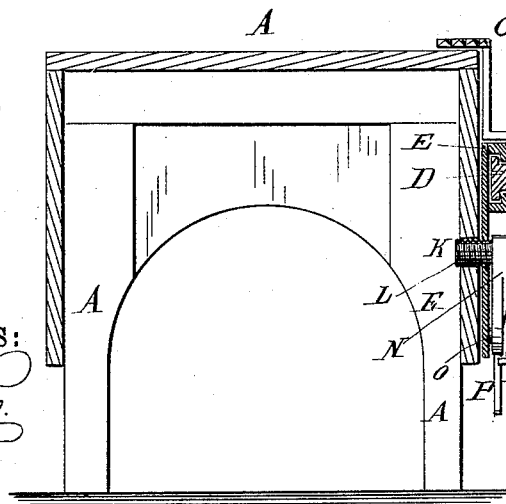
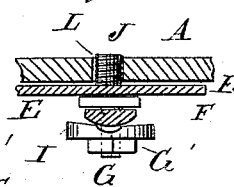


Fig: 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HARRY COOPER, OF SAN ANTONIO, TEXAS, ASSIGNOR OF TWO-THIRDS TO
WILLIAM W. COULSON, OF SAME PLACE.

ADJUSTABLE BENCH-HOOK.

SPECIFICATION forming part of Letters Patent No. 302,385, dated July 22, 1884.

Application filed December 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, HARRY COOPER, of San Antonio, in the county of Bexar and State of Texas, have invented a new and Improved Adjustable Bench-Hook, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improvement. Fig. 2 is a side elevation of the same. Fig. 3 is a sectional elevation of the same, taken through the line *xx*, Fig. 2. Fig. 4 is a sectional plan view of a part of the same, taken through the line *yy*, Fig. 2.

The object of this invention is to facilitate the adjustment of bench-hooks and promote security in holding the work.

The invention consists in a bench-hook constructed with a plate carrying a sliding bar, to which is adjustably secured a hook. The sliding bar and hook are locked in place by a clamp and cam attached to the plate, and the plate and its attachments are locked to the bench-front by a stationary lug attached to the plate, and a movable lug attached to a lever pivoted to the said plate and locked in place by a cam, so that the said hook can be readily adjusted upward, downward, forward, and backward, as the work to be held may require, as will be hereinafter fully described.

A represents an ordinary work-bench, which is provided with a stationary hook, B, in the ordinary manner for the forward end of the work to rest against. The rear end of the work is held by the hook C, the shank of which extends downward at the forward side of the bench A, and has two vertical slots, C', formed in its lower end to receive the screws C'', by which the said hook is secured to the bar D, so that by loosening the said screws C'' the hook C can be raised and lowered as the work to be held may require. The bar D is made with dovetailed edges, and slides in a dovetailed groove in the upper part of the plate E, and is locked in place by a clamp, F, which is placed upon the screw G, and pin H, attached to the plate E, and which pass through holes in the middle and lower parts of the said clamp F. The for-

ward side of the middle part of the clamp F is rounded or beveled longitudinally to fit into the correspondingly-concaved inner side of the lever I, which is placed upon the screw G, and is secured in place by a nut, G', screwed upon the said screw, so that the said lever will act as a cam to lock and release the clamp F. By this construction, by turning the cam-lever I to the right or left, the clamp F will be forced against the bar D and will lock the said bar and the hook C securely in place, and by turning the said cam I into a vertical position the bar D and hook C will be released, and can be readily adjusted as the work to be held may require. The plate E is provided with two inwardly-projecting pins or lugs, J K, to pass through holes L in the front of the bench A, and support the said plate E and its attachments. The pin or lug J is stationary, and is attached to the plate E. The pin or lug K is movable, passes through an inclined or curved slot, M, in the plate E, and is attached to the end of the lever N, which is pivoted to the plate E by a rivet, O, or other suitable means. The forward part of the lever N is bent upward, so that its lower part will be so low down upon the plate E as to be out of the way. With this construction, by moving the rear part of the lever N downward, the lug K will be forced toward the lug J, so that the said lugs will be forced against the sides of the holes L, and will clamp the plate E firmly to the front of the bench A, and by moving the rear end of the lever N upward the lug K will be forced from the lug J and the plate E will be released. Holes L are formed in the front of the bench to receive the lugs J K, so that the plate E and its attachments can be moved toward or from the forward end of the bench A, as the length of the work to be held may require. The rear end of the lever N passes beneath the lower end of the clamp F, so that the said clamp may serve as a guard to keep the said lever in place against the plate E. The pins or lugs J K should be roughened to prevent them from slipping out of the holes L when clamping the plate E against the front of the bench A.

To the rear end of the plate E is pivoted the cam P in such a position as to bear against the upper side of the rear end of the lever N and

lock the said lever in place when clamping the plate E to the front of the bench A.

In using the improvement, the hook C is adjusted at the proper height to hold the work, and the cam I is turned into a vertical position to release the bar D. The bar D is then adjusted into such a position as the length of the work to be held may require, the hook C is drawn into the work, and the cam I is adjusted to lock the bar D and hook C in place.

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

1. The improved bench-hook consisting of the attaching-plate E, provided with the horizontal sliding bar D, mounted in suitable ways in the upper face of said plate, and the vertical hooked bar C, secured adjustably to said bar D by slots and set-screws C' C², and a suitable clamping device on plate E, for holding the bar D in any desired position, substantially as set forth.

2. The combination, with the bench provided with holes L, of the attaching-plate E, carrying the bench-hook, and provided on its rear face, near one end, with pin J, and on its front face, near its opposite end, with a pivoted lever, N, carrying a pin, K, extending through an inclined slot, M, substantially as set forth.

3. The combination of the attaching-plate E, carrying a bench-hook, and provided on its rear face with a pin, J, with the lever N, pivoted to the said plate, and provided with a pin, K, at its forward end, extending through an inclined slot, M, and a clamping-lever, P, pivoted to the attaching-plate at the rear end of said lever, for clamping said lever in place.

4. The attaching-plate E, having the horizontal bar D, carrying the hook-bar, and sliding in suitable ways in said plate, in combination with the clamp F, bearing against bar D, and mounted on stud G on the attaching-plate, and a cam-lever, I, also on said stud, and adapted to force the clamp against the horizontal bar D for locking it in place, substantially as set forth.

5. The horizontal bar D, mounted to slide in suitable ways in the upper part of the attaching-plate E, and the hook-bar C, secured adjustably thereto by slots and set-screws C' C², in combination with the clamp F, bearing with its upper end on said bar D, and mounted on a stud, G, on the plate E, said stud also carrying a cam-lever, I, bearing on said clamp F, for binding the clamp against the bar and locking said bar in place, substantially as set forth.

6. An adjustable bench-hook consisting of an attaching-plate provided near its top with a horizontal bar, D, sliding in suitable ways therein, said bar carrying a vertically-adjustable hook-bar, C, a clamp, F, on the screw G of the attaching-plate, bearing on the bar D, a cam-lever, I, also on said screw, for operating clamp F, a pin, J, on the rear face of the attaching-plate near one end, and a pivoted lever, N, carrying a pin, K, working through an inclined slot, M, and a clamp-lever for locking the rear end of said lever, substantially as set forth.

HARRY COOPER.

Witnesses:

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W. W. COULSON.