

(No Model.)

C. J. KEMPF.
BENCH HOOK.

No. 478,797.

Patented July 12, 1892.

Fig 1

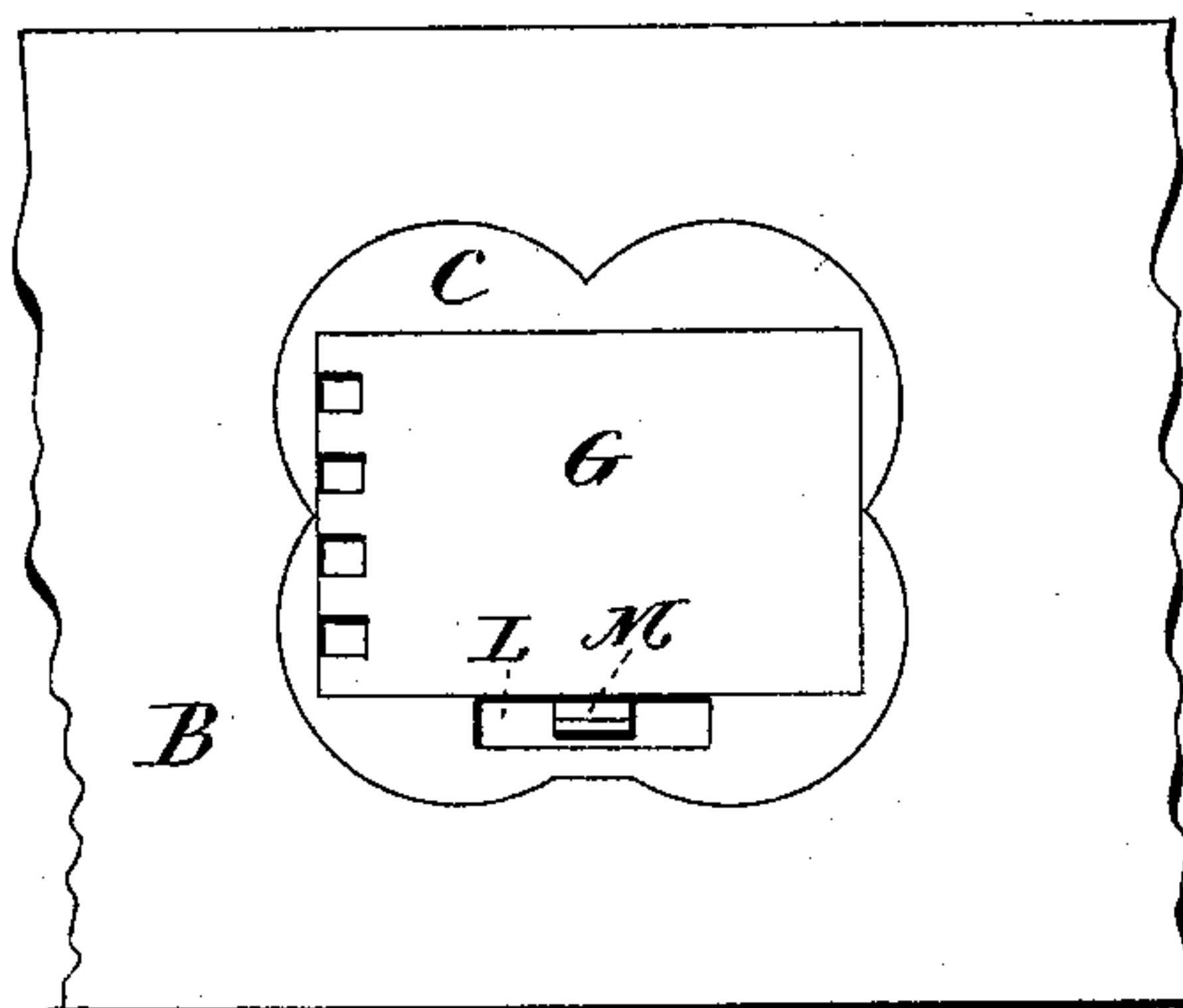


Fig 2

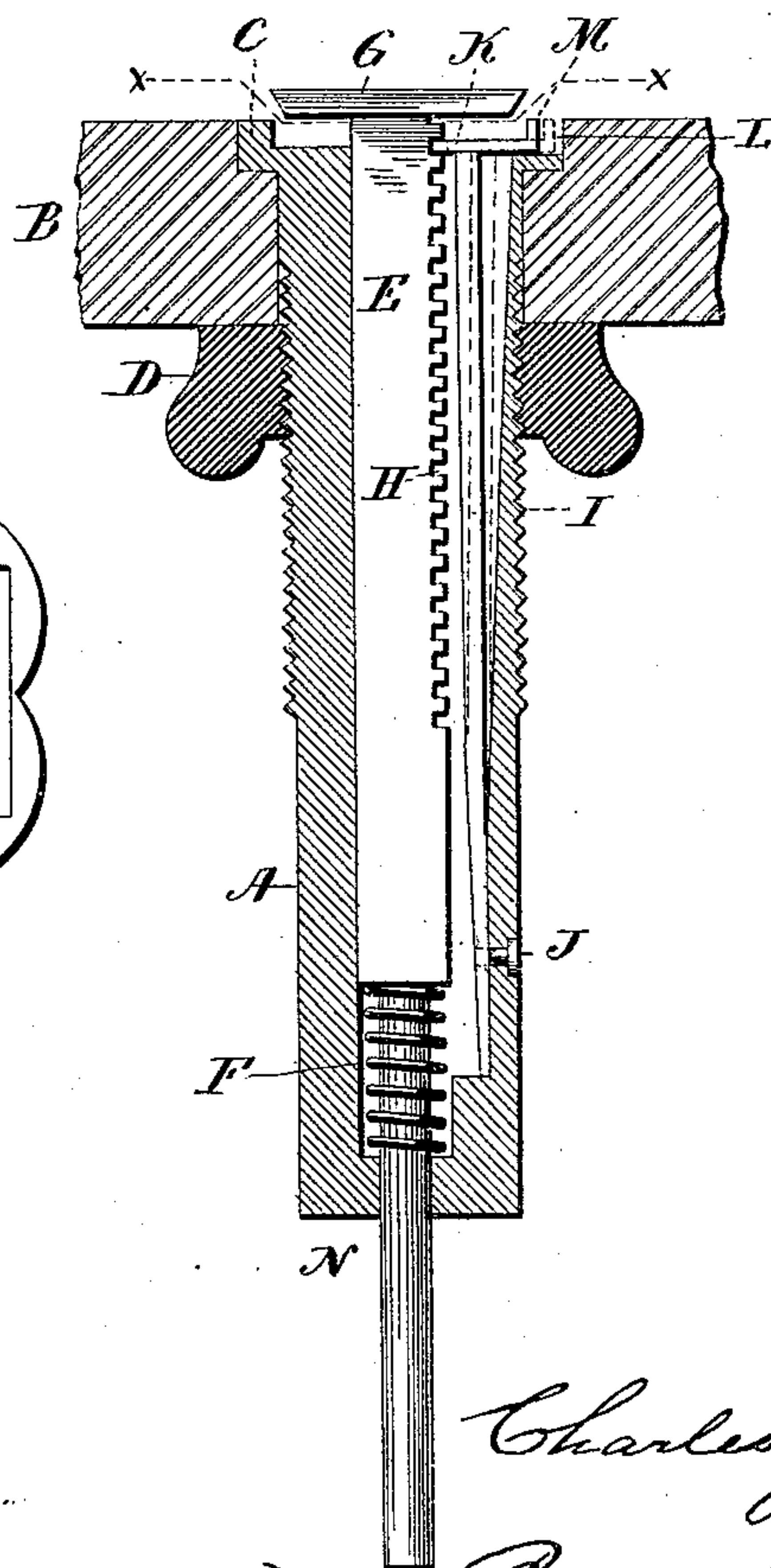
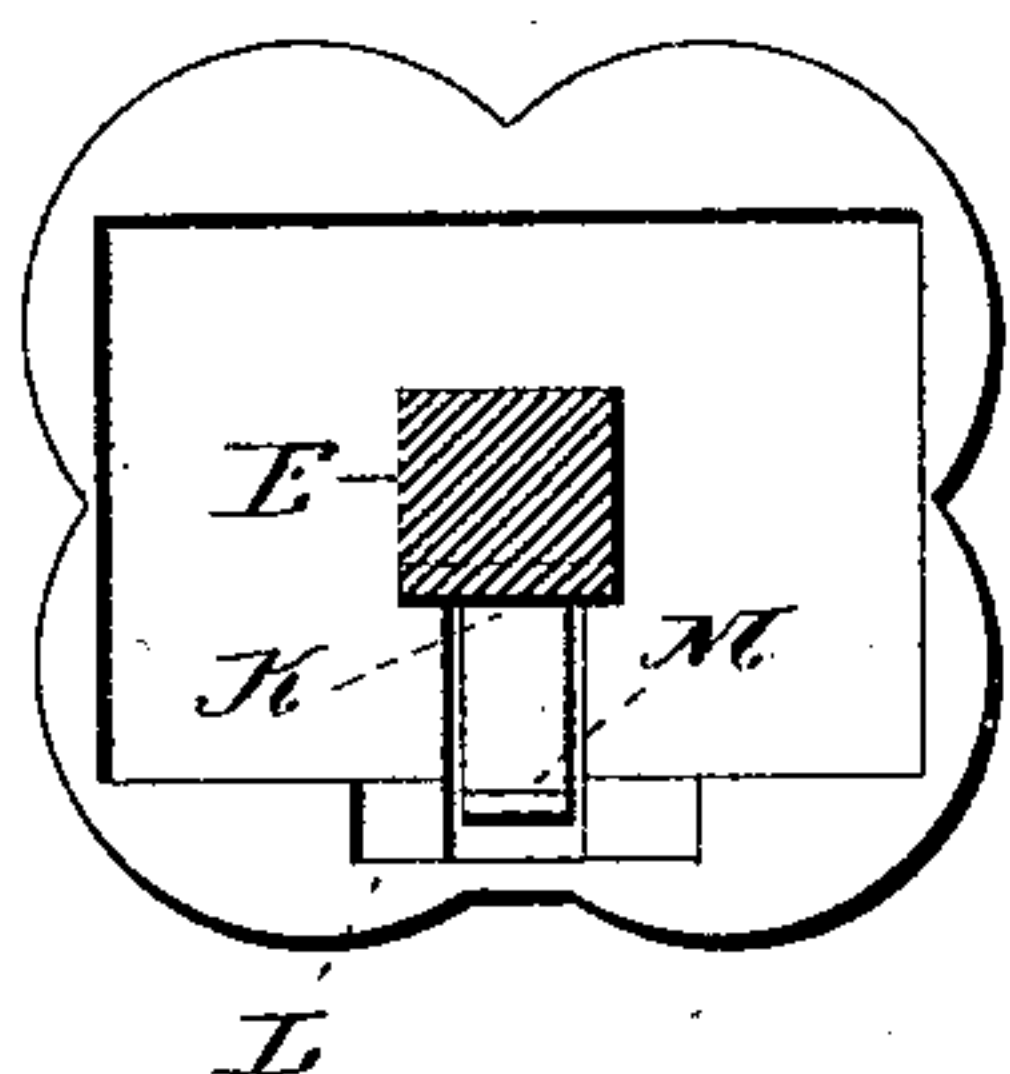


Fig 3



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES J. KEMPF, OF SEYMOUR, CONNECTICUT.

BENCH-HOOK.

SPECIFICATION forming part of Letters Patent No. 478,797, dated July 12, 1892.

Application filed December 14, 1891. Serial No. 414,974. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. KEMPF, of Seymour, in the county of New Haven and State of Connecticut, have invented a new
5 Improvement in Bench-Hooks; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same,
15 and which said drawings constitute part of this specification, and represent, in—

Figure 1, a top or plan view showing the hook as secured to a bench; Fig. 2, a vertical central section of the socket, showing the
25 spindle and its head, spring, and dog in side view; and Fig. 3, a transverse section through the spindle cutting above the flange on line x of Fig. 2.

This invention relates to an improvement
30 in the construction of the device employed on joiners' benches against which a board to be planed is set, commonly called "bench-hook," the object being a simple construction for the vertical adjustment of the hook; and it consists in the construction, as hereinafter described, and particularly recited in the claim.

A represents the socket, which is adapted to set into or through the top B of the bench. At its upper end the socket is constructed
35 with a flange C to set into the surface of the bench and substantially flush therewith. The body of the socket is screw-threaded, and onto the screw-threaded portion a nut D is applied to bear against the under side of the
40 bench, and so as to clamp the bench between the flange C and the nut D, and thus firmly hold the socket in place. The socket is tubular, the opening through it being square or angular, as shown, and into the opening through
45 the socket the spindle E is set, so as to move freely up and down. Near the lower end of the socket a spring F is arranged upon which the lower end of the spindle will bear, the tendency of the spring being to force the
50 spindle upward. At the upper end the spindle terminates in a head G, of angular shape, adapted to sink into a recess formed in the surface of the flange C, so that the head may be depressed flush with the surface of the
55 flange. The head G has its edges toothed or

otherwise shaped in the usual manner to engage the board set against them.

The spindle E on one side is constructed with a series of teeth forming a vertical rack H, and in the socket a spring-dog I is ar-
55 ranged extending down inside the socket and secured by its lower end to the socket by a screw or otherwise, as represented at J. The dog extends upward and through the flange below the head, and is there constructed with
60 a nose K, which is adapted to engage the teeth of the rack H. In the flange C at one side of the head G a recess L is formed, and a projection from the dog extends into said
65 recess forming a thumb-piece M in convenient position to be reached by the thumb or finger, or any suitable device applied thereto. The tendency of the spring of the dog is to hold the dog into engagement with the teeth
70 of the rack on the spindle E, as shown in Fig. 2; but by applying the thumb or finger or other suitable instrument to the thumb-piece M, the dog may be withdrawn, as represented
75 in broken lines, Fig. 2, so as to disengage it from the spindle, when the spindle will be left free to rise under the action of its own
80 spring or to be drawn up as the case may be; or if it is desired to depress the spindle and its head the same releasing is produced between the spindle and the dog, and then the
85 spindle depressed until the required elevation is attained when the dog is left free to return into engagement with the rack of the spindle. Thus the spindle, with its head, may
90 be adjusted to any desired elevation or may be entirely removed, if desirable, by withholding the dog from engagement with the spindle. Preferably the spindle is reduced in diameter
95 at its lower end, so as to form a tail N, which will extend through the lower end of the socket, the spring F resting upon the shoulder formed by the reduced opening in the socket and around the spindle. The teeth of the rack present a substantially right-angular
100 shoulder to the nose of the dog, so that while the dog is engaged the spindle and its head will be held stationary, so that it cannot be accidentally raised or depressed.

I do not broadly claim in a bench-hook a socket having a recessed flange at its upper

end adapted to be inserted into the bench combined with a spindle movable up and down in the said socket and carrying a head adapted to set into the recess, and a spring-dog adapted to engage corresponding teeth on the side of the spindle, as such I am aware is not new.

I claim—

The herein-described bench-hook, consisting of the tubular socket A, constructed with a flange C at its upper end adapted to rest upon the top of the bench, combined with a spindle E, movable up and down within the socket, and constructed with a head G at its upper end, the flange C constructed with a recess corresponding to and so as to receive said head in its depressed position and also constructed with a recess L at one side of said rack upon that side corresponding to the said

recess L with a vertical spring-dog arranged in the side of the socket in which the said recess L is formed and rigidly secured by its lower end in the socket, the dog extending upward terminating at its upper end with a thumb-piece M in the said recess L, and the dog provided with a nose K, adapted to normally stand in engagement with the teeth of the said rack on the spindle, but by its own elasticity adapted to yield to be withdrawn from such engagement by means of the thumb-piece M, all substantially as and for the purpose described.

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

CHARLES J. KEMPF.

Witnesses:

GEORGE M. TURNER,
NOBLE J. BALDWIN.