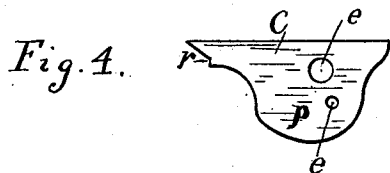
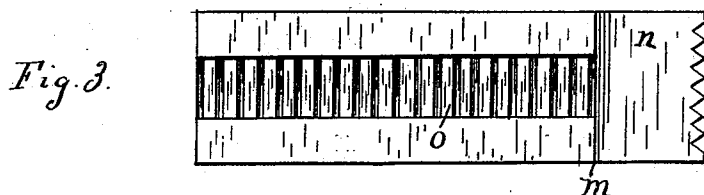
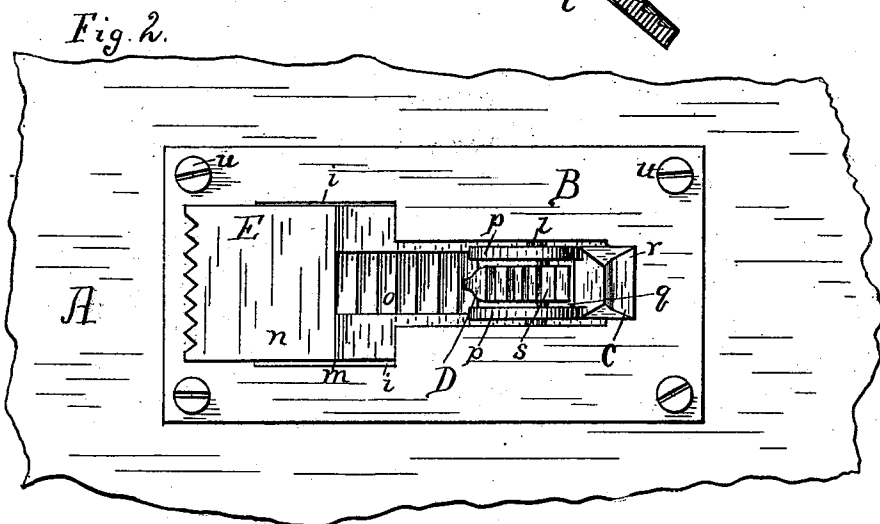
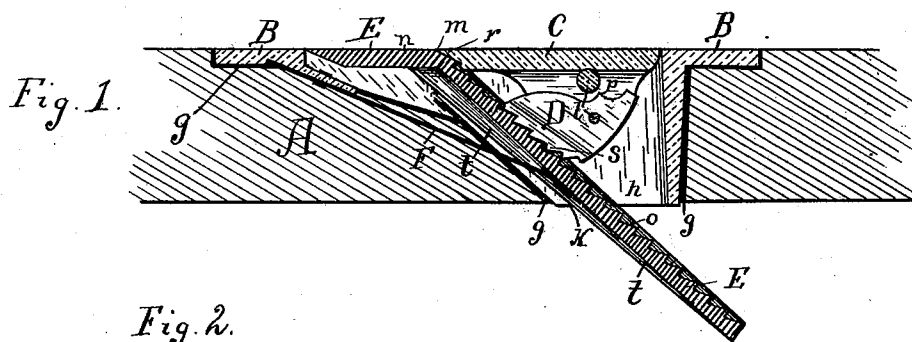


(No. Model.)

A. DUDGEON & J. P. McKEE.
BENCH DOG.

No. 510,531.

Patented Dec. 12, 1893.



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ADDELBERT DUDGEON, OF HOMESTEAD, AND JOSEPH P. MCKEE, OF
PITTSBURG, PENNSYLVANIA.

BENCH-DOG.

SPECIFICATION forming part of Letters Patent No. 510,531, dated December 12, 1893.

Application filed July 14, 1893. Serial No. 480,554. (No model.)

To all whom it may concern:

Be it known that we, ADDELBERT DUDGEON, of Homestead, and JOSEPH P. MCKEE, of Pittsburg, in the county of Allegheny, State of Pennsylvania, citizens of the United States of America, have invented certain new and useful Improvements in Bench-Dogs, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to improvements in bench hooks, stops, or dogs, as they are variously called, and consists of devices for adjusting and locking a stop for the bench of a carpenter, or other mechanic, as herein described and explained.

In the drawings which are made a part of the specification, the same letters refer to the same parts in all the figures.

Figure 1 is a sectional view of the device, showing its various parts and their relations. Fig. 2 is a plan view with the latch and ratchet thrown back. Fig. 3 is a plan of the hook, and Fig. 4 a side view of the latch.

The device is made of iron, steel or other suitable metal.

In the figures A. is the bench, having a recess in its upper surface into which the device is inserted and fastened, and having a mortise or opening sufficient for the movement of the parts.

B. is the bed or bearing plate of the device, having continuous sides depending to form bearings for the other parts, the face of the plate cut out to receive the hook and latch, the inner sides channeled at a proper angle to receive and guide the shaft of the hook, and pierced to receive the pivot of the latch.

E. is the hook and shaft, in one piece and bent to an angle which will make the hook stand on a plane with the surface of the bearing plate when the shaft is in the channel; the bearing edge of the hook is toothed, but it may be continuous and with square or beveled edge, according to the work for which it is used; the middle part of the upper surface of the shaft is serrated to engage the latch and ratchet. Preferably the under surface has two longitudinal ribs, and the shaft moves up and down in the channels of the bed plate.

C. is the latch, pivoted in the sides of the bearing plate, and having also depending

sides to form a channel in which to hold the ratchet, the front edge shaped to engage the serrated face of the shaft.

D. is the eccentric ratchet, pivoted in the latch, and shaped so as also to engage the serrated face of the shaft, and playing with the latch in lifting and locking the hook.

F. is a spring one end of which is riveted to the bearing plate, while the other end presses against the under surface of the shaft of the hook to keep it from sliding down while being adjusted. The upper surfaces of the latch and hook are flat, sized to fit into and when closed to fill the opening of the bearing plate, and the surface of the plate is let in flush with that of the bench.

The additional lettering of the drawings designates the following: *g.* the recess in work-bench to receive the device, *h.* the sides of the bearing plate, *i.* the face of the plate cut out to receive the hook and latch, *k.* channels in inner sides of plate to receive shaft of hook, *l.* pivots of latch and ratchet, *m.* the angle of the hook and shaft, *n.* the face of the hook, *o.* the serrated portion of its shaft, *p.* the sides of the latch, *q.* holes for the pivots, *r.* the channel formed by its sides to receive the ratchet, *s.* the lip or front edge of the latch beveled to engage the shaft, *t.* the teeth of the ratchet, *u.* the ribs of the shaft, and *v.* the screws of the bearing plate.

Having thus described our device, its parts and their uses, their combination and operation are obvious. The ratchet is pivoted in the latch, the latch pivoted in the bearing plate, the hook inserted in the channels, and the plate screwed to the bench, and the device is ready for use. The hook being pressed down into the opening of the plate, the latch is closed with the thumb, and thus the device is locked, and is secure against the admission of dirt, and the bench presents an unobstructed surface, as shown in Fig. 1. To lift the hook for use the thumb is pressed on the rear end of the latch, when the ratchet engages the serrated portion of the shaft and lifts it a notch. Alternate pressing with the thumb on the front and rear ends of latch racks up the hook to any required height, where it is locked by closing the latch. The latch and ratchet can be tilted back entirely free of the hook,

as shown in Fig. 2, so that the hook can be easily removed for any purpose. It will be observed that when this device is in use the entire force bearing on the hook is in the line of the lockage.

We are aware of the patent for a bench-dog, No. 249,563, to C. P. Whitman, and that he uses a hook set on its shaft at an angle, but this is almost the only point of resemblance.

10 The toothed or sharpened hook is not peculiar nor essential to either of us. His device for locking is a thumb-screw playing into a channel in his shaft, apparently without any means of resistance to its pressure. The only

15 means of adjustment is to hold the hook with one hand, while turning the thumb-screw with the other. And the direction of the force in the use of his hook is in a different plane from the line of his lockage, and tends to

20 loosen and destroy his device. We are also aware of other patents on adjustable hooks, having vertical shafts and rack-teeth, adjusted with gear, or worm wheels. We are not claiming any of these but a combination

25 quite different.

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

1. In a bench-dog the combination with a work-bench, of a bearing-plate let into its surface having depending sides with interior

30 channels, of a hook set at a corresponding angle to its shaft and fitting into the channels and surface of the plate, the shaft having a serrated face and longitudinal ribs, and of a

35 latch having a flat surface and a beveled lip to engage and lock the shaft pivoted flush

with the surface of the hook and plate, as and for the purposes shown and described.

2. In a bench-dog, the combination with a work-bench of a bearing plate let into its surface having depending sides with interior

40 channels set at an acute angle to its surface, of a hook set at a corresponding angle to its serrated shaft and fitting into the channels and surface of the plate, of a latch pivoted

45 and with a beveled lip to engage and lock the shaft, and of an eccentric ratchet pivoted in the latch shaped and adapted also to engage the shaft and lift it into position, as and for the purposes shown and described.

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3. In a bench-dog the combination with a work-bench of a bearing plate let into its surface having depending sides with interior

55 channels set at an acute angle to its surface, of a hook set at a corresponding angle to its serrated shaft and fitting into the channels and surface of the plate, of a latch pivoted and with a beveled lip to engage and lock the shaft, of an eccentric ratchet pivoted in the latch shaped and adapted also to engage the

60 shaft and lift it into position, and of a spring one end of which is attached to the plate and the other pressing against the shaft to prevent slipping while being adjusted, all as and for the purposes shown and described.

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In testimony whereof we affix our signatures in presence of two witnesses.

ADDELBERT DUDGEON.
JOSEPH P. MCKEE.

Witnesses:

JOS. C. FORSE,
WILLIAM F. WISE.