A. B. PROUTY, L. COES & G. C. TAFT.

Planer-Chucks.

No. 164,934. Patented June 29, 1875.

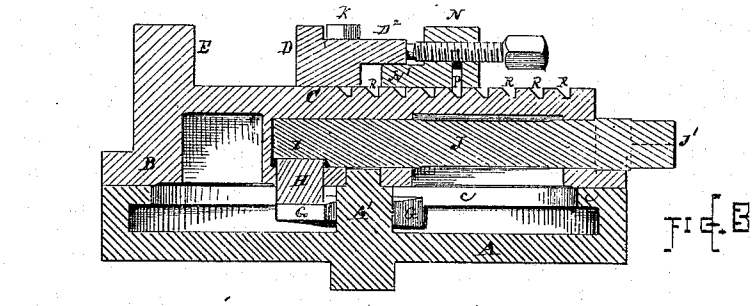

FIG. 3

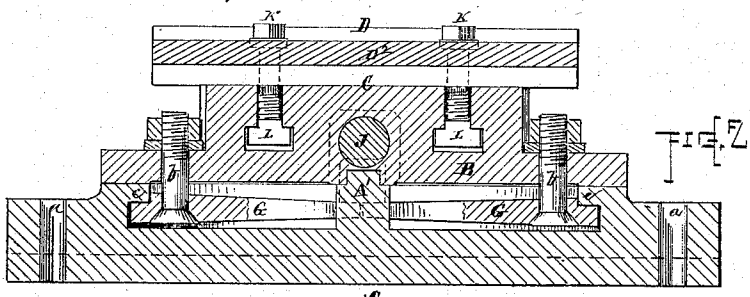

FIG. 2

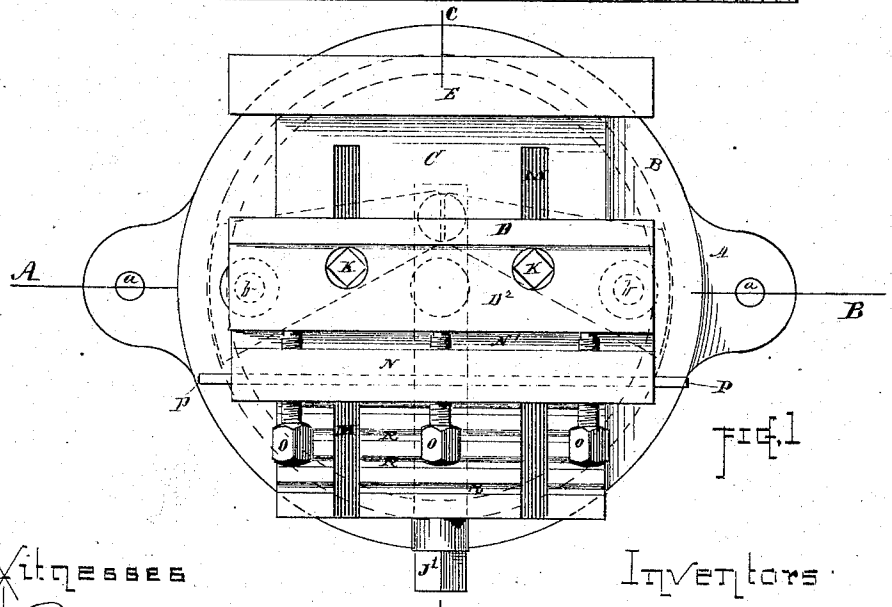

FIG. 1

Witnesses

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UNITED STATES PATENT OFFICE.

AUGUSTUS B. PROUTY, LORING COES, AND GEORGE C. TAFT, OF WORCESTER, MASS.; SAID COES AND TAFT ASSIGNORS TO SAID PROUTY.

IMPROVEMENT IN PLANER-CHUCKS.

Specification forming part of Letters Patent No. **164,934**, dated June 29, 1875; application filed December 19, 1873.

To all whom it may concern:

Be it known that we, AUGUSTUS B. PROUTY, LORING COES, and GEORGE C. TAFT, all of the city and county of Worcester and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Planer-Chucks; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings which form a part of this specification, and in which—

Figure 1 represents a plan view of a planer-chuck embracing our improvements. Fig. 2 represents a longitudinal section of the same at line A B, Fig. 1. Fig. 3 represents a transverse section of the same at line C D, Fig. 1.

This invention relates to certain improvements in the construction of the mechanism in a planer-chuck, whereby the adjustment of the chuck-jaws for holding the work in the desired position can be readily and conveniently attained, while the various parts can be quickly and firmly secured in position when properly adjusted. It also relates to the devices for holding and adjusting the movable jaw, and to the manner of sustaining the backward strain or thrust of said jaw, as hereinafter explained.

In the drawings, the parts marked A indicate the bottom plate of the chuck, which is to be secured to the bed of the planer by bolts arranged through the openings *a*, the flange or rib upon the lower part of the plate being fitted into one of the grooves upon the bed of the planer to prevent the chuck from turning out of position. B indicates a rotating top plate, upon the upper part of which the work-bed C and chuck-jaws D and E are arranged. The rotating top plate B is mounted upon the bottom plate A, in the manner shown, and is retained in the proper relative position by a center pintle, A^1, projecting from the central part of the plate A. The top plate is held down or clamped in any desired position by means of the bolts *b b*, which pass through the edges of the top plate B, and have their heads held in or attached to levers G G, which latter are fulcrumed under the flange or lip *c* that projects inward from the edge of the bottom plate A, as illustrated, while their long arms extend to, or nearly to, the center of the plate, where they are both acted upon by a lug, H, and cam I, the latter being formed upon the end of a shaft or spindle, J, that extends to the edge of the plate, and is provided with a square or other shaped head, J^1, suitable to receive a wrench or other instrument, whereby the said spindle can be turned to bring the cam I into action for depressing or releasing the levers G, and by drawing down the bolts *b b* to clamp the two plates A B together, or by releasing said bolts to loosen the plates so as to permit of the top plate being rotated. D indicates the movable work-holding jaw, and E the stationary jaw. The jaw D is provided with clamp-bolts K that pass downward through the slots M, and screw into nuts L, arranged within the lower enlarged portion of the slots, as indicated. The jaw D has a horizontal flange, D^2, projecting from its side at a short distance above the level of the work-bed C, a sufficient space being left between the parts for the flange N^1 of the locking-piece N, which latter is arranged upon the work-bed C in rear of the jaw D, in such position that the flange N^1 will be under the flange D^2, in the manner illustrated. The locking-piece N is provided with a series of adjusting-screws, O, which pass through its upper part, with their points resting against the flange D^2 of the jaw D. The locking-piece N is also provided in this instance with a catch or dog-bar, P, fitted within a longitudinal groove formed in the lower side of the locking-piece N, and the bed C of the chuck is provided with a series of parallel grooves, R, formed in its upper surface. The bar P drops down into one of the grooves R in the work-bed, and thus prevents the locking-piece from sliding back upon the bed C, while the flange N^1, being held down by the flange D^2 of the jaw D, which latter is held down by the bolts K, prevents the said locking-piece N from turning over when the set-screws O are turned up against the jaw D to press it toward the jaw E for clamping the work between them. By taking hold of the projecting ends of the bar P said bar can be raised from the groove R, when the locking-piece N can be moved back or adjusted to a different position.

In operating the chuck the work or piece of metal to be operated upon is placed upon the bed C, and the movable jaw D is slid up against it, after it has been adjusted properly against the jaw E. The locking-piece N is next moved up to the jaw D, so that its flange N^1 will be beneath the flange D^2 of the jaw, and the bar P will drop into the nearest groove R. The screws O are then turned up so as to press the jaw D firmly against the work, thus clamping it securely in place between the jaws E D. The screws K may be turned down so as to clamp the jaw D firmly to the bed, if desired, or just sufficiently to permit of the jaw being moved thereon without unnecessary looseness.

To adjust the chuck in a rotary or horizontal position, the operator has simply to apply a wrench to the head J^1 of the shaft J, and by a slight turn to loosen the pressure of the cam I upon the levers G, when the top plate B can be easily moved as desired.

If preferred, a pawl or other catch device may be used in lieu of the bar P for entering the groove R, and sustaining the parts against the backward strain of the chuck-jaw. We prefer, however, the construction shown.

It will be observed that the operation of our improved planer-chuck is very convenient and effective, while at the same time the devices are simple and durable. The grooves R permit of the jaw being quickly arranged at different positions along the bed C, which may be of greater or less length, while said grooves also afford a firm and substantial support for the jaw at any of its adjusted positions.

Having described our improved planer-chuck, what we claim therein as new and of our invention, and desire to secure by Letters Patent, is—

1. The combination, with the movable jaw D and grooved work-bed C, of the locking-piece N, dog or catch bar P, and set-screws O, substantially as and for the purpose set forth.

2. The combination of the bottom plate A and top plate B, with the bolts *b*, levers G, and mechanism for depressing said levers against the bottom plate, substantially as shown and described.

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