(No Model.)

A. F. CUSHMAN.

FACE PLATE JAW.

No. 435,405. Patented Sept. 2, 1890.

Fig. 1.

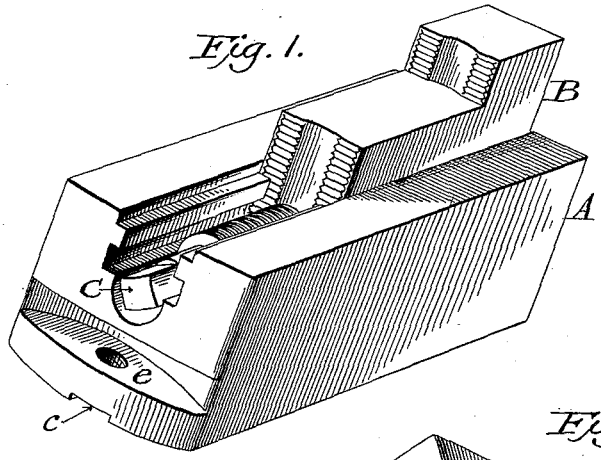


Fig. 5.

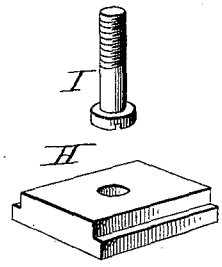


Fig. 2.

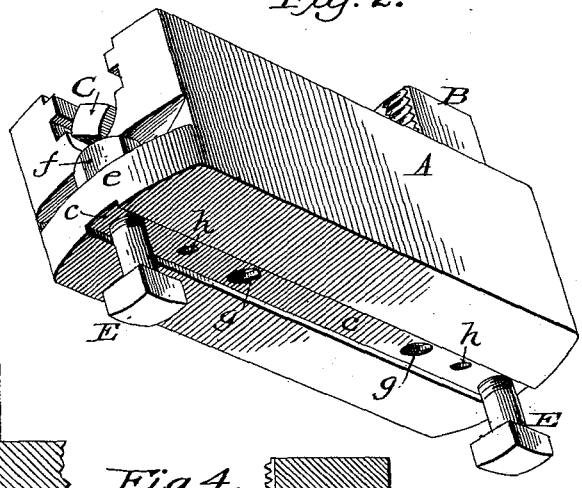


Fig. 3.

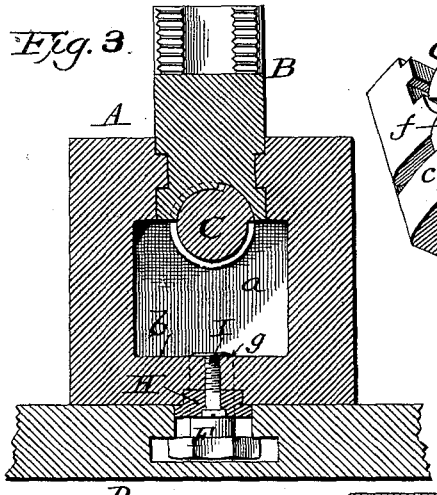
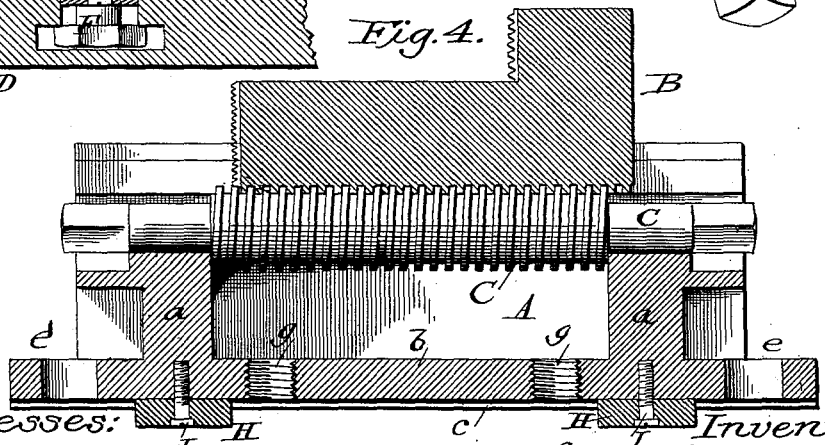


Fig. 4.



Witnesses:
James F. Duhamel
Horace A. Dodge.

Inventor:
Austin F. Cushman,
by Dodges Sons,
Attys

UNITED STATES PATENT OFFICE.

AUSTIN F. CUSHMAN, OF HARTFORD, CONNECTICUT.

FACE-PLATE JAW.

SPECIFICATION forming part of Letters Patent No. 435,405, dated September 2, 1890.

Application filed February 19, 1890. Serial No. 341,006. (No model.)

To all whom it may concern:

Be it known that I, AUSTIN F. CUSHMAN, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Face-Plate Jaws, of which the following is a specification.

My invention relates to that class of devices used for holding or clamping the work or material being drilled, planed, or otherwise operated upon; and the invention consists in a novel construction of the work-holder or "face-plate" jaw, as I term it, whereby the use of large, heavy, and expensive chucks is dispensed with.

In the drawings, Figures 1 and 2 are perspective views of my improved device; Figs. 3 and 4, sectional views of the same, taken on lines at right angles to each other; and Fig. 5, a view of the detachable plate used to adapt the jaw for use on certain forms of face-plates.

A indicates a hollow shell or casing, open along its upper side from end to end to receive the sliding jaw B, the sides of the jaw and of the opposing walls of the shell being tongued and grooved, as shown.

C indicates a screw, squared at both ends to receive a wrench and seated or journaled near each end in a lug *a*, rising from the bottom *b* of the shell or casing, as shown in Figs. 3 and 4. This screw engages with the threaded lower face of the sliding jaw, and, as the latter is prevented from rising off the screw by means of the tongues and grooves before mentioned, it (the said jaw) will be caused to move back and forth in the shell or casing, according to the direction in which the screw is turned. It will be seen that the end walls of the shell or casing are cut away, so that the sliding jaw may be projected beyond either end of the shell or casing, or removed entirely therefrom and reversed end for end.

The bottom face of the shell or casing A is advisably provided with a longitudinal groove or channel *c*, which is adapted to receive the plates H, which latter are adapted to project into the T-groove of the face-plate D, as shown in Fig. 3, the plates serving to guide the shell or casing (and the parts carried thereby) in its movements upon the face-plate. The plates H are held in place by screws I, Figs. 3, 4, and 5, which pass through the plates and screw into holes *h*, made in the shell A to receive them. Under this arrangement, and even where the face-plate is provided with holes instead of regularly-disposed slots, the jaw will be clamped to the face-plate by bolts F, screwing into holes *g*, tapped into the shell or casing.

Some forms of face-plates are provided with a series of radial slots (not shown) to receive a bolt or bolts E, which latter pass up through the slots and through a perforated lug *e*, projecting from each end of the shell or casing A. A nut *f* is applied to the upper end of each bolt E to clamp the jaw firmly in position upon the face-plate, the end walls of the shell or casing being undercut, as shown in Figs. 1, 2, and 4, to receive the nuts.

From the foregoing description it will be seen that the jaws may be readily moved and adjusted. Two or more of these jaws bolted to the face-plate of a lathe, or to the table of boring-mills, drill-presses, &c., make a chuck that is cheap and durable, and at the same time easy to handle. The jaw as a whole is reversible, and the sliding jaw is also capable of being reversed end for end.

Having thus described my invention, what I claim is—

1. In combination with the shell or body A, having the undercut end walls and the perforated lugs *e* at the ends, a sliding jaw B, a screw C, for adjusting the jaw, and bolts E, passing through the perforated lugs and adapted to clamp the body in position, all substantially as shown and described.

2. In combination with shell or body A, a face-plate jaw having a longitudinal opening along its upper face from end to end, lugs *a a*, provided at their upper ends with bearings, the screw C, resting in said bearings and having both ends squared, and a reversible sliding jaw B, having its lower face threaded and located wholly above the lugs *a*, whereby the jaw as a whole, its sliding jaw, and the screw may be reversed end for end.

In witness whereof I hereunto set my hand in the presence of two witnesses.

AUSTIN F. CUSHMAN.

Witnesses:

FRED. H. DEAN,

E. L. CUSHMAN.