

UNITED STATES PATENT OFFICE.

JOSEPH L. HAYDEN, OF HAYDENVILLE, MASSACHUSETTS.

IMPROVEMENT IN CHUCKS FOR HOLDING VALVE-COCKS TO BE DRESSED.

Specification forming part of Letters Patent No. 119,516, dated October 3, 1871.

To all whom it may concern:

Be it known that I, JOSEPH L. HAYDEN, of Haydenville, in the county of Hampshire and State of Massachusetts, have invented certain new and useful improvements in chucks for finishing valves, cocks, pipe-connections, and other articles having two or more faces or points to be operated upon before removing them from the chuck; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 represents a top plan of the chuck. Fig. 2 represents a horizontal section through the same. Fig. 3 represents a view from one of the ends of the chuck, and Fig. 4 represents a vertical section through the same.

Similar letters of reference, where they occur in the several separate figures, denote like parts of the chuck in the drawing.

The invention consists in certain mechanical appliances by which the article being finished or wrought upon is automatically turned to bring the faces or points to be dressed opposite the dressing or finishing-tool without stopping the machine, thus expediting the operation very much.

To enable others skilled in the art to make and use this invention, I will proceed to describe the same with reference to the drawing.

On a cross-head, A, and on suitable ways *a a* thereon, are arranged the sliding pieces B B, that may be moved toward or from each other or firmly held by a right and left-hand screw-shaft, C, passing through the cross-head and operated by a wrench, crank, or lever, D, on one end of said screw-shaft. In, on, or to the sliding pieces B are held, by the screw-bolts E, the jaws F, which are removable and replaceable, and made to receive and hold the special article G to be dressed or finished; and these jaws F are so made and united to the sliding pieces as that they may be turned therein, as will be explained. On one of the jaws F there is a ratchet, H, furnished with such number of teeth or recesses as will adapt it to the turning of the article, whether of two or more faces or points, to bring them into proper position for the finishing-tool. And in close proximity to said ratchet there is a collar or pawl-plate, I, that has upon it a pawl, *b*, that is thrown into the detents of the ratchet by means

of a spring, *c*. A holding-pawl or dog, *d*, actuated by a spring, *e*, is also thrown into the detents of the ratchet to hold it from moving while the other or the moving-pawl is reciprocated by the pawl-plate, said holding-pawl or dog being attached to the cross-head. When the plate I is drawn back to give its pawl a new hold in the ratchet a cam, *f*, on said plate comes against the dog *d* and moves it out and holds it out of the detent of the ratchet, so that the ratchet may be turned, and when the ratchet and the jaws and article held between the jaws have been turned around a portion of a revolution the dog *d* is released and is again thrown into one of the detents by the reaction of its spring and again hold the jaws and article between them. Upon the boss or hub J there is a sleeve, K, which can move longitudinally thereon but not turn around on it; and to a lug, *g*, on this sleeve is pivoted one end of a connecting-rod, *h*, the other end being pivoted to the projection *i* on the pawl-plate I, so that by reciprocating the sleeve K upon its bearing or support J the pawl-plate is operated and through it the ratchet H, the jaws F, and the article held between the jaws. A convenient way of moving the sleeve K and of operating through it the ratchet and jaws or chuck is by means of a lever, M, pivoted at *m*, and having in it a stud or pin, *n*, that takes into the groove L in said slide, so that by operating said lever, and without stopping the machine or chuck, the article can be turned to bring its faces or points or parts to be finished in proper position for the finishing-tool; and thus an article of two, three, four, or more faces or points may be dressed and finished without stopping the rotation of the machine, tool, or dressing instrument.

What is claimed herein as new, and desired to be secured by Letters Patent, is—

In combination with the jaws or chuck for holding the article to be dressed or finished, the sliding-sleeve, connecting-rod or bar, pawl-plate, pawl and ratchet, for the purpose of rotating the jaws or chuck and article held by them, to bring its faces or points successively to the finishing-tool, without stopping the tool, machine, or instrument, substantially as described.

JOSEPH L. HAYDEN.

Witnesses:

T. L. HAYDEN,
PETER B. PAGE.