(No Model.)

D. W. PEDRICK.

CHUCK FOR PLANING VALVES.

No. 284,227. Patented Sept. 4, 1883.

FIG. 1.

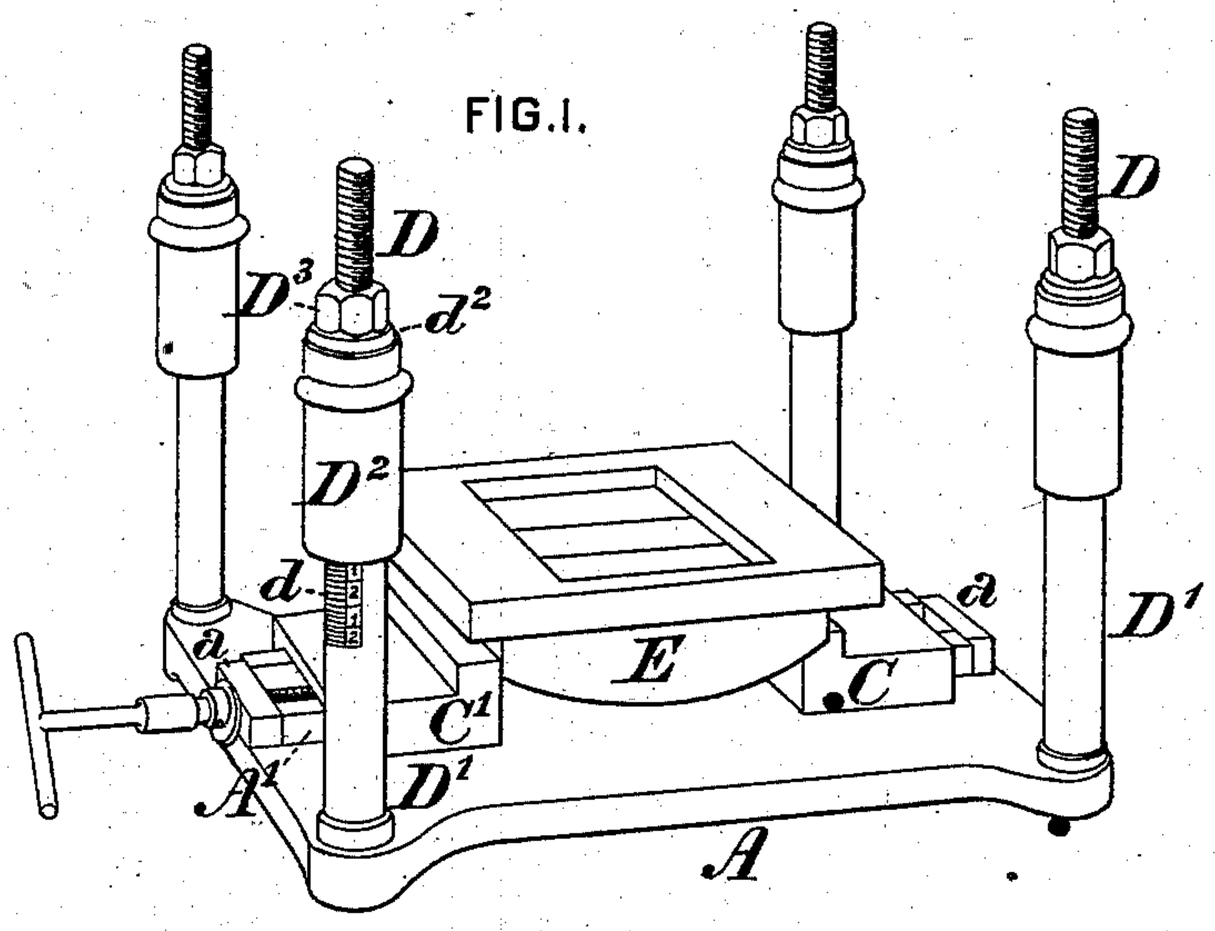


FIG. 2.

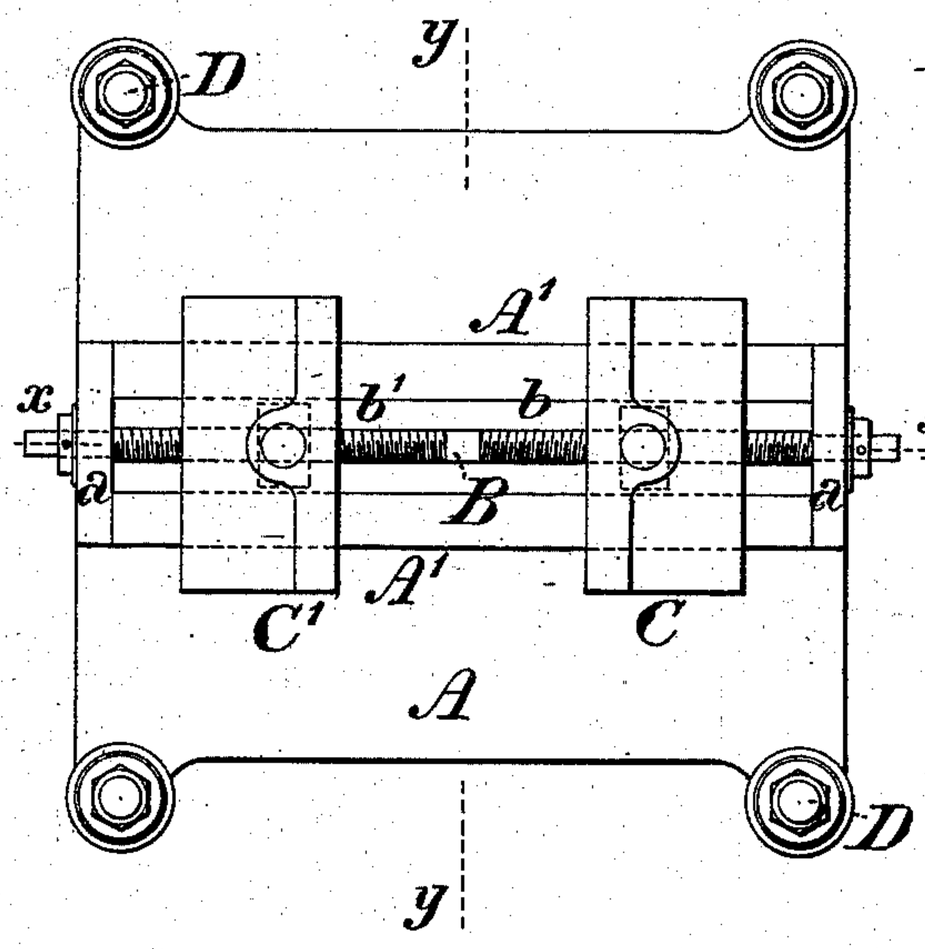


FIG. 3.

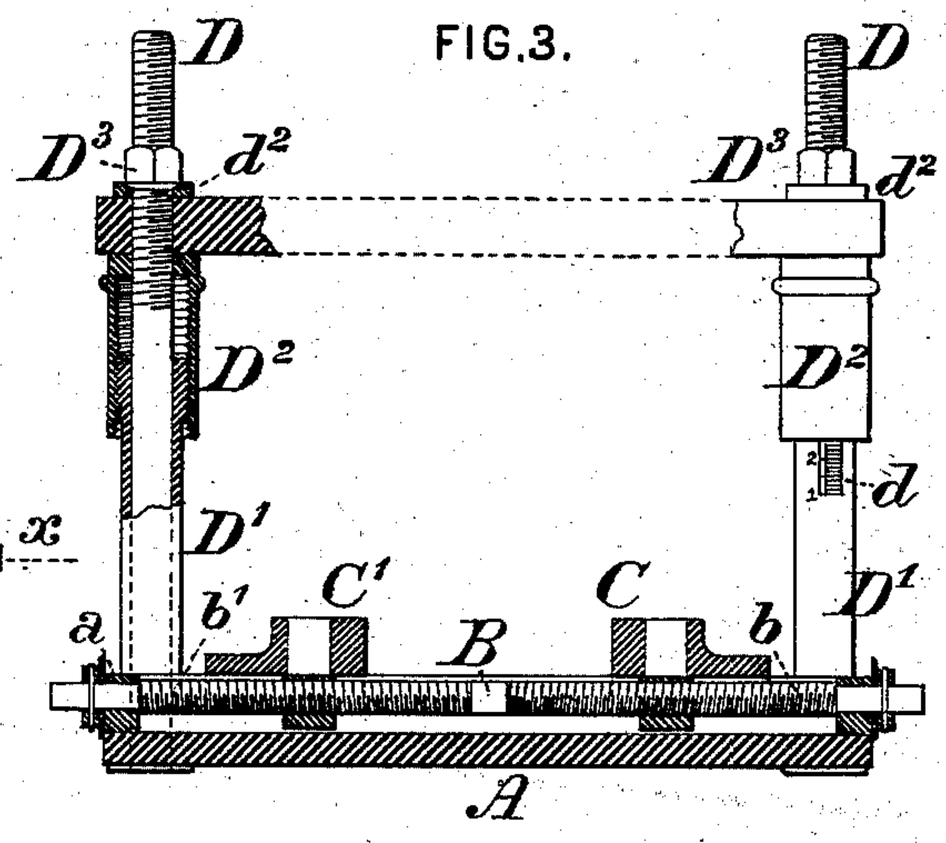
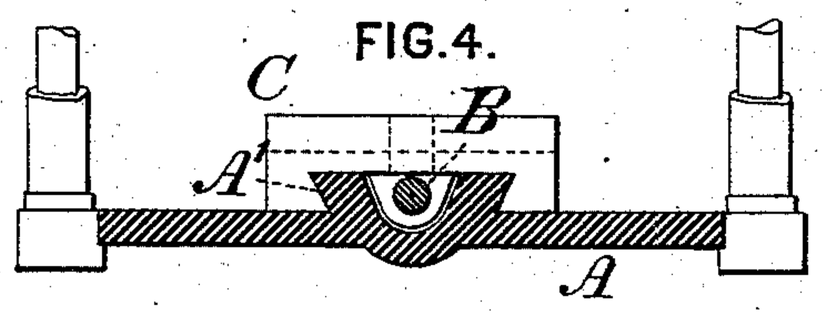


FIG. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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CHUCK FOR PLANING VALVES.

SPECIFICATION forming part of Letters Patent No. 284,227, dated September 4, 1883.

Application filed April 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, DANIEL W. PEDRICK, of the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Chucks for Planing Valves, &c., of which improvements the following is a specification.

The object of my invention is to provide convenient and effective means for adjusting and securing slide-valves of locomotive and other steam engines, or other objects of analogous form, in proper position to be acted upon by the tool of a portable planing-machine, and thereby to facilitate repairs to said engines, particularly in roundhouses, or in locations where a fixed planing-machine is not readily accessible or cannot be used economically for the purpose.

To this end my improvements consist in certain novel devices and combinations, including a base-plate, a series of planer-supports connected thereto, a valve-clamp which is adjustable longitudinally upon the base-plate, and mechanism for adjusting and supporting a planer parallel to and at required distance from the base-plate; also, a base-plate having one or more guides or ways fixed thereto, a pair of clamping-jaws fitted to move longitudinally on said guides, and an adjusting-screw adapted to rotate in bearings on the base-plate, and having right and left hand threads, which respectively engage the clamping-jaws.

The improvements claimed are hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a view in perspective of a chuck for planing valves embodying my invention; Fig. 2, a plan or top view of the same; and Figs. 3 and 4, longitudinal and transverse sections, respectively, through the same, taken at the lines *x x* and *y y*, respectively, of Fig. 2.

In the practice of my invention I form, preferably of cast-iron, a stout bed or base plate, A, having a support for a portable planing-machine, as presently to be described, located at or adjacent to each of its corners. A pair of dovetailed or inclined sided guides or ways, A′, are cast upon and extend centrally and longitudinally across the base-plate. A clamping-screw, B, having a right-hand thread, *b*, and a left-hand thread, *b′*, each extending from its middle portion to a journal formed at or near one of its ends, is fitted to rotate between the guides A′ in bearings *a* on the base-plate at the ends of said guides, and a pair of clamping-jaws, C C′, having nuts on their under sides, which engage, respectively, the threads *b* and *b′*, and are mounted and adapted to slide freely upon the guides A′, so as to be movable toward and from the center of the base-plate by the rotation of the clamping-screw in one or the other direction, such rotation being effected by the application of a crank or socket wrench to one of the squared ends of the screw.

In the instance shown, each of the supports for the planer is composed of a stud, D, secured in and projecting vertically from the base-plate at or near one of its corners, and a sleeve or tubular standard, D′, which fits around the stud D and rests upon the base-plate, said sleeve having an external thread at and adjacent to its upper end, and an index or series of graduations, *d*, marked upon its exterior below said thread. A supporting-nut, D^2, engages the thread of the sleeve D′, the upper surface of said nut being faced off truly to afford a proper bearing, and having a central opening, through which the stud D passes freely. The frame of the planer is clamped between the supporting-nuts D^2 and washers d^2, which are tightened against its upper face by clamping-nuts D^3 engaging threads on the studs D, and to provide a firmer and more accurate bearing the washers d^2 are dished or made concave at top, and the nuts D^3 similarly convex at bottom.

In operation, the valve E, which is to be planed, is placed between the jaws C C′ of the clamp, and by the rotation of the screw B said jaws are moved against and firmly hold the valve in the central position proper to receive the action of the planing-tool. By means of the supporting-nuts the frame of the planer is adjusted and held in position, at any desired distance from the base-plate within a given range, and the graduations upon the sleeves D′ enable the planer-frame to be set accurately parallel with the base-plate.

It will be obvious that in lieu of using a stud and a separate sleeve, as described and shown, said members may, if preferred, be

formed in a single piece—that is to say, a rod or bolt of sufficient diameter to receive the nut D^2, fitted at one end to the base-plate, and having a thread of smaller diameter to receive the clamping-nut D^3.

The planer, which may be of any approved construction, does not constitute part of my present invention, and need not therefore be herein described. As an example of a structure suitable for the purpose, reference may be had to the patent of J. T. Kichner and W. H. Odenatt, No. 143,080, dated September 23, 1873.

I claim as my invention and desire to secure by Letters Patent—

1. The combination, substantially as set forth, of a base-plate, a series of vertical planer-supports connected thereto, guides or ways located upon the base-plate in a plane at right angles to said supports, and a valve-clamp fitting said guides, and movable and adjustable thereon.

2. The combination, substantially as set forth, of a base-plate, a series of planer-supports, each having an external thread engaging a supporting-nut, and an index or series of graduations below said thread, and a series of clamping-nuts engaging threads on the supports above the threads of the supporting-nuts.

3. The combination of a base-plate, a series of vertical planer-supports connected thereto, guides or ways located upon the base-plate in a plane at right angles to said supports, a pair of valve-clamping jaws fitted to move longitudinally on said guides, and a clamping-screw mounted in bearings on the base-plate, and having two threads of opposite lead, respectively, each of which engages a corresponding nut upon one of the clamping-jaws, substantially as set forth.

DANIEL W. PEDRICK.

Witnesses:

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