

No. 636,309.

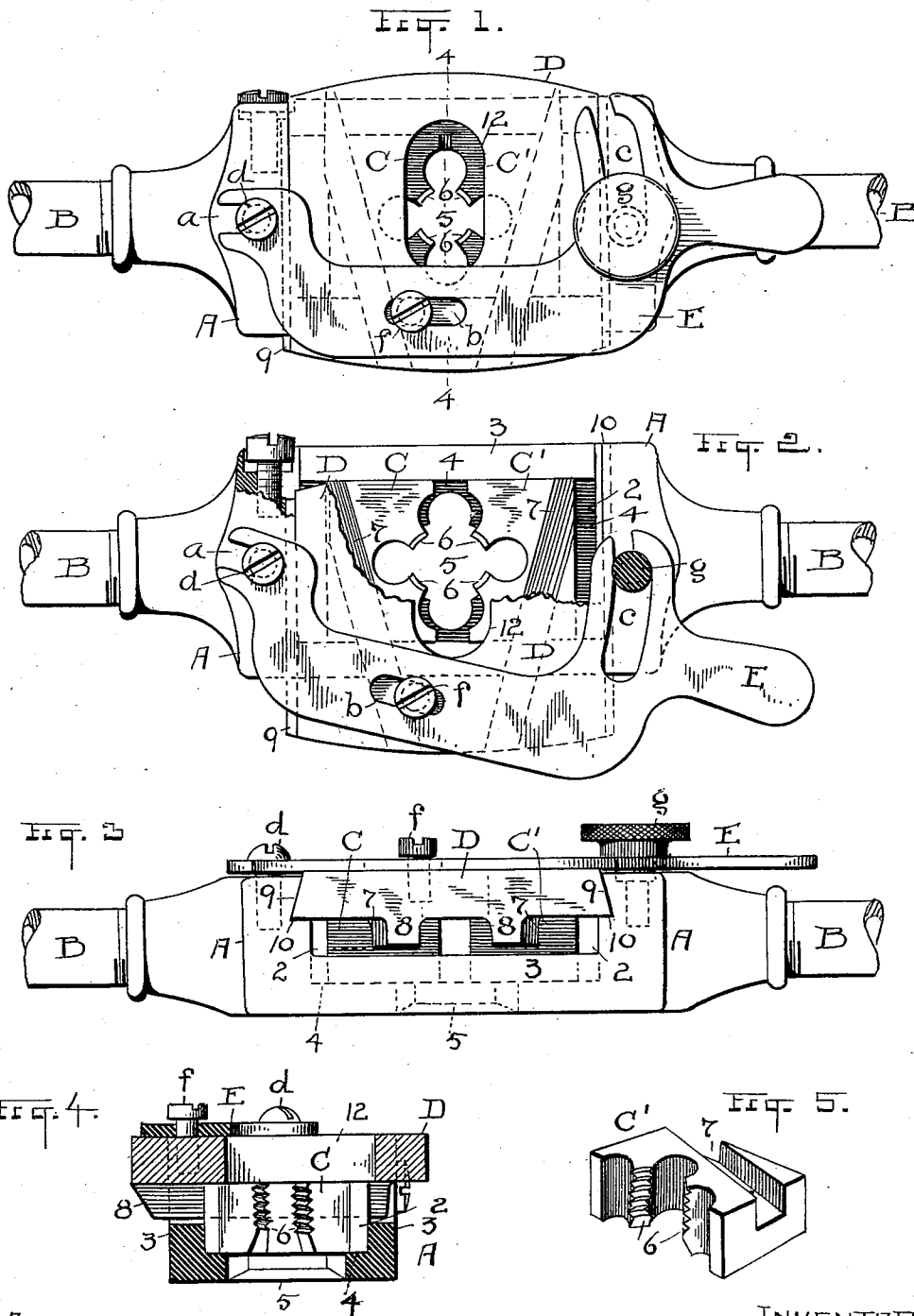
Patented Nov. 7, 1899.

W. H. WILSON.

DIE STOCK.

(Application filed Feb. 20, 1899.)

(No Model.)



ATTEST

H. E. Medora.

INVENTOR
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UNITED STATES PATENT OFFICE.

WILLIAM H. WILSON, OF CLEVELAND, OHIO.

DIE-STOCK.

SPECIFICATION forming part of Letters Patent No. 636,309, dated November 7, 1899.

Application filed February 20, 1899. Serial No. 706,112. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. WILSON, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Die-Stocks; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the art of die-stocks or screw-cutting dies; and the invention consists in the construction, combination, and arrangement of parts, substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of the invention with all the parts in their working relation and the adjusting-lever closed. Fig. 2 is a plan view thereof like unto Fig. 1 with part of the cam-plate broken away and the adjusting-lever at the outer limit of its operative movement. Fig. 3 is a side elevation looking in from the lower edge in Fig. 2. Fig. 4 is a central sectional elevation on line 4 4, Fig. 1. Fig. 5 is a perspective elevation of one of the dies, both being alike, but rights and lefts.

In the views thus shown and described, A represents the body of the stock, which can be constructed at its ends to make either hand or other power connections, and in this instance has internally-threaded extremities for the insertion of handles B. Centrally of the said body A of the stock is a rectangular recess or depression 2, having the depth and width shown by side walls or flanges 3, Fig. 4, and the length substantially as disclosed in Fig. 3. Usually and preferably the said recess is of greater length than width because it gives a better proportion to the tool; but these sizes may be changed without departing from the spirit of the invention. The bottom 4 of said recess is flat and smooth and has a central opening 5 of sufficient size to accommodate the largest size of rod or pipe the tool may be made to receive for threading. It will of course be understood that each size of tool is adapted to cut a number of sizes of screws ranging between the largest and the smallest of its capacity and also that a number of sizes of tool is provided ranging

up to the cutting of pipes of very large dimensions.

The two dies C and C' are constructed to occupy and work in the recess 2 of the stock or body A, and they rest flat upon its bottom and fit closely to its sides 3, yet are loose enough to slide freely in operation. Each die has the usual segmental cutting-threads 6 on its inner edge and straight channels or grooves 7 oblique to their transverse axis, the bottoms of which are shown here as substantially flush with the edges of the side flanges 3 of the stock. The respective channels or grooves 7 run also at an inclination or obliquely to each other and are engaged by the correspondingly-arranged ribs or projections 8 on the bottom of the transversely-slidable actuating and confining member or plate D. This plate is preferably flat at bottom and top and has its ends 9 beveled more or less to run in the undercut bearings 10 in the stock A, the fit being again a close one to avoid false play, but free enough to leave room for lateral adjustment. These end bearings need to be such as to make firm the engagements of the plate D therewith and prevent any appreciable lifting or rising of the plate D in action, because the strain on said plate is mostly upward. Said plate is therefore also of such strength throughout as to withstand all strain at all points and is of somewhat greater width than body A, as here shown. The inner ends of ribs 8 are tapered on their outside to adapt them to work with the straight transverse sides of the stock, as seen in dotted lines, Fig. 1, and between said ribs and centrally of the plate is an oblong opening 12, corresponding to the opening 5 in the bottom or reverse side of the stock.

When plate D is in working position, it is designed to rest flat upon the dies C and C', and as it does this it also stands perceptibly above the level of the top of body A—say somewhat as seen in Fig. 3—so that the operating-lever E when fastened down will serve also in part as means to keep or clamp the said plate down in proper working position. The lever E is plainly seen in outline in Figs. 1 and 2 and has three several slots *a*, *b*, and *c*, engaged by three several screws or pins *d*, *f*, *g* to confine and adjust said lever. Thus screw *d*, engaged in the body A, is a fixed

point of engagement for the lever, f is its confining and fulcrum screw on plate D, and g is an adjusting thumb-screw in A through which the lever is firmly fastened in any desired adjustment. I might use a scale on the plate D or on lever E to indicate degrees of adjustment, if desired, and the relative positions of the dies C and C' are determined by the said lever. Thus in Fig. 1 we have their nearest possible relation, where the lever has been moved inward to the innermost limit of slot c , and in Fig. 2 we have the other extreme, when it has reached the outermost limit of said slot. The screw g has two diameters, as seen in full and dotted lines in Figs. 2 and 3, so that the larger diameter will not pass through the narrowed outer end of slot c , but the smaller portion below will. Ordinarily the lever is intended to be confined and is only removed to change the dies or for some such purpose. By passing it out at slot c the block D and the lever are easily removed and replaced together.

The side walls 3 serve as guide walls or ways for the dies, the same as longitudinal ribs in the bottom of the body or stock would if they engaged like channels in the under side of the dies.

What I claim as new, and desire to secure by Letters Patent, is—

1. The body of the cutter having a central depression and parallel longitudinal guideways for the dies and transverse bearings for the confining-plate at the ends of said guideways, in combination with dies in said depression between said guideways, a transversely-slidable member engaging said dies and said transverse bearings, and means to adjust and lock said slidable member, substantially as described.

2. The body of the cutter constructed with parallel guideways along its sides for the dies, and a set of dies confined by said guideways and having oppositely-inclined transverse channels in their top, in combination with an adjusting member supported in said body and having ribs engaged in said channels, and means to adjustably lock said member in working position, substantially as described.

3. The body part having longitudinal guideways for the dies and transverse confining-bearings for the die-adjusting member, in combination with a set of dies and the said adjusting member, and an adjusting-lever engaging said member, substantially as described.

4. The body of the tool having guides for the dies running in one direction and bearings for the die-confining plate running at right angles thereto, in combination with the dies having transverse inclined channels on top, the confining-plate having ribs on its bottom engaged in said channels, and an adjusting-lever lying across the top of said plate and connected therewith between its ends and with the said body at its ends, substantially as described.

5. The body of the cutter and the dies and plate, and an adjusting-lever for said plate overlapping the same at both ends onto the said body, and screws to temporarily secure the lever to the body and plate, substantially as described.

6. The body of the tool and the two die-sections therein, in combination with a transversely-guided slidable member engaging said dies, and a lever to adjust and lock said member having two points of engagement with the said body and one intermediate thereof with the said slidable member, substantially as described.

7. The body of the tool having transverse guideways on one plane and longitudinal guideways on a lower plane at right angles thereto, in combination with a set of dies seated between the lower guideways and having divergent channels across their top, a plate resting in the said transverse guideways and having ribs on their under sides working in the top channels of the said dies, and an adjusting-lever across the said plate and engaged detachably therewith and with the said body at both ends, substantially as described.

Witness my hand to the foregoing specification this 31st day of January, 1899.

WILLIAM H. WILSON.

Witnesses:

H. T. FISHER,
R. B. MOSER.