H. L. FISHER.

DIE HEAD.

APPLICATION FILED MAR. 21, 1911.

1,157,210. Patented Oct. 19, 1915.

Fig. 1.

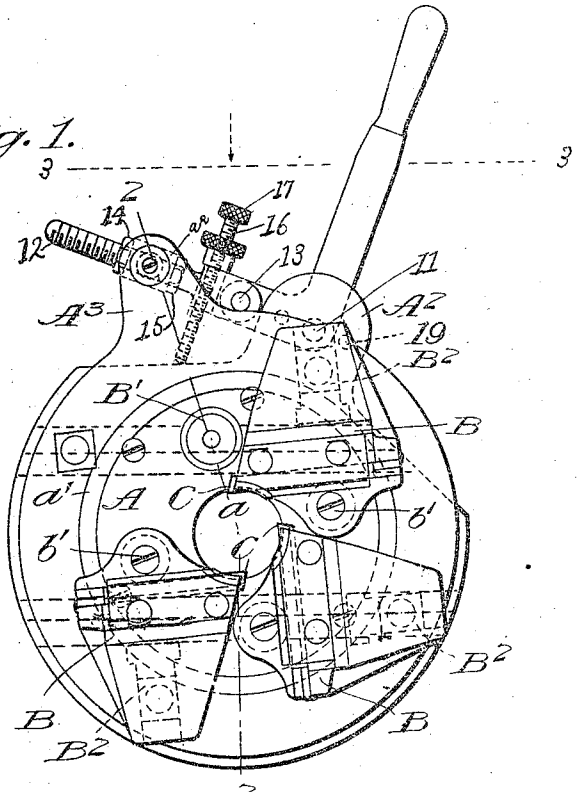


Fig. 2.

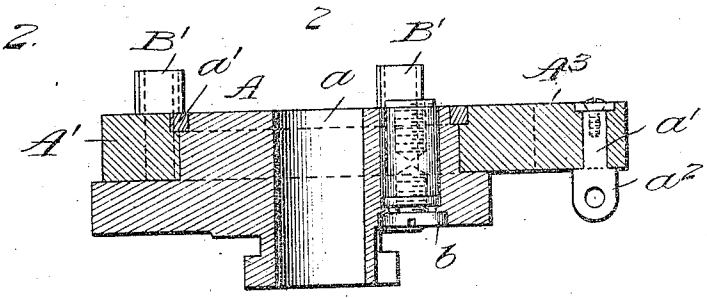
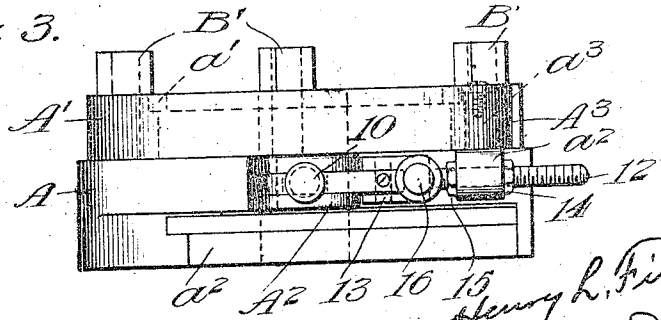


Fig. 3.



Witnesses

T. L. Macpherson

L. A. Price

Inventor

Henry L. Fisher,

By E. W. Bradford

Attorney

UNITED STATES PATENT OFFICE.

HENRY L. FISHER, OF WAYNESBORO, PENNSYLVANIA, ASSIGNOR TO LANDIS MACHINE COMPANY, OF WAYNESBORO, PENNSYLVANIA, A CORPORATION.

DIE-HEAD.

1,157,210. Specification of Letters Patent. Patented Oct. 19, 1915.

Application filed March 21, 1911. Serial No. 615,381.

To all whom it may concern:

Be it known that I, HENRY L. FISHER, a citizen of the United States, residing at Waynesboro, in the county of Franklin and State of Pennsylvania, have invented certain new and useful Improvements in Die-Heads, of which the following is a specification.

My said invention consists in various improvements in the details of construction of die-heads for machines for threading pipe, or other parts wherein it is designed to revolve the work rather than the die-head, whereby such a head is provided which may be opened and closed by hand and the construction of which, while simple in design is yet rigid and very efficient in use, all as will be hereinafter more fully described and claimed.

Referring to the accompanying drawings which are made a part hereof and on which similar reference characters indicate similar parts, Figure 1 is a face view of a die-head of my improved form with one of the forecutters removed, Fig. 2 a central longitudinal section on the dotted line 2—2 in Fig. 1, and Fig. 3 an edge view as seen when looking in the direction indicated by the arrows from the dotted line 3—3 in Fig. 1.

In said drawings the portions marked A represent the body of the head, B the cutter-blocks, or holders, and C the cutters.

The body A is a casting of appropriate form to carry and support the various parts composing the head, being formed with a central aperture a to clear the work in operation. It is also formed with a recess in the front face around its periphery in which is mounted a ring A′, secured in position by a retaining ring a'. Its rear end is formed with a flange a^2 for attachment to the machine and an arm or flange A^2 projects from one side to afford a pivot bearing for the adjusting lever, as will be presently described. It is also formed with perforations located equi-distant around its axis to afford seats for the trunnions of the cutter-holders.

The cutter-blocks B are of appropriate form mounted on trunnions B′ seated in the perforations provided therefor in the body A. Said trunnions are secured in position by flanged screws b inserted from the back side of the body into screw-threaded perforations in the trunnions, the flanges of the screws bearing against appropriate seats in said body. The blocks B are secured to the front end of said trunnions by screws b', being thus adapted to oscillate around the axis of said trunnions. Each cutter-block is formed with a way in its back in which is mounted a sliding block B^2 with a perforation in which a pin b projecting from the adjacent face of ring A′ is adapted to engage. Said ring A′ is formed with a projecting arm A^3 on one side in which a pivot-block a^2 is mounted by a pivot a^2, formed integral therewith and extending through a perforation in said arm A^3.

An adjusting lever 10, in the form of a bell-crank lever, is mounted at its angle on a pivot 11 in the bracket A^2 on the body A. A screw 12 is hinged at 13 to the short side of said lever and extends through a perforation in pivot-block a^2, being adapted to slide freely therein, but held in an adjusted position by nuts 14 and 15 on each side of said pivot-block. A screw 16 is mounted in a transverse perforation in the rear end in the base of screw 12 with its point adapted to rest on a suitable seat provided on ring A′ and thus limit the movement of said lever so that the normal position of pivot 13 will be in line or slightly below the line of pivots 11 and a^2 to secure the die rigid in closed position. A jam nut 17 is mounted on said screw to limit the adjustment.

In operation, it will be seen that by the manipulation of lever 10 through the pivotal connection between ring A′ and blocks B, said blocks may be rocked on their trunnions to open and close the die, as desired. The normal size of the die may be fixed as desired by adjusting nuts 14 and 15, as will be readily understood.

The form shown in Fig. 1 is designed for cutting right-hand threads. If it is desired to change the head for cutting left-hand threads, it can be readily done by substituting left-hand cutter-blocks for the right-hand cutter-blocks, changing the position of lever 10 from that shown in Fig. 1 to the reverse position and turning ring A′ around its seat on body A until the arm A^3 occupies the same relative position on the opposite side of bracket A^2, as shown for the right-hand construction in Fig. 1.

Having thus fully described my said in-

vention, what I claim as new and desire to secure by Letters Patent, is:

In a die-head designed for manual opening and closing the combination of a body, cutter-holders mounted to oscillate in said body, and means for opening and closing the die by hand comprising a ring mounted to rotate on said body and connected to said cutter-holders, a toggle lever fulcrumed on said body and having a screw-threaded part extending through a pivoted block mounted on said ring, nuts on said screw-threaded part for adjusting the length of the connection and regulating the size of the die, and a stop adjustably mounted in a perforation in said lever and adapted to strike on a part of said body and limit the break of said toggle in an inward direction, substantially as set forth.

In witness whereof, I, have hereunto set my hand and seal at Waynesboro, Pennsylvania, this 27th day of February, A. D. nineteen hundred and eleven.

HENRY L. FISHER. [L. S.]

Witnesses:
CHAS. B. CLAYTON,
E. W. BEARD.