

No. 815,146.

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C. E. COLE.
TAP AND DIE HOLDER.
APPLICATION FILED DEC. 12, 1904.

Fig. 1.

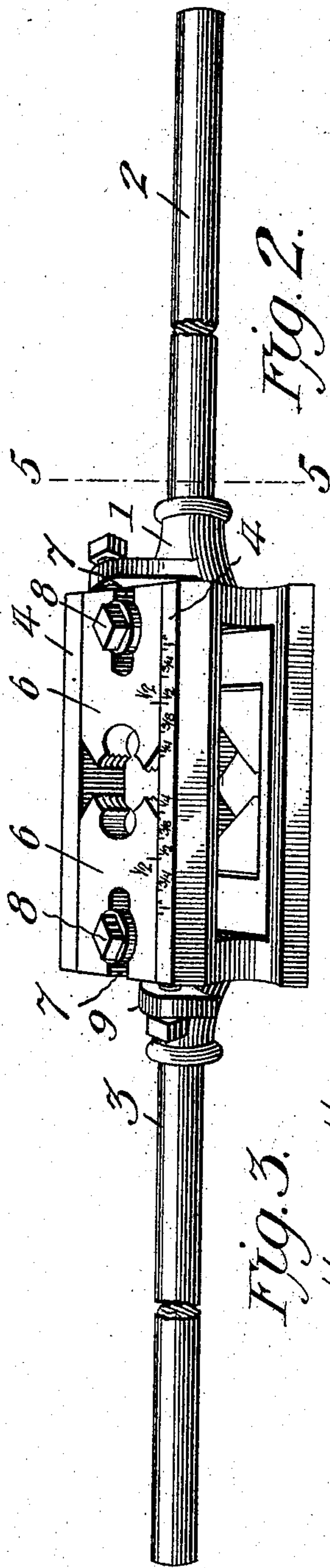


Fig. 2.

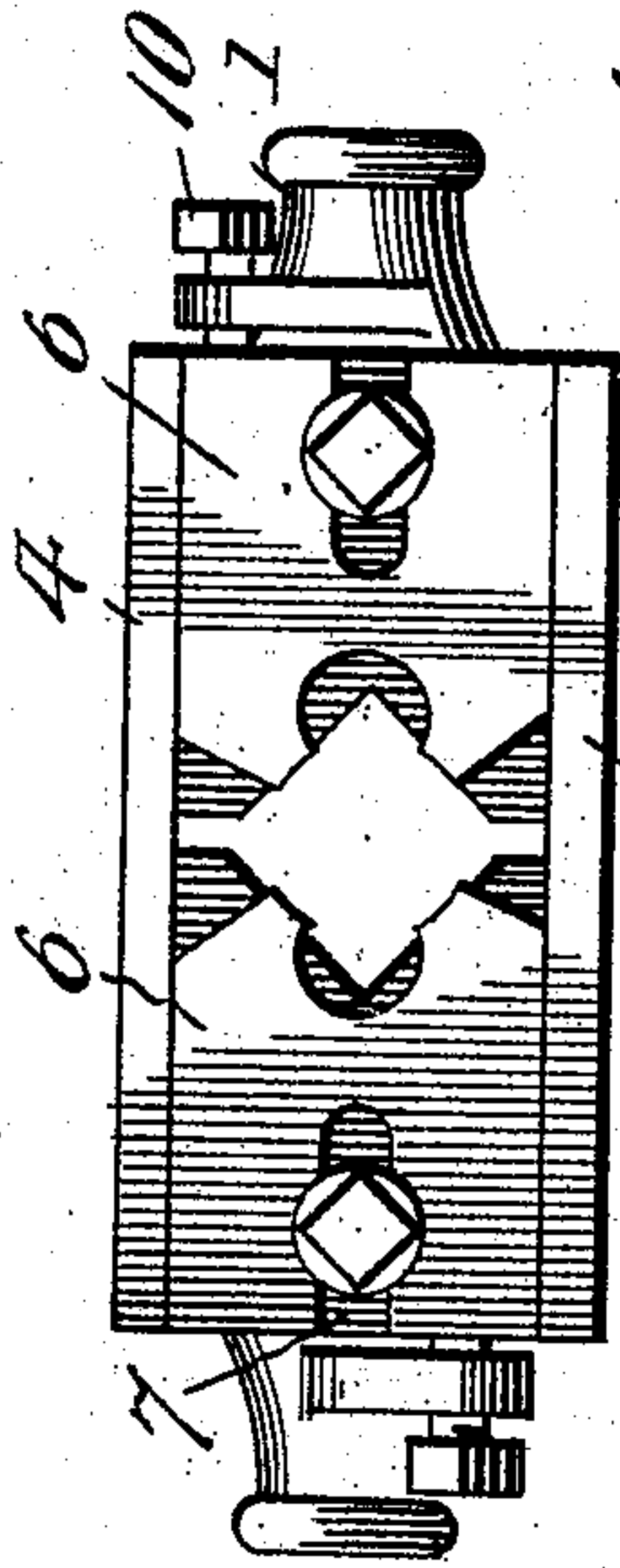


Fig. 3.

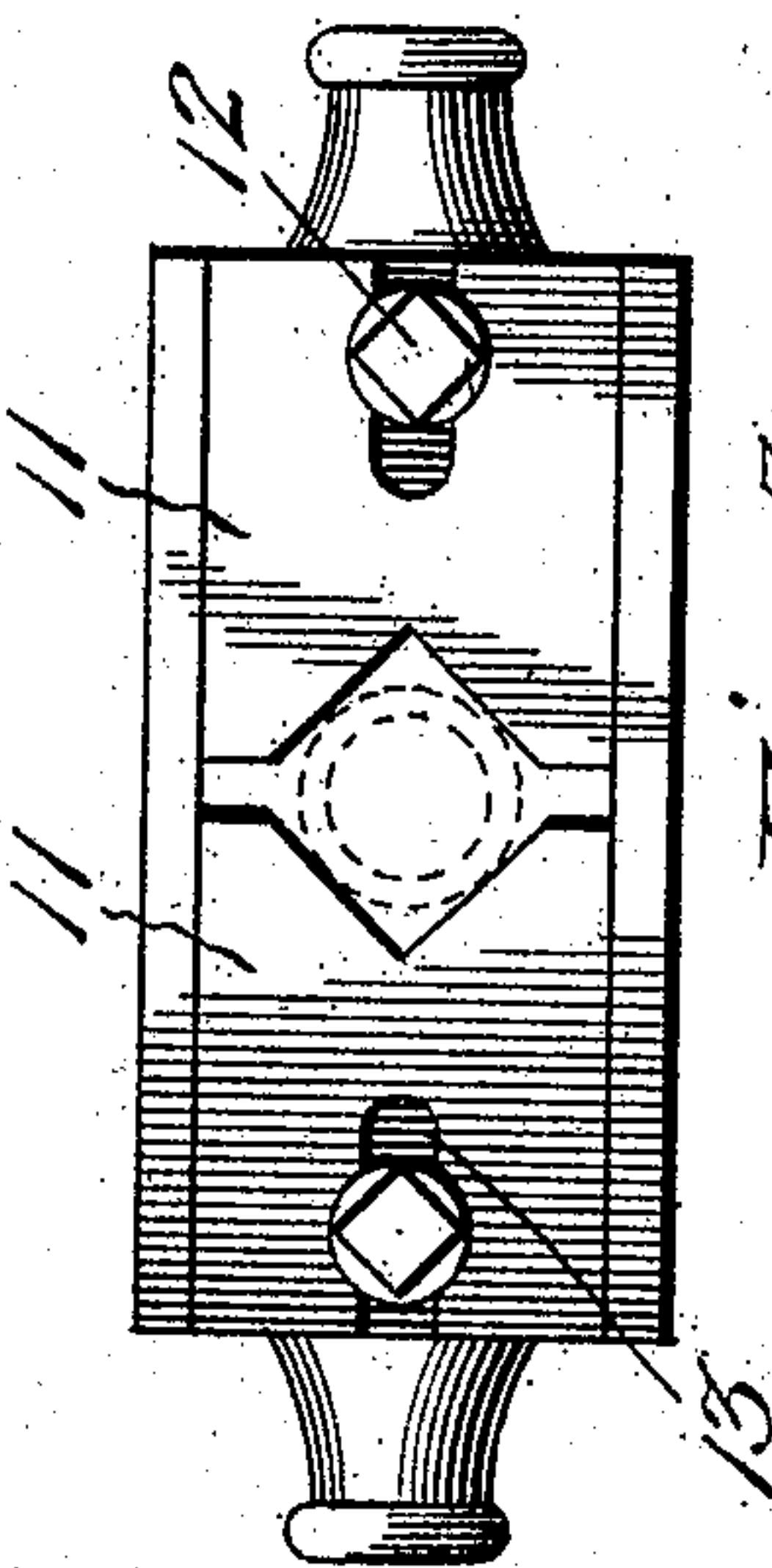


Fig. 5.

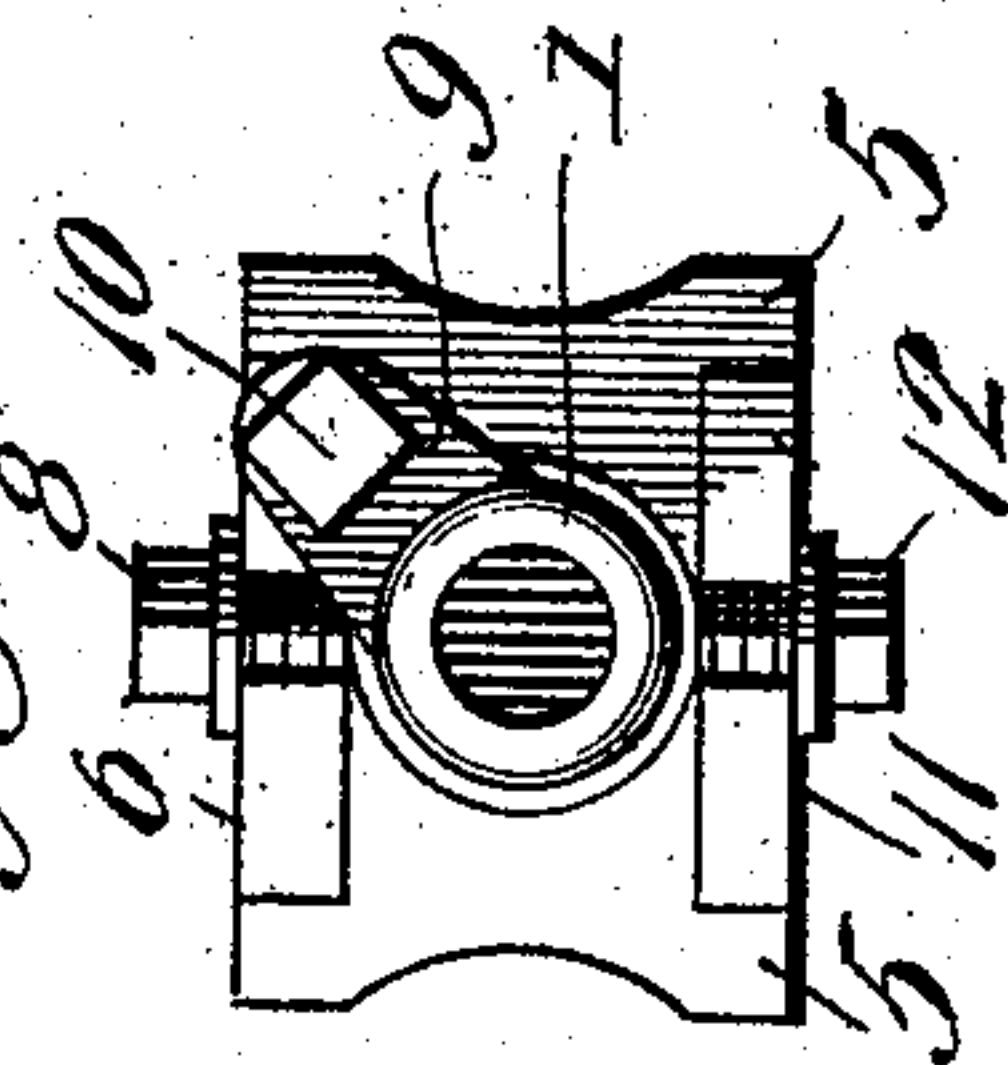


Fig. 4.

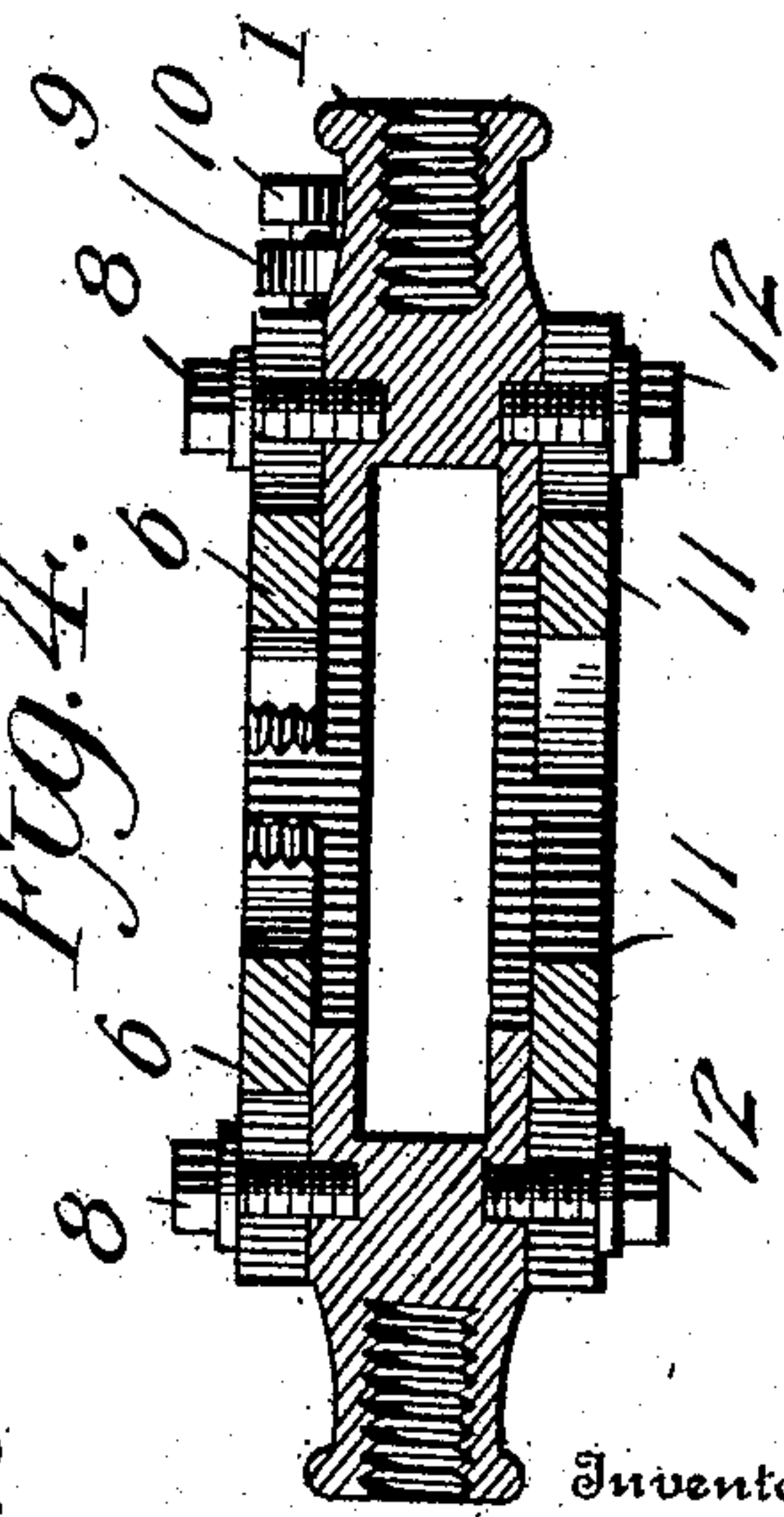


Fig. 6.

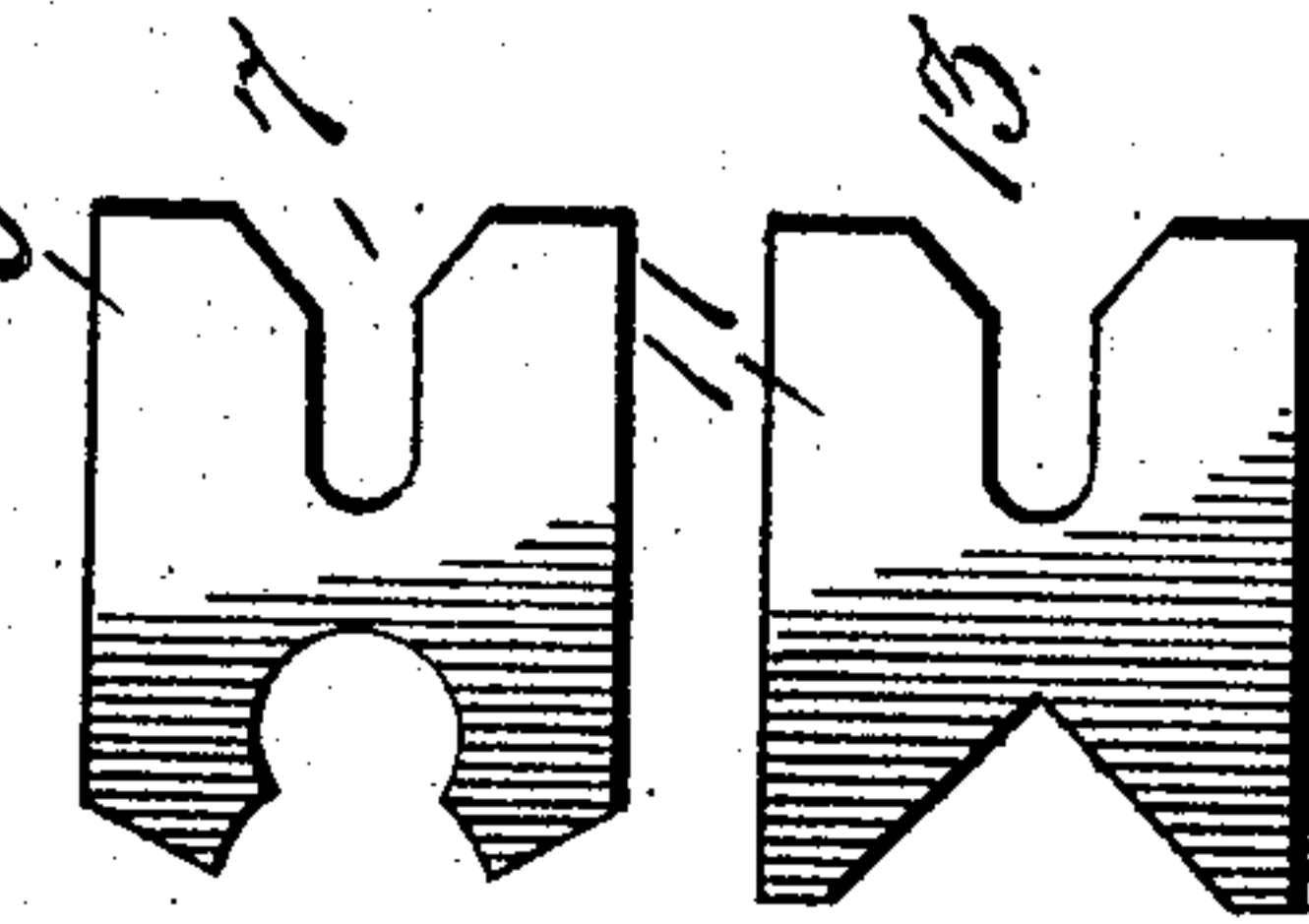


Fig. 7.

Witnesses

Geo. Ackerman
W. H. Clarke

By

Victor J. Evans
Attorney

Inventor
C. E. Cole,

UNITED STATES PATENT OFFICE.

CLIFFORD ELBRIDGE COLE, OF BIRMINGHAM, ALABAMA.

TAP AND DIE HOLDER.

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Specification of Letters Patent.

Patented March 13, 1906.

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To all whom it may concern:

Be it known that I, CLIFFORD ELBRIDGE COLE, a citizen of the United States, residing at Birmingham, in the county of Jefferson and State of Alabama, have invented new and useful Improvements in Tap and Die Holders, of which the following is a specification.

This invention relates to die-stocks.

The principal object of the invention is to facilitate the operation of changing the dies of the stock without the necessity of removing the adjusting-screws by means of which the dies are secured in position upon the stock.

A further object of the invention is to render the bushings of the stock adjustable in such manner that pipes of greatly-varying sizes may be operated upon.

The first object of the invention is attained, preferably, by forming in each of the dies an open-ended slot through which the adjusting-screw by means of which the die is secured upon the stock extends. By forming each of the dies with an open-ended slot it is necessary merely to loosen the adjusting-screw and move the die in a longitudinal direction. The new die is secured in position by fitting its open-ended slot around the adjusting-screw and moving it in a longitudinal direction, after which the adjusting-screw is tightened to clamp the die in position.

The second object of the invention is attained, preferably, by providing each stock with a pair of sliding bushings each formed with an open-ended slot through which extends an adjusting-screw.

In order that the invention may be more clearly understood, one practical embodiment thereof will be described and claimed hereinafter.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of a die-stock having dies and bushings constructed in accordance with the present invention. Fig. 2 is a plan view thereof, showing the improved dies. Fig. 3 is an under plan view showing the improved sliding bushings. Fig. 4 is a vertical longitudinal section. Fig. 5 is a transverse section on the line 5 5, Fig. 1. Fig. 6 is a detail view of an improved die constructed in accordance with the present invention. Fig. 7 is a similar view of an improved sliding bushing.

Like reference-numerals indicate corresponding parts in the different views.

The numeral 1 represents the die-stock, which is provided with removable handles 2 3. The stock 1 is provided on one side with parallel guide-flanges 4 4 and upon its opposite side with similar guide-flanges 5 5, said flanges forming guideways in which the adjustable dies and bushings hereinafter described are adapted to fit. One of the flanges 4 preferably is formed with scale-marks, as usual, in order to provide for the proper longitudinal adjustment of the dies. The improved dies 6 of this invention are each formed, preferably, with an open-ended slot 7, which opens out at the rear end thereof. The adjusting-bolts 8, by means of which the dies are secured upon the stock, extend through the open-ended slots 7, as shown. In order to prevent rearward slipping movement of the dies 6 after they have been adjusted to proper position, an inclined upright, such as 9, is secured to or formed integral upon the stock 1 in rear of each die 6, an adjusting-screw 10 extending through each of said inclined uprights and abutting against the rear end of the adjacent die. It is necessary that each of the uprights 9 be inclined, as shown, in order that the adjusting-screw 10 may not enter the slot 7, and thus fail of its function. From the foregoing description it will be apparent that when it is desired to remove one set of dies 6 and to substitute another set the entire withdrawal of the adjusting-screws 8 is unnecessary. On the contrary, it is necessary only to loosen the adjusting-bolts 8 and to move the dies in a longitudinal direction until the open-ended slots 7 become disengaged from said adjusting-bolts.

In order to adapt the improved stock to fit pipes of greatly-varying sizes, a pair of sliding bushings, such as 11, is secured upon the side of the stock opposite the dies 6 by means of adjusting-bolts 12. Each of the sliding bushings 11 is formed with an open-ended slot 13, by means of which it may be removed readily from the stock, if desired. In moving the improved stock of this invention longitudinally along a pipe the bushings 11 may be adjusted away from each other when it becomes necessary to pass a bur or large joint, after which said bushings may be moved again into their proper position.

Referring to Figs. 6 and 7, it will be observed that the slots 7 and 13 in the dies 6 and bushings 11 may be formed with flared ends, thus adapting said dies and bushings to

be used in connection with different sizes of pipes by merely reversing the dies and bushings.

I am not aware that dies have been constructed with an open-ended slot, by means of which they are adapted not only to be adjusted in a longitudinal direction, but also to be removed readily from the stock without the necessity of removing the adjusting-bolts, the objection to the old form of dies being that they cannot be removed from the stock without the removal of the adjusting-bolts.

Changes in the precise embodiment of invention illustrated and described may be made within the scope of the following claims and without departing from the spirit of the invention or sacrificing any of its advantages.

Having thus described the invention, what is claimed as new is—

1. A die-stock having straight parallel guide-flanges, a die fitted between said guide-

flanges formed with an open-ended slot; said die being freely removable from between said guide-flanges, an adjusting-bolt extending through said slot, and an adjusting-screw arranged to engage the rear end of said die on one side of said open-ended slot. 25

2. A die-stock having parallel guide-flanges, a die fitted between said guide-flanges and formed with an open-ended slot, said die being freely removable from between said flanges, an adjusting-bolt extending through said slot, an inclined upright on said stock, and an adjusting-screw extending through said upright and abutting against the rear end of said die on one side of said slot. 35

In testimony whereof I affix my signature in presence of two witnesses. 40

CLIFFORD ELBRIDGE COLE.

Witnesses:

JOHN P. BRAND,
E. W. FINCH.