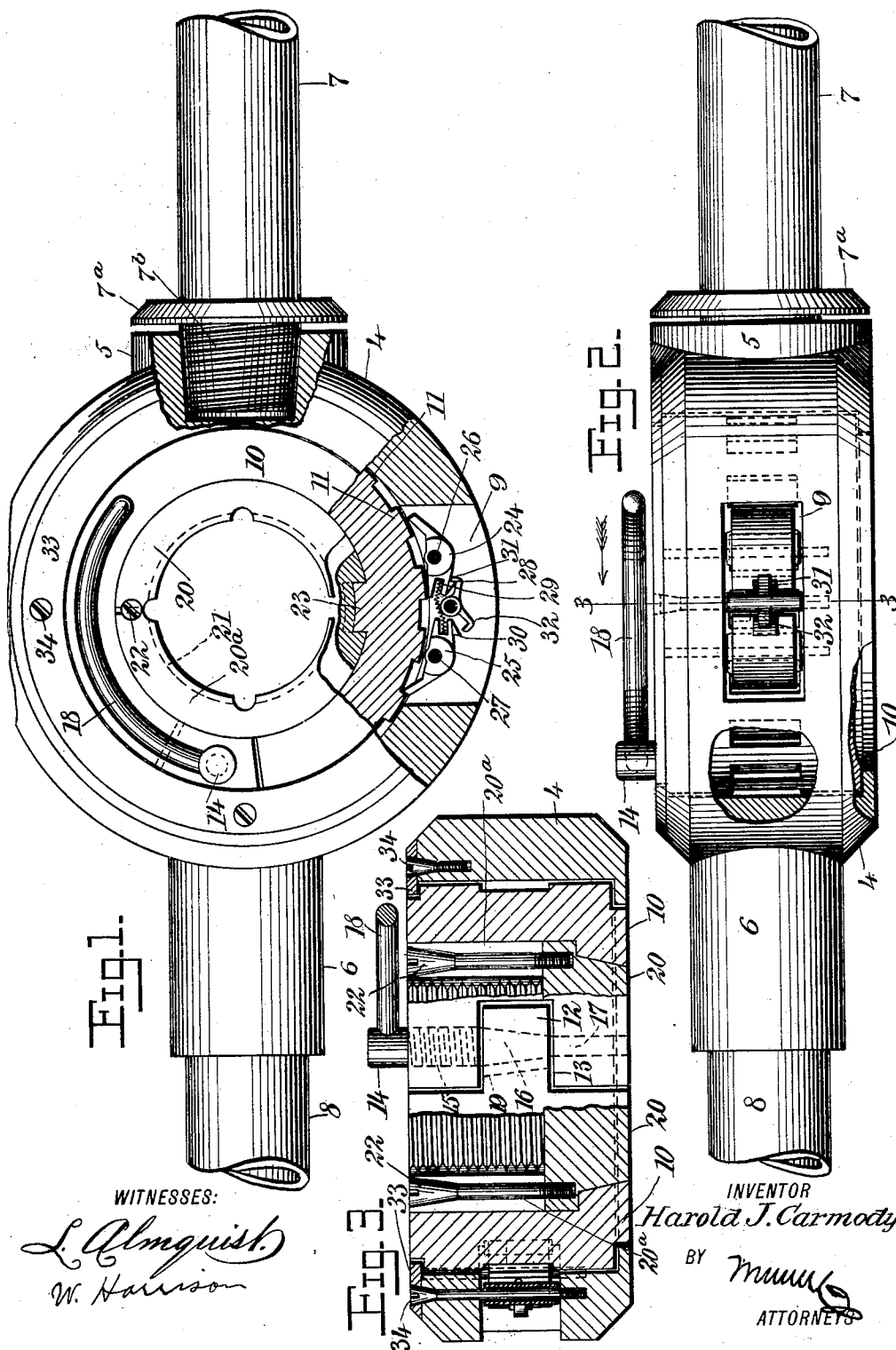


No. 828,191.

PATENTED AUG. 7, 1906.

H. J. CARMODY.
DIE STOCK.

APPLICATION FILED AUG. 10, 1904.



UNITED STATES PATENT OFFICE.

HAROLD J. CARMODY, OF NEW YORK, N. Y.

DIE-STOCK.

No. 828,191.

Specification of Letters Patent.

Patented Aug. 7, 1906.

Application filed August 10, 1904. Serial No. 220,209.

To all whom it may concern:

Be it known that I, HAROLD J. CARMODY, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Die-Stock, of which the following is a full, clear, and exact description.

My invention relates to die-stocks—such, for instance, as are used in cutting threads upon rods, tubes, pipes, &c.—and embodies certain improvements hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my die-stock, partly broken away for the sake of clearness. Fig. 2 is a side elevation of the same, and Fig. 3 is a cross-section upon the line 3 3 of Fig. 2 looking in the direction of the arrow.

An annular frame 4 is provided with sockets 5 6, into which are secured the handles 7 8, these handles being preferably of tubular form and threaded, as shown. The handle 8 is screwed tightly into position and is not intended to be unscrewed. The socket 5 is comparatively short and is fitted by the threaded portion 7^b of the handle 7. This handle 7 is provided with a flange 7^a integral therewith, which is forced against the socket 5 by the thread 7^b and strengthens the union of the handle 7 and socket 5. The frame 4 is provided with a slot 9, in which are placed certain movable parts hereinafter described.

A traveler 10, having substantially the form of a split ring, is provided with rack-teeth 11, preferably of the form shown in Fig. 1. This traveler is provided with a tongue 12 and with a groove 13, the tongue loosely engaging the groove, as indicated more particularly in Fig. 3. A pin 14 is provided with a threaded portion 15, a tapering portion 16, and a comparatively small cylindrical portion 17, as indicated by dotted lines in Fig. 3. Fixedly mounted upon the pin 14 is a handle 18 for rotating the pin, and thereby forcing the tongue into the groove 13. A draw-hole 19 extends through the tongue 12, as indicated by dotted lines in Fig. 3. When the tapered portion 16 of the pin 14 is forced through this draw-hole, it of course pulls the tongue 12 farther into the groove 13, and, vice versa, when the pin 14 is turned in such direction as to partially withdraw the conical

portion 16 from the draw-hole the tongue 12 is free to partially withdraw from the groove. The annular traveler 10 is of such a set as to normally occupy a maximum space, so that its own elasticity causes it to distend to as great an extent as is permitted by the position of the pin 14. The rotation of the handle 18, therefore, in the one direction or the other contracts or expands the annular traveler.

The jaws 20^a are of the usual construction and are provided with threads 21, as is customary. These jaws are secured upon a frame 20 by means of screws 22 in the usual manner. Movement of the jaws 20^a relatively to the traveler 10 is prevented by means of projections 23.

Pawls 24 25 are mounted upon pivots 26 27, as shown more particularly in Fig. 1, and are pressed asunder by means of springs 29. The pawls are respectively provided with lugs 28 30, respectively engaged by hooks 31 or 32, integrally connected, as indicated in Fig. 2. The disposition of these hooks is such that when the hook 31 engages the lug 28 the hook 32 necessarily releases the lug 30, and, vice versa, the engagement of the hook 32 with the lug 30 causes the disengagement of the hook 31 from the lug 29. If desired, however, both hooks may be disengaged from the lugs at will, which is done by pressing down the loose hook—say 32—a short distance, but not far enough to cause its engagement with its corresponding lug.

An annular plate 33 is mounted upon the frame 4, so as to hold the traveler 10 in position, the plate being held in position by means of removable screws 34.

My invention is used as follows: If it be desired to operate with only one handle—as, for instance, in order to thread a pipe located in some comparatively inaccessible position—one of the handles (say the one numbered 8 is removed) and the device is placed in position, the jaws 20 being brought into engagement with the pipe in the usual manner. The proper hook 31 or 32 is then brought into engagement with its appropriate lug 29 or 30, and the handle 7 is caused to reciprocate somewhat after the manner of a ratchet-drill. This causes the traveler 10 to rotate step by step and cuts the thread upon the pipe. If now it be desired to cut a thread upon a cylindrical bar which is more readily accessible, the handle 8 is replaced, and the proper jaws 20 are brought into engagement with the bar.

The hooks 31 32 are now adjusted according to the desired direction of the cut, and both handles are actuated, so as to cut the threads.

If at any stage of the cut it is desired to operate the device backward, so as to remove the jaws from the work, the pawls are reversed by means of the hooks, as above described, and the handle or handles caused to reciprocate, so as to actuate the carrier step by step in the opposite direction.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A die-stock, comprising an annular frame, an annular traveler rotatably mounted within the frame, a connection between the frame and the traveler, cutting-jaws within the traveler, and means whereby to contract the traveler to secure the cutting-jaws in place.

2. In a die-stock, the combination of a revoluble frame provided with a handle and with an annular portion, an annular traveler mounted within said annular portion and adapted to move relatively thereto, means on the annular member for constraining the

traveler to move therewith in one direction and for permitting it to turn relatively to the annular member when said member is moved in the other direction, mechanism for contracting and expanding the annular traveler, a lever for operating said means, and cutting-jaws detachably secured to the traveler.

3. A die-stock, comprising a frame, a traveler comprising a split ring rotatively mounted in the frame, one of the ends of the ring being provided with a tongue having a conical opening therethrough, and the other with a groove for receiving the tongue, one of the sides of the groove being provided with a screw-threaded opening, a pin having a screw-threaded portion for engaging the screw-threaded opening, and a conical portion for engaging the conical opening, and means for manipulating the pin.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HAROLD J. CARMODY.

Witnesses:

F. W. HANAFORD.

JNO. M. RITTER.