

G. G. BROWN.
 THREAD CUTTING DIE.
 APPLICATION FILED JUNE 25, 1910.

984,745.

Patented Feb. 21, 1911.

Fig. 1.

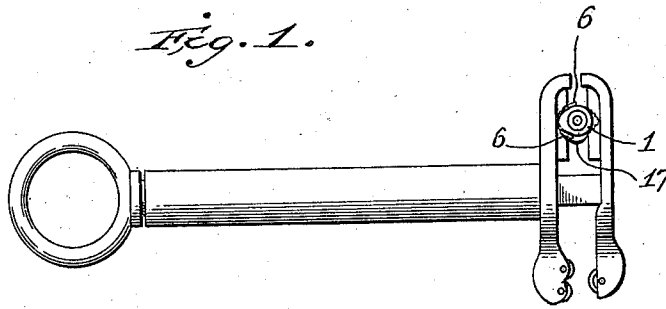


Fig. 2.

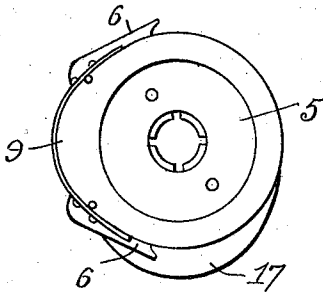


Fig. 3.

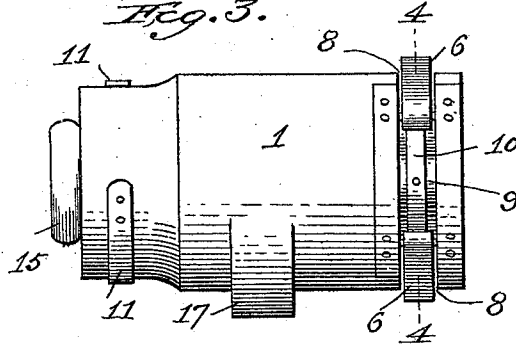


Fig. 4.

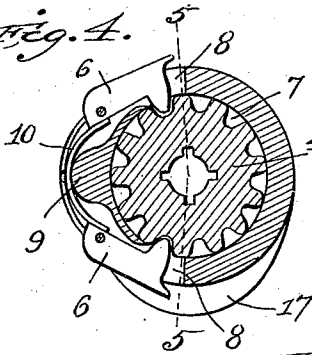


Fig. 5.

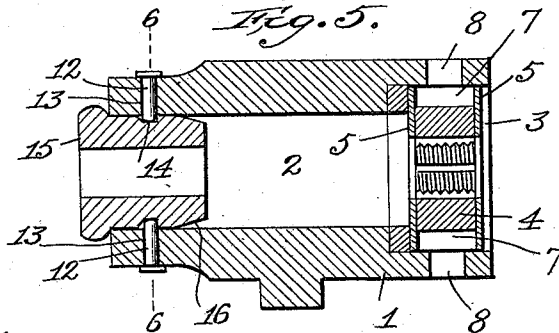
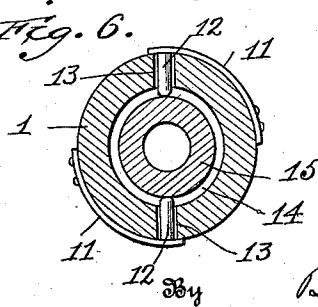


Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

GARY G. BROWN, OF ROSEBURG, OREGON.

THREAD-CUTTING DIE.

984,745.

Specification of Letters Patent.

Patented Feb. 21, 1911.

Application filed June 25, 1910. Serial No. 568,898.

To all whom it may concern:

Be it known that I, GARY G. BROWN, a citizen of the United States, residing at Roseburg, in the county of Douglas and State of Oregon, have invented certain new and useful Improvements in Thread-Cutting Dies, of which the following is a specification.

This invention relates to improvements in thread cutting dies and has for its main object to provide a tool of such character that is adapted to be clamped between the jaws of an ordinary wrench.

Another object is to provide a simple and inexpensive tool that can be operated in either direction, and also to provide means that is spring held for centering the work that is to be operated upon.

These objects are attained by the means illustrated in the accompanying drawings, in which,

Figure 1 is a view of my device located in the jaws of a wrench; Fig. 2 is a front end view thereof; Fig. 3 is a side elevation; Fig. 4 is a cross section on the line 4—4 of Fig. 3; Fig. 5 is a longitudinal section on the line 5—5 of Fig. 4; Fig. 6 is a cross section on the line 6—6 of Fig. 5.

Like numerals of reference designate corresponding parts in all of the figures of the drawings.

Reference now being had to the drawings numeral 1 designates the head or barrel of the tool which has a central bore 2 throughout its length, and at one end said bore is enlarged to form the annular chamber 3. Within this chamber is adapted to be positioned a thread cutter or die 4, said die being formed with apertured disks 5 between which is secured the die proper. The die is held in its position in the chamber 3 by the pawls 6, it being understood that either one of said pawls can be in operative position when it is desired to rotate the die in one direction or the other, or both pawls can engage the die when it is desired to continually turn the die with its stock. The die proper is provided with the peripheral teeth 7 with which the pawl is engaged, and said pawls when in engagement with the die is between the disks 5 thereby preventing the displacement of the die from the head.

The pawls 6 are pivoted to one side of the head which is extended beyond the concentric lines of said head, and recesses 8 are pro-

vided through the walls of the head, through which the teeth of the pawls engage the die. The head is provided adjacent the pawls with an enlargement 9, upon which is secured a spring 10, whose ends extend to each side of the enlargement and engage the rear ends of the pawls, whereby the pawls are spring held whether in a locked or unlocked position. Upon the other end of the barrel or head are secured the springs 11, which are provided with radial pins 12, which extend and operate through apertures 13 formed in the walls of the head. The ends of these pins are adapted to engage an annular groove 14, in a centering plug 15, which is inserted in that end of the head. The centering plug is formed with a central aperture and is provided at its inner end with an inclined surface 16 for the purpose herein-after set forth.

The head is formed centrally between its ends with a depending lug 17, which extends around one side of said head and merges into its opposite sides, this lug forming together with the head in cross section an elongated shape.

In operation the device is positioned between the jaws of a wrench at the central point where the lug occurs, so that, when secured in position the same is held from rotating in the jaws of the wrench.

As before stated the pawls can be used singularly or together, depending upon which direction it is wished to turn the tool. The pawls acting as ratchets whereby a portion of a revolution is only required to operate the tool.

It is obvious that a set of dies can be provided of different sizes, also corresponding centering plugs, and the same are interchangeable in the tool head, it being necessary only to throw the pawls backward to remove the die, and to remove the centering plug it is only necessary to release the pins 12 from the annular groove of said plug. The inclined end of said plug facilitates the insertion of the plug without manipulating the spring fingers by hand.

Having thus fully described my invention what I claim and desire to secure by Letters Patent is:—

1. A tool of the character described, comprising a head centrally bored and provided with an enlarged annular chamber at one end, a die provided with flanges at each side

and teeth between the flanges, and spring held pawls adapted to engage said teeth and hold the die in its operative position.

2. A tool of the character described, comprising a head provided with a central bore and an enlarged annular chamber at one end, a die provided with flanges and having peripheral teeth between the flanges, and means for holding the die in operative posi-

tion, said means adapted to allow of a ratch- 10
eted movement of said die.

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

GARY G. BROWN.

Witnesses:

C. L. HAMILTON,
JOHN ALEXANDER.