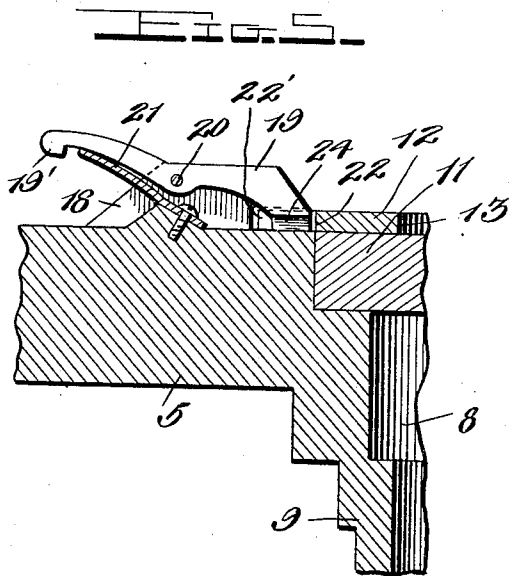
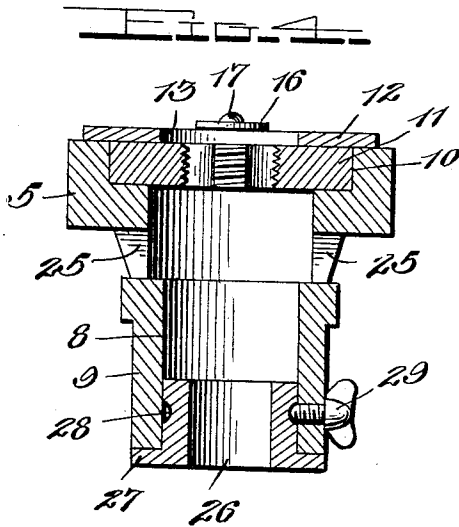
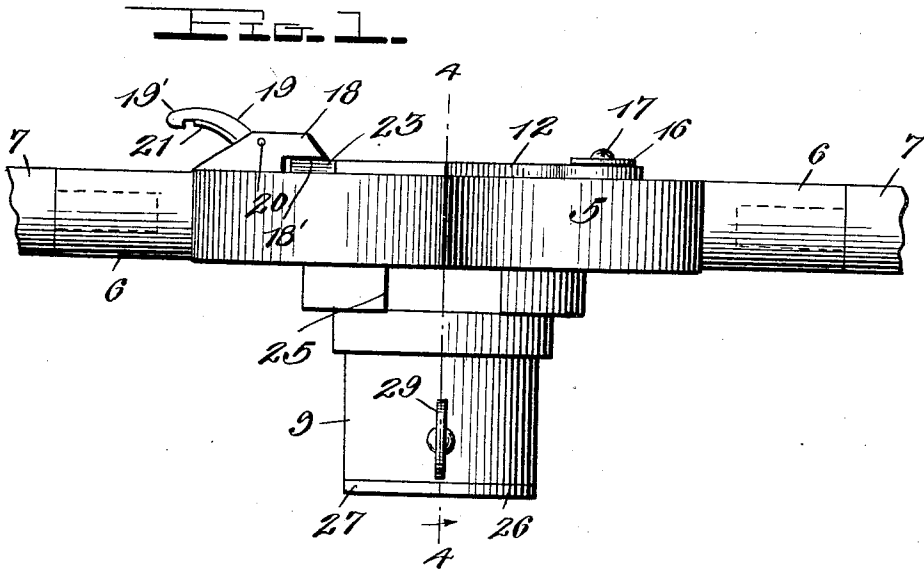


C. BERGRUD.
 THREADING DIE STOCK.
 APPLICATION FILED DEC. 26, 1911.

1,054,084.

Patented Feb. 25, 1913.

2 SHEETS—SHEET 1.



Inventor

C. Bergrud,

Witnesses
 Chas. L. Gristauer.
 G. B. Norton.

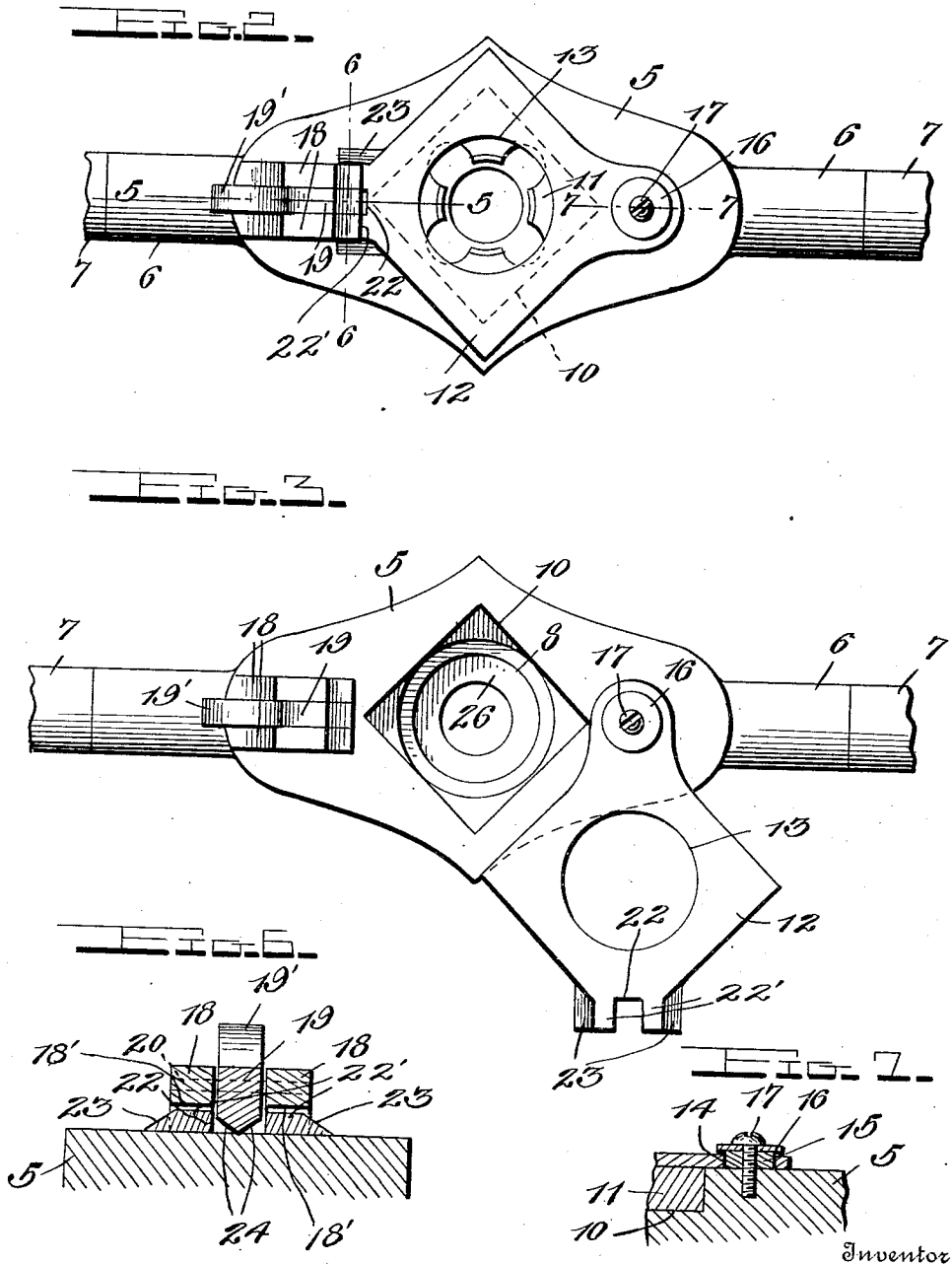
By

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 Attorney

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UNITED STATES PATENT OFFICE.

CARL BERGRUD, OF KINISTINO, SASKATCHEWAN, CANADA.

THREADING DIE-STOCK.

1,054,084.

Specification of Letters Patent.

Patented Feb. 25, 1913.

Application filed December 26, 1911. Serial No. 667,637.

To all whom it may concern:

Be it known that I, CARL BERGRUD, a subject of the King of England, residing at Kinistino, in the Province of Saskatchewan and Dominion of Canada, have invented certain new and useful Improvements in Threading Die-Stocks, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to threading die stocks of that character employed for cutting threads on cylindrical pipes around which the stock is adapted to be rotated, and has for its primary object to provide
15 simple and efficient means for removably holding the thread cutting dies in the stock.

A more specific object of the invention is to provide a movable retaining plate for the die pivotally mounted at one end upon
20 the stock and movable over the die receiving recess therein, and locking means for said retaining plate mounted on the stock and co-acting with the free end of said plate to securely hold the same in its effective
25 position and at the same time permit of its easy and quick sliding movement so that the cutting dies may be removed.

Still another object of the invention resides in the provision of a device of the
30 above character which is strong, and durable in construction, may be manufactured at comparatively small cost and will efficiently perform the function for which the same is devised.

35 With the above and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—
40

Figure 1 is a side elevation of a die stock embodying my improvements; Fig. 2 is a top plan view thereof; Fig. 3 is a similar view showing the die retaining plate in its ineffective position; Fig. 4 is a section taken on the line 4—4 of Fig. 1; Fig. 5 is a detail section taken on the line 5—5 of Fig. 2; Fig. 6 is a detail section taken on the line 6—6 of Fig. 2; and Fig. 7 is a section taken
50 on the line 7—7 of Fig. 2.

Referring in detail to the drawings 5 designates the body of the stock in which the laterally extending tubular arms 6 are threaded. These arms are adapted to receive the ends of suitable handles 7 whereby
55 the stock may be rotated around the pipe to

be threaded. The body of the die stock is provided with a circular opening 8 and a tubular extension 9 formed on the stock body extends from one side of said circular opening. Upon the opposite side of the body of the stock the same is provided with a rectangular recess 10 in which the thread cutting die indicated at 11 is disposed.

In order to retain the cutting die in position in the recess 10 during the threading operation, I provide the plate 12 which is formed with a central opening 13 for the reception of the pipe. One end of this retaining plate is also provided with an opening 14 to receive a bushing 15 which is of slightly greater thickness than the retaining plate. A washer 16 is arranged over this bushing and through a central aperture in said washer and a coinciding opening in the bushing, the fastening screw 17 is disposed, said screw having threaded engagement in the body of the stock. In this manner it will be seen that the retaining plate has free pivotal movement upon the bushing so that there is no danger of the screw 17 working loose in the movement of said plate. Upon the stock body and on the opposite side of the die receiving recess therein, the spaced ears 18 are formed. A locking dog 19 is pivotally mounted upon the pin 20 which is fixed at its ends in said ears. A leaf spring 21 is secured at one end to the body of the stock and engages at its free end against the under side of a finger extension 19' which is formed upon the locking dog 19. This spring normally acts to hold the inner end of the locking dog in a notch or recess 22 which is provided in the end of the retaining plate 12.

The retaining plate is provided with the beveled or inclined edge portions 23 which are adapted to co-act with correspondingly inclined or beveled faces 24 on the locking dog 19 so that when the retaining plate is moved from its ineffective position shown in Fig. 3 to the position shown in Fig. 2, the engagement of one of the beveled edges 23 on said plate with one of the beveled faces 24 of the locking dog forces said dog outwardly against the tension of the holding spring 21. It will thus be seen that it is not necessary to press upon the end of the locking dog to permit of the movement of the retaining plate into position over the thread cutting die.

It is to be particularly noted that the ears

18 are under cut at one side, as indicated at 18', and receive and overlap the lugs 22' which define the sides of the notch or recess 22, whereby when the retaining plate 12 is in closed position over the recess 10, said ears will prevent any upward movement of the latch plate away from the surface of the die stock or body member, thereby relieving the pivotal connection of said latch plate of all strain and relieving the pivoted latch member 19 of any function except to prevent the laterally swinging movement of the latch plate.

The tubular extension 9 is provided with openings 25 at diametrically opposite points and at its point of connection to the body of the stock. These openings permit the metal cuttings or shavings to fall from the interior of the die stock so that they will not clog the teeth of the cutting die and interfere with its free movement upon the periphery of the pipe. Said openings also afford greater convenience in the oiling of the die.

A guide sleeve 26 for the pipe is removably secured in the tubular extension 9 of the stock body and is provided with a flange 27 on one end to closely engage against the end of said extension. This sleeve is provided with a circumferential groove or channel 28 to receive the end of a thumb screw 29 which is threaded in the wall of the extension 9 and is adapted to bind against said sleeve to rigidly fix the same in position.

From the foregoing it is believed that the construction and operation of my improved die stock will be fully understood.

I am aware of the fact that pivotally mounted retaining plates for the cutting die have previously been employed, but these plates are usually provided with a slot to embrace the shank of a set screw, said screw being adjusted into binding engagement upon the plate to hold the same against movement on the body of the stock, such devices have been unsatisfactory because the set screw soon works loose in the operation of the device thereby permitting of the movement of the retaining plate so that the die moves out of the recess in the stock. By means of my improved locking device for

the movable die holding plate, said plate is absolutely locked in its effective position over the die receiving recess so that all liability of any movement of said plate whereby the die might be released in the operation of the tool is entirely eliminated. As explained in the foregoing the retaining plate may also be easily and quickly swung upon the body of the stock to its effective or ineffective position so that the dies may be readily removed from the stock when it is necessary to replace the same by others of different forms. The device is also extremely strong and durable in construction and owing to the fact that but comparatively few elements are employed, the invention may be produced at small cost.

While I have shown and described the preferred construction and arrangement of the various parts, it will be understood that the device is susceptible of many minor modifications without departing from the essential feature or sacrificing any of the advantages thereof.

Having thus described the invention what is claimed is:—

A die stock, including a body member, a latch plate pivotally secured at one end thereto, said plate being provided at its other end with an extension having a recess formed therein and lugs defining the sides of said recess, the body member being formed with laterally spaced ears under cut at one end, and a locking dog pivotally mounted between said ears, the under cut portions of the ears being designed to receive the lugs which define the sides of the recess in the extension of the latch plate in the closed position of the latter and the under cut portions of the ears being adapted to overlap said lugs, whereby the locking dog will prevent any lateral movement of the latch plate and the ears will prevent any movement of said latch plate away from the face of the body member, as and for the purpose set forth.

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

CARL BERGRUD.

Witnesses:

R. I. HUMPHREY,
O. W. SUNDIN.