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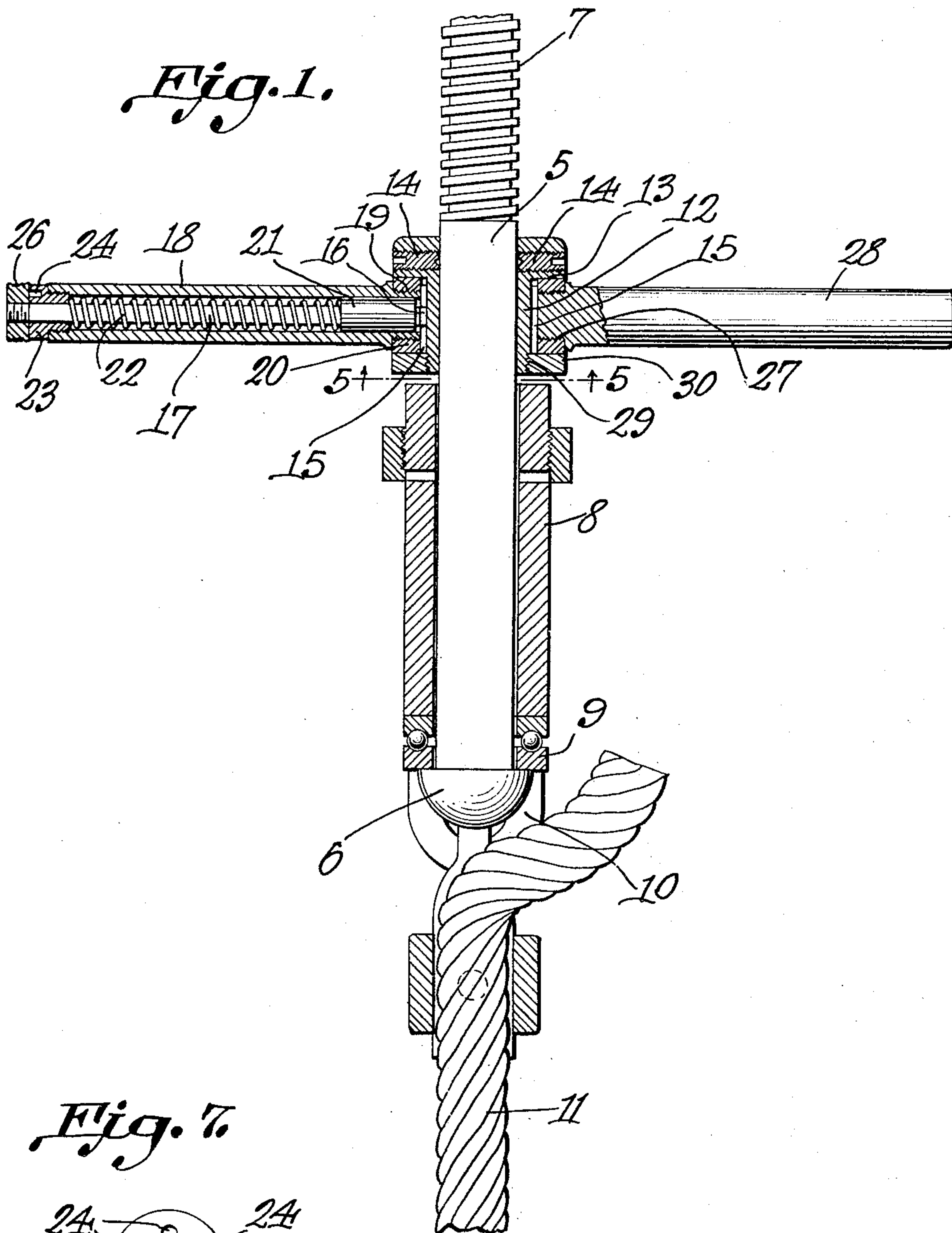
M. MYERS ET AL

1,897,854

TEMPER SCREW HANDLE BAR

Filed April 17, 1929

2 Sheets-Sheet 1



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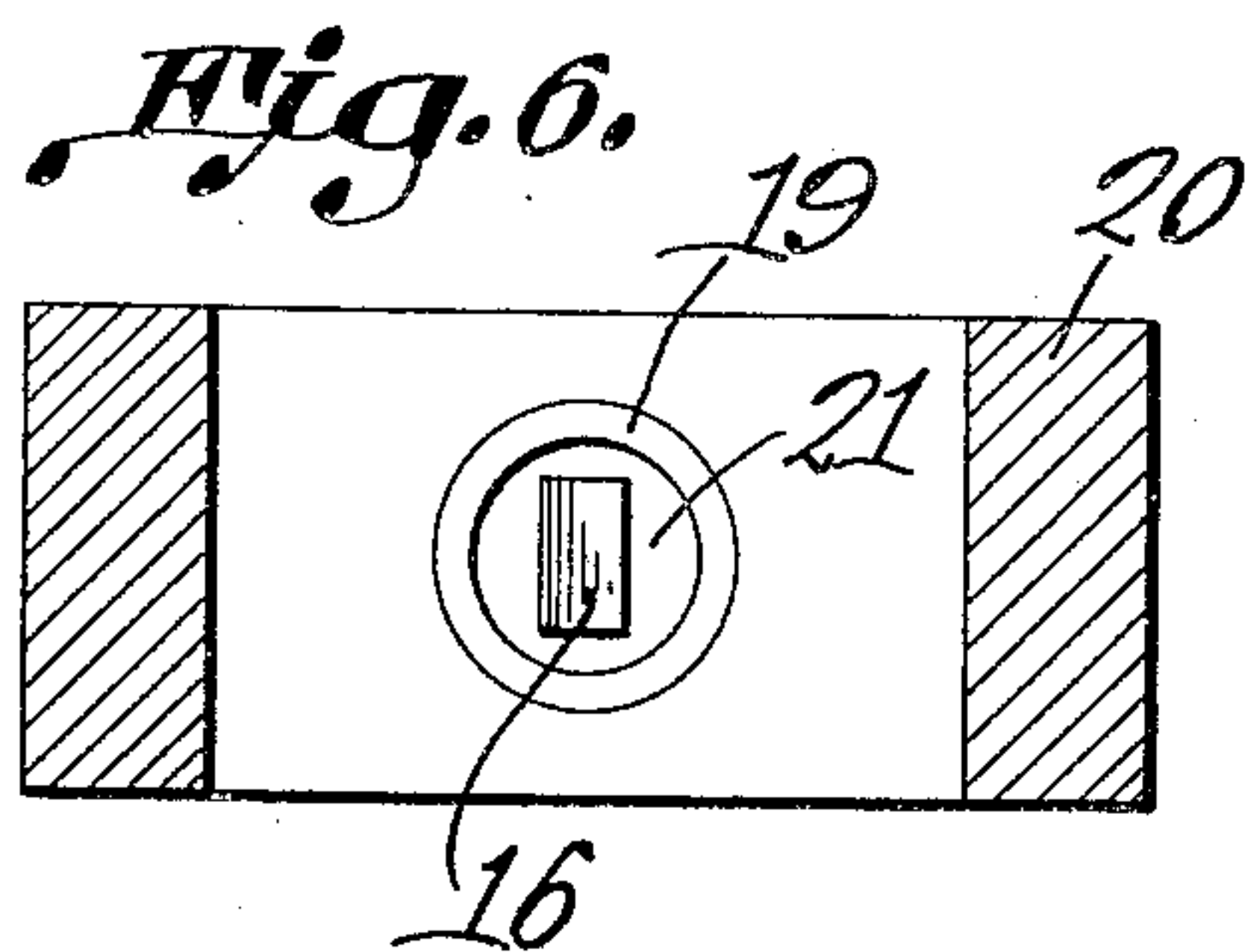
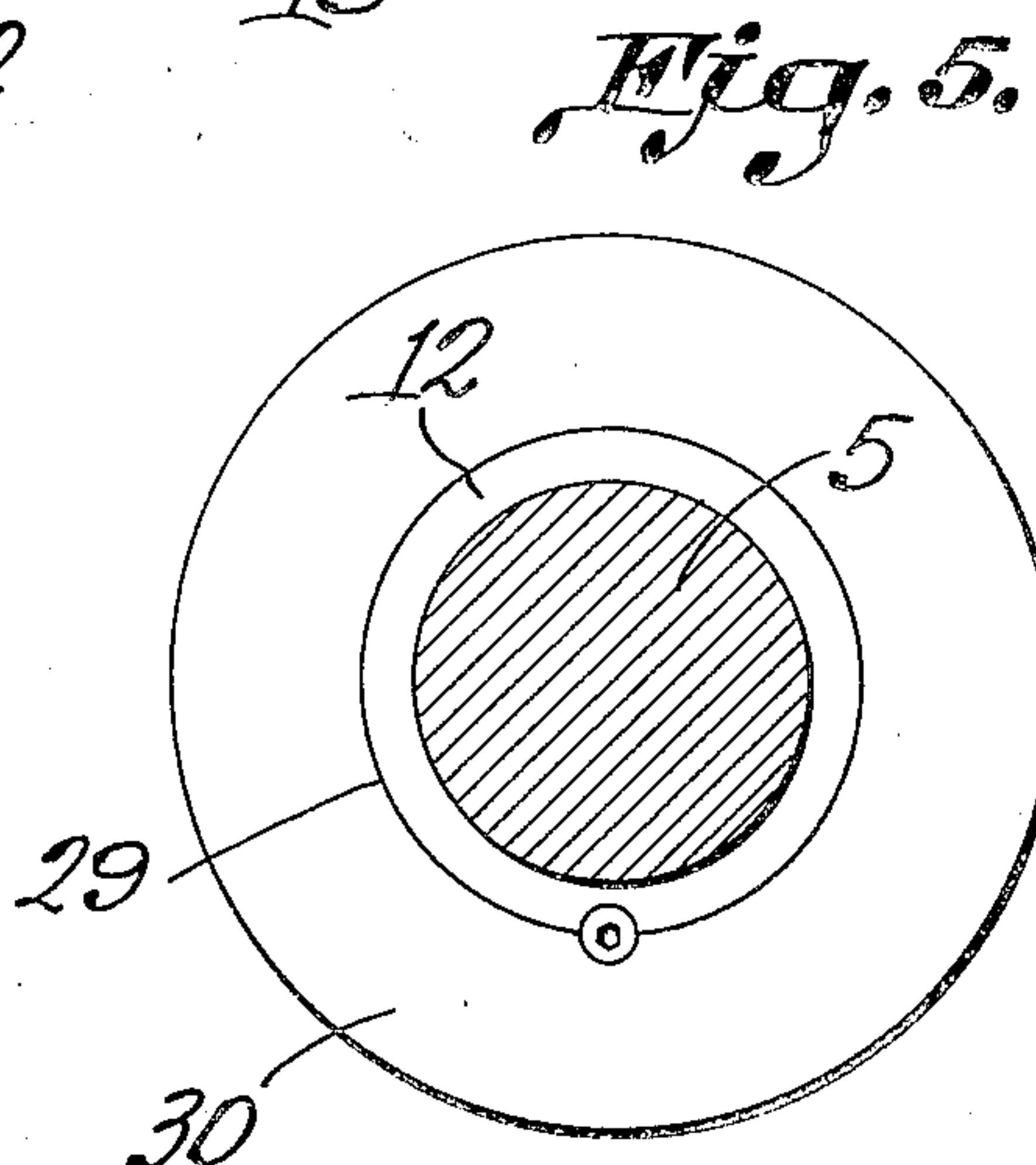
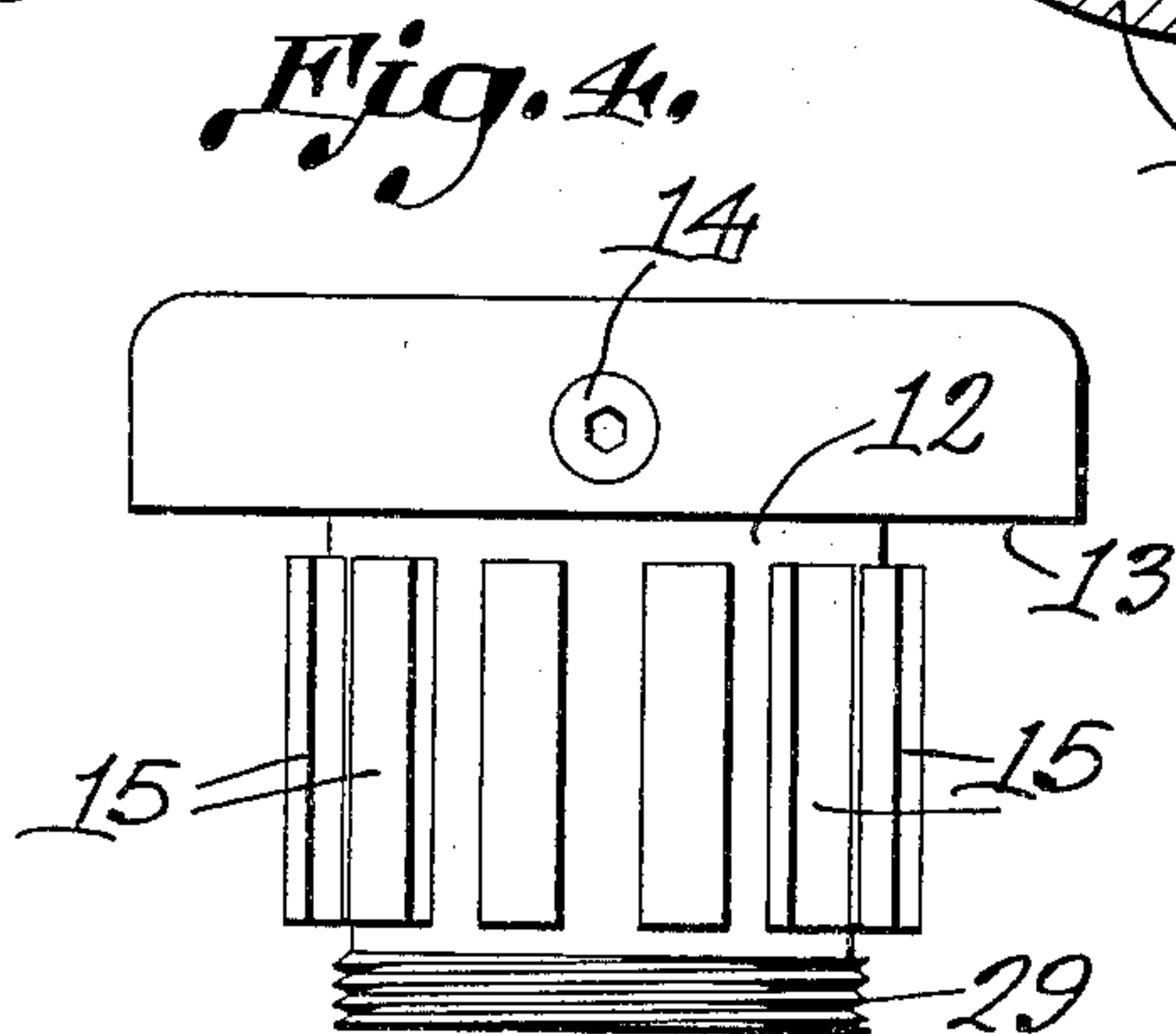
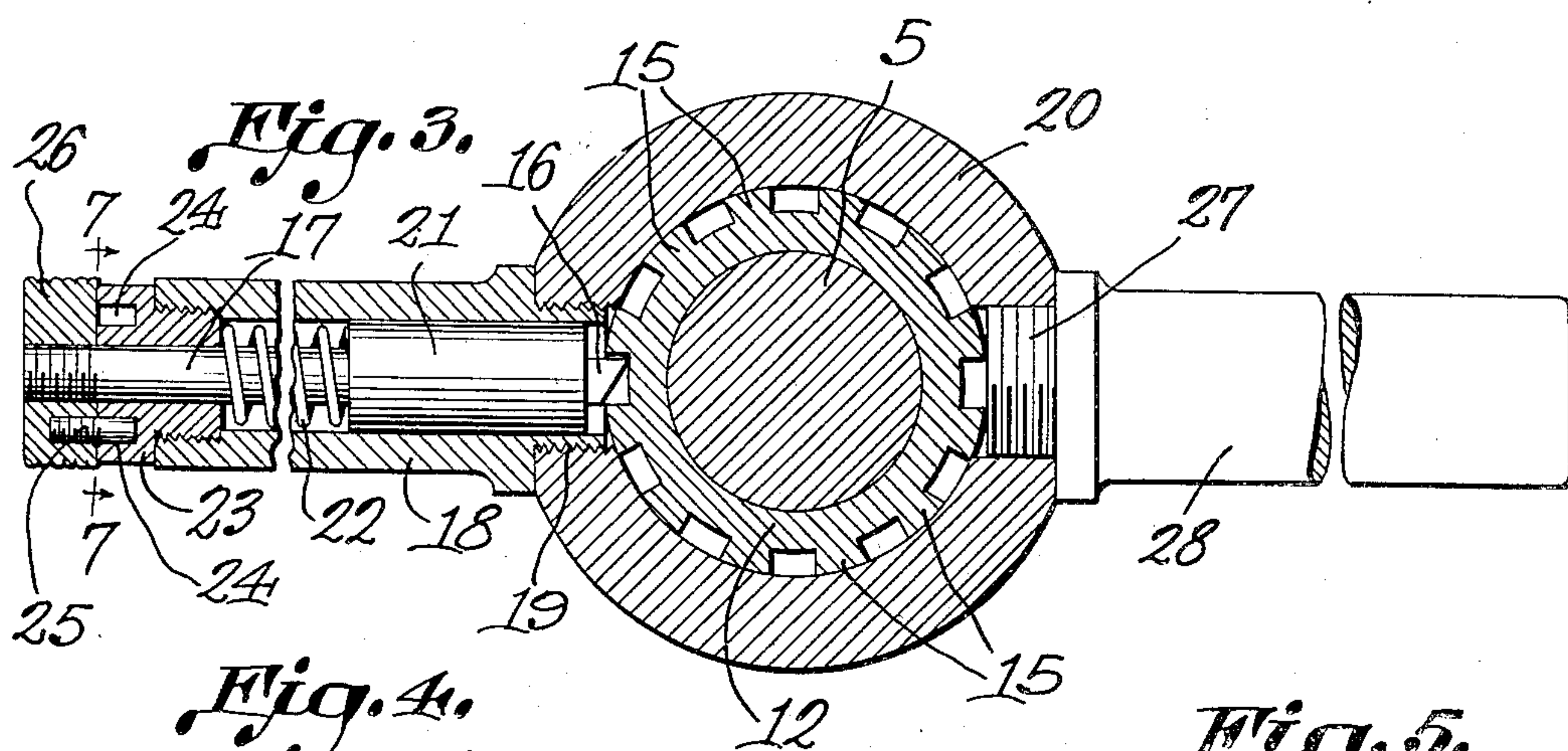
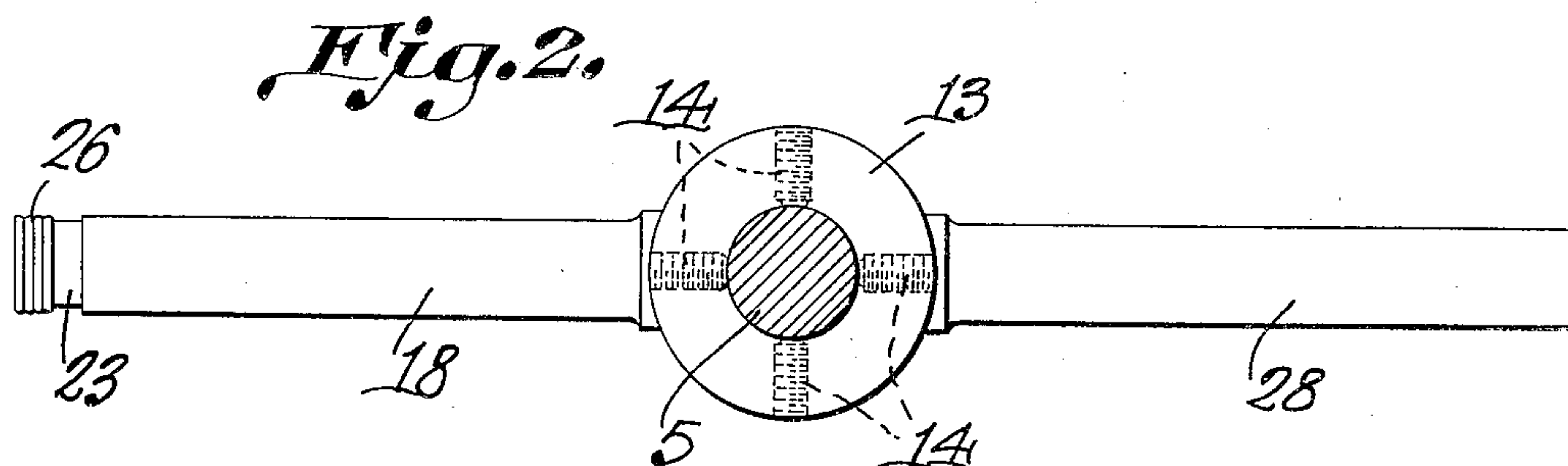
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2 Sheets-Sheet 2



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## UNITED STATES PATENT OFFICE

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## TEMPER-SCREW HANDLE BAR

Application filed April 17, 1929. Serial No. 355,822.

This invention relates to well drilling devices, the primary object of the invention being to provide a handle bar or operating bar for the temper-screw of the device, the handle bar being of a construction to remain stationary in the event of the "running away" of the temper-screw, thereby insuring against injury to the operator.

An important object of the invention is to provide a device of this character which may be secured to temper-screws now in use, the construction being such as to eliminate the necessity of making alterations in the temper-screw to apply the handle bar.

A further object of the invention is the provision of a handle bar of the ratchet type which may be readily and easily adjusted for operation in a clockwise or anti-clockwise direction.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawings:

Figure 1 is a longitudinal sectional view through a temper-screw assembly of a well drill.

Figure 2 is a sectional view through the temper-screw showing the handle bar forming the essence of the invention, in elevation.

Figure 3 is a transverse sectional view through the handle bar.

Figure 4 is an elevational view of the body portion of the handle bar.

Figure 5 is a sectional view taken on line 5—5 of Figure 1, the handles having been removed.

Figure 6 is a sectional view through the rotary member of the ratchet bar.

Figure 7 is a sectional view taken on line 7—7 of Figure 3.

Referring to the drawings in detail, the

reference character 5 designates the temper-screw of a well drilling apparatus and is provided with a head 6 at the lower end thereof.

The opposite end of the temper-screw is threaded as at 7 so that the screw may be operated to raise or lower the drill bit forming a part of the drilling apparatus.

The reference character 8 designates the body portion of the clamp through which the temper-screw extends, the head of the temper-screw supporting the ball bearing race 9 on which the body portion 8 rests providing a swivel connection between the temper screw and clamp.

The clamp includes clamping members 10 that clamp the drill rope 11, in the usual and well known manner. As clearly shown by Figure 1 of the drawings, the handle bar comprises a body portion 12 which fits over the temper-screw, the body portion having an enlargement at its upper end defining a shoulder 13. Bores are formed in the enlargement 13, which bores are threaded to receive the securing screws 14 that bite into the temper-screw 5 to secure the body portion and ratchet bar to the temper-screw.

Longitudinal teeth 15 are formed on the reduced portion of the body portion 12 of the device and are adapted to be engaged by the tooth 16 formed at the inner end of the rod 17, which rod extends through the hollow handle 18 that it provided with a threaded extension 19 fitted into a threaded opening of the supporting ring 20.

This rod 17 is provided with an enlargement 21 that is of a diameter equal to the inner diameter of the hollow handle 18 so that the rod 17 is guided in its movements through the hollow handle 18.

Surrounding the rod 17 is a coiled spring 22 that has one end thereof engaging one end of the enlargement 21, the opposite end of the spring abutting against one end of the screw plug 23, so that the rod 17 is normally forced inwardly to cause the tooth 16 to engage with a tooth of the body portion 12.

Openings 24 are formed in the plug 23 and are adapted to receive the pin 25 carried by the finger piece 26 that is secured to the



outer end of the rod 17 so that by pulling the finger piece 26, the rod 17 may be moved against the tension of the spring 22 to disengage the tooth 16 and tooth 15 with which it has been in contact. The finger piece 26 may now be rotated to reverse the tooth 16 so that the ratchet will operate in the opposite direction, should it be desired to rotate the temper-screw in the opposite direction.

10 The supporting ring 20 is also provided with a threaded opening to receive the threaded extension 27 of the handle 28 which is disposed at the opposite side of the body portion. Threads 29 are provided at 15 the lower end of the body portion 12 and receive the threads of the member 30 on which the ring member 20 rests in such a way that rotary movement of the ring member will be permitted.

20 From the foregoing it is obvious that due to the construction shown and described, an operator may stand in one position and operate the handle bar through the ratchet construction, to move the temper-screw to 25 raise or lower the drill rope, during the drilling of a well, and that if the temper-screw should run away owing to the weight of the drilling mechanism, rotary movement of the drill and temper-screw will be independent of the handle bar.

We claim:

The combination with a temper screw, a handle bar comprising a body portion of a diameter to fit over the temper screw, said 35 body portion having an enlarged end portion formed with transversely disposed bores, securing screws positioned within the bores and engaging the temper screw securing the body portion to the temper screw, said body 40 portion having longitudinal ribs, a supporting ring mounted for rotary movement on the body portion and having threaded openings, handle bars having threaded end portions fitted in the threaded openings, one of 45 the handle bars being tubular in formation, a spring pressed rod disposed within the tubular handle bar and having an enlarged tapered end providing a tooth engaging the ribs of the body portion, a threaded member 50 mounted on one end of the body portion and providing a rest against which the supporting ring engages, and said handle bars adapted to rotate the body portion in one direction.

55 In testimony that we claim the foregoing as our own, we have hereto affixed our signatures.

MERL MYERS.  
CARLIN MYERS.