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CHAMFERING APPARATUS

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2 Sheets-Sheet 1

Fig. 1.

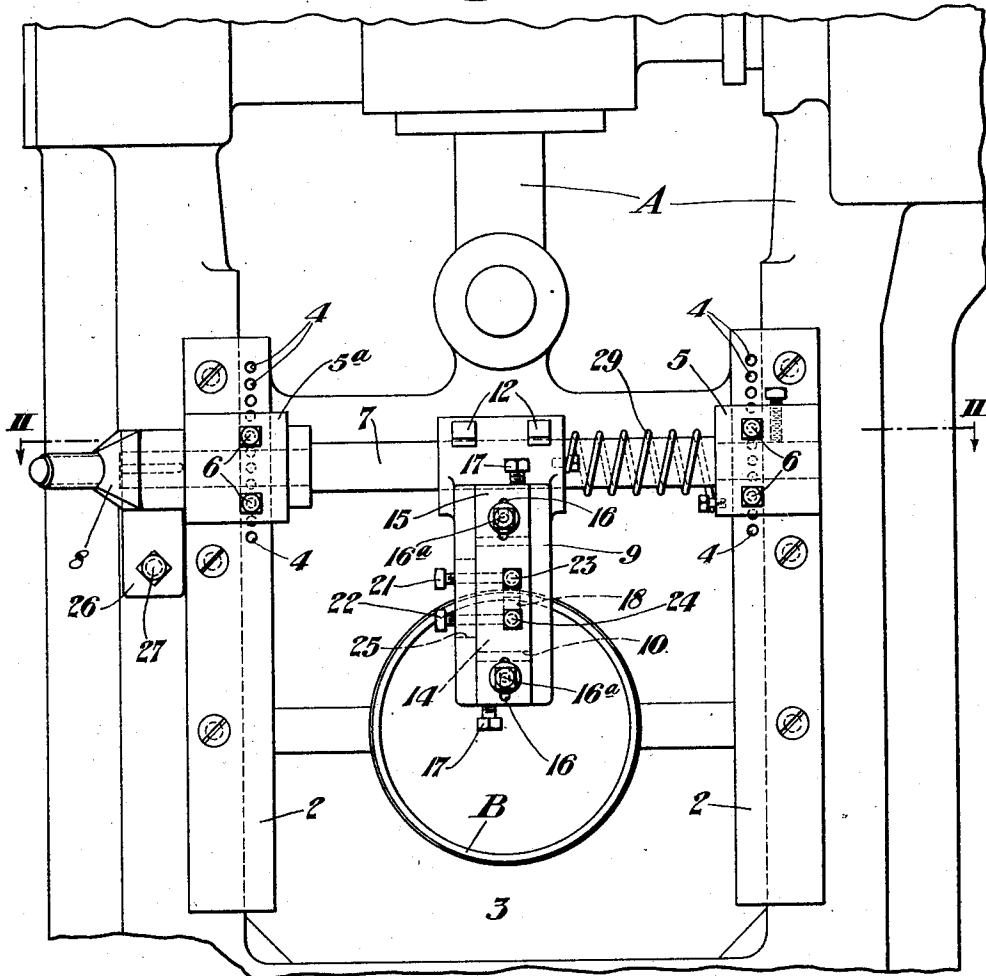
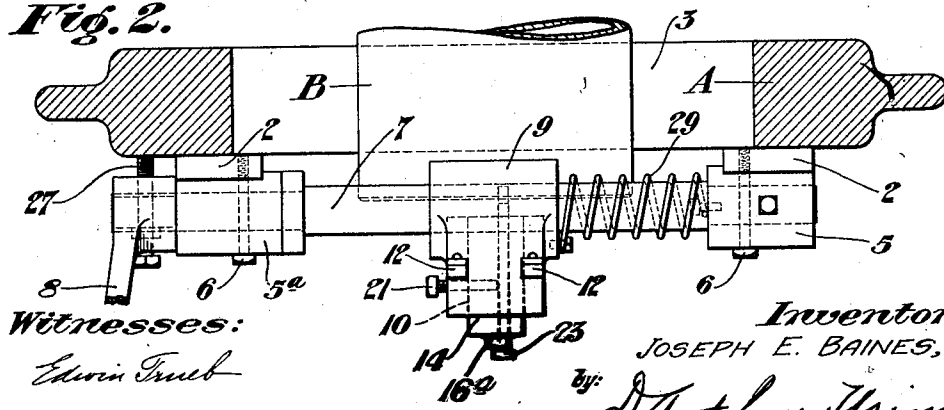


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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CHAMFERING APPARATUS.

Application filed March 9, 1926. Serial No. 93,423.

This invention relates to chamfering apparatus, and more particularly to a chamfering attachment for pipe cutting-off and threading machines and the like, and has
5 for its object the provision of a novel form of chamfering apparatus that may be readily adjusted for working on various sizes of articles, and which is adapted to chamfer either the outer or inner edges or both edges
10 of the article, as desired.

Another object is to provide chamfering apparatus having the novel design, construction and combination of parts hereinafter described and illustrated in the accompanying drawings.

In the drawings:

Figure 1 is a front elevation of a part of a pipe cutting-off machine having my invention applied thereto.

Figure 2 is a sectional plan on the line II—II of Figure 1.

Figure 3 is a side elevation thereof looking from the right of Figure 1.

Figure 4 is a side elevation thereof looking from the left of Figure 1.

Referring more particularly to the drawings, the letter A designates the housing of a standard pipe cutting-off machine, in which the pipe B is mounted and rotated in the usual manner.

A pair of mounting plates 2 are preferably mounted one on each side of the window 3 in the housing and provided with a plurality of vertically aligned threaded
35 holes 4.

Bearings 5 and 5^a are removably mounted on the plates 2 by bolts or cap-screws 6 which are threaded into selected ones of the holes 4, and the vertical position of the bearings may be readily adjusted by removing
40 the bolts or screws 6 and screwing them into other selected holes 4.

A horizontal shaft 7 is journaled in the bearings 5 and 5^a and extends beyond the bearing 5^a to form a mounting for a hand
45 operating lever 8 which is keyed to the shaft.

A tool holder 9 having a rectangular slot or opening 10 therethrough is secured to the shaft at approximately its center by a set-screw 12. A tool block 14 of materially less length than the length of the slot or opening 10, is mounted in the opening 10 and is provided with an attaching flange 15

adapted to overlie the end portions of the
55 outer or rear face of the holder 9.

The flange 15 of the block 14 is provided with elongated slots 16 to permit shouldered attaching screws or studs 16^a to pass and be threaded into suitable threaded holes in the
60 holder 9.

The tool block 14 is adapted to be adjustably held against longitudinal movement in the opening 10 by set screws 17 threaded in the end walls of the tool holder 9 and bearing
65 against the ends of the block 14.

The tool block 14 is provided with a rectangular slot or recess 18 in which a pair of chamfering tools for chamfering the inner and outer edges of a pipe may be mounted,
70 or one tool 19 and a filler block 20 may be mounted, as shown.

A pair of set-screws 21 and 22 are threaded in the side wall of the block 14 to lock the tools or tool and filler block in the opening 18, and a pair of set-screws
75 23 and 24 are threaded in the rear wall of the block 14 and adapted to adjust the rear position of the tools in the slot or recess 18.

A slot 25 is formed in the side of the tool holder 9 to permit the movement of the set screws 21 and 22 with the block 14.

The hand-lever 8 is provided with an integral lug 26 in which a stop-screw 27 is threaded and locked by a nut 28. The screw
85 27 is adapted to limit the movement of the tool holder 9 and tools toward or into the work-piece.

A coil spring 29 is mounted on the shaft 7 and has one end secured to bearing 5 and the other end secured to the tool holder 9 and is adapted to have sufficient tension to normally hold the tool holder 9 in an elevated position away from the pipe or
90 work-piece.

In operation, the tool or tools will be adjusted by adjusting the tool block longitudinally by means of the set-screws 17, and horizontally by means of the set-screws 23 and 24. After the tool or tools are properly
100 set and the machine is in operation to rotate the pipe or other tubular article, the operator will pull down on the hand-lever 8, thereby rocking the shaft 7 against the tension of the spring 29 and moving the tool holder 9
105 and chamfering tool or tools toward the pipe. By exerting pressure on the hand-lever 8 the operator will force the tool or tools into the

pipe so that the edge or edges will be chamfered, the movement into the work being limited by the stop-screw 27.

While I have shown and described one specific embodiment of my invention, it will be understood that I do not wish to be limited thereto, since various modifications may be made without departing from the scope of my invention as defined in the appended claims.

I claim:

1. The combination with a machine for working tubular articles including a housing, of means for chamfering the end of said articles, said means comprising a pair of bearings removably secured to the housing of said machine and adapted to be secured at a plurality of adjusted vertical positions on said housing, a horizontal shaft journaled in said bearings, a tool holder mounted on said shaft and movable therewith, a tool block removably mounted in said holder, chamfering tools mounted in said block, and means for operating said shaft to move said tool holder into position to cause said tools to engage the article to be chamfered.

2. The combination with a machine for working tubular articles including a housing, of means for chamfering the end of said articles, said means comprising a pair of bearings removably secured to the housing of said machine and adapted to be secured at a plurality of adjusted vertical positions on said housing, a horizontal shaft journaled in said bearings, a tool holder mounted on said shaft and movable therewith, a tool block removably and adjustably mounted in said tool holder, chamfering tools removably and adjustably mounted in said block, and means for operating said shaft to move said tool holder into position to cause said tools to engage the article to be chamfered.

3. The combination with a machine for working tubular articles such as pipe cutting and threading machines, including a housing, of means for chamfering the end of the article, said means comprising a pair of bearings mounted on the housing of said machine, a horizontal shaft journaled in said bearings, a tool holder fixedly mounted on said shaft and movable therewith, a spring mounted on said shaft and having one end secured to one of said bearings and the other end secured to said tool holder, said spring being adapted to normally hold said tool holder in a substantially horizontal or raised position away from the article being worked, chamfering tools mounted in said tool holder, and a hand-lever secured to said shaft and adapted to be operated to rotate said shaft against the tension of said spring to move said tool holder into position to cause said tools to engage the article being worked.

4. The combination with a machine for working tubular articles such as pipe cutting and threading machines, including a housing, of means for chamfering the end of the article, said means comprising a pair of bearings mounted on the housing of said machine, a horizontal shaft journaled in said bearings, a tool holder fixedly mounted on said shaft and movable therewith, a spring mounted on said shaft and having one end secured to one of said bearings and the other end secured to said tool holder, said spring being adapted to normally hold said tool holder in a substantially horizontal or raised position away from the article being worked, chamfering tools mounted in said tool holder, a hand-lever secured to said shaft and adapted to be operated to rotate said shaft against the tension of said spring to move said tool holder into position to cause said tools to engage the article being worked, and means for limiting the movement of said tool holder and tools toward the article being worked.

5. The combination with a machine for working tubular articles such as pipe cutting and threading machines, including a housing, of means for chamfering the end of the article, said means comprising a pair of bearings mounted on the housing of said machine, a horizontal shaft journaled in said bearings, a tool holder fixedly mounted on said shaft and movable therewith, a spring mounted on said shaft and having one end secured to one of said bearings and the other end secured to said tool holder, said spring being adapted to normally hold said tool holder in a substantially horizontal or raised position away from the article being worked, a tool block removably and adjustably mounted in said tool holder, at least one chamfering tool removably and adjustably mounted in said block, and a hand-lever secured to said shaft and adapted to be operated to rotate said shaft against the tension of said spring to move said tool holder into position to cause said tool to engage the article being worked.

6. The combination with a machine for working tubular articles such as pipe cutting and threading machines, including a housing, of means for chamfering the end of the article, said means comprising a pair of bearings mounted on the housing of said machine, a horizontal shaft journaled in said bearings, a tool holder fixedly mounted on said shaft and movable therewith, a spring mounted on said shaft and having one end secured to one of said bearings and the other end secured to said tool holder, said spring being adapted to normally hold said tool holder in a substantially horizontal or raised position away from the article being worked, a tool block removably and adjustably mounted in said tool holder, at

least one chamfering tool removably and adjustably mounted in said block, a hand-lever secured to said shaft and adapted to be operated to rotate said shaft against the tension of said spring to move said tool holder into position to cause said tool to engage the article being worked, and means associated with said hand-lever for limiting the movement of said tool holder and tool toward the article being worked. 10
In testimony whereof, I have hereunto set my hand.

JOSEPH E. BAINES.