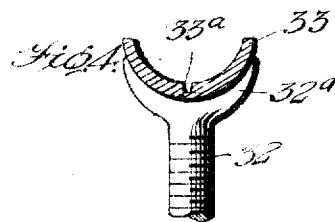
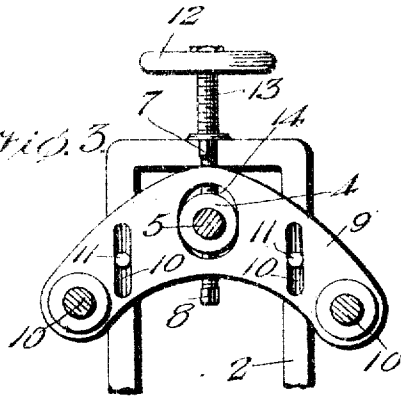
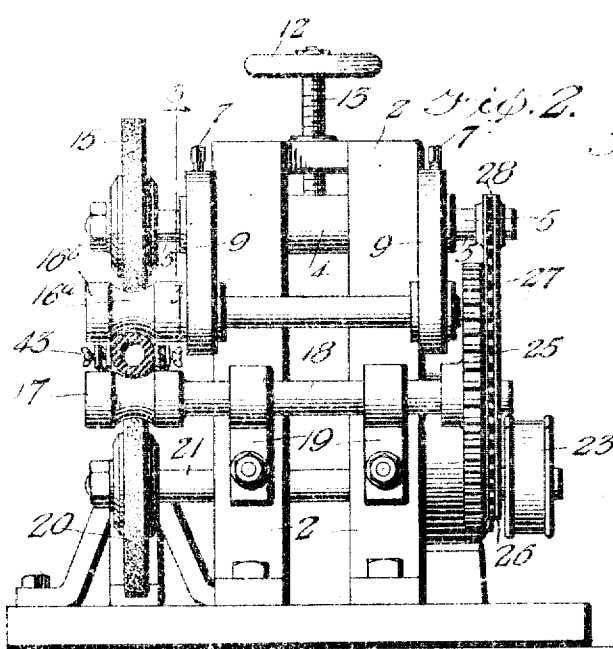
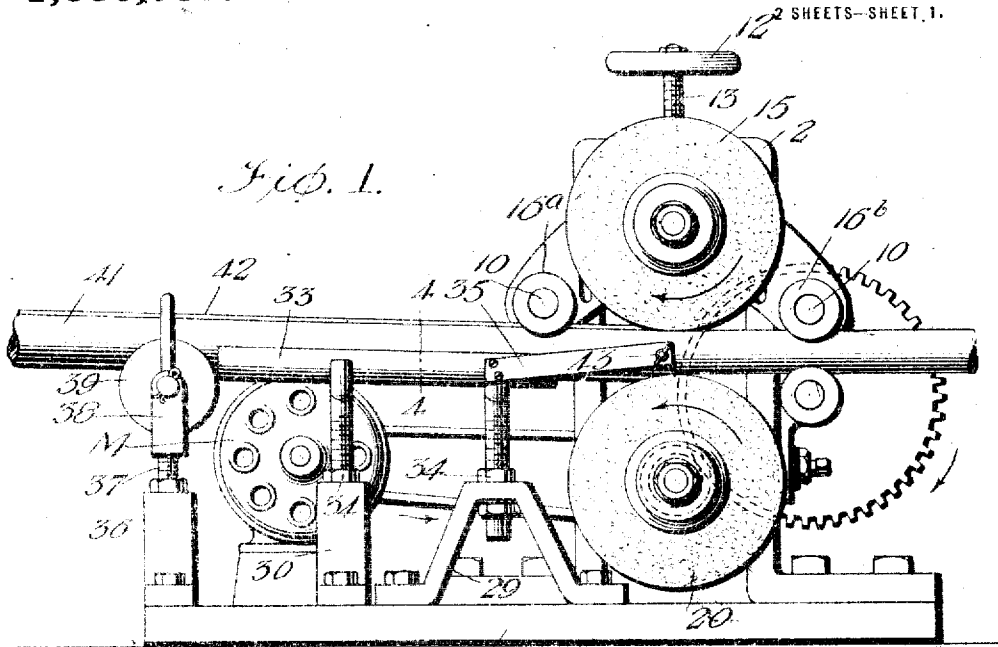


F. C. MOORE.  
MACHINE FOR TRIMMING RUBBER HOSE.  
APPLICATION FILED JAN. 21, 1919.

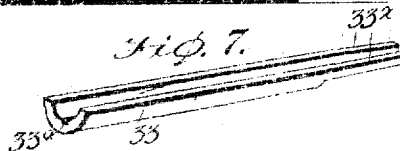
1,330,383.

Patented Feb. 10, 1920.

2 SHEETS—SHEET 1.



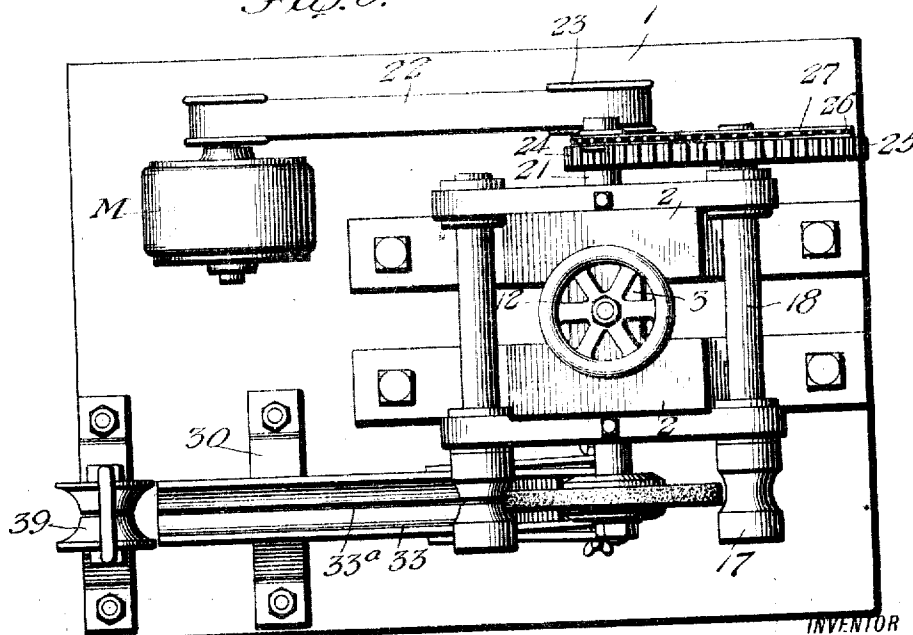
WITNESSES  
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**1,330,383.**

Fig. 6.



**WITNESSES**

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# UNITED STATES PATENT OFFICE.

FRANK C. MOORE, OF CANTON, OHIO.

MACHINE FOR TRIMMING RUBBER HOSE.

1,330,383.

Specification of Letters Patent.

Patented Feb. 10, 1920.

Application filed January 21, 1919. Serial No. 272,387.

*To all whom it may concern:*

Be it known that I, FRANK C. MOORE, a citizen of the United States, residing at Canton, county of Stark, and State of Ohio, have invented certain new and useful Improvements in Machines for Trimming Rubber Hose, of which the following is a specification.

My invention relates to improvements in machines for trimming rubber hose, and it consists in the combinations, constructions and arrangements, herein described and claimed.

An object of my invention is to provide a device by means of which the excess rubber which is forced out between the edges of the vulcanizing press in the final operation of vulcanizing the rubber portions of hose, may be economically removed so as to give the hose a finished appearance.

A further object of my invention is to provide a hose trimming device by means of which the excess portions on each side of the hose may be removed simultaneously.

A further object of my invention is to provide a device of the type described in which provision is made for operating upon hose of various sizes.

Other objects and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings, forming part of this application, in which—

Figure 1 is a side elevation of the device;  
Fig. 2 is an end view thereof;  
Fig. 3 is a section along the line 3—3 of Fig. 2, showing a portion of the mechanism;  
Fig. 4 is a section along the line 4—4 of Fig. 1;  
Fig. 5 is a longitudinal section;  
Fig. 6 is a plan view; and  
Fig. 7 is a perspective view of a portion of the device.

In carrying out my invention, I provide a base 1 upon which is mounted a U-shaped frame 2. This frame, as will be seen from the drawings, consists of two U-shaped portions connected together, by a central portion 3 (see Fig. 6). Disposed transversely with respect to the frame 2 is a bearing member or journal 4, in which a shaft 5 is mounted for revolution. The bearing 4 is adjustable vertically by means of upper and lower set screws 7 and 8 respectively, which

are carried by elbow-shaped plates 9. The latter are disposed one on each side of the frame 2, and are provided with slots 10, arranged to receive pins 11 carried by the frame for the purpose of guiding the plate 9 when the latter is moved vertically. In order to accomplish the vertical movement of the plates 9, I provide a hand wheel 12, on a threaded spindle 13, the lower end of which is attached to the bearing 4 so as to permit rotation of the spindle while moving the bearing up and down, and hence the plates 9.

The plates 9 are provided with slots 14 through which the ends of the bearing 4 may project so that the bearing may be adjusted by means of the set screws 7 and 8, independently of the plates 9.

One end of the shaft 5 bears on an abrading wheel 15. The plates 9 have extending through them a shaft 10 at each end thereof, and each shaft 10 is provided with a roller 16, which has a groove 16' for receiving the hose. A similar roller 17 is disposed below and in alignment with one of the rollers 16 at the end of the shaft 18, carried by bearings 19 secured to the frame 2. An abrading wheel 20 is carried by a shaft 21 mounted on the frame.

A motor M is belted by means of a belt 22 to a pulley 23 on the shaft 21. The latter bears a gear 24 which meshes with a gear 25 on the shaft 18 which bears the roller 17. Secured to the gear 25 is a sprocket wheel 26, having a sprocket chain 27, which drives a sprocket wheel 28, on the shaft 5 bearing the abrading wheel 15. The construction described causes the abrading wheels 15 and 20 to revolve in opposite directions.

Carried by the base 1 are supports 29 and 30 for threaded spindles 31 and 32 respectively, whose upper ends are provided with saddles, such as that shown at 32' in Fig. 4, for supporting a trough-like guide member 33. As will be seen from Fig. 4, the guide member 33 is provided with a central groove 33' for receiving the "pin" or bead, i. e., that portion of the hose which has been forced between the edges of the press in the vulcanizing process. As will be seen from the drawings, the spindles 31 and 32 are adjustable, nuts 34 being provided for the purpose. One end of the trough-like guide 33 has a pair of lateral extensions 35 consisting of flat strips adapted to guide the

hose in its movement past the abrading wheels. In order to adjust the position of these guide strips with respect to hose of varying diameter, I make use of auxiliary guide members 35, which are secured rigidly at one end to the outer portion of the guide 33, (see Fig. 1), the other end being provided with a thumb-nut by means of which the resilient extension 33\* may be adjusted toward and away from the hose.

A support 36 is provided with a spindle 37 which is adjustable vertically, the upper end of the spindle having a bearing 38 for a guide roller 39. A guard 40 extends above the hose in the manner shown in the drawing.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. As the hose comes from the vulcanizing machine (not shown) it has a fin or bead, extending longitudinally thereof on each side, which is caused by excess rubber being squeezed out between the parts of the press. The hose 41 is placed with these fins or beads 42 disposed in a vertical plane with the lower fin in the groove 33\* of the trough-like guide 33. The guide rollers 39 and 16\* both have grooves in them to receive the fin. The guide portions 33\* are adjusted by means of the screws 43, the motor is started, and the revolutions of the abrading wheels, which are made of carborundum, or similar substance, grind off the fin 42, the finished hose then passing between the rollers 16\* and 17. The roller 17 being a power-driven roller, draws the hose forwardly, so that after the apparatus is once adjusted and set going, the hose is automatically drawn in and the beading or fins cut off.

When a different size hose is being operated upon the handle 12 may be turned, thus raising or lowering the upper abrading wheel 15, and the rollers 16\* and 16<sup>b</sup>, these parts being adjusted to any suitable height to accommodate the size of the hose being treated. Similarly, the trough 33 may be raised or lowered by loosening the nuts 34, whereupon the spindles supporting the trough may be moved vertically. Also, the guide roller 39 may be similarly adjusted.

In order to take up any wear of the abrading wheels, it is only necessary to move the bearing 4 in the slot 14. This may be done by unloosening the set screw 8, moving the bearing downwardly, and then tightening up on the set screw 7. The device described above will rapidly and economically trim the excess portions of the

hose, and leave a finished pattern. The device requires very little attention, and the adjustment may be quickly and accurately made.

I claim:

1. In a machine for trimming rubber hose, a pair of opposed abrading wheels, frictional hose feeding means for drawing the hose between the abrading wheels, adjustable guide means for guiding the hose in its movement, and auxiliary guiding means for preventing the rotation of the hose during its movement.

2. In a machine for trimming rubber hose, a lower abrading wheel, lower guide members, an upper opposed abrading wheel, upper guide members associated therewith, and means for simultaneously adjusting said upper abrading wheel and said upper guide members toward or away from said lower abrading wheel, and said lower guide members respectively.

3. In a machine for trimming rubber hose, a lower abrading wheel, an upper opposed abrading wheel, lower guide members, upper guide members associated with said upper abrading wheel, means for simultaneously adjusting said upper abrading wheel and said upper guide members toward or away from said lower abrading wheel, and said lower guide members respectively, and means for independently adjusting the space between the abrading wheels.

4. In a machine for trimming rubber hose, a pair of opposed abrading wheels, frictional means disposed adjacent to said abrading wheels for drawing hose between the wheels, means for actuating said frictional means, means for rotating said abrading wheels in opposite directions, and adjustable guiding means for guiding the hose between the abrading wheels.

5. In a machine for trimming rubber hose, a pair of opposed abrading wheels, frictional means disposed adjacent to said abrading wheels for drawing hose between the wheels, means for actuating said frictional means, means for rotating said abrading wheels in opposite directions, adjustable guiding means for guiding the hose between the abrading wheels, and means for simultaneously adjusting the relative positions of a portion of the frictional means, a portion of the guide means, and one of said abrading wheels.

FRANK C. MOORE.

Witnesses:

K. H. STULL,  
GLADYS E. ROBERTS.