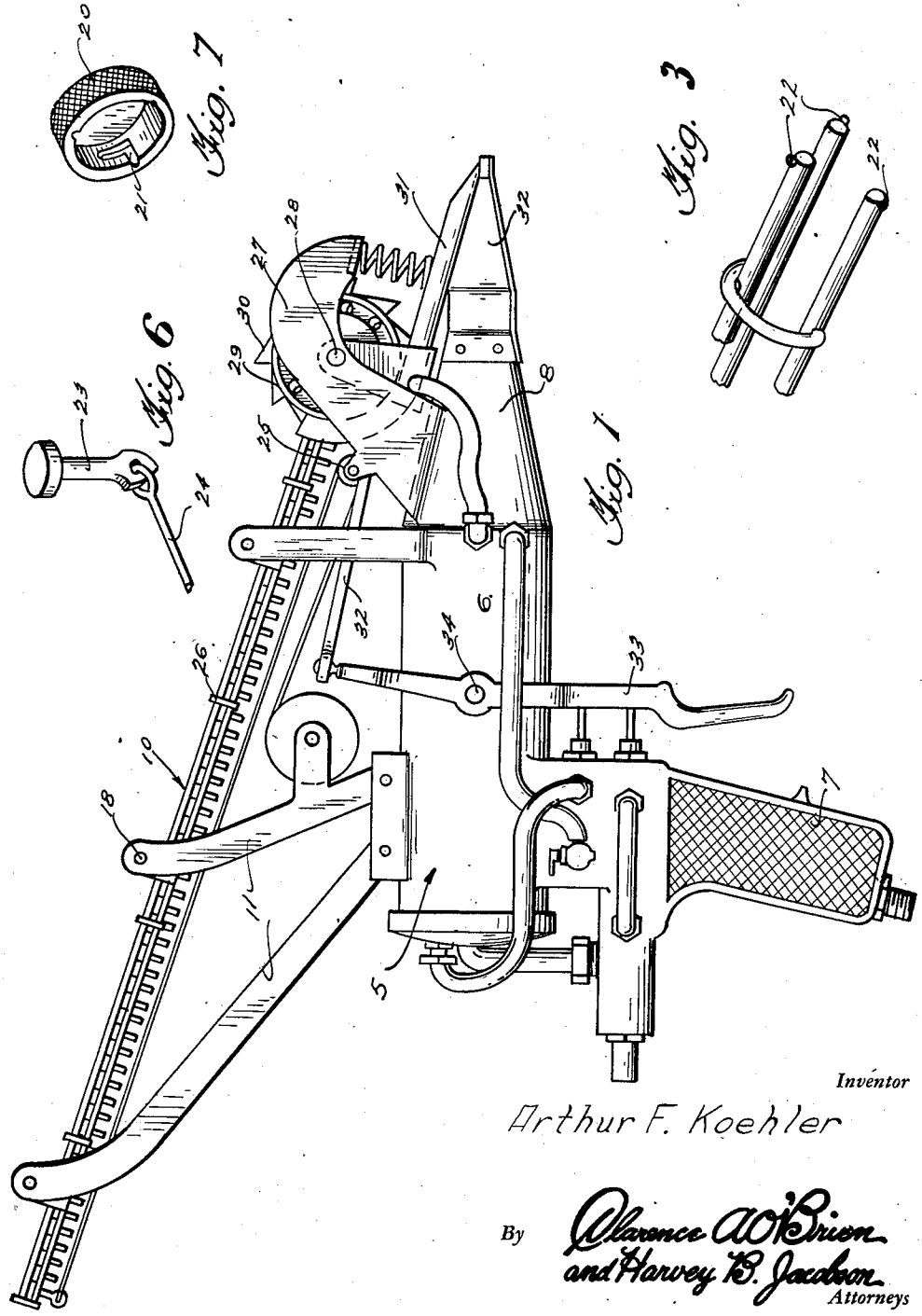
Feb. 6, 1945. A. F. KOEHLER 2,368,847

MAGAZINE FOR RIVETING MACHINES

Filed Jan. 26, 1944 2 Sheets-Sheet 1



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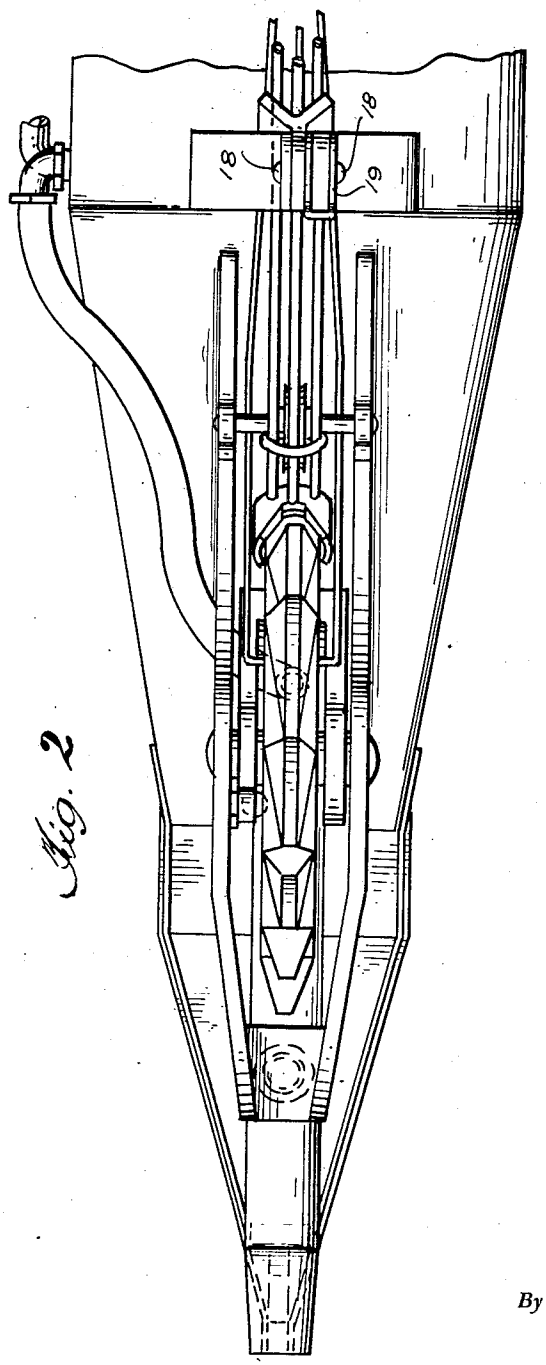


Fig. 2

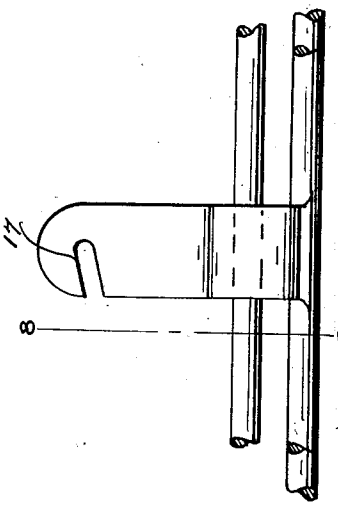


Fig. 5

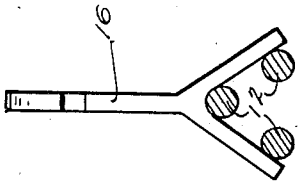


Fig. 8

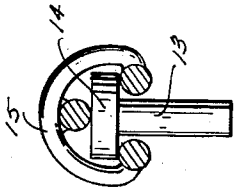


Fig. 4

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Patented Feb. 6, 1945

2,368,847

UNITED STATES PATENT OFFICE

2,368,847

MAGAZINE FOR RIVETING MACHINES

Arthur F. Koehler, Yuma, Ariz.

Original application June 11, 1943, Serial No. 490,542. Divided and this application January 26, 1944, Serial No. 519,797

2 Claims. (Cl. 78—46)

This is a divisional application of my co-pending application Serial No. 490,542, filed June 11, 1943.

The present invention relates to new and useful improvements in riveting machines embodying a pneumatically operated riveting hammer and more particularly to a magazine for holding a plurality of the rivets in position for feeding the rivets to a feed device and by means of which the rivets are fed under control of the operator to the riveting machine.

An important object of the invention is to provide a rivet magazine by means of which the rivets are suspended by the heads of the rivets in a position for sliding along the magazine and in which friction between the rivets and the magazine is reduced to a minimum.

A further object is to provide a rivet magazine of this character of simple and practical construction, which is efficient and reliable in performance, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout and in which:

Figure 1 is a side elevational view of the riveting machine with the magazine shown in position thereon.

Figure 2 is a fragmentary top plan view of the front end of the riveting machine.

Figure 3 is a fragmentary perspective view of the magazine.

Figure 4 is a transverse sectional view thereof.

Figure 5 is a fragmentary side elevational view showing one of the hangers for the magazine.

Figure 6 is a perspective view of the follower for the rivets in the magazine.

Figure 7 is a perspective view of the cap for the rear end of the magazine.

Figure 8 is a transverse sectional view taken substantially on a line 8—8 of Figure 5.

Referring now to the drawings in detail and wherein for the purpose of illustration I have disclosed a preferred embodiment of the invention, the numeral 5 designates an air gun generally of a type explained in detail in my aforesaid co-pending application, and designed particularly for use in upsetting rivets employed in airplane construction, the gun embodying a cylinder 6 having a handle 7 formed at the rear portion thereof and provided with a tapered plug 8 at its front end and in which a pneumatically operated hammer (not shown) is operatively mounted for upsetting a rivet in the usual manner.

A rivet magazine or holder 10 is removably supported on the machine by means of brackets 11 extending upwardly from the cylinder, the magazine being constructed of a plurality of spaced rods 12 arranged in triangular formation in cross section and open at each end for receiving and discharging the rivets 13 therefrom. The heads 14 of the rivets are supported on a pair of the rods while a third rod overlies the top of the heads of the rivets to support the latter with the shank of the rivets suspended from the magazine as illustrated to advantage in Figure 4 of the drawings.

The rods 12 are secured in rigid position to each other by transverse brace members 15 as well as by hangers 16 which rise from the rod and are provided with a slot 17 in one edge thereof adapted for removably supporting the magazine on pins 18 carried at the upper ends of the brackets 11. The brackets 11 are of suitable length to support the magazine in a forwardly and downwardly inclined position.

The upper end of the magazine is closed by a cap 20 having internal slots 21 engaging lugs 22 on the ends of the rods 12 and prior to placing the cap 20 in position a follower rivet 23 is slidably mounted on the rod behind the rearmost rivet and to the lower end of the follower rivet 23 is attached a wire or cable 24 extending forwardly under the magazine and around a pulley 25 and then rearwardly for winding on a spring drum 26 journaled on one of the brackets 11. The pulley 25 is journaled on a pair of spaced parallel arms 27 extending upwardly from the plug 8, the arm 27 having a shaft 28 suported thereon and on which a rivet feed wheel 29 is rotatably mounted with rivet feeding teeth 30 thereon and which need not be further described since it forms, per se, no part of the present invention.

A rivet feed tube 31 is mounted under the wheel 29 for conveying rivets from the wheel to the rivet gripping member 32 at the front end of the plug 8 in a position for striking and upsetting by the hammer (not shown) forming part of the machine.

The elements 32, 33, 34 form part of the wheel operating mechanism with which the instant invention is not concerned and which, therefore, need not be further referred to.

It is believed the details of construction and

manner of use of the device will be readily understood from the foregoing without further detailed explanation.

Having described the invention, what is claimed as new is:

1. A rivet magazine for a riveting machine and comprising a plurality of rods arranged in spaced parallel relation in triangular cross sectional form, a pair of said rods being adapted to support the head of a rivet thereon with the shank of the rivet suspended between said pair of rods and a third rod being adapted to overlie the top of the rivet head, and hangers rising from said rods and rigidly connected to each of the rods, said hangers being adapted to support the magazine upon a riveting machine.

2. A rivet magazine for a riveting machine and comprising a plurality of rods arranged in spaced parallel relation in triangular cross sectional form, a pair of said rods being adapted to support the head of a rivet thereon with the shank of the rivet suspended between said pair of rods and a third rod being adapted to overlie the top of the rivet head, and hangers rising from said rods and rigidly connected to each of the rods, said hangers being adapted to support said magazine in an inclined position on a riveting machine and a cap detachably connected to the upper ends of the magazine and forming a closure therefor.

ARTHUR F. KOEHLER.