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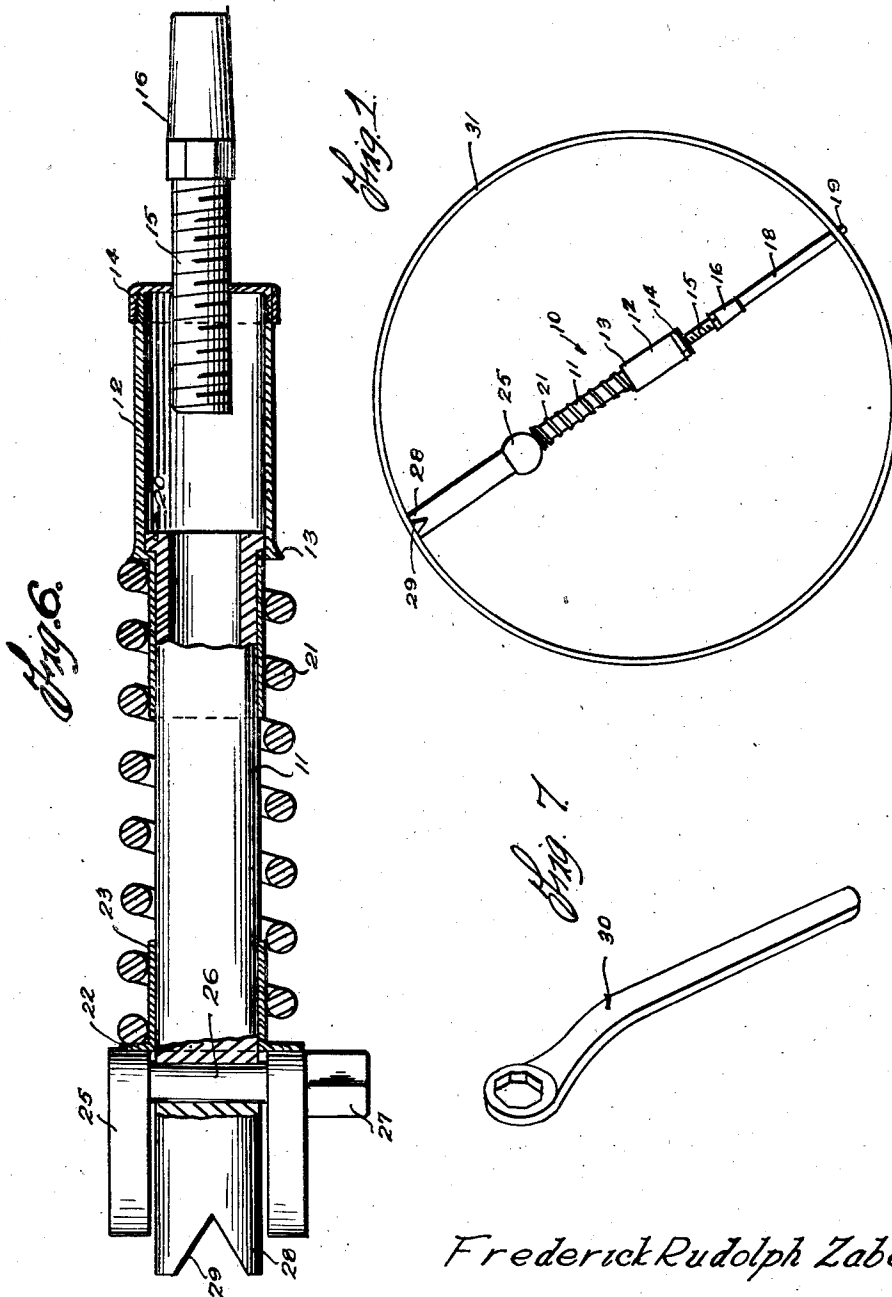
F. R. ZABEL

2,431,901

RIVETING DEVICE

Filed Jan. 25, 1945

2 Sheets-Sheet 1



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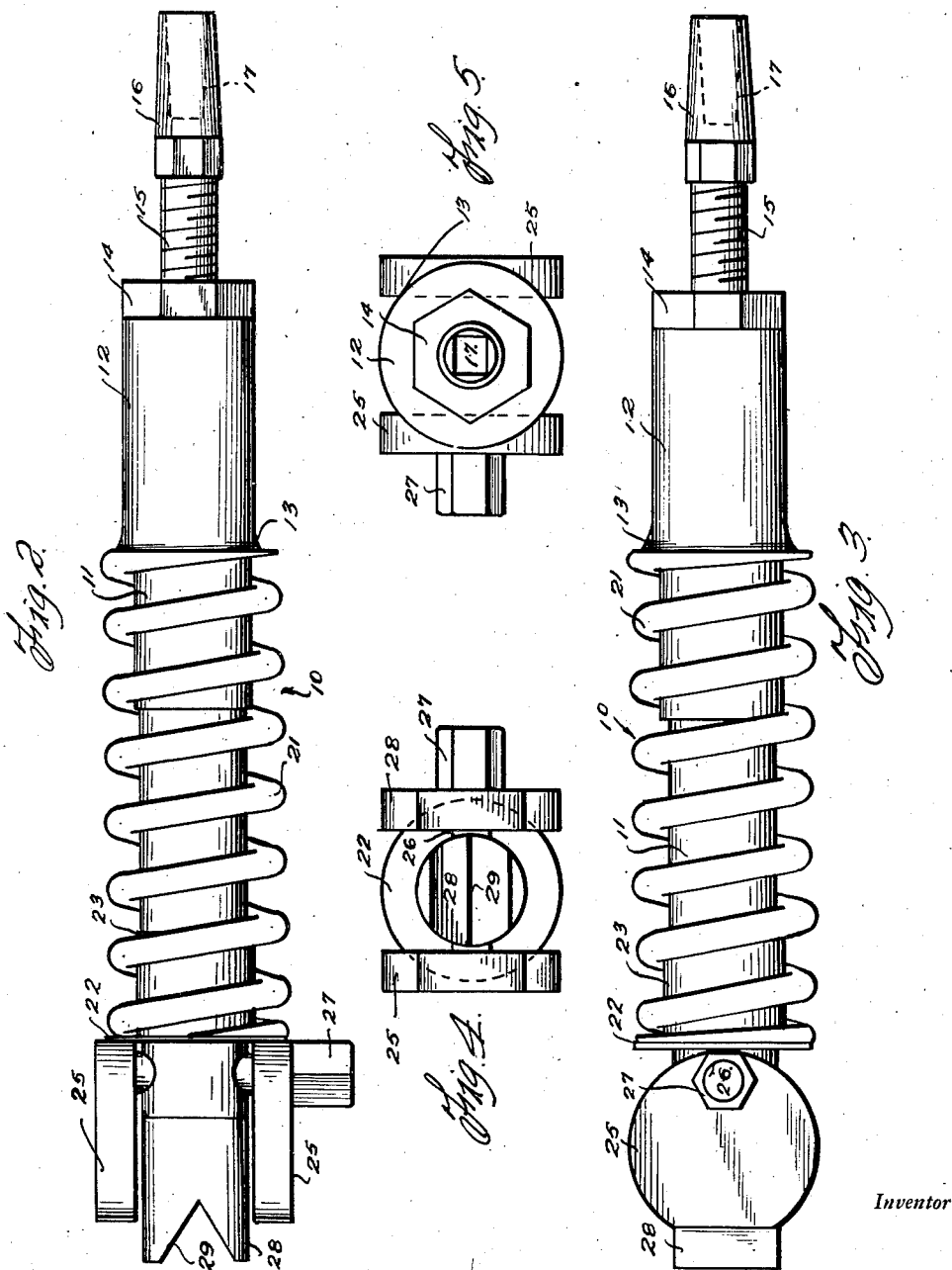
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UNITED STATES PATENT OFFICE

2,431,901

RIVETING DEVICE

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Application January 25, 1945, Serial No. 574,456

1 Claim. (Cl. 78—53.5)

1

This invention relates to a riveting device, and more particularly to a stationary device adapted for bucking against the rivet head, while the opposite end of the rivet is being operated upon by a riveting tool.

A primary object of this invention is the provision of an improved device adapted to buck against the rivet head, in such manner that a rivet may be effectively set by one man.

An additional object of this invention is the provision of an improved device adapted to be positioned against any stationary object, for fixedly holding the rivet head in position, for operation of a riveting tool against the opposite end thereof.

A still further object of the invention is the provision of such device which may be readily adapted to fit a variety of sizes and types of rivet heads.

Still another object of the invention is the provision of a device provided with means whereby the same may be adjusted for abutment against the stationary object, within a variety of ranges of distance from the rivet heads.

Still another object is the provision of such a device which will be sturdy and durable in construction, reliable and efficient in operation, and relatively simple and inexpensive to manufacture.

Other objects reside in the combinations of elements, arrangements of parts, and features of construction, all as will be more fully pointed out hereinafter and disclosed in the accompanying drawings, wherein there is shown a preferred embodiment of this inventive concept.

In the drawings—

Figure 1 is a top plan view of one form of device embodying this inventive concept, shown as positioned for holding a rivet head, while the opposite end of the rivet is engaged by a riveting tool.

Figure 2 is an enlarged side elevational view of the device disclosed in Figure 1.

Figure 3 is a top plan view of the device shown in Figure 2.

Figure 4 is an end elevational view of the device as viewed from the left in Figure 2.

Figure 5 is an end elevational view of the device as viewed from the opposite end.

Figure 6 is a sectional view taken substantially longitudinally through Figure 3, certain parts thereof being shown in elevation, and

Figure 7 is a perspective view of a wrench adapted to be utilized in conjunction with a device of the instant invention.

Similar reference characters refer to similar

2

parts throughout the several views of the drawings.

Having reference now to the drawings, the device of the instant invention generally indicated at 10 is comprised of a cylindrical member 11, upon which is slidably mounted a sleeve 12 provided with an intermediately positioned flange 13. The outer extremity of the sleeve 12 terminates in a nut 14, in which is threaded a bolt 15, to the extremity of which is secured a head holder 16 provided with an interiorly positioned rectangular bore 17. The bore 17 is adapted to hold the square shank of a removable rivet holding head 18 (see Figure 1), the end of which is provided with a suitably shaped recess adapted to accommodate the head of a rivet 19.

As best shown in Figure 6 the extremity of the cylindrical member or spindle 11 is provided with a flange 20 adapted to engage on an interiorly formed annulus positioned adjacent but interior to the flange 13 of the sleeve 12. One end of a relatively heavy compression spring 21 is adapted to seat against the flange 13 and bias the sleeve 12 into abutting relation, normally, with the flange 20.

The opposite end of the spring 21 abuts a flange 22 on a collar 23 slidable on the spindle 11, and movable by means of a pair of oppositely disposed eccentrics 25 secured to a rotatable shaft 26 extending through a suitable aperture in the spindle 11. The extremity of the shaft 26 is provided with a hex 27 whereby the eccentrics 25 may be rotated.

The extremity of the spindle 11 terminates in an end portion 28 provided with a transversely extending groove 29, whereby the same may be conveniently positioned against any desired fixed surface. A wrench generally indicated at 30 is adapted for turning the hex 27 to move the eccentrics 25 to compress the spring 21 and bias the sleeve 12, and consequently the head holder 16 and the head 18 against the head of the rivet 19.

From the foregoing the operation of the device should now be readily understandable. When it is desired to buck the head of a rivet 19, as for example, on the interior of the cylindrical tank or pipe 31 (see Figure 1) the device of the instant invention first has a head positioned in the head holder 16, and the head is seated against the rivet head 19. The member 15 is then rotated until the device has reached the required length, with the end 28 of the spindle seated against the opposite side of the tank, or under other conditions against any suitable stationary object.

3

After the device has been generally fitted into position, the eccentrics 25 are rotated by means of the wrench 30 engaging the hex 27 and the flange 22 compresses the spring 21, to bias the sleeve 12 tightly against the flange 20. Thus when the riveting tool is applied a relatively strong resilient bucking device is provided, with sufficient inherent flexibility to give the requisite amount to the blows of the tool, yet having sufficient strength to securely maintain the rivet head in its desired position until the riveting operation is finished.

From the foregoing it will now be seen that there is herein provided a device accomplishing all the objects of this invention and others including many advantages of great practical utility and commercial importance.

As many embodiments may be made of this inventive concept, and as many modifications may be made in the embodiment hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative and not in a limiting sense.

I claim:

A bucking bar including a hollow spindle formed with a laterally extending flange on one end and with a transversely grooved positioning seat on its opposite end, a sleeve slidably disposed on said spindle formed with a lateral flange merg-

4

ing into an outer sleeve of larger diameter having a closed end formed with axially disposed threaded bore extending therethrough, a head holder adjustably supported in said threaded bore, a collar slidably disposed on the spindle adjacent its seat end formed with a lateral extending flange, a coil spring disposed about said spindle having its ends respectively engaging the flanges on said sleeve and collar, a shaft mounted transversely through the seat end of said spindle, and rotatable eccentric means on the ends of said shaft abutting the flange on said collar for compressing said spring when said eccentric means are rotated.

FREDERICK RUDOLF ZABEL.

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