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R. F. COOLEY

2,499,569

SPRING ALIGNED UNIVERSAL JOINT SOCKET WRENCH

Filed Dec. 14, 1945

FIG. 1

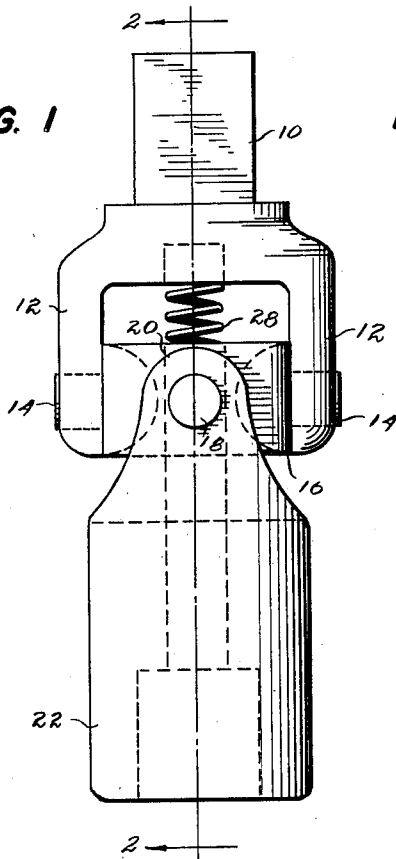


FIG. 2

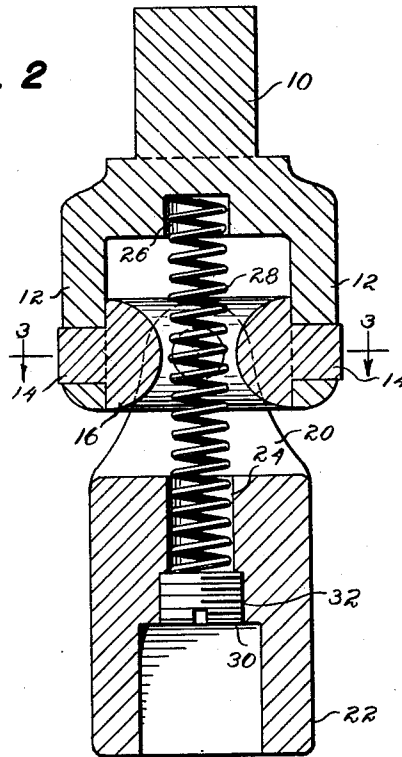


FIG. 3

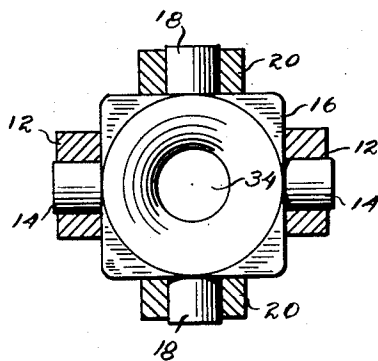
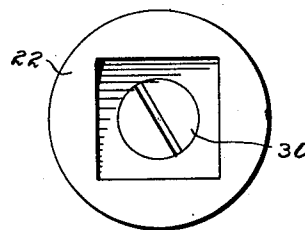


FIG. 4



INVENTOR.
Robert F. Cooley deceased,
by Sara W. Cooley, Executrix
BY Victor G. Evans & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE

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SPRING ALIGNED UNIVERSAL JOINT SOCKET WRENCH

Robert F. Cooley, deceased, late of Humboldt,
Ariz., by Sara W. Cooley, executrix, Prescott,
Ariz., assignor, by decree of distribution, to
Sara W. Cooley

Application December 14, 1945, Serial No. 634,945

1 Claim. (Cl. 64—17)

1

This invention relates to improvement in socket wrenches and more particularly to a spring aligned universal joint socket wrench.

An object of this invention is to provide a universal joint socket wrench which by spring action will automatically align the socket to engage the nut to be worked on.

Another object of this invention is to provide a universal joint socket wrench which can more conveniently reach into small inaccessible spaces than can the ordinary type of wrench of this kind.

The conventional type of wrench must be adjusted by hand, and since the socket has free swinging movement it cannot be used in spaces where it cannot be adjusted by hand, thus the present invention was designed to overcome these drawbacks.

With the above and other objects and advantages in view the invention consists of the novel details of construction, arrangement and combination of parts more fully hereinafter described, claimed and illustrated in the accompanying drawing in which:

Figure 1 is an elevational view of an embodiment of the invention.

Figure 2 is a vertical sectional view thereof and is taken on the line 2—2 of Fig. 1.

Figure 3 is a sectional view on the line 3—3 of Figure 2 and

Figure 4 is a bottom plan view thereof.

Referring more in detail to the drawing the numeral 10 designates the wrench receiving member of the joint which is provided with the depending diametrically opposed arms 12 which are apertured to receive the complementary positioned pins 14 on the intermediate, substantially square shaped member 16 of the joint. Positioned at right angles to the pins 14 are the opposed pins 18 which are received in the upstanding apertured arms 20 of the socket member 22 of the joint.

The socket member 22 is provided with a central bore 24 which is in alignment with the central seat 26 of the wrench receiving member 10 and a spring 28 having one end in the seat 26 and the other end in the bore 24 is tensioned by means of a screw 30 in the threaded base 32 communicating with the bore 24.

The member 16 is provided with a central opening 34 through which the spring 28 passes.

Thus by manipulating the screw 30 which abuts the end of the spring 28 the socket can be main-

2

tained in alignment with the wrench receiving member at all times.

Thus there has been provided a universal joint wrench which will automatically align the socket eliminating the necessity of aligning the socket by hand.

It is believed that the operation and construction of the joint will be apparent to those skilled in the art and it is to be understood that various changes in the details of construction, arrangement and combination of parts may be resorted to without departing from the spirit of the invention and the scope of the appended claim.

Having thus described the invention what is claimed as new and desired to be secured by Letters Patent is:

A device of the character described, comprising driving and driven members, diametrically opposed arms on said driving and driven members, openings at the ends of said arms, a square shaped swivel block having pins formed thereon and receivable in the openings in said arms for connecting said members in operational relation to each other, a central seat in said driving member, a central opening in said block and a central opening in said driven member, a coil spring for aligning said members having one end in the seat in said driving member, and passing through the opening in said block to place the opposite end in the bore in said driven member, and a set screw in the bore in said driven member abutting said spring whereby rotation of said set screw will tension said spring to retain said members in alignment with each other at all times.

SARA W. COOLEY,

Executrix of the Estate of Robert F. Cooley, Deceased.

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