Jan. 8, 1924. 1,480,464

W. A. PUNGS

HOLDER ON FOR RIVETING MACHINES

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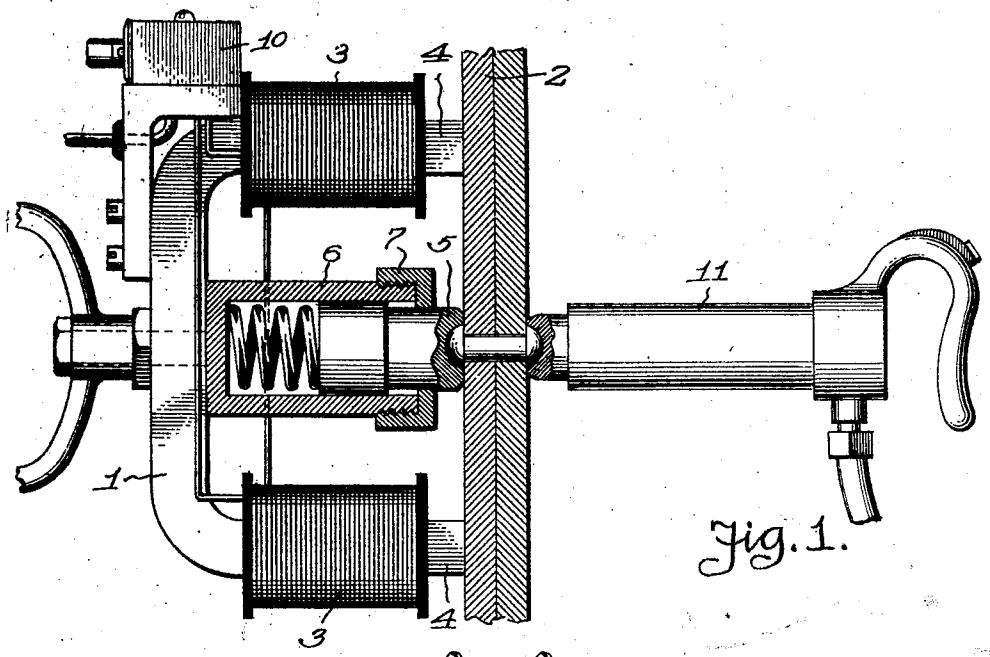


Fig. 1.

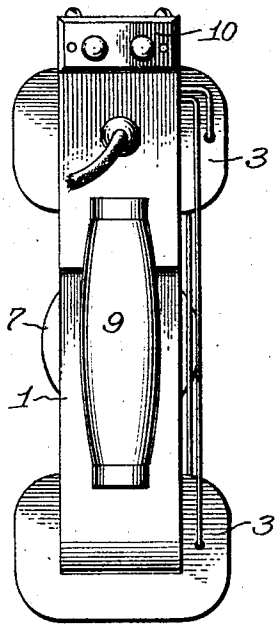


Fig. 2.

Inventor

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UNITED STATES PATENT OFFICE.

WILLIAM A. PUNGS, OF DETROIT, MICHIGAN.

HOLDER-ON FOR RIVETING MACHINES.

Application filed October 16, 1920. Serial No. 417,345.

To all whom it may concern:

Be it known that I, WILLIAM A. PUNGS, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Holder-Ons for Riveting Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to portable riveting apparatus and has for its object to improve the construction of the holder-on employed in riveting operations.

In carrying out my invention I provide an electro-magnetic holding device to maintain a yielding support in position against the head of a rivet during the operation of a pneumatic hammer upon the rivet.

In the drawings,

Figure 1 is a side elevation, partly in section of my improved device in position against a rivet the metal plates being riveted shown in section; and

Fig. 2 is an end view of the holder.

It is the current practice to support a rivet in position in a plate by a hand supported device while a pneumatic hammer is employed by a workman standing on the opposite side of the plate in which the rivet is being fastened. The workman sustains the jar of this hammering operation and the rivet set is maintained in position by the elasticity of the workman's muscles.

I provide a framework 1 held in position against the iron or steel structure 2 by means of electro-magnets shown in the present embodiment as comprising coils 3 surrounding pole pieces 4 which are placed against the work so as to bring the yielding head 5 of the rivet set in position against the end of the rivet. The head 5 is removably supported in a tubular casing 6 by means of a cap 7 and is normally pressed outward into operative position by the spring 8 of a proper strength. A handle 9 is provided for the convenient manipulation of the device and a switch 10 within easy reach of the thumb of the operator is provided for connecting the coils with a suitable source of electric current.

The pneumatic hammer 11 of any suitable or familiar type is used for swaging down a rivet head in the usual manner and the spring 8 allows the head 5 to yield in such manner as to prevent the holder from being jarred loose from its position on the work 2.

It will be seen that I have provided a simple efficient device in which the head 5 is readily interchangeable and renewable. The entire structure can be constructed very cheaply.

What I claim is:—

A device for the purpose described comprising a pair of electro-magnets, a tubular casing mounted between said magnets, a head having an enlarged inner end portion to slide within said tubular casing, an outer reduced end portion to project from the casing, a cap detachably secured to the end of the casing and having an opening through which the reduced outer end portion of the head projects, said cap forming a stop to limit the outward movement of said head and being detachable for the ready removal of the head from the casing, and a spring within said tubular casing engaging the inner end of said head to normally hold the head with its reduced end portion projected from the casing.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM A. PUNGS.

Witnesses:

ANNA M. DORR,

O. F. BARTHEL.