

Nov. 20, 1923.

A. E. OLSON

1,475,136

STEEL STAMP

Filed July 3, 1922

Fig. 1

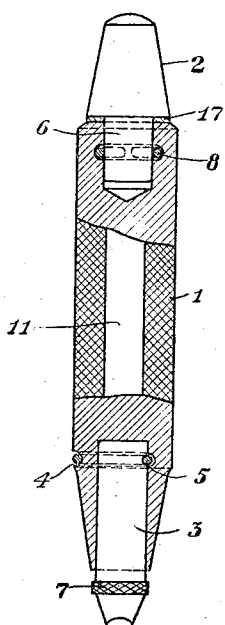


Fig. 2

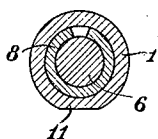


Fig. 3

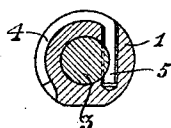


Fig. 4

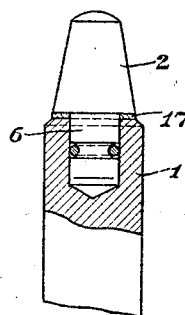
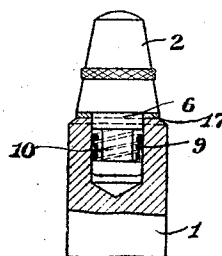


Fig. 5



Inventor
A. E. Olson,
By Marks Clerk
Attys.

UNITED STATES PATENT OFFICE.

AXEL EDVARD OLSON, OF ESKILSTUNA, SWEDEN.

STEEL STAMP.

Application filed July 3, 1922. Serial No. 572,668.

To all whom it may concern:

Be it known that I, AXEL EDVARD OLSON, manufacturer, a subject of the King of Sweden, residing at Nygatan 20, Eskilstuna, Sweden, have invented certain new and useful Improvements in Steel Stamps, of which the following is a specification.

As is well known, stamps for marking objects of steel and other hard metal must be made of tool steel of the finest grade which, obviously, is expensive. The high cost, however, in the first place depends on each stamp having always been made in a single solid piece, that is to say with the type end and the shaft as well as the neck of the stamp made of the same expensive steel material. Inasmuch as such material need only be used for the type end of the stamp, the making of the intermediate portion or the shaft and the neck of the stamp of fine tool steel obviously means an unnecessary waste of the material. When the engraving on such a stamp is damaged or worn out, the whole stamp, as a rule, has to be discarded, and if flaws are produced in the process of hardening, as may easily happen, the whole stamp will be worthless before it has even come to use. Moreover, the neck of the stamp subjected to the hammer blows will often be worn out or cracked to such an extent that the whole stamp will be useless for this reason, too.

The object of the present invention is to avoid the unnecessary waste of material and to make steel stamps with interchangeable parts, so that the parts subjected to wear may be replaced at a fraction of the price of the stamp.

The invention is principally characterized by this that the end piece of the stamp provided with the type, or this end piece as well as the neck or striking head of the stamp, are made as separate parts of the material most suitable for their purpose, and removably inserted into the intermediate part or shaft of the stamp which is made of cheap material, so that the type end and the neck may be replaced by new parts on their having been worn out, without discarding the shaft of the stamp. Obviously, this arrangement involves a very substantial reduction of the costs of manufacture, in that not only by far the greatest part of the stamp may be made of cheap material, but also those parts thereof, which are subjected to wear, may be replaced at a small cost.

The invention is also characterized by the provision of means for removably securing the end piece and the neck in operative position in the shaft.

The accompanying drawing illustrates some embodiments of the invention. Fig. 1 shows a steel stamp arranged according to the invention in elevation and partial section. Fig. 2 is a cross section of the device retaining the neck portion, and Fig. 3 is also a cross section of the device serving to retain the type. Fig. 4 shows a modified embodiment of the arrangement for retaining the neck, and Fig. 5 represents a further modified embodiment of the same arrangement.

According to Figs. 1-3, 1 designates the shaft or the holder of the stamp, said holder being made of cheap material. 2 denotes the neck or striking head and 3 is the type which is made of high-grade tool steel.

The type is retained by a spring clamp 4, the one shank 5 of which is preferably straight, and enters a bore hole provided between the holder and the type 3 in such a manner as to partly engage into the holder and partly into the type 3. The clamp is retained in this locking position by its other shank clasp around the outside of the holder, as shown in Fig. 3, the holder being preferably provided with a groove-shaped recess to receive the shank of the clamp. By means of this device, the type is securely retained and cannot be rotated whereas, by a simple manipulation, it may be removed or inserted. For the latter purpose, the type is preferably provided with a knurling 7 extending all around the type.

The arrangement above described may of course also be used for retaining the neck of the stamp, but for this purpose, a ring 8 split at a point at the circumference is used according to the drawing, the said ring 8 being inserted in the hollow of the shaft adapted for the stud 6, in which hollow it is retained through the resiliency thereof in a groove-shaped recess provided in the said hollow. When the stud 6 of the neck is being inserted into the ring thus retained, the neck is held fast by the friction between the stud 6 and the ring 8. According to Fig. 4, the arrangement is modified in such a way that the stud 6 is provided with the recess required to retain the ring. Fig. 5 shows the above-mentioned modified arrangement of a helical spring 9 retaining the neck, the

said spring 9 embracing a projection 10 on the stud 6 and bearing against the inside of the recess in the shaft through the resiliency thereof. In order that the neck may be easily removed or again inserted, the same may be provided with a knurling as shown in Fig. 5.

Between the neck 2 and the upper end of the holder, there is preferably arranged a fibre washer 17 serving to make the hammer blows softer and to protect the bearing surfaces against upsetting and wear. This washer also aids to lessening the bouncing of the stamp.

According to Figs. 1-3, the cylindrical holder 1 of the stamp is provided at the one side with a plane surface 11. The object of this arrangement is to facilitate a quick control by feeling whether the stamp is kept in the proper position when the stamping operation is to take place. Therefore, the plane surface 11 has a certain definite position, in the present case at right angles with respect to the slot or the plane in the type portion 3, into which the spring part 5 enters, or against which it is bearing. Through this means the position of the engraving of the type is determined.

What I claim as new and desire to secure by Letters Patent of the United States of America is:—

1. In a steel stamp, a holder, a stamping element engaging one end of said holder, a neck constituting a striking element engag-

ing the opposite end of the holder, and means detachably securing the neck and stamping element to the holder.

2. A steel stamp comprising a holder having recessed ends, a stamping element removably secured in one end of said holder, and a neck removably secured in the opposite end of said holder and constituting a striking element, said neck and stamping element being removably fitted in said recesses.

3. A steel stamp comprising a holder having a position indicating mark thereon, a stamping element removably engaged with one end of the holder, and means for non-rotatably securing the stamping element in a predetermined position in the holder with relation to the position indicating mark thereon.

4. A steel stamp comprising a holder having a position indicating mark thereon, a stamping element removably engaged with one end of the holder, means for non-rotatably securing the stamping element in a predetermined position in the holder with relation to the position indicating mark thereon, and a striking element removably secured to the opposite end of said body.

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

AXEL EDVARD OLSON.

Witnesses:

L. BERGMERHIDE,
INEZ SWENSON.