July, 10, 1923.

1,461,032

A. FORSYTH

CENTER PUNCH

Filed Oct. 27, 1920

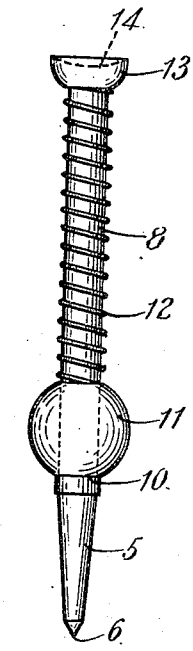


Fig. 1.

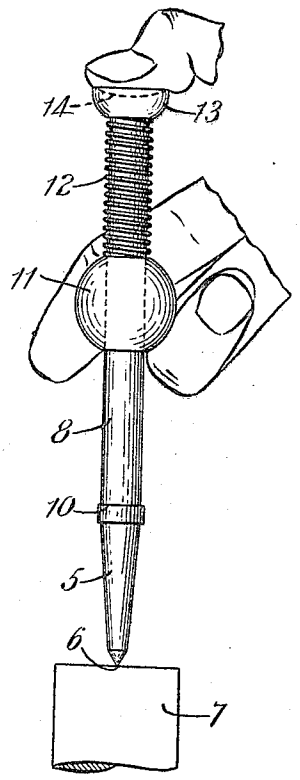


Fig. 2.

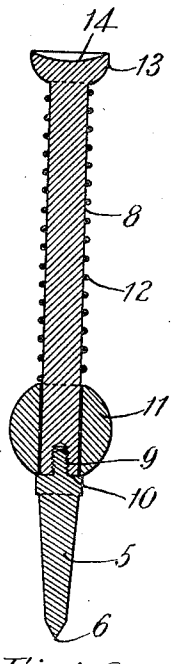


Fig. 3.

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UNITED STATES PATENT OFFICE.

ALEXANDER FORSYTH, OF WESTBORO, MASSACHUSETTS, ASSIGNOR TO ARTHUR M. FRASER, OF WESTBORO, MASSACHUSETTS.

CENTER PUNCH.

Application filed October 27, 1920. Serial No. 420,009.

To all whom it may concern:

Be it known that I, ALEXANDER FORSYTH, a subject of the King of England, residing at Westboro, in the county of Worcester and State of Massachusetts, have invented new and useful Improvements in Center Punches, of which the following is a specification.

This invention relates to an improvement in center punches and the like.

The object of the invention is to provide a tool for making an indentation upon the surface of an object usually constructed of metal, the said indentation being made by said tool without the employment of a hammer or other similar independent striking instrument or without necessitating the employment of more than one hand for positioning the tool upon the work and thereafter operating said tool.

The invention consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claim thereof.

Referring to the drawings:

Figure 1 is an elevation of my improved center punch.

Fig. 2 is an elevation similar to Figure 1 illustrating the method of operating the tool.

Fig. 3 is a longitudinal section through the tool.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 5 represents a tapered member preferably constructed of hardened steel terminating at its lower end in a point 6 by which suitable indentations or marks may be made in the surface of the work desired, as, for example, the end of a shaft 7, see Figure 2. Detachably secured at the upper end of the member 5 is a shank 8 which has screw-threaded engagement with said member at 9. A shoulder 10 is formed at the junction of the shank 8 and the member 5. A striker 11 approximately spherical in form is slidably mounted upon the shank 8, the lower surface thereof abutting against the shoulder 10, being forced thereagainst by a helical spring 12 which surrounds said shank. The lower end of the spring 12 abuts against the upper surface of the striker 11 while the upper end of said spring 12 abuts against the under surface of a head 13 formed at the upper extremity of the shank 8, the spring being at all times under compression between said head and said striker. The upper surface of the head 13 is slightly recessed at 14 in order that a thumb or finger may rest therein in operating the tool.

The general operation of the tool is as follows:—With the tool grasped in one hand in any manner suitable to the operator, but preferably with the thumb or forefinger located in the recess 14 as illustrated in Figure 2, the point 6 of the tool is positioned upon the work 7. The striker 11 is then raised as illustrated in Figure 2 to a sufficient height to give the desired amount of compression to the spring 12, after which the said striker is released, being forced downwardly by the spring and striking against the shoulder 10. The blow imparted to the shoulder 10 is transmitted through the member 5 to the work and an indentation made therein by the point 6, the size of the indentation depending upon the force of the blow and the degree of hardness of the work. If one blow of the striker 11 is not sufficient to form an indentation of the size desired, the blows may be repeated indefinitely until an indentation is formed the size desired.

I claim:

A center punch embodying therein a member provided with a point at its lower extremity and also provided with a shoulder formed thereon, a shank located at the upper extremity of said member and having screw-threaded engagement therewith, a head formed integral with said shank at the upper end thereof and provided with a recess therein constituting a finger rest, a striker slidably mounted upon said shank and a spring surrounding said shank between said head and said striker and adapted to force said striker against said shoulder.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALEXANDER FORSYTH.

Witnesses:
JOHN M. YOUNG,
ARTHUR M. FRASER.