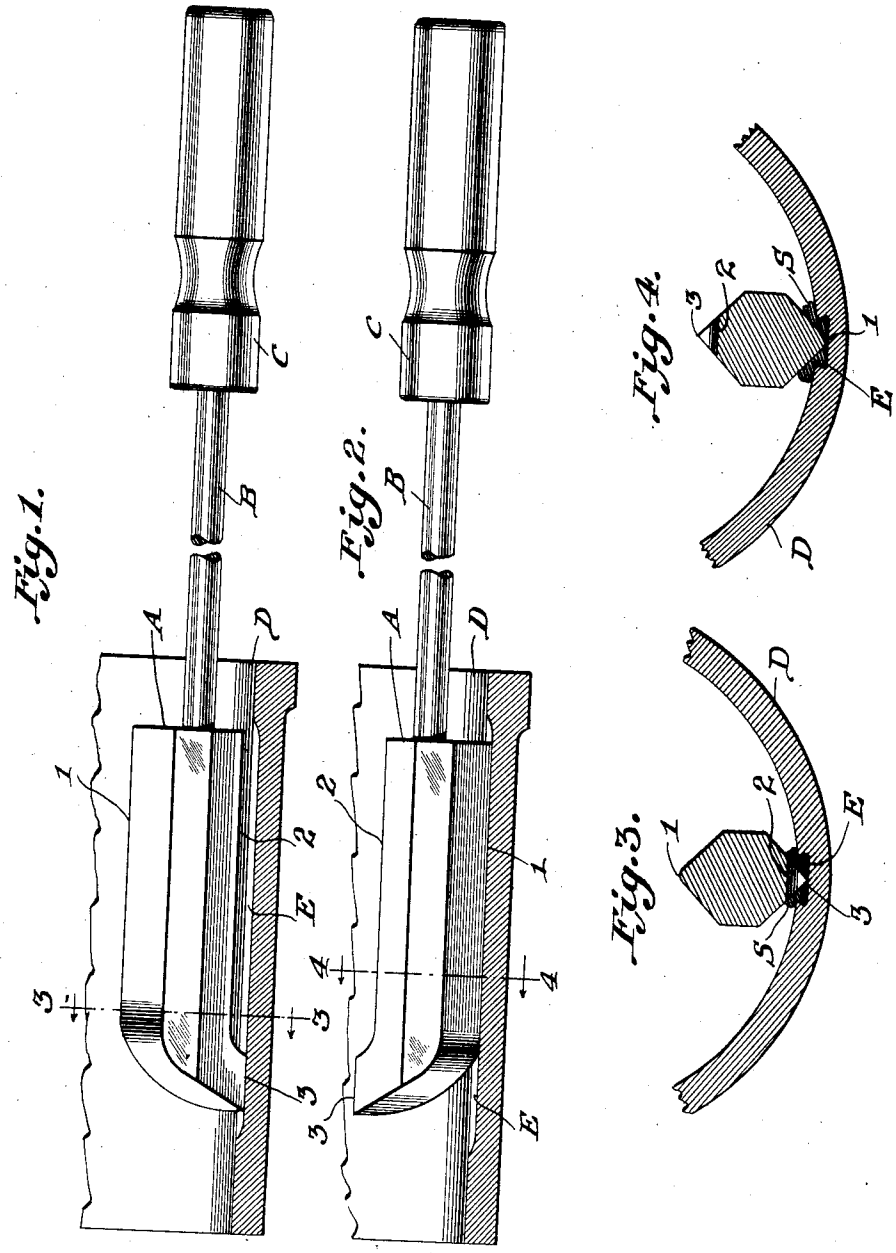
R. D. HEACOX.

SOLDERING COPPER.

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# UNITED STATES PATENT OFFICE.

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## SOLDERING COPPER.

Application filed June 20, 1921. Serial No. 479,107.

*To all whom it may concern:*

Be it known that I, Ross D. HEACOX, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Soldering Copper; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improved soldering copper for use in filling the scores in scored cylinders of engines.

The object of the invention is to provide a tool of the class indicated, of a particular construction, by means of which the operation indicated can be performed with great rapidity and efficiency.

The invention consists of the construction, arrangement and combination of parts hereinafter more particularly described and claimed.

One sheet of drawings accompanies this specification, in which like reference characters indicate like parts throughout.

Fig. 1 is a side elevation of the improved tool as applied in the tinning operation to the score of a cylinder shown partly in section;

Fig. 2 is a view similar to Fig. 1, showing the tool applied in the filling operation;

Fig. 3 is a transverse vertical section taken on the line 3—3 of Fig. 1;

Fig. 4 is a transverse vertical section taken on the line 4—4 of Fig. 2.

My improved tool consists of a head A secured to a rod B which is provided on its end with the customary handle C.

The head A is long relatively to its width and depth and heptagonal in cross section, extending from its rear end to a short distance from its front end throughout which latter distance it is hexagonal in cross section, an acute angled heel 3 being provided, the sides of which continue to be adjacent sides of the heptagon so that the edge of said heel 3 is centrally located relative to a side 2 of the main head. The edge of the head A opposite the edge of the heel 3 indicated by the character 1 is slightly rounded, as illustrated.

In operation the heel 3 of the heated head A is first applied to the remote end of a score E in cylinder D, as illustrated in Fig. 1. In this position it will be noted that the face 2 of head A is brought in close juxtaposition with the score which is to be tinned. The tool is then drawn outwardly, whereupon the heel 3 draws the solder S (indicated in Fig. 3 but not shown in Figs. 1 and 2 for sake of clearness) on to the preliminarily heated surface of the score, the heat from head A having been transmitted through surface 2 to the said score. After the score has thus been preliminarily tinned with the heel 3, an operation which, by reason of the particular structure of the iron herein described, can be very rapidly performed, the filling solder S may be applied with a blow torch or any desired means, whereupon the soldering head A is reversed and the slightly rounded edge 1 is applied, as illustrated in Figs. 2 and 4, which will apply heat uniformly to the solder throughout the length of the score and rapidly flow the same into intimate contact with all portions of the preliminarily tinned cavity.

Having thus fully described my invention, I claim:

1. A soldering copper comprising a head having a relatively long body of heptagonal cross section and one end of hexagonal cross section, two sides of the hexagonal part of the iron being extended adjacent that end to form a heel.

2. A soldering copper comprising a head having a relatively long body of heptagonal cross section and a projecting heel adjacent one end, said heel extending medially beyond one face of said heptagon and having its sides in the plane of the sides of the head adjacent said face.

3. A soldering copper as specified in claim 2, and having the edge opposite said heel slightly rounded.

4. A soldering copper having a relatively long head provided with a heating face, a heating edge and a heel, said heating face and heating edge oppositely disposed and extending parallel longitudinally of the head and said heel having an edge in raised relation with said heating face and parallel therewith.

In testimony whereof I affix my signature.

ROSS D. HEACOX.