

(No Model.)

R. JAMES.
SOLDERING COPPER.

No. 284,856.

Patented Sept. 11, 1883.

Fig. 1.

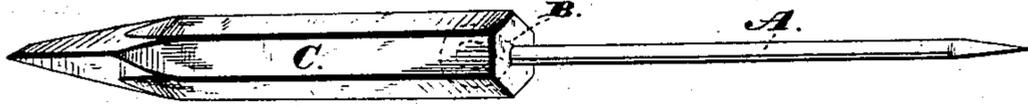


Fig. 2.

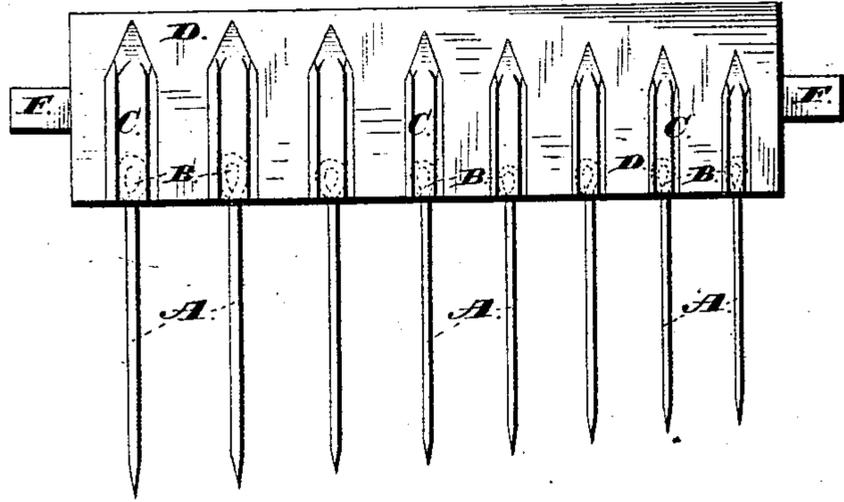
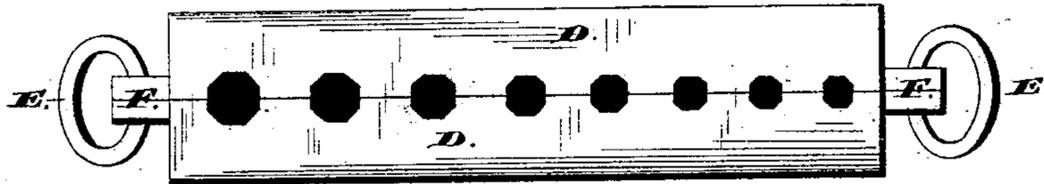


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

REES JAMES, OF HOUGHTON, MICHIGAN.

SOLDERING-COPPER.

SPECIFICATION forming part of Letters Patent No. 284,856, dated September 11, 1883.

Application filed June 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, REES JAMES, of Houghton, in the county of Houghton and State of Michigan, have invented certain new and useful Improvements in Soldering-Coppers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

10 Figure 1 shows my improved soldering-copper; Fig. 2, a view of a series of coppers as they appear in one-half the mold after casting; Fig. 3, a plan view of the mold ready for casting the coppers.

15 The object of my invention is to provide an improvement in soldering-coppers; and to this end it consists in the improved soldering-copper consisting of the head of copper cast directly upon the end of the handle.

20 It consists in the soldering-copper consisting of the head cast directly upon the end of the handle, and of the requisite size and weight and shape to fit it for immediate use; and, finally, it consists in the soldering-copper consisting of the handle having a loop at
25 one end and the head cast directly upon such end.

In the drawings, A designates the handle, formed with a loop, B, at one end. This handle I prefer to make of malleable iron.

30 C designates the head of copper, which is cast of the desired shape and size for use directly upon the looped end of the handle. In the process of casting these heads upon the handle I make use of a mold, as shown in
35 Figs. 2 and 3, adapted to cast a series of coppers of graduated sizes and weights. It is made of two parts, D D, as shown, which are to be properly clamped together by clamps E
40 E engaging the two reduced projecting end portions, F F. The looped ends of the handles A A are held in the upper ends of the cavities in the mold, and the melted copper is poured in so as to fill said cavities and entirely surround the ends of the handles. With the head
45 thus cast on and around the end of the handle

it is obviously impossible for the latter to work loose. It will remain firmly fixed in the head as long as the head lasts.

The method or process heretofore in use for
50 the manufacture of soldering-coppers was to roll copper bars to the size required, and then cut them in pieces of the desired weight and shape them down. The handles were afterward attached to or inserted in the heads in
55 various ways. Where they are thus inserted after the head is formed it has been found impossible to prevent them working loose, on account of the expansion and contraction of
60 the parts during the necessarily frequent heating and cooling of the coppers while in use. In my improved copper such working loose is impossible. Without the ring or loop on the
65 end of the handle, the head could not easily work loose where it is cast directly upon the handle, as is the case with my copper; but where this handle is provided with a loop, such as I show and describe, the working loose of
70 the head is obviously impossible, even after long-continued use.

Having thus fully set forth the nature of my invention, what I claim as new is—

1. As an article of manufacture, a soldering-copper consisting of the head cast directly upon the end of the handle, substantially as
75 shown and described.

2. As an article of manufacture, a soldering-copper consisting of the head cast directly upon the end of the handle, and of the requisite size, weight, and shape to fit it for immediate use, substantially as shown and described.
80

3. As an article of manufacture, the soldering-copper consisting of the handle formed with a looped end and the head cast directly upon such end, substantially as shown and described.
85

In testimony that I claim the foregoing I have hereunto set my hand this 7th day of June, A. D. 1883.

Witnesses:

JOHN DEE,
A. R. GRAY.

REES JAMES.