A. A. BEDARD.

SOLDERING TOOL.

APPLICATION FILED MAY 21, 1909.

957,180.

Patented May 10, 1910.

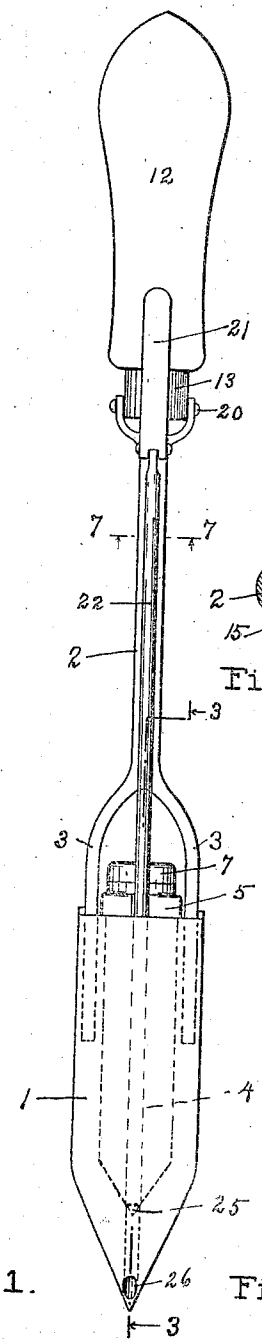

Fig. 1.

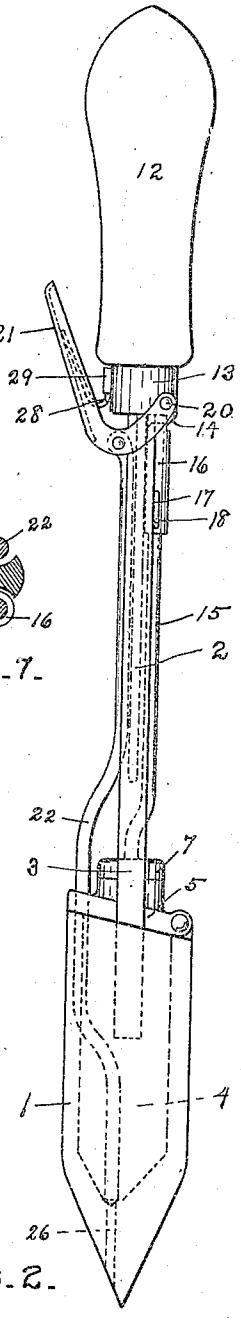

Fig. 2.

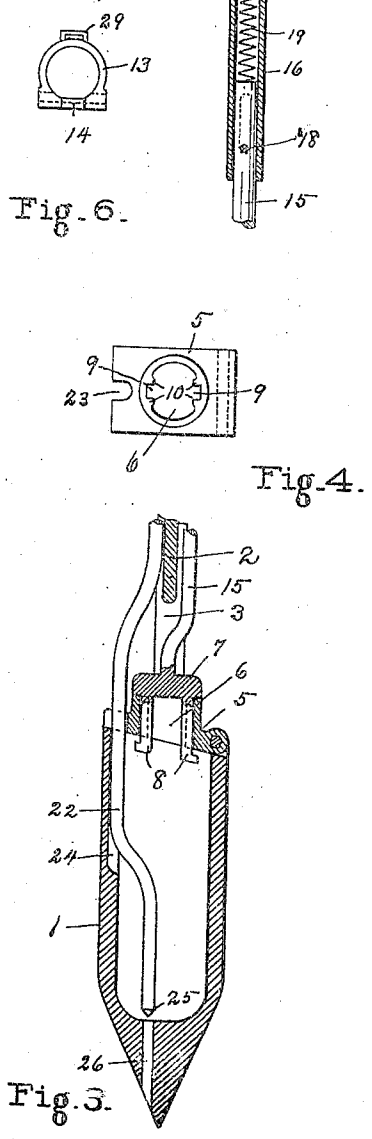

Fig. 3.

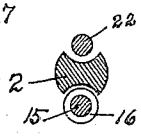

Fig. 7.

Fig. 6.

Fig. 5.

Fig. 4.

Witnesses:

J. H. Perrault

E. M. Brown

Inventor.

Alexander A. Bedard.

By Edward N. Pagelsen.

Attorney

UNITED STATES PATENT OFFICE.

ALEXANDER A. BEDARD, OF DETROIT, MICHIGAN.

SOLDERING-TOOL.

957,180. Specification of Letters Patent. Patented May 10, 1910.

Application filed May 21, 1909. Serial No. 497,481.

To all whom it may concern:

Be it known that I, ALEXANDER A. BEDARD, a citizen of the United States, and a resident of Detroit, in the county of Wayne and State of Michigan, have invented a new and Improved Soldering-Tool, of which the following is a specification.

This invention relates to soldering tools of the type provided with a reservoir in the head for retaining a supply of solder in a molten state for delivery as required, and its object is to provide a tool of this kind which shall be easily controlled, which shall have a removable cover for the reservoir in the head, and which shall have a spring-controlled valve to permit the escape of any gases which may accumulate in the head. I attain this object by the construction shown in the accompanying drawings, in which—

Figures 1 and 2 are elevations of the tool. Fig. 3 is a cross section on the line 3—3 of Fig. 1 showing a slightly modified form of chamber in the head. Fig. 4 is a plan of the cover. Fig. 5 is a cross section of a spring case at the upper end of the valve stem. Fig. 6 is an end view of the ferrule. Fig. 7 is a cross section on the line 7—7 of Fig. 1.

Similar reference characters refer to like parts throughout the several views.

The head 1 of the tool is of copper or other suitable metal and is secured onto the forked rod 2, the ends 3 of which may be placed in the mold when the head is cast. The head is provided with a chamber 4, which may have a conical bottom as shown in Figs. 1 and 2, or it may have a bottom such as shown in Fig. 3. To the upper end of the head is pivoted a cover or cap 5, preferably of copper, which has an opening 6 as shown in Fig. 4. A valve 7, also preferably of copper, is adapted to close the opening 6, and is provided with downwardly extending fingers 8 which are slidable in the grooves 9 between the shoulders 10, projecting from the wall of the opening as shown in Fig. 4. After the fingers have been slipped down through these grooves 9, the lower ends may be turned over as shown in Fig. 3. Should gases collect within the chamber in the head, the valve 7 can be lifted off by the pressure of the gases so they may escape. At the upper end of the rod 2 is a handle 12 having a ferrule 13. This ferrule has a small projection or catch 14 extending downward. The valve-stem 15 has a sleeve 16 surrounding and slidable on its upper end. This sleeve is provided with a slot 17 through which the pin 18 extends, and thus prevents the sleeve from slipping off the end of the stem. A spring 19 is mounted within the sleeve and holds it outward. The rod 2 is grooved as shown in Fig. 7 to receive the stem and sleeve. When the parts are in the position shown in Fig. 2, the spring will hold the valve 7 on its seat but will permit the valve to move from its seat under pressure, the small catch 14 holding the stem in the position shown. When it is desired to fill the chamber with melted solder, the sleeve 16 is pulled down so as to free it from the catch 14, when the stem can be swung out and thus lift the cover from over the chamber 4, which can then be filled.

Pivoted on the bolt 20 carried by the ferrule is a lever or handle 21, to which is connected the valve-rod 22. This rod extends through a notch 23 in the cover and a groove 24 in the head, and its lower pointed end 25 is adapted to close the passage 26. Any desired means may be used to hold the end 25 of the valve rod over the opening of the passage 26. The device shown in Fig. 2 is a bent spring 28 having one end inserted through the eye 29 on the ferrule and the other engaging the handle.

When the tool is to be used the sleeve is released from the catch 14, and the cover 5 swung open so that the chamber 4 in the previously heated head may be filled with melted solder. The cover is then closed, the engagement between the sleeve 16 and the catch 14 holding it in position, and the spring 19 holding the parts down sufficiently tight to prevent leakage. Whenever solder is required, the handle 21 is pressed down, thus opening the passage 26, and permitting solder to run down the same. This construction is especially adapted for the preferred form of heads which is practically rectangular in cross section with a tapering point.

Having now explained my improvements, what I claim as my invention and desire to secure by Letters Patent is:—

1. In a soldering tool, the combination of a chambered head, a cover hinged to the upper end of the same, a handle upon which the head is mounted, and a spring held device mounted on the handle to secure the cover in position.

2. In a soldering tool, the combination of a chambered head, a cover hinged to the upper end of the same, a valve for closing an opening in the cover, a handle for the head, and a rod normally held against the handle and connected to the valve at its lower end to hold the same in closing position.

3. In a soldering tool, the combination of a chambered head, a cover for the upper end of the same provided with an opening, a valve closing said opening, an upwardly extending stem secured to said valve, and a spring to hold said stem in proper position.

4. In a soldering tool, the combination of a stem having one end forked, a chambered soldering-head on the ends of the fork, a handle on the opposite end, a catch on said handle, a cover at the upper end of the head to close the opening, said cover having an opening, a valve to close the opening and having guide-fingers extending therethrough, a stem connected to said valve, a sleeve on the end of the stem, a spring within the sleeve to hold the same in engagement with the catch on the handle, said head having a passage through its lower end, a rod extending from the handle into the head to said passage, and spring-held means to force the end of the rod into said passage to close the same.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

ALEXANDER A. BEDARD.

Witnesses:
HOMER D. MACDONALD,
MARTHA E. WENDT.