

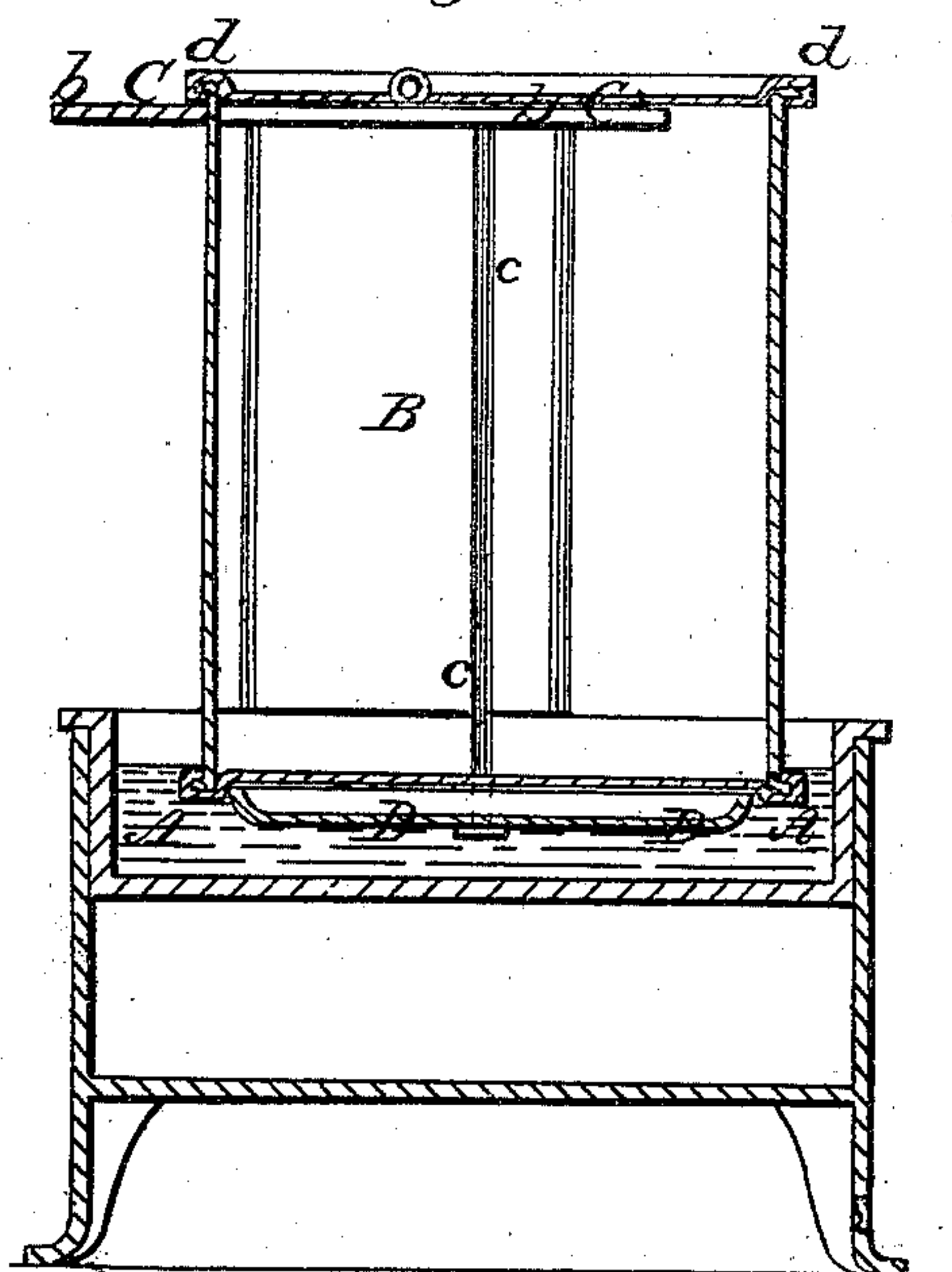
*Pratt & Seimel*

*Soldering Mach.*

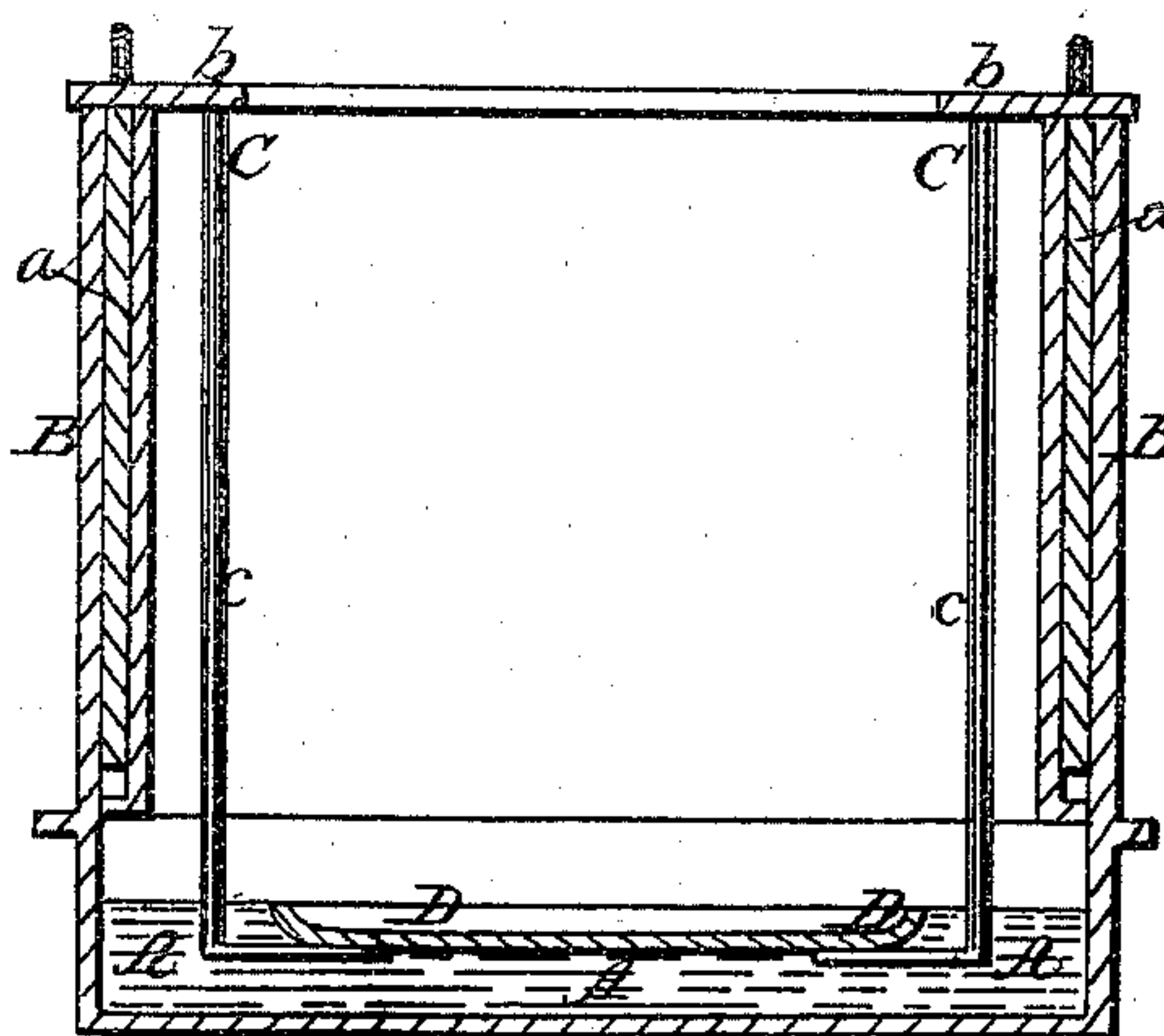
*N<sup>o</sup> 88,410.*

*Patented Mar. 30, 1869.*

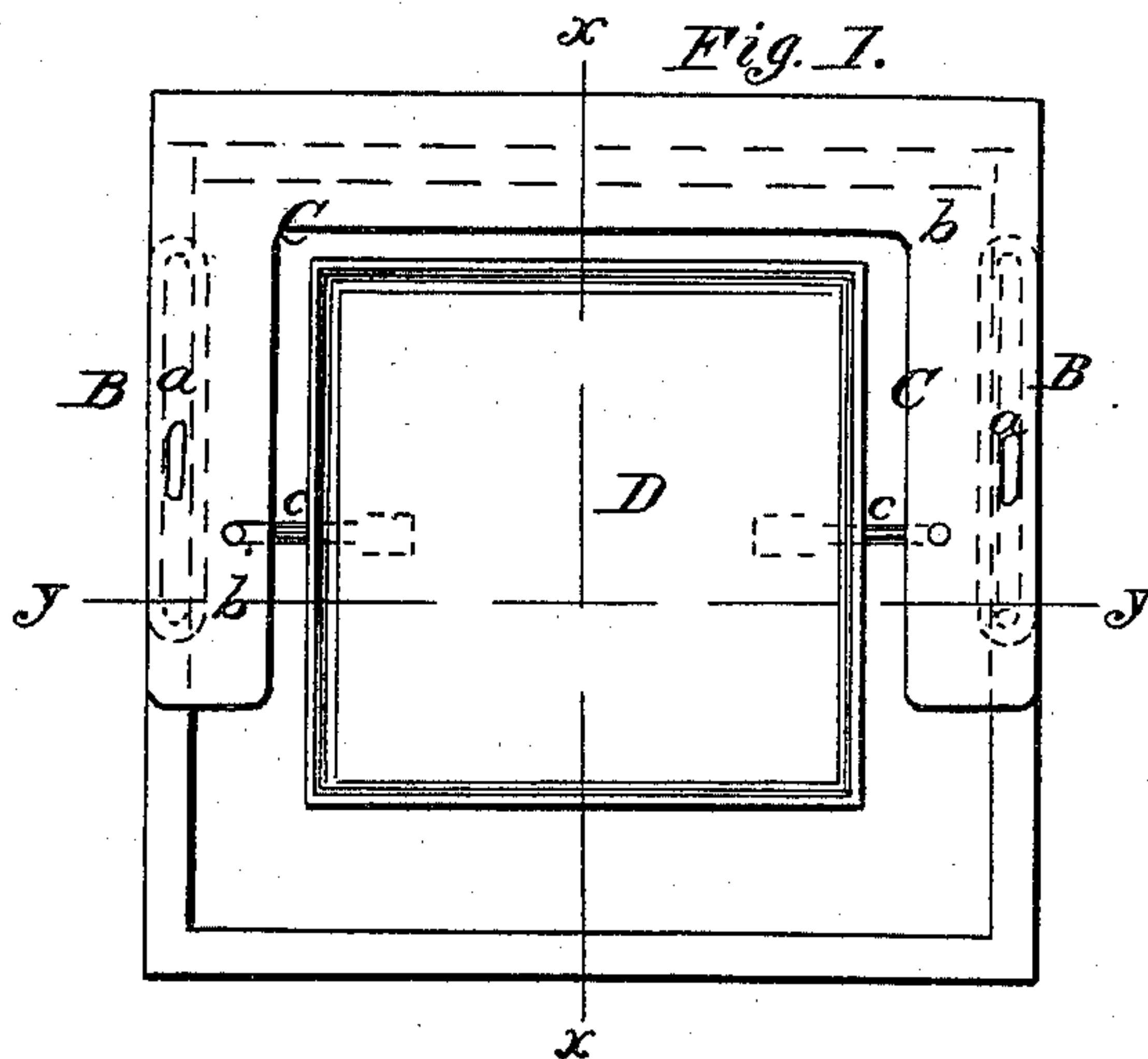
*Fig. 2.*



*Fig. 3.*



*Fig. 1.*



*Witnesses.*  
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# UNITED STATES PATENT OFFICE.

CHARLES PRATT, OF NEW YORK, AND CONRAD SEIMEL, OF GREEN POINT, N. Y.

## IMPROVEMENT IN SOLDERING APPARATUS.

Specification forming part of Letters Patent No. 88,410, dated March 30, 1869.

*To all whom it may concern:*

Be it known that we, CHARLES PRATT, of the city, county, and State of New York, and CONRAD SEIMEL, of Green Point, Kings county, New York, have invented a new and Improved Soldering Apparatus; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a plan or top view of our improved soldering-pan. Fig. 2 is a vertical transverse section of the same, taken on the plane of the line *x x*, Fig. 1. Fig. 3 is a vertical longitudinal section of the same, taken on the plane of the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to an apparatus intended for holding sheet-metal vessels and cans which are to be soldered at their edges, the parts of such apparatus holding the same being made adjustable, so that the can or vessel can be immersed in the solder to the requisite depth, and be raised out, when soldered, in a straight line, thus preventing the unequal distribution of solder occasioned by careless handling.

The invention consists, chiefly, in retaining the can or box to be soldered in a proper position by means of a frame, which can be depressed and elevated at will, to allow of the can or box being immersed in and raised out of the solder uniformly to the required extent.

The invention consists, also, in the application of a base-piece, being attached to and having the same motion as the frame which serves to protect the bottom of the can to be soldered, so that it cannot be reached by solder; also to sustain the can if the frame should be dispensed with.

A in the drawing represents a soldering-pan of ordinary construction. From the sides of the pan project two or more guide-posts, B B, which may be hollow, as shown, or solid. They serve as guides for the vertical arms *a* of a frame, C, which frame consists, chiefly, of a top plate, *b*, as shown in Fig. 1, and of the

arms *a*. From the frame C there is suspended above the soldering-pan, by means of rods *c*, a base-piece, D, which has its edges somewhat turned up, as shown in Figs. 2 and 3.

The can to be soldered is placed upon the base-piece D, as in Fig. 2, and its bottom projects beyond the sides of said base-piece, so that when the base-piece is lowered into or toward the solder, the edges of the can will be immersed in solder to the requisite depth.

The upward-turned edges of the base-piece protect the bottom of the can and prevent its being reached by the solder.

The base-piece D, instead of being suspended from the frame C, can as well be supported on an adjustable stem, or on other equivalent apparatus, by which it will be rendered adjustable in a vertical direction.

The frame C, when used, may be arranged without a base-piece, D, for some kinds of cans, especially where the same may be suspended, by means of their upper projecting flanges, *d*, from the plate *b*, as indicated in Fig. 2. Where the cans have not got these projecting flanges, the adjustable base-piece is indispensable to sustain the bottom of the can.

The apparatus for depressing and elevating the frame C, or the base-piece D, or both, may be varied, and may be connected with a treadle, screw, or other suitable convenient device, without changing the distinctive features of our invention.

It is well known that it is important in dipping cans to have them perfectly true, so that all edges are dipped at the same time into the molten solder, and to the same depth.

It is also important that the can, when soldered, should be immediately removed in a perfectly upright direction from the molten solder, so that some of its sides will not receive more solder than others by improper handling.

With our improved frame or base-plate, or both, the process of soldering cans can be carried on in a perfectly true and reliable manner, and at a small expense, and unskilled hands need only be employed to operate it.

By having the can adjustable over a fixed and open pan, the latter may contain a larger quantity of solder, which can consequently be more readily kept at a uniform temperature

than the small quantities used in movable pans.

We claim as new and desire to secure by Letters Patent—

1. The combination of a retaining-frame with a base-piece and soldering-pot, constructed and operating substantially as and for the purpose described.

2. The arrangement of the retaining-frame

for sustaining the can, substantially as described.

The above specification of our invention signed by us this 1st day of February, 1869.

CHAS. PRATT.

CONRAD SEIMEL.

Witnesses:

F. BLOCKLEY,

E. GREENE COLLINS.