

(No Model.)

W. M. BOWMAN & E. F. SHAW.
OIL STOVE.

No. 482,539.

Patented Sept. 13, 1892.

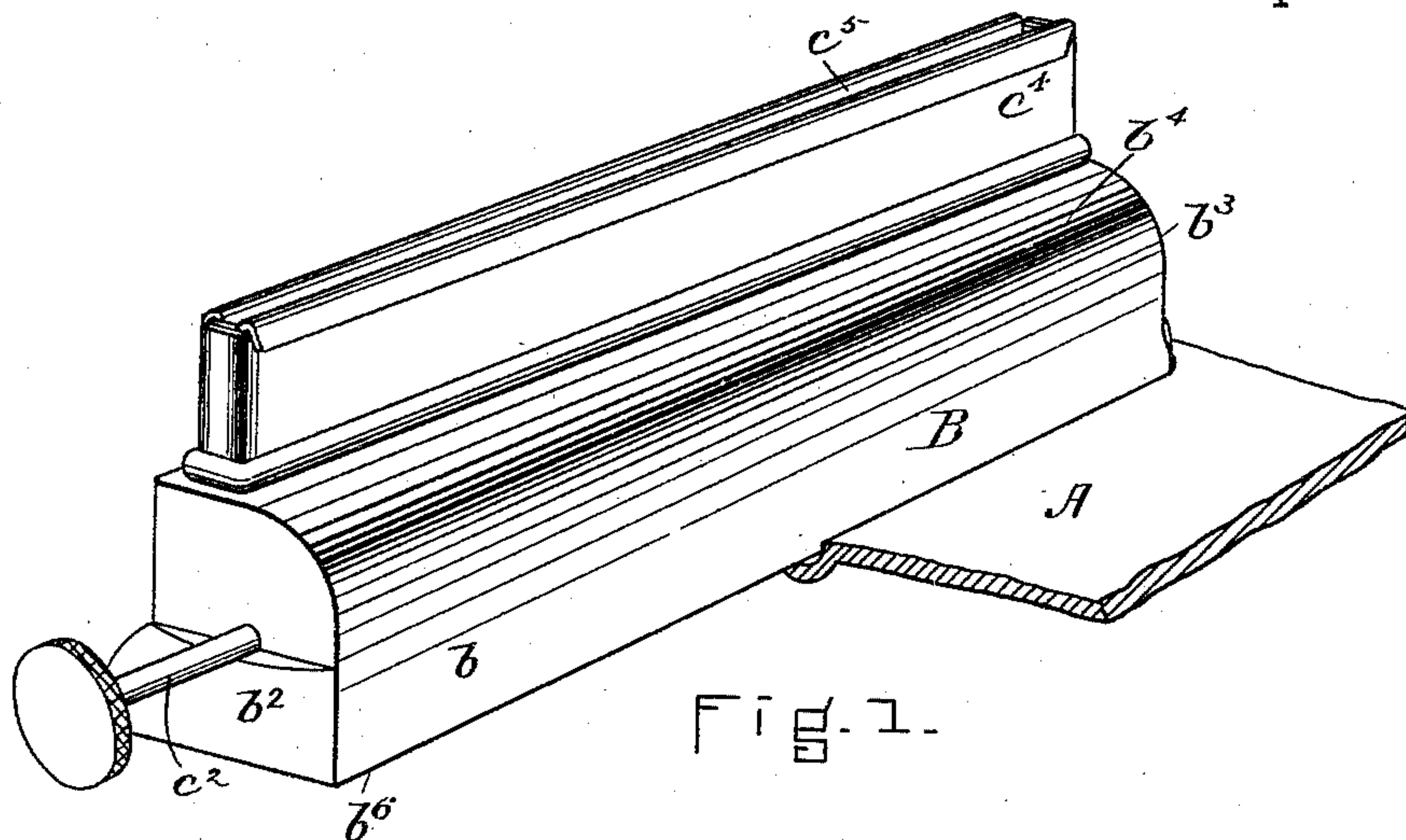


Fig. 1.

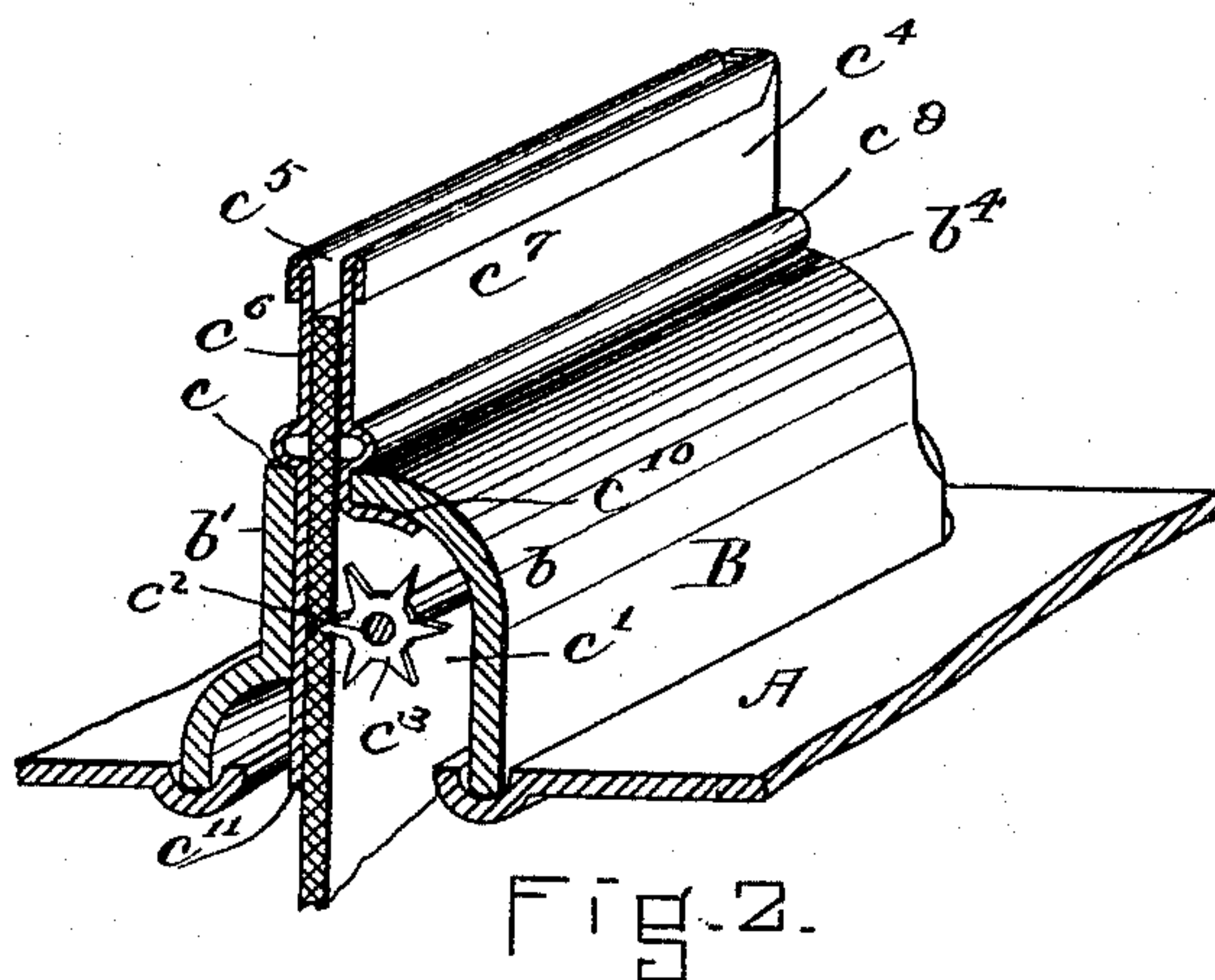
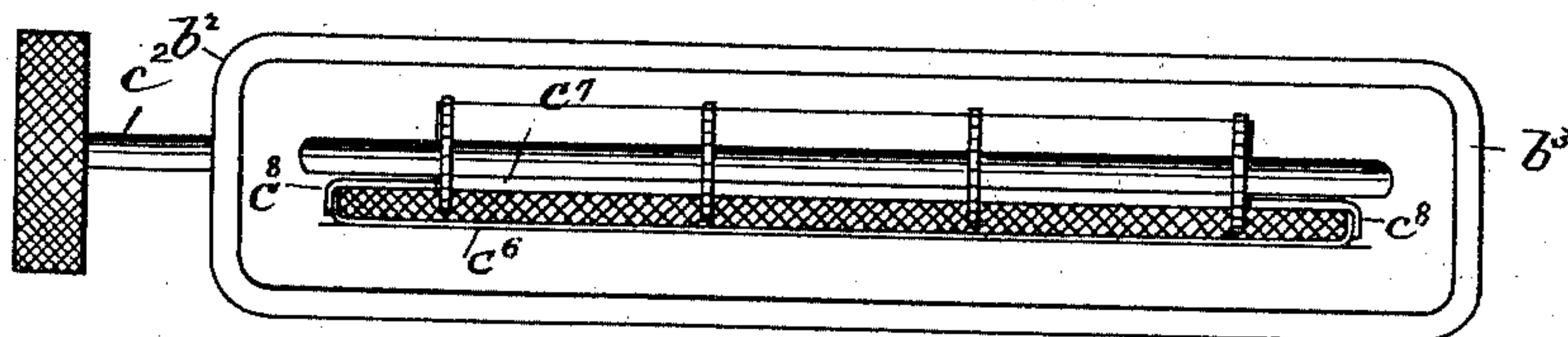
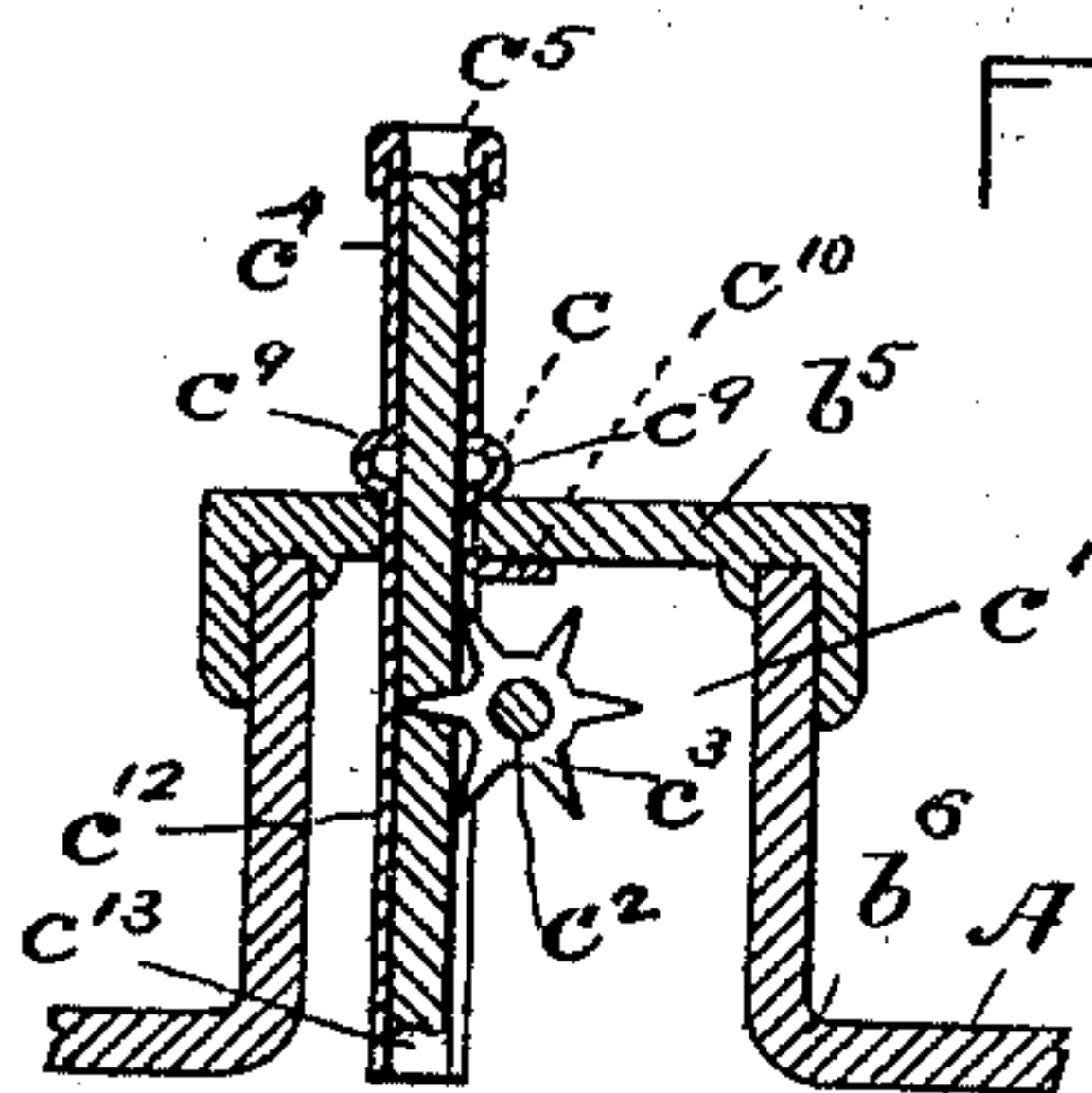


Fig. 2.



F-10-N-



F: 8.4.

WITNESSES.

J. M. Dolan.
A. P. Porter.

INVENTORS.

Thos. M. Bowman
Elmer F. Shaw
by their attys
Clarke & Raymond

UNITED STATES PATENT OFFICE.

WILLIAM M. BOWMAN AND ELMER F. SHAW, OF PLYMOUTH, MASSACHUSETTS,
ASSIGNORS TO THE PLYMOUTH FOUNDRY COMPANY, OF SAME PLACE.

OIL-STOVE.

SPECIFICATION forming part of Letters Patent No. 482,539, dated September 13, 1892.

Application filed April 3, 1890. Serial No. 346,402. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM M. BOWMAN and ELMER F. SHAW, citizens of the United States, residing at Plymouth, in the county of Plymouth and State of Massachusetts, have invented a new and useful Improvement in Oil-Stoves, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

The invention is an improvement in oil-stoves, and relates especially to the burner, its form of construction, and manner of securing it to the reservoir.

Heretofore burners of lamp-stoves have been made of thin sheet metal struck up or otherwise formed and comprising a number of pieces, one or more of which form a housing for the wick-raiser, which has invariably been placed upon the side of the burner and outside the reservoir-space. This construction is relatively expensive and is not desirable because of the many joints, many of which require solder and which renders the burner liable to fall apart or become useless by the melting of the solder. By our invention we locate the wick-raiser in a chamber or box opening directly into the reservoir, instead of placing it in a housing upon the side of the burner. This enables us to use as a section of the burner a box or housing of cast metal and in one or two sections, as may be desired. It also enables us to attach and hold the sheet-metal portion of the burner to the reservoir in a way to prevent it from being injured, damaged, or made inoperative by heat, as although solder may be employed in perfecting some of the joints the burner is so constructed that if the solder be melted it will not fall apart.

The invention further relates to various details of construction, all of which will hereinafter be described.

Referring to the drawings, Figure 1 is a view in perspective of the burner, a portion of the top plate of the oil-reservoir being also shown. Fig. 2 is a view in perspective of a portion of the burner to show it in section and to illustrate its relation to the top plate of the reservoir. Fig. 3 is a view in plan thereof. Fig. 4 is a transverse sectional view of a modified

form of the invention, to which reference is hereinafter made.

We have shown in the drawings only a portion of the top plate of the metal reservoir, and A represents such plate.

B is a box, of cast-iron or other cast metal, having its sides b b' and ends b^2 b^3 integral. Its top b^4 may be integral with the remainder of the box or it may be formed by a separate cap-plate b^5 , as indicated in Fig. 4. Its base or lower edge b^6 may be integral with the top plate A, as represented in Fig. 4, or may be united thereto, as represented in Fig. 2, by a common plaster joint, the plate A having a cup-recess to receive the lower edge of the box and plaster, or in any other desired way. The box has in its top a long narrow slit c , which extends, preferably, the full length of the box and which is also preferably nearer one side than the other of the box, whereby there is provided a space or chamber c' of sufficient size to receive the wick-raiser shaft c^2 and wick-raisers c^3 , carried thereby.

Extending through the slit c of the top of the box is a flattened wick-tube c^4 . This wick-tube is made of sheet metal of a size to fit the slit c . It has a passage c^5 for the wick. It preferably is made of two sections or pieces of sheet metal c^6 c^7 , which overlap at their ends c^8 (see Fig. 3) and which overlapped sections extend into the box-slit and are held from spreading apart or opening by the box. There is formed in each side of the wick-tube above the box-top an outward-extending bead c^9 , which rests upon the top of the box. The plate c^6 of the wick-tube is made longer than the plate c^7 and extends into the box space or cavity below the line of the wick-raisers. The plate c^7 does not extend to the wick-raisers, but is bent at c^{10} upon the under surface of the top of the box. (See Figs. 2 and 4.) This locks the wick-tube to the box, the beads c^9 acting as stops to prevent the wick-tube from being forced into the box farther than is desired and the bent end c^{10} acting to prevent the wick-tube from being drawn from the box, while the ends c^8 held by the top of the box prevent the two parts of the tube from separating, or, in other words, hold them firmly together. The wick-tube of course bears proper operative relation to the wick-raisers,

and the lower section c^{11} of the plate c^6 acts as a yielding or spring plate for holding the wick in the box in operative or proper relation to the wick-raisers, there being a sufficient amount of give or yield to this plate to permit this to take place. We prefer, also, that the section c^{11} be of sufficient width to permit its edges to be bent and return slightly to form guides c^{12} for the wick. Where the box is constructed as represented in Fig. 4 the top is united to the sides by plaster joint or in any other desired way. It will be seen that by this construction the box cavity or space opens directly into the chamber of the oil reservoir or tank and that the wick-raiser is contained in said space; also, by using the casting B an economy in the cost of manufacture is obtained, while greater safety and durability are provided.

Having thus fully described our invention, we claim and desire to secure by Letters Patent of the United States—

1. In oil-stoves, a metal box B upon the top plate of the reservoir or tank of the stove, having a slit or recess through its top for receiving the wick-tube and a chamber or space on one side only for holding the wick-raiser, substantially as described.

2. A burner for oil-stoves, comprising a cast-metal box B, the sides and ends of which are integral, a slit through the top near one side, forming an opening for the reception of the

wick-tube, the said wick-tube, and the shaft and wick-raisers contained in said box at one side of the wick only, as and for the purposes described.

3. A burner for oil-stoves, comprising a box of cast metal the sides and ends of which are integral and which has a long opening through its top located nearer one side of the box than the other, a wick-tube inserted in said slit and having one side extending downward into the cavity of the box, and a wick-raiser shaft and raisers thereon on the other side of said downwardly-extending section and in the cavity of said box, as and for the purposes described.

4. In a burner for oil-stoves, the box B, having the integral sides and ends and provided with a long opening through its top near one side of the box, a wick-tube inserted in said opening, made of two pieces, the edges of which overlap, each of which has a rib c^9 and one of which sections extends downwardly into the cavity of the box and bears against its side and the other of which sections has its lower edge folded upon the under surface of the top of the box, a wick-raiser shaft in the cavity of said box, and wick-raisers thereon, as and for the purposes described.

WILLIAM M. BOWMAN.
ELMER F. SHAW.

Witnesses:

JOHN L. BACHELDER,
GEORGE S. DYER.