

G. W. Bishop,

Sad Iron,

No 14,796,

Patented May 6, 1856.

Fig. 1.

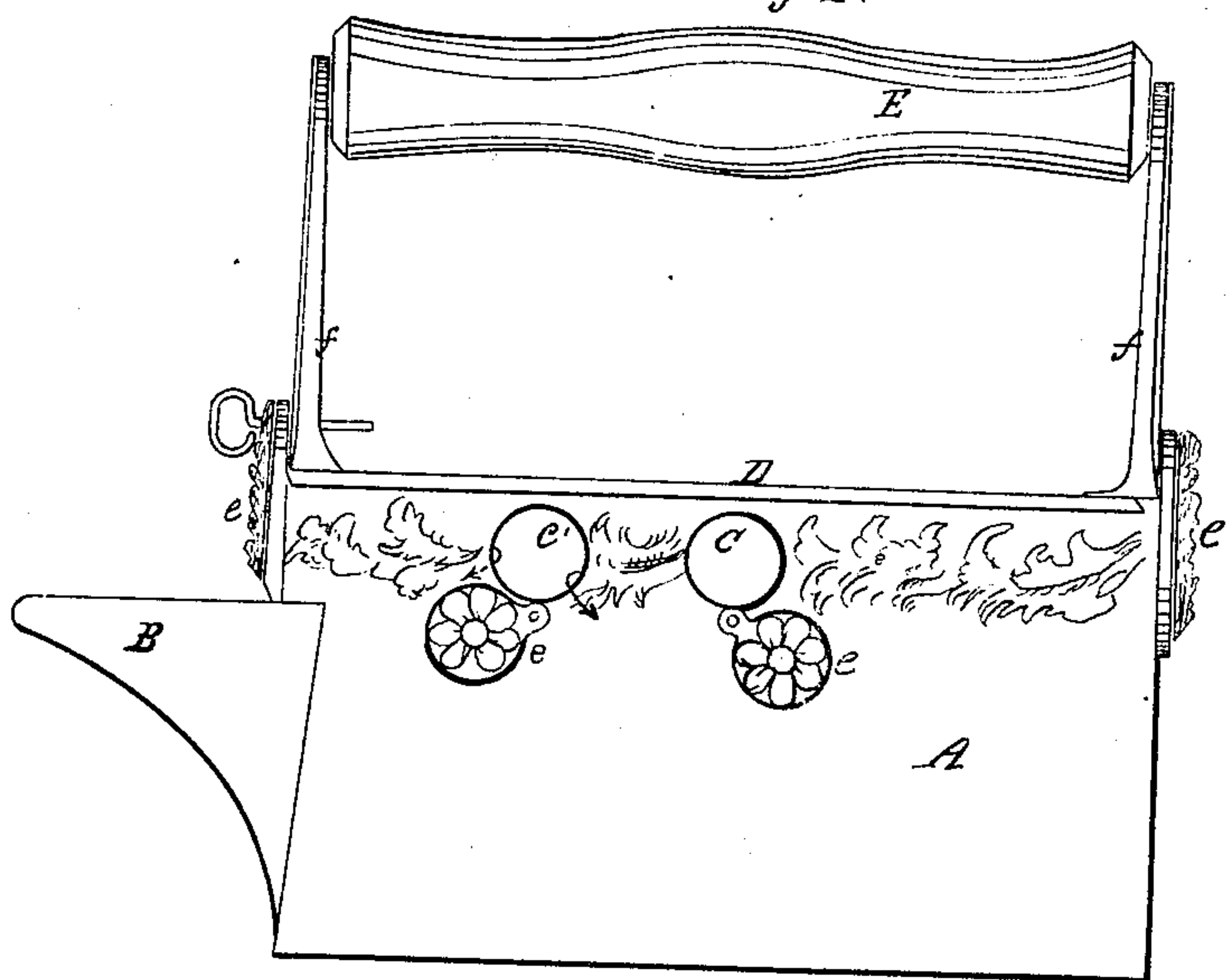


Fig. 2.

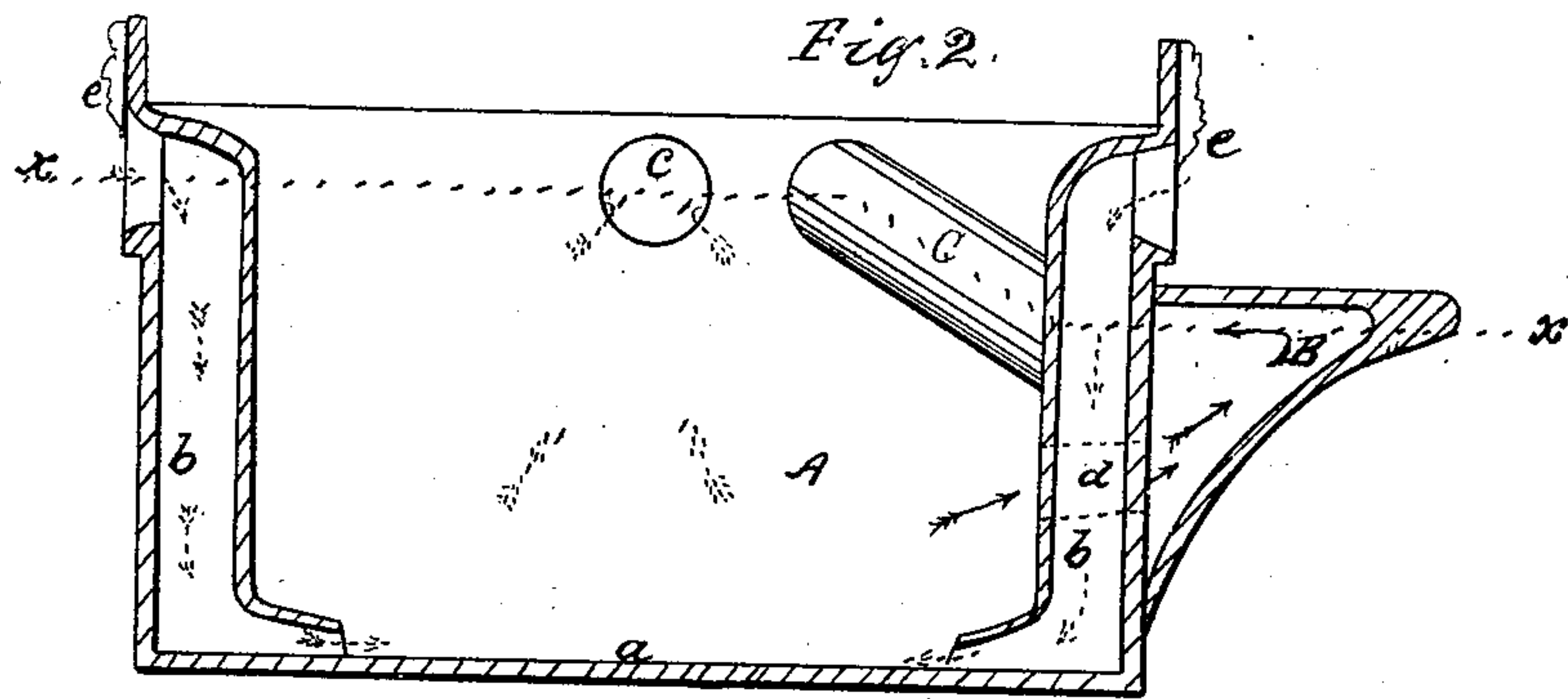
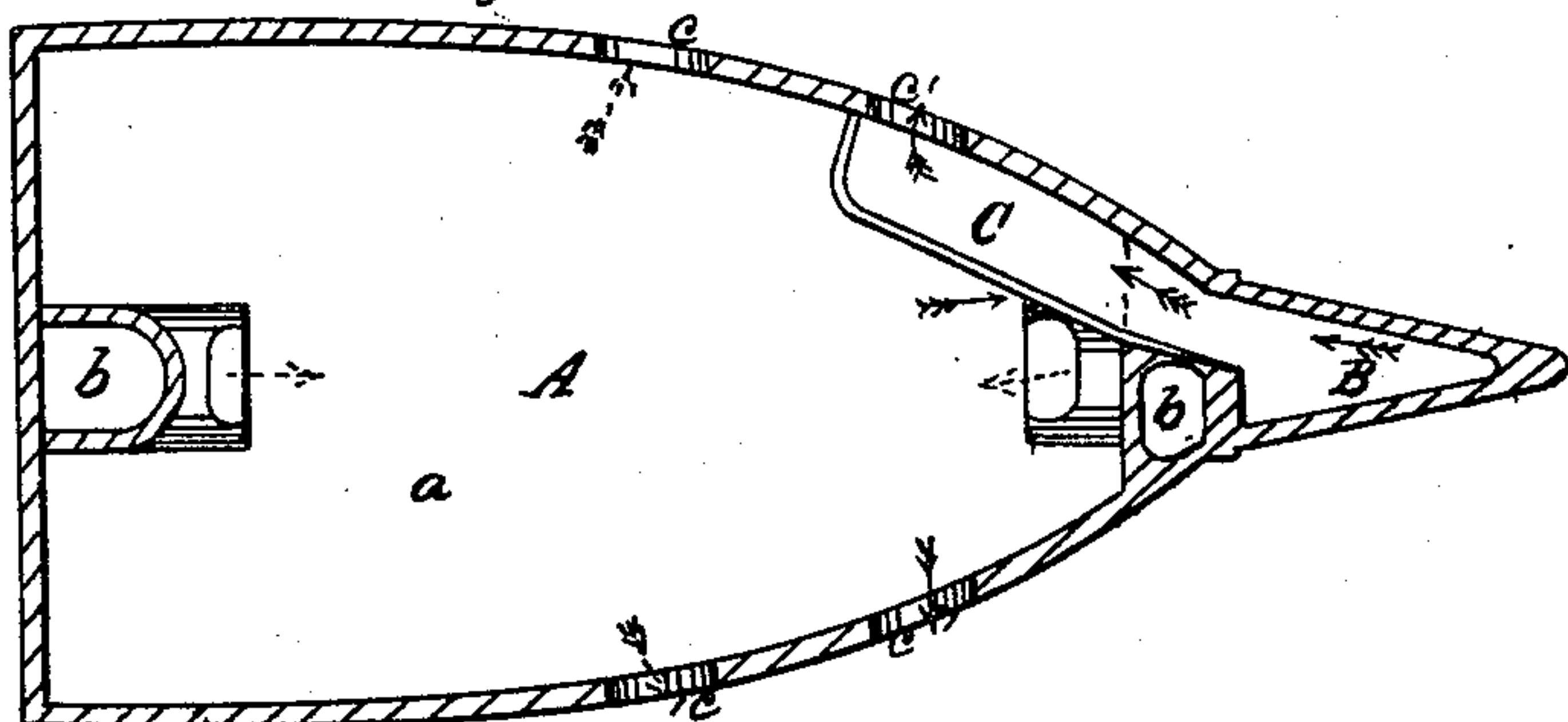


Fig. 3.



UNITED STATES PATENT OFFICE.

G. W. BISHUP, OF BROOKLYN, NEW YORK.

SELF-HEATING SMOOTHING-IRON.

Specification of Letters Patent No. 14,796, dated May 6, 1856.

To all whom it may concern:

Be it known that I, G. W. BISHUP, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Smoothing or Sad Iron; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side view of my improvement. Fig. 2, is a longitudinal vertical section of ditto the plane of section being through the center. Fig. 3, is a horizontal section of ditto (x) (x), Fig. 2, showing the plane of section.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new and improved smoothing or sad iron, the kind provided with a fire chamber or box to contain fuel and which may be termed self heaters.

The nature of the invention consists in the peculiar arrangement of the passages which supply the fire with air and the arrangement of the exit or smoke passages, and fluting attachment as will be presently shown and described.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents the fire chamber or box, the bottom (a), of which forms the heated surface which is rubbed over the clothes to be ironed. The bottom (a), is of the usual form, and the fire chamber or box is made sufficiently high to contain a requisite quantity of fuel, charcoal being chiefly used. Wood coals will also answer.

At the front and back ends of the fire chamber or box there is placed a vertical tube or pipe (b), one at each end see Figs. 2, and 3. The lower ends of these tubes project inward a short distance toward the center of the fire chamber or box the tubes extending downward to the bottom (a). The upper ends of the tubes communicate with the external air at the upper parts of the front and back ends of the fire chamber or box as clearly shown in Fig. 2. At each side of the fire chamber or box A, at its upper part there is made two apertures or holes. These apertures or holes serve as exit passages for the smoke and gas from the fuel. The holes at one side of the fire chamber or box are designated by (c). (c), and at the opposite

side one is designated by (c), and the other by (c'). To the front side of the fire chamber or box A, there is a projection B, the upper surface of which is somewhat rounded. This projection serves as a fluting iron. The projection is hollow and its lower part communicates with the fire chamber or box A, by an aperture (d), shown by dotted lines in Fig. 2. The upper part of the interior of the projection communicates with a tube C, the outer end of which terminates at the aperture or hole (c') which is the mouth of the tube C, see Figs. 1 and 3. The apertures or holes (c), and also the aperture or hole (c'), and the mouths or upper ends of the tubes (b), (b), are each provided with a cover or register (e), for the purpose of regulating the draft of the fire.

D, is the cover of the fire chamber or box A, which has an upright (f), at each end between the upper parts of which a handle E, is secured.

The fuel is placed within the chamber or box A, and ignited, and as the implement is used, moved back and forth over the clothes, the air is forced down the tubes (b), (b), and feeds the flame or supplies it with oxygen, the air passing down the tube at the front end of the fire chamber when the implement is shoved forward and down the back tube when the implement is moved backward. The smoke and gas escape through the holes (c), (c') and a perfect draft is thereby obtained for the fire.

In case fluting is to be done the apertures or holes (c) at the sides of the fire chamber or box A, are entirely covered by the covers or registers (e), and the heat then passes through the aperture (d), into the projection B, the smoke and gas escaping through the tube C, and out through the aperture or hole (c') as indicated by the black arrows. The dotted arrows show the air passing into the chamber or box A, and the dotted arrows 1 show the smoke and gas escaping through the apertures or holes (c).

When it is not required to heat the projection B, the aperture or hole (c') may be covered or not, it is immaterial, but if the projection is to be heated it is essential that the aperture (c'), be open and the apertures (c), closed in order that the whole draft may be through the projection B, and insure its being perfectly heated.

The advantages of the above invention are that a perfect draft is obtained for

the fire within the chamber or box A, for air is forced into the chamber or box both at the forward and backward movement and the fire is consequently fanned all the time the implement is used and no ashes can pass out of the chamber or box because the tubes (b), are in a vertical position and do not afford convenient outlets for its escape. In many cases collars are attached to work which require to be fluted and by the above implement, the fluting may be done over the projection B immediately after the other parts of the work are ironed the projection being in a proper heated state by arranging the registers as previously described.

I am aware that self heating smoothing or sad irons have been previously invented one kind is heated by a lamp another kind is heated by charcoal, and has a smoke pipe in front, and an opening behind to admit air to feed the flame. The latter will not be generally used in consequence of the imperfect draft, for the fire is only supplied with air while the implement is moved backward, and when moved forward the air is forced down the smoke pipe, and the ashes is blown out through the opening behind, and the bottom of the iron is imperfectly heated in consequence of the draft

piece admitting the air across the center of the bottom of the fire chamber thereby keeping a large surface, a greater portion, of the bottom of the fire chamber cool. This objection does not exist in my improvement, as the air is admitted at the ends of the fire chamber or box.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is,

1. The tubes or pipes (b), (b), placed one at the front and the other at the back of the fire chamber or box A, and the openings or holes (c), at the sides of said chamber or box arranged substantially as shown for the purpose specified.

2. I further claim the hollow projection B, attached to the fire chamber or box A, and communicating with said chamber or box by an aperture (d), and having a tube C, connected with it which communicates with the external air at one side of the fire chamber or box A, substantially as for the purpose set forth.

G. W. BISHUP.

Witnesses:

JNO. MASON,
WM. TUSCH.