J. Middleton,

Ice Crusher.

No. 31,027. Patented Jan. 1, 1861.

Fig. 1.

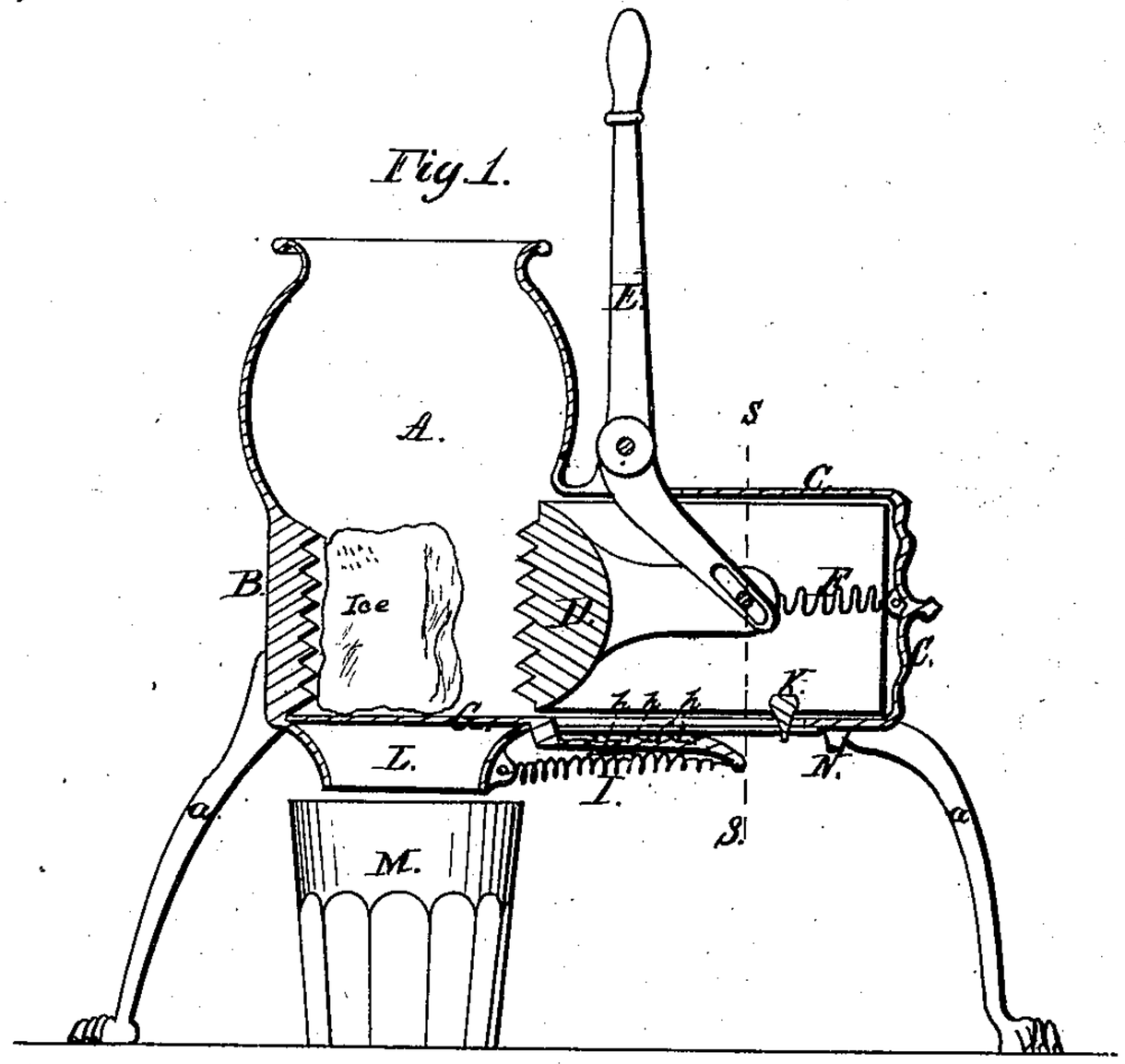
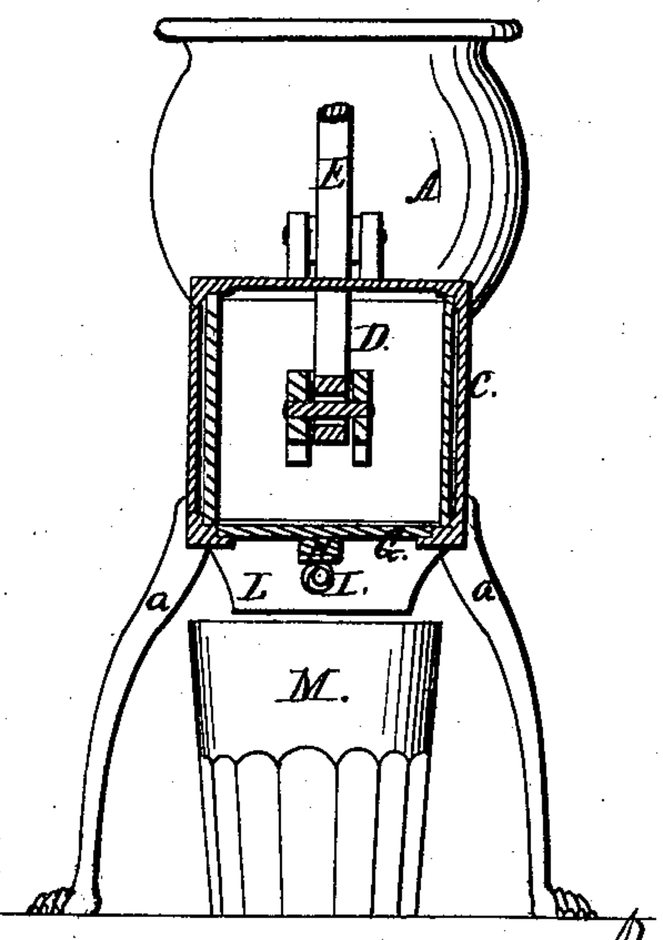


Fig. 2



Attest:

L. H. Babcock

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UNITED STATES PATENT OFFICE.

JOHN MIDDLETON, OF NEW YORK, N. Y.

ICE-CRUSHER.

Specification of Letters Patent No. 31,027, dated January 1, 1861.

To all whom it may concern:

Be it known that I, JOHN MIDDLETON, of the city, county, and State of New York, have invented a certain new and useful Ice-Crusher; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings.

My invention is a novel and simple apparatus for crushing and discharging small quantities of ice for cooling drinks, etc.

To enable others skilled in the art to make and use my invention I will proceed to describe the construction and operation of the same, by means of the drawings in which,

Figure 1 is a longitudinal section and Fig. 2 is a cross section on the line S, S, in Fig. 1.

Similar letters of reference indicate like parts in both figures.

A is a receiver made of metal and supported upon legs *a*, *a*, one at each corner. On one side of this receiver is fixed a toothed jaw B as represented. On the opposite side is a square case or chamber C fitted to receive a sliding jaw D and permit it to slide to and from B in proper ways, which keep it in position. This jaw D has also sharp teeth upon its face which are adapted to fit intermediately in the teeth on B. The jaw D receives its motion from a lever E mounted in proper bearings on the chamber C, the end of the lever E which is connected to D being slotted as represented, to permit it to move in the arc of a circle while D moves in a right line. A spring F is attached to D and the end of chamber C, to bring back the jaw D and lever E, when the hand is removed from the latter, but this may be dispensed with if desired, the hand being made to replace the lever E after crushing the ice. The bottom, G, of the receiver A is fitted to slide in proper grooves in A and C, as is shown more plainly in Fig. 2. To this sliding bottom a spring H is attached with the end bent downward and carrying on its upper surface several projections or notches *h*, as represented. A spiral spring I is attached to H and to any convenient point on A so as to tend to hold the sliding bottom G always in the position shown in Fig. 1.

K is a projecting pin attached to D, and so arranged that when D is pressed forward it is caught by one of the projections *h*, and in its return motion causes G to be removed from the position shown, opening the receiver A so that the crushed ice may fall out through a spout or funnel L into a glass M or other vessel placed underneath to receive it. As the jaw, D, recedes, carrying with it the slide G, the end of H strikes a projection N on the case C which releases the former from the pin K and allows the spring I to close G again, ready to support a fresh charge of ice.

In operating my machine, a glass, M, or other suitable vessel, is placed in the position shown and a lump of ice, represented by the blue outlines, is dropped in the receiver A. The hand is then placed upon lever E which is pressed downward forcing inward the jaw D causing the sharp teeth on both D and B to penetrate the ice and break it into very small fragments. E and D are then restored to their first position, either by the tension of the spring C or by a reverse motion of the hand, and the early portion of this motion, by the action of K upon *h*, withdraws the bottom G and allows the crushed ice to fall into M. The continuance of this motion brings H into contact with N and depresses it so much as to detach *h* from K after which G is immediately replaced by the spring I and the machine is ready for another operation.

Having now fully described my improved ice crusher what I claim as new therein and desire to secure by Letters Patent is—

The combination of the receiver A, jaws B and D, and sliding bottom G, operating together substantially in the manner and for the purpose herein set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN MIDDLETON.

Witnesses:

G. H. BABCOCK,

WM. B. SMITH.