

(No Model.)

J. BESLEY.

APPARATUS FOR SKIMMING MILK.

No. 285,958.

Patented Oct. 2, 1883.

Fig. 2.

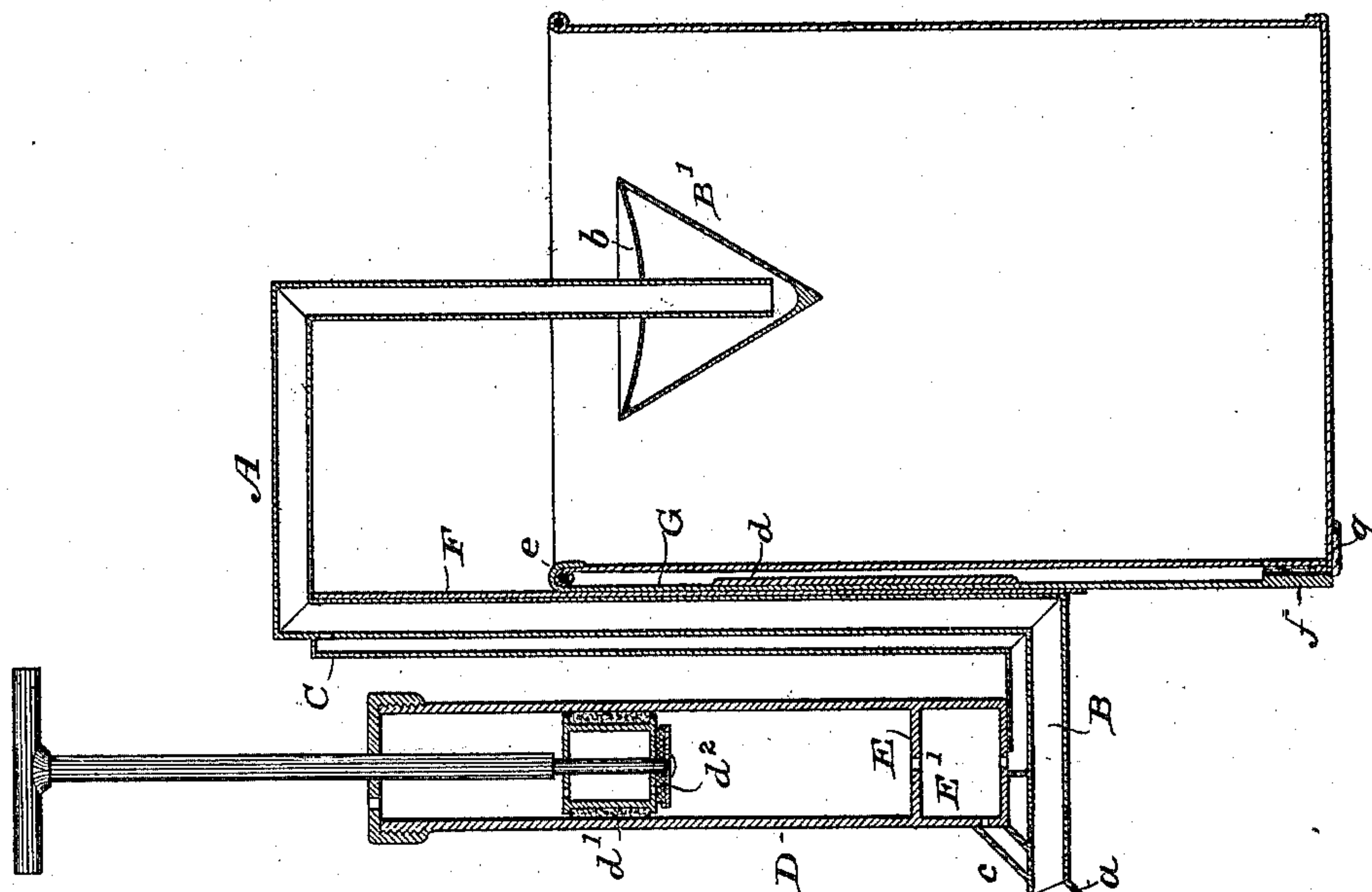


Fig. 3.

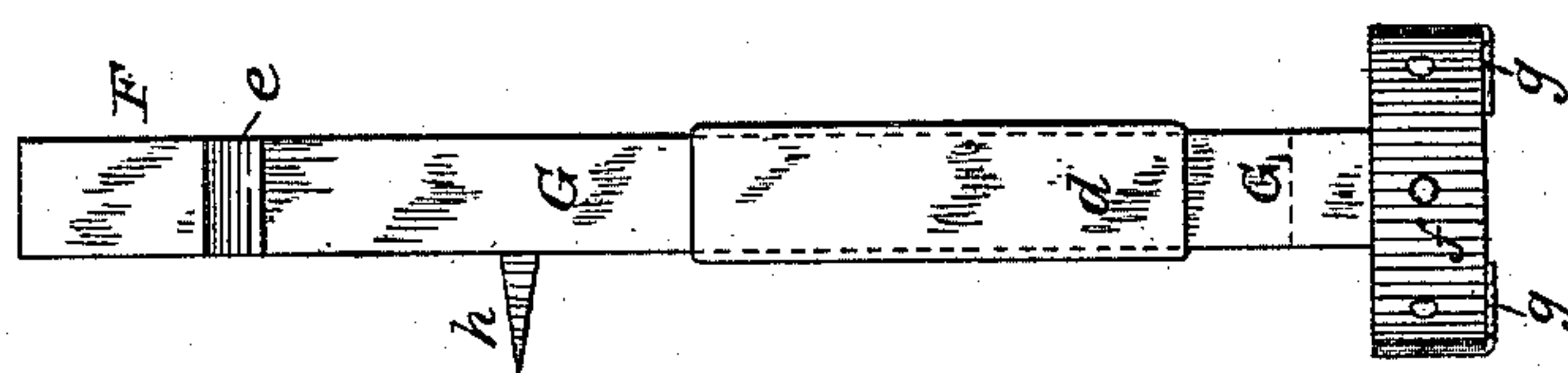
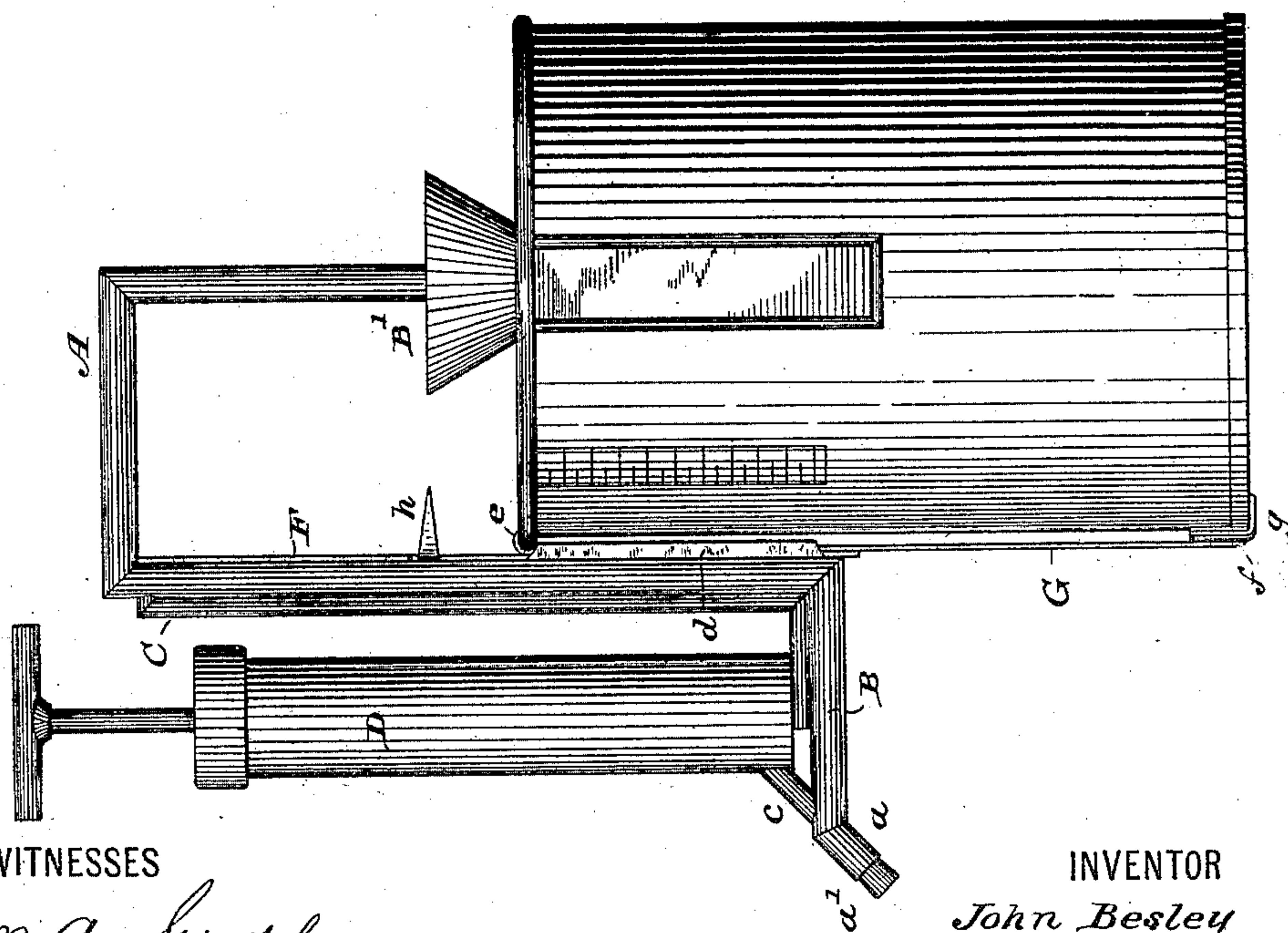


Fig. 1.



WITNESSES

Wm A. Skink
Henry A. Lamb

INVENTOR

John Besley

By his Attorneys

Baldwin, Hopkins & Peck

UNITED STATES PATENT OFFICE.

JOHN BESLEY, OF COLUMBIA CROSS ROADS, PENNSYLVANIA.

APPARATUS FOR SKIMMING MILK.

SPECIFICATION forming part of Letters Patent No. 285,958, dated October 2, 1883.

Application filed March 31, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN BESLEY, of Columbia Cross Roads, in the county of Bradford and State of Pennsylvania, have invented certain new and useful Improvements in Apparatus for Skimming Milk, of which the following is a specification.

My invention consists in certain improvements in apparatus for drawing off cream contained in deep cans or jars.

The details of construction and the subject-matter claimed will be hereinafter specified.

In the accompanying drawings, Figure 1 is a side view of a milk-can with my device applied thereto. Fig. 2 is a vertical section through the same, and Fig. 3 is a detail view of the upright siphon support or guide to be attached to the can.

To carry out my invention I provide a siphon, A, which is preferably angular in form, and which is provided at its lower end with a horizontal extension, B, having an inclined mouth, *a*, provided with a suitable plug or faucet, *a'*. To the upper or inner end of the siphon is connected, by means of a cross-piece, *b*, a skimmer, B', preferably funnel or cone shaped. The end of the siphon extends down into the skimmer and terminates a short distance above its bottom or apex. The outside pipe of the siphon communicates, by means of a tube, C, with a pump, D, which is of an ordinary construction, except that it is preferably provided with a diaphragm, E, having an aperture near the bottom of the cylinder. This diaphragm forms a stop, against which the piston works, and forms a chamber, E', which communicates, by means of a short pipe, *c*, with the mouth of the exit-pipe B. The pump-piston is of the kind in which a sliding packing, *d'*, is provided with a valve-passage, and works against a valve-face, *d''*, on the enlarged end of the rod.

To the outside pipe of the siphon is attached a narrow strip of metal, F, which is provided with a flat tubular or other suitable socket, *d*, for connecting it with a second strip, G, on which it is vertically adjustable. The upper end, *e*, of the strip G is turned over or hooked, and the lower end is provided with a cross-piece, *f*, on which are formed lugs *g g*. An index or pointer, *h*, is permanently fixed on the strip F at a point in line with the top of

the skimmer, so that the position of the skimmer may always be indicated by the pointer, though the skimmer itself be hidden.

The apparatus as above described is more particularly designed for use in connection with cans which are provided with a glass panel on which a scale is marked, and through which the dividing-line of the contained milk and cream may be noted. A can of this kind is shown in Fig. 1, and my apparatus is applied thereto by first drawing apart the two strips F and G, so as to hold the skimmer at its highest elevation, and then slipping the hooked top *e* of the strip G over the top ridge of the can and forcing the lugs *g g* under its bottom, so as to bring the strips close to the can alongside of the glass panel or window. The skimmer is then lowered until its top or ridge, as indicated by the pointer, has reached the dividing-line between the milk and cream. If, now, the mouth of the tube B be closed and a few strokes given to the pump, a part of the cream will flow into and fill the siphon, from which it may be drawn off at the mouth of the pipe B, and which will draw with it, by a siphon-like action, the remainder of the cream contained in the can. The arrangement of the tube C with the pump and siphon tends to prevent the cream from being drawn into the pump-cylinder in starting the apparatus. By the use of a funnel-shaped skimmer in connection with a drawing-off pipe, which projects down into it, the cream can be taken off very accurately and satisfactorily just at the cream-line or at any desired point. Any cream or milk which enters the cylinder of the pump will run off from the chamber E through the pipe *c*.

When all the cream is drawn off from one can, the apparatus may be removed and applied in succession to other cans, where the operation may be repeated.

It will be observed that the cream does not pass through the pump, in which it would be more or less churned, but is drawn off in an expeditious and reliable manner by a gentle flow through the pipes.

Of course the kind of pump employed may be varied, and other changes may be made without departing from the spirit of my invention.

I am aware that it is not new to skim milk

by drawing off the cream with a siphon, (without a pump,) and also that previous to my invention an exhaust-pump has been used in combination with a siphon, (without a skimmer,) and I do not broadly claim such subject-matter; but

What I claim as my invention is—

1. The combination, substantially as set forth, of the siphon, a vertical guide which carries the siphon, and on which the siphon can be adjusted vertically, and means for readily attaching and detaching the guide from the can.

2. The combination, substantially as set forth, of the milk-can having the transparent panel therein, the siphon, the skimmer carried on the end of the siphon, the pump, the vertical guide or support on which the siphon is vertically adjusted, and the pointer carried by the siphon.

3. The combination, substantially as set forth, of the siphon, the pump connected therewith, the skimmer, and the pipe connected with the bottom of the pump-cylinder and with the siphon-pipe, as shown.

4. The combination, substantially as set forth, of the siphon, the pump, the pipe C, connected with the upper part of the siphon and with the pump-cylinder, and the pipe c, which leads from the bottom of the pump-cylinder to the discharge-mouth of the siphon.

In testimony whereof I have hereunto subscribed my name this 24th day of March, A. D. 1883.

JOHN BESLEY.

Witnesses:

S. W. LESTER,

GEO. O. HOLCOMB.