

No. 693,385.

Patented Feb. 18, 1902.

J. FAULDS.
BAKER'S OVEN ILLUMINATOR.

(Application filed Apr. 10, 1901.)

(No Model.)

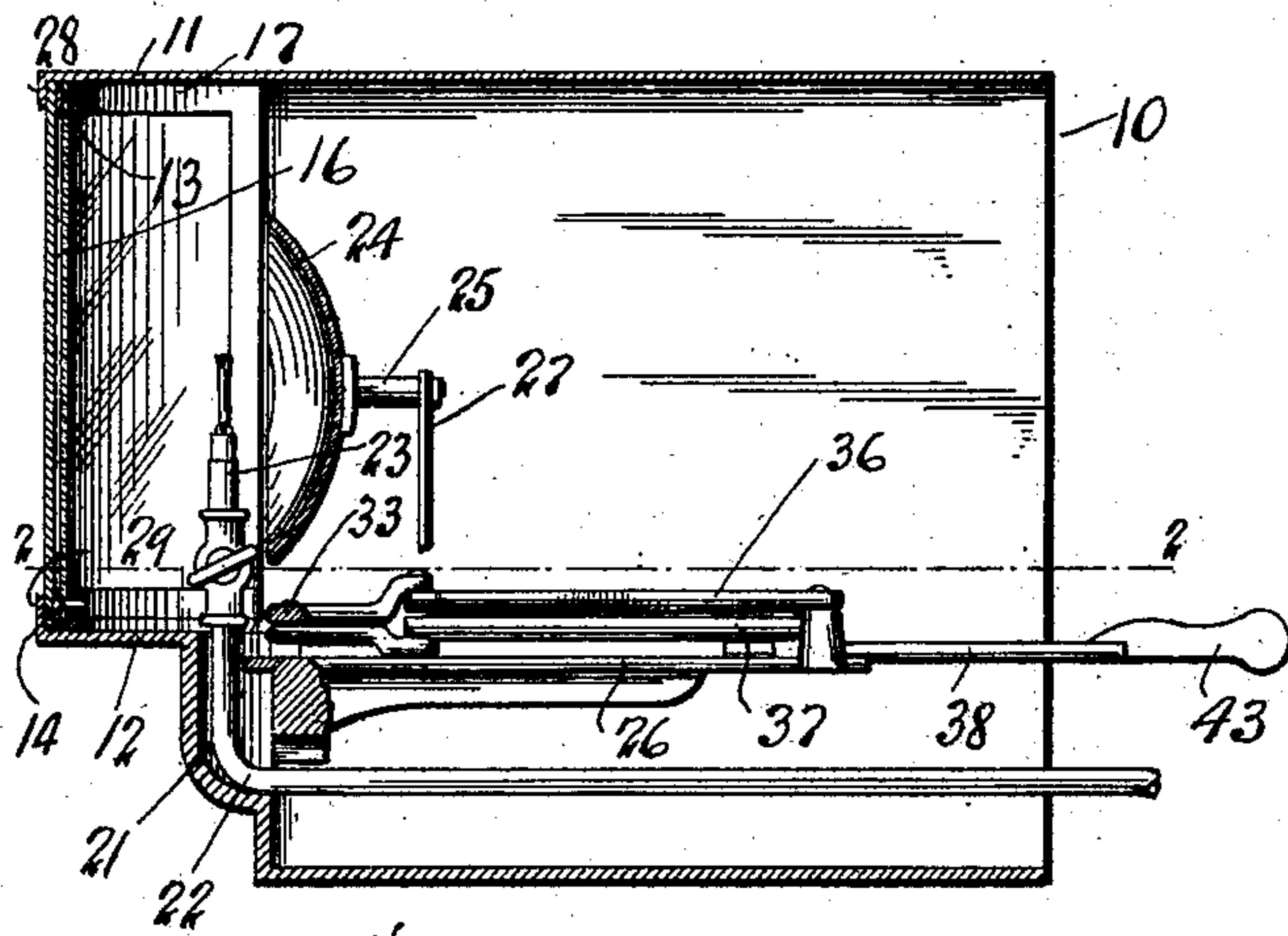


Fig. 1.

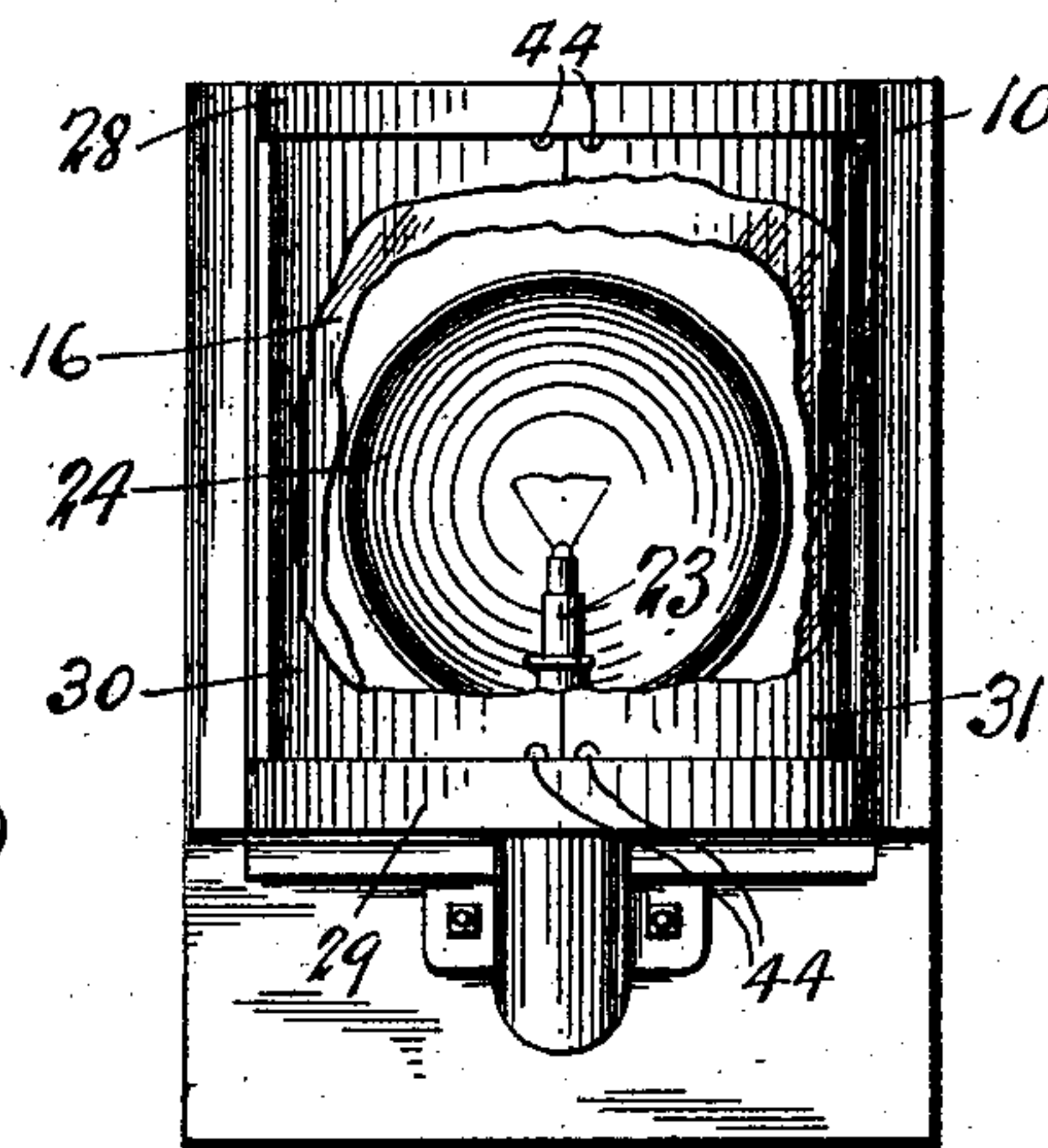


Fig. 4.

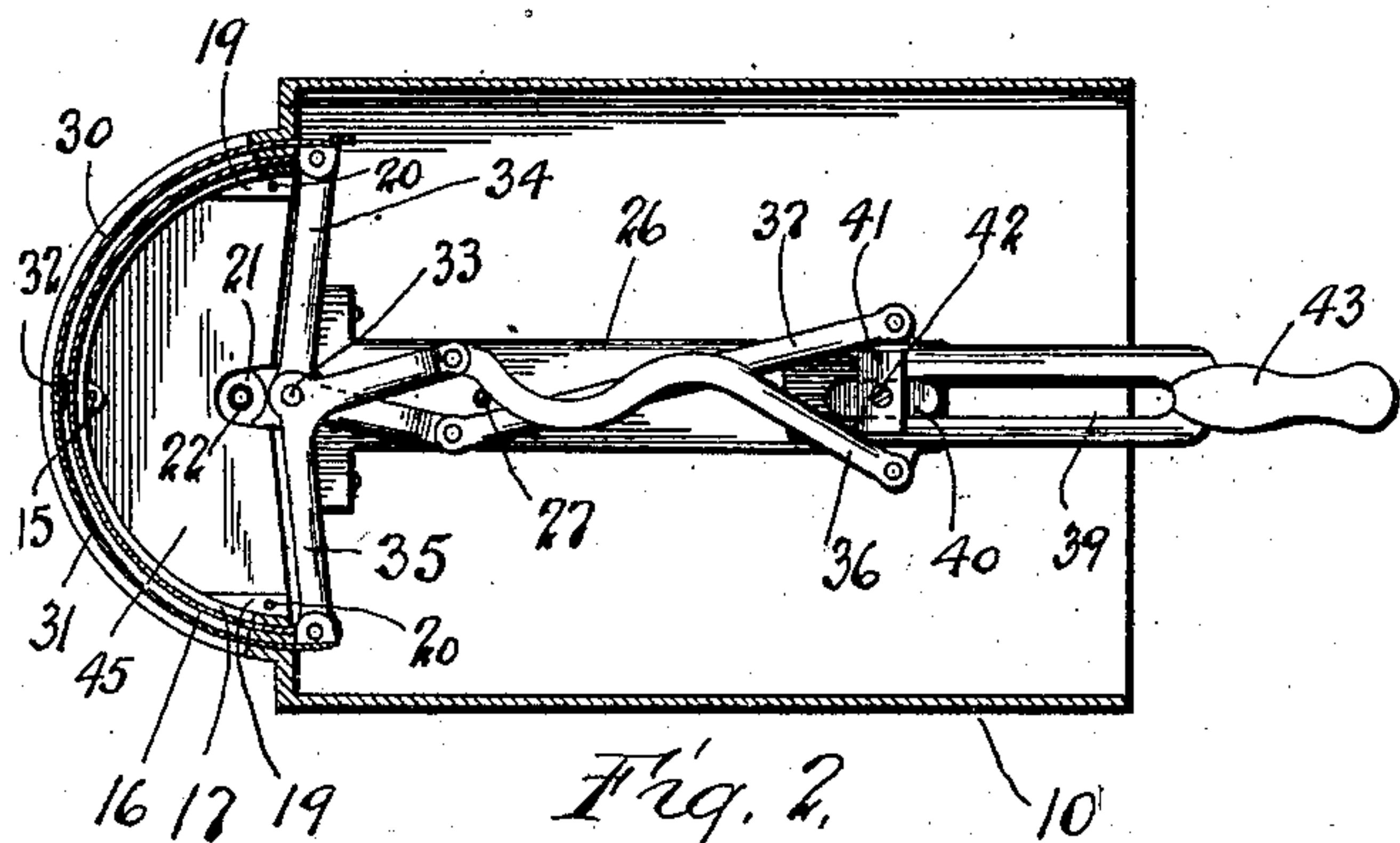


Fig. 2.

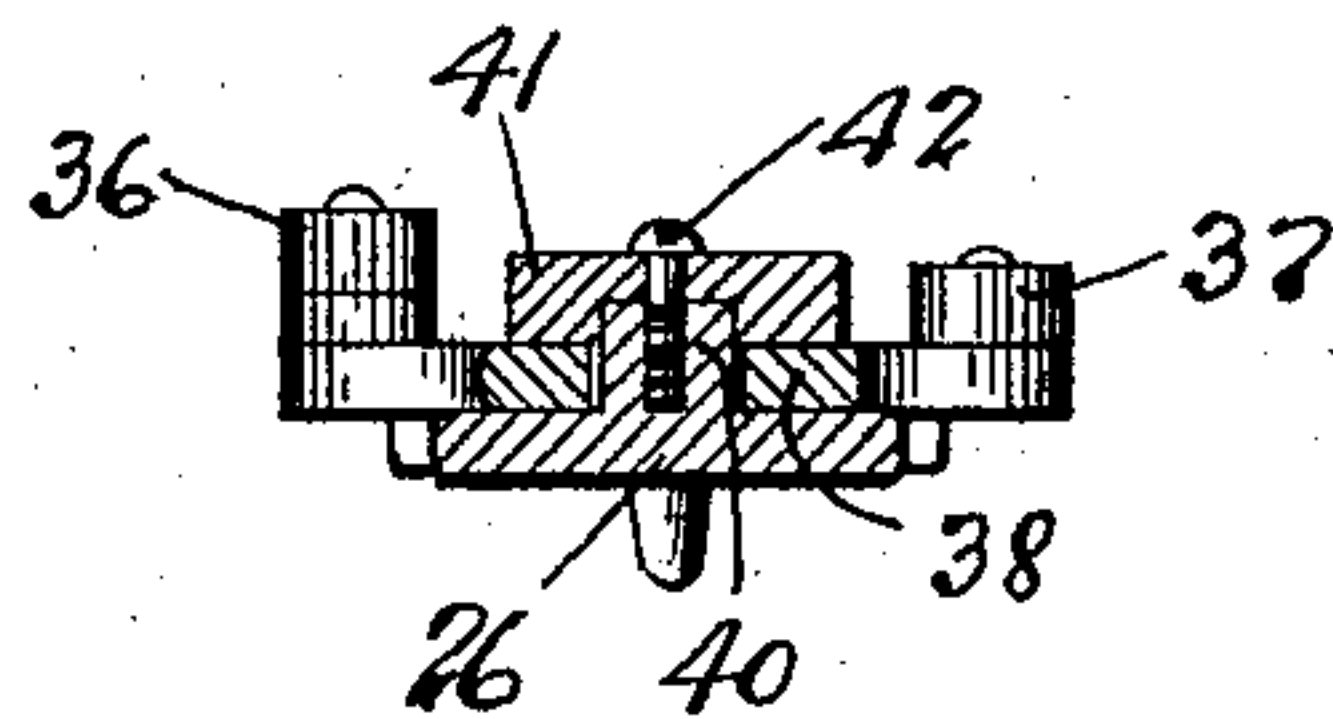


Fig. 5.

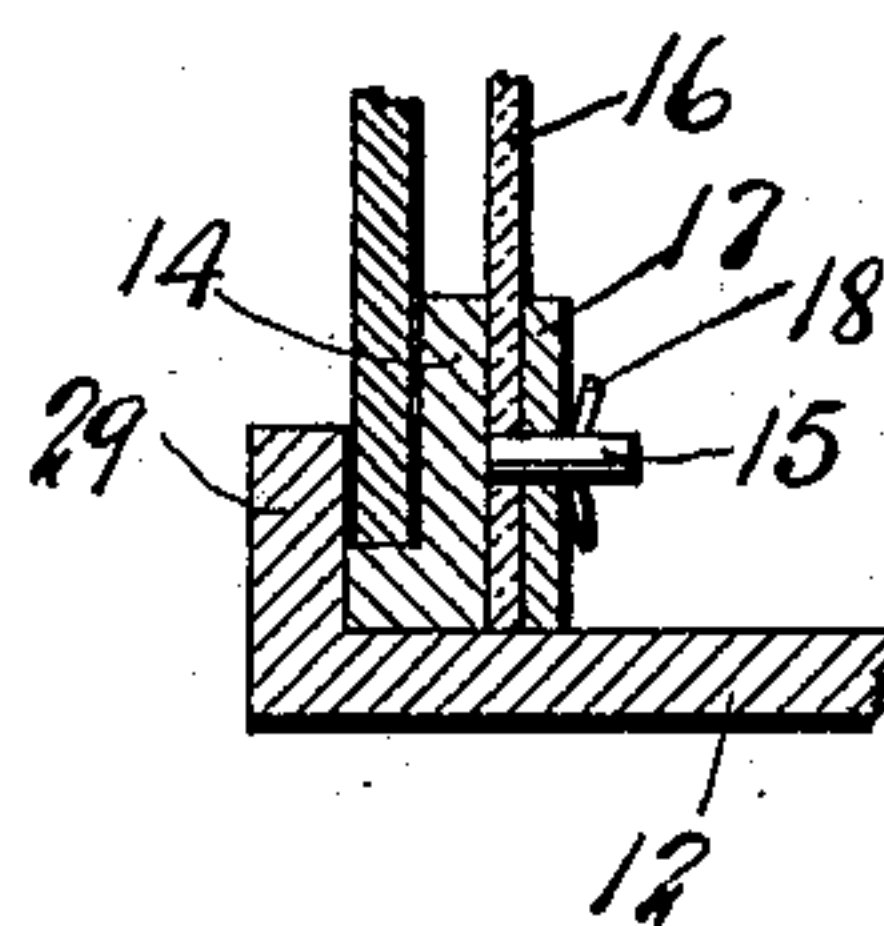


Fig. 6.

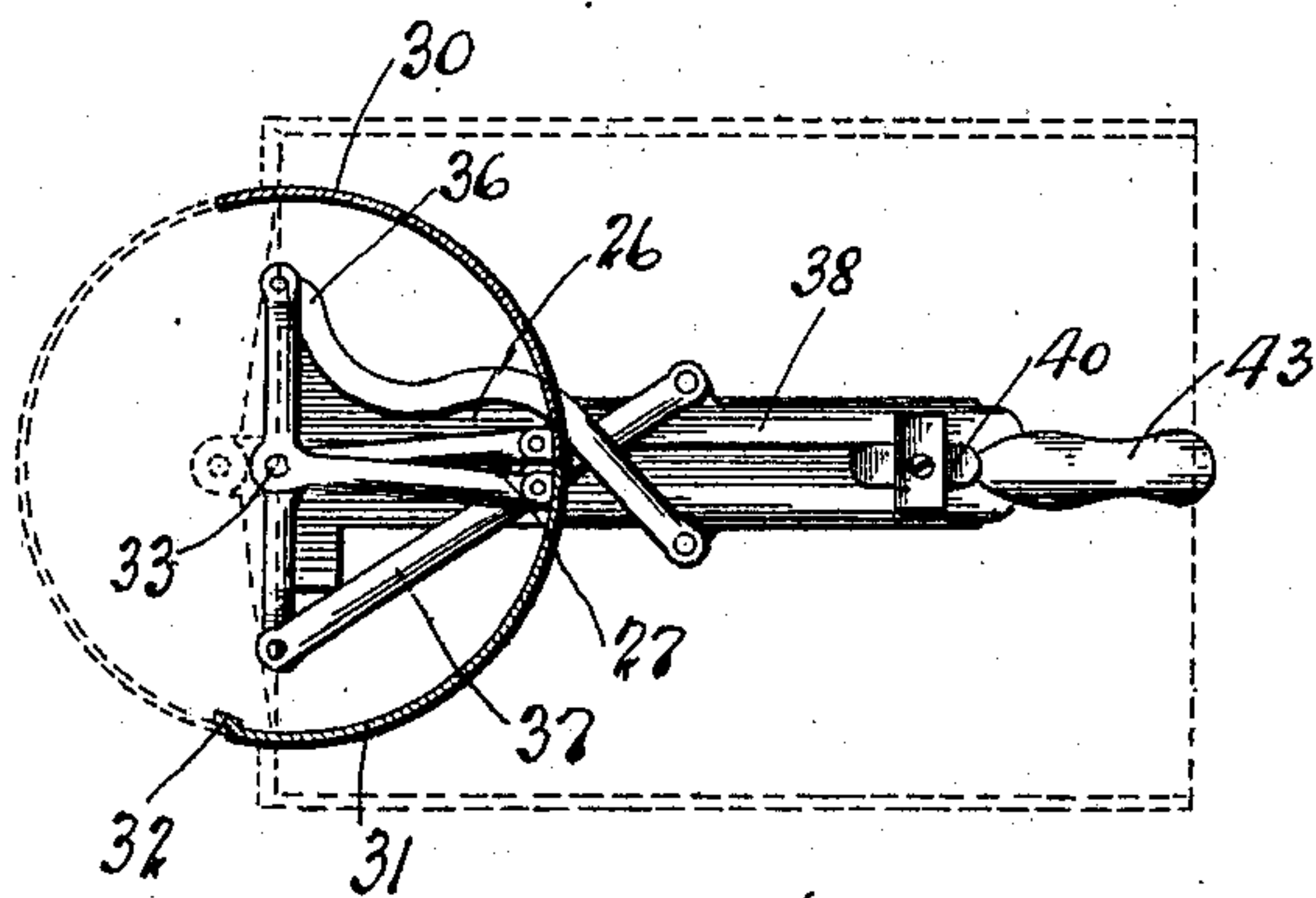


Fig. 3.

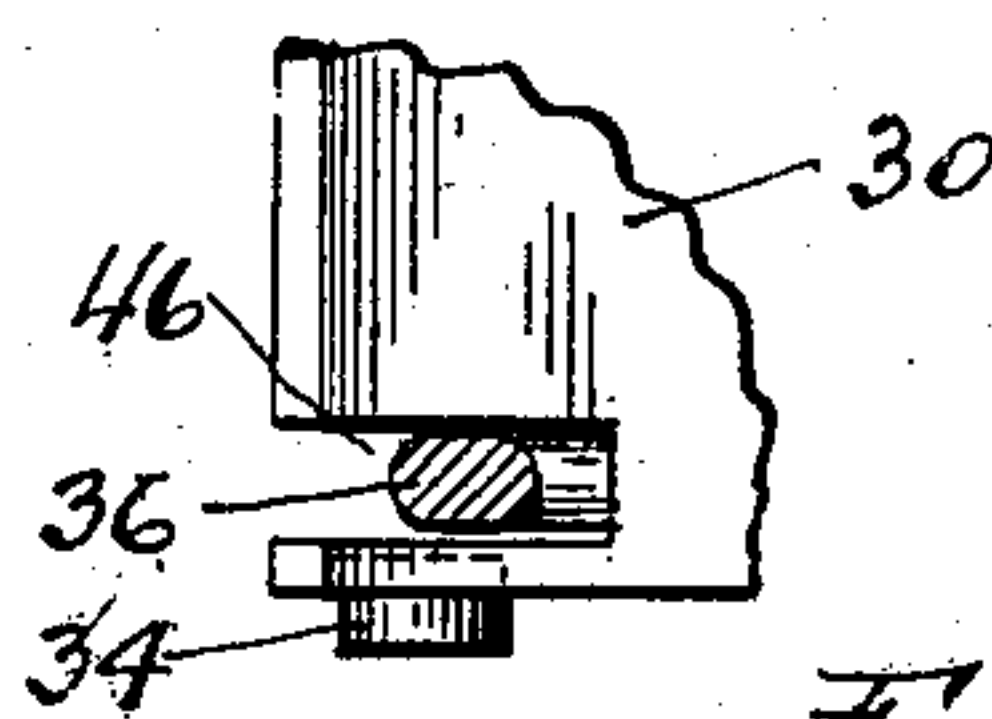


Fig. 7.

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BAKER'S-OVEN ILLUMINATOR.

SPECIFICATION forming part of Letters Patent No. 693,385, dated February 18, 1902.

Application filed April 10, 1901. Serial No. 55,209. (No model.)

To all whom it may concern:

Be it known that I, JOHN FAULDS, a citizen of the United Kingdom of Great Britain, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Baker's-Oven Illuminators, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

My invention relates to improvements in illuminators for bakers' ovens, and has for its object to provide an illuminator which is designed to be set into the wall of the oven; and the invention has especial reference to means for covering and protecting the mica window or other transparent medium interposed between the illuminating agent and the interior of the oven to keep it from becoming smoked or discolored, such means comprising a pair of slides or blinds adapted to be closed over the mica or other window when the illuminator is not being relied upon to furnish light for inspecting the interior of the oven.

The embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal vertical section of an oven-illuminator constructed in accordance with my invention, some of the parts being shown in full lines. Fig. 2 is a section on the line 2 2 of Fig. 1, the mica-protecting blinds or slides being shown closed. Fig. 3 is a section similar to Fig. 2, the blinds or slides, however, being shown open and the casing in dotted lines. Fig. 4 is a front elevation of the casing, the blinds and mica windows being broken away to show the interior of the casing. Figs. 5, 6, and 7 are details of construction.

In the drawings, 10 designates a rectangular casing or box adapted to be built into the wall of a baker's oven and preferably located near to and at the side of the oven-door. At its front end the casing 10 is provided with a pair of semicircular extensions 11 and 12, which project into the oven. The extensions 11 and 12 on the adjacent faces thereof are provided with curved flanges or ribs 13 and 14, each of which has an apertured lug 15. A transparent medium 16, preferably mica, is seated against the flanges 13 and 14 of the

extensions 11 and 12 and held in place by a curved frame 17, the lugs 15 passing through apertures therein and the frame being secured by keys or wedges 18, passing through the apertures in the lugs 15. Additional means are provided for securely holding the mica-frame by forming at the lower edge thereof ears 19, which are secured by screws 20 or other means to the semicircular extension 12.

The casing 10 has a curved passage 21 leading therefrom to the chamber 45, formed by the extensions 11 and 12 and the mica window 16, and extending through this passage is a gas-pipe 22, its upper end being provided with a burner 23, located in the chamber 45. Disposed at the rear of the burner 23 is a reflector 24, carried by an arm 25 and supported from a bracket 26, projecting from the front wall of the casing 10 by an upright 27.

It has been found by experience that the mica or other transparent medium interposed between the flame and the interior of the oven if continually exposed to the heat, fumes, and smoke of the oven becomes blackened or discolored, thereby shading the light and interfering with a proper inspection of the oven. To avoid this, I have provided a pair of slides or blinds interposed between the window and the interior of the oven, which are adapted to be moved or operated from without the oven, as will be hereinafter explained, to uncover the mica whenever it is desired to inspect the interior of the oven.

Parallel with and outside of the flanges 13 and 14 on the extensions 11 and 12 are other flanges or ribs 28 and 29, the flanges 13 and 28 on the one hand and 14 and 29 on the other providing guides or tracks in which are adapted to move a pair of blinds or slides 30 and 31. These slides or blinds may each be made from a single casting and are interchangeable, each one being provided with an edge 32, adapted to overlap the other when the blinds are either opened or closed.

Pivoted at 33 to the bracket 26 are the bell-crank levers 34 and 35, located one above the other, one arm of each being pivoted to the outer edge of each of the slides or blinds 30 and 31 and the other arm being connected to the rods 36 and 37, which are crossed and pivoted to the opposite sides of a push-bar 38,

having a slot 39. The slot 39 of the push-bar is designed to receive a guide-lug 40, formed on the bracket 26, permitting the bar 38 to slide thereon and to operate through its connections the blinds or slides 30 and 31. A cross-piece 41, secured to the lug 40 by a screw 42, holds the push-bar in place, and a handle 43 is provided at the end of the push-bar for operating the same.

Ordinarily the gas-jet is turned low and the slides are closed, or in the position illustrated in Fig. 2, thereby protecting the mica from smoke, flame, and heat. When it is desired to examine the contents of the oven, the light is increased, and the operator or baker then shoves in the bar 38, whereupon the slides or blinds 30 and 31 are caused, through the medium of the bell-crank levers 34 and 35 and the connecting-rods 36 and 37, to move away from in front of the mica window 16, exposing the flame of the burner 23 and permitting the light to be thrown by the reflector 24 to all parts of the oven. As soon as the operator has completed his inspection he reverses the movement of the sliding bar 38, thereby closing the blinds. The blinds 30 and 31 may be provided with studs or bosses 44 at each end, serving to limit the sliding movement of the blinds and also to prevent the same from sagging, the studs at the bottom of the slides when open resting upon the flanges 28 and 29 and those at the upper end of the slides engaging the ends of the slide-frame.

While in the drawings I have shown a gas-burner for supplying light, it will be obvious that any other illuminating agent may be used without departing from the spirit of my invention.

In order to prevent interference of the slide 30 with the rod 36, the slide is provided with a notch 46, (seen in Fig. 7,) in which the rod moves when the slides are manipulated.

If desired, means may be provided for reducing or increasing the light simultaneously with the opening and closing of the blinds 30 and 31. Preferably such means consist of a link connecting with the lever 35 and the gas-burner key.

I claim as my invention—

1. In an illuminator for ovens, in combination, a casing, an illuminating agent within the casing, a curved blind sliding in front of the illuminating agent, a lever connected to the blind and having its pivot within the casing and concentric with the blind, a pusher-bar, and a connection between the pusher-bar and the lever for moving the blind from in front of the illuminating agent and into the casing.

2. In an illuminator for ovens, in combination, a casing, an illuminating agent within the casing, a pair of curved blinds sliding in front of the illuminating agent, levers connected to the blinds and having a common pivot back of the illuminating agent and concentric with the blinds, a pusher-bar, and connections between the pusher-bar and the levers for moving the blinds into the casing and back of the illuminating agent.

3. In an illuminator for ovens, in combination, a casing, an illuminating agent within the casing, a pair of sliding curved blinds in front of the illuminating agent, levers connected to the sliding blinds and pivoted back of the illuminating agent, rods connected to the levers, and a sliding bar for operating the rods whereby the blinds are moved into the casing and back of the illuminating agent.

4. In an illuminator for ovens, in combination, a casing having a pair of semicircular extensions, an illuminating agent within the casing, a pair of curved blinds sliding between the extensions, a bracket within the casing, a pusher-bar sliding on the bracket, bell-crank levers pivoted to the bracket and operating the blinds, and a pair of crossed rods connected to the blinds and pivoted to opposite sides of the pusher-bar.

5. In an illuminator for ovens, in combination, a casing having a pair of semicircular extensions provided with guides on their adjacent faces, an illuminating agent within the casing, a pair of curved blinds sliding between the extensions and in the guides thereof, a bracket within the casing, a pusher-bar sliding on the bracket, bell-crank levers pivoted to the bracket and operating the blinds, and rods connected to the blinds crossing each other and pivoted to opposite sides of the pusher-bar.

6. In an illuminator for ovens, in combination, a casing adapted to be placed in the wall of an oven and having a chamber projecting into the oven, an illuminating agent within the chamber, a reflector at the rear of said chamber, a mica window at the front of said chamber, a pair of sliding blinds interposed between the mica window and the interior of the oven, a bracket located within the casing, a pair of bell-crank levers connected to the sliding blinds and pivoted to the bracket, rods connected to the bell-crank levers, and a sliding bar guided on the bracket and connected to the rods for sliding the blinds.

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Witnesses:

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