

(No Model.)

M. & P. BORLINGHAUSEN.
SAFETY LAMP FOR BEER VATS.

No. 504,702.

Patented Sept. 12, 1893.

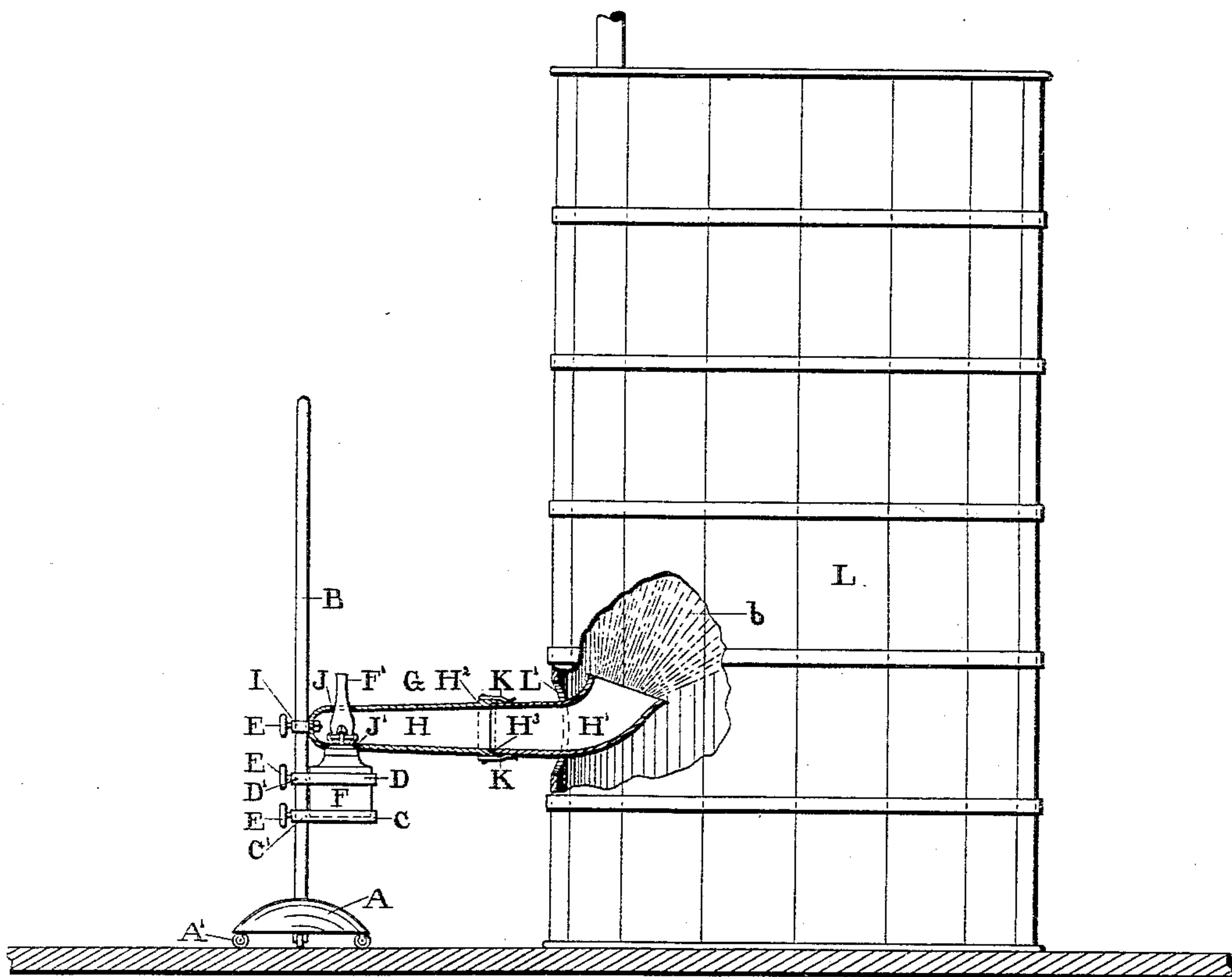


FIG 1.

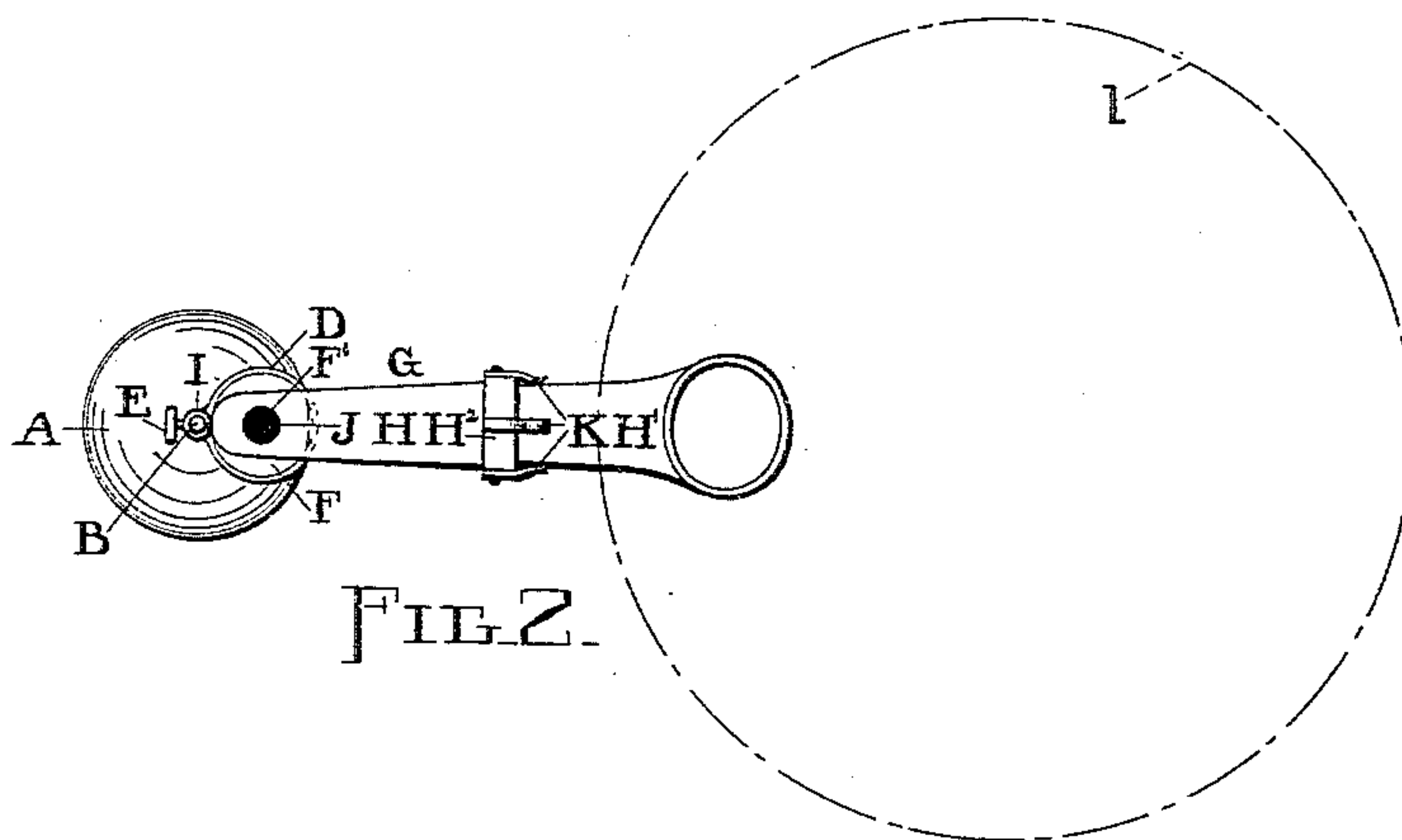


FIG. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

MICHAEL BORLINGHAUSEN AND PETER BORLINGHAUSEN, OF CLEVELAND, OHIO, ASSIGNORS OF ONE-THIRD TO B. G. BORLINGHAUSEN, OF SAME PLACE.

SAFETY-LAMP FOR BEER-VATS.

SPECIFICATION forming part of Letters Patent No. 504,702, dated September 12, 1893.

Application filed February 20, 1893. Serial No. 462,950. (No model.)

To all whom it may concern:

Be it known that we, MICHAEL BORLINGHAUSEN and PETER BORLINGHAUSEN, citizens of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Safety-Lamps for Beer-Vats, of which the following is a full, clear, and exact description.

Our invention consists of a parabolical reflector having a flaring mouth and openings to receive the upper part of a lamp and the lower portion of the lamp-chimney, said reflector and lamp being attached to a rod fixed in a pedestal or base and capable of adjustment upon said rod.

The object of our improvement is to provide a device for lighting the interior of a beer vat, or similar vessel, without introducing the flame therein. The walls of a vat, upon the inside, become coated with albuminous and other deposits, from the beer, which must be removed periodically and a fresh coat of shellac applied to said walls. With our apparatus the rays from the lamp are reflected over the interior of the vat, providing all the light necessary for the operator inside, and there is no danger of an explosion from the rapid evaporation of the alcohol contained in the shellac, since the flame is removed a considerable distance from the vat itself.

That our invention may be seen and fully understood by others, reference will be had to the following specification and annexed drawings, forming a part thereof, in which—

Figure 1 is a sectional view of our invention, showing its application, and Fig. 2, a top view of the device.

Similar letters of reference designate like parts in the drawings and specification.

The base A has the casters A', Fig. 1, attached to the bottom thereof and the rod B arising from the center. The brackets C and D are provided with the integral sleeves C' and D' respectively and the set-screws E, E, by means of which said brackets are adjusted to the rod B, at any desired height, or may be allowed to swing completely around said rod. The bracket C supports the lamp F and

the bracket D encircles said lamp, holding the same securely in place. The lamp F may be of the ordinary construction, but should furnish a brilliant light, and is provided with the chimney F'. The reflector G is parabolical in longitudinal section and consists of the two metallic sections H and H', said sections being detachable, one from the other. The section H is secured to the sleeve I by a screw and nut, or in any other suitable manner, and is provided with the opening J at the top and the opening J', Fig. 1, at the bottom. The part of the lamp F which contains the burner is inserted through the opening J' and the lower portion of the chimney F' projects through the opening J, as will be seen by referring to Fig. 1. The sleeve I is situated above the sleeve D' and has the set-screw E, by means of which said sleeve and the reflector G are secured to the rod B at any elevation desired, or may be allowed to swing around. The rear end of the section H is closed and the front terminal is open, with the collar H² encircling the outside leaving the shoulder H³ upon the inside. The springs K, two or more in number, are attached to the exterior of the collar H² and project beyond the front end of the section H. The section H', of the reflector G is formed substantially as shown in the drawings, having the front end or mouth curved to an angle of about sixty degrees and flaring. The small end of the section H' forms a tight joint with the shoulder H³, of the section H, and is held in place by the springs K. The entire interior of the reflector G is electro-plated in order to strongly reflect the rays of light, from the lamp F, into the vat. The section H' may be rotated so as to throw the light into any and every part of the vessel which is being illuminated.

In Fig. 1, the vat L is shown, partially broken away to expose the flaring mouth of the reflector G, and the dotted lines l, Fig. 2, denote the relative position of the vat to the reflector. The front end of the reflector G is inserted through the man-hole L', Fig. 1, within the vat L and reflects the light over a large area, as indicated by the lines b, Fig. 1.

Our reflector may be used for illuminating any vessel, tank, or receptacle into which it is undesirable to carry a lighted lamp.

In place of the brackets C and D any suitable support for the lamp F may be provided.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. A lamp for beer vats, in combination with parabolical reflector consisting of two sections, the rear section having an external collar and an internal shoulder, with springs attached to said collar for securing the front section in position and allowing the same to be rotated, said front section having a flaring mouth, in the manner substantially as and for the purpose set forth.

2. In a safety lamp for beer vats, a rod fixed to a base, the brackets C and D adjustably attached to said rod by integral sleeves and set-screws, and a lamp, in combination with the parabolical reflector G secured to the sleeve I, said sleeve I being adjustably attached to said rod, above said bracket, by a set-screw, in the manner substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

MICHAEL BORLINGHAUSEN.

PETER BORLINGHAUSEN.

Witnesses:

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F. A. CUTTER.