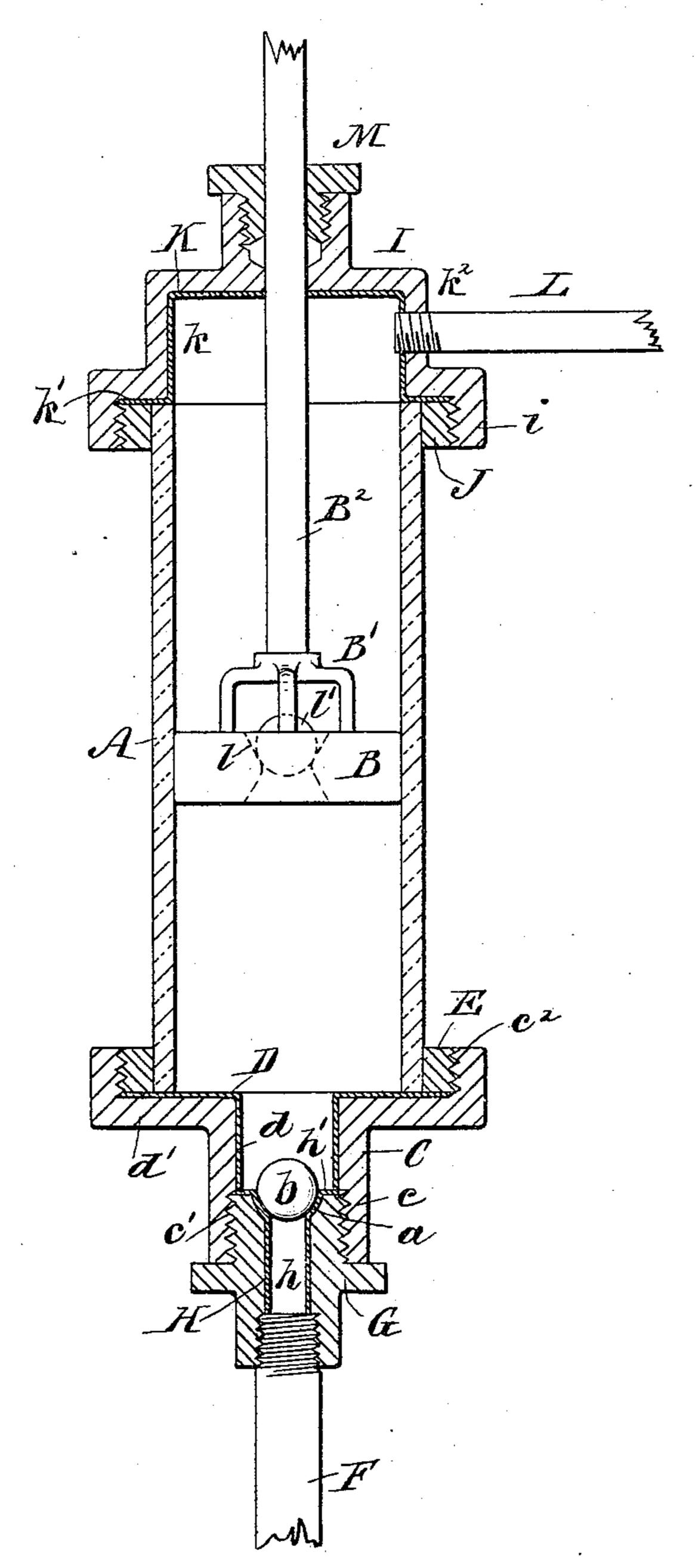
(No Model.)

## P. R. GREENE.

BEER PUMP.

No. 338,838.

Patented Mar. 30, 1886.



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a Sedgwick

INVENTOR:

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ATTORNEYS.

## United States Patent Office.

PATRICK R. GREENE, OF BROOKLYN, NEW YORK.

## BEER-PUMP.

SPECIFICATION forming part of Letters Patent No. 338,838, dated March 30, 1886.

Application filed October 20, 1885. Serial No. 180,432. (No model.)

To all whom it may concern:

Be it known that I, PATRICK R. GREENE, of Brooklyn, in the county of Kings and State of New York, have invented a new and Im-5 proved Beer-Pump, of which the following is a full, clear, and exact description.

The object of my invention is to provide a non-corrosive pump for drawing beer and other malt liquors; and the invention consists ro of the construction, arrangement, and combination of parts, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawing, forming part of this specification, in 15 which the figure is a longitudinal sectional elevation of my new and improved beer-pump.

The pump cylinder or chamber A, in which the piston B works, is of glass. To the induction end of the cylinder A is secured the 20 mounting C, of brass or other inexpensive metal. This is lined upon the inside with the shell D, of block-tin, which projects into portion, c', thereof, and reaches at its outer 25 edge to the internally-screw-threaded outer flange,  $c^2$ , of the mounting C, the shell D being formed with the central tubular portion, d, and surrounding circular plate or flange d'for that purpose. The mounting C is secured 30 to the cylinder A preferably by being screwed upon the externally-screw-threaded ring, E, fitted upon the end of the cylinder. The induction-pipe F is attached to the mounting C by the coupling G, screwed into the screw-35 threaded portion c' of the mounting. The coupling G is lined with a shell, H, of blocktin formed with the tubular portion h and flange h', which covers the inner end of the coupling so that when the coupling is screwed 40 in place the flange h' will join and be pressed against the lower end of the tubular portion d of the shell D, and thus entirely prevent the liquor from coming in contact with the metal composing the coupling and mounting. 45 The inner end of the coupling G and shell H | I claim as new, and desire to secure by Letters is slightly enlarged and rounded to form a

To the opposite or eduction end of the glass cylinder A is secured the mounting I, of brass or other inexpensive metal. This, I

lar non-corrosive material.

cup, a, that constitutes the seat for the in-

duction-valve ball b, which is of glass or simi-

like the mounting C, is held by being screwed upon the ring J, secured upon the cylinder. The mounting I is lined with a shell, K, of 55 block-tin, which is formed with the chambered portion k and surrounding flange k', which reaches to the internally-screw-threaded flange i of the mounting, so that when the mounting I is screwed upon the ring J the 60 flange k' will be pressed firmly against the end of the glass cylinder A and form a liquidtight joint therewith.

The eduction-pipe L is screwed into a screw-threaded aperture,  $k^2$ , made through the 65 coupling I and shell K, as shown in the draw-

ing. The piston-head B is made of block-tin, and the central aperture, l, thereof is made concaved or in cup form to receive the ball-valve 70 l', which is of glass or other non-corrosive material. The ball l' is held in place by the spider B', attached to the piston-head over the aperture l, and the piston-rod B<sup>2</sup> is atthe tube c to the internally-screw-threaded | tached to this spider, as shown. The piston-75 rod B<sup>2</sup> works through the mounting I and shell K, and is surrounded by a stuffing-box, M, formed at the outer end of the mounting I to prevent leakage.

> The lining-shells DHK, of tin, are molded, 80spun, or pressed into form and accurately fit the mountings of cheap metal, and are so formed that when the parts composing the pump are assembled the shells D K not only cover the interior of the mountings, which 85 would otherwise be exposed to the liquor, but form liquid-tight joints with the ends of the glass cylinder A. The shell H also forms a liquid-tight joint with the shell D, so that the liquor passing through the pump will come in 90 contact only with glass and tin which will not contaminate it. Furthermore, the pump is cheap and practical, and may be easily taken apart for cleaning and as easily put together again.

Having thus described my invention, what Patent, is—

1. The cylinder A, provided at its ends with the externally-screw-threaded rings, in com- 100 bination with metal mountings provided upon the inside with shells of non-corrosive metal having flanges of greater diameter than the cylinder, so that when the mountings are

screwed to place liquid-tight joints will be formed between the cylinder and the non-corrosive shells, substantially as described.

2. The combination, with the glass cylin-5 der A and mounting C, having the shell D, of non-corrosive metal, formed with the tubular portion d and flange d', of the coupling G, provided with the lining H, of non-corrosive

metal, and formed with the tubular portion h and flange h', to join the lower end of the tubular portion d of the shell D, substantially as and for the purposes set forth.

PATRICK R. GREENE.

Witnesses:

H. A. West, C. SEDGWICK.