

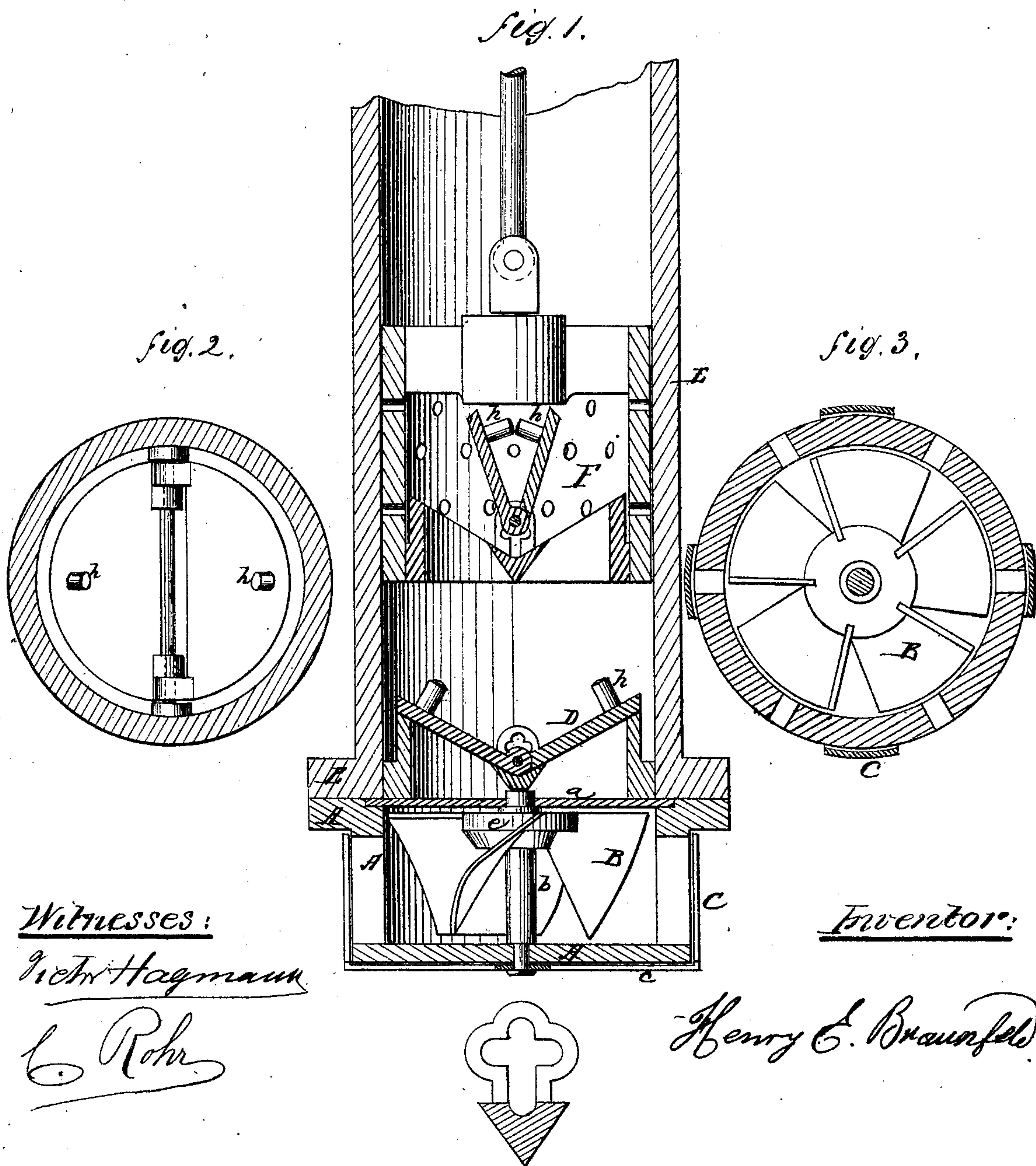
(118.)

Henry C. Braunfeld.

*Pump.*

No. 121,843.

Patented Dec. 12, 1871.



# UNITED STATES PATENT OFFICE.

HENRY E. BRAUNFELD, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. 121,843, dated December 12, 1871.

*To all whom it may concern:*

Be it known that I, HENRY E. BRAUNFELD, of the city and county of Philadelphia, in the State of Pennsylvania, have invented certain Improvements in Pumps, of which the following is a specification:

Figure 1 is a vertical transverse section embodying my invention. Fig. 2 is a plan view, showing the arrangement of those parts in case A. Fig. 3 is a plan view of shut-off C, the case A being inverted.

My invention relates to an improvement in that class of pumps which is designed chiefly for elevating malt liquors. It consists of the case A with buckets B and shut-off C, and the valves D, cylinder E, and piston F, arranged and combined as shown and described.

A is a cylindrical case, which is screwed or rigidly attached to the main cylinder E. Said case has apertures and vertical slots on the periphery thereof, which are designed for the ingress of fluid; and it is also provided with plate *a* resting thereon and rigidly attached thereto; and through the center of the bottom of the case projects the vertical shaft *b*, to which are attached the buckets. Said shaft is sustained in a vertical position by the plate *a*, through which it projects at the apex, and also by a shoulder formed therein near the lower end thereof, and also by a socket in which it rotates near the bottom and center of case A. Near the apex of the shaft to which the buckets are attached a metallic cap or disk, *e*, is rigidly secured, the said cap having formed therein oblique slots into which are rigidly fastened the buckets B, which latter are curved and oblique from the disk aforesaid to within a few lines of the bottom of the case. The shut-off C is rigidly attached immediately beneath the bottom of case A, to the same shaft which carries the buckets B, its arms radiating toward the pe-

riphery of case A and then projecting at right angles or vertically upward to near the rim of the case and within a few lines of the periphery thereof. As the fluid is drawn into the pump the shut-off aforesaid is rapidly rotated in conjunction with the buckets B, and the vertical arms of the shut-off are thus brought into contact with sediment, if any be contained in the fluid, and prevent the same from entering the slots or apertures in the periphery of case A, and also superinduce, by the agitation of malt liquor, a pleasing and desirable foam thereon. E is the main cylinder of the pump, the valve D being attached to and working in a metallic collar, on which it rests, which latter is rigidly attached to the interior of the said cylinder near the base thereof, as shown. The mouth or outlet of the pump is threaded, or provided therein with a female screw, for attaching thereto any suitable conduit. The piston F is constructed with a valve therein, as ordinarily obtains in the construction of malt-liquor pumps; but the valves F and D are respectively provided on the inner face of each of their wings with the projecting points *h h h h*, which serve to prevent said wings from being closed tightly together, as also to keep them adjusted in their proper position.

I claim—

1. The combination and arrangement of case A, buckets B, and shut-off C, substantially as shown and described.

2. The combination and arrangement of case A, buckets B, and shut-off C with the main cylinder E and piston F, substantially as shown, and in the purpose described.

HENRY E. BRAUNFELD.

Witnesses:

WILLIAM P. BECKER,  
VICTOR HAGMANN.

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