

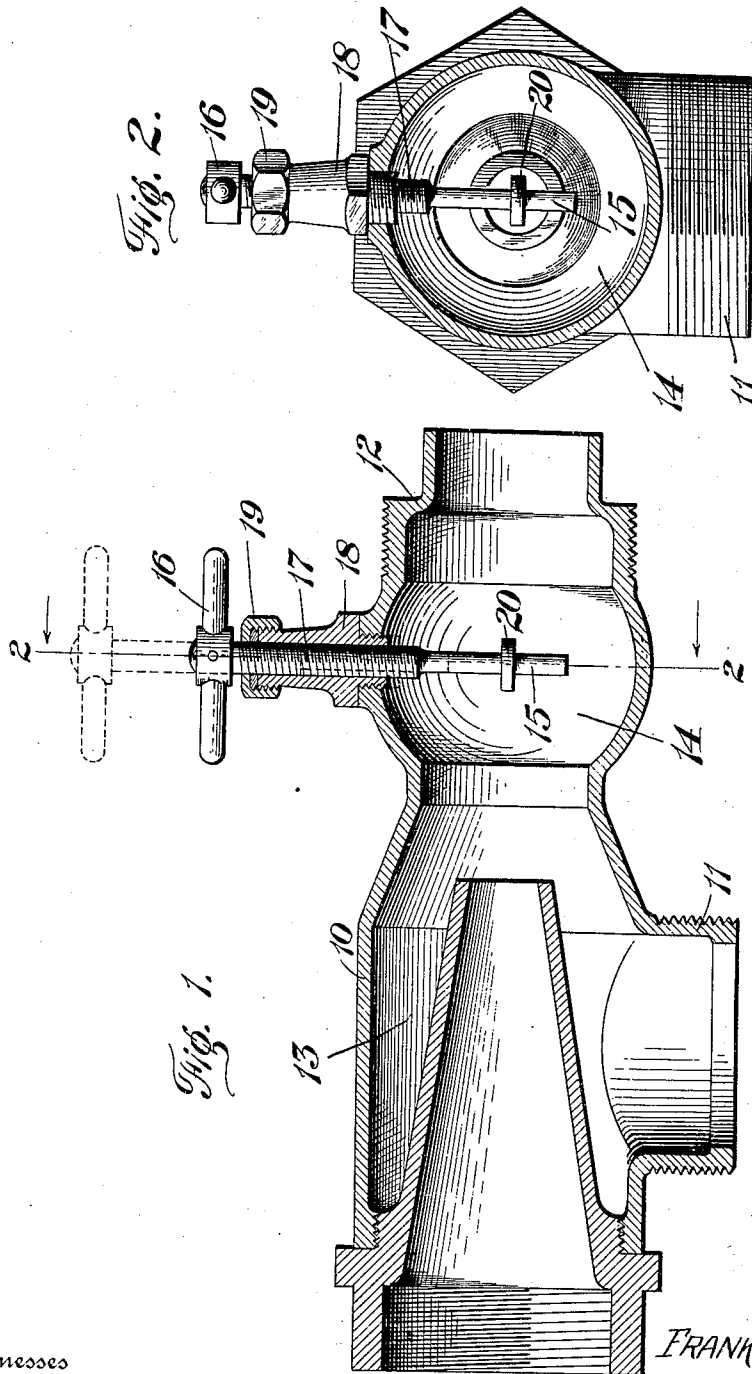
F. J. O'LEARY.

EJECTOR.

APPLICATION FILED FEB. 13, 1911.

1,017,792.

Patented Feb. 20, 1912.



Witnesses
Chas. W. Stauffer
F. E. Ernst

Inventor
FRANK J. O'LEARY.

By *Bartholomew*

Attorneys.

UNITED STATES PATENT OFFICE.

FRANK J. O'LEARY, OF DETROIT, MICHIGAN, ASSIGNOR TO PENBERTHY INJECTOR COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

EJECTOR.

1,017,792.

Specification of Letters Patent.

Patented Feb. 20, 1912.

Application filed February 13, 1911. Serial No. 608,233.

To all whom it may concern:

Be it known that I, FRANK J. O'LEARY, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Ejectors, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to ejectors, and more especially to that class thereof in which fluid under pressure is utilized to "lift" a liquid, and it has for one of its objects the provision of a device of this character in which the lifting-action will be established very quickly, and in which a full flow of lifted liquid will thereafter be maintained.

Further objects of the invention will hereinafter appear and be defined in the claims.

The invention has been clearly illustrated in the accompanying drawings, in which similar characters denote similar parts, and in which—

Figure 1 is a central longitudinal section of my improved ejector, and Fig. 2 represents a cross-section thereof, on line 2, 2 of Fig. 1.

Briefly stated, my improved ejector comprises as one of its essential elements, a baffle whereby the force-stream may be split at a point remote from the end of its nozzle and substantially where such stream is hypothetically the densest, and so that the self-priming operation of the device will take place speedily, as compared with the results obtained in ejectors in which no baffle is used. Experience has demonstrated furthermore, that this baffle-member which preferably consists of a small rod extending diametrically across the force-stream, hinders to some extent the accomplishment of the best pumping-results, after the ejector is fully primed. For this reason the present device comprises a baffle which may be projected into and withdrawn out of the incoming force-stream.

Referring to the drawings, the ejector comprises a hollow body 10 integrally formed with a suction arm 11 and a discharge arm 12, both of which arms may be suitably screw-threaded to provide proper hose-connections. In direct alinement with the discharge arm, and extending across the suction arm, is the inlet-nozzle of the force-stream so disposed as to leave a free space or annular chamber around said nozzle to form a suction-chamber 13 which is gradually contracted toward the end of said nozzle and then expands to form a baffle chamber 14 in which the force-stream is split-up to drive out all the air in the ejector as quickly as possible after the force-stream has first been started, by a baffle-member consisting preferably of a rod or bar 15 adapted to be moved across the force-stream or out of it, by a handle 16, the rod being preferably screwthreaded, as at 17, and in engagement with a nipple 18 which may be secured to the body-shell in any suitable manner, and may have a stuffing box 19 to prevent leakage at that point.

A collar 20 is secured upon the baffle-rod 15 to limit the outward movement thereof, and also to serve as a closure for the screw-threaded aperture in the nipple 18.

Many changes may be made in the organization and construction of the device without departing from the spirit of the invention, especially in the form of the baffle-member and its mounting.

I claim:—

1. In a device of the character described, the combination with a chambered casing, an inlet nozzle therein, a baffle member transversely movable in said casing, and means for shifting said member into and out of the path of the stream issuing from said nozzle.

2. In a device of the character described, the combination with a chambered casing, an inlet nozzle therein, and a baffle member comprising a transversely movable rod in

screwthreaded engagement with said casing to shift the same into and out of the path of the stream issuing from said nozzle.

3. In a device of the character described,
5 the combination with a chambered casing, an inlet nozzle therein, and a baffle member comprising a rod in screwthreaded engagement with said casing to shift the same into and out of the path of the stream issuing

from said nozzle, a collar on the rod within 10 the casing for closing the joint between the rod and casing.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK J. O'LEARY.

Witnesses:

LEWIS E. FLANDERS,
ANNA C. RAVILER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."