

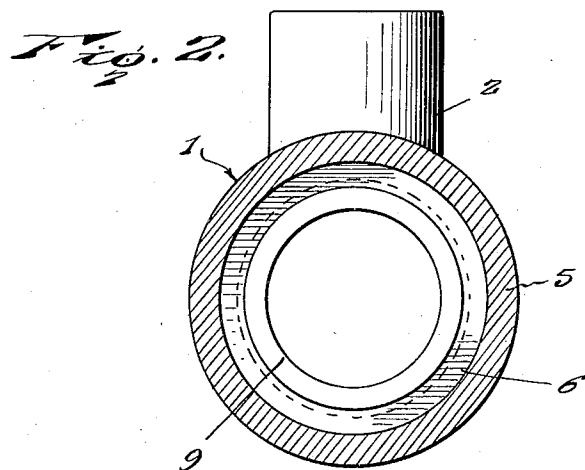
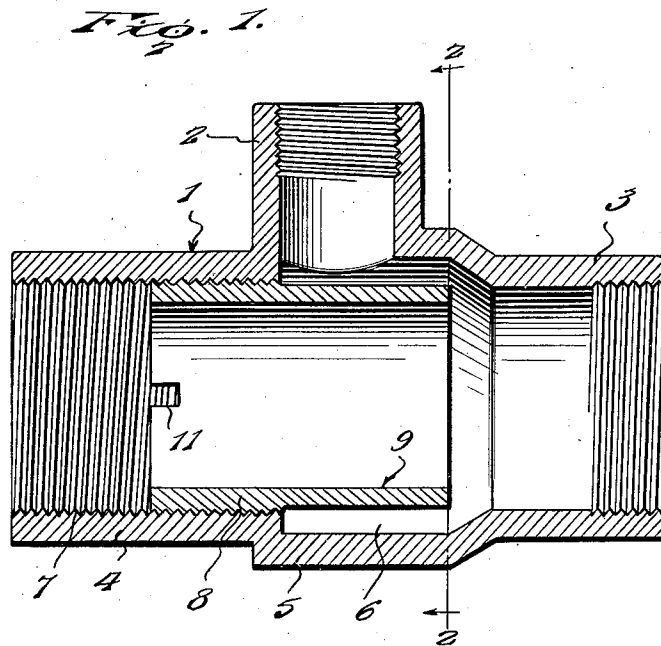
April 12, 1932.

R. BLACK

1,854,098

EJECTOR

Original Filed June 14, 1929



Inventor

R. Black.

By *Lacey, Lacey,* Attorneys

UNITED STATES PATENT OFFICE

RUSSELL BLACK, OF HUNTINGTON, WEST VIRGINIA, ASSIGNOR TO COMMERCIAL PATENTS DEVELOPMENT COMPANY, OF HUNTINGTON, WEST VIRGINIA, A CORPORATION OF WEST VIRGINIA

EJECTOR

Application filed June 14, 1929, Serial No. 370,912. Renewed September 15, 1931.

The present invention is directed to improvements in ejectors and is an improvement on the subject matter of my Patent No. 1,703,469, issued February 26, 1929.

The primary object of the invention is to provide a device of this character so constructed that steam or air under pressure will effectively serve to draw water or other substance from any place desired.

Another object of the invention is to provide an ejector so constructed that it will effectively elevate or draw from any source a maximum amount of water or other substance with a minimum use of steam or air.

Another object of the invention is to provide a device of this kind which is so constructed that it can be conveniently adjusted to regulate the flow of material therefrom.

Another object of the invention is to provide an ejector consisting of a casing and a nozzle member adjustably mounted in the casing, the construction being such that it can be manufactured at a very small cost.

With these and other objects in view this invention resides in the novel features of construction, formation, combination and arrangement of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawings, in which:

Figure 1 is a longitudinal sectional view through the device.

Figure 2 is a sectional view on the line 2-2 of Figure 1.

Referring to the drawings, 1 designates a casing having a lateral nipple 2 opening thereinto and through which the steam or air from any suitable source is introduced.

The casing is provided with reduced ends 3 and 4 and a resultant enlarged intermediate portion 5 providing an annular chamber 6 which opens into the end 3.

The casing has its end 4 interiorly threaded throughout its length, as at 7, the threads serving to hold the nozzle member 8 properly positioned within the casing 1.

The nozzle member 8 is exteriorly threaded for engagement with the interior threads of the end 4 and includes a portion 9 slightly smaller exteriorly than the member so as to

eliminate the necessity of threading the member for its entire length.

The reduced portion 9 will be concentrically disposed within the chamber 6 when the parts are assembled and it is into this chamber that the nipple 2 discharges. The nozzle member 8 has its outer end provided with diametrically disposed notches 11 in order that a spanner wrench may be conveniently engaged therewith to thread the member into the end 4 of the casing and it will be obvious that the nozzle member can be adjusted longitudinally within the casing so that the flow of water or other material can be conveniently regulated, as will be obvious.

It will be apparent that when the steam or air under pressure enters the nipple 2 and passes into the chamber 6, it will create a suction as it passes through the end 3, thus drawing the water or other substance through the end 4 and through the nozzle member into the end 3 for discharge at any desired point.

The construction is such that a considerable volume of water or other substance, not under pressure, can be drawn through the casing with a minimum amount of steam or air.

While the device is primarily designed for drawing water from various places, it is not necessarily limited to such use, since sand, silt or grain may be drawn through the device by steam or compressed air, as may be desired.

A suction pipe or hose may be connected with the end 4 and of a length to reach the place from which the water or other substance is to be withdrawn. A discharge pipe can be conveniently connected to the end 3 to conduct material sucked through the siphon to a place of disposal. The nozzle is of uniform diameter and will prevent clogging.

From the foregoing, it is thought that the operation and many advantages of the herein described invention will be apparent to those skilled in the art without further description and it will be understood that various changes in size, shape, proportion and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

What is claimed is:

An ejector comprising a casing having its

intermediate portion enlarged to provide a chamber, and having a lateral nipple connecting with an end of the chamber, and a nozzle threaded to an end of the casing and extending into the chamber across the nipple
5 and terminating adjacent the opposite end of the casing, the latter having its opposite end portions threaded for coupling of parts thereto.

10 In testimony whereof I affix my signature.
RUSSELL BLACK. [L. s.]

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