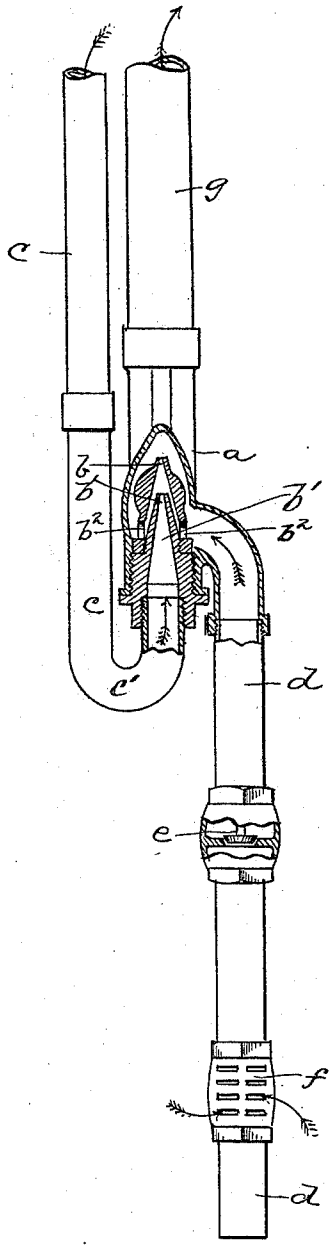
(No Model.)

S. DAILSON.

EJECTOR PUMP.

No. 456,984. Patented Aug. 4, 1891.



Witnesses:
H. E. Harrison
J. A. Harrow

Inventor.
Samuel Dailson
per C. D. Lewis
Att'y.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

SAMUEL DAILSON, OF BRIDGEWATER, PENNSYLVANIA.

EJECTOR-PUMP.

SPECIFICATION forming part of Letters Patent No. 456,984, dated August 4, 1891.

Application filed October 4, 1890. Serial No. 367,116. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL DAILSON, a citizen of the United States, residing at Bridgewater, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Ejector-Pumps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved apparatus for pumping oil and other wells; and it consists in the construction and arrangement of parts, as will be more fully set forth hereinafter.

In the accompanying drawing I have shown a side elevation of my improved apparatus, a part of which is shown in section, the better to show the interior working parts.

To put my invention into practice I construct a jet-pump consisting of a shell or casing *a*, having suitable concentric jets *b b'*, which are arranged one within the other and within the lower portion of said casing or shell. The inner jet *b'* is fixed directly in the lower end of the casing or shell to close said lower end, and the lower portion of the jet *b'* protrudes below the casing or shell to receive the elbow *c'* of a downwardly-extending pipe *c*, for the purpose of conducting air, gas, or steam thereto, the outer jet-tube *b* having the opening b^2 at or near its lower end. From this pump *a* I conduct a pipe *d* to the bottom of the well and provide the same with a check-valve *e* to prevent backward flow and a strainer *f* to prevent dirt, stone, &c., from entering the pump. This pump *a* is connected by suitable tubing *g*, which extends out of the mouth of the well and enters a tank or other place where it is desired to discharge the product of the well.

In operation the apparatus is connected and fitted substantially as shown in the drawing, and the same lowered into the well until the pipe *d* rests on the bottom of the same. The pipe *c* is connected to a means for supplying air, gas, or steam under pressure, which enters the pump and creates a suction, as is well known in the art. This suction draws the oil or other substance through the strainer *f* and valve *e* into the pump, and is forced upward through the tubing *g*, out of the mouth of the well.

Having thus described my invention, I claim—

The herein-described ejector-pump, consisting of the upright casing having one branch thereof in axial alignment with its discharge and the other depending branch opening laterally into said casing, the threaded jet-tube *b'*, screwed into the vertical branch of the casing and serving as a plug to close said lower end and having the depending threaded portion below said casing, the outer jet-pipe *b*, provided with openings at its lower end and secured directly to the tube *b'* and arranged to form the oil-space between the casing and the inner jet-tube, the pressure-pipe *c*, having its elbow *c'* screwed into the depending lower end of the jet-tube *b'*, the discharge-pipe *g*, connected to the upper end of the casing and arranged in axial alignment with the two jet-tubes *b b'*, and the vertical oil-supply pipe *d*, connected to the lateral depending branch of the casing *a* and having the check-valve *e*, as shown and described.

In testimony that I claim the foregoing I hereunto affix my signature this 18th day of September, A. D. 1890.

SAMUEL DAILSON. [L. S.]

In presence of—
M. E. HARRISON,
FRANK W. SMITH.