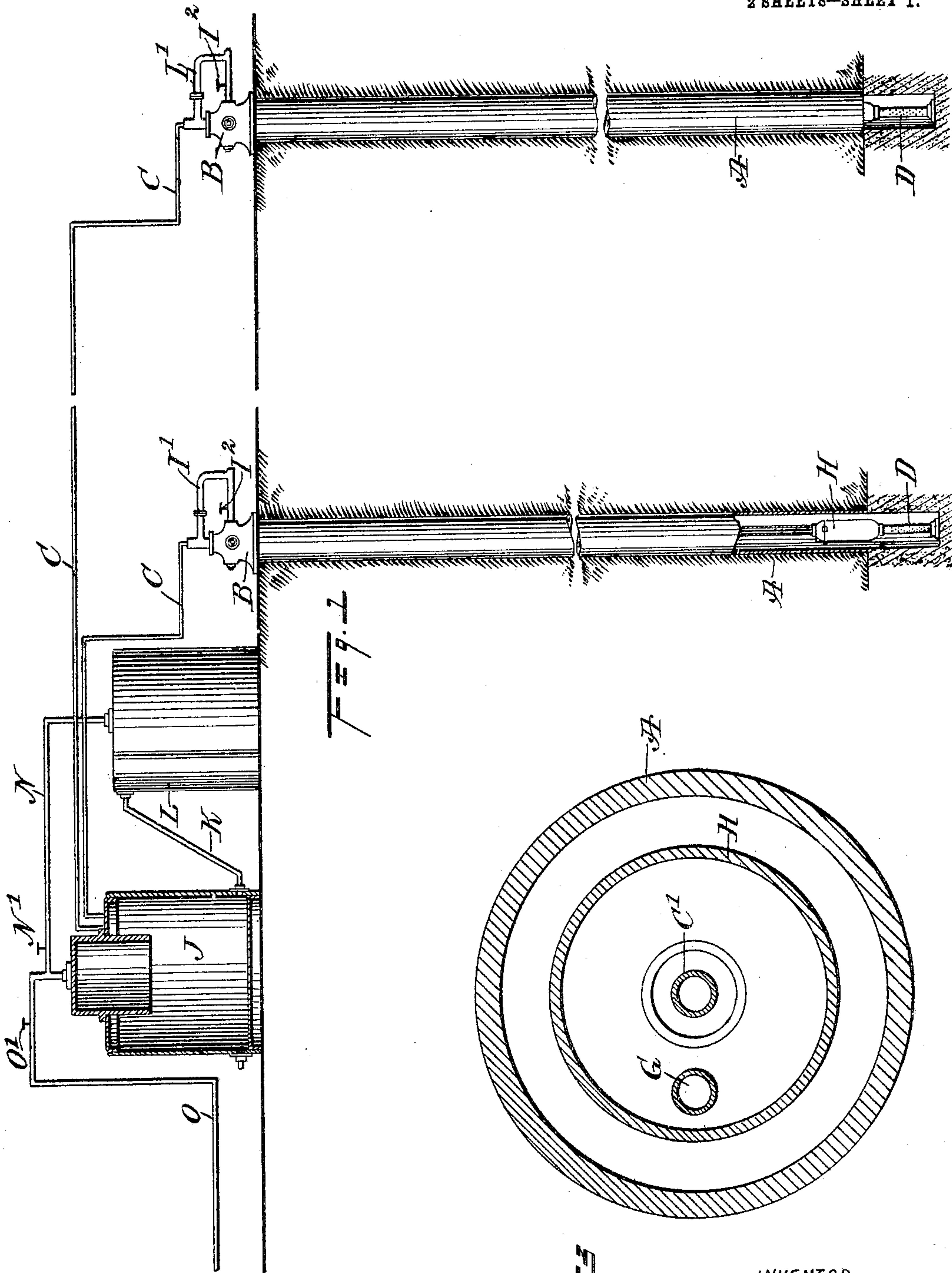


No. 798,347.

PATENTED AUG. 29, 1905.

J. KAMBISH, JR.
OIL FLOWING DEVICE.
APPLICATION FILED JAN. 3, 1905.

2 SHEETS—SHEET 1.



WITNESSES:

John J. Stille
Geo. J. Foster

Fig. 1

INVENTOR

John Kambish Jr.

BY

Mumma

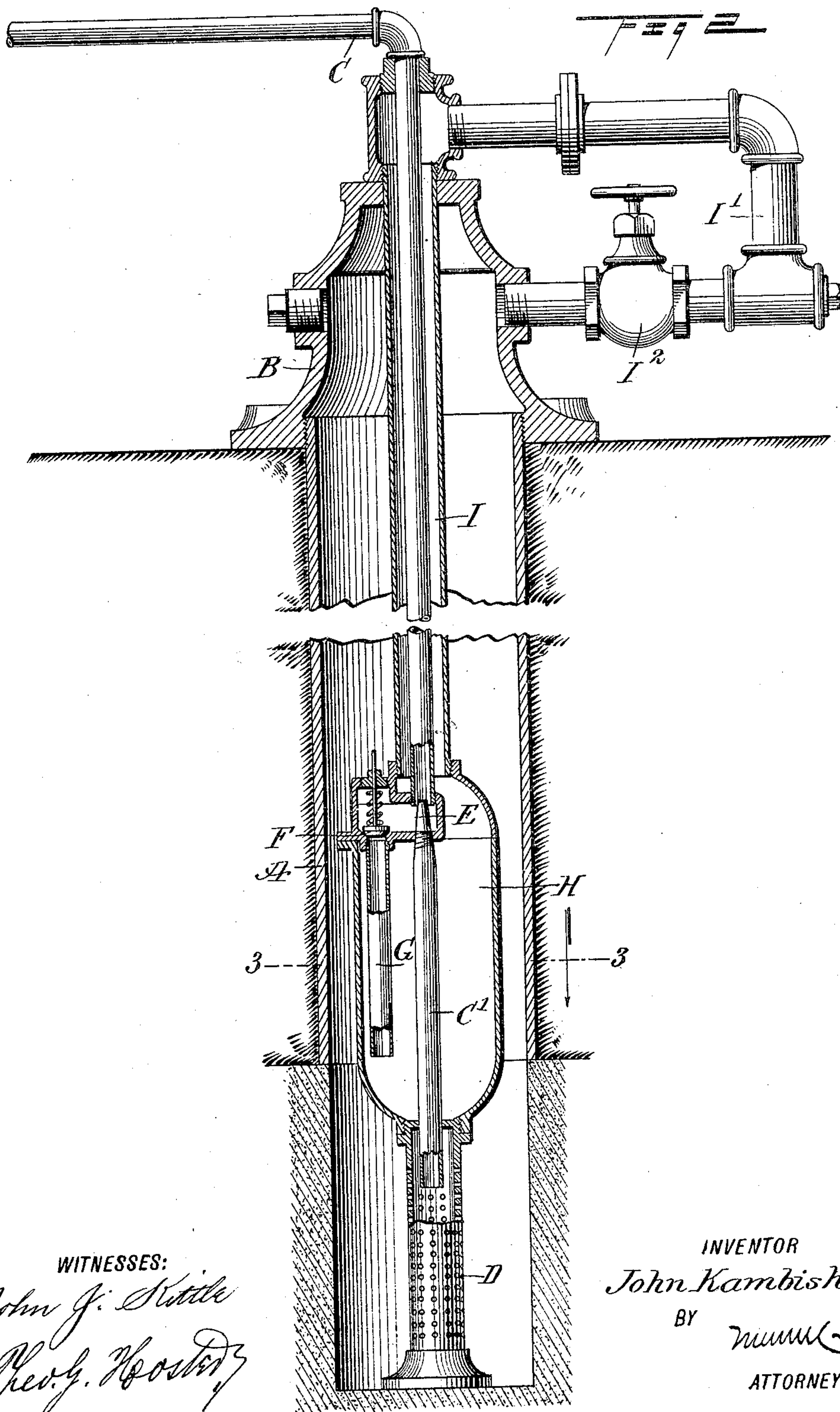
ATTORNEYS

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2 SHEETS—SHEET 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN KAMBISH, JR., OF PINEY, WEST VIRGINIA.

OIL-FLOWING DEVICE.

No. 798,347.

Specification of Letters Patent.

Patented Aug. 29, 1905.

Application filed January 3, 1905. Serial No. 239,357.

To all whom it may concern

Be it known that I, JOHN KAMBISH, Jr., a citizen of the United States, and a resident of Piney, in the county of Wetzel and State of West Virginia, have invented a new and Improved Oil-Flowing Device, of which the following is a full, clear, and exact description.

The invention relates to apparatus for raising oil, water, or other liquids in wells by the use of a gaseous fluid under pressure.

The object of the invention is to provide a new and improved oil-flowing device arranged to utilize the gas frequently found above the oil strata for flowing the oil to the surface and for collecting and saving the said gas.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improvement as applied, parts being in section. Fig. 2 is an enlarged sectional side elevation of one of the wells and its oil-flowing device, and Fig. 3 is an enlarged sectional plan view of the same on the line 3 3 of Fig. 2.

Each of the well-casings A is closed at the upper end by a head or cap B, and in the casing A extends a flow-pipe C, terminating at its lower end in the perforated inlet-pipe D, located in the oil-bearing strata, so that the oil passes through the perforations into the inlet-pipe D and into the lowermost section C' of the flow-pipe, which lowermost section connects at its upper, somewhat-reduced, or nozzle end with an ejector E, connected with a supply to gas under pressure to cause the ejector to force the oil up through the flow-pipe.

The ejector E is provided with a check-valve F in its gas-supply pipe G, opening into a gas-reservoir H, surrounding the flow-pipe at its lower end and preferably attached to the perforated inlet-pipe D, as plainly shown in Fig. 2. The upper end of the reservoir H is connected with a return gas-pipe I, extending upward through the head B and having a return branch I', connected with the head B, the said branch having a valve I² under the control of the operator for regu-

lating the flow of gas through the return gas-pipe.

By the arrangement described it will be seen that the gas in the lower end of the oil-well collects, accumulates, and rises in the casing A and is conducted by the return gas-pipe I, reservoir H, and pipe G to the ejector to supply the latter with gas under pressure for the proper working of the ejector. The oil and gas flowing up the flow-pipe C is discharged into the top of a separating-tank J, in which the gas and oil separate, the said tank being connected at its bottom by a pipe K with an oil-tank L, into which the oil is forced from the tank J by the gas-pressure in the tank J. Gas rising in the tank L can be conducted by a pipe N, having a valve N', to the tank J. The gas in the tank J is conducted by a gas-line O, having a valve O', to burners for burning the gas.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. An oil-flowing device comprising a gas-collecting casing for collecting the natural gas in the well, a flow-pipe for the oil and gas, an ejector in the said flow-pipe, a reservoir in the well, a return gas-pipe connecting the said casing with the said reservoir, and a connection between the reservoir and the ejector.

2. An oil-flowing device comprising a gas-collecting casing for collecting the natural gas in the well, a flow-pipe for the oil and gas, an ejector in the said flow-pipe, a return gas-pipe connecting the said casing with the said ejector, a separating-tank for receiving the oil and gas, an oil-tank for receiving the oil from the said separating-tank, and a valve-controlled pipe for conducting gas rising in the oil-tank to the separating-tank.

3. An oil-flowing device comprising a well-casing closed at the top, a flow-pipe in the said casing and extending through the said top, an ejector in the said flow-pipe, a return gas-pipe leading from the said top down into the well-casing, a reservoir connected with the return gas-pipe, a connection between the reservoir and the said ejector, to supply the latter with gas-pressure, and a check-valve in the said ejector.

4. An oil-flowing device comprising a well-casing closed at the top, a flow-pipe in the said casing and extending through the said top, an ejector in the said flow-pipe, a return gas-pipe leading from the said top down into

the well-casing, a reservoir at the lower end of the said return gas-pipe, and a supply-pipe leading from the said reservoir to the said ejector, to supply the latter with gas under
5 pressure.

5. An oil-flowing device comprising a well-casing closed at the top, a flow-pipe in the said casing and extending through the said top, an ejector in the said flow-pipe, a return
10 gas-pipe leading from the said top down into the well-casing, a reservoir at the lower end of the said return gas-pipe, a supply-pipe leading from the said reservoir to the said ejector, to supply the latter with gas under
15 pressure, and a check-valve in the said supply-pipe.

6. An oil-flowing device comprising a well-casing closed at the top, a flow-pipe in the said casing and extending through the said
20 top, a perforated inlet-pipe communicating with the lower end of said flow-pipe, a return gas-pipe leading from the said top and provided with a valve, the said return-pipe extending through the said top down into the
25 well-casing around the said flow-pipe, a res-

ervoir at the lower end of the return-pipe, the said reservoir being attached at its lower end to the perforated inlet-pipe, and an ejector connected with the said flow-pipe and the said
reservoir.

7. An oil-flowing device comprising a gas-collecting casing for collecting the natural gas in the well, a flow-pipe for the oil and gas, a perforated inlet-pipe communicating with the
30 lower end of said flow-pipe, an ejector in the said flow-pipe, a return gas-pipe leading down into the well-casing, a gas-reservoir connected at its upper end with the return gas-pipe, a supply-pipe leading from the gas-reservoir
35 to the ejector, a separating-tank for receiving the oil and gas from the flow-pipe, and an oil-tank for receiving the oil from the said separating-tank.

In testimony whereof I have signed my name to this specification in the presence of two sub-
scribing witnesses.

JOHN KAMBISH, JR.

Witnesses:

BENJAMIN F. BARTRUG,

JOHN K. FLUHARTZ.