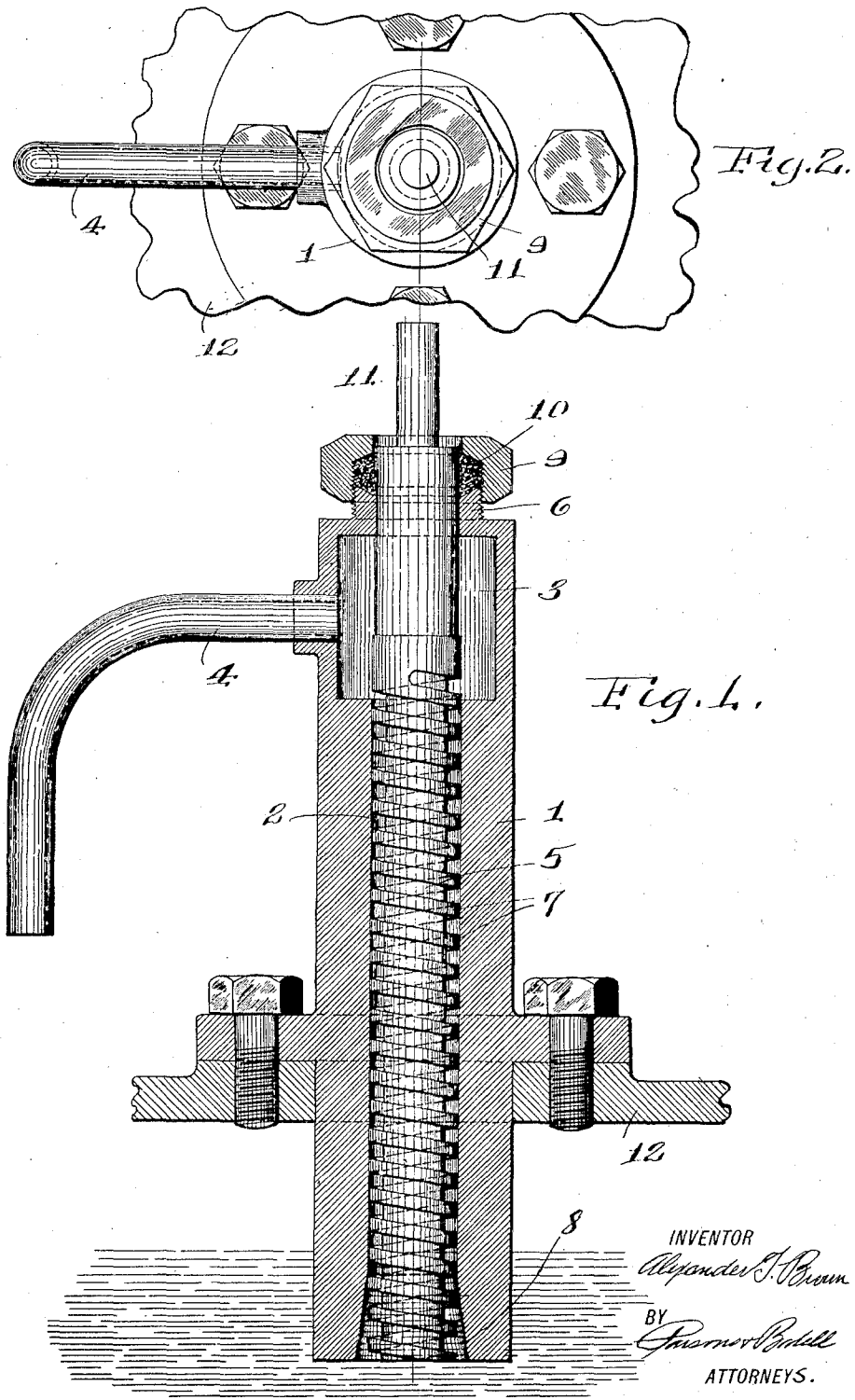


A. T. BROWN.
FORCE PUMP.
APPLICATION FILED FEB. 18, 1919.

1,359,472.

Patented Nov. 16, 1920.



UNITED STATES PATENT OFFICE.

ALEXANDER T. BROWN, OF SYRACUSE, NEW YORK.

FORCE-PUMP.

1,359,472.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALEXANDER T. BROWN, a citizen of the United States, and a resident of Syracuse, in the county of Onondaga and State of New York, have invented a certain new and useful Force-Pump, of which the following is a specification.

This invention has for its object a force pump or a force feed lubricator which is particularly simple and compact in construction and is composed of a minimum number of parts. The invention consists in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawings in which like characters designate corresponding parts in all the views.

Figure 1 is a longitudinal sectional view partly in elevation of this force feed lubricator, the contiguous portion of the oil reservoir being also shown.

Fig. 2 is an end elevation thereof.

This force feed lubricator comprises, generally, an elongated body member having a lengthwise feed passage opening through one end thereof and a delivery passage at the other end of said passage, and a feed member extending lengthwise of the body member and journaled in the passage, one of said members being provided with a spiral rib extending from the outer inlet end of the passage to the delivery chamber.

1 designates the body having a lengthwise feed passage 2 therein, the passage opening through one end of the body and also opening into a delivery chamber 3 near the other end of the body, the passage 3 having an outlet to which a pipe 4 is connected.

5 is a feed member extending through the chamber 3 and being usually journaled in the passage 2 and in a bearing or neck 6 at the end of the body contiguous to the delivery chamber 3, the member 5 being here shown as provided with a peripheral thread or rib 7 extending from the outer end of the passage 2 to the inner end thereof and into the delivery chamber 3.

Preferably, the inlet end of the feed passage 2 widens as at 8. A nut 9 threads on

the neck 6 and holds a packing 10 around the portion of the member 5 located in said neck.

The member 5 is provided at its end adjacent the chamber 3 with suitable means as a spindle 11 to which means for rotating the member 5 is connected.

In operation, the body 1 is arranged with the inlet end of the passage 2 in a reservoir 12 for oil or other material to be pumped and during the rotation of the feed member 5, the oil is forced through the passage 2 to the delivery chamber 3 and from there through the discharge pipe 4 to the parts to be lubricated. During the operation of the pump the member 5 bears on the walls of the passage 2 and owing to the viscosity of the oil pressure is created by the pump.

This pump is particularly advantageous in that it consists of but two main parts which are economical of manufacture and which are readily assembled, and further in that it contains no mechanism which can clog or get out of order.

What I claim is:

A force pump comprising a body member formed with a lengthwise elongated feed passage, and a delivery chamber within the body, the feed passage opening at one end into said chamber and at its other end through an outer end of the body, and a rotatable member journaled in said passage and engaging the walls thereof, the rotatable member having screw threads extending from its outer end to the inner end of the said passage and into the chamber, the inlet end of the passage being flared outwardly and the convolutions of the screw within the flared portion being of substantially the same diameter as those within the remainder of the body whereby the flared portion diverges away from the convolutions at the outer end of the rotatable screw member, substantially as and for the purpose described.

In testimony whereof, I have hereunto signed my name, at Syracuse, in the county of Onondaga, and State of New York, this 10th day of Feb., 1919.

ALEXANDER T. BROWN.