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G. F. MADDEN

OIL INDICATOR AND PUMP PRIMER

Filed Nov. 30, 1921

Fög. 1.

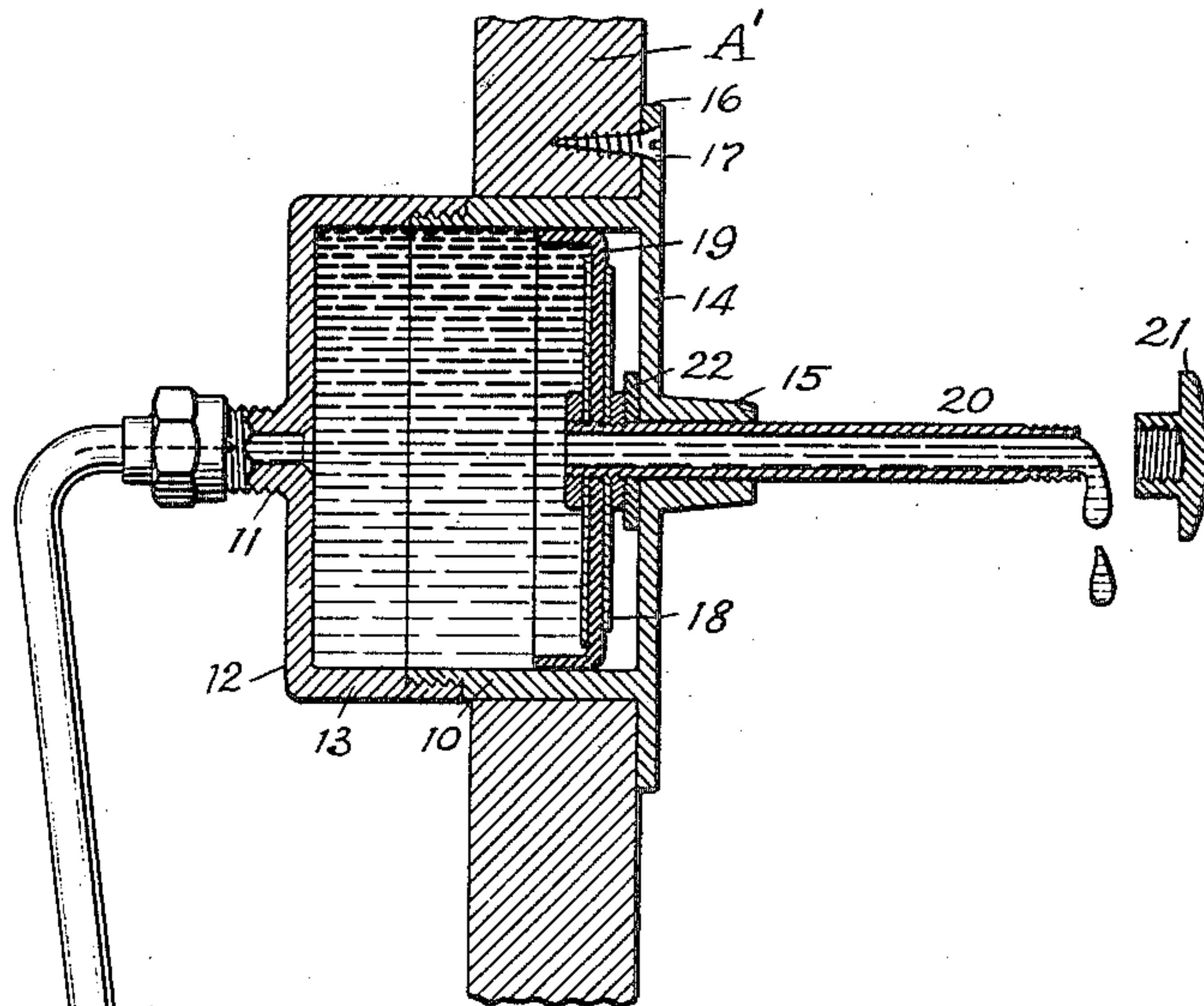
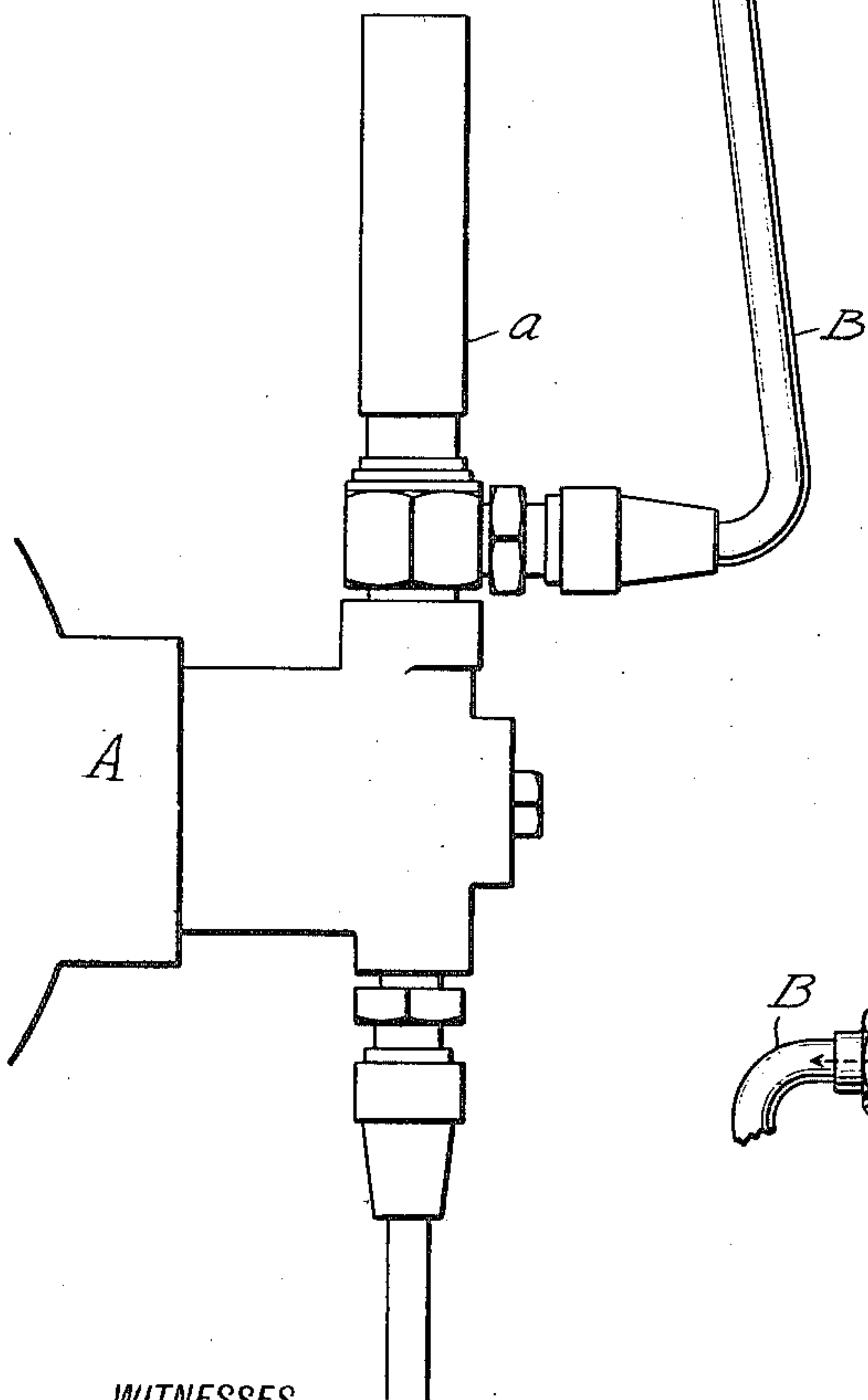
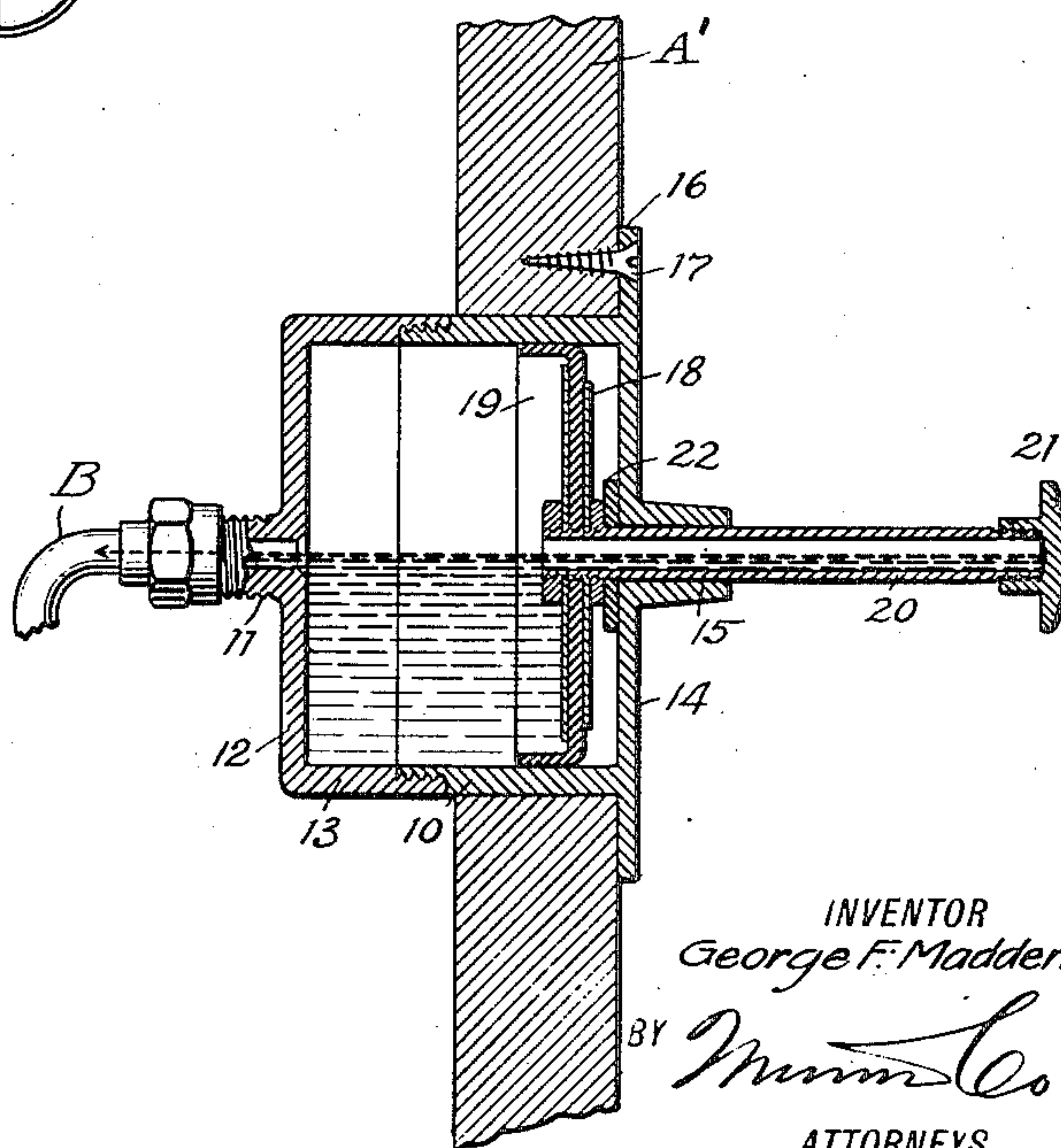


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE FREDERICK MADDEN, OF ROOSEVELT, UTAH.

OIL INDICATOR AND PUMP PRIMER.

Application filed November 30, 1921. Serial No. 519,022.

To all whom it may concern:

Be it known that I, GEORGE F. MADDEN, a citizen of the United States, and a resident of Roosevelt, in the county of Duchesne and State of Utah, have invented a new and Improved Oil Indicator and Pump Primer, of which the following is a description.

My invention is intended more particularly for embodiment in oil indicator reservoirs employed on automobiles and auto trucks in connection with the oil pump.

The general object of the invention is to provide an indicator reservoir so formed and connected up with the pump that oil will be received in the reservoir from the pump and oil from the reservoir may be returned directly to the pump when required, for priming the latter. A further object is to provide a priming reservoir assemblage constituting an indicating means and permitting oil to exude from a plunger included in the assemblage.

Reference is to be had to the accompanying drawings forming a part of this specification, it being understood that the drawings are merely illustrative of one example of the invention.

Figure 1 is a vertical longitudinal section of an oil indicator and primer embodying my invention adjusted for escape of oil through the plunger and showing a pump connection;

Figure 2 is a longitudinal vertical section of said reservoir and primer but with the cap of the plunger in place.

In carrying out my invention in the form shown, a reservoir 10 is provided having a nipple 11 or the like, adapted for connection with an oil pump A, as by a pipe B shown connected with the pump adjacent the air chamber *a*. The nipple 11 is suitably secured to the body of the reservoir 10, as by a threaded flange 13.

It is to be understood that the pipe B is so connected with the pump A and relatively to the pump discharge and discharge valve as to permit a return of the fluid from the reservoir 10 to the pump for priming.

The reservoir in practice is disposed horizontally and it has suitably means for mounting it in position on the automobile, as for example, on a dashboard, a portion of which is conventionally indicated as at A'. In practice, in the preferred form of the invention, the rear head 14 of the reser-

voir 10 extends beyond the reservoir in the form of an integral flange 16, secured by screws 17 or the like to the dashboard, said rear head being shown as formed with a boss 15.

A plunger 18 of any approved detail form is adapted to operate in the reservoir 10, the illustrated plunger assemblage including a cup leather 19. The plunger 18 is provided with a tubular stem 20 extending rearwardly therefrom through the boss 15 and provided with a threaded cap 21 forming an operating head which is removable to constitute the stem an indicating means to determine whether oil is being pumped.

A gasket 22 is provided on the stem 20 at the back of the plunger 18 to prevent oil from escaping rearwardly along the plunger, it being understood that the plunger does not fit fluid-tight in the boss 15 in order that no vacuum may be produced behind the plunger as it is moved forwardly or compressed air accumulate when the plunger is moved rearwardly.

With the described arrangement, the reservoir will be filled from the pump, and this will move the plunger to the rear end of the reservoir and with the stem projecting a substantial distance in the rear of the reservoir. When it is desired to prime the pump, the stem 20 may be forced inwardly to cause the plunger 18 to move forwardly in the reservoir, thereby expelling oil from the nipple 11 and directing the oil to the pump.

If the pump is working properly and a supply of oil is being maintained in the reservoir (10), the oil upon the removal of the cap 21 will be forced through the tubular stem (20), and a sample of oil can be readily obtained. The fact that the stem 20 will be fully extended will be proof that the pump is working.

I would state in conclusion that while the illustrated example constitutes a practical embodiment of my invention, I do not limit myself strictly to the exact details herein illustrated, since, manifestly, the same can be considerably varied without departure from the spirit of the invention as defined in the appended claims.

Having thus described my invention, I claim:

1. A primer for pumps of the class described, including an indicator reservoir adapted to be connected with a pump to re-

ceive oil therefrom, and a plunger in said reservoir optionally movable to return oil from the reservoir to the pump for priming.

2. A primer for pumps of the class described comprising a reservoir, means to connect said reservoir with a pump to cause flow of fluid from the pump to the reservoir, and means associated with said reservoir and optionally operable to forcibly displace the fluid in the reservoir and direct the same through said connecting means to the pump for priming the latter.

3. An indicator and primer for pumps, comprising a reservoir having means to connect with the pump to be filled by the operation of the pump, a plunger in said reservoir optionally movable to force out the contents of the reservoir for priming the pump, and means to permit escape of oil rearwardly from in front of the plunger for indicating the pumping of oil to the reservoir.

4. An indicator and primer for pumps, comprising a reservoir having means to connect with a pump to be filled by the operation of the pump, a plunger in said reservoir optionally movable to force out the contents of the reservoir for priming the pump, and a tubular stem on said plunger and having optionally controllable means to permit the oil to exude therefrom.

5. An indicator and primer for pumps, comprising a reservoir having means to connect with a pump to be filled by the operation of the pump, a plunger in said reservoir optionally movable to force out the contents of the reservoir for priming the pump, a tubular stem on said plunger extending through the back of the reservoir, and a removable cap on the outer end of said stem.

GEORGE FREDERICK MADDEN.