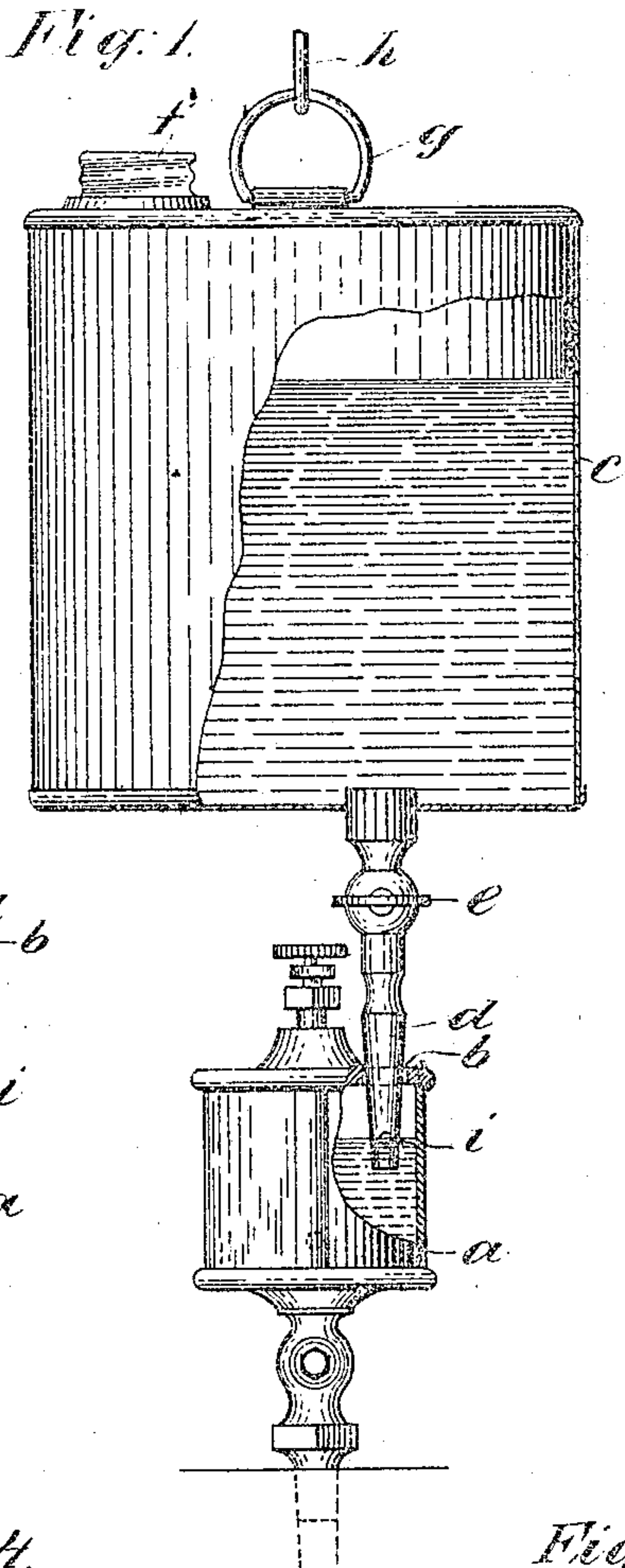


(No Model.)

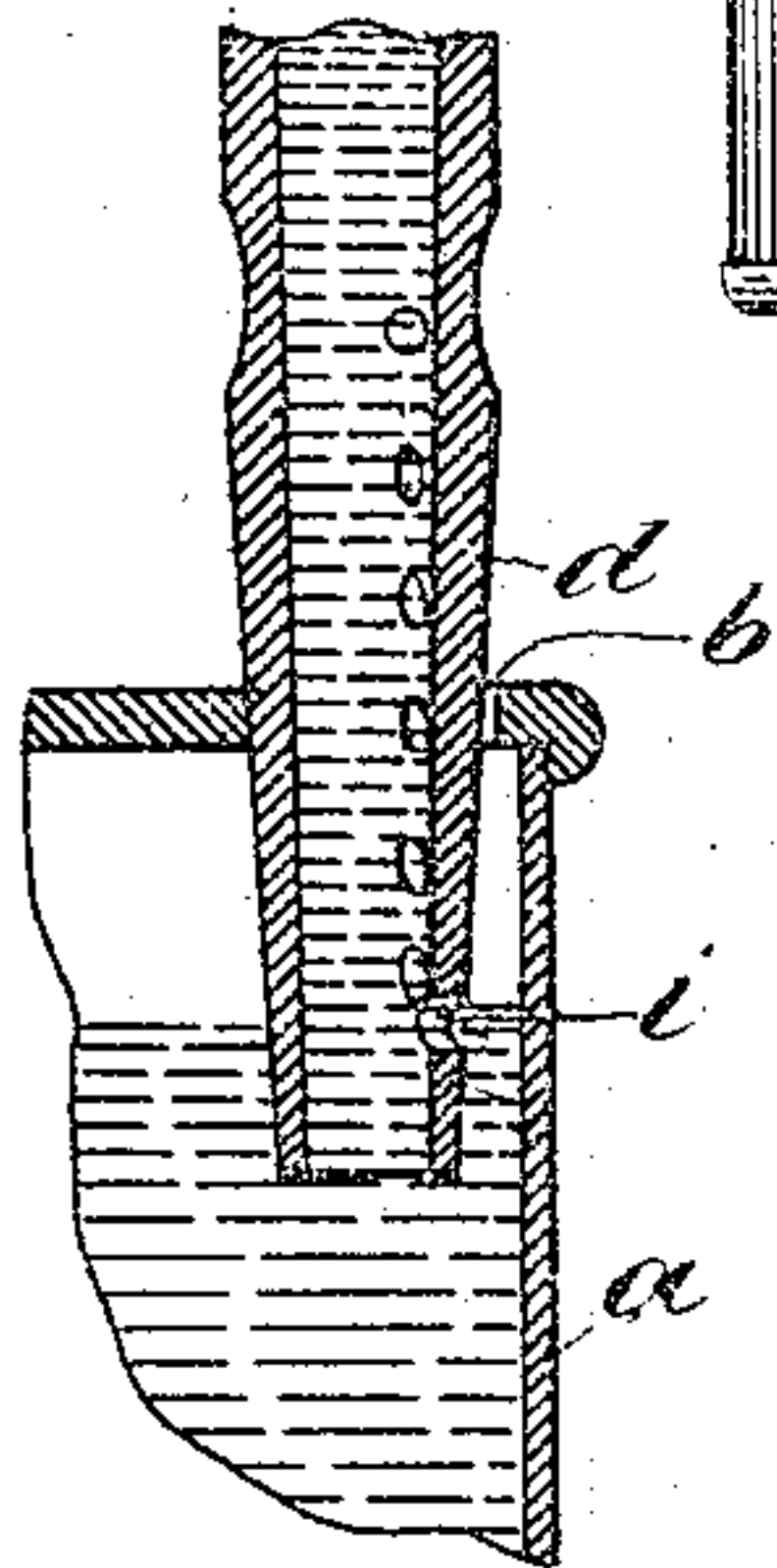
N. ZOGG.  
AUTOMATIC FILLER FOR LUBRICATORS.

No. 603,393.

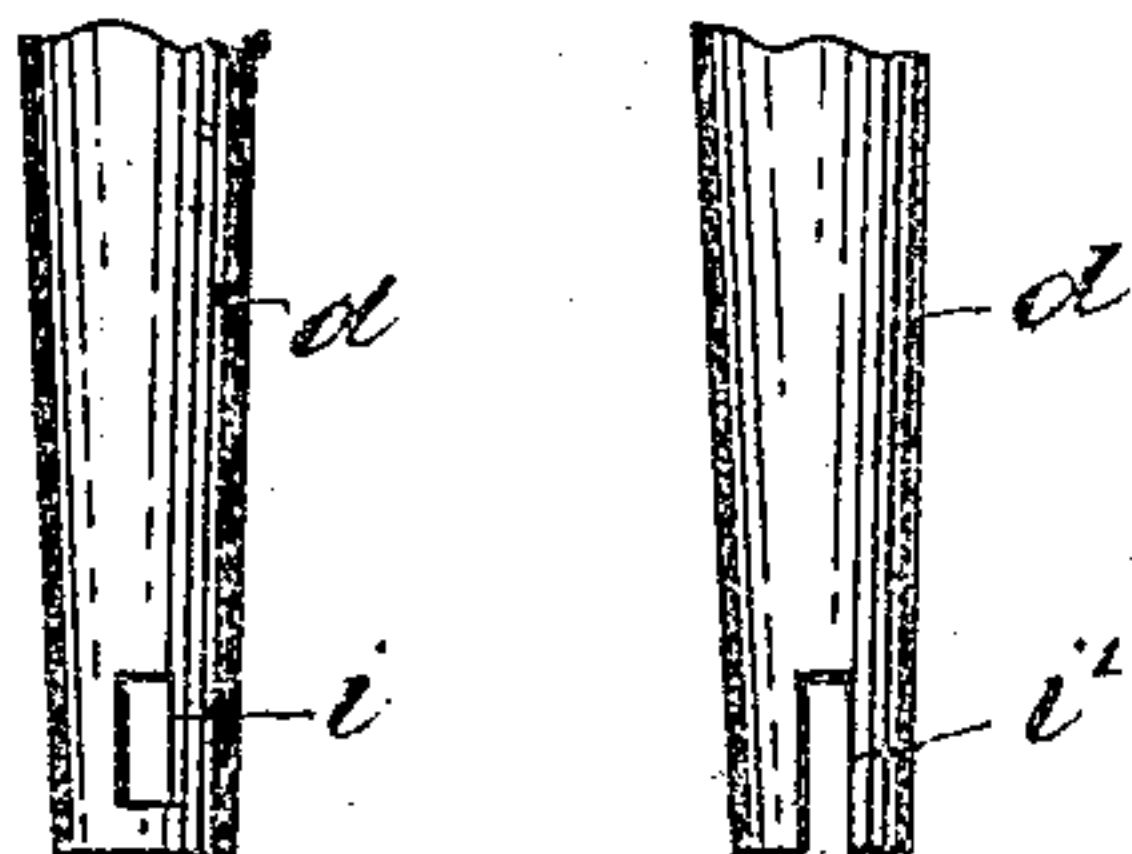
Patented May 3, 1898.



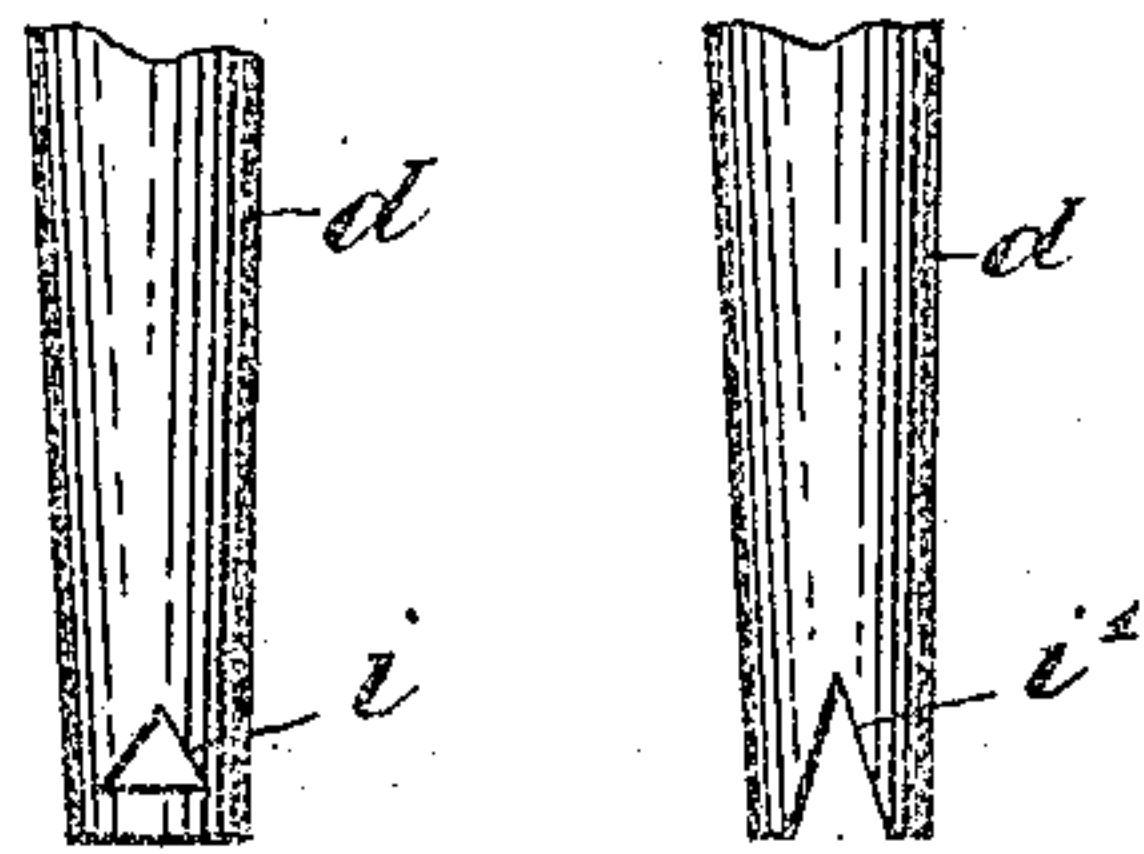
*Fig. 2.*



*Fig. 3.* *Fig. 4.*



*Fig. 5.* *Fig. 6.*



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By

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WITNESSES:

*E. H. H. H. H. H.*  
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# UNITED STATES PATENT OFFICE.

NICHOLAS ZOGG, OF NEW YORK, N. Y.

## AUTOMATIC FILLER FOR LUBRICATORS.

SPECIFICATION forming part of Letters Patent No. 603,393, dated May 3, 1898

Application filed December 28, 1896. Serial No. 617,213. (No model.)

*To all whom it may concern:*

Be it known that I, NICHOLAS ZOGG, a citizen of the United States, and a resident of New York city, in the county and State of New York, have invented certain new and useful Improvements in Automatic Fillers, of which the following is a specification.

My invention consists of improved means of automatically supplying oil to self-feeding lubricators for journals and other devices for which automatic feeders are commonly used, the object being to avoid filling so frequently as necessary on account of the small capacity of the lubricators and to insure more regular feed of the lubricators, as hereinafter fully described, reference being made to the accompanying drawings, in which—

Figure 1 is a side elevation of a lubricator and my automatic filler combined as in use, with parts of the lubricator and filler can broken out. Fig. 2 is a sectional elevation of the filler-nozzle, on a larger scale, illustrating the operation. Figs. 3 to 6, inclusive, are side views of parts of the filler-nozzle, also on an enlarged scale, showing different forms of the vent-orifice of the nozzle.

In Fig. 1 of the drawings, *a* indicates a common form of lubricator for journals and other parts of machinery requiring lubrication, in the top of which I make a suitable hole *b*, and at any suitable position a little higher than the lubricator, but preferably directly above it, I provide a larger filling can or tank *c*, from the bottom of which is a feed-channel for oil into the lubricator through a nozzle *d*, the discharge end of which extends into said lubricator through the hole *b* in the top, said nozzle being provided with a stop-cock *e* to close said passage when required. In the top of the filler is an opening for supplying the oil, which is closed air-tight by a cap *f* when cock *e* is open, and any suitable means of suspending the filler are provided, as the ring *g* and hook *h*.

Near but a little above the lower end of the feeding-nozzle *d* is a small vent-opening *i* through the side of the nozzle, which may consist of an orifice of any form or a slot or notch, as *i'*, extending from the lower end of the nozzle upward.

I have found in practice that such a filler and nozzle so arranged with the lubricator,

but without the vent-orifice in the side, will fail entirely to feed the oil into the lubricator, the filler being tightly closed, for owing to the equilibrium caused by the uniform pressure of air throughout the area of liquid in the nozzle no air will ascend through the open end of the nozzle to vent the filler, but with the orifice above the lower end equilibrium no longer exists, because the force of down pressure at the end of the nozzle is greater than at the orifice and air-bubbles enter through the orifice and flow upward, as indicated in Fig. 2, and thus vent the filler and allow the oil to flow into the lubricator, the flow being automatically regulated by the height of the oil in the lubricator, which will vary only to the extent of opening the vent-orifice slightly to start the inflow of oil and then close it when raised by the inflow sufficiently to cover the orifice.

I am aware that fillers having a vent-tube provided inside of the nozzle and extending from the mouth of the nozzle upward into an air-chamber above the liquid in the nozzle have been used, as in the Patent No. 521,491, for filling empty cans, from which there is free access of air to the vent-tubes, causing free discharge until the end of the nozzle is closed by the rising flood in the can, and I do not claim such device, which for lack of the unbalanced condition cannot effect my purpose of regulating slow feed, for which the small vent-tube is not only not necessary but will not work, because it will clog by capillary action.

I am also aware that various contrivances of an air-inlet tube have been employed in addition to the discharge-nozzle for venting cans from which liquid is to be poured rapidly for filling other cans, lamps, and the like quickly, and I do not claim such devices broadly.

My invention is designed for a continuous slowly-feeding lubricator, and its special feature is a construction whereby it feeds and vents through one and the same tube, and only one tube is used.

I claim as my invention—

The combination with a lubricator, of the continuously-feeding automatic filler consisting of a can or tank adapted to be closed air-tight, and the nozzle adapted for discharging

liquid from the can through its open lower  
end, and having a vent-orifice in the side near  
but above the lower end admitting the air  
for venting directly into the discharge-pas-  
5 sage for the liquid, said end and the lubrica-  
tor adapted for inserting said end in the up-  
per part of the lubricator which is open to the  
atmosphere, and in the liquid contents thereof,  
and the nozzle having a stop-cock between

the vent-orifice and the can, substantially as is  
described.

Signed at New York city, in the county and  
State of New York, this 23d day of July, A. D.  
1896.

NICHOLAS ZOGG.

Witnesses:

W. J. MORGAN,  
A. P. THAYER.