

(No Model.)

A. ROUSE.  
BOTTLE WASHING MACHINE.

No. 551,048.

Patented Dec. 10, 1895.

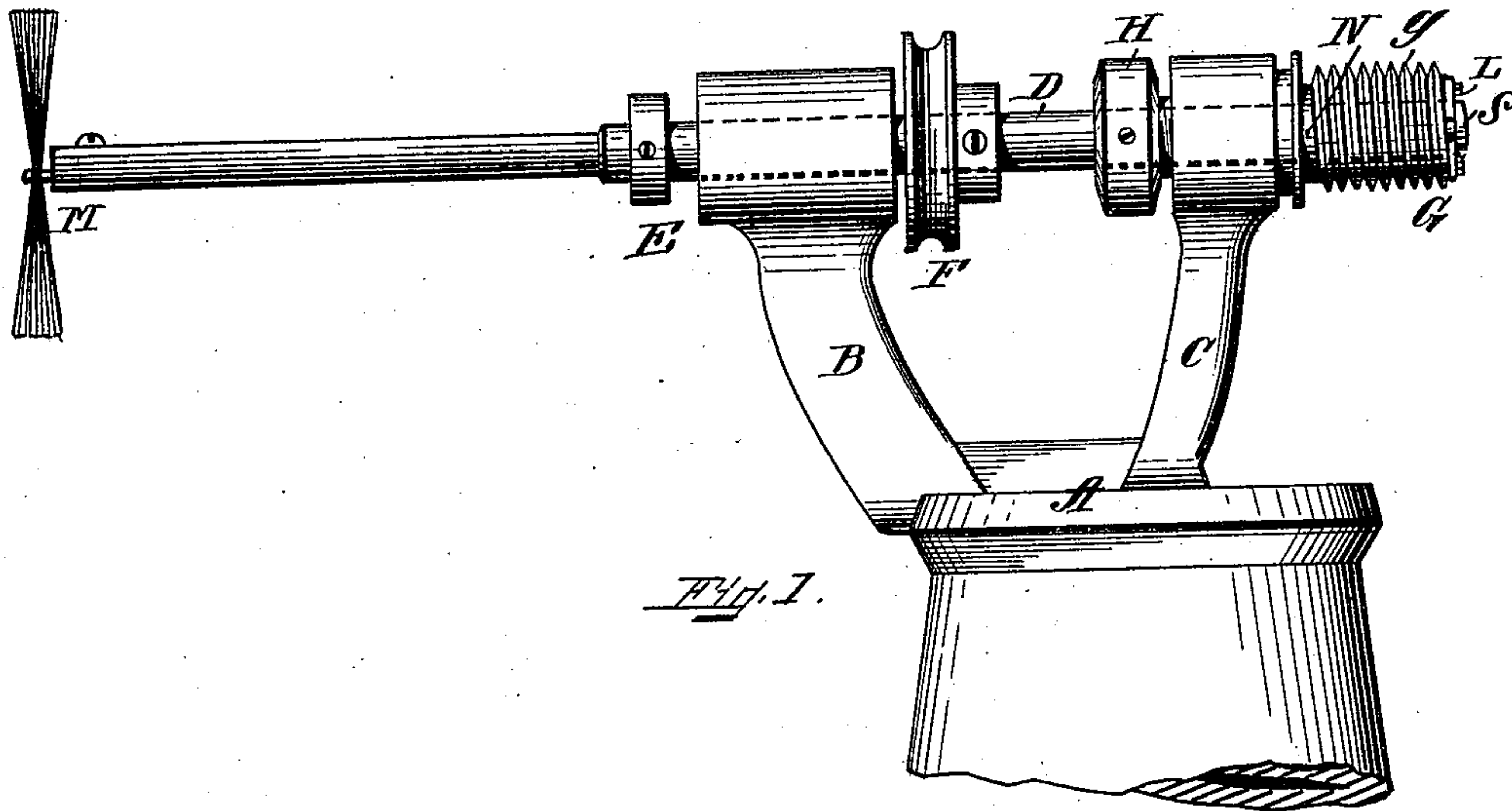


Fig. 1.

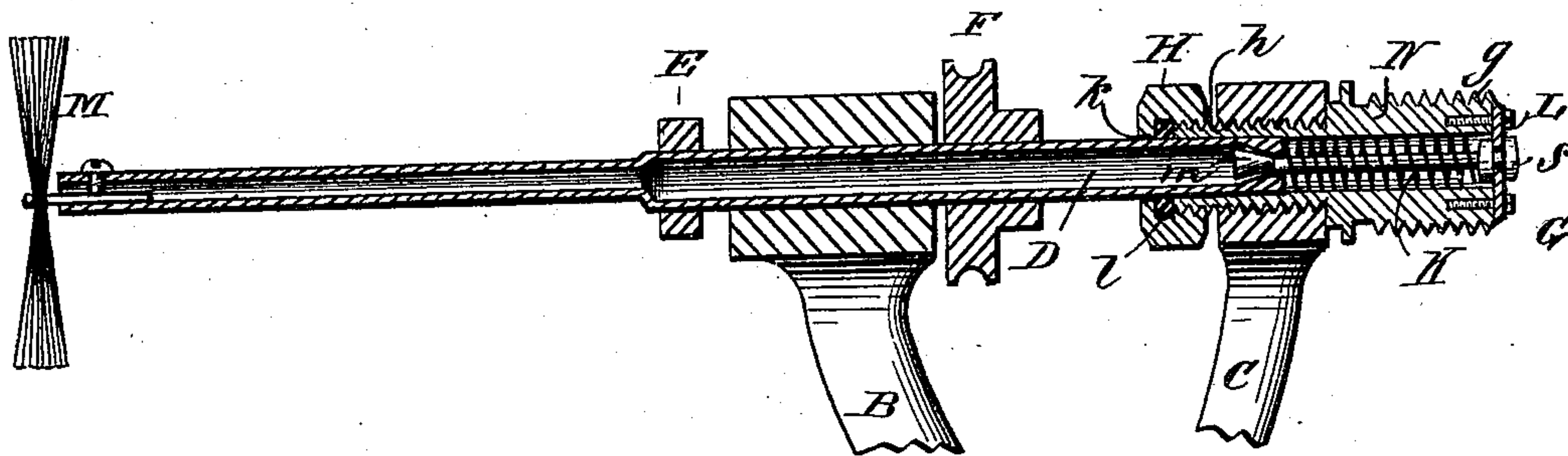


Fig. 2.

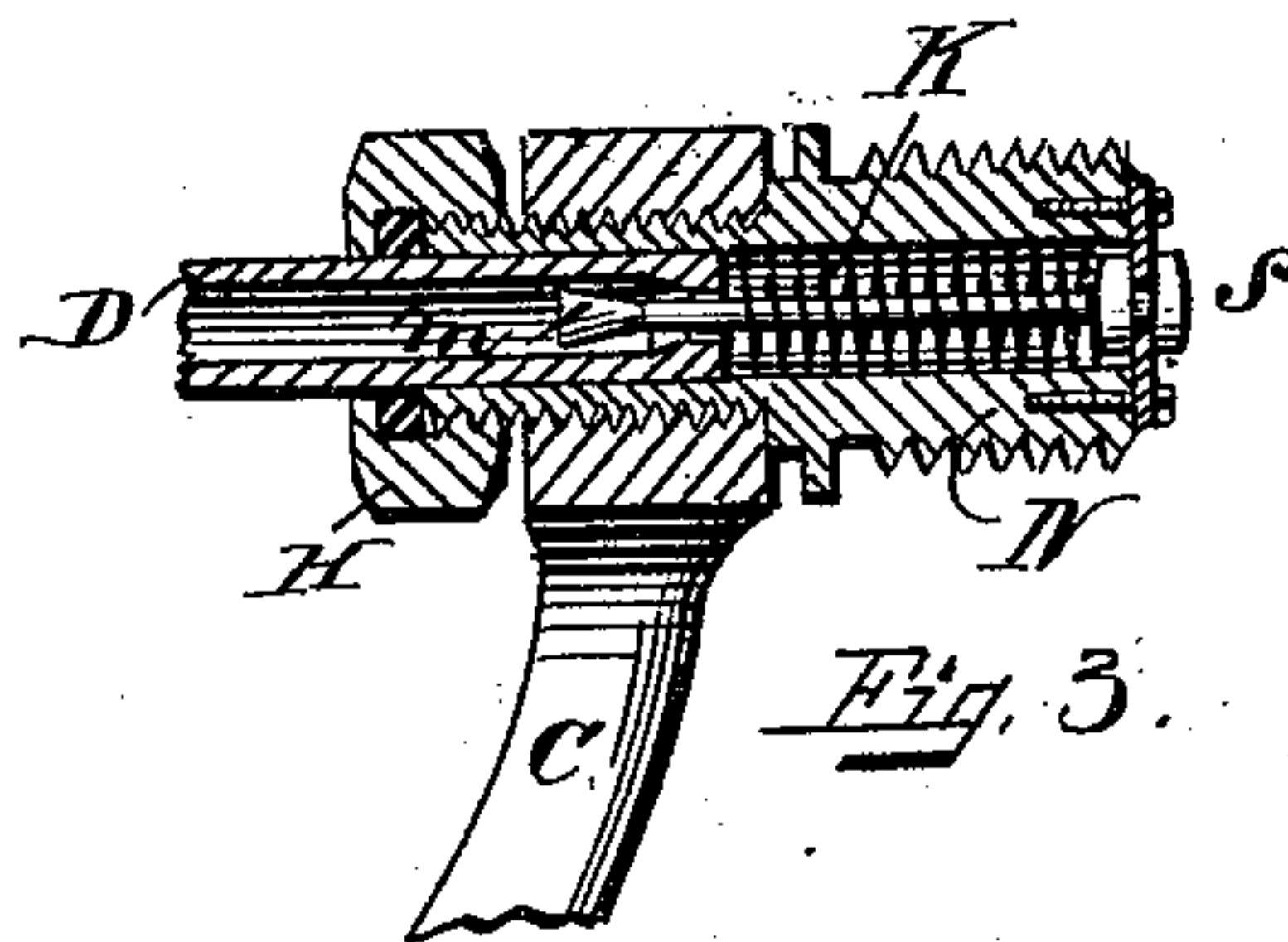


Fig. 3.

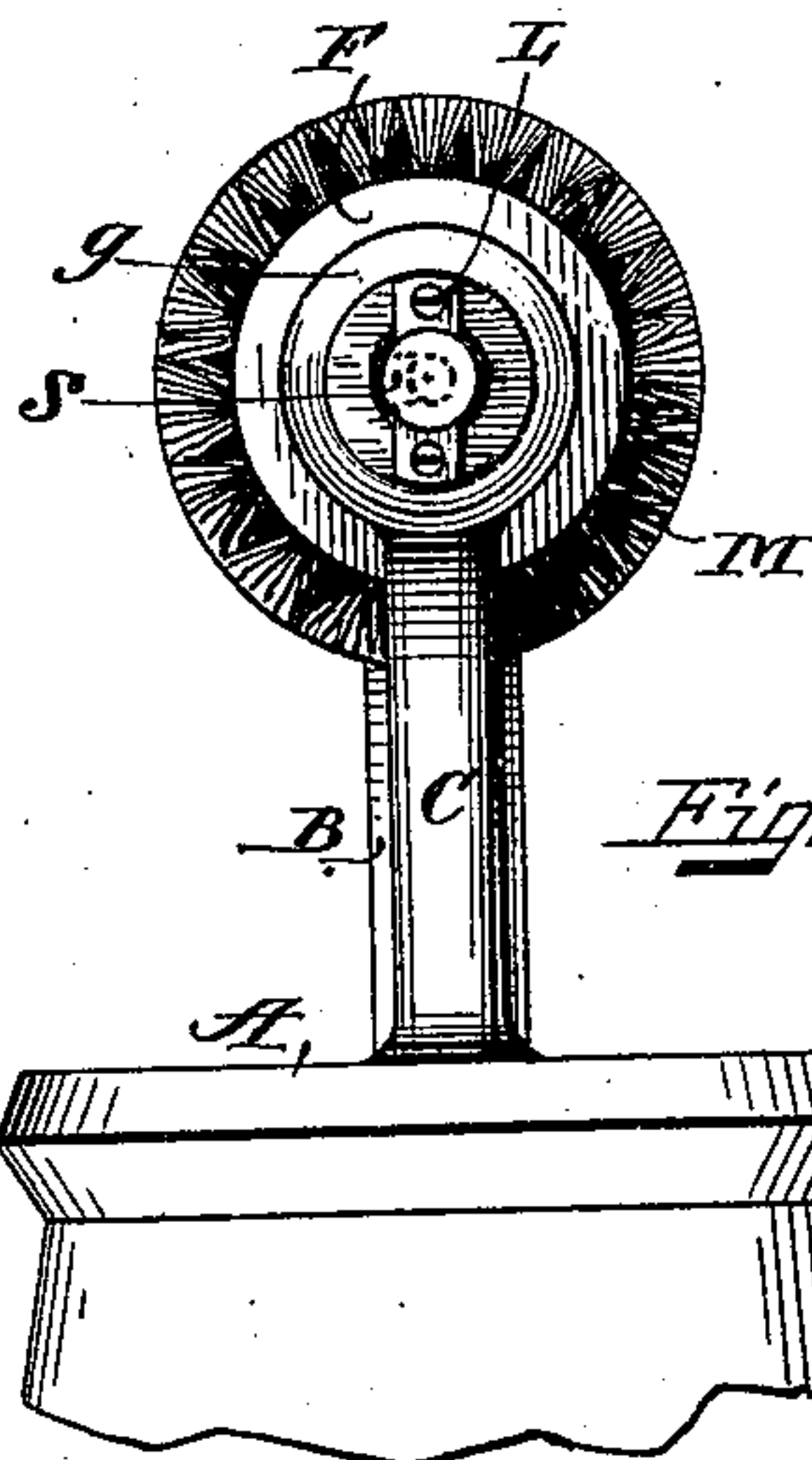


Fig. 4.

Witnesses  
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# UNITED STATES PATENT OFFICE.

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## BOTTLE-WASHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 551,048, dated December 10, 1895.

Application filed December 21, 1894. Serial No. 532,592. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT ROUSE, a citizen of the United States of America, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Bottle-Washing Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to an improvement in a bottle-washing machine; and the objects of my improvement are to provide a tubular rotating shaft having a regulating check-valve and to render the machine simple in construction and operation and easy of application. I attain these objects by means of the machine illustrated in the accompanying drawings, in which—

Figure 1 is a side view in elevation of my entire machine. Fig. 2 is a sectional longitudinal view of the same. Fig. 3 is a sectional longitudinal view of the check-valve. Fig. 4 is an end view of the machine.

Similar letters refer to similar parts throughout the several views.

A is a plate adapted to be fixed on any suitable standard and having the arms B and C.

D is a tubular shaft, having the collar E and pulley F keyed thereon, the said pulley F being adapted for a belt of any suitable arrangement for power to be transmitted therefor for rotating the shaft D.

G is a tubular jacket mounted in the arm C, having a thread *g* at one end adapted to receive the connection of a hose or pipe for the conveyance of the water to be used and a thread *h* at the inner end.

H is a packing-ring, in the recess *k* of which is any suitable packing *l* and which is adapted to fit over the tubular shaft D and is threaded to be arranged on the inner end of the jacket G, which has a corresponding thread *h*.

The shaft D is journaled in the said tubular jacket G and is not only mounted to rotate in the bearing-arm B and jacket G, but is also longitudinally movable therein.

The shaft D has the inner end adapted to receive the head *m* of the valve K, but admits of an annular space between its interior surface and the said head *m* and the shank of the valve K when the head *m* is in the posi-

tion shown in Fig. 3 and away from the valve-seat.

L is a slotted plate fixed on the outer end of the jacket G and engaging in the groove of the head *s* of the valve K. The said head *s* is small enough to allow an annular space between it and the interior surface of the jacket G, as shown in Fig. 4.

N is a spring, having one end against the grooved head *s* of the valve K and the other end against the inner end of the tubular shaft D.

M is a brush, having its stem fixed in the outer end of the tubular shaft.

By attaching the hose on the threaded end *g* of the jacket G water is forced, as usual, to the said jacket, but is kept from the tubular shaft D by the head *m* of the valve K, which is then in the position shown in Fig. 2. When the bottle is put over the brush and the tubular shaft D pressed inward until the collar E rests against the arm B, the head *m* of the valve K is forced away from the valve-seat, as shown in Fig. 3, and a free flow of the water is allowed through the tubular shaft D, thus allowing it to go in the bottle while the brush is rotated by the shaft D, in which it is fixed, as stated. When the bottle is removed and the pressure relaxed, the head *m* of the valve K is at once brought in the valve-seat by the force of the spring H and the flow of the water checked by the said head *m*, which is in the position shown in Fig. 2.

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

1. In a bottle washing machine the combination of a tubular shaft, a tubular jacket fitted over the end of said shaft, a valve arranged in the end of the tubular shaft which is adapted to receive it as described, a grooved head on the outer end of the valve stem, a plate fixed on the outer end of said jacket and engaging the groove in said head, and a spring having one end against the end of the tubular shaft and the other against the grooved head, substantially as set forth.

2. In a bottle washing machine the combination of a plate and two arms in which is journaled a tubular shaft having a collar thereon and provided with a pulley for rotat-

ing said shaft, a tubular jacket fitted in one  
of said arms and over said shaft, a valve ar-  
ranged in the end of the tubular shaft which  
is adapted to receive it as described, a grooved  
5 head on the outer end of the valve stem, a  
plate fixed on the outer end of said jacket  
and engaging the groove in said head, a  
spring having one end against the end of the  
tubular shaft and the other against the  
10 grooved head, a packing ring adapted to fit

over said tubular shaft and the inner end of  
said jacket, substantially as set forth.

In testimony whereof I have signed my  
name to this specification, in the presence of  
two subscribing witnesses, on this 26th day of 15  
November, A. D. 1894.

ALBERT ROUSE.

Witnesses:

GEO. D. COX, Jr.,

H. DUNHAM.