

G. O. WICKERS.

Hose Nozzle.

No. 125,510.

Patented April 9, 1872.

Fig. 1.

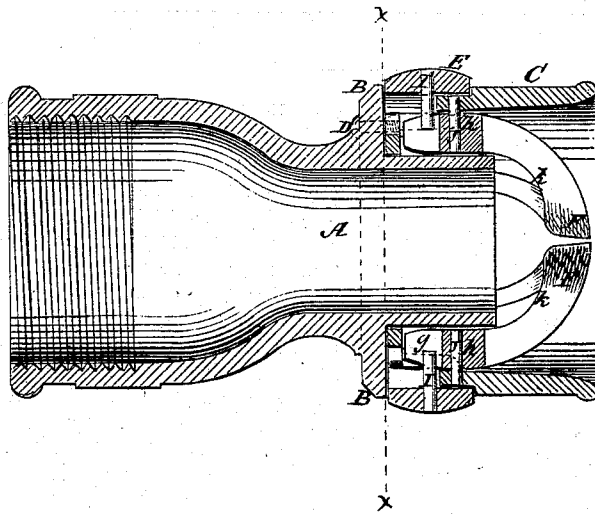


Fig. 2.

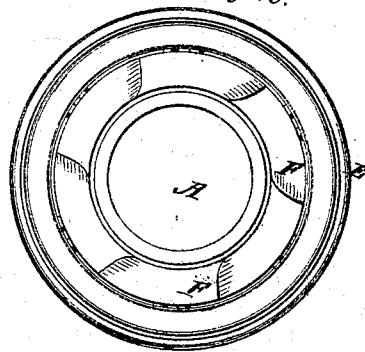
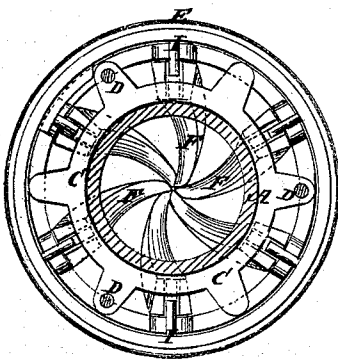


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE O. WICKERS, OF LAWRENCE, MASSACHUSETTS, ASSIGNOR TO
HIMSELF AND HENRY P. CHANDLER, OF SAME PLACE.

IMPROVEMENT IN HOSE-NOZZLES.

Specification forming part of Letters Patent No. 125,510, dated April 9, 1872.

Specification describing a new and useful Improvement in Hose-Nozzle, invented by GEORGE O. WICKERS, of Lawrence, in the county of Essex and State of Massachusetts.

The invention relates to that well-known class of hose-nozzles which are provided with spreaders; and consists in improving them, as hereinafter fully described and subsequently pointed out in the claim.

In the accompanying drawing, Figure 1 represents a longitudinal central section of a hose-nozzle with my improvement attached. Fig. 2 is an end view of the same. Fig. 3 is a cross-section of Fig. 1 taken on the line *x x*.

Similar letters of reference indicate corresponding parts.

A is the nozzle, which is screwed onto the hose in the ordinary manner. B is a collar around the nozzle. C is a blade-chamber, which rests against and is attached by the screws D to the collar B. The part which is in contact with the collar B is seen in the section, Fig. 3, the part being seen when looking to the right from the section line *x x*. This part of the chamber slips over the discharge-nozzle A, leaving space in which to receive and operate the blades between the chamber and the nozzle, as seen in Fig. 1. E is a ring, milled upon its outer side or periphery, or otherwise made, so that it can be readily turned with the hand of the fireman. This ring incloses the chamber, and its edge is in contact with the collar B, as seen in Fig. 1. F represents the blades—six, more or less, in number—each with a forked or slotted head, as seen in Fig. 3, and with a fulcrum pivot-hole just above the slot. *g* represents the slot, and *h* the fulcrum-hole, as seen in Fig. 1. The curve of the blade is seen in the same figure, but from the head the blade is bent to an angle of fifteen degrees, or thereabout, with the slot, and is also twisted so that its inner edge stands at about the same angle with the slot. I represents pins, which pass through and project from the inner side of the ring E, placed at regular distances apart and corresponding in number with the blades F. J represents pins attached to the inner side of the chamber C, which pins pass through the holes *h* of

the blades, as seen in Fig. 1. The blades act as levers, the power being applied at the short end by the pins I in the slots *g* when the ring E is turned; the pins J being the fulcrums or pivots upon which the blades turn. By this short purchase and the peculiar form of the blades the latter are thrown into a position so that the bent and twisted portion will lie nearly horizontal, lapping over each other in the annular space around the nozzle and not interfering at all with the stream of water through the nozzle. This is the position seen in the end view, Fig. 2.

The inner portion of the chamber has an opening for each of the pins I of the movable ring E, so that the ring may be turned or moved back and forth a portion of a revolution. This motion is sufficient to throw the blades from the position seen in Fig. 2 to an upright position, and so that the points thereof will meet over the center of the discharge-nozzle, as seen in Figs. 1 and 3.

The inner edges *k* of the blades are made thin or brought to nearly a cutting-edge, while the backs of the blades are thick. The blades are thus made wedge-shaped in cross-section, so as not to disturb or retard but to effectually divide and spread the stream of water. This is done as already stated by a slight turn of the ring E. By this means the form or character of the stream discharged may be changed at the pleasure of the fireman, according to circumstances.

I do not limit or confine myself to the precise form or arrangement of any of the parts described, as they may be varied without departing from my invention.

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

The movable ring E, having pins I and stationary cylinder C having pins J, combined with spreaders having slots *g* in their shanks and fulcrumed on points *h* thereabove, as and for the purpose described.

GEORGE O. WICKERS.

Witnesses:

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