R. KENDRICK.

HOSE-PIPE NOZZLE.

No. 177,646. Patented May 23, 1876.

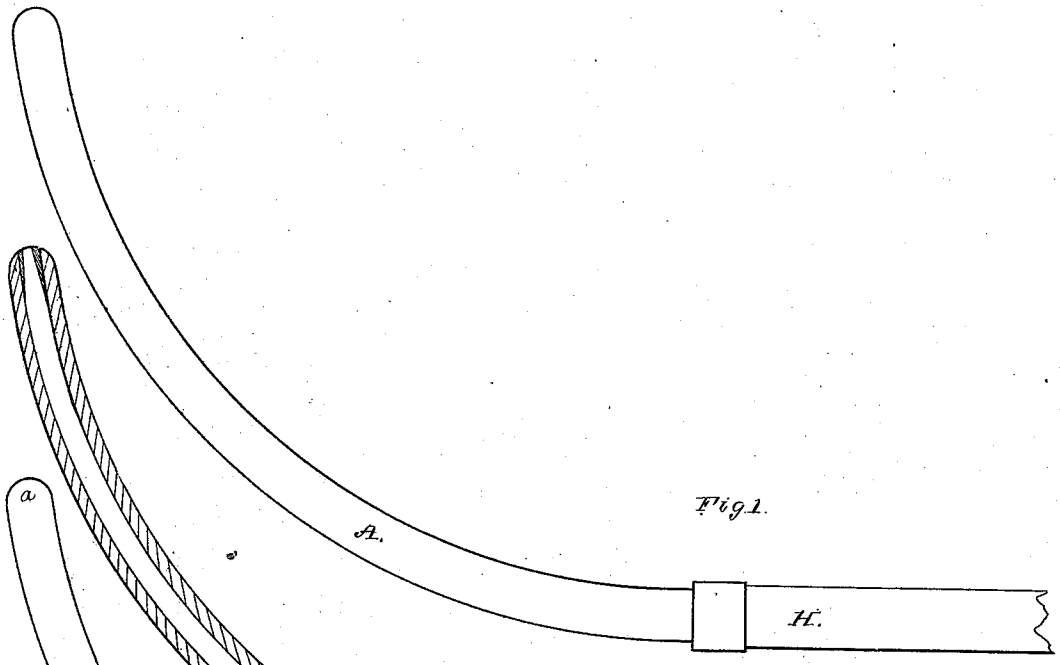

Fig. 1.

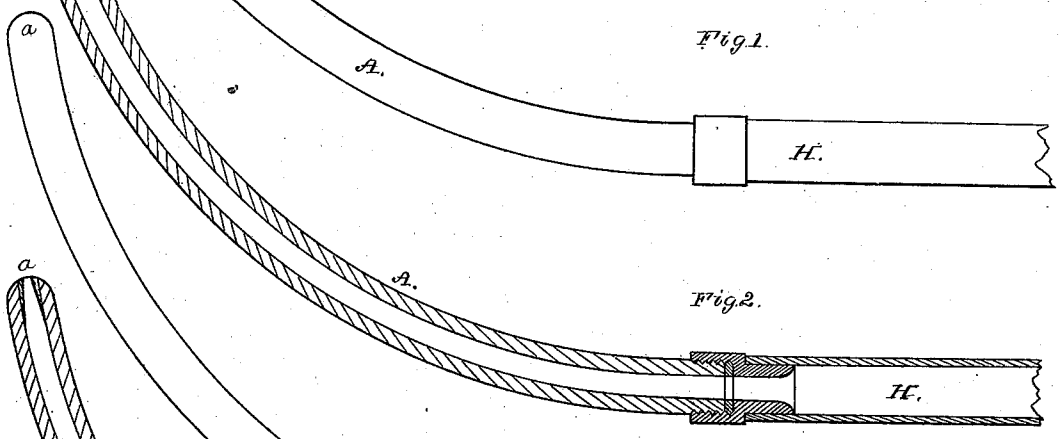

Fig. 2.

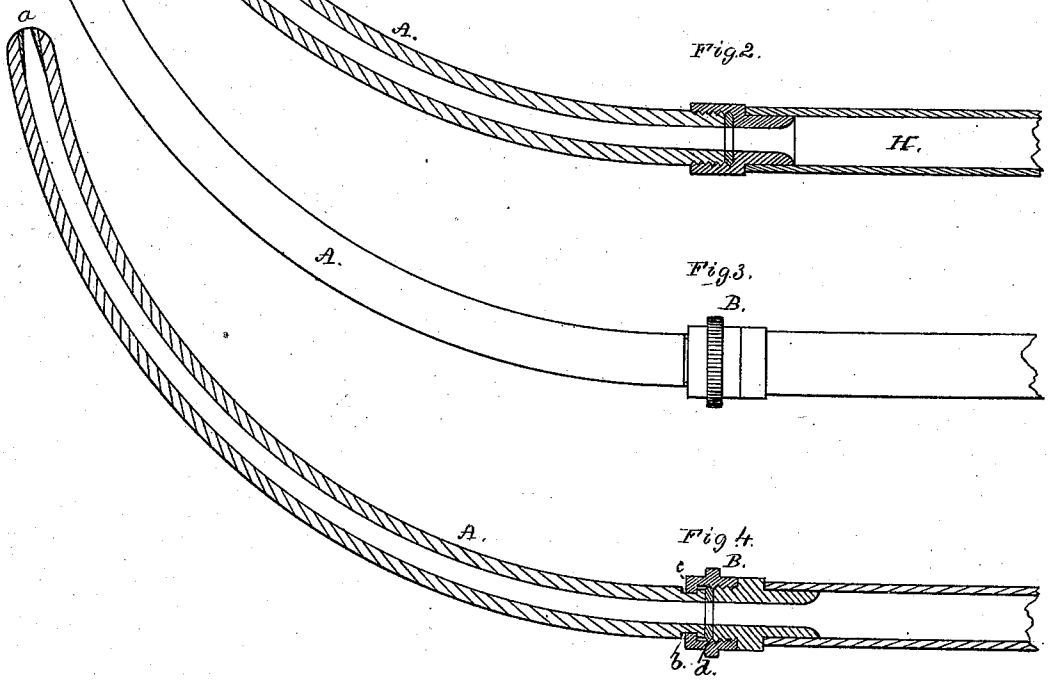

Fig. 3.

Fig. 4.

Witnesses
Geo Gray
F. C. Dale

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UNITED STATES PATENT OFFICE.

RUFUS KENDRICK, OF WAKEFIELD, ASSIGNOR TO HIMSELF AND JAMES M. ROBBINS, OF CAMBRIDGEPORT, MASSACHUSETTS.

IMPROVEMENT IN HOSE-PIPE NOZZLES.

Specification forming part of Letters Patent No. **177,646**, dated May 23, 1876; application filed March 28, 1876.

To all whom it may concern:

Be it known that I, RUFUS KENDRICK, of Wakefield, in the county of Middlesex and State of Massachusets, have invented certain new and useful Improvements in Hose-Pipe Nozzles; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

In the said drawing, Figures 1 and 2 are, respectively, side and sectional views of my invention (in its simplest form) as applied to the end of a hose-pipe of the lighter and smaller size, as employed on portable hand-pumps, &c. Figs. 3 and 4 are, respectively, side and sectional views of the invention, as adapted to the larger and heavier hose.

The object of my invention is to provide means whereby a fireman, or other person, can more readily and effectively extinguish a fire in a building, and especially in the walls or ceiling, and other parts thereof, than by devices of this character, as ordinarily constructed; and my invention consists in the peculiar construction of the device, as hereinafter described and claimed.

My invention, although primarily intended for use, with a portable hand pump, within a building, in arresting a fire in its incipient stages, is equally effective when applied to the ordinary hose-pipe of steam and other engines, as it enables the water to be directed to the desired points to greater advantage than can be accomplished in many situations by the employment of nozzles of the ordinary construction.

My invention is especially advantageous in case a fire should catch in the walls or ceiling of a room, as a person provided with an ordinary hand or fountain pump, having its hose furnished with my improved nozzle, has only to take the pump and a bucket, or vessel supplied with water, to the locality of the fire, when by boring a few small holes through the walls or ceiling (as the case may require) of a size sufficient to receive the nozzle, he can insert the latter therein, its curved form enabling him to turn the same when introduced, so as to give any desired direction to the stream, either upward or downward, or in lateral directions, and to vary the angle of the stream as he may desire, in order to most effectively bring the water upon the parts enflamed.

In Figs. 1 and 2 of the drawing, A denotes a curved metallic pipe, having one of its ends formed with a male screw to fit into the coupling of the hose-pipe H, its other end being provided with a head having a bore of the ordinary construction. In Figs. 3 and 4, A denotes a curved metallic pipe, provided with a head, *a*, of the ordinary construction, its opposite end being furnished with an annular depression, *b*, into which is inserted a flanged end, *c*, of a nut, B, such connection enabling the part A to be freely swiveled in the nut. *d* is a washer of leather, or other suitable material, which impinges against the end of the pipe A. The nut B has a female screw formed in its outer end, by which it is to be connected with a male screw made on the end of the horse-pipe connection, such end being screwed up against the leather washer, and thereby causing a tight joint between the pipe A and the nut.

From the above it will be seen that my invention, as shown in Figs. 1 and 2, (and intended for the small elastic hose of an ordinary hand or fountain pump,) is made of a single curved metallic pipe, and to be attached directly to the hose-coupling, the elasticity and flexibility of the hose enabling the end of the nozzle to be readily turned, so as to discharge the stream directly upon the fire in any direction, and in many situations where a straight nozzle could not be used with effect, while that shown in Figs. 3 and 4 (and intended for the ordinary heavy and comparatively non-elastic hose) is made in two parts with a swiveling joint, and thereby enables the end of the nozzle to be turned in any required direction with great facility and ease.

Having described my invention, what I claim is—

1. The improved hose-pipe nozzle, composed of a single metallic pipe, curved as shown and

described, and provided at one end with a connecting-screw, and at its other with a head, *a*, as set forth.

2. A swiveling hose-pipe nozzle, composed of the curved pipe A and the nut B, constructed and arranged substantially as shown in Figs. 3 and 4.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

RUFUS KENDRICK.

Witnesses:
F. P. HALE,
F. C. HALE.