

(No Model.)

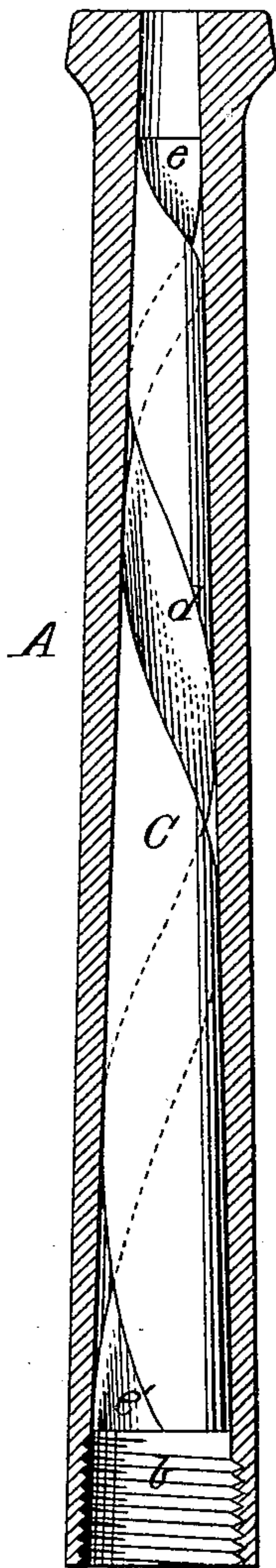
H. F. HOGAN.

HOSE NOZZLE.

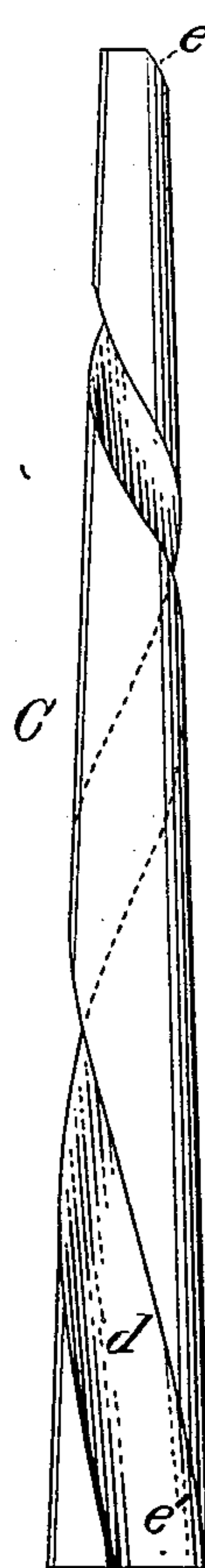
No. 262,183.

Patented Aug. 1, 1882.

*Fig. 1.*



*Fig. 2.*



WITNESSES

*Villette Anderson.*  
*Philip A. Masi.*

INVENTOR

*Hugh F. Hogan*  
*by Anderson & Smith*  
*his* ATTORNEYS

# UNITED STATES PATENT OFFICE.

HUGH F. HOGAN, OF ALBION, INDIANA, ASSIGNOR OF THREE-FOURTHS TO  
GEORGE REIF, CHARLES KURTZ, AND MICHAEL BUTZ, ALL OF CIN-  
CINNATI, OHIO.

## HOSE-NOZZLE.

SPECIFICATION forming part of Letters Patent No. 262,183, dated August 1, 1882.

Application filed May 20, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, HUGH F. HOGAN, a citizen of the United States, resident of Albion, in the county of Noble and State of Indiana, have invented a new and valuable Improvement in Hose-Nozzles; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of this invention, showing the hose-nozzle in section and the core-guide inside. Fig. 2 is a side view of the spirally-grooved core-guide.

The object of this invention is to centralize the flow of water through a nozzle, so as to deliver it in a compact stream; and the invention consists in providing a tapering spirally-grooved core-guide or inside attachment to be introduced into the water-way of the nozzle, all as hereinafter set forth.

In the accompanying drawings, the letter A designates a hose-nozzle having a tapering opening or water-way, *b*.

C represents a tapering core-piece or inside attachment, designed to be introduced into the water-way *b*, and intended to fit the wall of

the water-way neatly. The attachment C is formed with a spiral groove, *d*, extending from end to end thereof, and opening fully at each end, as indicated at *e* and *e'*. This spiral groove gradually decreases in size from the butt-end to the point end of the attachment, while the curvature of the groove increases in the same direction. By means of this attachment and the wall of the opening in the nozzle a spiral water-passage is formed, which is designed to centralize the flow of water, rendering it compact and preventing the formation of spray in the discharge.

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

1. A hose-nozzle having a tapering spiral water-passage of gradually-increasing curvature, substantially as specified.

2. The spirally-grooved inside guide or attachment, C, adapted to be introduced into the opening of a hose-nozzle, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HUGH F. HOGAN.

Witnesses:

G. C. SIEFKE,  
W. C. FIEDELDEY.