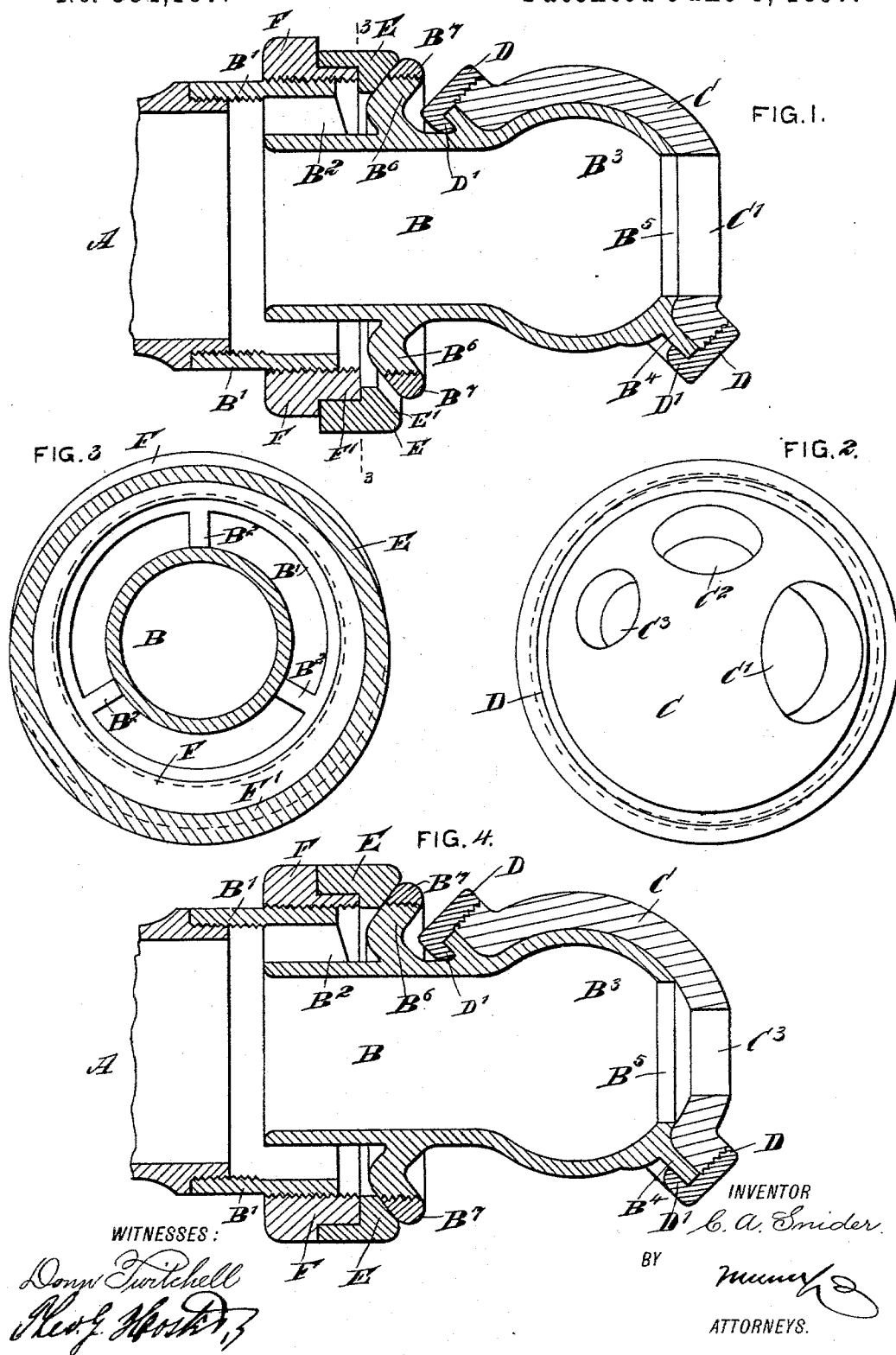


(No Model.)

C. A. SNIDER.
NOZZLE.

No. 584,197.

Patented June 8, 1897.



UNITED STATES PATENT OFFICE.

CHARLES ALBERT SNIDER, OF COLUMBUS, GEORGIA.

NOZZLE.

SPECIFICATION forming part of Letters Patent No. 584,197, dated June 8, 1897.

Application filed September 2, 1896. Serial No. 604,655. (No model.)

To all whom it may concern:

Be it known that I, CHARLES ALBERT SNIDER, of Columbus, in the county of Muscogee and State of Georgia, have invented a new and
5 Improved Nozzle, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved nozzle for fire-extinguishing purposes, and which is simple and durable
10 in construction, easily manipulated and changed to graduate the outlet-opening for the discharge of a large or small stream of water, according to the condition of the fire, or to throw a full or half circle spray of water.

15 The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying
20 drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the improvement. Fig. 2 is an end elevation of
25 the same. Fig. 3 is a transverse section of the same on the line 3 3 of Fig. 1, and Fig. 4 is a sectional side elevation of the improvement with parts in a different position.

The supply-pipe A is formed on its outer
30 end with threads, on which screws the internally-threaded ring B', connected by inwardly-extending ribs B² with the discharge pipe or nozzle B, made spherical at its outer end B³, as is plainly illustrated in Fig. 1. On this
35 spherical end B³ and eccentrically thereon is formed an annular flange B⁴, extending at an angle to the center line of the pipe, and on this spherical end is mounted to turn a cap C, in the form of a hollow semisphere and
40 provided at its edge with a screw-ring D, formed with an inwardly-extending flange D', engaging the under side of the flange B⁴ to permit of turning the cap C along the line of the annular flange B⁴—that is, at an angle to the center line of the pipe B. In the cap C
45 are formed a series of graduated openings C' C² C³, with the opening C³ or C' spaced a sufficient distance apart to leave a large solid portion of the cap to close the mouth B⁵ of the pipe B.

The centers of the openings C' C² C³ are arranged in such a manner that when the cap

C is turned as previously described then the said openings are brought into register with the mouth B⁵ to permit the water to
55 pass through the pipe B, mouth B⁵, and the corresponding opening C', C², or C³ to the fire. Thus by turning the cap C any desired sized opening may be brought in register with the mouth B⁵ to permit of throwing a light or
60 heavy stream of water upon the fire, and if desired to cut off the stream the operator turns the cap so that the solid portion between the openings C' C³ comes over the mouth B⁵.
65

On the pipe B, in the rear of the flange B⁴, is formed an annular angular flange B⁶, on which screws a collar B', adapted to engage a conical seat E', formed on a collar E, mounted to turn eccentrically on a flange F', formed
70 on a ring F, screwing on the ring B', as plainly shown in the drawings.

By reference to Fig. 1 it will be seen that the ring E can be turned on its eccentric seat to form either a semicircular or circular opening
75 between the seat E' and the threaded collar B' to permit the water flowing through the supply-pipe A to pass between the space formed by the pipe B and its ring B' to the said semicircular or circular opening to form
80 a semicircular or circular spray to be discharged upon the fire. Normally the collar E is in the position shown in Fig. 4—that is, turned so as to engage its seat E' with the collar B'—to prevent any water from being
85 sprayed at this point.

By the arrangement described a stream of water may be sent through the mouth of the nozzle, or a semicircular or circular spray when the mouth B⁵ is closed by turning the
90 collar E, as previously described, or both a spray and a stream may be sent at the same time.

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

1. A nozzle, provided with a discharge-pipe having a spherical end, and a cap mounted to rotate on said end about an axis which is at an oblique angle to the median line of the
100 discharge-pipe and formed with a series of graduated openings adapted to register with the mouth of said pipe, as shown and described.

2. A nozzle, provided with a discharge-pipe having a spherical end and formed with an external flange on said end, and a cap mounted to turn on said end and flange, and formed with a series of graduated openings or apertures adapted to register with the mouth of the said discharge-pipe, substantially as shown and described.

3. A nozzle, provided with a discharge-pipe, a ring concentrically supported from the said pipe and adapted to engage the supply-pipe, an angular, annular collar supported from the said pipe, and a collar mounted to turn eccentrically and formed with a conical seat adapted to engage all or part of the said collar, substantially as shown and described.

4. A nozzle, provided with a discharge-pipe, a ring concentrically supported from the said pipe and adapted to engage the supply-pipe, an angular, annular collar supported from the said pipe, a collar mounted to turn eccentrically and formed with a conical seat adapted to engage all or part of the said collar, and a ring forming the eccentric seat for the said collar and held on the first-named ring of the pipe, substantially as shown and described.

5. A nozzle, provided with a fixed conical collar, and a ring mounted to turn eccentrically and formed with a conical seat adapted to engage the said conical collar, or to form

a space with the same, substantially as shown and described.

6. A nozzle, provided with a discharge-pipe having a spherical end, and a hemispherical cap mounted to rotate on said end about an axis which is at an oblique angle to the median line of the discharge-pipe and formed with a series of graduated openings arranged to register with the mouth of said pipe and a solid portion of sufficient size to entirely close said mouth, substantially as shown and described.

7. A nozzle, comprising the discharge-pipe formed with a conical collar and a spherical end therebeyond, a ring formed with a conical seat and mounted to turn eccentrically and arranged to form a space with said collar for the egress of water, and also to close said space, and the cap mounted to rotate on the aforesaid spherical end about an axis which is at an oblique angle to the median line of the discharge-pipe and formed with a series of graduated openings arranged to register with the mouth of said pipe, all substantially as shown and described.

CHARLES ALBERT SNIDER.

Witnesses:

W. C. PEASE,
C. J. EDGE.