

C. Oyston,

Nozzle,

Nº 39,674.

Patented Aug. 25, 1863.

Fig: 1

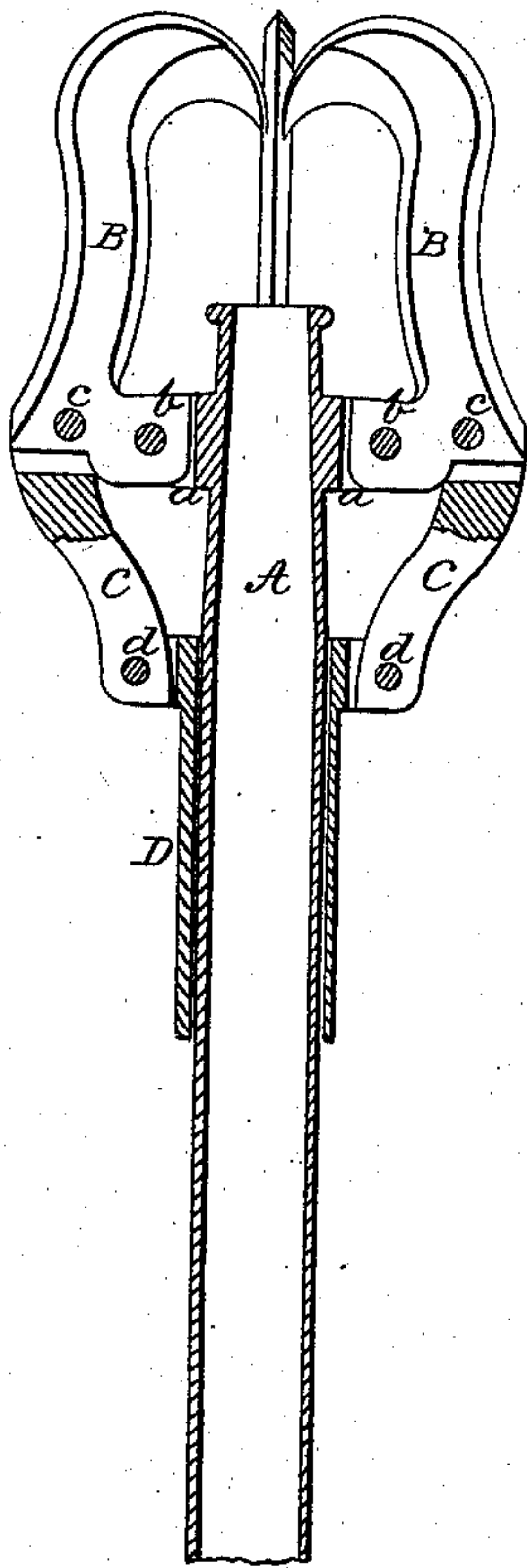
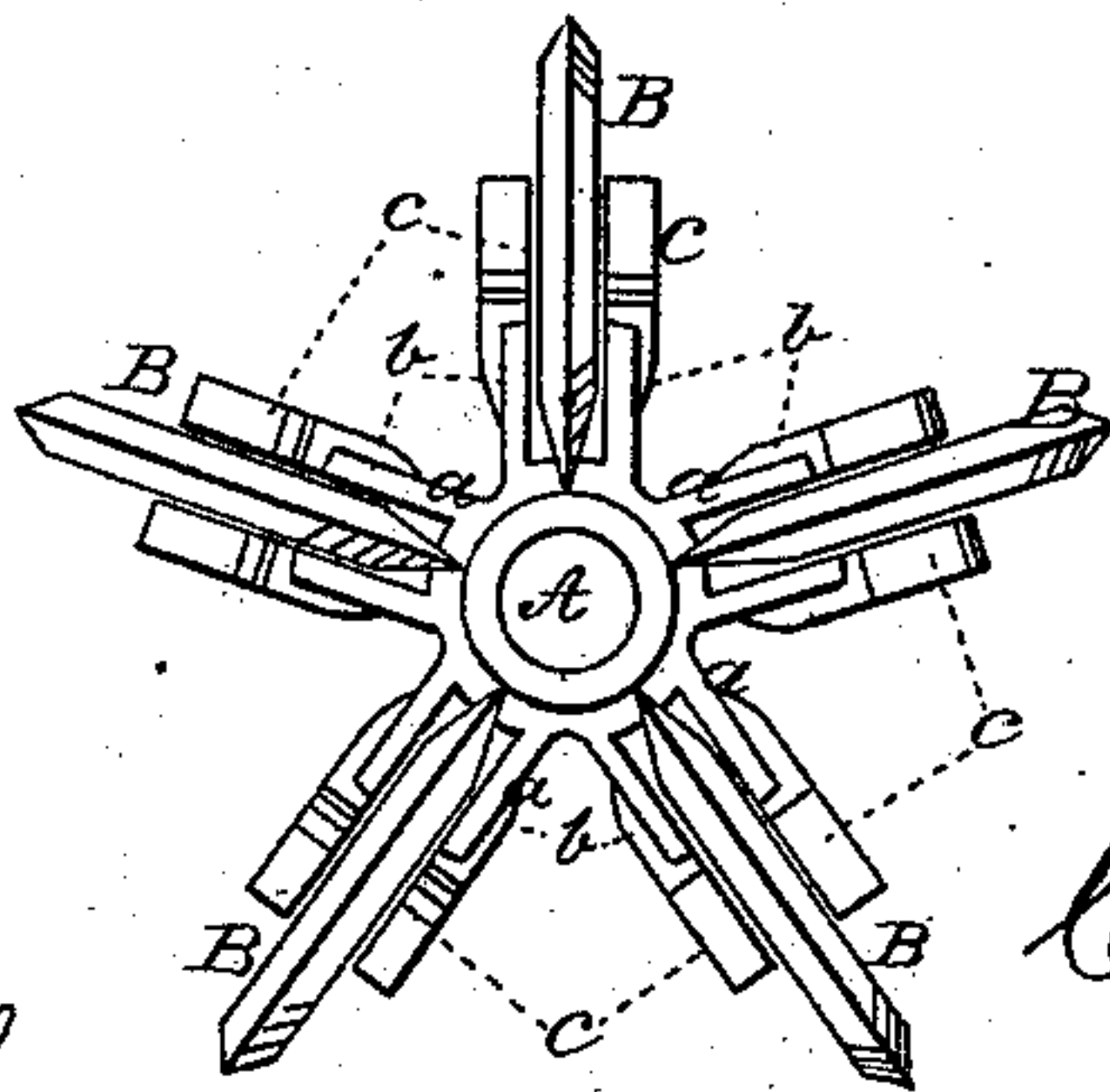


Fig: 2.



Witnesses:

J. W. Coombs
G. W. Reed

Inventor:

Charles Oyston
per Munn & Co
attorneys

UNITED STATES PATENT OFFICE.

CHARLES OYSTON, OF LITTLE FALLS, NEW YORK.

IMPROVEMENT IN NOZZLES.

Specification forming part of Letters Patent No. 39,674, dated August 25, 1863.

To all whom it may concern:

Be it known that I, CHARLES OYSTON, of Little Falls, in the county of Herkimer and State of New York, have invented a new and useful Improvement in Nozzles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a longitudinal vertical central section of my invention. Fig. 2 is a plan or top view of the same.

Similar letters of reference in both views indicate corresponding parts.

The object of this invention is to enable the operator to divide up the water as it emanates from a nozzle, or let it pass in a solid stream, as circumstances may require.

The invention consists in the arrangement of a series of wedge-shaped divergers, in combination with a nozzle, in such a manner and connecting them by suitable mechanism in such a way that they may be projected into the stream emanating from the nozzle, so as to divide it up, or withdrawn, so as to let it pass free at the will of the operator.

To enable others skilled in the art to make and use my invention, I will proceed to describe it.

A represents a nozzle of the ordinary construction and of any size desirable. From the circumference of this nozzle, and near to its mouth, project a series of lugs, *a*, which form the bearings for the fulcrum-pins *b* of the divergers B. The divergers extend up above the mouth of the nozzle and their upper or outer ends are curved, forming knife-edged wedge-shaped hooks, as clearly shown in Fig. 1 of the drawings. The lower or inner

ends of the divergers connect by means of links C with a sleeve, D, which slides on the outside of the nozzle. The pins *c*, which connect the links to the divergers, are outside the fulcrum pins *b*, and the sleeve D is provided with a series of lugs, which form the bearings for the pins *d*, connecting the links to the sleeve, so that by moving the sleeve toward the mouth of the nozzle the outer ends of the divergers are made to close up, and by moving the sleeve from the mouth of the nozzle the divergers are caused to spread or separate. In closing up, the wedge-shaped ends of the divergers meet over the center of the nozzle and a stream of water emanating from said nozzle by striking the wedge-shaped divergers is divided up and scattered over a large area. When the sleeve D is moved from the mouth of the nozzle, the points of the divergers spread and open far enough to let the stream pass through unobstructed.

It is obvious that instead of the sleeve and mechanism herein shown and described different means might be employed to open and close the divergers, and I do not want to confine myself to any particular mechanism; neither do I want to be confined to any particular form or shape or number of divergers, as the same may be varied in different ways.

What I claim as new, and desire to secure by Letters Patent, is—

The arrangement of a series of divergers, B, or their equivalents, connected to each other and to the nozzle A by suitable mechanism, substantially in the manner and for the purpose specified.

CHARLES OYSTON.

Witnesses:

IRVING SNELL,
T. SCOTT.