

(No Model.)

C. HOOD.
SPRAY NOZZLE.

No. 516,931.

Patented Mar. 20, 1894.

Fig. 1.

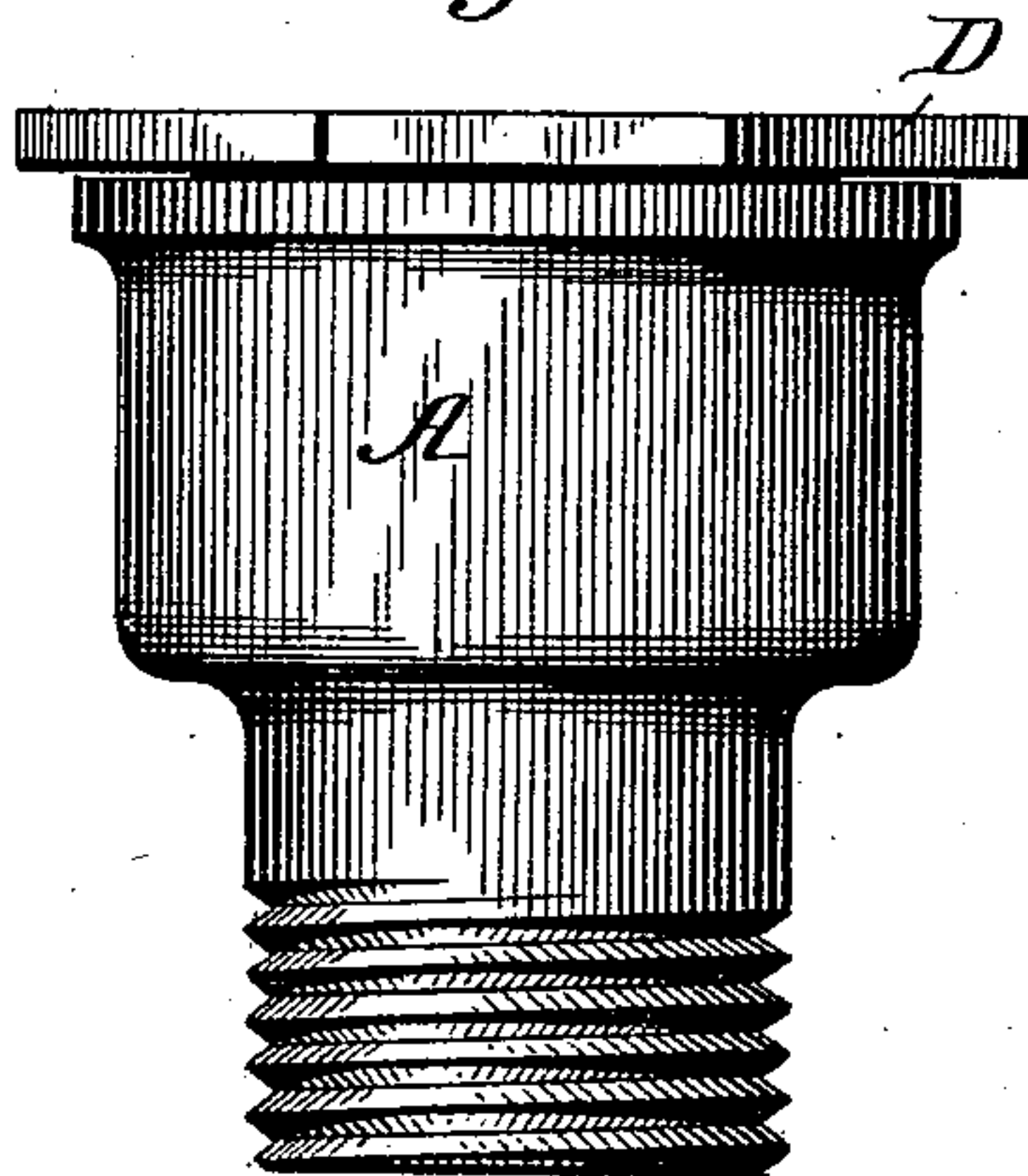


Fig. 2.

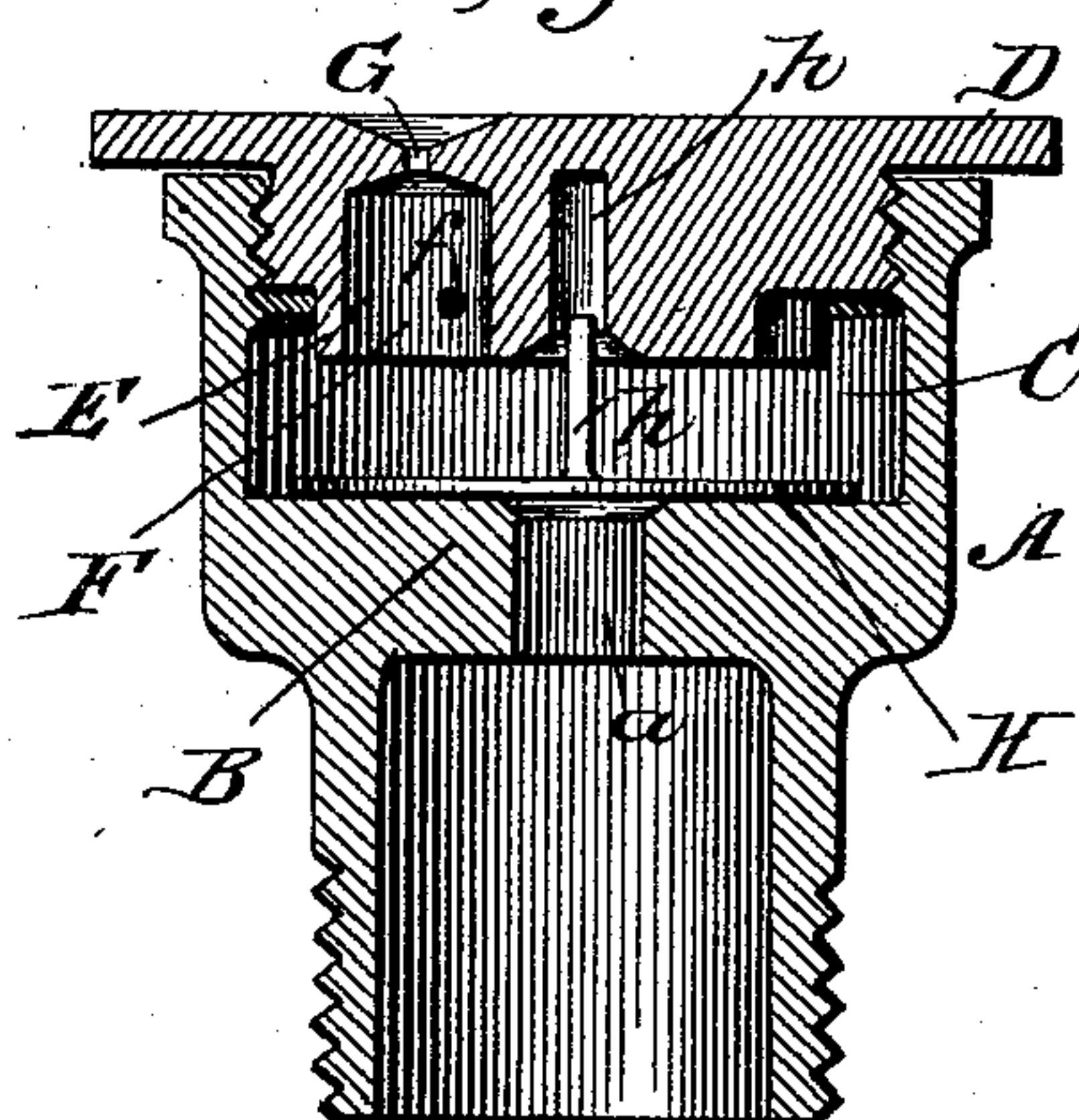


Fig. 3.

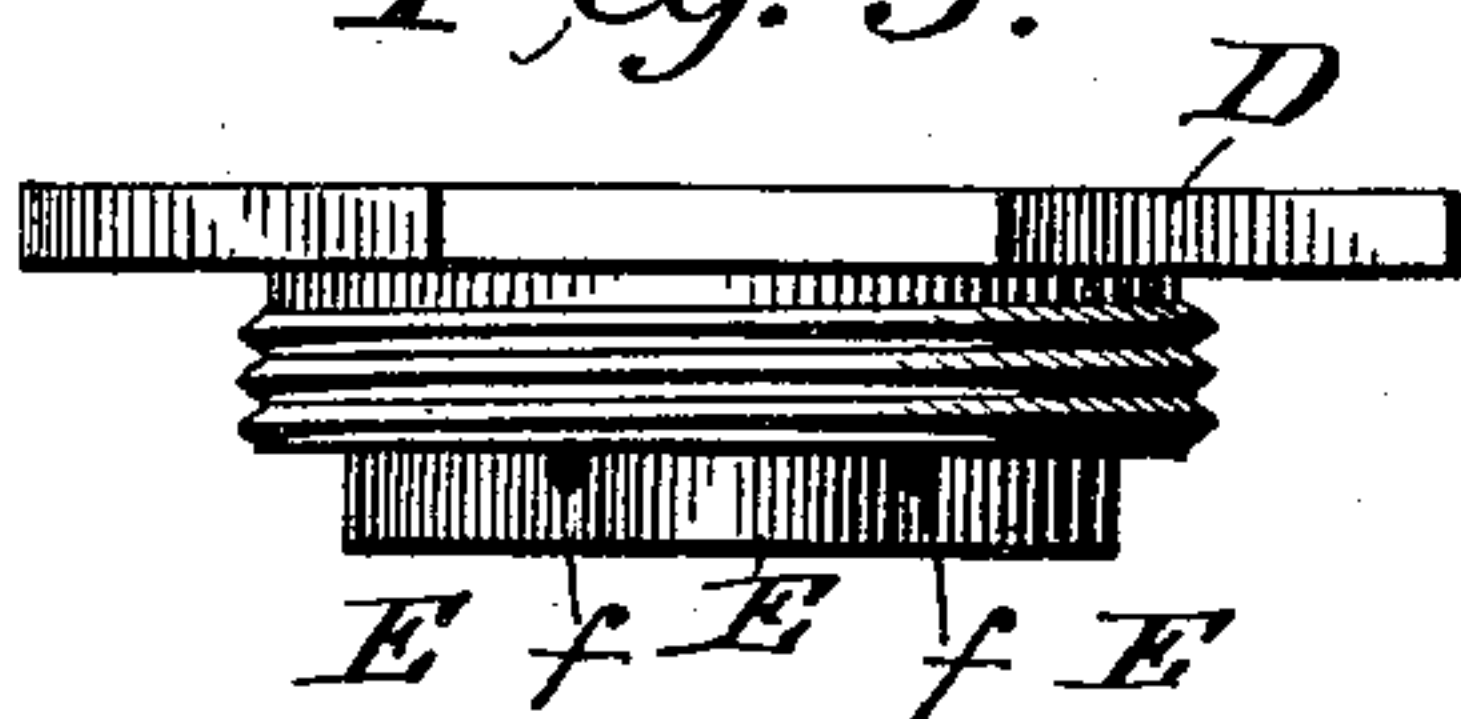


Fig. 4.

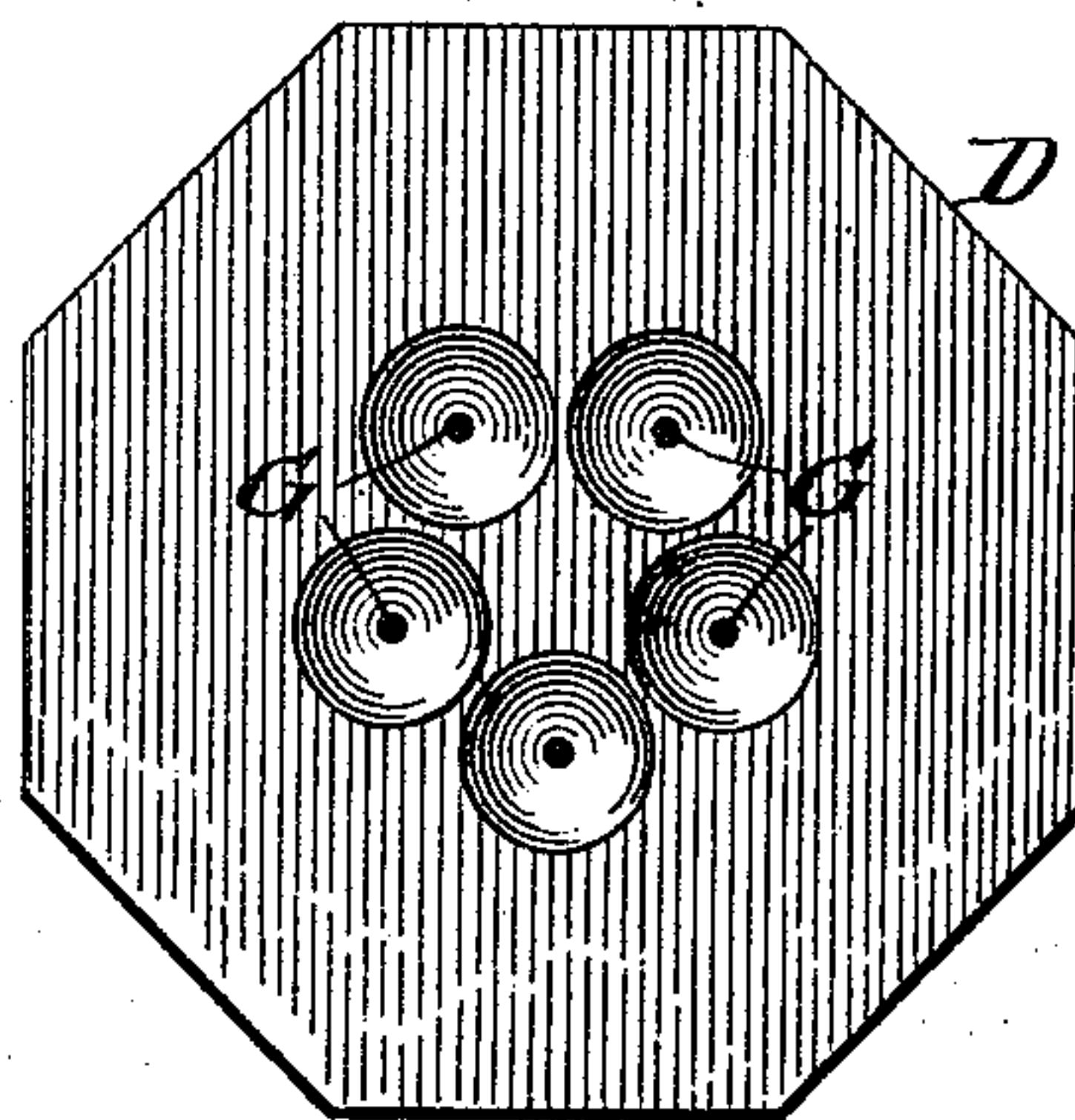


Fig. 5.

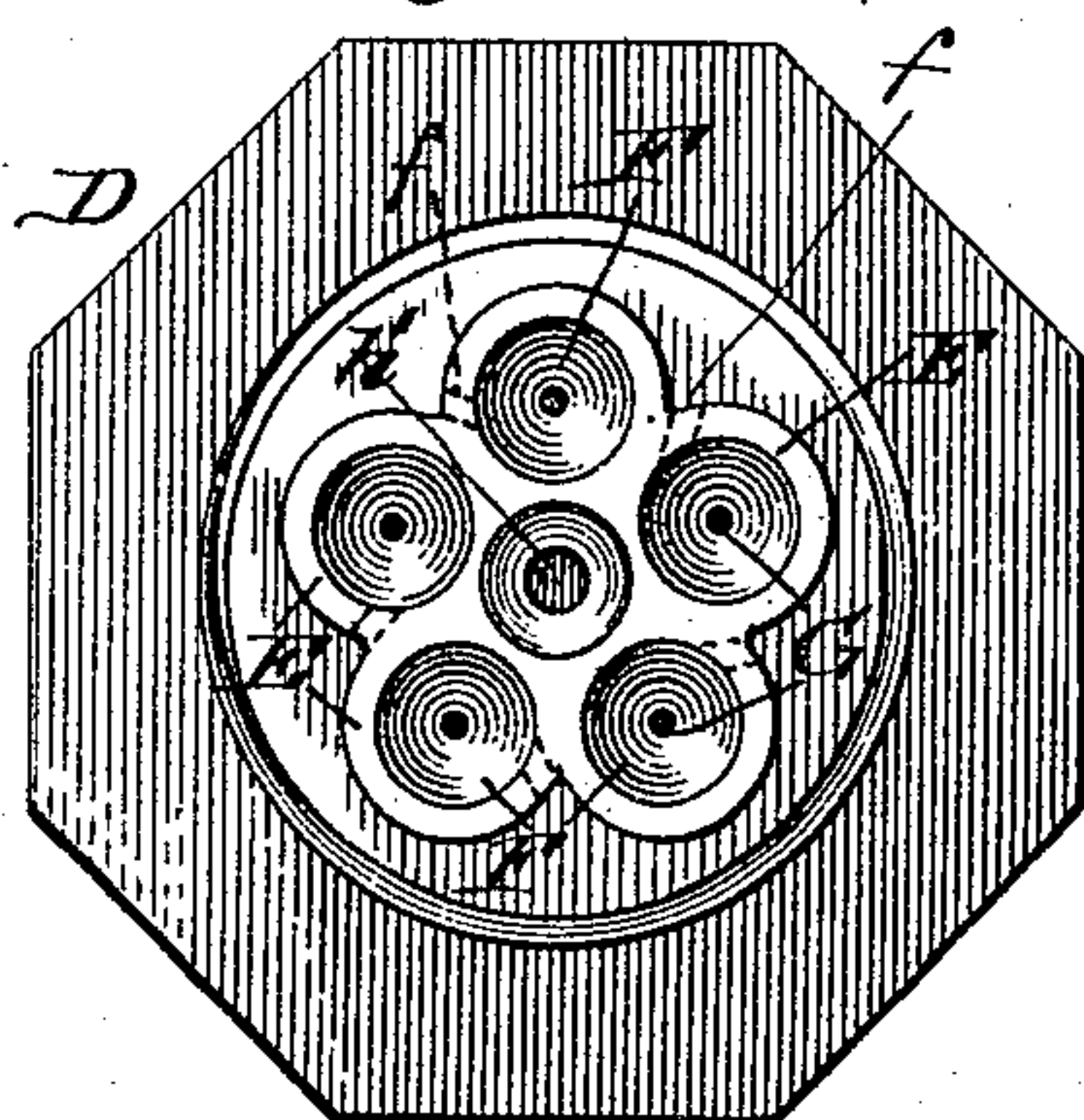
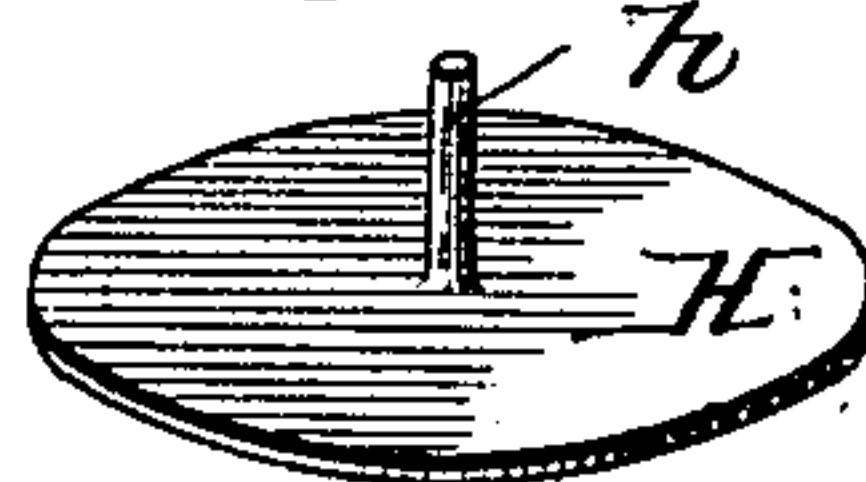


Fig. 6.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES HOOD, OF PUYALLUP, WASHINGTON.

SPRAY-NOZZLE.

SPECIFICATION forming part of Letters Patent No. 516,931, dated March 20, 1894.

Application filed March 15, 1893. Serial No. 466,185. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HOOD, a citizen of the United States, residing at Puyallup, Pierce county, State of Washington, have invented a new and useful Spray- Nozzle or Sprinkler, of which the following is a specification.

My invention relates to improvements in spray nozzles or sprinklers for spraying plants, shrubs or fruit trees with liquid poison insecticide or any liquid insect destroyer. The objects of my improvements are—first, to provide an exceedingly fine spray or fog. Secondly—to provide a spray having more force than the aforesaid spray or fog and carried farther, and thirdly to facilitate the cleaning of sprayers or nozzles when stopped up by sediment or other foreign matter. I attain these objects by the mechanism illustrated in the accompanying drawings in which—

Figure 1 is a side view and Fig. 2 is a longitudinal section of my nozzle. Fig. 3 is a side view; Fig. 4 a top view, and Fig. 5 a bottom view of the cap, and Fig. 6 is a detail view of the valve.

My improved nozzle is formed with the barrel or casing A having a cross plate B provided centrally with an opening *a*, and above this plate B the barrel is chambered at C to receive the cap plate D and the parts connected therewith. This cap plate D is preferably screwed into the barrel as shown. Upon the lower side of this cap plate or diaphragm D are formed a series of downwardly projecting cups E having main channels F leading to the outlet openings G in the cap and also spray channels *f* opening laterally into the main channels F. Between the inner ends of these cups and the cross plate B I provide a valve space C in which is fitted the valve H which is held in place by the cap and may be readily removed and inserted

when said cap is removed. This valve is automatic in its action is moved by the water pressure to seat upon the mouth of the cups and close the entrance thereto forcing the water to pass through the lateral channels and issue in the form of spray or fog from the outlet openings and by removing the valve the nozzle may be converted into a sprinkler the water passing directly out the main channels and issuing from the outlets in fine streams. A guide pin *h* projects from the center of the valve H and serves to direct its movement. This pin may operate in the opening *a* but it preferably is arranged to project into a guide socket *h'* formed centrally in the under side of the cap plate.

I am aware that prior to my invention spray nozzles have been used, but they are either made with outside attachments which catch on to vines, &c., and become entangled or they do not give the fine spray or fog which is necessary to thoroughly spray large masses of foliage, &c.

What I do claim as my invention, and desire Letters Patent for, is—

1. A nozzle comprising a body portion, a cap provided with a plurality of longitudinal channels leading through it and with transverse channels leading to each of said longitudinal channels and a valve in the body portion for closing the inner ends of the longitudinal passages substantially as set forth.

2. A nozzle substantially as described having a diaphragm or cap plate provided with outlet openings and with main and spray channels leading to said outlets and a valve by which to automatically close the main openings such valve having a centrally projected guide pin substantially as set forth.

CHARLES HOOD.

Witnesses:

RODERICK McDONALD,
A. G. PROVINCE.