W. C. STONE.

DEFLECTOR FOR NOZZLES.

APPLICATION FILED SEPT. 22, 1909.

955,294.

Patented Apr. 19, 1910.

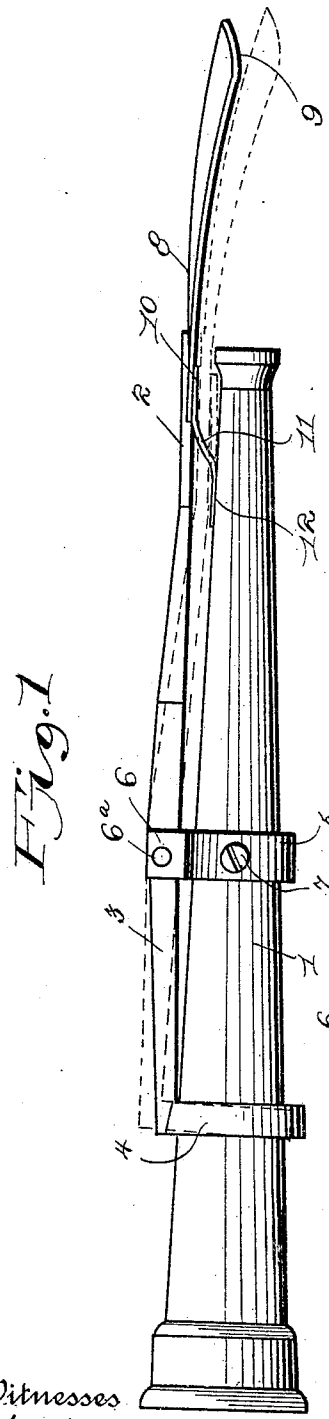

Fig. 1.

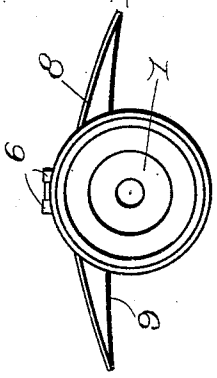

Fig. 4.

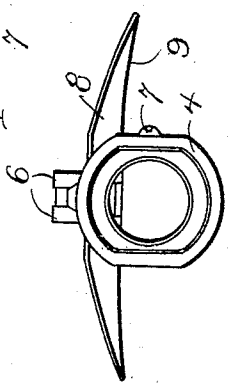

Fig. 3.

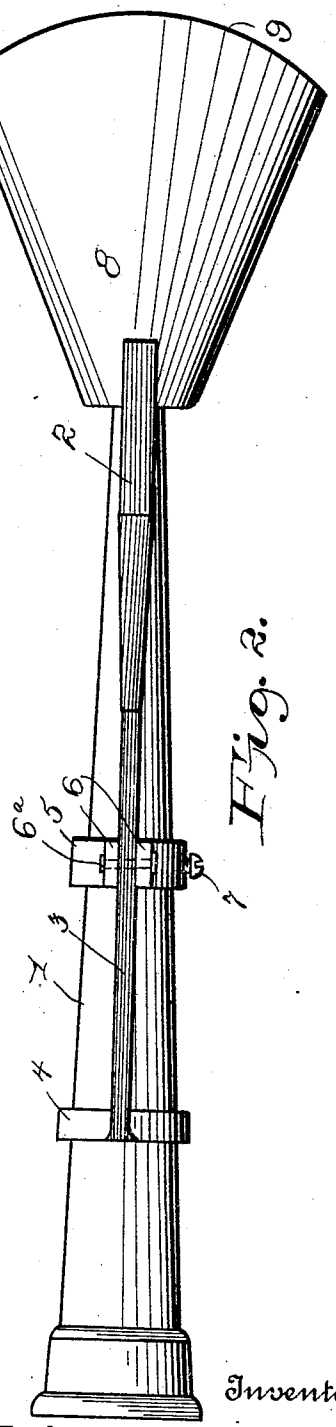

Fig. 2.

Witnesses

J. W. Wells

H. Jouvenal Duglas

Inventor

William C. Stone.

By E. G. Vroomans,

his Attorney.

ANDREW B. GRAHAM CO., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM C. STONE, OF LA FAYETTE, INDIANA.

DEFLECTOR FOR NOZZLES.

955,294. Specification of Letters Patent. Patented Apr. 19, 1910.

Application filed September 22, 1909. Serial No. 518,916.

To all whom it may concern:

Be it known that I, WILLIAM C. STONE, a citizen of the United States of America, residing at La Fayette, in the county of Tippecanoe and State of Indiana, have invented certain new and useful Improvements in Deflectors for Nozzles, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to spraying attachments for hose nozzles, and the principal object of the same is to provide a sprayer which may be readily attached to or detached from a nozzle and by a slight pressure of the hands of the user cause a deflecting plate to be placed in the path of movement of the liquid being discharged from the nozzle so that said liquid will be spread in a thin film so that flowers and other delicate plants may be lightly watered.

In carrying out the object of the invention generally stated above it will be readily understood, of course, that the essential features of the same are necessarily susceptible of changes in details and structural arrangements, one preferred and practical embodiment of which is shown in the accompanying drawing, wherein—

Figure 1 is a view in side elevation of the usual hose nozzle, showing the improved sprayer attached thereto. Fig. 2 is a top plan view. Fig. 3 is a rear view of the improved sprayer detached from a nozzle. Fig. 4 is a view in rear elevation of a nozzle with the sprayer attached thereto.

Referring to said drawing by numerals, 1 designates a hose nozzle which is of the usual tubular longitudinally tapering type.

The improved spraying device forming the subject-matter of this invention is composed of a rocking lever the outer end portion of which is widened and flattened as indicated at 2 and the inner end 3 of which is relatively narrower and thicker and carries an outstanding rightangularly arranged guide ring 4 adapted to loosely surround the body of the nozzle 1. An embracing clip 5 has its ends 6 spaced apart and forming pivot ears for the pivot pin 6^a which extends through the intermediate portion of said rocking lever, said clip being adapted to be held in rigid but detachable engagement about said nozzle body by means of the screw 7. A deflecting plate 8 projects outwardly from the outer flattened end 2 of the rocking lever, said plate being of tapering formation to provide a wide outer edge 9 and being slightly concaved and downwardly curved, so that when the outer end of said rocking lever is pressed toward the body of the nozzle, the said plate will be in the path of movement of the liquid being discharged from said nozzle and thereby spread the liquid in a thin film, as will be readily understood.

A flat leaf spring 10 has one end fastened to the inner end of the plate 8, the intermediate portion of said spring being bent at an angle to said fastened end as indicated at 11 and its free end 12 arranged in substantially the same plane as the fastened end and resting on said nozzle 1. As will be obvious, the spring constantly exerts a tension to retain the deflecting plate in the position shown by full lines in Fig. 1.

As will be understood from the foregoing, the improved sprayer is particularly adapted for use in connection with the usual garden hose wherein it is necessary that the liquid be discharged in fine sprays so that delicate plants will not be injured.

To attach the improved sprayer to a nozzle, the nozzle is passed through the guide ring and embracing clip and fastened thereon in the desired adjusted position by means of the screw carried by said clip. A reversal of the operation will, of course remove the device from the nozzle.

The guide ring, as aforesaid, loosely surrounds the nozzle and serves as a stop to limit the rocking movements of the lever.

The force of the spray may be regulated by adjusting the sprayer longitudinally of the nozzle to bring the plate closer to, or farther away from, the discharge outlet of the nozzle, such adjustment being obtained by releasing the binding engagement between the nozzle and the fastening screw carried by the clip 5.

What I claim as my invention is:—

1. A spraying attachment for hose nozzles comprising a guide ring adapted to loosely surround a nozzle, a rocking lever having one end fastened thereto, an embracing clip adapted to surround a nozzle and provided with means for holding the same in rigid but detachable engagement therewith, means carried by said clip for pivotal engagement with said lever, a deflecting plate carried by the outer end of said lever, and a spring fastened to the inner end of said plate and adapted to contact with a nozzle to nor-

mally hold said plate out of the path of movement of liquid discharged from said nozzle.

2. In a device of the character described, the combination with a hose nozzle, of an embracing clip adapted for rigid but detachable engagement with said nozzle and provided with pivot ears, a rocking lever pivotally mounted in said ears, a guide ring carried by the inner end of said lever and loosely surrounding said nozzle, an outwardly flaring downwardly curved concaved plate projecting from the outer end of said lever and adapted to be placed in the path of movement of the liquid discharged from said nozzle, and a spring interposed between said nozzle and said plate for normally retaining said plate out of the path of movement of the discharged liquid.

3. A spraying attachment for hose nozzles comprising a rocking lever having a flattened outer end and a narrow inner end, a guide ring projecting at right angles from said inner end, an embracing clip having spaced apart ends held in pivotal engagement with the intermediate portion of said lever, means carried by said clip for holding the same in rigid but detachable engagement with a nozzle, a deflecting plate having a downwardly curved concaved body the outer edge of which is widened and its inner end connected with the flattened end of said lever, and a flat spring having one end fastened to the inner end of said plate and its free end adapted to bear against a hose nozzle.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

WILLIAM C. STONE.

Witnesses:

C. W. BROWN,

JOSEPH BATES.