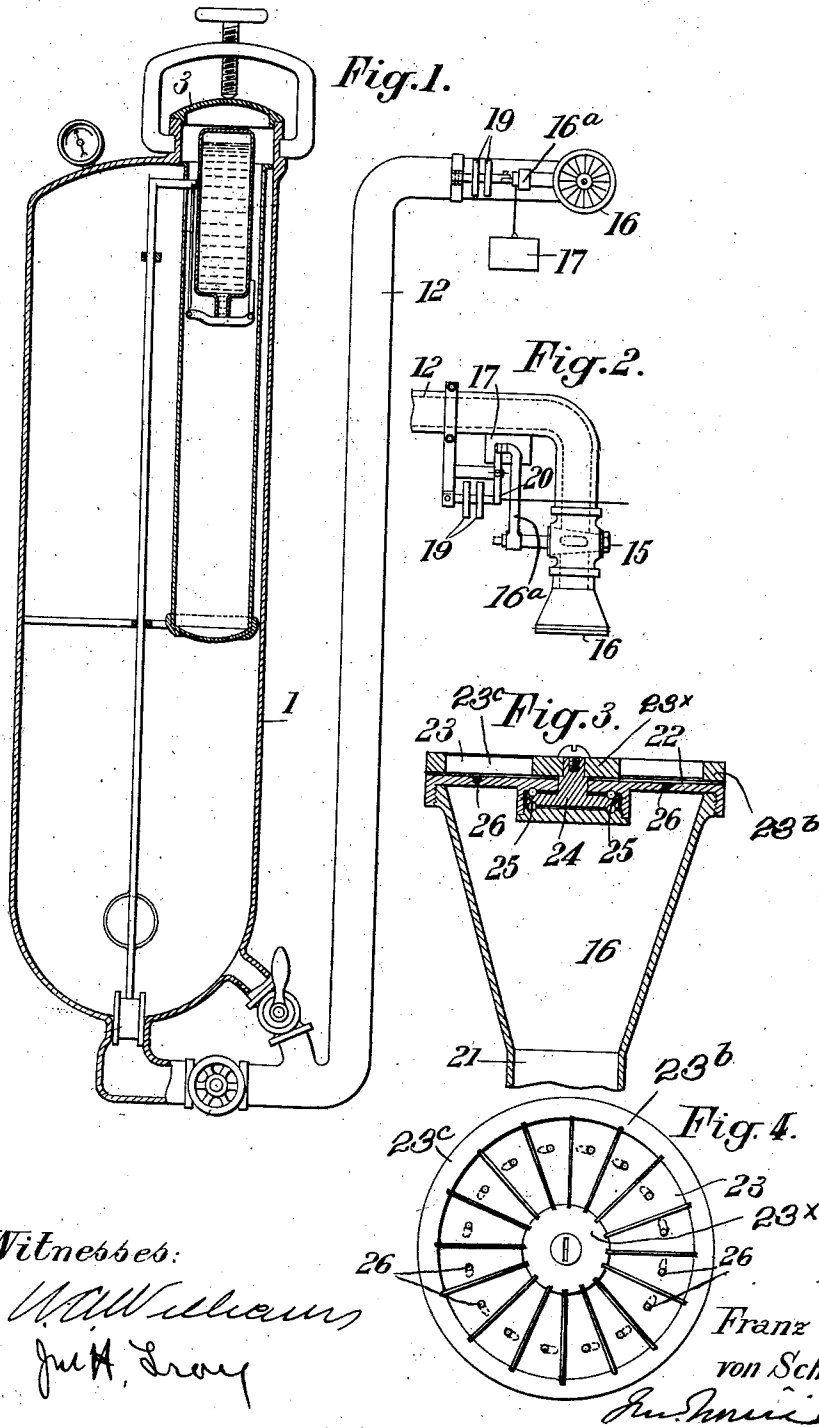


F. VON SCHIDLOWSKY.
NOZZLE FOR FIRE EXTINGUISHING APPARATUS.
APPLICATION FILED JULY 5, 1911.

1,061,872.

Patented May 13, 1913.



Witnesses:

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UNITED STATES PATENT OFFICE.

FRANZ VON SCHIDLOWSKY, OF ST. PETERSBURG, RUSSIA.

NOZZLE FOR FIRE-EXTINGUISHING APPARATUS.

1,061,872.

Specification of Letters Patent.

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Application filed July 5, 1911. Serial No. 636,949.

To all whom it may concern:

Be it known that I, FRANZ VON SCHIDLOWSKY, a subject of the Russian Emperor, and resident of St. Petersburg, Russia, have invented certain new and useful Improvements in Nozzles for Fire-Extinguishing Apparatus, of which the following is a specification.

This invention relates to improvements in nozzles.

The object of the invention is to provide means for forming a whirling spray, when fire extinguishing liquid under pressure is passed through the nozzle.

The invention also relates to improvements in the details of construction and arrangement of parts which will be hereinafter described and particularly pointed out in the claim.

In the drawing: Figure 1 is a view illustrating the application of my invention; Fig. 2 is a detail plan view of the nozzle and its operating connections; Fig. 3 is an enlarged detail cross section of the nozzle; Fig. 4 is a detail front view of the nozzle.

1, indicates a tank, closed by a cap 3. Leading from the bottom of the tank 1, is a pipe 12, having its free end enlarged or flared as at 16. In the rear of the flared end 16, the pipe is provided with a valve 15, on the stem of which is an arm 16^a, attached to the free end of which is a weight 17. For supporting the free end of the arm 16^a, is a pivoted lever 20, one end of same being operated by a device 19, which expands under the influence of heat, whereby to rock lever 20, and allow the weight to rotate the valve 15, and permit the fluid to pass through the pipe.

Screwed on the flared end 16 of the pipe 12, is a cap 22, formed with an inwardly projecting bearing 25, and between the bearing and the inner edges of the flared end of the pipe, the cap is formed with a series of openings 26, arranged in a circle which is concentric with the axis of the cap. Each opening 26, is inclined at approximately 45° to an intersecting radial plane, as clearly shown in Fig. 3.

A flanged journal 24, is mounted in the bearing 25, and it extends through the cap. Secured to the outer end of the journal is a frame 23, comprising a central hub 23^x, an outer ring 23^b, and a plurality of blades 23^c. The blades are radially disposed between the hub and rim, and they are arranged parallel with the axis of the frame and operate over the inclined openings 26.

In operation, if a fire occurs the heat will expand the devices 9, and operate the lever and open the valve 15. The liquid in the tank is, of course, under pressure, and when the valve 15 is opened, the liquid is forced through the inclined openings 26, and against the flat surfaces of the blade 23^c, and the frame is rapidly rotated, the blades intersecting the openings and thereby breaking the jets of water, and forming a whirling fine spray.

What I claim is:

In an apparatus of the class described, the combination of a pipe having a flaring end, a cap on the flaring end of the pipe, a bearing extending inwardly from the inner surface of the cap, said cap having a plurality of inclined openings arranged in a circle concentric with the axis of the pipe and located between the bearing and the outer edges of the flared end to said pipe, a frame supported in the bearing and mounted to rotate on the front surface of the cap, said frame including a plurality of blades which operate over the inclined openings, the blades being parallel with the axis of the pipe, a valve in the pipe, and means for opening the valve to permit fluid under pressure to pass through the inclined openings and operate on the flat surfaces of the blades to rotate the frame and form a whirling spray.

In testimony whereof I have hereunto set my hand in presence of two witnesses.

FRANZ VON SCHIDLOWSKY.

Witnesses:

AUG. MIGHIS,
H. A. LOVIAGHIN.