

No. 662,551.

Patented Nov. 27, 1900.

M. STANLEY.  
SPARK AND DUST ARRESTER FOR CARS.

(Application filed Sept. 4, 1900.)

(No Model.)

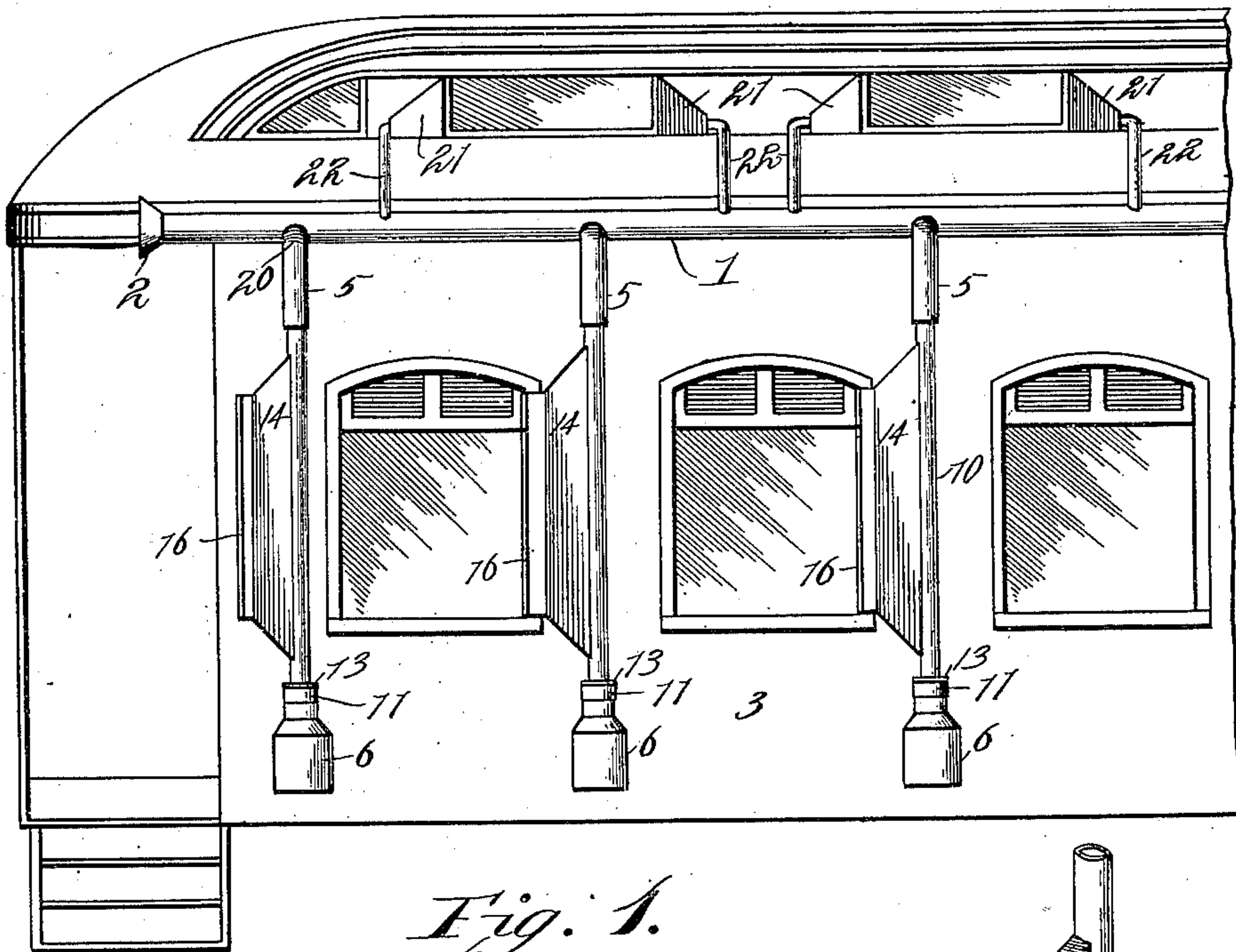


Fig. 1.

Fig. 2.

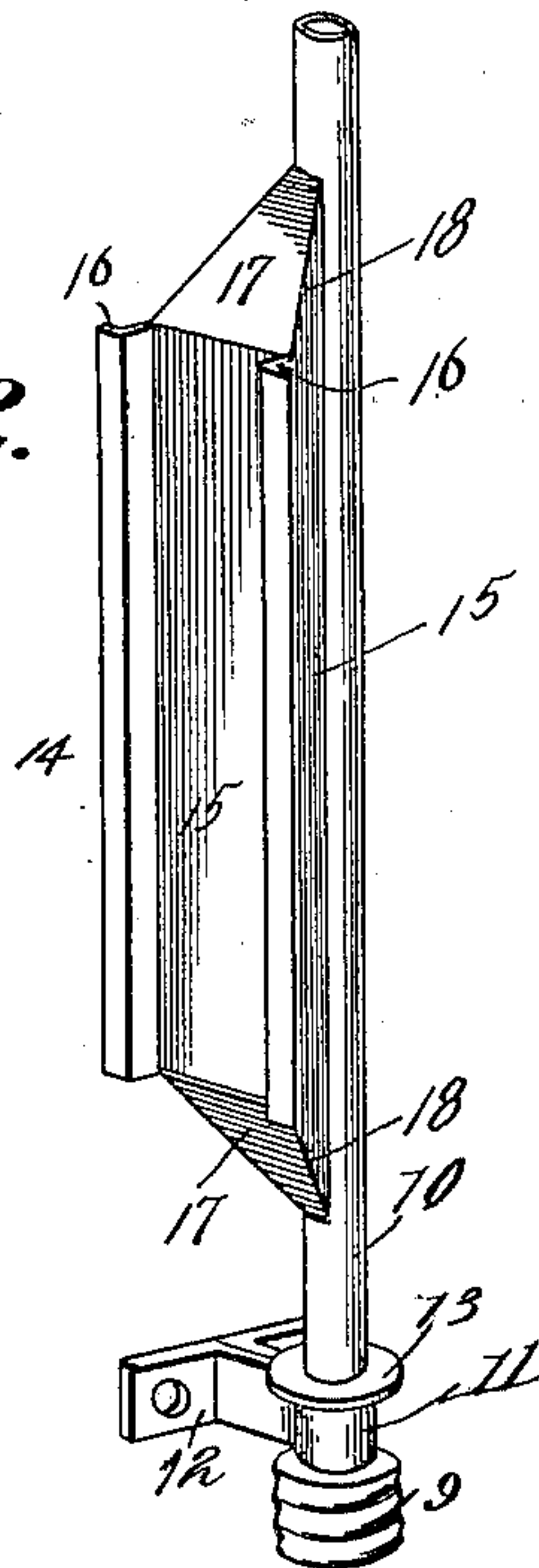


Fig. 4.

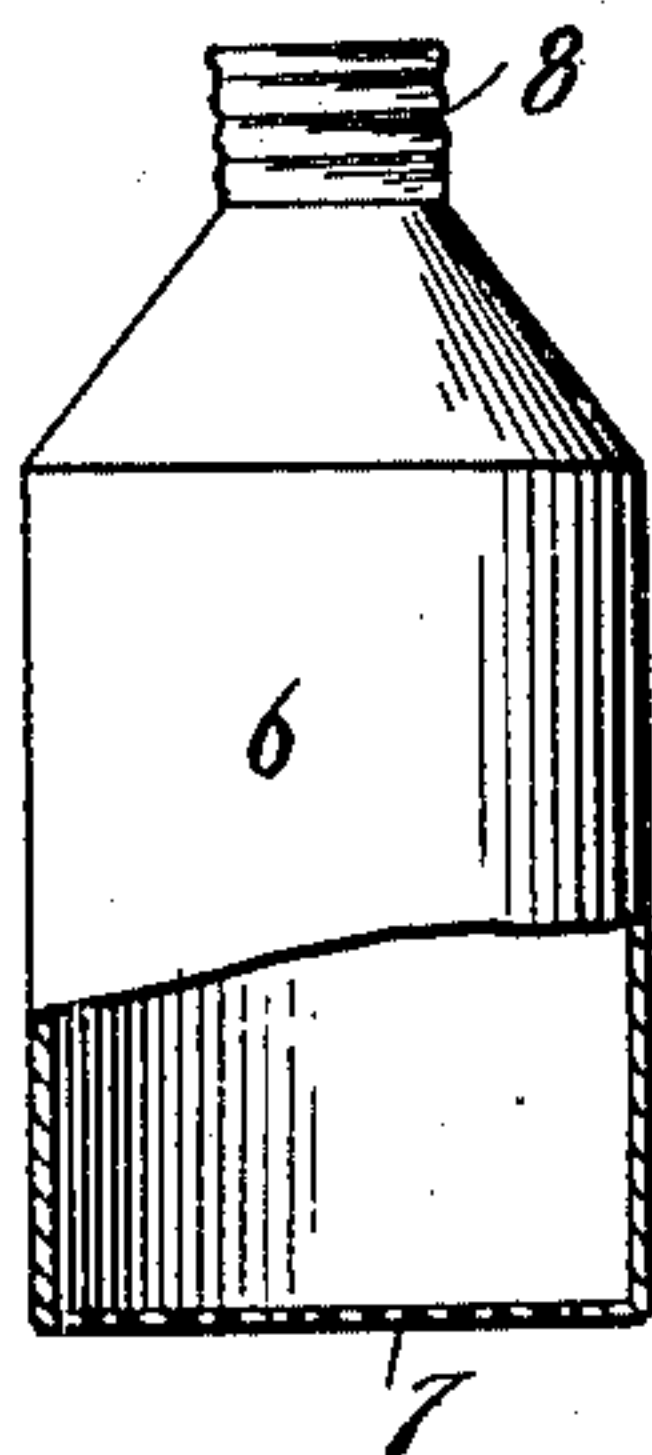


Fig. 3.

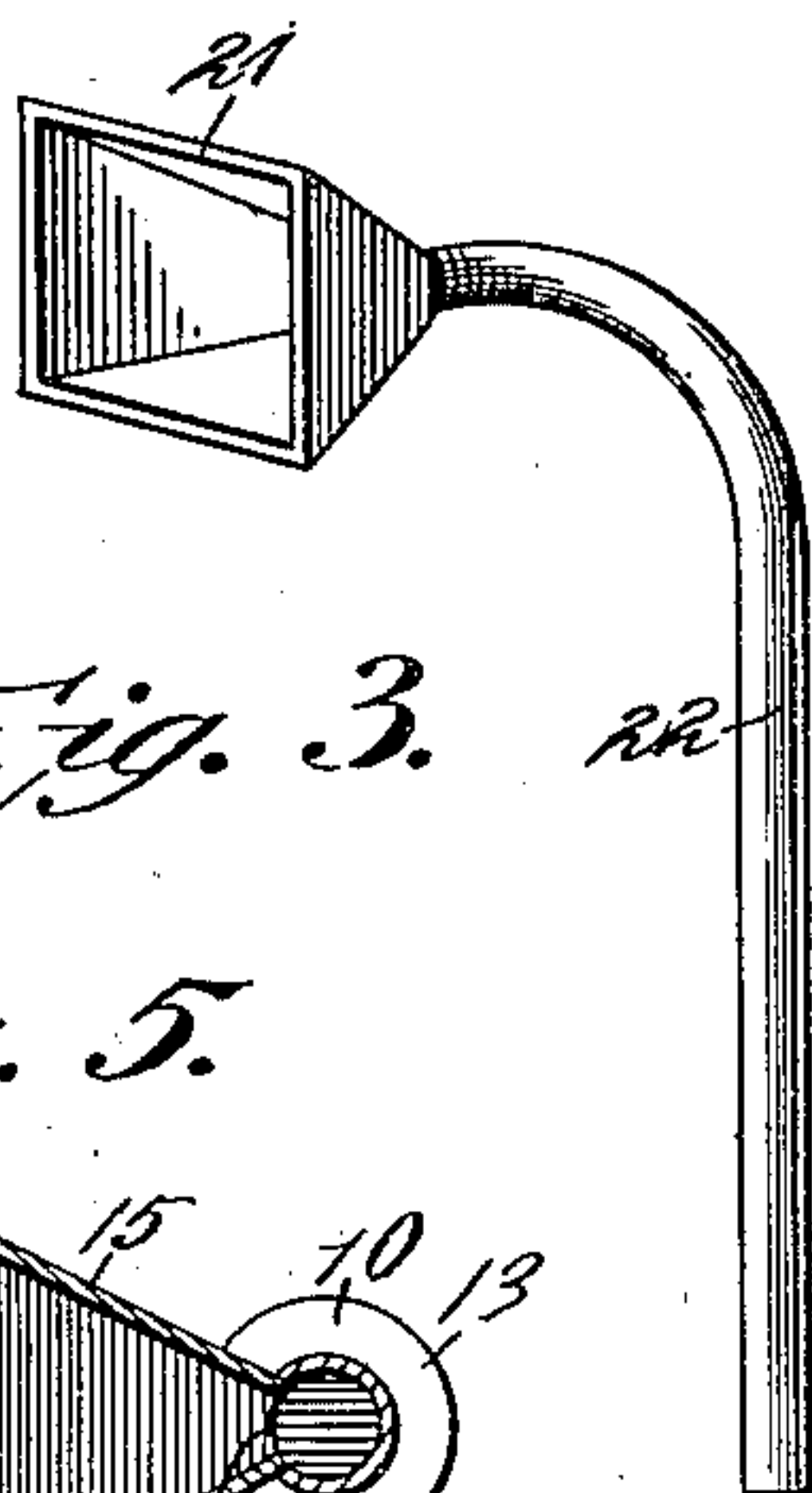
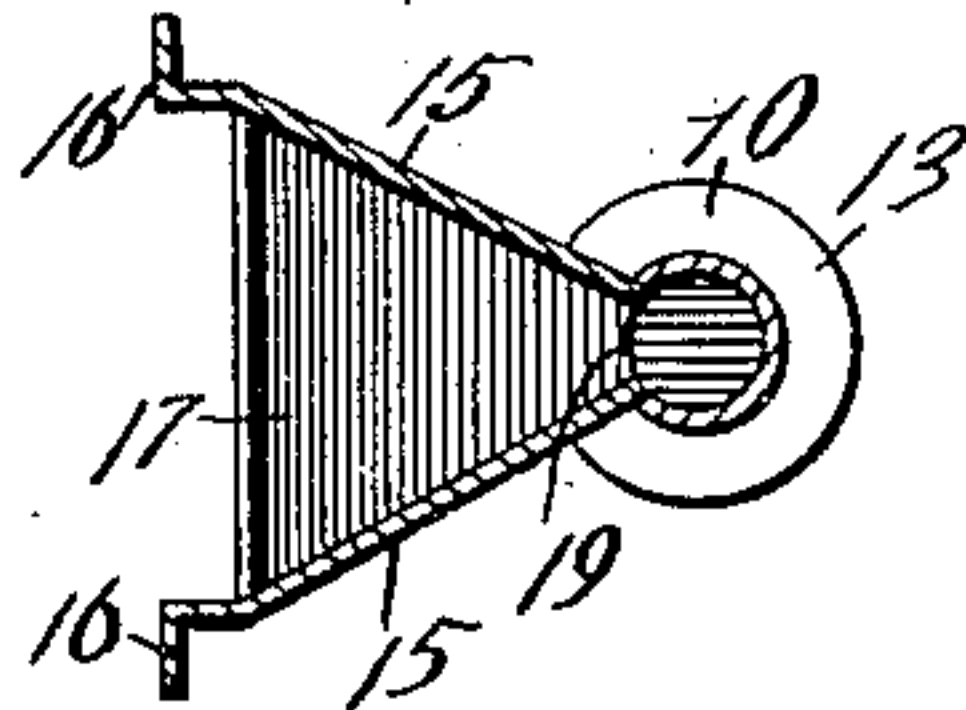


Fig. 5.



Witnesses

*W. H. Walker*  
*J. F. Riley*

by

*M. Stanley* Inventor  
*C. A. Snow & Co.* Attorneys



# UNITED STATES PATENT OFFICE.

MAY STANLEY, OF ROSENBERG, TEXAS, ASSIGNOR OF ONE-HALF TO  
BENJAMIN R. BROWN, OF SAME PLACE.

## SPARK AND DUST ARRESTER FOR CARS.

SPECIFICATION forming part of Letters Patent No. 662,551, dated November 27, 1900.

Application filed September 4, 1900. Serial No. 28,972. (No model.)

*To all whom it may concern:*

Be it known that I, MAY STANLEY, a citizen of the United States, residing at Rosenberg, in the county of Fort Bend and State of Texas, have invented a new and useful Spark and Dust Arrester for Cars, of which the following is a specification.

The invention relates to improvements in spark and dust arresters for cars.

One object of the present invention is to improve the construction of spark and dust arresters and to provide a simple and comparatively inexpensive construction adapted to be readily applied to the exterior of passenger-coaches and similar conveyances adjacent to the windows and ventilating-openings thereof and capable of preventing the sparks and dust from entering such vehicles and of collecting the same.

Another object of the invention is to provide a reversible spark and dust arrester or hood adapted to be mounted between two of the windows of a car and capable of being readily arranged to suit the direction in which the train is traveling, so that it will present its mouth or opening to the front.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a side elevation of a portion of a car provided with a spark and dust arrester constructed in accordance with this invention. Fig. 2 is a detail perspective view of one of the reversible arresters or hoods. Fig. 3 is a similar view of one of the top funnels. Fig. 4 is a detail view of one of the removable receptacles, and Fig. 5 is a horizontal sectional view of one of the reversible hoods or arresters.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a longitudinal main pipe or conduit designed to be mounted on the exterior of a passenger-coach or analogous conveyance adjacent to the top thereof and at a point above the windows, as clearly illustrated in Fig. 1 of the accompanying drawings, and provided with an end funnel 2, forming a

flaring mouth and designed to be arranged at each end of the conduit, so that a flaring mouth will be presented to the front when the car 3 is traveling in either direction. From the main longitudinal pipe or conduit depends a series of vertical tubes or conduits 5, designed to extend to points below the windows and provided at their lower ends with removable receptacles 6, having perforated bottoms 7 for the escape of moisture and designed to collect the sparks and dust. The receptacles may be of any desired construction and are preferably provided at their tops with threaded flanges or mouths 8 for engaging threaded enlargements 9 of sections 10 of the depending vertically-disposed tubes or conductors 5. After a sufficient amount of sparks and dust has accumulated in the receptacles the latter may be readily removed and emptied.

The section 10 of the depending approximately-vertical tube or conduit 5 is journaled in a suitable bearing 11 of a bracket 12, located near the lower end of the section and interposed between the enlarged threaded portion 9 and a flange or collar 13, which forms a stop. The said section 10 is adapted to be partially rotated to change the direction of a reversible vertically-disposed hood or arrester 14, which is designed to be arranged centrally between the adjacent windows of the car and to be turned toward the front of the train. The reversible hood or arrester, which is approximately V-shaped in horizontal section, is composed of two vertical sides 15, arranged at an acute angle to each other and provided at their outer ends with L-shaped flanges 16. The ends of the sides 15 are extended beyond the flanges and are covered by plates 17, located beyond the flanges and secured to the tapering ends 18 of the sides. By this construction covered tapered terminals are provided at the top and bottom of the hood or arrester for directing any accumulation through a vertical slot 19 of the section 10 of the tube or conduit 5. The slot 19 extends throughout the entire length of the hood or arrester, and the sides of the latter are secured to the section 10 at opposite sides of the vertical slot. The flanges 16 widen the mouth of the arrester or hood and are adapted to engage al-



ternately the car to support the hood or arrester in proper position. The upper end of the tube or conduit 5 is curved inward at 20 and is connected to the longitudinal conduit 5 or pipe 1.

In order to prevent the sparks and dust from entering the car through the ventilating-openings at the top thereof, funnels 21 are provided and are located adjacent to the ends 10 of the ventilating-openings. These funnels, which are preferably square in cross-section, have one side arranged contiguous to the car, and they are connected by small pipes 22 with the longitudinal pipe or conduit 1. The curves 15 of the pipes or conduits are not abrupt and do not interfere with the passage of the dust and sparks through them, and the draft or blast of air through the pipes or conduits incident to the movement of the car will cause 20 the dust and sparks to be sucked into the hoods or arresters and the funnels and will prevent the pipes and conduits from becoming clogged.

It will be seen that the spark and dust arrester is simple and comparatively inexpensive in construction, that it is adapted to be 25 readily applied to the exterior of a car without necessitating any alteration in the construction of the latter, and that it is effective. 30 It will also be apparent that the dust and sparks are collected and that the receptacles therefor may be readily emptied.

What I claim is—

1. A device of the class described comprising 35 a longitudinal conduit having an end funnel, the top funnels arranged in pairs and designed to be located at the ends of the ventilating-openings of a car and connected with the said pipe or conduit, the vertical hoods 40 or arresters pivotally mounted and designed to be arranged between the windows of a car and connected with the pipe or conduit, and receptacles arranged to receive the sparks

and dust and located beneath the reversible hoods or arresters, substantially as described. 45

2. A device of the class described comprising a longitudinal conduit, a series of upright pipes connected with the conduit and provided with slotted sections capable of a limited rotary movement, and vertical arresters 50 or hoods, mounted on the slotted sections and communicating with the slots thereof, substantially as described.

3. In a device of the class described, the combination of a tube or pipe having a slot 55 or opening, and a reversible hood or arrester mounted thereon and composed of sides arranged at an angle to each other, said hood or arrester being provided with tapering covered ends, substantially as described. 60

4. In a device of the class described, the combination of a pipe or tube having a slot or opening, and the reversible hood or arrester composed of sides arranged at an angle to 65 each other and having flanges at their outer edges, said sides being provided with tapered ends extended beyond the flanges, and the tapering plates connecting the tapering ends, substantially as described.

5. In a device of the class described, the 70 combination of a bracket having a bearing, a tube or pipe journaled in the bearing and provided above the same with a stop and having a threaded enlargement or cap 9, a receptacle having a threaded mouth screwing into 75 the cap or enlargement 9, and a reversible hood or arrester mounted on the tube or pipe, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 80 the presence of two witnesses.

MAY STANLEY.

Witnesses:

W. L. COLE,  
G. B. LANG.