No. 887,908. PATENTED MAY 19, 1908.

C. P. BARBY.

APPARATUS FOR SHIELDING VEHICLES FROM DUST.

APPLICATION FILED MAY 22, 1907.

2 SHEETS—SHEET 1.

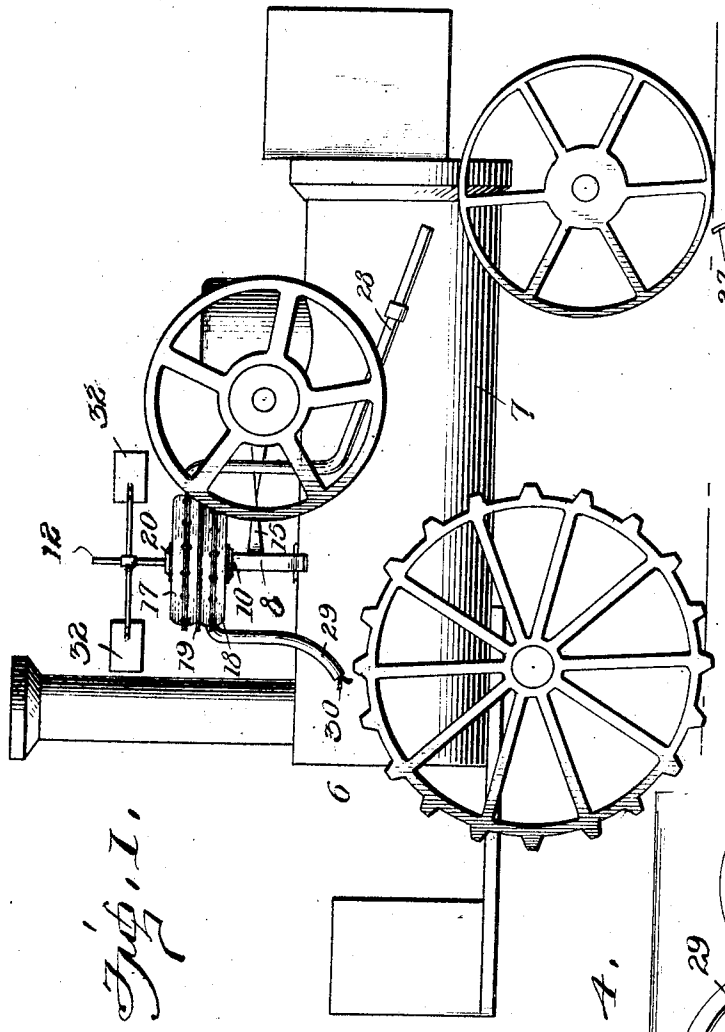


Fig. 1.

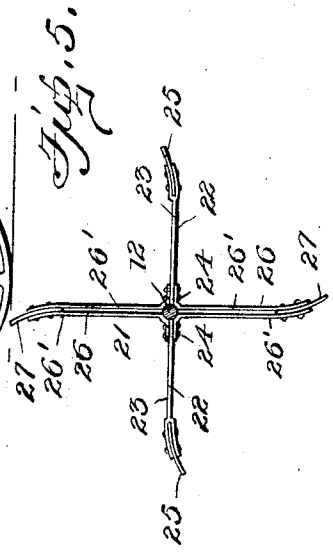


Fig. 5.

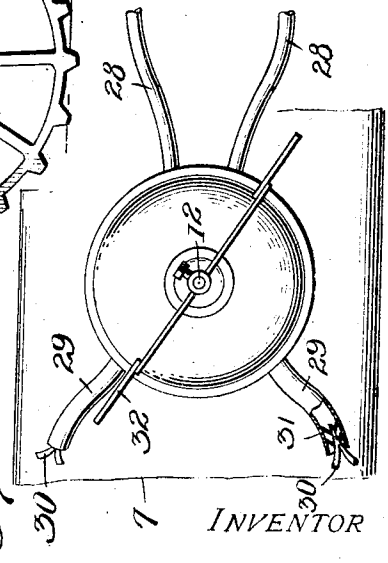


Fig. 4.

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2 SHEETS—SHEET 2.

Fig. 2.

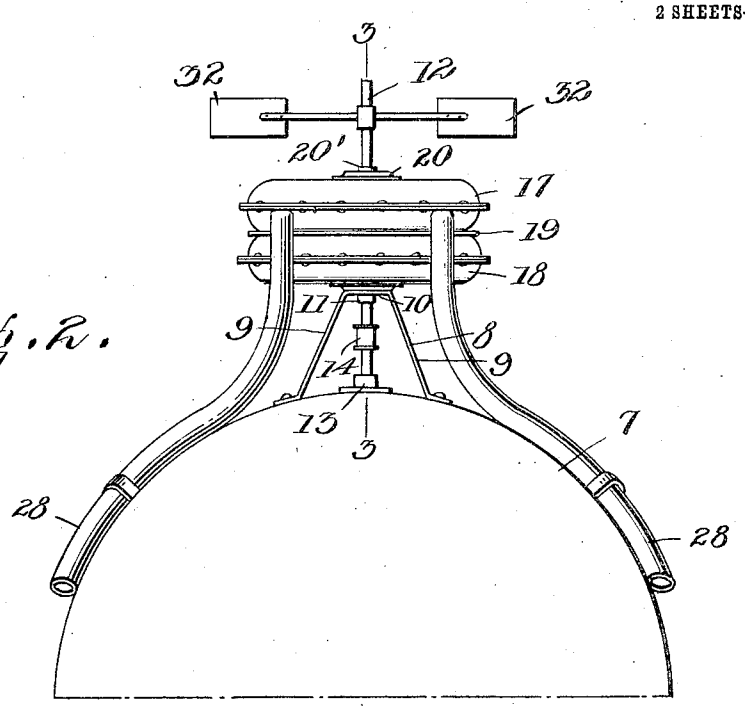
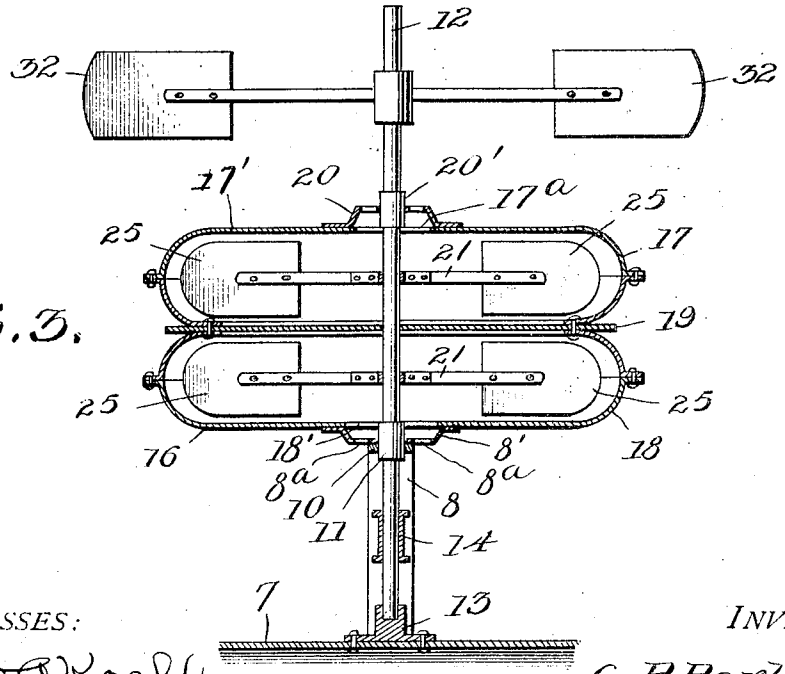


Fig. 3.



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APPARATUS FOR SHIELDING VEHICLES FROM DUST.

No. 887,908. Specification of Letters Patent. Patented May 19, 1908.

Application filed May 22, 1907. Serial No. 375,155.

To all whom it may concern:

Be it known that I, CARL P. BARBY, a citizen of the United States, residing at Sheyenne, in the county of Eddy and State of North Dakota, have invented certain new and useful Improvements in Apparatus for Shielding Vehicles from Dust, of which the following is a specification.

This invention relates to dust guards for road vehicles and more particularly to mechanical guards of this kind, and has for its object to provide a guard which will be arranged for operation to exclude dust from certain portions of the vehicle to which it is attached.

The present guard is especially designed for use on traction engines to exclude dust from the machinery and the operator thereof.

Various objects and advantages will be apparent from the following specification and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims, without departing from the spirit of the invention.

In the drawings forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views; Figure 1 is a side elevation of a traction engine provided with the present invention; Fig. 2 is a front view; Fig. 3 is a vertical section through the casings on line 3—3 of Fig. 2. Fig. 4 is a top plan; Fig. 5 is a detail view.

Referring now to the drawings, there is shown a traction engine 6, upon the boiler 7 of which is mounted an upwardly extending bracket 8, including spaced attaching legs 9 and a connection member 10. In the top member, there is mounted a vertical bearing block 11, in which there is journaled a vertical shaft 12, seated at its lower end in a foot piece 13, mounted upon the boiler 7 between the legs 9 of the bracket, and this shaft carries a pulley 14 adjacent to its lower end, for the reception of a driving belt 15.

Mounted upon the bracket 8 there is a plate 8′ to which there is secured a casing 16 including upper and lower drum sections 17 and 18 respectively connected by means of a horizontal disk 19 secured therebetween. The lower section 18 has an opening 18′ in its bottom at the center thereof, across which the plate 8′ extends, the latter having air inlet openings 8^a therein.

In the top 17′ of the section 17, there is formed an air inlet opening 17^a, which is spanned by a bridge piece 20 secured to the section and having a bearing block 20′ mounted therein in which the shaft 12 is journaled. Mounted upon the shaft 12 within each drum section of the casing there is a fan 21, revoluble with the shaft, and these fans are arranged to draw air currents inwardly through the air inlets of the drum sections.

Each fan 21 consists of two arms 22 which are formed by placing rods 23 at opposite sides of the shaft 12, these rods extending oppositely beyond the shaft and having attaching bolts 24 engaged therein and in the shaft. Wings 25 are secured between the rods at the outer portions thereof, as shown. Each fan 21 includes also a pair of arms 26, each of which is formed of a pair of parallel rods 26′, secured at their inner ends to the rods 23 at the centers thereof, the rods 26′ having their inner portions bent outwardly to rest against the rods 23 for the engagement of attaching devices therethrough. Wings 27 are secured between each pair of rods 26′ at the outer portions thereof.

A pair of air pipes 28 communicate with the upper drum section 17 of the casing, at opposite sides thereof, and extend downwardly, in position to discharge air currents against the dust arising from the front wheels of the engine, to drive the latter outwardly. Air pipes 29 similar to the pipes 28 communicate with the lower section 18, and are directed downwardly and rearwardly, to further deflect the dust, and these pipes 29 have deflector plates 30 located at their outer ends to suitably direct the air currents. These deflector plates are tapered toward their inner ends, which ends are secured within the pipes 29 by means of rods 31, as shown.

A fan 32 is slidably mounted upon the shaft 12 above the casing 16, and has a set screw therein arranged for operation to impinge against the shaft to hold the fan at different points of its movement and to hold it against rotation upon the shaft. This fan is thus arranged for adjustment upon the shaft, and this fan is located to agitate the air above the section 17, and to carry the dust to the sides of the machine; which action of the fan will partly prevent the ingress of dust to the section 17.

What is claimed is:

1. In an apparatus of the class described, the combination with a bracket of a casing mounted upon the bracket, said casing in-

cluding upper and lower drum sections having inlet openings in their upper and lower walls respectively, a bridge piece secured to the upper section and spanning the inlet openings, a shaft journaled in the bracket and in said bridge piece, fans mounted upon the shaft within the drum sections, air discharge pipes communicating with the drum sections, and a fan carried by the shaft above the casing.

2. In an apparatus of the character described, the combination with means for generating air currents including a casing having an inlet opening therein, of a fan arranged to agitate the air above the casing.

3. In an apparatus of the class described, the combination with a casing having an air inlet opening, of a revoluble shaft located in said opening and extending outwardly of the casing, a fan carried by the shaft within the casing and a fan adjustably mounted upon the shaft outwardly of the casing.

4. In an apparatus of the class described, the combination with an air pipe of tapered deflector plates disposed with their minor ends within the pipe and with the major ends outwardly thereof, and rods connected with the pipe and with the minor ends of the deflector pipes.

In testimony whereof he affixes his signature, in presence of two witnesses.

CARL P. BARBY.

Witnesses:
J. E. JOHNSON,
O. V. PETERSON.