G. F. A. McDOUGALL.

SANDING DEVICE FOR MOTOR CARS.

APPLICATION FILED SEPT. 4, 1912.

1,046,623. Patented Dec. 10, 1912.

Fig. 1.

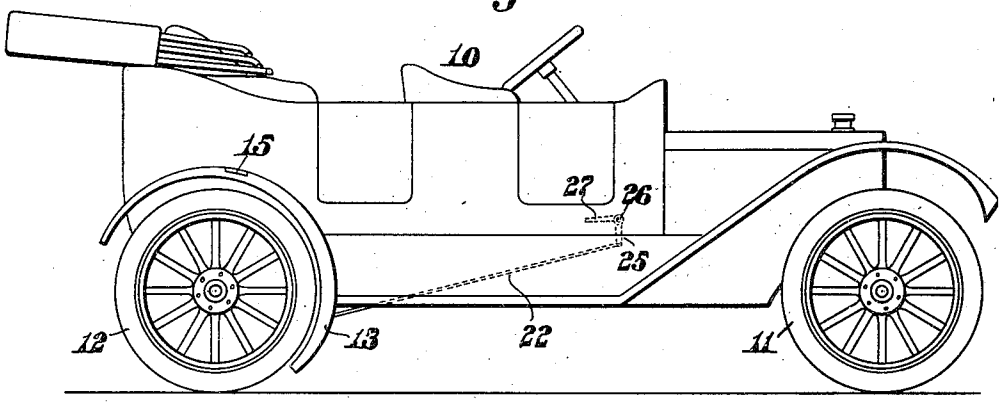


Fig. 2.

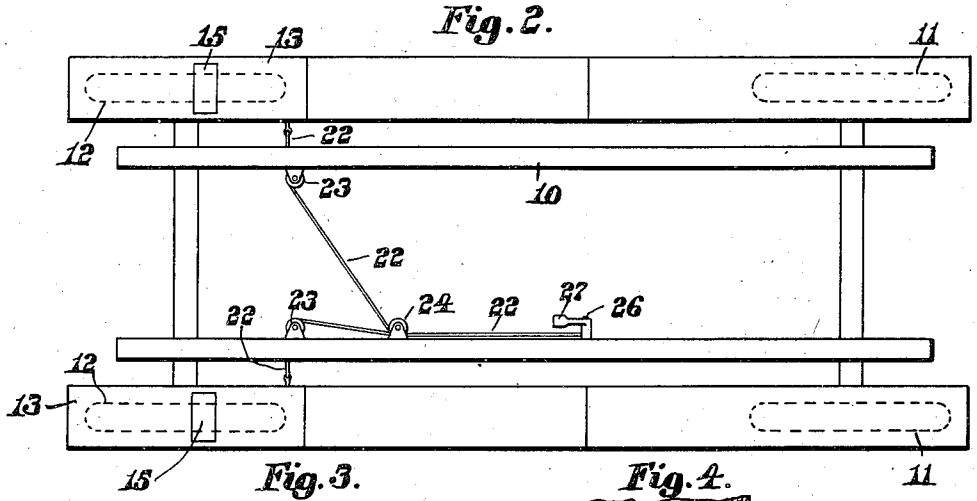


Fig. 3.

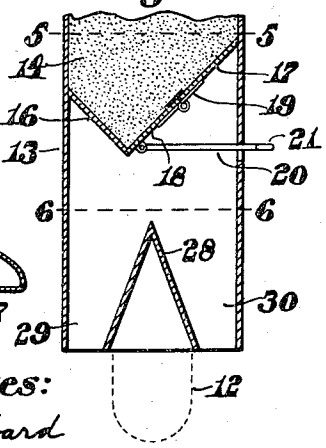


Fig. 4.

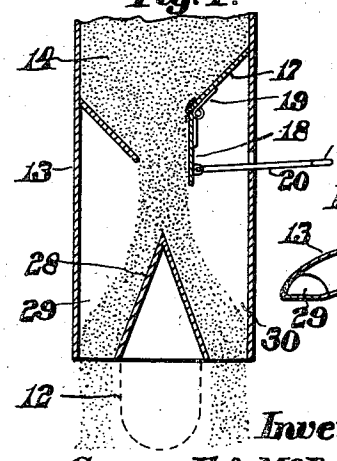


Fig. 5.

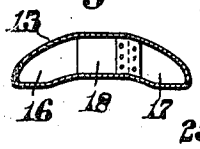
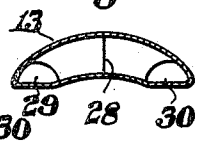


Fig. 6



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UNITED STATES PATENT OFFICE.

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SANDING DEVICE FOR MOTOR-CARS.

1,046,623. Specification of Letters Patent. Patented Dec. 10, 1912.

Application filed September 4, 1912. Serial No. 718,733.

To all whom it may concern:

Be it known that I, GEORGE F. A. McDOUGALL, a citizen of the United States of America, and a resident of Dorchester, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Sanding Devices for Motor-Cars, of which the following is a specification.

This invention relates to devices for preventing the skidding of motor cars and has for its object the production of a device of this character by which two streams of sand may be discharged on both sides and slightly in advance of one or more of the wheels of the car.

The invention consists in providing the car with a sand receptacle on either side thereof preferably forming a part of the mud guard, each of said receptacles having extending therefrom two spouts terminating slightly in advance and on both sides of a wheel and separated from said receptacle by gates under the control of the chauffeur whereby the discharge of sand through said spouts may be regulated.

The invention further consists in certain novel features of construction and arrangement of parts which will be fully understood by reference to the description of the drawings and to the claims hereinafter given.

Of the drawings: Figure 1 represents an elevation of a motor car to which this improved invention has been applied. Fig. 2 represents a plan view of the truck thereof. Fig. 3 represents a vertical section through one of the mud guards showing a portion of the sand receptacle therein and the closure therefor. Fig. 4 represents a similar view showing the closure opened to permit the discharge of sand into the two delivery spouts. Fig. 5 represents a transverse section of one of the mud guards, the cutting plane being on line 5—5 on Fig. 3, and Fig. 6 represents a similar section, the cutting plane being on line 6—6 on Fig. 3.

Similar characters designate like parts throughout the several figures of the drawings.

In the drawings, 10 represents a motor car mounted upon the front and rear wheels 11 and 12 respectively. Over each of the rear wheels 12 is a mud guard 13. The inside of said mud guard 13 is provided with a sand receptacle 14, near the upper end of which said mud guard 13 is provided with a cover 15 which is adapted to be removed to permit the filling of the sand receptacle 14. The lower end of this receptacle 14 has inclined bottoms 16 and 17 as indicated in Figs. 3 and 4 of the drawings.

To the inner edge of the bottom 17 is hinged a closure 18 normally retained in closed position by means of the spring 19. Pivotally secured to the closure 18 is a member 20 provided with an eye 21 to which is secured a flexible member 22 passing partially around pulleys 23 and 24, with its other end connected to a bell crank lever 25 pivoted at 26 and provided with a foot pad 27 under the control of the chauffeur. The closures for each of the sand receptacles 14 are both connected to the same operating lever 25—27 so that when the car reaches a slippery surface where it is liable to skid or when the chauffeur feels any tendency on the part of the car to skid, by pressure upon the pad 27 both of the closures 18 will be opened to permit the sand to be discharged from the receptacles 14 in advance of each of the rear wheels 12. In order to effectually prevent the skidding, beneath the discharge opening in the bottom of each sand receptacle 14 is located a dividing member 28 forming two spouts 29 and 30 in the extreme lower end of each mud guard 13. By this construction, when the sand is delivered from the receptacle 14 it is divided and passes through the spouts 29 and 30, and is delivered to the surface over which the car is moving a little in advance of the wheel and on opposite sides thereof so that when the car begins to skid it will be obliged to move over the sand thus delivered.

As the sand with which the receptacle 14 is filled is coarse the skidding of the car will be prevented or sufficiently retarded so that danger of accident therefrom will be obviated. By locating the sand receptacles 14 in the mud guard 13 the sand is delivered where its operation will be most effectual and at the same time the appearance of the car is in no manner marred. When the tendency to skid has been overcome the foot is removed from the pad 27 and the springs 19 will close the receptacles 14.

It is believed that the operation and many advantages of this invention will be fully apparent without further description.

Having thus described my invention, I claim:

1. In a device of the class described, the combination of a mud guard provided with a sand receptacle thereon; a closure therein; and a lever for opening said closure and ejecting the sand therefrom.

2. In a device of the class described, the combination of a mud guard provided with a sand receptacle thereon; a closure therein; and a lever for opening said closure and ejecting the sand therefrom in two streams on opposite sides of a wheel.

3. In a device of the class described, the combination of a mud guard provided with a sand receptacle thereon having a plurality of sand spouts; a closure above said sand spouts; and a lever for opening said closure and ejecting the sand through both of said spouts simultaneously.

4. In a device of the class described, the combination of a mud guard provided with a sand receptacle thereon having a plurality of sand spouts; a closure above said sand spouts; and a lever for opening said closure and ejecting the sand from said spouts in two streams on opposite sides of a wheel.

5. In a device of the class described, the combination of a mud guard provided with a sand receptacle thereon; a closure for the lower end thereof; two spouts below said closure adapted to eject sand in two streams on opposite sides of a wheel; and a foot lever for opening said closure to deposit the sand in two streams on opposite sides of a wheel.

6. In a device of the class described, the combination of a mud guard provided with a sand receptacle therein; a closure for the lower end of said receptacle; spouts leading from said receptacle below said closure to points upon opposite sides and in advance of a wheel; and a lever under the control of the chauffeur for operating said closure.

7. In a device of the class described, the combination of a sand receptacle; two spouts therefrom adapted to discharge the sand from said receptacle on each side and slightly in advance of a wheel; a closure controlling the discharge of sand to said spouts; and a lever controlled by the chauffeur for regulating the operation of said closure.

8. In a device of the class described, the combination of a sand receptacle; two spouts therefrom adapted to discharge the sand from said receptacle on each side and slightly in advance of a wheel; gates interposed between said sand receptacle and said spouts; and means under the control of the chauffeur for operating said gates.

Signed by me at 4 Post Office Square, Boston, Mass., this 31st day of August, 1912.

GEORGE F. A. McDOUGALL.

Witnesses:

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