Feb. 27, 1923. 1,447,004

J. H. ANTHON

ANTISKIDDING DEVICE

Filed July 12, 1921

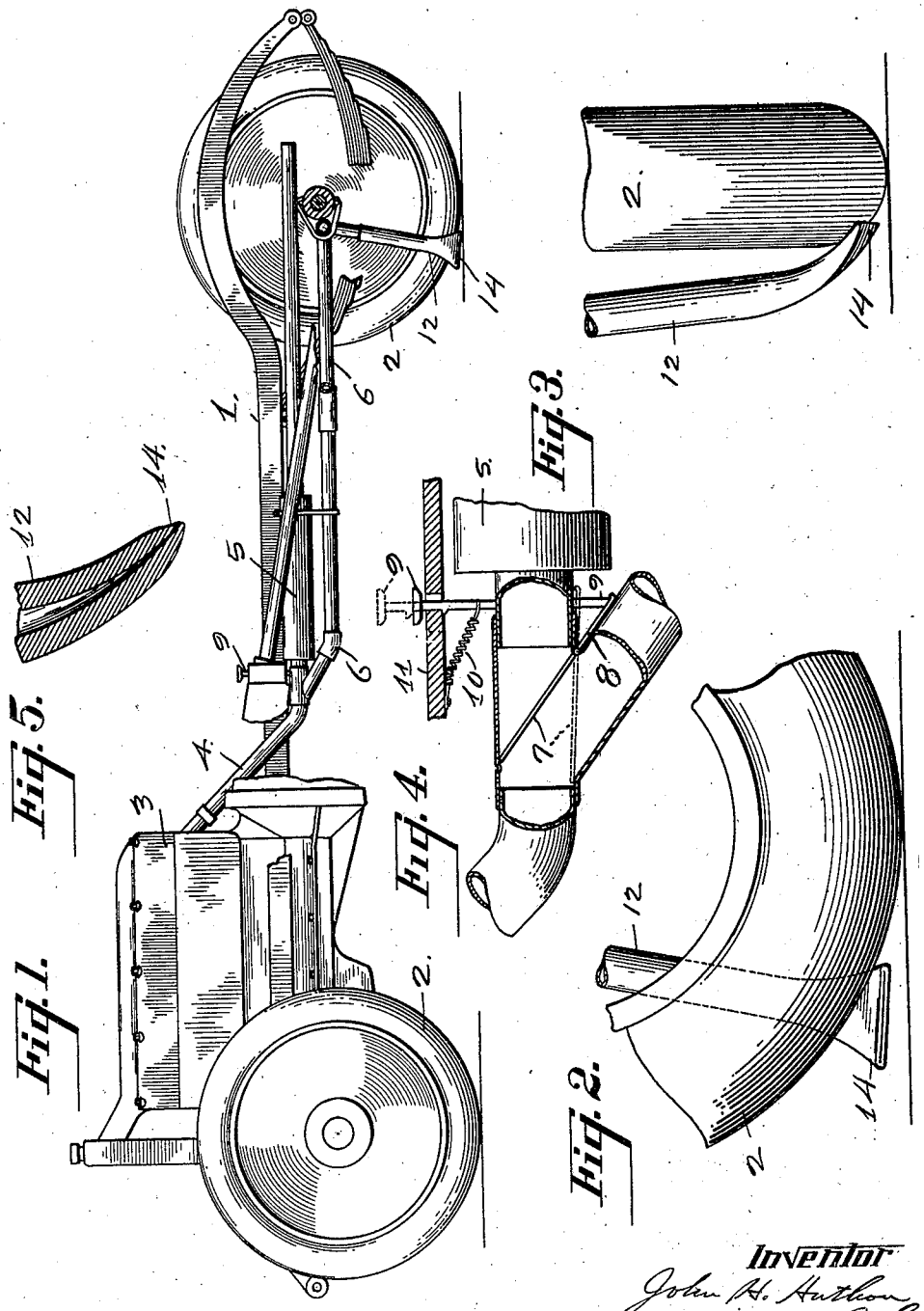


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

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JOHN H. ANTHON, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF ONE-HALF TO ARTHUR L. SLEE, OF SAN FRANCISCO, CALIFORNIA.

ANTISKIDDING DEVICE.

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To all whom it may concern:

Be it known that I, JOHN H. ANTHON, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented a new and useful Improvement in an Antiskidding Device, of which the following is a specification.

My invention relates to improvements in anti-skidding devices wherein the hot exhaust gases from the motor are directed in a thin flat stream, to produce velocity, onto the pavement directly in front of the wheels of the motor.

The primary object of my invention is to provide a new and improved anti-skidding device for motor vehicles and the like.

Another object of the invention is to provide a new and improved device of the character described which shall be instantly available for the use without stopping the car or applying mechanical devices to the wheels.

A further object of the invention is to provide means for directing a thin stream of hot gases to the pavement directly in front of the wheels of a motor vehicle in such a manner that a sufficiently high velocity will be produced which will tend to remove the major portion of moisture from said pavement and wherein the action of the heat of said gases will tend to further assist in removing all or a portion of the remaining moisture to reduce skidding of said wheels on said pavement.

A still further object is to provide flexible nozzles arranged adjacent to the wheels to direct a stream of hot gases onto the pavement, so that said nozzles may be easily and quickly deflected without injury when making contact with obstructions on the road, and also to instantly return said nozzles, by reason of their flexible nature to an operative position when moved therefrom by said contact.

Another object of the invention is to utilize the exhaust gases and heat of the motor of said vehicle for drying the pavement in front of the wheels of the vehicle to prevent skidding.

I accomplish these and other objects by means of the preferred form of the invention disclosed in the drawings forming a part of the present specification wherein like characters of reference are used to designate similar parts throughout the said specification and drawings, and in which:

Fig. 1 is a broken side elevation of the chassis of a motor vehicle disclosing my improvement applied thereto;

Fig. 2 is an enlarged broken portion of the inside of one of the wheels disclosing the relative position of the nozzles to the wheels;

Fig. 3 is a side elevation of Fig. 2;

Fig. 4 is a broken detailed view, partly in section, disclosing the manner in which the nozzles are connected and disconnected to the exhaust manifold of the motor; and

Fig. 5 is an enlarged broken sectional view of one of the nozzles disclosing the flattened outlet for increasing the velocity of the stream and for preventing the entrance of débris.

Referring to the drawings the numeral 1 is used to designate in general the chassis of a motor vehicle having the usual wheels 2, motor 3, exhaust manifold 4, and muffler 5.

A connection 6 is connected to the exhaust manifold 4 directly in front of the muffler 5 and a suitable valve 7 is provided with an arm 8 operated by a foot pedal 9 to deflect the hot gases from the manifold 4 into the connection 6 before being further expanded in the muffler 5. The valve 7 is normally retained in a closed position, to permit the passage of said gases from said manifold 4, by a suitable spring 10 attached to the said pedal 9 and foot board 10 through which said pedal 9 passes.

The connection 6 is connected to flexible nozzles 12 having flattened and normally closed ends 14 to prevent the entrance of débris into said nozzles.

The nozzles 12 are arranged with their ends 14 directly in front of the wheels 2 of the vehicle to project thin flat streams of hot exhaust gases directly onto the pavement, said thin flat streams of gases having sufficient pressure, first, to open the flexible normally closed nozzles and project a stream to comparatively high velocity directly onto the pavement directly in front of the wheels to remove the major portion of moisture therefrom, and second, to further dry said pavement, after said moisture has been removed therefrom, by the action of the heat of said exhausted gases.

As the nozzles 12 are flexible and arranged close to the wheels and pavement it is obvious that when said nozzles 12 are

struck by an obstruction on the road or pavement that said nozzles may be easily deflected, temporarily, from their operative position without material injury to said nozzles. It is also obvious that the flexibility of said nozzles will readily restore the same to operative position after said obstruction has become disengaged from said nozzles.

In operation, when a wet, slippery pavement is encountered by the vehicle the pedal 9 is depressed against the tension of the spring 10 to raise the valve 7 and thereby deflect the hot exhaust gases from the exhaust manifold 4 into the connection 6 which connection delivers said gases to the nozzles 12 before said gases are further expanded and cooled in the muffler 5.

It is thus obvious that the improved anti-skidding means is instantly available and easily and readily brought into operation without the necessity of stopping the vehicle of applying mechanical devices to the wheels.

By releasing the pedal 9 the tension of the spring 11 will close the valve 7 over the end of the connection 6 and the hot gases will again pass into the muffler 5.

As hereinbefore described the hot gases are directed by said nozzles 12 and the ends 14 thereof directly onto the pavement in thin flat streams having a comparatively high velocity arranged to remove the major portion of the moisture from said pavement, thereby providing a dry track for the wheels and proper frictional contact of said wheels with said pavement.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. The combination with a motor vehicle of means for directing the exhaust gases from the motor thereof onto a pavement and directly in front of and transversely to the wheels of said vehicle to remove moisture and dry said pavement by the action of heat from said gases to prevent skidding of said wheels on said pavement.

2. The combination with a motor vehicle of means for directing the exhaust gases from the motor thereof in a thin flat stream or jet and onto a pavement directly in front of and transversely to the wheels of said vehicle to remove moisture from said pavement by the velocity of said stream and heat from said gases to prevent skidding of said wheels on said pavement.

3. The combination with a motor vehicle of nozzles mounted in front of the wheels of said vehicle; and means for connecting said nozzles to the exhaust manifold of the motor of said vehicle whereby exhausted gases from said motor may be directed by said nozzles onto the pavement and transversely thereto to remove moisture from said pavement and directly in front of the wheels of said vehicle to prevent skidding.

4. The combination with a motor vehicle of flexible nozzles mounted adjacent the wheels of said vehicle and arranged to direct a stream onto a pavement immediately in front of said wheels and transversely thereto; and means for connecting said nozzles with the exhaust manifold of the motor of said vehicle whereby the hot exhausted gases from said motor may be directed by said nozzles onto the pavement directly in front of said wheels to remove the moisture from said pavement and thereby prevent skidding.

5. The combination with a motor vehicle of flexible nozzles mounted adjacent the wheels of said vehicle and arranged to direct a thin flat stream onto a pavement directly in front of said wheels and transversely thereto; and means for connecting and disconnecting said nozzles with the exhaust manifold of the motor of said vehicle and in advance of the muffler thereof whereby hot exhausted gases from said motor may be directed by said nozzles upon said pavement directly in front of said wheels to remove the moisture from said pavement to prevent skidding of said wheels.

In witness whereof I hereunto set my signature.

JOHN H. ANTHON.