

W. J. HASLEY.
 NON-SKID AUTOMOBILE DEVICE.
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1,118,931.

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2 SHEETS—SHEET 1.

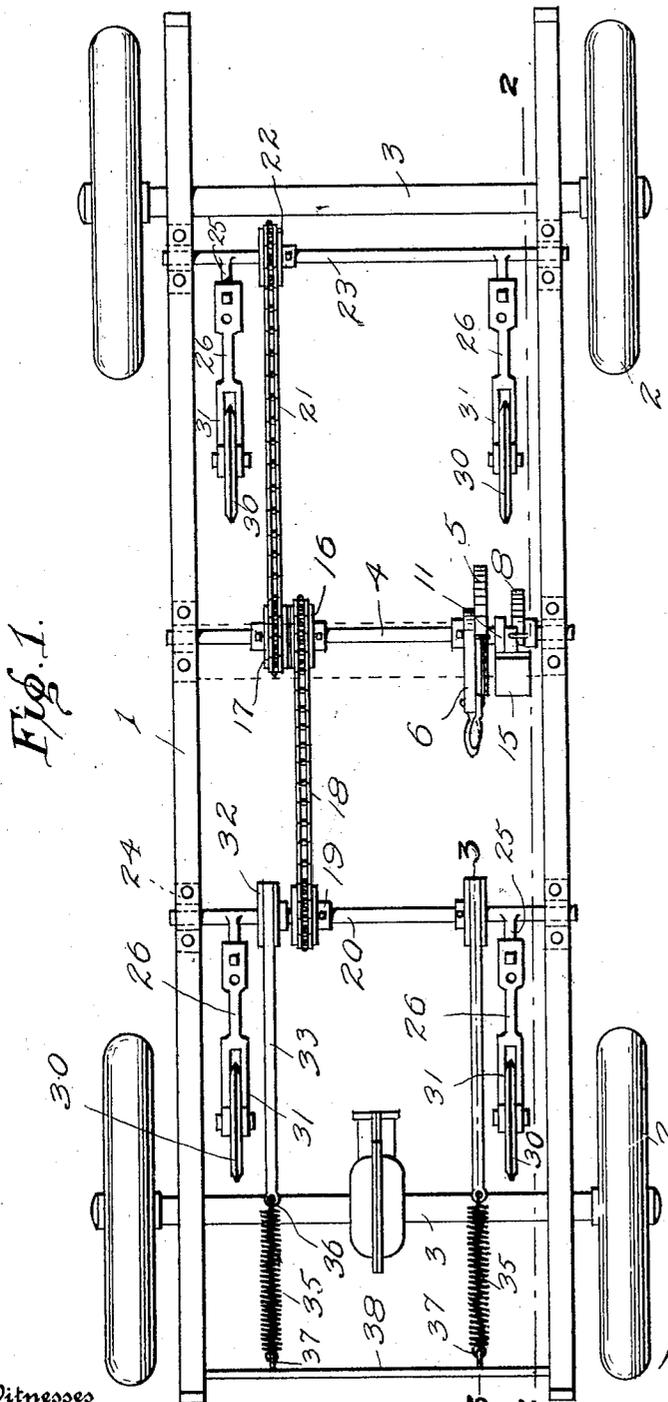


Fig. 1.

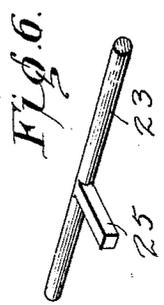


Fig. 6.

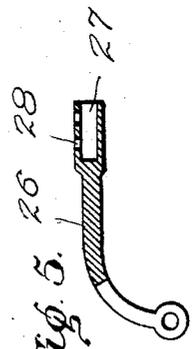


Fig. 5.

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2 SHEETS—SHEET 2.

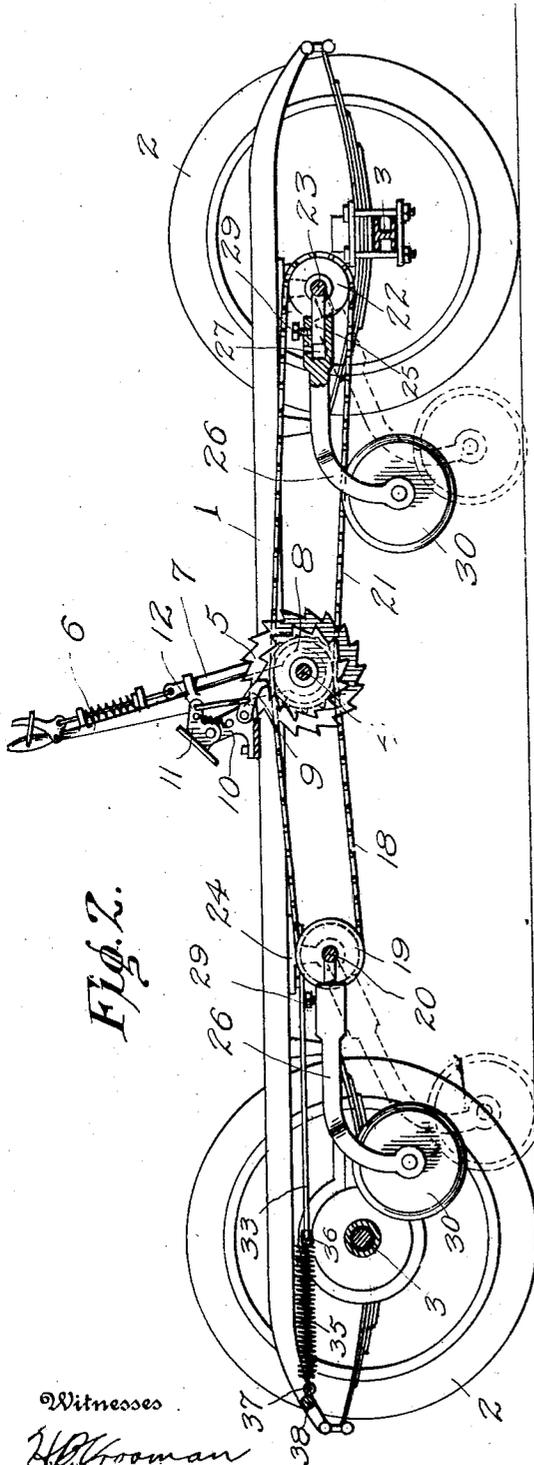


Fig. 2.

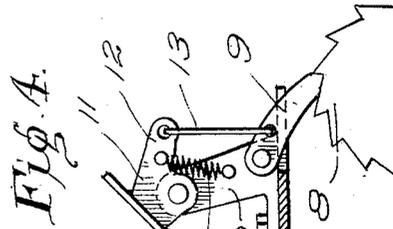


Fig. A.

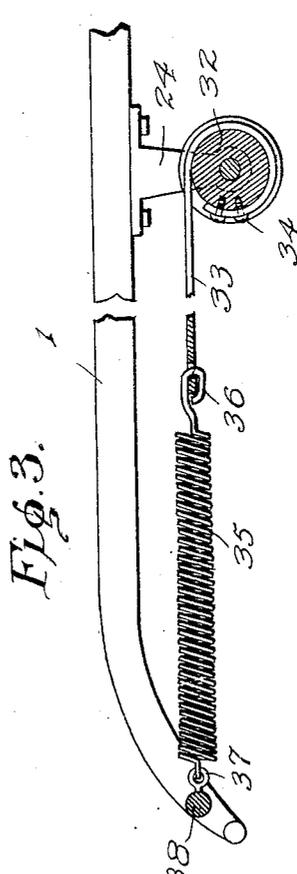


Fig. 3.

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UNITED STATES PATENT OFFICE

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NON-SKID AUTOMOBILE DEVICE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WALTER J. HASLEY, a citizen of the United States of America, residing at Rioblanco, in the county of Rio Blanco and State of Colorado, have invented certain new and useful Improvements in Non-Skid Automobile Devices, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to non-skidding devices for automobiles and has for its object the production of a simple and efficient means for throwing the non-skidding devices into action.

Another object of this invention is the production of a simple and efficient means for raising the anti-skidding devices to an inoperative position.

With these and other objects in view this invention consists of certain novel combinations, constructions, and arrangements of parts, as will be hereinafter fully described and claimed.

In the accompanying drawings:—Figure 1 is a top plan view of the device. Fig. 2 is a section taken on line 2—2, of Fig. 1. Fig. 3 is an enlarged section taken on line 3—3, of Fig. 1. Fig. 4 is an enlarged section showing the foot release for throwing the anti-skidding devices into operation. Fig. 5 is an enlarged sectional view of one of the disk supporting arms of the skidding device. Fig. 6 is a detail perspective of a portion of the shaft adapted to support the skidding device.

By referring to the drawings it will be seen that 1 designates the frame which is supported by the usual wheels 2 through the medium of the supporting axles 3 in the usual manner. A central operating shaft 4 is mounted upon the frame of the machine, and this operating shaft 4 carries a rotating gear 5, which rotating gear is operated by means of a ratchet lever 6. The ratchet lever 6 is provided with a spring pressed ratchet 7 which engages the rotating ratchet wheel or gear 5 for the purpose of rotating the shaft 4 as the lever 6 is swung back and forth. A releasing ratchet wheel 8 is mounted upon the central supporting shaft 4 and this releasing ratchet 8 is engaged by means of a pivot dog 9, which dog is pivotally mounted upon the supporting bracket 10. This supporting bracket 10 may

be carried by the base of the machine in any desired manner.

A pivoted treadle 11 is secured to the upper end of the bracket 10 and is provided with a forwardly extending finger 12, which finger engages a link rod 13 for connecting the forwardly extending finger 12 with the releasing pawl or dog 9. A coil spring 14 is connected to the bracket 10 and is also connected to the forwardly extending finger 12 of the treadle 11 so as to normally hold the dog 9 in engagement with the releasing ratchet 8. It will be seen that the dog or pawl 9 may be thrown out of engagement with the releasing ratchet 8 by pressing downwardly upon the lower end 15 of the foot treadle 11.

A primary sprocket 16 is carried by the shaft 4 and an auxiliary sprocket 17 is also carried by this shaft, and a primary sprocket chain 18 passes over the sprocket 16 and also over a sprocket 19 carried by the rear anti-skidding supporting device 20. An auxiliary sprocket chain 21 passes over the auxiliary sprocket 17 and also over a sprocket wheel 22, which sprocket wheel is carried by the forward shaft 23. The shafts 20 and 23 are journaled upon the frame 1 of the machine by means of journal brackets 24 as is illustrated clearly in Fig. 2: It, of course, should be understood that these shafts 20 and 23 as well as the shaft 4 may be supported upon the machine in any desired manner without departing from the spirit of the invention.

Each of the shafts 20 and 23 are provided with rearwardly extending square projecting lugs 25, and upon each of the lugs 25 fits an anti-skidding supporting disk arm 26, which arm 26 is provided with a socket 27 constituting a pocket for receiving the lug 25. The inner end of the arms 26 is provided with a plurality of apertures 28 through which pass the securing bolts 29 for holding the arms 26 in an adjusted position upon the lugs 25.

Anti-skidding disks 30 are carried between the bifurcated ends 31 of the arms 26 as is clearly illustrated in Figs. 1 and 2, and these disks are preferably sharpened upon their outer edges for the purpose of digging into or cutting into the surface of the road over which the machine is traveling.

The rear shaft 20 carries a plurality of

drums 32 to which drums are secured the tension bands 33 by means of the screws 34. Coil springs 35 are connected to the bands 33 as indicated at 36 and the rear ends of these coil springs 35 are connected to the eyes 37 carried by a transversely extending bar 38 mounted upon the frame 1.

By carefully considering the drawings and also by carefully considering the above specification, it will be seen that the anti-skidding devices and arms 26 may be raised to the position shown in full lines by rotating the gear 5 through the medium of the ratchet lever 6. The dog or pawl 9 will prevent the rotation of the shaft 4 in an opposite direction while the shaft is being wound. After the anti-skidding devices have been raised to the position shown in full lines the same may be released and thrown into immediate engagement with the road over which the device is traveling by the operator pressing downwardly upon the foot treadle 11 and drawing the pawl or dog 9 out of engagement with the ratchet 8. The coil springs 35 will then pull upon the drums 32 and in this manner cause the shaft 20 to rotate and throw the anti-skidding devices into engagement with the road over which the machine is traveling as is indicated in dotted lines in Fig. 2. As the shaft 20 rotates this rotary motion will be imparted to the shaft 4 through the medium of the sprocket chain 18. Rotary movement will also be imparted to the shaft 23 through the auxiliary sprocket chain 21, thereby throwing both the forward and rearward anti-skidding devices simultaneously into engagement with the road bed.

From the foregoing description it will be seen that a very simple and efficient device has been produced for the purpose of preventing the side skidding of an automobile, and at the same time a device has been produced which will be ordinarily held out of engagement with foreign objects while the machine is traveling under ordinary circumstances, while the anti-skidding devices may be thrown into engagement with the road by releasing the dog 9 from engagement with the ratchet 8 as above described.

Having thus described the invention what is claimed as new, is:—

1. An anti-skidding device for a vehicle comprising a winding shaft, a winding ratchet supported thereby, means for facilitating the rotation of said ratchet, an auxiliary ratchet supported adjacent said winding ratchet, means engaging said auxiliary ratchet for normally holding said winding shaft against rotation in one direction and capable of being thrown out of engagement therewith for allowing the rotation of said winding shaft, a plurality of anti-skidding device supporting shafts, sprocket wheels carried by said winding shaft, chains for rotating said anti-skidding device supporting shafts as said winding shaft is rotated, anti-skidding arms carried by said anti-skidding device supporting shafts, a drum carried by one of said anti-skidding device supporting shafts, a flat tension band wound around said drum and secured thereto, and a spring engaging said tension band for automatically throwing said anti-skidding devices to an operative position as said auxiliary ratchet is thrown to an inoperative position.

2. A device of the class described comprising a main winding shaft, a plurality of anti-skidding device supporting shafts, anti-skidding devices carried by said anti-skidding device supporting shafts, manual means for raising said anti-skidding devices, a winding shaft, a ratchet carried thereby, a foot operating dog engaging said ratchet for normally holding the same in a set position, a drum carried by one of said anti-skidding device supporting shafts, and a spring tension belt engaging said drum for automatically throwing said anti-skidding devices to an operative position as said foot operating dog is drawn out of engagement with said ratchet carried by said winding shaft.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

WALTER J. HASLEY.

Witnesses:

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