(19) Canadian Intellectual Property Office / Office de la Propriété Intellectuelle du Canada

An Agency of Industry Canada / Un organisme d'industrie Canada

(11) CA 281059 (13) A

(40) 19.06.1928

(12)

(21) Application number: 281059D

(22) Date of filing: ..

(51) Int. Cl:

(71) Applicant: KEGRESSE ADOLPHE.

(72) Inventor: KEGRESSE ADOLPHE ().

(54) FAST-MOTOR VEHICLE RUNNING ON SUPPLE CATERPILLARS

(54) VEHICULE-MOTEUR RAPIDE SUR CHENILLES

(57) Abstract:

As will be readily understood, in order to obtain a fast running vehicle driven by caterpillars and steered by means of steering wheels an essential requirement is that such a vehicle does fulfil, as to suspension, certain conditions without which no speed is permissible.

Obviously, the wheel-carried steering axle of such a vehicle may be connected with the chassis by means of the suspension devices usual in automobile construction.

As concerns the driving part, constituted by supple caterpillars, the problem is more intricate, for, as persons skilled in the art are aware, a caterpillar set comprises: driving pulleys coupled with the engine of the vehicle through the transmission gear, idle pulleys and a carrier train.

The question is, therefore, to contrive with these various parts a resilient suspension for the carrier portion in such a way that the oscillations from said suspension will not interfere with proper guiding of the endless band neither over the pulleys nor under the carrier train.

My invention provides a vehicle calculated to meet these requirements.

The single Figure in the drawing appended hereto is a general view in elevation illustrating such a vehicle.

On said Figure:

1 denotes a driving pulley mounted directly on the live axle of the vehicle, said axle being rigidly secured to the chassis.

2 denotes an idle pulley;

3 the carrying or dead axle;

4 the suspension springs connecting the carrying axle with the chassis 5.

A similar arrangement is, of course, provided on the opposite side of the vehicle.

With a vehicle so constituted, the endless band runs in the direction pointed out by the arrow on the drawing, that is to say: the driving side of the band or belt 6 is the upper one, while the slack side, denoted by 7, is the lower one.

As an inspection of the Figure will show, when one of the two springs 4 sags, as influenced by ground bumps, the driving pulley does not remain parallel to the perpendicular plane of the carrier train. There results, consequently, a twisting of the endless band which, with my mounting, is immaterial since the side that engages the driving pulley 1 is the upper side 6, which alone is tight, for it freely reaches said pulley, being guided only by the idle pulley 2 located remote therefrom. The lower side 7 can without any inconvenience lend itself to departures from parallelism of the vertical planes of the driving pulley and of the carrier train, since said lower side is slack and, therefore, flexible.

The idle pulley 2 is connected with and articulated on the carrying axle in a well known manner, and its vertical plane always remains parallel to the vertical plane of the carrier train so that the band is perfectly guided in all and any positions.

It should be noted that, if the driving pulley was positioned in rear, such a mounting could give no satisfactory results. As a matter of fact, under the influence of the spring oscillations, the parallelism of the vertical planes of the driving pulley and of the carrier train would then, as will be readily understood, undergo modifications, since said pulley is rigidly secured to the chassis while the carrier train is connected with the same by springs.

With the driving pulley in rear it would be the lower side of the band that would become the driving one, while theupper one would be slack; and the distance between the last roller of the carrier train and the driving pulley being very short, there would ensue a twisting of the tight portion of the band which would entail derailings and would, besides, cause abnormal wear of the endless band guiding beads.

As will be apparent, in order to obtain a supple-caterpillar-driven vehicle adapted to run fast the assembly of the various mechanical gears must be intelligently contrived to achieve satisfactory operation.

Having now particularly ascertained and described the nature of my said invention as well as the manner in which the same is to be performed, I declare that what I claim is:

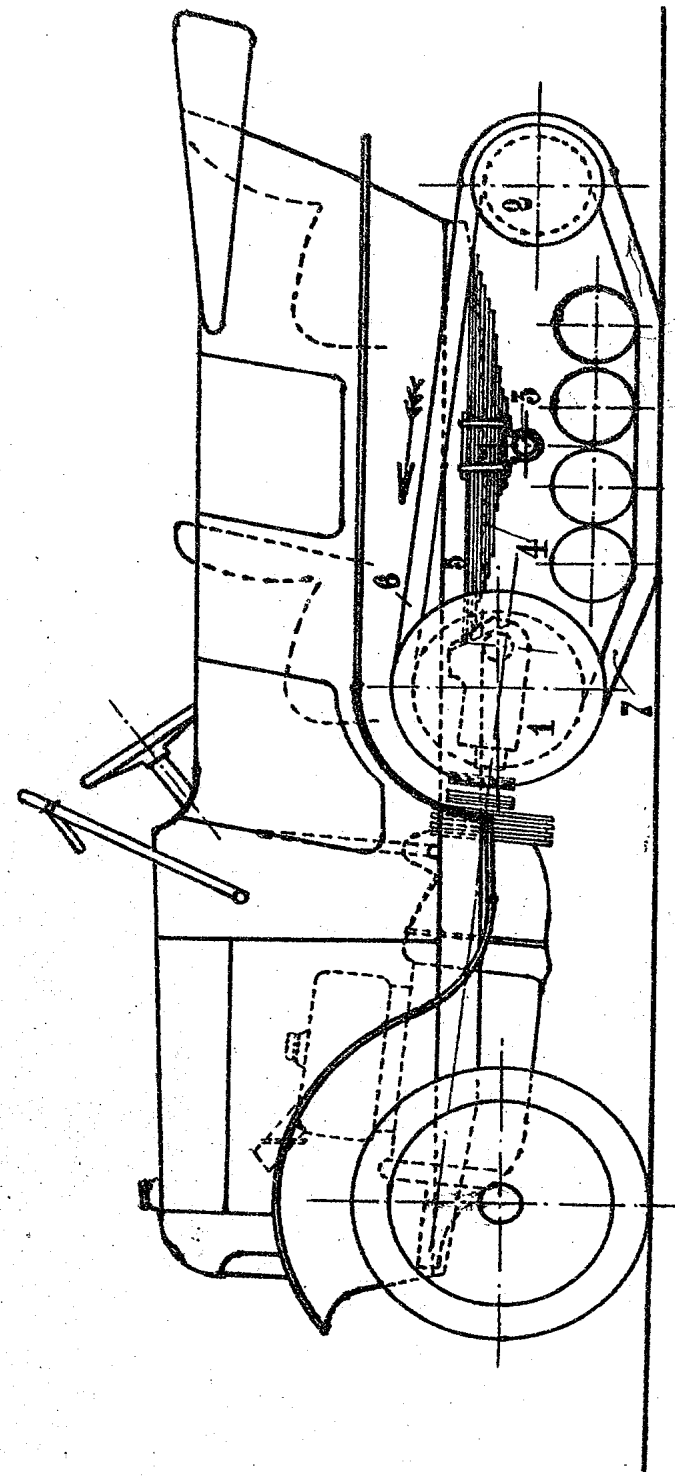
C L A I M.

A fast motor-vehicle running on supple caterpillars or endless bands, characterized by driving pulleys connected with the transmission gear of the vehicle, which gear is rigidly secured to the chassis, said driving pulleys, arranged in front of the caterpillar device, being combined with a carrier train which has a single axle and is connected with the chassis by means of a resilient system.

Jet Motor-Vehicle
running on Supple
Caterpillars.

281059

281059



Witnesses:-
A. Apostle
H. Aspect.

Certified to be the drawings referred to in the specification hereunto annexed.-
MONTREAL, October 10th, 1927.-

INVENTOR:
ADOLPHE KEGRESSE.-
BY
Fraser & Morin
Attorneys.-