

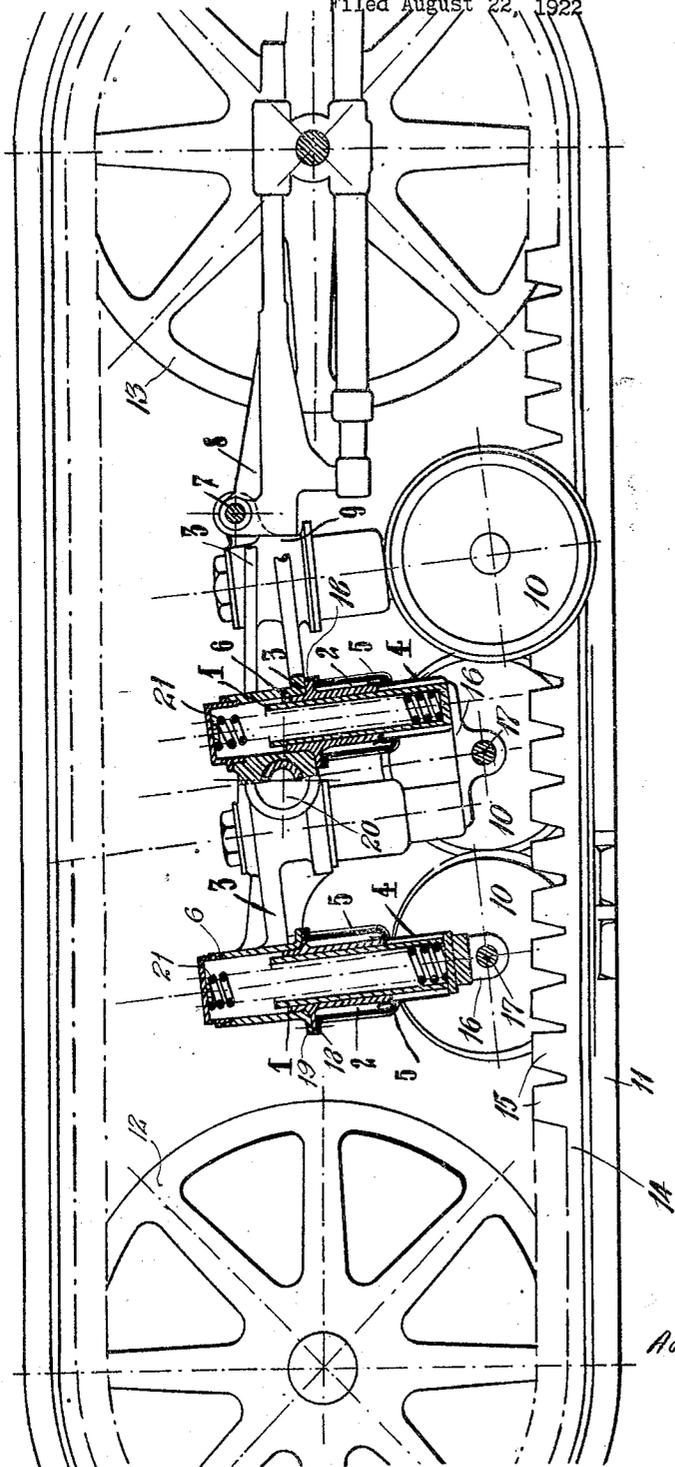
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1,585,099

A. KÉGRESSE

SUPPORTING TRUCK FOR ENDLESS TRACK BELTS

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## UNITED STATES PATENT OFFICE.

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SUPPORTING TRUCK FOR ENDLESS-TRACK BELTS.

Application filed August 22, 1922. Serial No. 583,609.

The present invention has for its object certain improvements on the construction disclosed in my Patent No. 1,506,431, granted August 26, 1924, which improvements relate to the supporting truck carrying the rollers that bear upon the lower stretch of the endless track belt.

An embodiment of the invention is illustrated in the accompanying drawing, the single figure of which is a part-sectional side elevation of a three-roller supporting truck and associated devices.

As will be seen therefrom, the rollers bear upon the lower stretch of the endless track belt 11, which passes around the front and rear drums or pulleys 12 and 13. This belt may be of any desired type, and is preferably provided along its inner surface with a continuous, median rib 14 which, as here shown, is split or divided transversely to form a succession of blocks 15.

The rollers 10 are arranged in pairs on opposite sides of rib 14, and are connected to heads 16, to which are secured the lower ends of hollow tubular plungers 1; said heads supporting the axles 17 of the rollers. These plungers are inclined to the vertical, so that the axis of each forms a certain angle which is directed travelwards in order to cause the plungers to work in the direction of the resultant of the forces acting on the rollers and arising from the load borne by said rollers and from rolling resistance.

Plunger closure being of utmost importance, a hermetic device is provided for each plunger comprising a cylindrical casing 2 made of leather or other suitable flexible material secured at its lower end to the upper end of a metal protecting tube 4, the lower end of which is permanently fixed to the corresponding axle support or head 16. Adjacent its upper end, the leather cylinder 2 is provided with a flange 18 which is fastened to a similar flange 19 formed on the lower end of an inverted cup or guide 6 that is attached to a central rocking or balance beam 3 mounted at its center on the supporting axle 20 of the vehicle; the arrangement being such, therefore, that the aforesaid cylinder may be regarded as connected at one end with tube 4 and at the other end with beam 3. A second metal tube 5 is also provided to protect cylinder 2 against contact with stones, sand and other extraneous matter which would be apt to

injure it, and this tube 5 encloses the major portion of said cylinder and is fastened at its upper end to the flanges 18 and 19, its free lower end being curved slightly inward so as to slidably engage the lower protecting tube 4. It will be observed that the diameter of tube 5 is appreciably greater than that of tube 4 and cylinder 2 so that an annular space is thus left between the latter and tube 5.

As stated above, the plungers 1 are hollow, and each of them contains an expansible coil spring 21 which bears at one end against the head or axle support 16 and at the other end against the top of the guide cup 6, so that the associated roller 10 is thus pressed downward against the track belt.

The construction thus far described operates substantially as follows: When, under the influence of a shock or jolt or of some unevenness of the ground, the roller 10 rises, it will carry with it the head or axle support 16, and the latter in turn, will move the associated plunger 1 and protecting tube 4 upward, the plunger penetrating the guide 6 at such time. The lower end of the leather cylinder 2 is fastened to the upper end of tube 4, as has already been stated, so that the upward movement of said tube will cause the cylinder to fold or buckle up within the annular space left between the body of the cylinder and the upper protecting tube 5. As the tube 4 likewise moves inwardly of tube 5 during this movement, it follows that the cylinder 2 will be protected against extraneous matter without interfering in any way with the movement of the plunger.

Another feature illustrated is the movable mounting of the right-hand or rear drum or pulley 13 in such a manner as to exert a stretching action on the endless track belt 11. This drum or pulley is devoid of connection to the vehicle axle 20, in which respect it differs from my earlier patented construction, but, instead, is pivotally connected to the rear end of beam 3 by means of an axle 7 which passes through a bearing formed in the body 8 of the stretching device or mechanism, so that the end of said body rests freely against a stop or thrust block 9 provided for the purpose on beam 3. The operation of this device or mechanism will be readily understood; the drum 13 is free to rise or fall, as influenced by ground ir-

regularities, swinging about the axle 7 as a pivot, its downward movement being limited by stop 9.

I claim as my invention:—

5 1. A supporting truck for endless track belts, embodying a set of rollers adapted to bear upon the lower stretch of the belt, spring-loaded plungers carrying the rollers and inclined in the direction of the resultant  
10 of the forces acting on the rollers, and protecting parts which encase the plungers and in which said plungers move.

2. A supporting truck for endless track belts, embodying a set of rollers adapted  
15 to bear upon the lower stretch of the belt; plungers carrying the rollers; and a hermetic housing for each plunger comprising a cylindrical member of flexible material immediately encasing the plunger, and a pair

of tubular metallic protecting members en- 20 casing the flexible cylindrical member and slidably interfitting one another, said flexible member being attached to one of said protecting members and adapted to fold up within the other protecting member during  
25 the reciprocating movements of the plunger.

3. A supporting track, according to claim 2, in which the two tubular protecting mem- 30 bers are arranged one above the other, the upper member having an appreciably greater diameter than the lower member and the flexible cylindrical member so as to provide an annular space in which the folding  
35 movements of said flexible member take place.

In testimony whereof I affix my signature.

ADOLPHE KÉGRESSE.