

PATENT SPECIFICATION



Convention Date (France) : April 15, 1927.

288,648

Application Date (in United Kingdom) : April 14, 1928. No. 11,105/28.

Complete Accepted : Sept. 27, 1928.

COMPLETE SPECIFICATION.

Improvements in or relating to Auxiliary Wheels for Trailers.

I, ADOLPHE KEGRESSE, a citizen of the French Republic, of 7, rue Salomon de Rothschild, Suresnes, France, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to auxiliary wheels for trailers which are not fitted with springs, so that they cannot be run at high speed and are unsuitable for hooking up to high speed motor tractors. The invention relates more particularly to material at present in existence, especially artillery.

This invention provides a removable auxiliary set of wheels adapted for rapid fitting on trailers to enable them to be dragged along without any inconvenience at the travelling speed of modern motor tractors.

The invention comprises the raising or the replacement of each wheel of an unsprung trailer by two auxiliary wheels connected with one another by means of members (preferably spring members) articulated about their middle part to the lower part of a strut, the upper part of the latter being connected with the axle of the trailer or with another part thereof.

In order to make the invention more clear an embodiment is illustrated, by way of example, in the accompanying drawings.

Figure 1 shows in elevation a device according to the invention, the wheel of the trailer itself being removed;

Figure 2 is a plan view thereof;

Figure 3 is a profile view, with half-section through A—B of Figure 1.

On all the figures the trailer is represented by a rectangular case 1 resting directly upon an axle 2 the ends of which receive ordinary wheels 3.

Two similar devices are provided each consisting in a strut 4 (Figures 1 and 3) mounted on the axle 2 by the side of the wheel 3. The lower part of said strut 4 carries an articulation 5 (Figures 1 and 3) serving as a pivot for two parallel springs 6 between the ends of which are mounted two wheels 7, which may be rubber-tyred.

[Price 1/-]

It will be noted that the springs 6 illustrated in Figure 1, are merely diagrammatic. 55

The whole device is so arranged that, when in position, the wheels 3 of the trailer will be lifted a few centimetres above the ground. 60

The strut 4 is rendered integral with the trailer by any suitable means, such means being, in the example shown, tie-rods 8 (Figures 1 and 3).

The operation of the above described system will be obvious. The wheels 7, which may be rubber-tyred, on being lifted by ground unevennesses, will take action on springs 6 thereby transmitting through struts 4 damped shocks to the trailer. Articulation 5 will permit the wheels 7 to move in the vertical plane, independently from one another, and still more to reduce the value of the shocks received by the wheels 7 and transmitted to the axle of the trailer through the strut 4. The latter may be removably mounted either on the axle of the trailer itself, as in the example illustrated, or in any other manner without altering the character of this invention. 70 75 80

It will be noticed that said device will improve the trailer's travelling over any ground.

On hard ground, wheels 7 and springs 6 will meet requirements as to resiliency and/or will be responsive to high speeds. 85

On soft ground, the wheels 7 will sink a few centimetres until the wheels 3 of the trailer bear in their turn. There will thus be obtained a broad bearing surface which will limit sinking and consequently facilitate rolling along of the whole device. 90

The drawings are purely diagrammatic, and various modifications will be apparent, for instance, the springs 6 can very well be replaced by rigid members, the resilient system being then constituted by one or a plurality of coil springs located either inside or outside the strut 4 and the articulation 5 being formed on the head of a piston plunging into the strut 4. 95 100

Moreover, in certain cases, a trailer equipped with auxiliary wheels as above 105

described could do without its ordinary wheels at all. The auxiliary wheels may then be mounted on the axle in the place of the ordinary wheels. Obviously, however, there would not be obtained, in such a case, the benefit of so broad a bearing surface on soft ground. 25

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:— 30

1. In a trailer not fitted with spring suspension, the raising or the replacement of each wheel by two auxiliary wheels connected with one another by means of members (preferably spring members) articulated about their middle part to the lower part of a strut, the upper part of the latter being connected with the axle of the trailer or with another part thereof. 35

2. Auxiliary wheels for trailers as claimed in Claim 1, wherein the connection with the strut is through a resilient system constituted either by leaf springs or by coil springs located either inside or outside the strut. 40

3. In an arrangement claimed in Claim 1 or 2, tie-rods for completing the rigid securing of the strut that carries the auxiliary wheels.

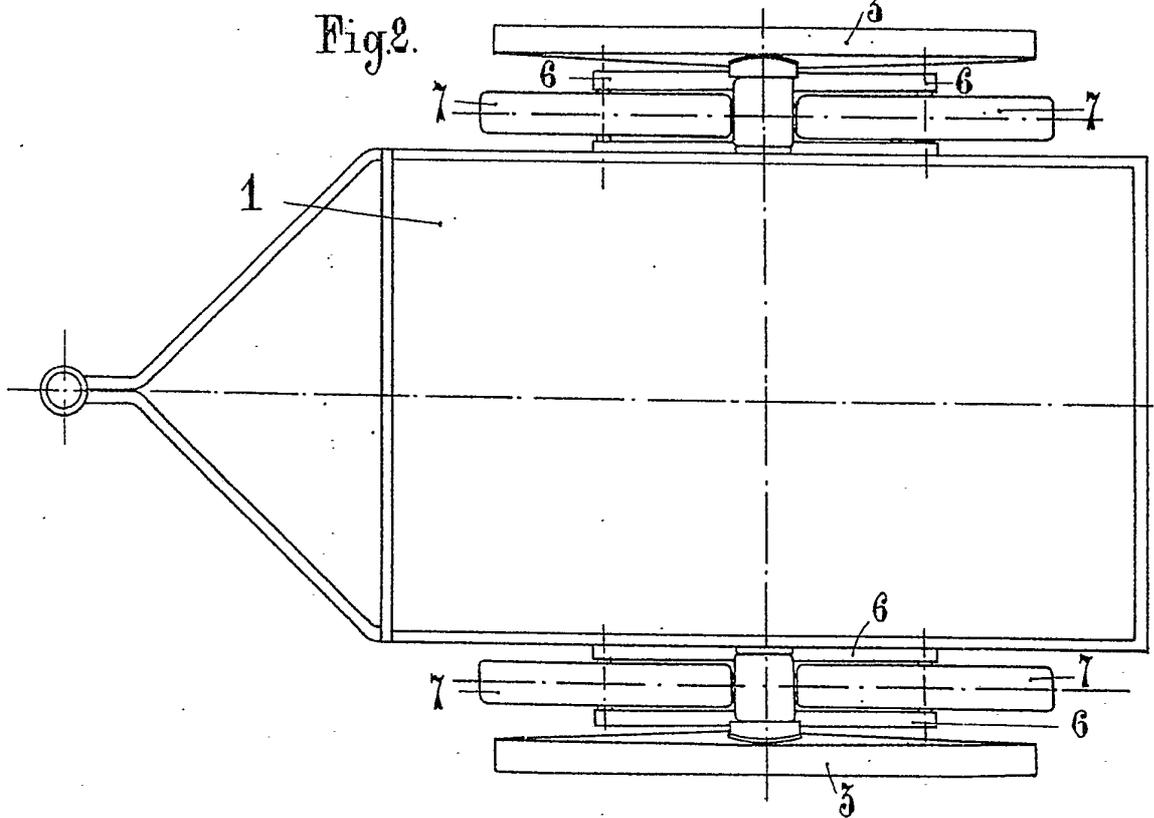
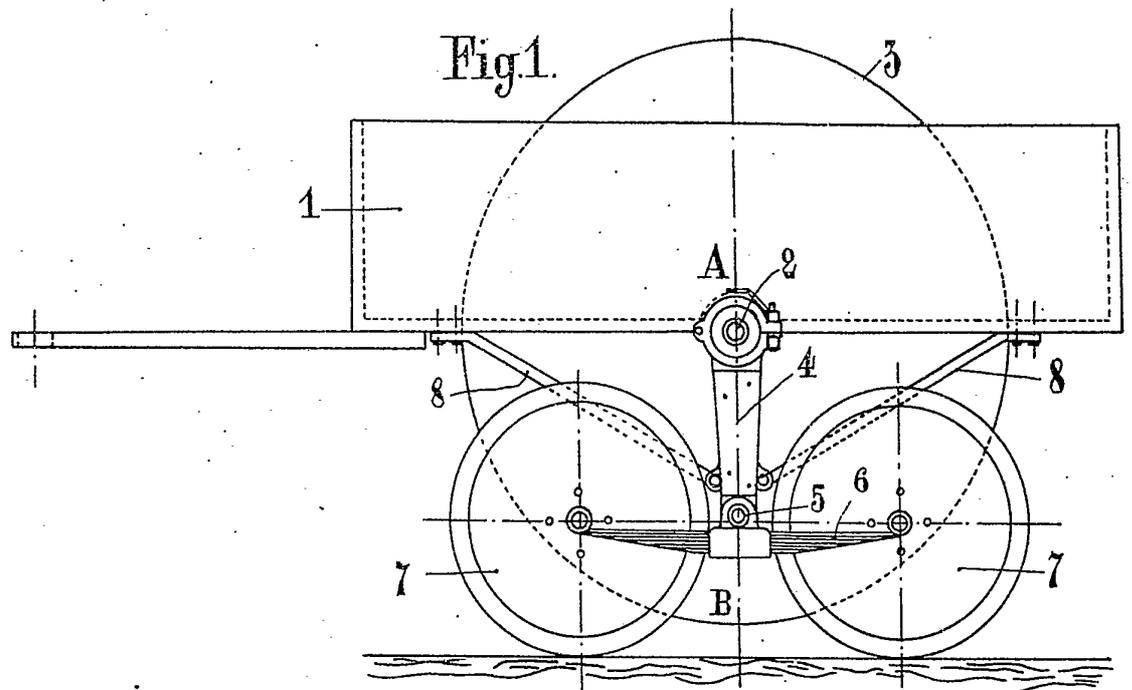
4. In a device according to the foregoing claims, the feature that the wheels of the trailer are held a few centimetres above the ground level, so as to be automatically brought into operation when negotiating ground into which the auxiliary wheels tend to sink.

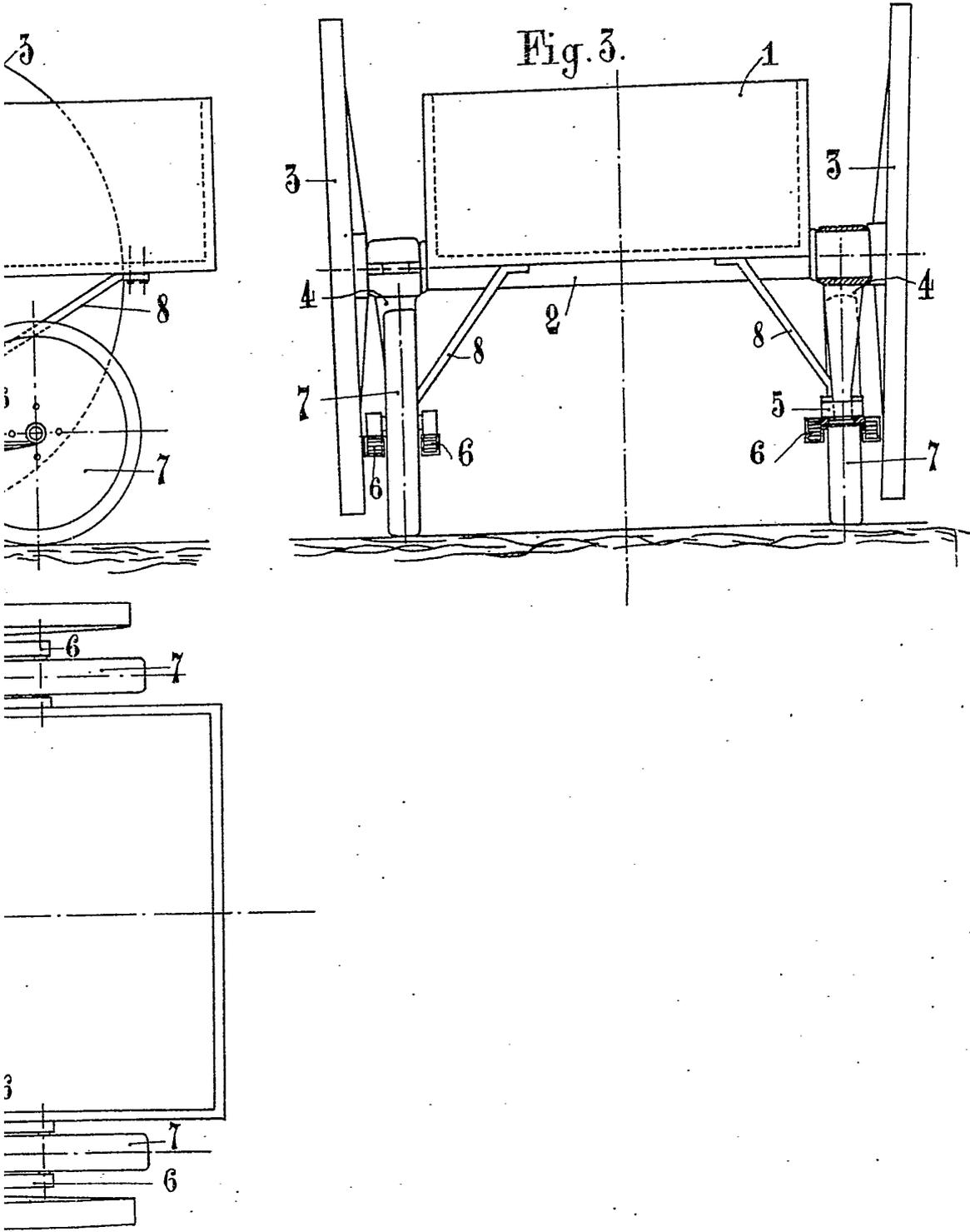
5. Auxiliary wheels for trailers which are unsuspending substantially as described or illustrated in the accompanying drawings. 40

Dated this 14th day of April, 1928.

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[This Drawing is a reproduction of the Original on a reduced scale.]





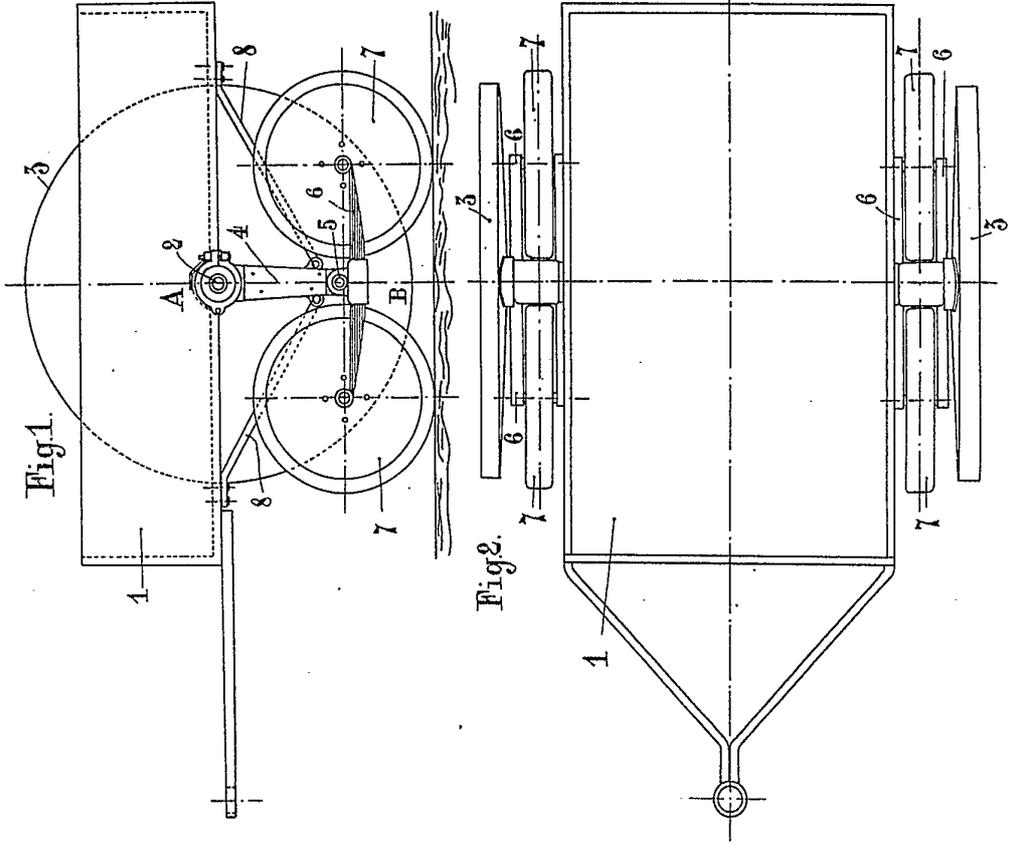


Fig. 3.

Fig. 1.

Fig. 2.

[This Drawing is a reproduction of the Original on a reduced scale.]