

D. DUNLAP.

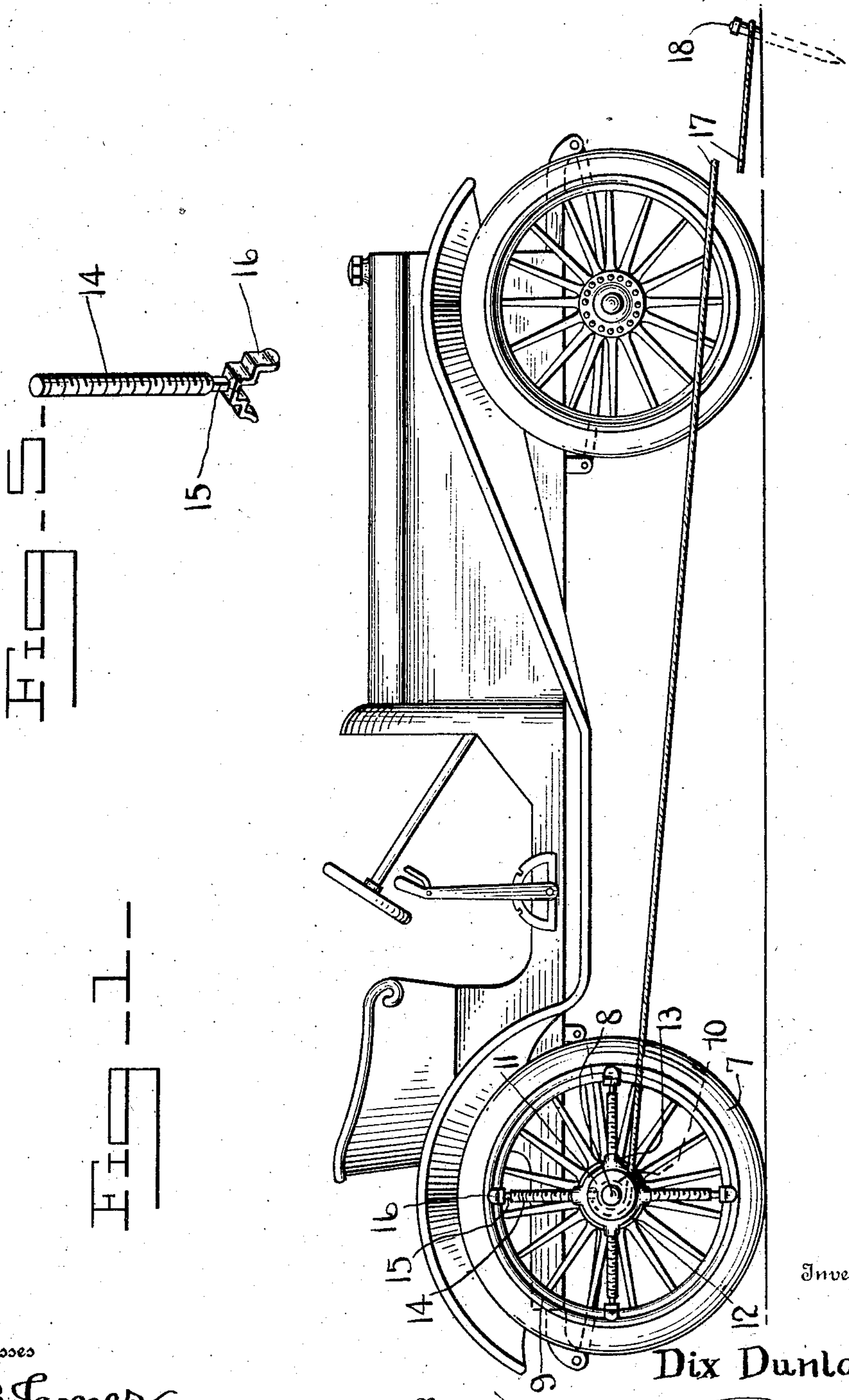
DRAFT APPLIANCE FOR SELF PROPELLED VEHICLES.

APPLICATION FILED FEB. 9, 1909.

Patented Dec. 28, 1909.

2 SHEETS—SHEET 1.

944,956.



Witnesses

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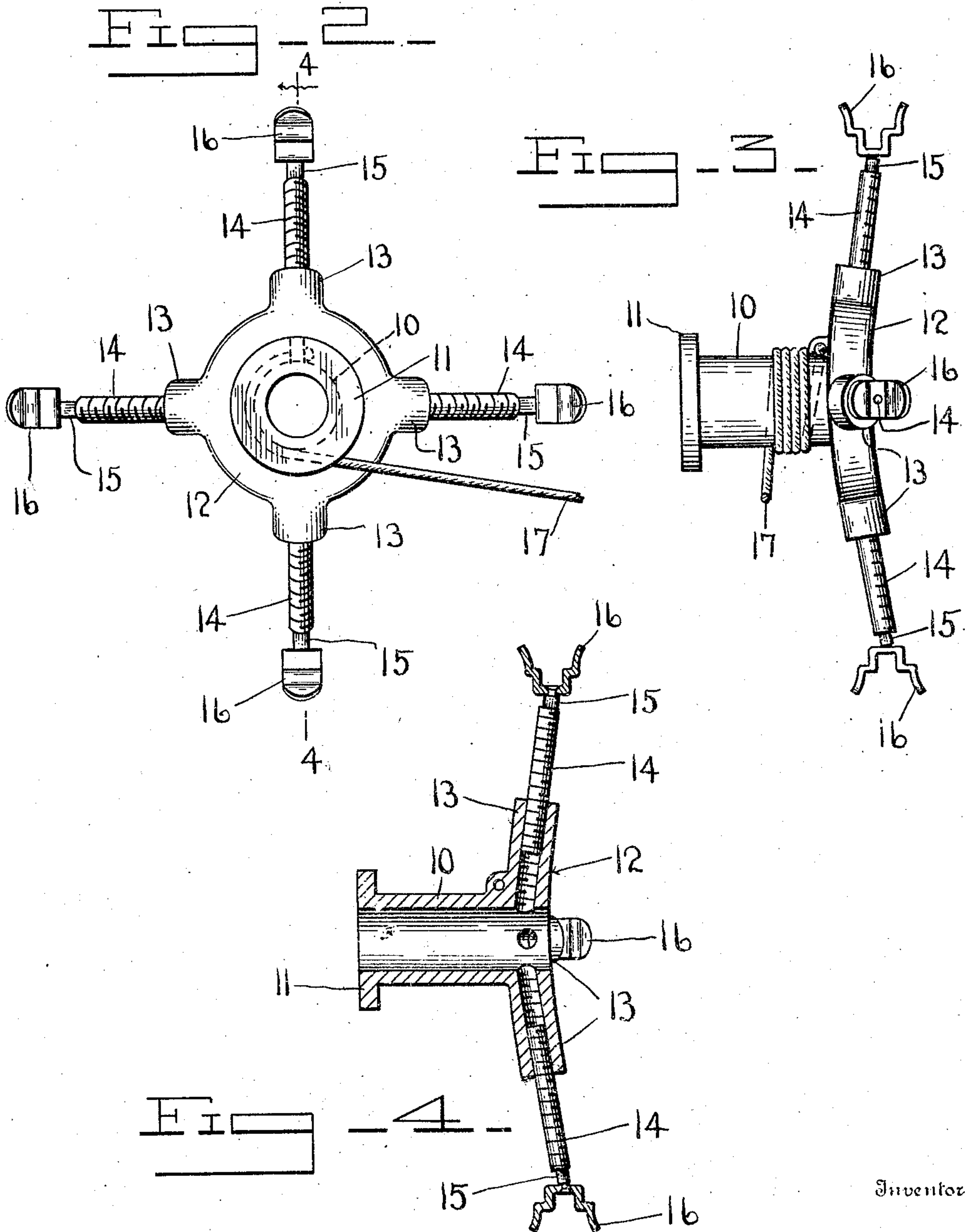
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# UNITED STATES PATENT OFFICE.

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DRAFT APPLIANCE FOR SELF-PROPELLED VEHICLES.

944,956.

Specification of Letters Patent. Patented Dec. 28, 1909.

Application filed February 9, 1909. Serial No. 476,937.

*To all whom it may concern:*

Be it known that I, DIX DUNLAP, a citizen of the United States, residing at La Junta, in the county of Otero, State of Colorado, have invented certain new and useful Improvements in Draft Appliances for Self-Propelled Vehicles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to improvements in draft appliances for self-propelled vehicles, and it has for its general object the provision of an extremely simple device by means of which the vehicle may pull itself free after its wheels have become embedded in a soft or muddy road, or caught in a depression therein.

More particularly, however, it is the aim of the invention to provide a device of that nature which can be readily attached to the hub of either one of the drive wheels of the vehicle when necessary and firmly clamped to the rim of the wheel, and can be subsequently removed from the wheel with equal readiness after the vehicle has been started.

To this end, the device comprises essentially, a hollow drum designed to be fitted upon the wheel hub and provided at its inner end with a concentrically-arranged spider whose arms are formed by threaded clamping bolts having swiveled heads, whereby said heads can be engaged with the wheel rim, and the bolts then rotated in the proper direction, so as to cause them to move outwardly of the bushings in which the inner ends of their stems are fitted. The drum has secured thereto one end of a cable whose other end is provided with an anchor.

The preferred embodiment of the invention is illustrated in the accompanying drawings, in which corresponding parts are designated by the same reference numerals throughout the several views.

Of the said drawings, Figure 1 is a side elevation of a motor car, showing the application of the invention thereto. Fig. 2 is an enlarged front elevation of the device. Fig. 3 is a side elevation of Fig. 2. Fig. 4 is a section taken on the line 4-4 of Fig. 2. Fig. 5 is a detail view of one of the clamping bolts.

Referring more particularly to the drawings, 7 designates one of the rear or drive wheels of a motor car, 8 the hub of such wheel, and 9 the rim thereof.

The draft appliance which is designed for attachment to the wheel, as originally stated, comprises essentially a tubular drum formed at its outer end with a circumscribing flange or head 11 and at its inner end with a spider whose body portion 12 is provided upon its periphery with a series of four (or more, if preferred,) bushings arranged equi-distant from each other. Each of these bushings inclines slightly toward the wheel rim 9 and each is formed with a threaded bore in which is recessed the inner end portion of a threaded bolt, the outer end portion of which is squared, as indicated by the numeral 15. The outer end of the squared portion of each bolt is in turn reduced, and has swiveled thereto a head 16 formed by a substantially U-shaped metal strap. These bolts are likewise inclined toward the wheel rim, so as to enable the heads to straddle the same, the squared portion of the bolts affording wrench-engaging surfaces, as will be apparent.

The drum has fastened to its periphery one end of a cable 17 or other suitable flexible element, the other end of which is provided with an anchor 18 of any preferred type. It will be apparent therefore from the foregoing that to attach the appliance to a motor car, it is only necessary to fit the drum upon the hub of either drive wheel, and then rotate the bolts in the proper direction by means of a wrench or other implement until their heads 16 straddle the wheel rim and are clamped tightly thereagainst. This attachment may obviously be effected prior to the commencement of the tour, or not until the car has become stalled, and in like manner the appliance may be removed from the wheel after having been used, or may remain in place thereupon throughout the remainder of the tour, according as it may be desired.

In operating the appliance, the cable is unreel from the drum and its anchor then embedded in solid ground either in advance or to the rear of the car. The engine is then started to impart motion to the wheel, thus rotating the drum and winding the



cable thereupon, the winding of the cable causing the car to move in the direction of the anchor.

What is claimed is:—

- 5 1. A draft appliance for the wheels of self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of clamping members secured to said drum adapted for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.
- 10 2. A draft appliance for the wheels of self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of adjustable clamping members secured to said drum adapted for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.
- 15 3. A draft appliance for the wheels of self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of endwise movable clamping members secured to said drum adapted for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.
- 20 4. A draft appliance for the wheels of self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of rotatable clamping members secured to said drum adapted for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.
- 25 5. A draft appliance for the wheels of self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of rotatably adjustable clamping members secured to said drum adapted for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.
- 30 6. A draft appliance for the wheels of self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of clamping members secured to said drum each including a head arranged for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.
- 35 7. A draft appliance for the wheels of

self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of clamping members secured to said drum each including a swiveled head arranged for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.

8. A draft appliance for the wheels of self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of clamping members secured to said drum each including a head arranged to straddle the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.

9. A draft appliance for the wheels of self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of rotatable clamping members secured to said drum each including a head arranged for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.

10. A draft appliance for the wheels of self-propelled vehicles, comprising in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of threaded clamping bolts secured to said drum each provided with a swiveled head arranged for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.

11. A draft appliance for the wheels of self-propelled vehicles, comprising in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of threaded clamping bolts secured to said drum each provided with a swiveled head arranged to straddle the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.

12. A draft appliance for the wheels of self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of radially-disposed clamping members located at one end thereof and inclined toward the wheel rim for engagement therewith; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.

13. A draft appliance for the wheels of



self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of endwise movable clamping members secured to said drum each including a head arranged for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.

14. A draft appliance for the wheels of self-propelled vehicles comprising, in combination, a tubular drum adapted to be fitted upon the wheel hub; a series of endwise movable clamping members secured to said drum each including a head arranged to straddle the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.

15. A draft appliance of the type specified comprising, in combination, a drum provided at one end with a series of radially-disposed clamping members adapted for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element.

anchor secured to the other end of said flexible element. 30

16. A draft appliance of the type specified comprising, in combination, a drum provided at one end with a series of radially-disposed rotatable clamping members adapted for engagement with the wheel rim; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element. 35

17. A draft appliance of the type specified comprising, in combination, a drum provided at one end with a series of radially-disposed rotatable clamping members adapted for engagement with the wheel rim, each having a swiveled head; a flexible element fastened at one end to the drum and adapted to be wound therearound; and an anchor secured to the other end of said flexible element. 40 45

In testimony whereof,  
I, DIX DUNLAP, do hereby certify that the foregoing is a true and correct copy of the original as the same appears from the records of the United States Patent Office.

DIX DUNLAP.

Witnesses:

F. M. CARLISLE,  
L. F. MAHOONEY.