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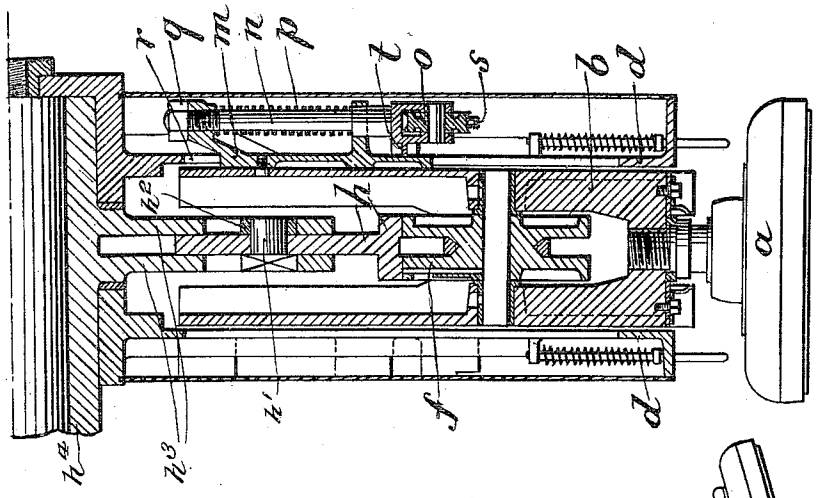
MEANS FOR SUPPORTING VEHICLES.

APPLICATION FILED NOV. 21, 1908.

979,447. Patented Dec. 27, 1910.

Fig. 2.



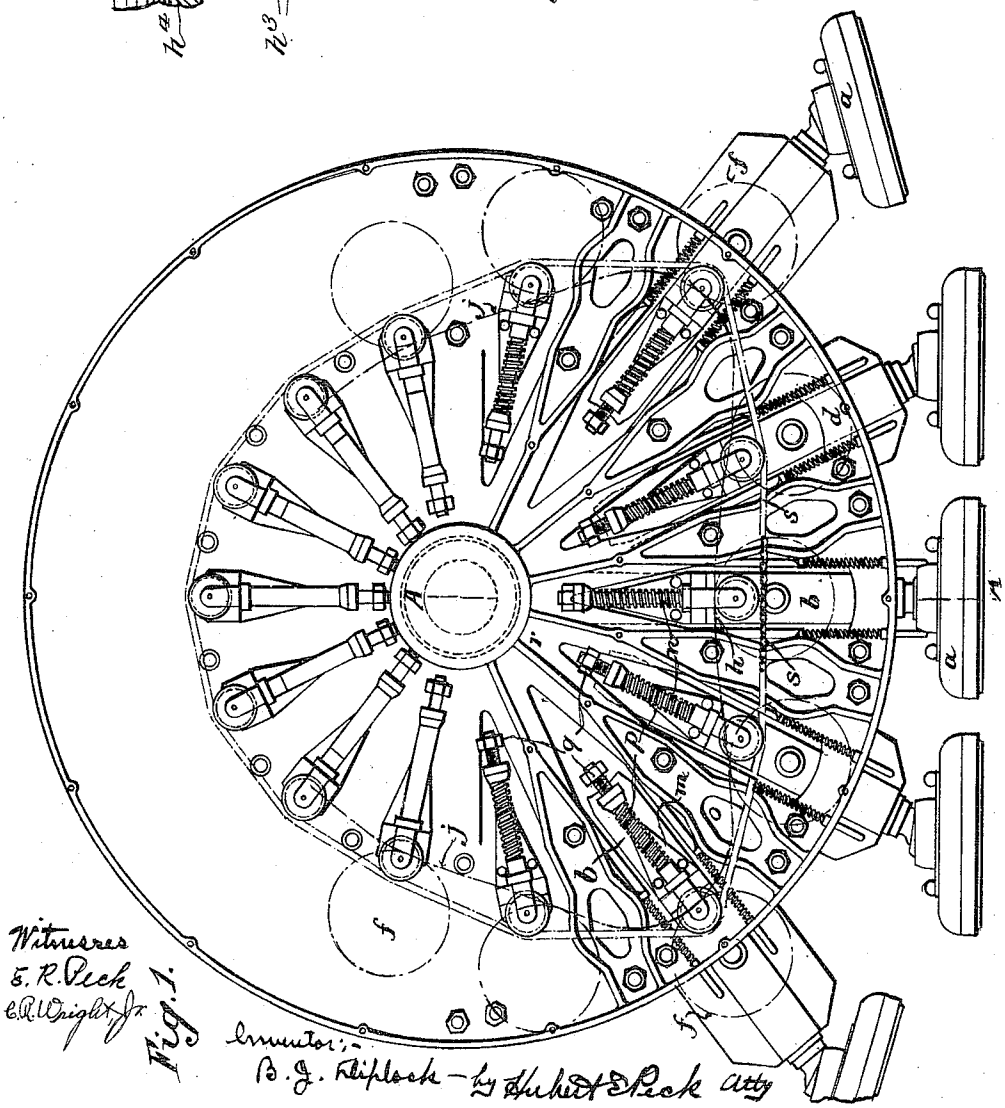


Fig. 1.

Witnesses
E. R. Peck
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UNITED STATES PATENT OFFICE.

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MEANS FOR SUPPORTING VEHICLES.

979,447. Specification of Letters Patent. Patented Dec. 27, 1910.

Application filed November 21, 1908. Serial No. 463,852.

To all whom it may concern:

Be it known that I, BRAMAH JOSEPH DIPLOCK, a subject of the King of Great Britain and Ireland, residing at Westminster, England, have invented Improvements in Means for Supporting Vehicles, of which the following is a specification.

This invention has reference to improvements in vehicles of the type wherein there are employed, in place of wheels, rotatable rings of feet mounted at the outer ends of radially movable spokes which also carry rollers (hereinafter referred to for distinction as railway rollers) that support and over which move rails connected to the vehicle the rotation of the rings of feet causing the feet of each ring to be placed successively on the ground so as to in turn take part in supporting the vehicle and cause it to travel. Vehicles of this type are described in the specifications of my British Patents No. 14710 of 1899 and No. 17502 of 1903. In such vehicles, as heretofore constructed, each of the roller-carrying spokes has been retracted or drawn inward by a radiating spring except when approaching the ground, at which time the spoke has been thrust outward by its roller coming in contact with a plate and thus guided beneath the rail, the foot pivoted to the spoke being turned about its pivot at the same time so as to come flat on the ground. The load on the radiating springs has been considerable and their stroke long, a result being that they have frequently failed. Now, according to this invention the rollers are kept in contact with the rails by means of flexible connectors such as chains or bands arranged to connect the several rollers. In such an arrangement springs are or may be provided for the purpose of offering yielding resistance to outward movement of the rollers.

The accompanying drawings illustrate one construction, Figure 1 being a side elevation of part of a vehicle according to this invention, the dust cover being removed; and Fig. 2 is a section on the line A A Fig. 1. In this construction, *a* are the feet and *b* the legs or spokes to which they are pivoted; the legs or spokes will now be referred to as spokes throughout the description of Figs. 1 and 2.

d are the parallel rotary disks in guides fixed between which the spokes *b* slide, and *f* are the rollers carried by the spokes and running on the rail *h* which is pivoted at h^1 to a block h^2 working in slots in projections h^3 from the axle box or sleeve h^4 the said rail *h* being elastically supported in position by springs (not shown) interposed between it and the axle box or sleeve. The rail *h* is formed or provided with upwardly and inwardly extending side portions whose outer surfaces *j* serve as guide tracks over which the rollers *f* roll as they pass beneath and from under the rail *h*. These parts are similar to those described in the specification of my British Patent No. 17502 of 1903.

Fixed to the outer side of each spoke *b* is a bracket *m* formed with bearings through which slides a bolt *n* with a bifurcated head in which is mounted a flanged chain or band roller *o*. Between the head of the bolt *n* and the inner bearing of the bracket is a spring *p* which tends to force the bolt outward, outward movement being limited by a nut *q*. The outer disk *d* is formed with apertures *r* through which the brackets *m* project and stretched around the several rollers *o* is an endless chain *s* of such length that it will draw in all those spokes which for the time being are not pressed outward by the rail *h* and guide plates or side extensions *j* and will hold the rollers in contact with the rail and its guides or side extensions until they have traveled beyond them. The bolts *n* are prevented from turning by projections *t* sliding over the face of the bracket. With such an arrangement the stroke of each spring *p* is short and the tension of the chain is small.

It is to be understood that modifications may be made without departure from this invention. In some cases, each side of the spokes in an arrangement such as that illustrated may have brackets secured thereto engaged by a flexible connector such as a chain or band, and the springs in connection therewith may be arranged in other ways than that described and illustrated.

What I claim is:—

1. Means for supporting vehicles of the kind referred to comprising feet which are adapted to be placed successively on the ground, movable spokes carrying said feet, railway rollers mounted in said spokes, rails connected to the vehicle and adapted to rest upon said railway rollers and flexible connectors adapted to keep railway rollers in contact with the rails.

2. Means for supporting vehicles of the kind referred to comprising feet which are adapted to be placed successively on the ground, movable spokes carrying said feet, railway rollers mounted in said spokes, rails connected to the vehicle and adapted to rest upon said railway rollers and flexible connectors which so connect the several rollers that as some spokes are thrust outward, others are retracted.

3. Means for supporting vehicles of the kind referred to comprising feet which are adapted to be placed successively on the ground, movable spokes carrying said feet, railway rollers mounted in said spokes, rails connected to the vehicle and adapted to rest upon said railway rollers and flexible connectors adapted to keep railway rollers in contact with the rails and springs adapted to offer yielding resistance to outward movement of the railway rollers and spokes.

4. Means for supporting vehicles of the kind referred to comprising feet which are adapted to be placed successively on the ground, movable spokes carrying said feet, railway rollers mounted in said spokes, rails connected to the vehicle and adapted to rest upon said railway rollers and flexible connectors adapted to keep the railway rollers in contact with the rails and other rollers carried by the several spokes and embraced by said connectors.

5. Means for supporting vehicles of the kind referred to comprising feet which are adapted to be placed successively on the ground, movable spokes carrying said feet, railway rollers mounted in said spokes, rails connected to the vehicle and adapted to rest upon said railway rollers and flexible connectors adapted to keep the railway rollers in contact with the rails and other rollers carried by the several spokes and embraced by said connectors other rollers carried by the several spokes and embraced by said connectors and springs offering yielding resistance to outward movement of the railway rollers and spokes.

Signed at London, England, this twelfth day of November, 1908.

BRAMAH JOSEPH DIPLOCK.

Witnesses:

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