U.S. PATENT OFFICE.
96.
Interposed

No. 814,586. PATENTED MAR. 6, 1906.

E. D. CAHEN.

SAFETY STEERING MECHANISM FOR AUTOMOBILE CARRIAGES.

APPLICATION FILED JUNE 15, 1905.

Fig. 1.

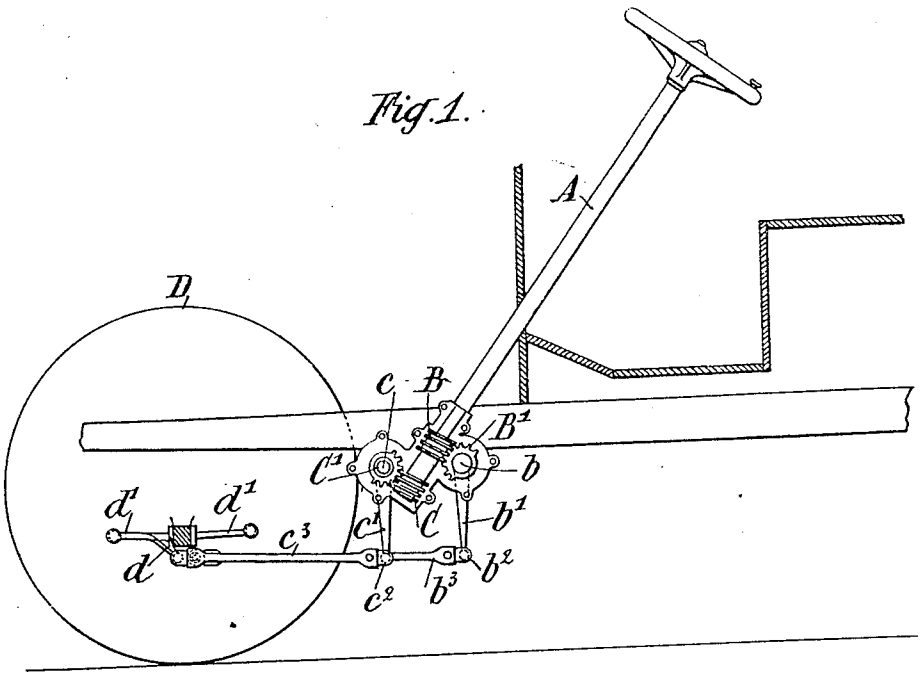


Fig. 2.

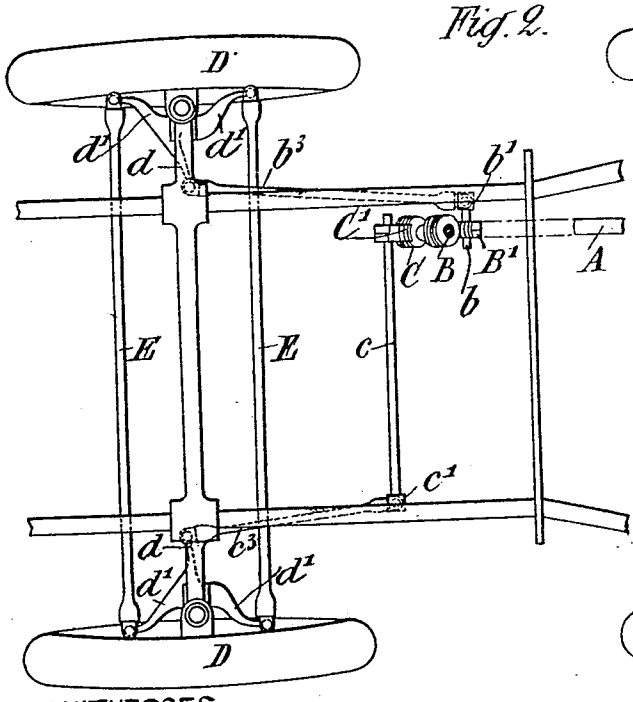
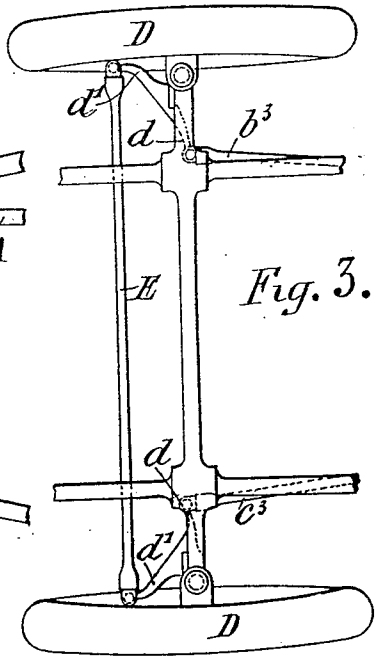


Fig. 3.



WITNESSES

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SAFETY STEERING MECHANISM FOR AUTOMOBILE CARRIAGES.

No. 814,586. Specification of Letters Patent. Patented March 6, 1906.

Application filed June 15, 1905. Serial No. 265,364.

To all whom it may concern:

Be it known that I, EMILE DAVID CAHEN, a citizen of the Republic of France, and domiciled at 7 Avenue Niel, Paris, in the French Republic, have invented a certain new and useful Safety Steering Mechanism for Automobile Carriages, of which the following is a full, clear, and exact description, and for which application for patent has been filed in France on the 18th of March, 1905.

This invention relates to a safety steering mechanism for automobiles. This mechanism is characterized by the spindle of the steering-wheel controlling the pivots of the steering road-wheels by two distinct sets of connections in such a way that the breakage of one of these parts does not affect the safety of the steering device.

The invention is described with reference to the accompanying drawings, in which—

Figure 1 is a diagram in side elevation, and Fig. 2 is a plan view of the same. Fig. 3 is a plan of a modification.

The steering-pillar A is provided with two worms B and C, with which respectively engage two toothed sectors B′ and C′. The two worms B C may, however, be united to form a single one. The sector B′ is fast to a spindle *b*, suitably journaled, and to this spindle is fixed an arm *b′*, jointed at b^2 to one end of a connecting-rod b^3, joined at its other end to the lever-arm *d*, which is fast to the pivot of one of the steering road-wheels D. The other toothed sector C′ is fast to a spindle or rod *c*, suitably journaled, and this rod carries a lever-arm *c′*, jointed at c^2 to one end of a connecting-rod c^3, secured at the other end to the lever-arm *d* of the pivot of the second steering road-wheel D.

The two steering road-wheels D D are connected together either, as shown in Fig. 2, by two rods E, attached to the arms *d′ d′*, which are fast to the pivots, or, as in Fig. 3, by a single rod E, and in the latter case the rod E may be placed either in front or to rear of the axle. If in this form of steering mechanism of the type having a single connecting-rod, for instance, this rod should break, the proper steering is maintained and insured by the two rods b^3 and c^3, controlled by the two toothed sectors B′ and C′. If, however, it is one of the rods b^3 c^3 which breaks, the steering is maintained by the other of these rods and the rod E. In the case of the pattern having two rods E the steering is maintained even if one of the rods b^3 c^3 and one of the rods E should be broken at the same time. In any one of these arrangements I may interpose at any suitable position among the connections cushioning devices made of springs or otherwise, as is commonly done in single steering mechanisms.

The invention is not restricted to the arrangement illustrated and may be modified. Thus, for instance, the steering-pillar may be fitted with screws and nuts instead of worms and segments, as in the construction illustrated.

Having thus described my invention, what I claim as such, and desire to secure by Letters Patent, is—

A safety steering mechanism for automobiles, in which the pillar of the steering-wheel controls two sectors or nuts connected respectively by two sets of connecting-rods and transmission devices to the pivots of the two steering road-wheels, the latter being also connected together by one or two sets of levers and coupling-rods.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EMILE DAVID CAHEN.

Witnesses:

GUSTAVE DUMONT,

HANSON C. COXE.