

B. A. GRAMM.
 END MOUNTING FOR VEHICLE SPRINGS.
 APPLICATION FILED MAR. 15, 1910.

1,013,547.

Patented Jan. 2, 1912.

2 SHEETS—SHEET 1.

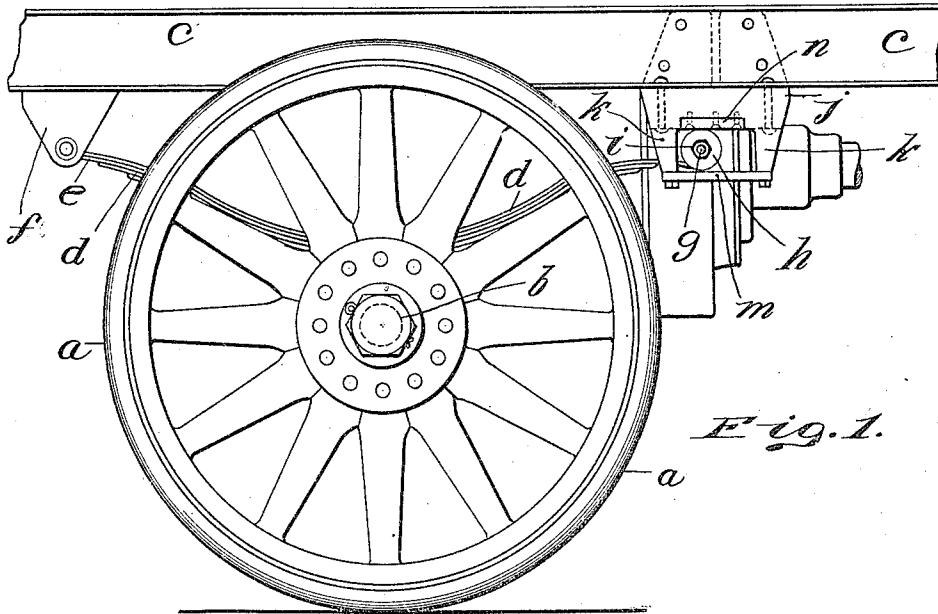


Fig. 1.

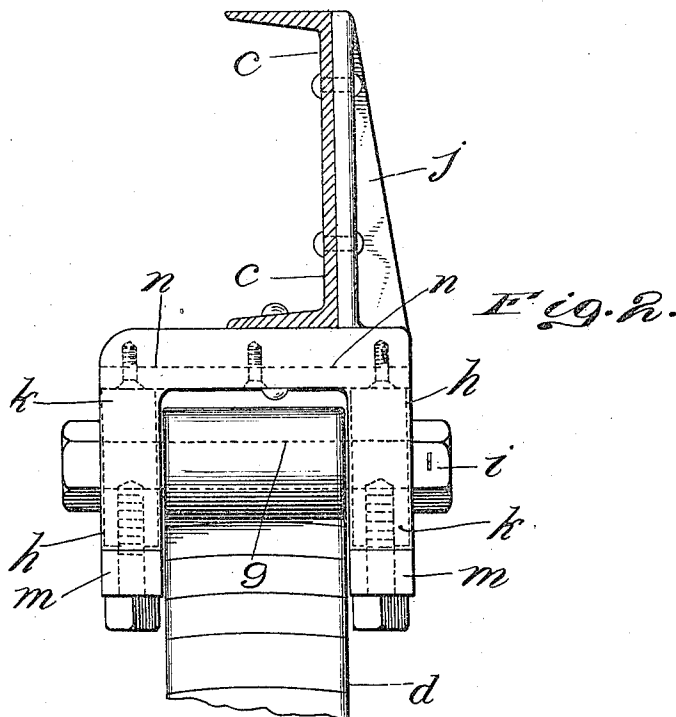


Fig. 2.

Witnesses:
Samuel K. Big
Albert Hamilton

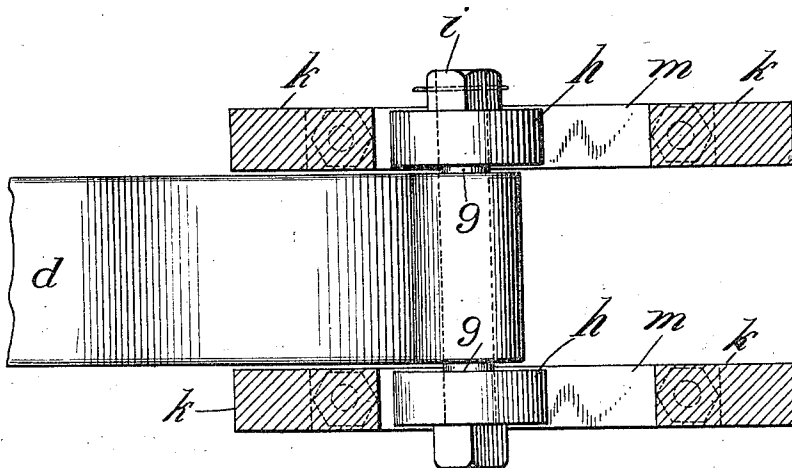
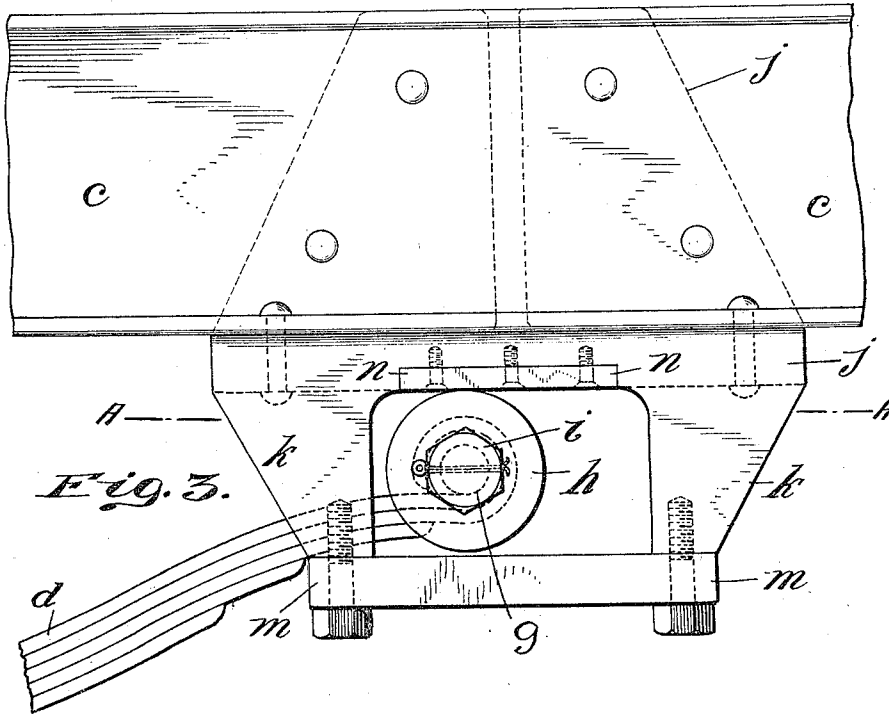
Benjamin A. Gramm, Inventor
 By his Attorney
James Hamilton

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UNITED STATES PATENT OFFICE.

BENJAMIN A. GRAMM, OF BOWLING GREEN, OHIO.

END MOUNTING FOR VEHICLE-SPRINGS.

1,013,547.

Specification of Letters Patent.

Patented Jan. 2, 1912.

Application filed March 15, 1910. Serial No. 549,412.

To all whom it may concern:

Be it known that I, BENJAMIN A. GRAMM, a citizen of the United States, residing at Bowling Green, in the county of Wood and State of Ohio, have invented certain new and useful Improvements in End Mountings for Vehicle-Springs, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to improvements in mountings for the ends of road-vehicle springs; and an object of this invention is to provide an end-mounting for a vehicle-spring which will relieve the spring of stress and which will prevent accidents in the case of the breakage of the parts.

In the drawings illustrating the principle of this invention and the best mode now known to me of applying that principle, 20 Figure 1 is an elevation of so much of a self-propelled road-vehicle as is necessary to illustrate this invention; Fig. 2 is a rear elevation of the spring-mounting, the side-bar of the chassis being shown in section; 25 Fig. 3 is a side elevation of what is shown in Fig. 2; and Fig. 4 is a section on the line A-A of Fig. 3.

The vehicle-wheel *a* is mounted on its axle *b* between which and the side-bar or side-beam *c* of the chassis is interposed the vehicle-spring *d*. One end *e* of the latter is mounted in a hanger *f* carried by the side-bar *c*, while the other end of the vehicle-spring *d* is formed with an eye through 35 which passes a pin *g* upon which are mounted free to turn the rollers *h*, one on each side of the end of the spring *d*. These rollers are held on the pin *g* by the nuts *i*. To the web and lower flange of the side-beam *c* is riveted the hanger-plate *j* from 40

which project downwardly the legs *k* to which are bolted the guard-bars *m*. The latter are arranged just below the rollers *h* and form with the hanger-plate *j* and its legs *k* a sort of cage or box in which the end of the spring is held, in case the pin *g* should shear. It is obvious that the stress on the pin *g* is much reduced by reason of the roller-mounting and likewise the liability to such shearing or breakage. A hard steel wear-plate *n* is fastened to the lower face of the horizontal part of the hanger-plate *j*. Should the pin *g* shear or break, the spring will be held by its end-mounting shown in Figs. 2, 3 and 4 underneath the vehicle, 55 thereby avoiding serious accidents.

I claim:

The combination with a frame of a vehicle; of a hanger-plate fastened thereto and formed at each side with a pair of legs which project from below the bottom of said hanger-plate; a pair of lengthwise-extending guard-bars which are fastened to said legs and each of which connects a pair of said legs; and a vehicle spring one end of which lies below said hanger-plate and passes between two of said legs at the inner end of said hanger plate and which is provided with laterally-extending projections that lie between said guard-bars and hanger-plate. 70

In testimony whereof I hereunto set my hand at Bowling Green, Ohio, this 11th day of March, 1910, in the presence of the two undersigned witnesses.

BENJAMIN A. GRAMM.

Witnesses:

BENJAMIN F. JAMES,
B. M. YOUNG.