(No Model.)

B. F. LEWIS.

CENTER BAR FOR VEHICLE SPRINGS.

No. 285,420. Patented Sept. 25, 1883.

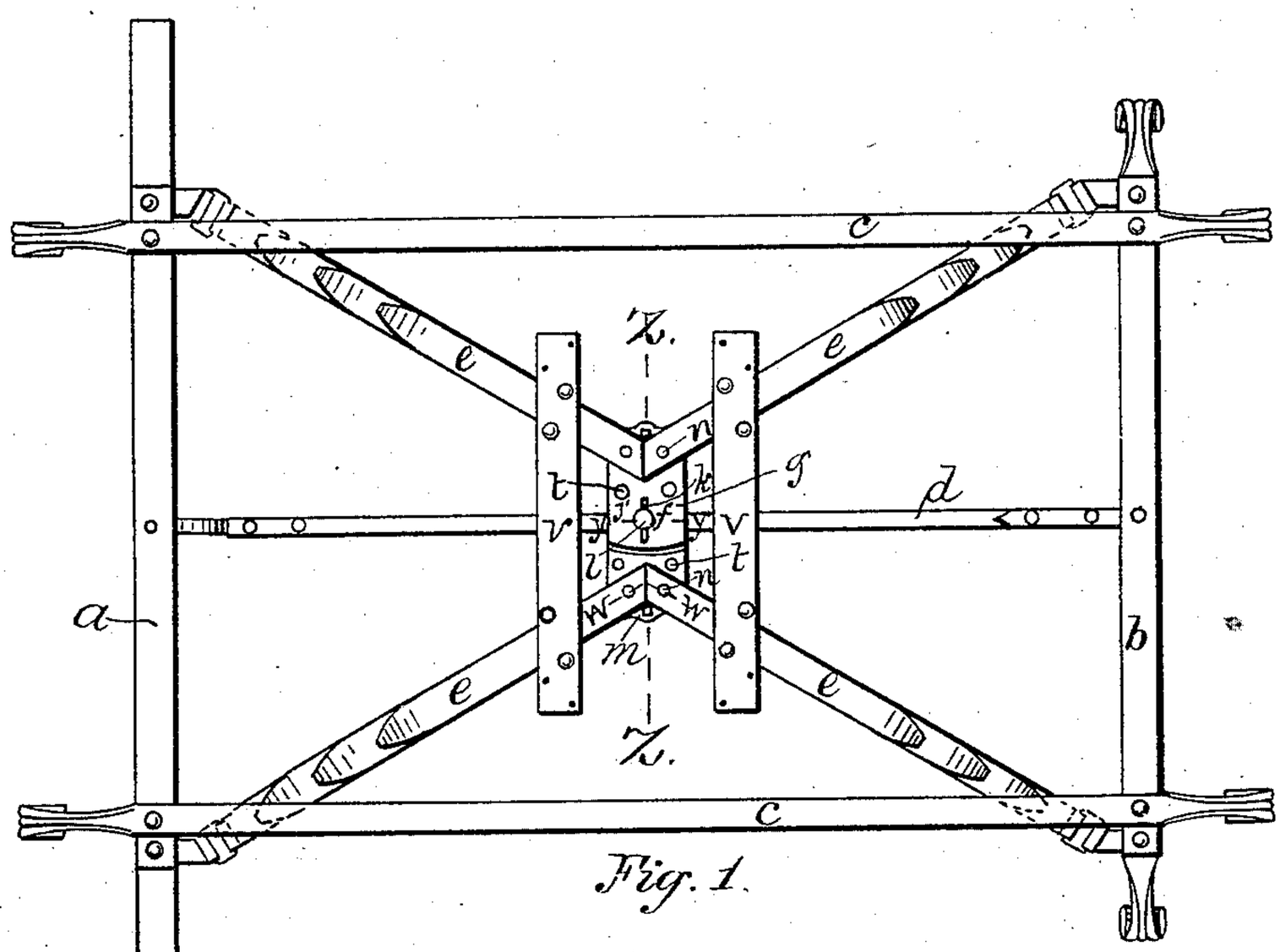

Fig. 1.

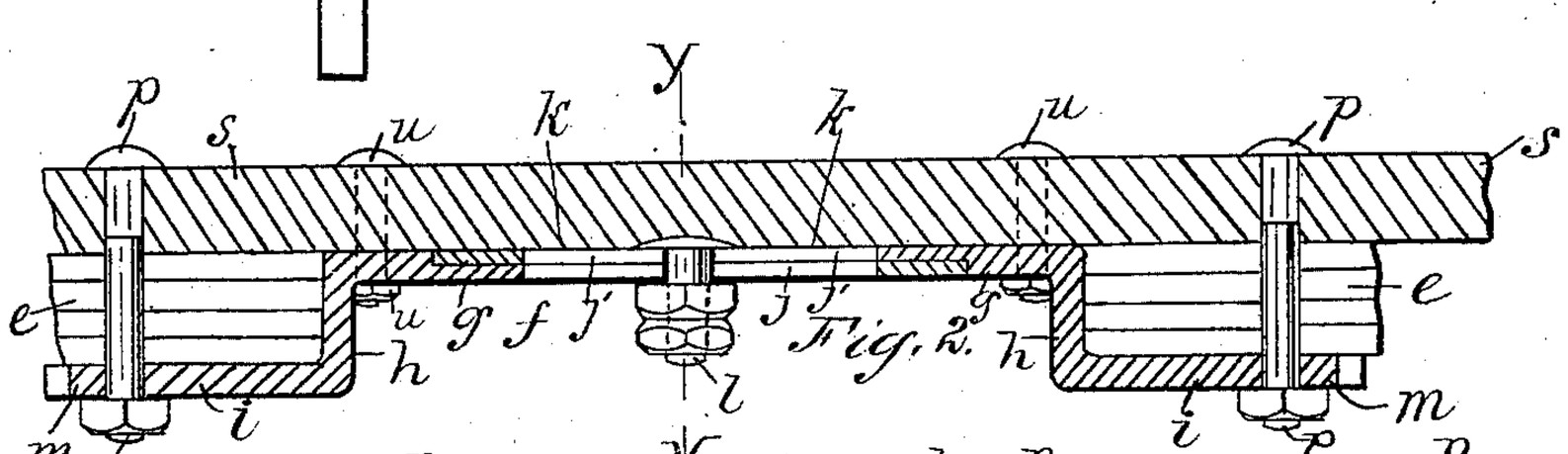

Fig. 2.

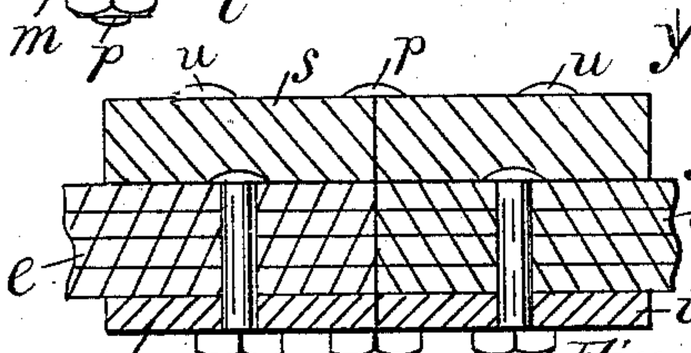

Fig. 4.

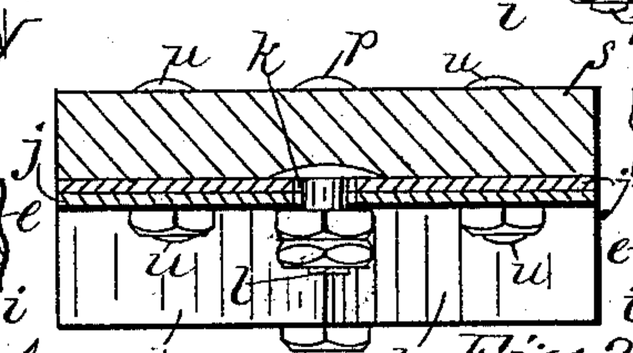

Fig. 3.

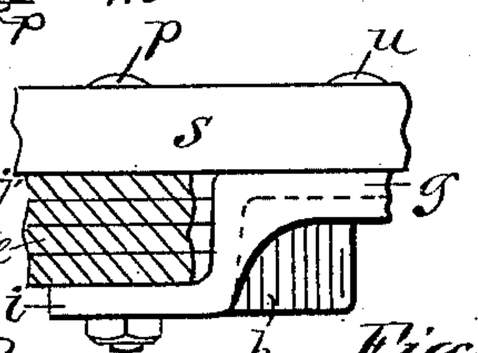

Fig. 6.

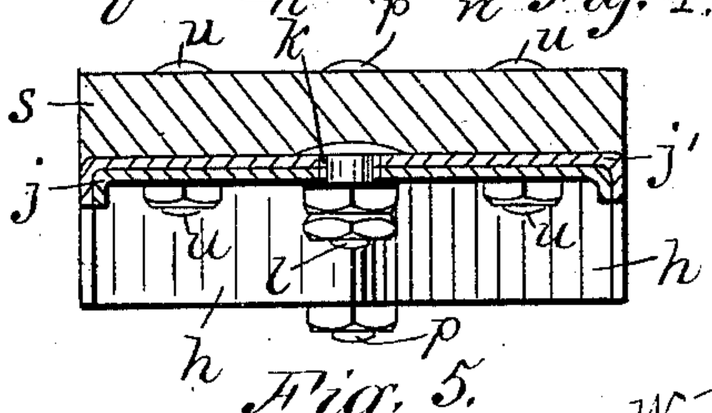

Fig. 5.

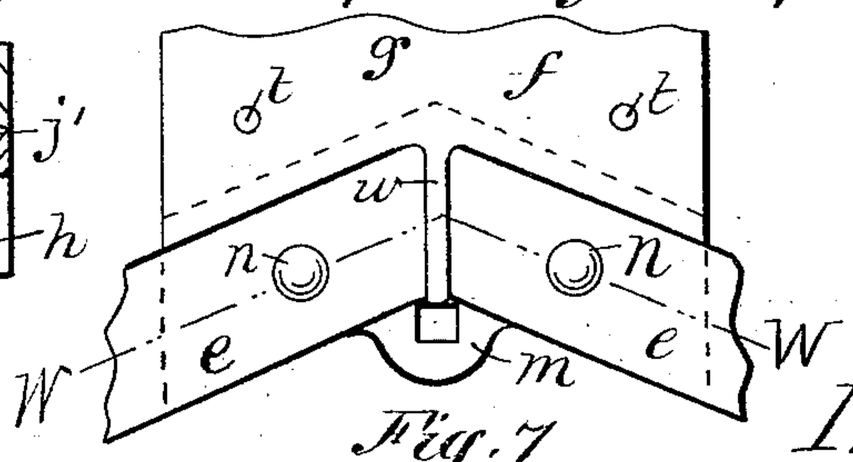

Fig. 7.

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UNITED STATES PATENT OFFICE.

BENJAMIN F. LEWIS, OF AMESBURY, MASSACHUSETTS.

CENTER-BAR FOR VEHICLE SPRINGS.

SPECIFICATION forming part of Letters Patent No. 285,420, dated September 25, 1883.

Application filed July 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. LEWIS, of Amesbury, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Center Bars for Oblique Side Springs, which will, in connection with the accompanying drawings, be hereinafter fully described, and specifically defined in the appended claims.

This invention relates to that class of carriages for an improvement in which Letters Patent of the United States No. 249,189 were issued to me on the 8th day of November, 1881; and my present invention consists in an improvement in the metallic center bar which unites and secures the inner or converging ends of the spring-arms.

In the accompanying drawings, Figure 1 is a plan view, showing my improvement as attached to the springs, which latter are shown attached to the hind axle and rocker in the usual manner of such springs. Fig. 2 is a vertical section taken as on line Z Z, Fig. 1, and showing my invention with the adjacent parts in their proper relation thereto. Fig. 3 is a transverse section as on line Y Y, Fig. 2, through my improved bar and through the wood bar above it. Fig. 4 is a detached longitudinal vertical section taken as on line W W, Fig. 7, but showing the bar formed as in the preceding figures. Fig. 5 is a section like Fig. 3, but showing a modification of my bar. Fig. 6 is a detached side elevation, showing my bar modified as in Fig. 5. Fig. 7 is a detached top or plan view, showing one end of my bar slightly modified.

In said views, *a* represents the hind-axle stock. *b* is the rocker or long head-block. *c c* are the outer perches. *d* is the center perch, and *e e e e* are the respective arms of the oblique side springs, which latter are respectively shackled to the axle and rocker as shown, or in any desired manner.

For the purpose of securing and supporting the inner or converging ends of spring-arms *e*, I invented a metallic bar having seats to receive the respective ends of said arms, the same having been shown and described in my said former patent; and it is for an improvement thereon, as will be described, that this application is made.

My improved bar is shown at *f*, and is formed with a central portion, *g*, at the ends of which are the spring-arm seats, formed with a vertical wall, *h*, and base or bed *i*, said vertical wall being formed angular in its direction or line to conform to the obliquity of the pair of arms that are seated against it. Said central part, *g*, is in the principal portion of its length formed in two parts, divided by a horizontal line, as shown in Figs. 2, 3, 5 at *j* and *j'*. A slot, *k*, is formed coincidently in both said parts, for the reception of the locking-bolt *l*, as shown. By this construction the bar may be lengthened to any required extent, and can thereby be used for carriages requiring that the outer ends of the springs be secured to the axle and rocker at different distances apart, and with springs of a given length the outer ends may be varied in their distance apart as desired.

At the vertex of the converging edge lines of bed *i* is formed a perforated ear, *m*, which receives bolt *p*, which passes through the floor-bar *s* and outside of spring *e*, as shown in Fig. 2. The bar *f* is also secured to floor-bar *s* by bolts *u*, which pass through holes *t*, formed in bar *f* near each wall *h*, as shown.

In Figs. 5 and 6 the two parts or halves of bar *f* are shown as formed with depending ribs at the edges thereof, and with part *j* as fitting within part *j'*. This construction gives increased strength to the bar between vertical walls *h*, and each half is by said ribs held in alignment with the other, while if constructed without said ribs the two parts may be moved out of alignment, bolt *l* being the center; and in case it is desired to differentiate the distance apart of springs *e* at the axle and rocker, such obliquity of the halves of the bar is of advantage, while for carriages designed for heavier loads the ribbed form is preferable.

In Fig. 7 a vertical rib, *w*, is shown as formed to connect vertical wall *h* and bed *i*, said rib rising to the top of spring-arms *e*, and extending from the vertex of the converging faces of wall *h* to the inner line of bolts *p*. The wooden bars *v v*, secured to springs *e*, receive and support the body, which is bolted thereto, as is both shown and described in my said former patent.

I claim as my invention—

1. A metallic center bar formed and adapted to receive and be secured to the converging ends of the oblique arms of the springs, and also formed in two parts, and adapted to be adjusted in its length and locked in position when so adjusted, substantiatly as specified.

2. The spring-bar *f*, having the spring-seats at the ends thereof, and having the two central parts, *j j'*, with the coincident slot *k* therein for the reception of the locking-bolt *l*, substantially as specified.

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