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DRAFT RIGGING FOR RAILWAY CARS.

(Application filed June 30, 1900.)

(No Model.)

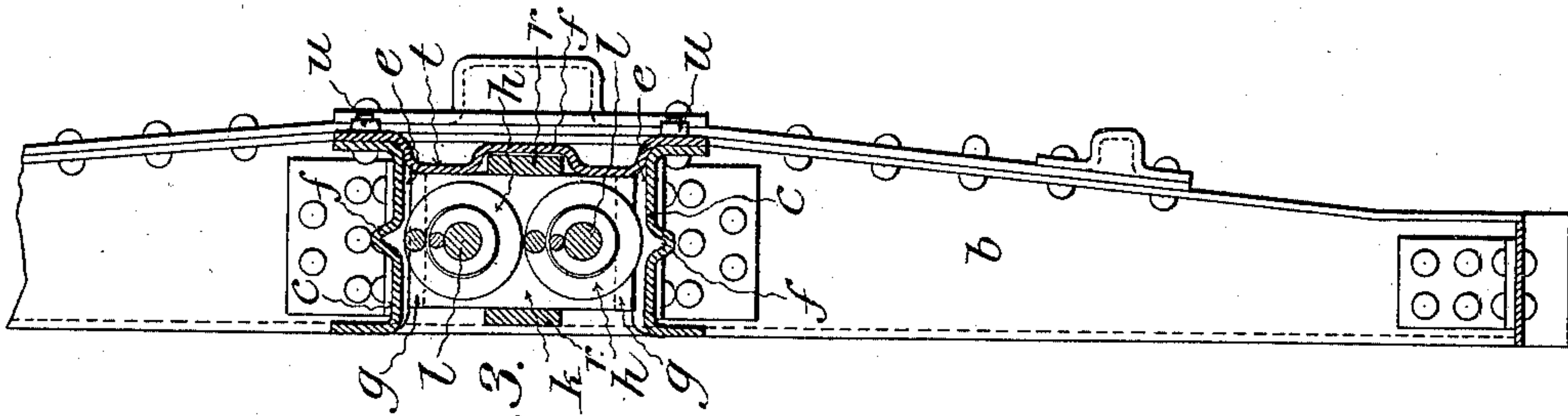


Fig. 3.

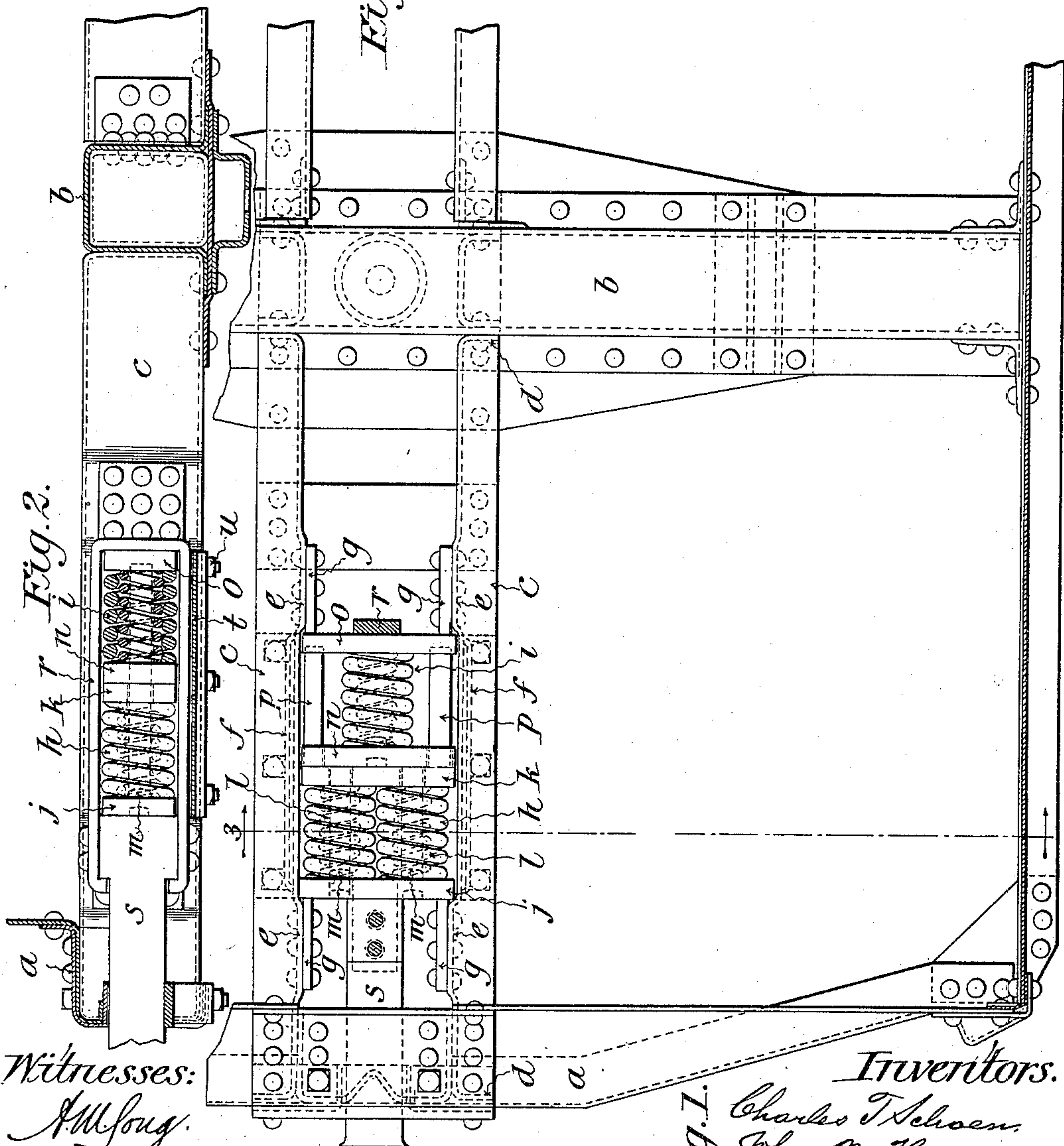


Fig. 1.

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UNITED STATES PATENT OFFICE.

CHARLES T. SCHOEN, OF PHILADELPHIA, AND JOHN M. HANSEN, OF BELLEVUE, PENNSYLVANIA, ASSIGNORS TO THE PRESSED STEEL CAR COMPANY, OF PITTSBURG, PENNSYLVANIA.

DRAFT-RIGGING FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 662,698, dated November 27, 1900.

Application filed June 30, 1900. Serial No. 22,220. (No model.)

To all whom it may concern:

Be it known that we, CHARLES T. SCHOEN, residing at Philadelphia, in the county of Philadelphia, and JOHN M. HANSEN, residing at Bellevue, in the county of Allegheny, State of Pennsylvania, citizens of the United States, have invented a certain new and useful Improvement in Draft-Rigging for Railway-Cars, of which the following is a full, clear, and exact description.

One object of the invention is to reduce the weight without impairing the strength of the supports for the springs of draft-rigging, and in carrying out this part of the invention the draft-rigging sills are made of metal, preferably pressed to shape, with embossments elevated from their main plane and receiving the lugs which limit the endwise movements of the springs, and these sills are embossed longitudinally between these elevations to reinforce or stiffen them.

Another object of this invention is to provide rigging for the draw-bar of a railway-car which will effectively take up the strain both of starting and coming together of cars.

In carrying out this part of the invention use is made of springs arranged in tandem, or one at the end of another, with follower-plates and connections interposed, so that the shock will be transmitted from one to another of the springs, and thus the car be relieved of undue stress in starting and coupling or otherwise coming together.

In the accompanying drawings, illustrating our invention, in the several figures of which like parts are similarly designated, Figure 1 is a top plan view of portion of one end of a gondola or flat-car. Fig. 2 is a longitudinal vertical section; and Fig. 3 is a section taken substantially in the plane of line 3 3, Fig. 1.

The underframe may be of any approved construction, such as one of the styles now in common use and made by the Pressed Steel Car Company. Between the end sill *a* and the bolster *b* are arranged the draft-rigging sills *c* peculiar to this invention. These sills are made as channel-beams—that is to say, with top and bottom flanges having boxed-in ends *d*—and their webs are provided with

elevations *e*, between which are the longitudinal ribs *f*, projecting therefrom in the opposite direction to the elevations. These elevations have riveted to them the lug-plates *g*. Heretofore these lug-plates have been secured to flat webs and were about one and a quarter inches thick in order to provide the necessary bearings for the follower-plates. This thickness involves a considerable dead weight and expense. By elevating the webs of the sills, as described, it is possible to obtain the requisite depth of bearing with lug-plates of only seven-eighths-inch thickness, whereby is obtained a reduction of dead weight and economy of production. Moreover, the reduction in thickness of the lugs decreases the leverage on the rivets by which they are secured in place.

The longitudinal ribs or embossments *f* serve to stiffen the sills at a vulnerable point.

The embossing of the sills for both the elevations and the ribs may be effected simultaneously with the production of the sills when made of pressed steel, as we prefer to produce them.

The springs are arranged in tandem, and the outer springs *h* may be a pair, while there is a single inner spring *i* arranged end for end or in tandem with the outer springs. The springs *h* are secured between the follower-plates *j* *k*, and each has a pin *l* which abuts against a teat *m* on the outer follower-plate *j* and projects through a hole in the plate *k*. The spring *i* is arranged between follower-plates *n* *o*, and there are pins *p* which extend from the plate *n* through holes in the plate *o*. The pins *l* therefore abut against the plate *o* and the pins *p* abut against the plate *k*, so that the strain placed upon either spring will be transmitted through pins and follower-plates to the other. The springs and their follower-plates are bound together and to the draw-bar *q* by the strap *r*, which is riveted at its ends to the draw-bar *s*.

We may use any number of springs within the limited space assigned in the Master Car Builders' standard of spring-pocket, and, further, we do not limit our tandem arrangement of springs to the peculiar sills described

or the peculiarities of the sills to the arrangement of springs, since while these two features of our invention are fitted to one another admirably they may be used separately.

5 A supporting-plate *t*, shaped to conform to the parts as seen in Fig. 3, is arranged beneath the springs and secured to the flanges of the sills in a removable manner, as by bolt *u*; but other means may be used in this connection for inclosing or supporting the parts.

What we claim is—

1. A draft-rigging sill, made of pressed steel, having top and bottom flanges, boxed-in ends, and a web, the web being embossed to provide elevations to receive the lug-plates, combined with such lug-plates, substantially as described.

2. A draft-rigging sill, having integral elevations, combined with relatively thin lug-plates, substantially as described.

3. A draft-rigging sill, made of pressed steel, having top and bottom flanges, boxed-in ends, and a web, the web being embossed to form elevations to receive the lug-plates, and longitudinal hollow embossed ribs projecting from the web of the sill in an opposite direction from the elevations and between said elevations, substantially as described.

4. The combination of a pair of follower-plates, a pair of springs arranged between

them, pins within said springs abutting against one of said follower-plates and passing through the other, a second pair of follower-plates, a spring arranged between them in tandem with the first-named springs, pins abutting against the outermost follower-plate of this pair and extending through holes in its mate, and means for connecting the parts with the draw-bar of a car, substantially as described.

5. The combination of a pair of springs, follower-plates between which they are arranged, pins extending from one of the plates through the other, a spring and a pair of follower-plates between which it is arranged, and pins extending from the outer follower-plate of this last-mentioned pair through the inner plate, the pins of the two plates abutting against opposite plates interposed between the springs, substantially as described.

In testimony whereof we have hereunto set our hands in presence of the subscribing witnesses.

CHARLES T. SCHOEN.

JOHN M. HANSEN.

Witnesses as to Charles T. Schoen:

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WM. L. MACDELA.

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W. H. CAMERON,

W. H. SMITH.