R. G. ELLIS.

STOP CASTING FOR TANDEM SPRING DRAFT RIGGING.

APPLICATION FILED SEPT. 14, 1909.

1,042,416. Patented Oct. 29, 1912.

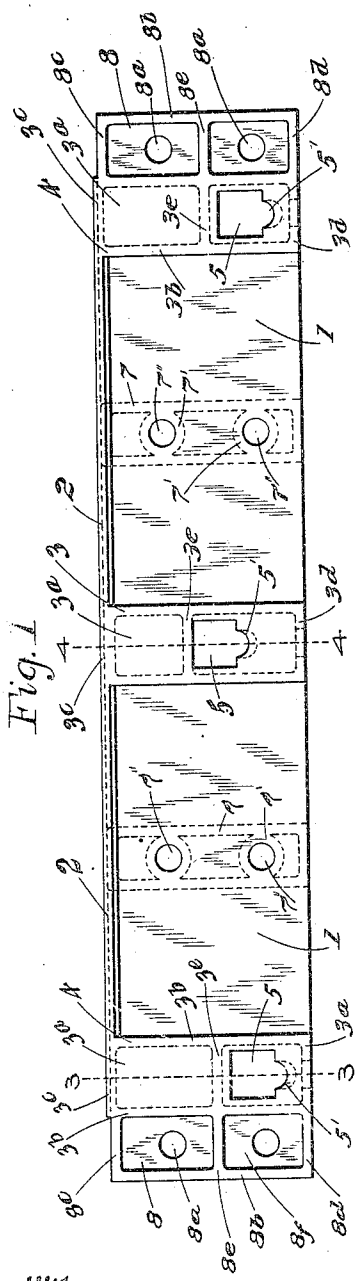

Fig. 1

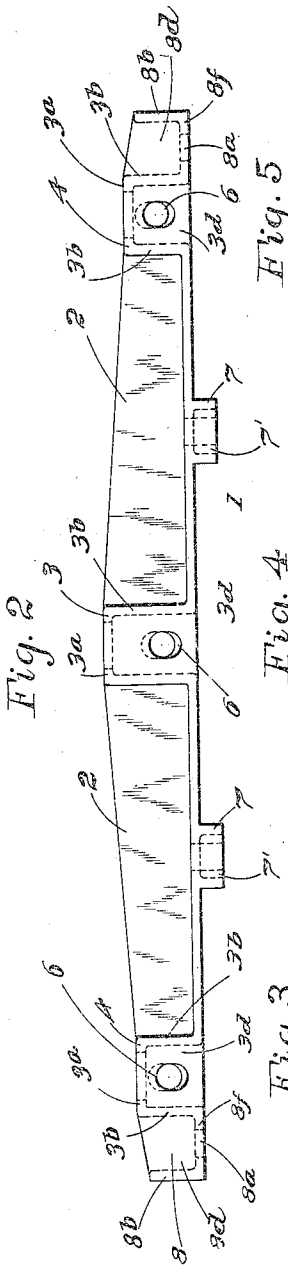

Fig. 2

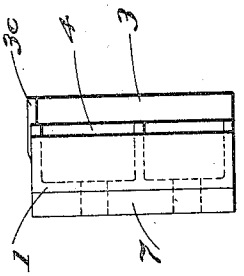

Fig. 5

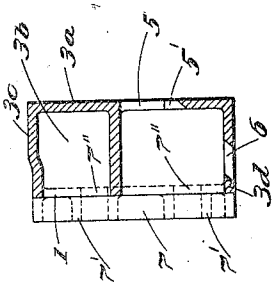

Fig. 4

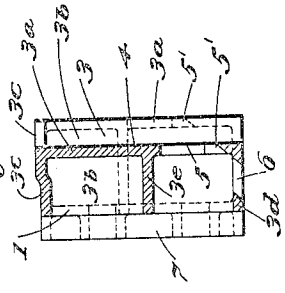

Fig. 3

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UNITED STATES PATENT OFFICE.

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STOP-CASTING FOR TANDEM-SPRING DRAFT-RIGGING.

1,042,416. Specification of Letters Patent. Patented Oct. 29, 1912.

Application filed September 14, 1909. Serial No. 517,739.

To all whom it may concern:

Be it known that I, ROBERT G. ELLIS, residing at St. Louis, Missouri, and being a resident of the United States, have invented certain new and useful Improvements in Stop-Castings for Tandem-Spring Draft-Rigging, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and to use the same, reference being had to the accompanying drawings, which illustrate the preferred form of the invention, though it is to be understood that the invention is not limited to the exact details of construction shown and described, as it is obvious that various modifications thereof will occur to persons skilled in the art.

This invention relates to improvements in stop-castings adapted particularly for tandem-spring draft rigging for railway cars, and the objects in view are to simplify the construction and increase the efficiency of the parts, as well as to enhance the facility of application and removal thereof, and to insure firmness and rigidity of connections with the frame pieces of the car.

With these and further objects in view, as will in part be later set forth and in part become obvious, the invention comprises certain novel constructions, combinations and arrangements of parts, as hereinafter disclosed and claimed.

In the accompanying drawing,—Figure 1 is a view in front elevation of a stop casting embodying the features of the present invention. Fig. 2 is an inverted plan view thereof. Figs. 3 and 4 are transverse, vertical sections taken respectively on the planes indicated by lines 3—3 and 4—4 of Fig. 1. Fig. 5 is an end view of the stop casting.

The present invention comprehends certain improvements in that branch of the draft rigging art directed to stop-castings for taking up the draft and buffing strains from tandem springs.

Obviously, two stop-castings, or side plates, must be provided for each set of tandem springs, one plate being arranged at each side, but, as the two are exact duplicates of each other, a disclosure of one will suffice for both.

Referring to the drawings by numerals, 1 indicates the body plate of the stop-casting, which plate is a substantially flat, rectangular oblong, and in operation is disposed longitudinally of the longitudinal center sills or draft sills of the car and positioned with its flat faces in vertical planes, preferably riveted to said draft sills.

Formed integral with and extending along and projecting inwardly from the upper edge of plate 1 is a horizontal flange 2 which, in operation, serves as the upper guide for the follower pieces of the tandem springs, not illustrated. Plate 1 is interrupted intermediate its length by an inwardly extending housing or stop projection 3, and is provided at each end with a similar housing or stop projection 4. Flange 2 tapers from its middle portion toward its ends, and, as projections 3 and 4, extend flush with the inner edge of flange 2, projection 3 is of greater depth than either of the other two projections. All of said stop projections are otherwise duplicates of each other, and each extends vertically for the full width of plate 1, and consists of a front plate 3^a, side plates 3^b, a cover or top plate 3^c, a bottom plate 3^d and an intermediate web 3^e, all formed integral with plate 1.

The front plate 3^a, of each projection 3 and 4 is formed with an opening 5 for the admission of a retaining bolt for the detachable, lower guide plate for the followers, opening 5 in stop projection 3 being positioned a little higher than in the other two projections owing to the greater depth of projection 3. The bottom plate 3^d of each stop projection is formed with an aperture 6 which inclines outwardly and is adapted to receive the bolt passed through opening 5. A notch 5′ is formed in each front wall 3^a and extends downwardly from opening 5, being inclined outwardly and downwardly on the same inclination as and in line with its respective aperture 6, so that in introducing a bolt, the same is thrust through notch 5′ and aperture 6 in an outwardly inclined position, thus enabling the introduction of said bolt from a position above the draft gear. This arrangement is very desirable in some classes of cars.

At intermediate points along plate 1 between the middle and ends thereof, formed integral with and extending outwardly from the outer face of the plate are vertical, transversely arranged extensions 7, 7, each formed

of an open front, substantially rectangular, oblong housing or casing surrounding a pair of annular bosses 7′ formed integral with and extending outwardly from plate 1 to the outer edge of the respective extension 7. Each boss 7′ is merely an open-ended sleeve surrounding an aperture 7″ formed in plate 1, the several apertures 7″ being adapted to receive the rivets, bolts or other securing means for attaching the respective stop-casting to the sills or frame pieces of the car. For a similar purpose, longitudinal extensions or housings 8 are formed integral with and arranged outside of stop projections 4, the plate or wall 8^c of each housing 8 being apertured, as at 8^a, 8^a, said plate or wall being flush with plate 1 and a practical continuation thereof, except for the interruption of projection 4. Each housing 8, in addition to wall 8^c, is formed with an end wall 8^b and top and bottom walls 8^e and 8^d, respectively, and a stiffening web 8^e, all formed integral.

What I claim is:—

1. In a stop-casting for tandem-spring draft rigging, a body plate and a hollow stop projection extending inwardly therefrom and comprising a housing having an inner wall and a bottom wall, said walls having concentrically registering apertures for admission of attaching means.

2. In a stop casting for tandem spring draft rigging, a body plate and a hollow stop projection extending inwardly therefrom and comprising a housing having a bottom wall provided with an aperture inclined relatively to the vertical axis of the cheek plate and an inner wall provided with an aperture, the lower portion of which inclines relatively to the horizontal axis of the cheek plate to conform to the inclination of the bottom wall aperture.

3. In a stop casting for tandem spring draft rigging, a body plate, and a hollow stop projection extending inwardly therefrom and comprising a housing having an inner wall and a bottom wall, each of said walls being formed with an opening, and a semi-circular depression formed in one of said openings adapted to register concentrically with said other opening.

In witness whereof, I have hereunto set my hand in the presence of two witnesses.

ROBERT G. ELLIS.

Witnesses:
OSCAR HOCHBERG,
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