No. 858,748. PATENTED JULY 2, 1907.

J. F. O'CONNOR.

DRAFT RIGGING FOR RAILWAY CARS.

APPLICATION FILED FEB. 15, 1907.

Fig. 1

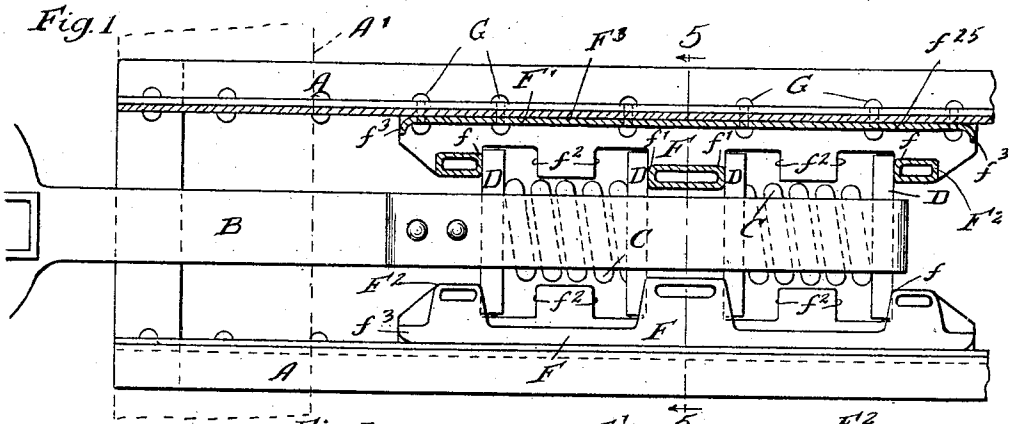


Fig. 3

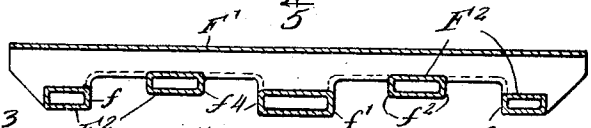


Fig. 2

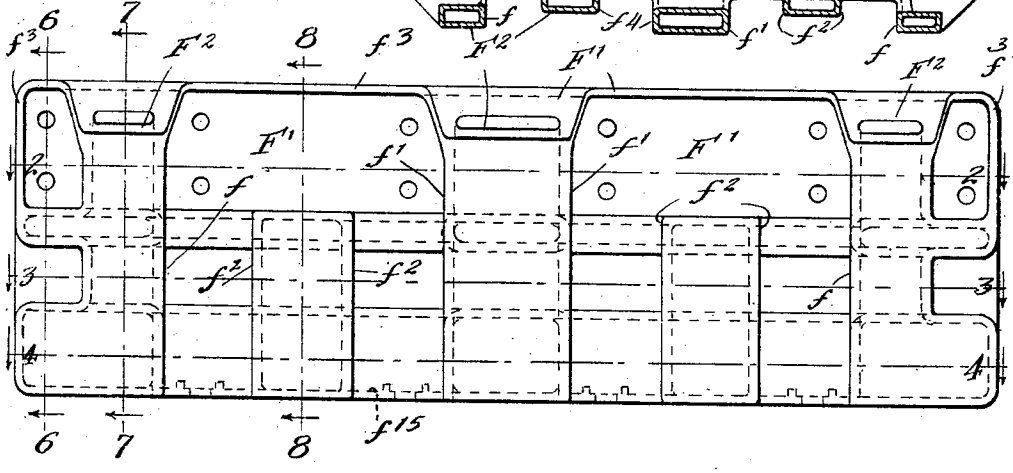


Fig. 5

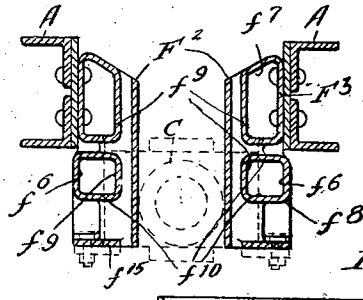


Fig. 6

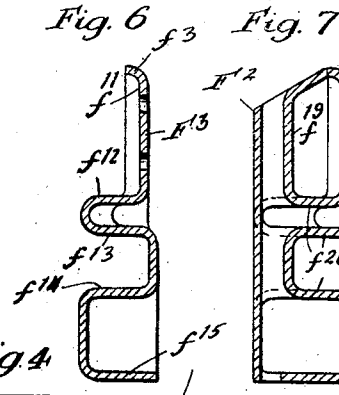


Fig. 7

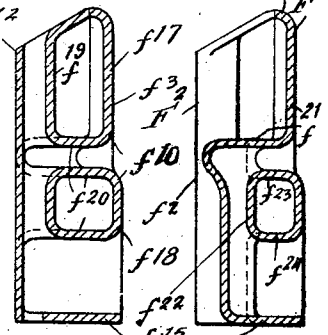


Fig. 8

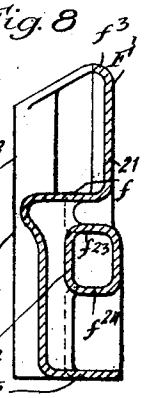
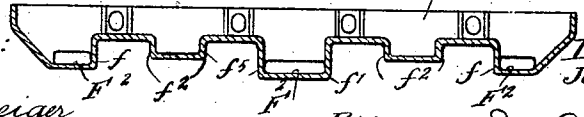


Fig. 4



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DRAFT-RIGGING FOR RAILWAY-CARS.

No. 858,748. Specification of Letters Patent. Patented July 2, 1907.

Application filed February 15, 1907. Serial No. 357,527.

To all whom it may concern:

Be it known that I, JOHN F. O'CONNOR, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Draft-Rigging for Railway-Cars, of which the following is a specification.

My invention relates to improvements in draft rigging for railway cars, and more particularly to improvements in the construction of side plates or stop castings of draft rigging heretofore patented to me in my Letters Patent No. 829,728, 829,729 and 829,730 of August 28th, 1906.

The object of my present invention is to perfect and increase the strength and durability of the stop casting forming the subject of my former patents, and especially of my former patent No. 829,730.

My invention consists in the novel construction of railway draft rigging side plates or stop castings herein shown and described, and more particularly specified in the claims.

In the accompanying drawing forming a part of this specification, Figure 1 is a plan view partly in horizontal section on line 2—2 of Fig. 2, of a railway draft rigging embodying my invention. Fig. 2 is a side elevation of my improved stop casting. Figs. 3 and 4 are horizontal sections on lines 3—3 and 4—4 of Fig. 2 on a smaller scale. Fig. 5 is a vertical section on line 5—5 of Fig. 1. Figs. 6, 7 and 8 are vertical cross sections on lines 6—6, 7—7 and 8—8 respectively of Fig. 2.

In the drawing, A represents the center sills, A^1 the cross sill, B the draw-bar, C C the springs, and D the followers of a railway passenger car draft rigging, these parts being of any ordinary or suitable construction.

F F are the side plates or stop castings, each being composed of a cast metal web F^1 of substantially uniform thickness throughout, and each having on its inner side a plurality of end stops or shoulders f for the followers to abut against, also a middle stop f^2 for the followers to abut against, and also a plurality of uniform stops or shoulders f^2 to limit the compression of the springs, all these stops or shoulders being formed by integral upright convolutions or bends F^2 in the main web F^1 of the side plate or stop-casting so that the casting as a whole will have no **T** sections or increased thickness at the points where the stops or shoulders join or intersect the main web of the casting. Above the intermediate stops or shoulders f^2, the main continuous web F^1 of the casting has a flat or plate like portion F^3 which fits against the upright face of the center sill or other frame member of the car to which the draft rigging is secured by bolts or rivets G. This plate portion F^3 of the web has a marginal strengthening rib or flange f^3 which extends continuously along the upper edge of the casting and unites continuously with the upright ribs or flanges f^3 at the ends of the casting. At the upper portion of the stop shoulders, the continuous web F^1 of the casting F is of a convolute horizontal section f^4 shown in Fig. 3. At the lower portion of the stop shoulders, the continuous web F^1 of the casting is of a blank horizontal section f^5 as shown in Fig. 4. At the middle stop the continuous web F^1 of the stop casting is of a double ring-like vertical cross section f^6 as shown in Fig. 5, with one ring f^7 above the other ring f^8, and both rings of an approximately rectangular form with rounded corners with an upright member f^9 and a horizontal member f^{10}. At each end of the stop casting beyond the end stops, the continuous web of the casting is of a convolute vertical or cross section f^{11}, as shown in Fig. 6, having the horizontal convolutions f^{12} f^{13} f^{14} f^{15}. Through the end stops, the continuous web F^1 of the casting is of a double ring like cross section as shown in Figs. 5 and 7, the former showing the vertical cross section. At the two end stops, the continuous web F^1 of the casting is also of a double ring-like cross section f^{16}, as shown in Fig. 7, and having one ring f^{17} above the other ring f^{18} with an intermediate space between, and having an upright member f^{19} and a horizontal member f^{20}. At the intermediate stops f^2, the continuous web F^1 of the casting is of a continuous ring and horizontal convolution cross section f^{21} having a ring f^{22} and horizontal convolutions f^{23} f^{24}. My improved side plate or stop casting is thus composed of a cast web of substantially uniform thickness throughout, while at the same time having the necessary end stop, middle stop and intermediate stops for the followers to abut against, and a flat plate like upper portion to fit against the center sill or other part of the car frame-work to which the side plate is secured, and this flat or plate portion is strengthened and reinforced not only by the marginal ribs or flanges at its upper edge and ends, but also by the intermediate ring-like horizontal sections above the end and middle stops.

I claim:

1. In a draft rigging for railway passenger cars, the combination with the draw-bar, springs and followers, of side plates or stop castings, each consisting of a cast web of substantially uniform thickness throughout, and having on its inner face integral end stops, middle stop and intermediate stops, said casting being of an upright, convolution and ring-like horizontal section f^4 through the upper portion of the stops, of a convolution horizontal sections f^5 through the lower portion of the stops and of a horizontal convolution vertical cross section at each end beyond the end stops, of a double ring-like vertical cross section through the end and intermediate stops f^2 and of a ring and horizontal convolution cross section through the intermediate stops f^2, substantially as specified.

2. In a draft rigging for railway passenger cars, the combination with the draw-bar, springs and followers,

side plates or stop castings, each consisting of a cast web of substantially uniform thickness throughout, having double ring like vertical sections through the end, and intermediate stops and having a ring and convolution horizontal section through the intermediate stops, substantially as specified.

3. A railway passenger car draft rigging side plate or stop casting consisting of a cast web of substantially uniform thickness throughout, having upright convolutions therein forming the stops or shoulders for the followers to abut against and an upper plate-like portion to fit against the car sill or frame member, said casting having a ring-like horizontal section f^{25} above the intermediate stops, substantially as specified.

4. A railway passenger car draft rigging side plate or stop casting consisting of a cast web of substantially uniform thickness throughout, having upright convolutions therein forming the stops or shoulders for the followers to abut against and an upper plate-like portion to fit against the car sill or frame member, said casting having a ring-like horizontal section f^{25} above the intermediate stops, said casting having a horizontal section f^{5} through the lower portion of the stops, substantially as specified.

5. A railway passenger car draft rigging side plate or stop casting consisting of a cast web of substantially uniform thickness throughout, having upright convolutions therein forming the stops or shoulders for the followers to abut against and an upper plate-like portion to fit against the car sill or frame member, said casting having a ring-like horizontal section f^{25} above the intermediate stops, said casting having a horizontal section f^{5} through the lower portion of the stops, and a horizontal section f^{4} through the upper portion of the stops, substantially as specified.

6. A railway passenger car draft rigging side plate or stop casting consisting of a cast web of substantially uniform thickness throughout, having upright convolutions therein forming the stops or shoulders for the followers to abut against and an upper plate-like portion to fit against the car sill or frame member, said casting having a ring-like horizontal section f^{25} above the intermediate stops, and said casting having vertical sections through the end and intermediate stops of double ring form, substantially as specified.

7. A railway passenger car draft rigging side plate or stop casting consisting of a cast web of substantially uniform thickness throughout, having upright convolutions therein forming the stops or shoulders for the followers to abut against and an upper plate-like portion to fit against the car sill or frame member, said casting having a ring-like horizontal section f^{25} above the intermediate stops, said casting having a vertical cross section f^{11} at its ends beyond the end stops, substantially as specified.

8. A stop casting for draft rigging, consisting of a cast web of uniform thickness throughout, having horizontal section f^{4} through the upper portion of the stops, horizontal section f^{5} through the lower portion of the stops and horizontal section f^{25} above the intermediate stops, substantially as specified.

9. A stop casting for draft rigging, consisting of a cast web of uniform thickness throughout, having a horizontal section f^{4} through the upper portion of the stops, a horizontal section f^{5} through the lower portion of the stops and a horizontal section f^{25} above the intermediate stops, said casting having a vertical section f^{11} through the end stops, substantially as specified.

10. A stop casting for draft rigging, consisting of a cast web of uniform thickness throughout, having a horizontal section f^{4} through the upper portion of the stops, a horizontal section f^{5} through the lower portion of the stops and a horizontal section f^{25} above the intermediate stops, said casting having a vertical section f^{11} through the end stops, and a vertical section f^{6} through the middle stop, substantially as specified.

11. A stop casting for draft rigging, consisting of a cast web of uniform thickness throughout, having a horizontal section f^{4} through the upper portion of the stops, a horizontal section f^{5} through the lower portion of the stops and a horizontal section f^{25} above the intermediate stops, said casting having a vertical section f^{11} through the end stops, a vertical section f^{6} through the middle stop and a vertical section f^{21} through the intermediate stop, substantially as specified.

JOHN F. O'CONNOR.

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