

E. F. GOLTRA.
TRUCK FRAME.

(Application filed Aug. 15, 1900.)

(No Model.)

2 Sheets—Sheet 1.

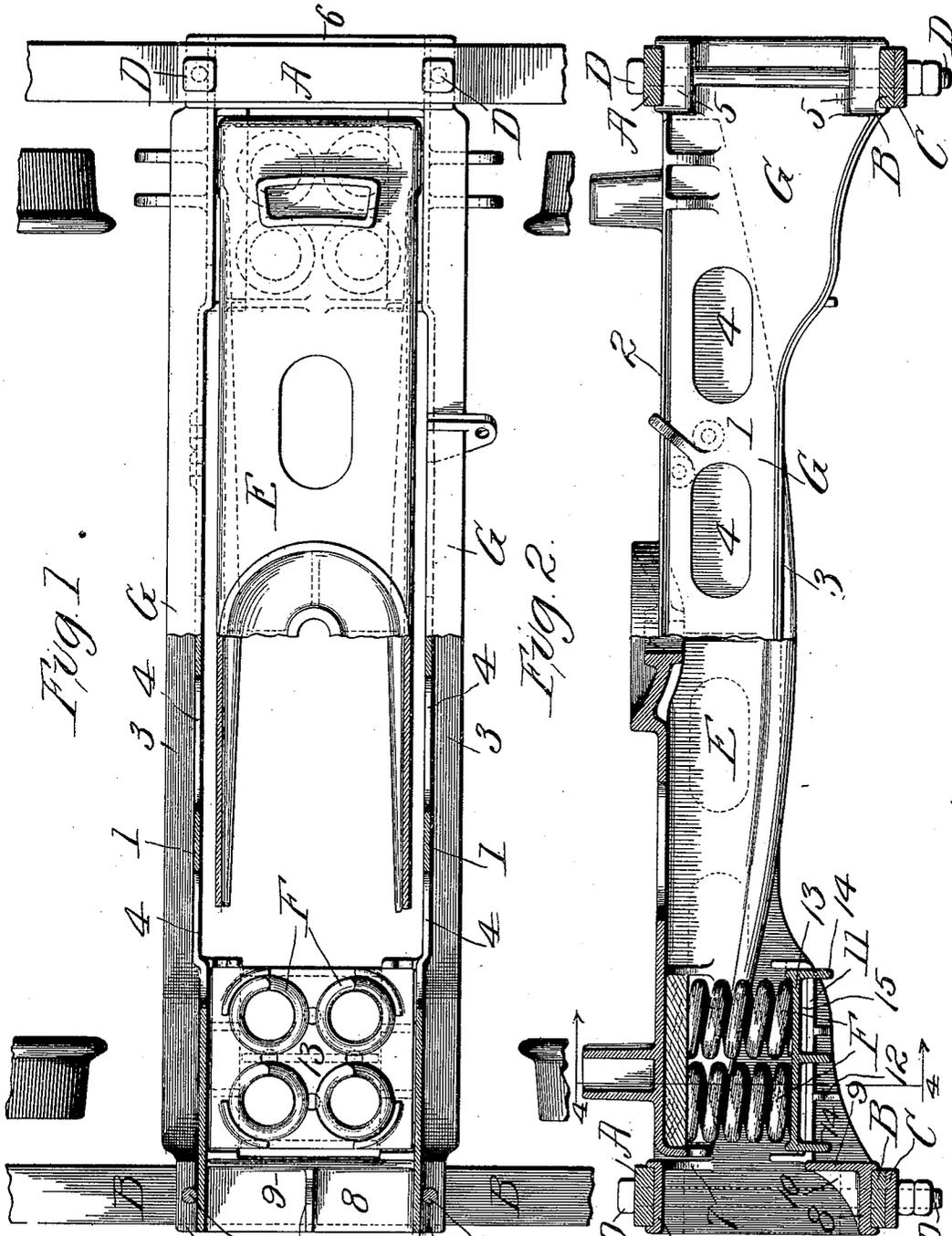


Fig. 1.

Fig. 2.

Attest:
George Bakewell

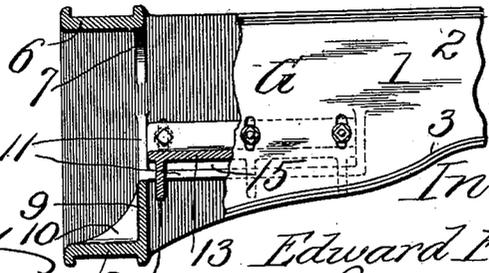
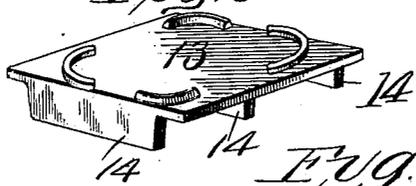
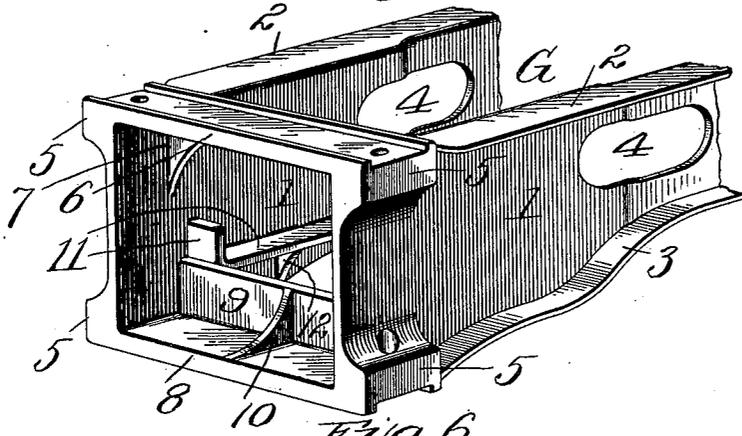
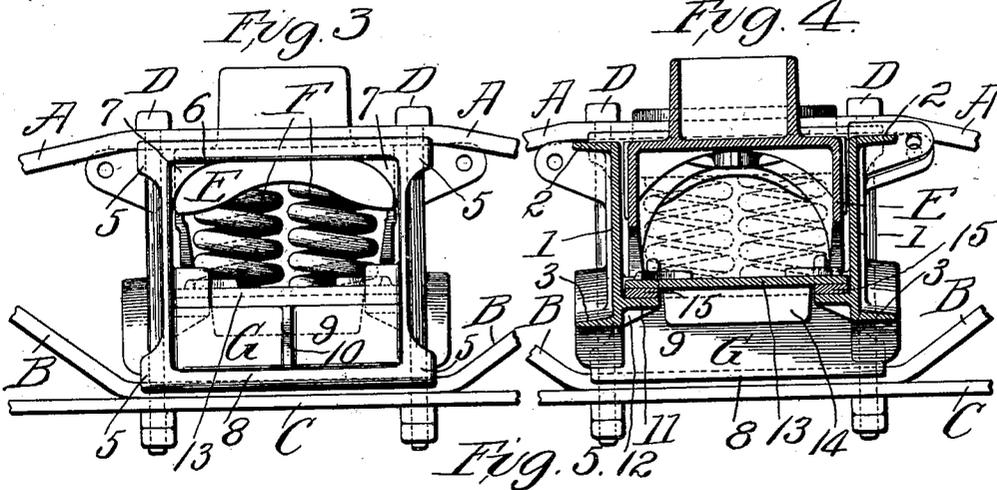
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E. F. GOLTRA.
TRUCK FRAME.

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2 Sheets—Sheet 2.

(No Model.)



Attest:
George S. Baker
 George S. Baker

Inventor:
 Edward F. Goltra,
 by *R. A. Cornwall*
 Attys.

UNITED STATES PATENT OFFICE.

EDWARD F. GOLTRA, OF ST. LOUIS, MISSOURI.

TRUCK-FRAME.

SPECIFICATION forming part of Letters Patent No. 666,661, dated January 29, 1901.

Application filed August 15, 1900. Serial No. 26,937. (No model.)

To all whom it may concern:

Be it known that I, EDWARD F. GOLTRA, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Truck-Frames, 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 use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top plan view, partly in horizontal section, of my improved truck-frame as applied to car-trucks. Fig. 2 is an elevational view, partly in vertical section, of the same. Fig. 3 is an end elevational view of the same. Fig. 4 is a vertical sectional view on line 4 4, Fig. 1. Fig. 5 is a detail view of one end of the transom. Fig. 6 is a detail view of the removable spring-seat; and Fig. 7 is a side elevational view of my improved transom, showing the spring-seat detachably secured in position thereon.

This invention relates to a new and useful improvement in truck-frames for railway rolling-stock, and particularly to the transom which extends transversely the truck for securing the side frames together, said transom also affording a support for the bolster.

With this object in view the invention consists in the arrangement, construction, and combination of the several parts, all as will hereinafter be described and afterward pointed out in the claims.

In the drawings, A indicates the top arch-bar, B the lower arch-bar, C the tie-bar, D the column-bolts, E the bolster, and F the bolster-springs, all of said parts being of usual or well-known construction.

G indicates my improved transom as an entirety, said transom consisting of heads which are so designed as to receive the arch-bars of the truck, said heads being connected by parallel side walls suitably flanged to give them strength, the vertical webs of said side walls being cut away for the purpose of lightening the same. These side walls carry removable spring-seats at or near their ends and in juxtaposition to the heads, upon which rest the bolster-springs.

In the drawings, 1 indicates the side walls,

which are provided with flanges 2 and 3 at their upper and lower edges, respectively, said flanges being presented outwardly, so that said side walls are substantially in the form of channels arranged back to back. The vertical webs of these side walls are formed with openings 4, which may be shaped and arranged as desired for the purpose of lightening the structure without sacrificing strength.

5 indicates lateral enlargements or projections extending from the outer faces of the side walls at their ends to form the truck-heads of the transom, said lugs being perforated vertically to receive the column-bolts. While I have shown the orifices for the column-bolts formed in these lateral projections located at the upper and lower edges of the transom, it is obvious that a different arrangement can be employed—such, for instance, as coring a semicylindrical offset from the side walls, or in the event that the side walls are more widely spaced the column-bolts can be arranged within instead of without said walls.

6 indicates a cross-piece extending across the upper portion of the head, said cross-piece connecting the upper edges of the ends of the side walls and being preferably provided with parallel flanges on its upper face to provide a seat for the top arch-bar. These flanges can of course be omitted, if desired. This cross-piece may be braced by corner-gussets 7, if desired, or these gussets may be continued to form a depending flange the entire length of the cross-piece.

8 indicates a cross-piece connecting the lower edges of the ends of the side walls, said cross-piece 8 being preferably, though not necessarily, provided with parallel flanges on its lower face to provide a seat for the lower arch-bar.

9 indicates a flange rising from the inner edges of the cross-piece 8 and connected at its ends to the side walls. Brace web or webs 10 may be provided for strengthening the vertical web 9.

11 indicates a stirrup-flange extending inwardly from the side walls, said side walls being provided with such a flange at or near their ends and in juxtaposition to the heads. It will be noticed that the side walls are deepened at their ends, so as to extend beneath

these stirrup-flanges for the purpose of offering a firm support for the same. These stirrup-flanges may also be strengthened by gussets 12, arranged therebeneath as desired.

13 indicates the spring-seat, (shown in detail in Fig. 6,) said spring-seat consisting of a flat plate with depending flanges or ribs 14, said ribs preferably terminating short of the edges of the plate, but being of sufficient length to occupy the space between the opposite stirrup-flanges 11 when the spring-seat is placed in position thereon. The projecting edges of the spring-seat are designed to be supported by the stirrup-flanges, and by having the spring-seat removable it is possible to adapt my improved transom to different types of bolsters, as well as to different types of bolster-springs. For instance, in the accompanying drawings I have shown a nest of four coiled bolster-springs, said springs being seated directly upon the spring-seat. Where elliptic springs are used, the spring-seat would be suitably shaped to accommodate the change in the type of springs, or where the bolster-springs are nested and compressed between follower-plates in readiness to be introduced under the bolster spring-seats would be adapted to receive the bottom follower-plate.

By arranging the spring-seat as shown in the drawings I am able to adjust its height by the introduction of shims 15 on the stirrup-flanges, as shown in Figs. 2 and 4, as many shims being introduced as necessary, said shims being of any required thickness. This is advantageous where from constant service the bolster-springs are compressed more than the desired limit and it is necessary to build up the car to observe the standard height as specified or required by the Master Car-Builders' standard and as called for by various roads over which the car equipped with my improvement may run. By introducing shims to elevate the spring-seats the car may be forwarded until it reaches some convenient point, where new springs may be introduced and repairs made under the most favorable circumstances. The walls of the transom being open top and bottom permit the introduction of jacks under the spring-seats, whereby the spring-seats may be elevated until their flanges are above the stirrup-flanges 11, when the desired number of shims or shims of the required thickness may be loosely introduced onto the stirrup-flanges, after which the spring-seats are let down, so as to settle and be supported upon the shims. The flanges 14 under the spring-seats hold the shims against displacement, and therefore no special means need be employed for securing the shims in position.

In Fig. 7 I have shown a construction wherein the side walls are provided with vertically-elongated slots and the spring-seats formed with vertical flanges provided with openings in register with said slots, whereby bolts may be employed, said bolts tending to

hold the spring-seat in its home position and preventing the same from rattling. It is obvious that the vertical elongation of the slots permits the spring-seats to be elevated for the reception of the shims therebeneath, as before described. Instead of bolts rivets may be employed to secure the spring-seat in place, and to accomplish the adjustment a vertical series of openings in the side walls can be employed, whereby the rivets can be driven in any one of them for adjusting the spring-seat to accommodate different types of springs. By means of bolts or rivets, as above described, the side walls are practically tied together and the structure is strengthened to this extent. The extended bearing-surface of the spring-seat on each side wall adds materially to the rigidity of the structure.

I am aware that minor changes in the arrangement, construction, and combination of the several parts of my device can be made and substituted for those herein shown and described without in the least departing from the nature and principle of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a transom composed of parallel side walls, of truck-heads formed integral with said side walls, and removable spring-seats supported wholly within the side walls; substantially as described.
2. The combination with parallel side walls, of truck-heads formed integral therewith, stirrup-flanges extending from said side walls, and removable spring-seats arranged on said flanges and extending to, but not beyond, the side walls; substantially as described.
3. The combination with parallel side walls, of cross-pieces connecting their ends and forming truck-heads for the reception of the arch-bars of the truck, flanges extending inwardly from said side walls near the ends thereof, and removable spring-seats arranged on said flanges; substantially as described.
4. The combination with parallel side walls, of cross-pieces connecting their ends, flanges on said cross-pieces providing seats for the arch-bars and truck, flanges extending inwardly from the parallel side walls near their ends, said flanges being on the same horizontal plane, and removable spring-seats supported by said flanges; substantially as described.
5. The combination with opposite supports for a spring-seat, of a spring-seat arranged upon said supports and provided with depending flanges which terminate short of said supports; substantially as described.
6. The combination with supports, of a removable spring-seat arranged thereon and provided with depending flanges, and removable shims interposed between said spring-seat and its supports, said shims being held in position by said depending flanges; substantially as described.
7. In a car-truck, the combination with the

side frames, of a transom provided with integral heads for the reception of the members constituting the side frame of the truck, removable spring-seats mounted in said transom, and means for vertically adjusting said
5 spring-seats; substantially as described.

8. In a car-truck, the combination with the arch-bars, of a transom consisting of parallel side walls and integral heads, to which heads
10 the arch-bars are secured, flanges for strengthening said integral parts, inwardly-extending flanges near the ends of the parallel side

walls, which flanges are arranged on the same horizontal plane, and removable spring-seats supported by said flanges and extending to, 15 but not through, the side walls; substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 1st day of August, 1900.

EDWARD F. GOLTRA.

Witnesses:

WM. H. SCOTT,
GEORGE BAKEWELL.