(No Model.) 3 Sheets—Sheet 1.

S. J. VAN STAVOREN.

CAR AXLE BOX PEDESTAL.

No. 544,701. Patented Aug. 20, 1895.

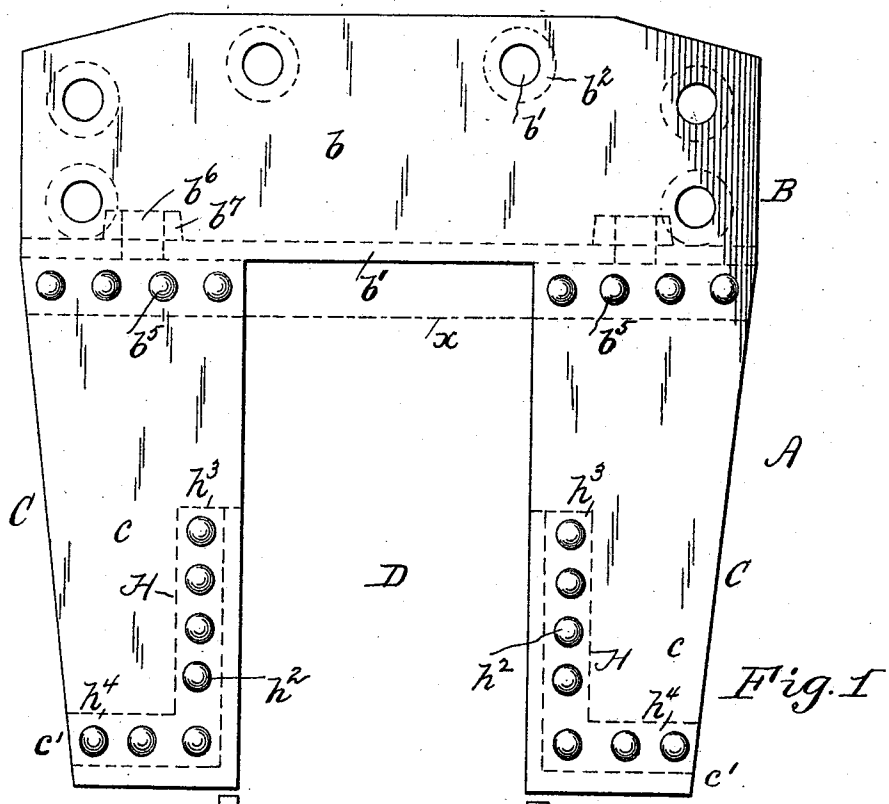

Fig. 1

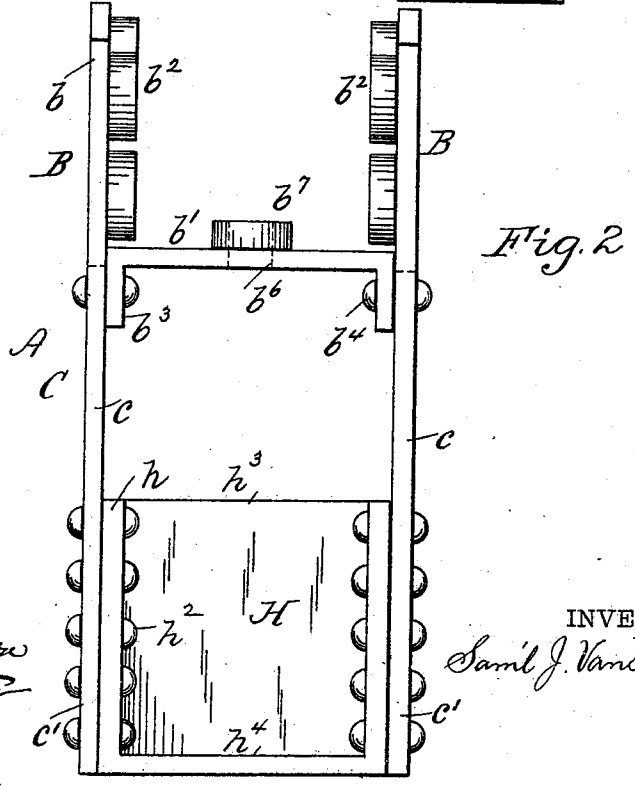

Fig. 2

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A. C. Alexander

INVENTOR

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(No Model.) 3 Sheets—Sheet 2.

S. J. VAN STAVOREN.

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Fig. 3

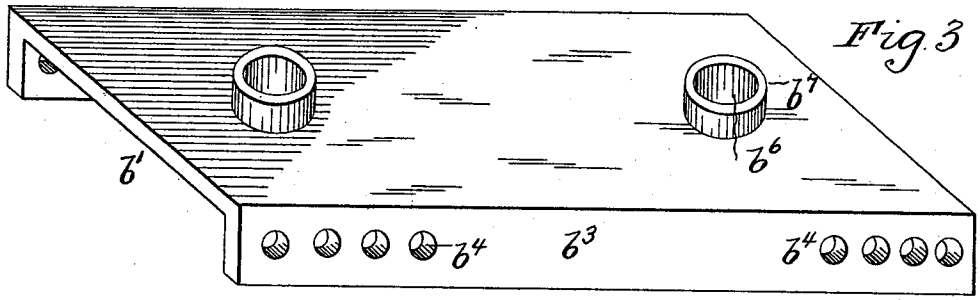


Fig. 4

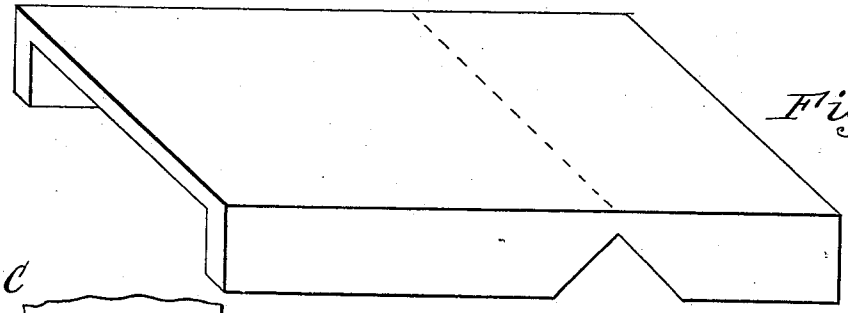


Fig. 5

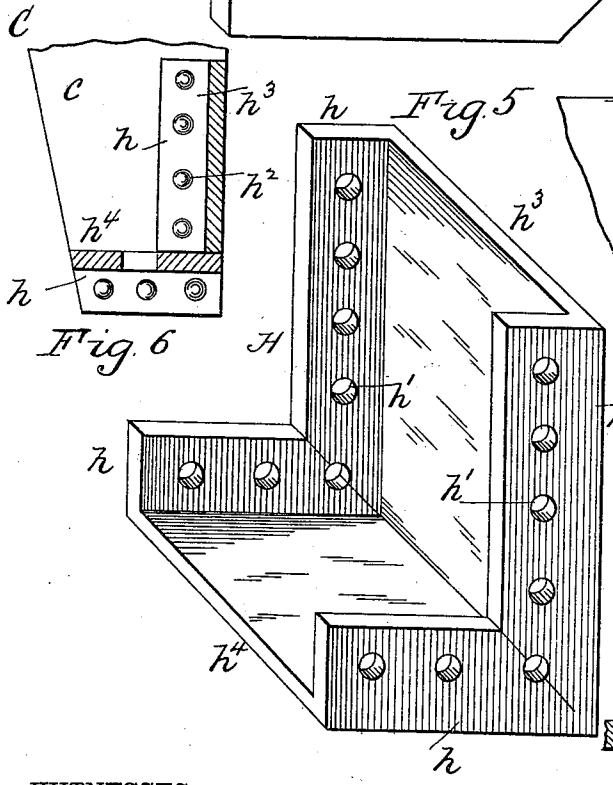


Fig. 6

Fig. 7

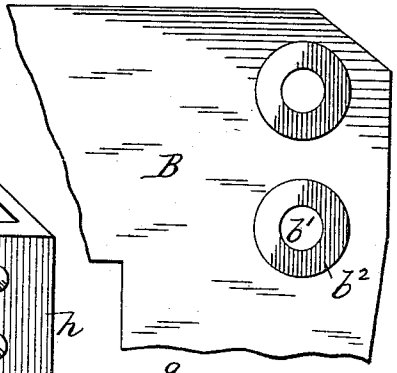
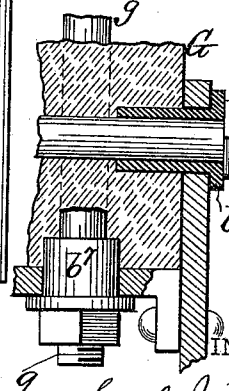


Fig. 8



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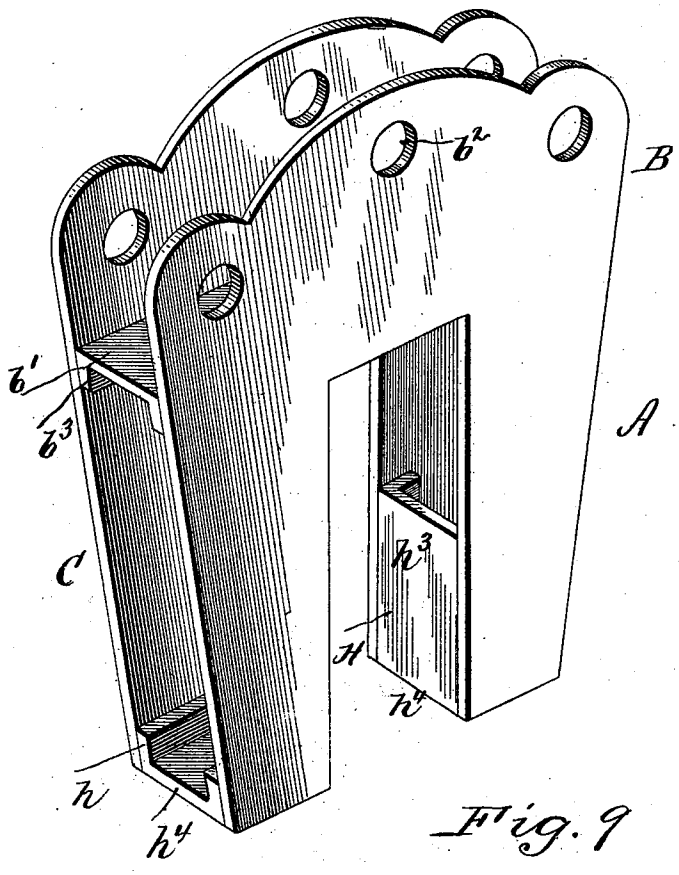

Fig. 9

Witnesses:
J. M. Fowler Jr.
Alex. Scott

Inventor,
S. J. VanStavoren

UNITED STATES PATENT OFFICE.

SAMUEL J. VAN STAVOREN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO CHARLES F. VAN HORN, OF SAME PLACE; CHARLES F. VAN HORN EXECUTOR OF SAID VAN STAVOREN, DECEASED.

CAR-AXLE-BOX PEDESTAL.

SPECIFICATION forming part of Letters Patent No. 544,701, dated August 20, 1895.

Application filed February 8, 1894. Serial No. 499,561. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL J. VAN STAVOREN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Car-Axle-Box Pedestals; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to car-axle-box pedestals of the type having elongated U-shaped open-top plates which embrace the bottom and sides of and are bolted to the upper chord or framing of the car-truck and have depending separated guides or ways, between which are located the axle-boxes.

Heretofore these pedestals have commonly been made of cast metal, and are, of course, necessarily heavy or contain a maximum amount of metal to impart to them the required strength and durability for resisting the wear and tear of ordinary use, but which does not necessarily admit of them resisting the undue strains or shocks incident to collisions, breaking of axles, or other like accidents, and as they often break apart during these accidents their sustaining power is lost, which, if available at such times, might greatly tend to mitigate some of the bad effects or damages resulting from such accidents. Furthermore, as they are unduly heavy they materially increase the dead-weight of the train and running cost of railway-traffic.

My invention has for its object to produce a light-weight, strong, and durable car-axle-box pedestal of the type described which will not only resist the wear and tear of ordinary use, but will not break apart when subjected to undue strains incident to collisions, breaking of axles, or other analogous accidents, thereby having its sustaining power available for use at times when the same is most required.

My invention accordingly consists of an axle-box pedestal and of the combinations, constructions, and arrangements of parts as hereinafter more fully described in the specification and pointed out in the claims.

Reference is had to the accompanying drawings, wherein—

Figure 1 is a front elevation of a pedestal embodying my invention. Fig. 2 is an end view of the same. Fig. 3 is a perspective of the bottom plate for the upper U-shaped part of the pedestal. Fig. 4 is a perspective of a blank from which are made a form of transverse brackets or bars for connecting the lower ends of the ways or guides between which the axle-box is located. Fig. 5 is a perspective of such bracket or bar. Fig. 6 is a vertical section of a part of one of said lower ends, showing another form of said bracket or bar. Fig. 7 is an elevation of a part of the upper U-shaped plate for the pedestal, showing thimbles separate from the plate and passing into openings therein, and through which the bolts are passed for securing the pedestal to the upper chord or frame of the truck. Fig. 8 is a vertical section, partly broken away and in elevation, of the pedestal and the truck upper chord or frame, showing more plainly said thimbles or fastening-bolts. Fig. 9 is a perspective view of a car-axle-box pedestal, showing its component parts electrically welded or connected together without the aid of rivets, screws, or other analogous fastening devices.

A represents a form of wrought-metal axle-box pedestal composed of an upper U-shaped plate B, having two vertical sides *b b* and bottom *b'*, from which depends ways or guides C C, which are separated from one another so as to form a space D, in which is located the axle-box, which is not shown in the drawings, as the same is well known. The ways or guides C C are each composed of two separated parallel sides *c c*, the lower ends *c' c'* of which are connected by transverse brackets or bars H H. All of these parts are made of wrought metal as contradistinguished from cast metal. Thus, for instance, they may be made of wrought-iron, steel, or other suitable analogous metal. The metal from which they are made is preferably rolled and shaped to the required form for said parts and the latter are secured together in any suitable or desired manner, as shown in the drawings, or as illustrated, described, and claimed in my other concurrent pending applications filed on even date with this application, Serial Nos. 499,562, 499,563, 499,564, 499,565, and 499,566.

In the drawings the ways or guides C and

the sides b of the U-shaped top plate B are indicated, formed, or cut from one sheet of metal or are integral, the sides b having punched or formed therein openings b', with inner-projecting integral thimbles b^2, through which pass the transverse bolts f, for securing the pedestal to the upper chord or frame G of the truck, as more plainly indicated in Fig. 8. The bottom b' for the upper U-shaped plate B is indicated formed of a plate of rolled metal having lengthwise edge flanges b^3, provided with rivet or other holes b^4, which register with corresponding apertures in the ways or guides C C, and through which rivets or bolts b^5 are inserted for securing said parts rigidly and firmly together. The bottom b' is provided with vertically-located openings b^6, having on its upper side integrally-formed thimbles b^7, through which pass the vertically-located bolts g, for securing the pedestal to the truck upper chord or frame, as more plainly illustrated in Fig. 8.

H H represent transverse brackets or bars of rolled metal having edge flanges h h, provided with rivet or other openings h', which register with corresponding openings in the lower ends c' c' of sides c c of ways or guides C for the insertion of rivets or other devices h^2 for fastening the brackets to said lower ends, for connecting them together, and for providing additional supporting-surface for the axle-boxes located in space D between the guides C C. In the drawings these brackets or bars H are illustrated as of right-angle form having vertical leg h^3 and horizontal leg h^4. These angular brackets or bars H H may be formed from one piece of metal, a blank for which is shown in Fig. 4, and the finished bar formed therefrom, as illustrated in Fig. 5, or they may consist of two separate bars or brackets suitably riveted to the sides c c, as indicated in Fig. 6, or they may otherwise be provided for, as shown and described in the concurrent applications above stated.

The thimbles b^2 b^7 may, if desired, be formed separate from the parts of the U-shaped top plate B, as shown more plainly in Figs. 7 and 8.

From the foregoing it will be noted that all of the parts of the pedestal are formed of wrought metal, suitably shaped as desired or the requirements for use demand, and that all the component parts are riveted or otherwise analogously secured together to form a rigid pedestal. It will further be noted that the pedestal has a U-shaped top, with its open side upward, and that from the bottom of said top and at its sides depend the parallel guides C C, the lower ends of which are closed or united by cross-pieces or brackets H H, to impart to said ends the usual maximum transverse strength or rigidity.

This construction provides a light-weight, strong, and durable axle-box pedestal, thereby very materially diminishing the dead-weight to be carried and, consequently, the running expense of railway-traffic.

Furthermore, as the pedestals are made of wrought metal they do not break apart in accidents due to collisions, breaking of car-axles, and jumping of cars from the tracks, or other analogous causes.

If desired, the flanges for the plates b' may be cut away at the top of the opening D, as indicated in full lines, Fig. 1, or said flanges may remain intact, as illustrated by broken or dotted line x in said figure.

It is evident that the component parts of the pedestals may be shaped, constructed, and secured together in various ways without departing from the spirit of the invention. I do not in this application confine myself to the constructions and securement together of the same, as shown and described, as any of the constructions set forth in said concurrent applications or other desired constructions may be substituted. Again, the component parts of the pedestal, instead of being riveted or analogously secured together, may be electrically welded together, in which case all the surfaces of the pedestal will be free from rivet or bolt heads, as shown in Fig. 9, in which case it will be noted that all the surfaces of the pedestal are smooth surfaces or are similar to pedestals which are cast in one piece. It will be also noted from the foregoing that the parts composing the pedestal are cut or stamped from ordinary forms of wrought metal without necessitating any special machinery for stamping or pressing them into shape, and this avoidance of shaping or pressing of the component parts of the pedestal is an essential feature of my invention, as it admits of making a light-weight, but strong and durable, pedestal at a minimum cost.

What I claim is—

1. The car axle box pedestal each side composed of inverted integral U-shaped plates or guides, provided with thimbles, a transverse top plate uniting said U-shaped plates near the top thereof and transverse angle plates uniting the depending parts of said U-shaped plates, substantially as and for the purpose herein described.

2. The car axle box pedestal, composed of separately formed U-shaped plates having thimbles in the upper portion thereof, the top plate having downwardly turned flanges and thimbles, and uniting said plates or guides, the transverse angle plates provided with flanges and adapted to unite the lower ends of said plates or guides substantially as and for the purpose herein set forth and described.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL J. VAN STAVOREN.

Witnesses:

JOHN RODGERS,

A. C. ALEXANDER.