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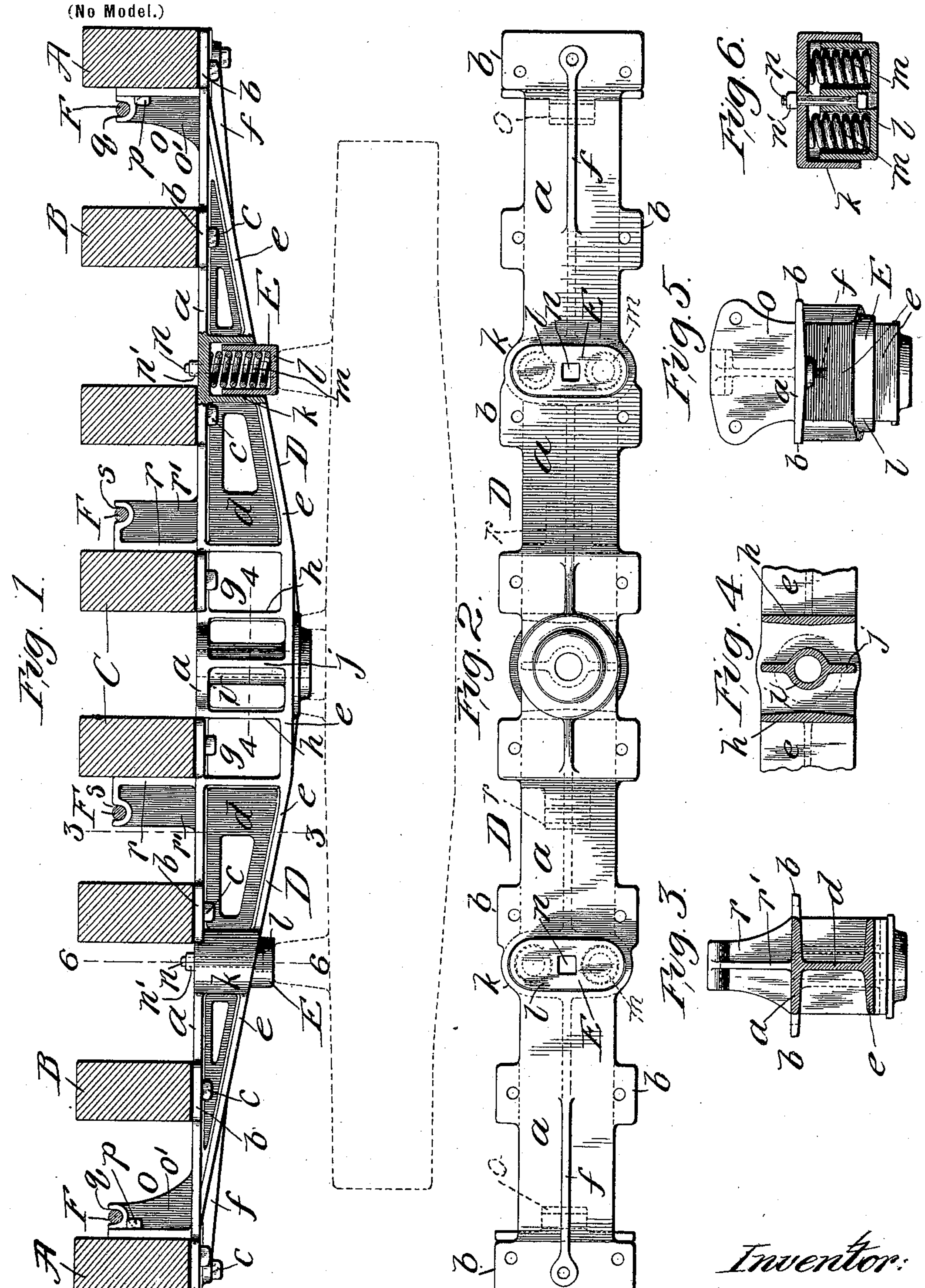
P. SOUTHER.

TRANSOM FOR RAILWAY CARS.

(Application filed Sept. 9, 1898.)

(No Model.)



Attest:

Inventor:
Peter Souther,
by Bakewell & Cornwall
Attys.

UNITED STATES PATENT OFFICE.

PETER SOUTHER, OF PINE BLUFF, ARKANSAS.

TRANSOM FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 642,380, dated January 30, 1900.

Application filed September 9, 1898. Serial No. 690,570. (No model.)

To all whom it may concern:

Be it known that I, PETER SOUTHER, a citizen of the United States, residing at the city of Pine Bluff, county of Jefferson, State of Arkansas, have invented a certain new and useful Improvement in Transoms for Railway-Cars, 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 cross-sectional view through the longitudinal sills of a car, showing my improved transom in position thereon. Fig. 2 is a bottom plan view of said transom. Fig. 3 is a cross-sectional view through the same on line 3 3, Fig. 1. Fig. 4 is a cross-sectional view on line 4 4, Fig. 1. Fig. 5 is an end elevational view, and Fig. 6 is a cross-sectional view through the side bearing on line 6 6, Fig. 1.

This invention relates to a new and useful improvement in transoms for railway-cars, the object being to construct a transom of cast-steel or malleable iron and provide said transom with suitable angle-braces or abutments to engage the side and draft sills of the car, said abutments carrying sockets for the longitudinal truss-rods of the car.

With this object in view the invention consists in constructing a body-transom for cars of substantially I-shape, the deepest portion being at the center and the lower side faces converging to meet the upper web at the ends of the transom and in providing said transom at its upper face with abutments or buttresses which coöperate with the side and draft sills of the car to give strength to the structure.

Another feature resides in the novel construction of the side bearings; and, finally, the invention consists in the construction, arrangement, 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 side, B the intermediate, and C the draft sills of a car.

D indicates my improved transom-carrying side bearings E. This transom is provided with the usual center bearing, and in dotted lines in Fig. 1 I have indicated a truck-bolster, upon which the transom is supported.

The construction of my improved transom is as follows:

a indicates what I shall term a "base," which extends on the same plane throughout its length and is adapted to rest against the under side of the car-sills. Base *a* at points immediately below the sills is provided with a series of laterally-extending lugs or ears *b*, through which lag screws of bolts *c* pass into the sills to hold the transom in position.

d indicates a vertical web depending from base *a* to strengthen the same, said web carrying at its lower edge laterally-extending flanges *e*, which, with the base *a*, form substantially an I-beam structure. These flanges *e* at the center of the transom are parallel with base *a*, on each side of which they converge toward the outer end to meet base *a*, as shown. Base *a* at its extreme outer end is strengthened by a web or rib *f*, forming practically a continuation of the web *d*, but on the under side of the flange *e* for a part of its length. The web *d*, as shown in Fig. 1, is cut away at the middle portion of the transom to form the spaces *g*, in which the rear ends of the draft-timbers, if such are used, may be received. In these spaces *g* are vertical walls *h*, against which said draft-timbers may rest.

i indicates a hollow sleeve connecting flanges *e* and base *a*, which is strengthened by webs *j*, said sleeve receiving the king-bolt of the car.

k indicates pockets formed at suitable points in the transom, which pockets are, we may say, inverted and receive the side bearings *l*.

m indicates a spring interposed between base *a* and side bearings *l*, whose function is to force said side bearings constantly in a lower position, and in the event that the car lurches from one side to the other or sways said side bearings will be yielding in an upward direction, so that the car will not run on its side bearings.

In order to limit the downward movement of the side bearings and prevent their displacement by falling out, I employ a bolt *n*, whose square head is countersunk in the lower face of the side bearings and whose upper end passes through the base *a* to receive nut *n'*, by which the side bearings may be adjusted vertically.

o indicates a bracket or abutment arranged on the upper side of base *a* and near the end thereof and against which the side sill A rests. Suitable lag-screws *p* may be employed to hold said side sills firmly in position. The upper face of bracket *o* is notched or recessed, as at *q*, to afford a support for the longitudinal truss-rods F of the car.

r indicates bracket abutments or buttresses arranged on the upper face of base *a* for engaging the draft-sills of the car and strengthening the same against lateral strain. These brackets are also formed with notches or pockets *s* in their upper faces to receive and support the longitudinal truss-rods of the car. Both brackets *o* and *r* are reinforced and strengthened by webs *o'* and *r'*, respectively.

The manner of attaching my improved transom to the car-body is so well understood by those familiar with car construction that it need not be repeated here.

It will be noticed that the side and draft sills being the ones subjected to the greatest strain are considerably strengthened by brackets *o* and *r*.

I am aware that many minor changes in the construction, arrangement, 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. A car-transom comprising a beam having integral abutments or buttresses rising from its upper face, to strengthen the side and draft sills of the car, said buttresses being formed with sockets in their upper faces to support the longitudinal truss-rods of the car, said upper face of the beam also provided with laterally-extending lugs or ears through which lag screws or bolts pass into the sills, substantially as described.

2. A car-transom comprising a beam formed with integral pockets for the side bearings, and having integral buttresses on its upper face to strengthen the side and draft sills of the car, certain of said buttresses constructed and adapted for attachment to the sills substantially as described.

3. A car-transom comprising a beam having buttresses formed integral therewith for strengthening the side and draft sills of the car, said beam being, also, provided with integral inverted pockets for the side bearings, in combination with yielding side bearings arranged in said pockets, substantially as described.

4. A car-transom comprising a cast-steel or malleable-iron beam having buttresses formed integral therewith, to strengthen the side and draft sills of the car, said beam, also, having integral inverted pockets, in combination with side bearings slidingly mounted in said pockets, springs whose energy is exerted to depress said pockets, and means for adjusting the vertical position of said side bearings in said pockets, substantially as described.

5. A car-transom comprising a beam of substantially I shape in cross-section, said beam being deepest at its middle portion, buttresses formed integral therewith, for strengthening the side and draft sills of the car said sills secured in the angles formed between the beam and buttresses, a hollow socket for the king-bolt, and vertical walls spaced from, and arranged on each side of, said hollow socket, against which sills the draft-timbers may rest, substantially as described.

6. A car-transom comprising a base *a* formed with lugs or ears at intervals for attachment to the car-sills, vertical web *d*, flanges *e*, and strengthening-webs *f*, which are continuations of the vertical web *d*, and partially below the flanges *e* and on each end of the transom, integral brackets *o*, and *r*, having notched upper ends, said brackets having the combined function of abutments for sills and supports for truss-rods substantially as described.

7. A transom comprising a beam having depending pockets, side bearings having sliding connection therein, a spring interposed between the pocket and bearing, and a bolt connecting the pocket and bearing.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 3d day of September, 1898.

PETER SOUTHER.

Witnesses:
R. M. GALBRAITH,
B. H. BROWN.