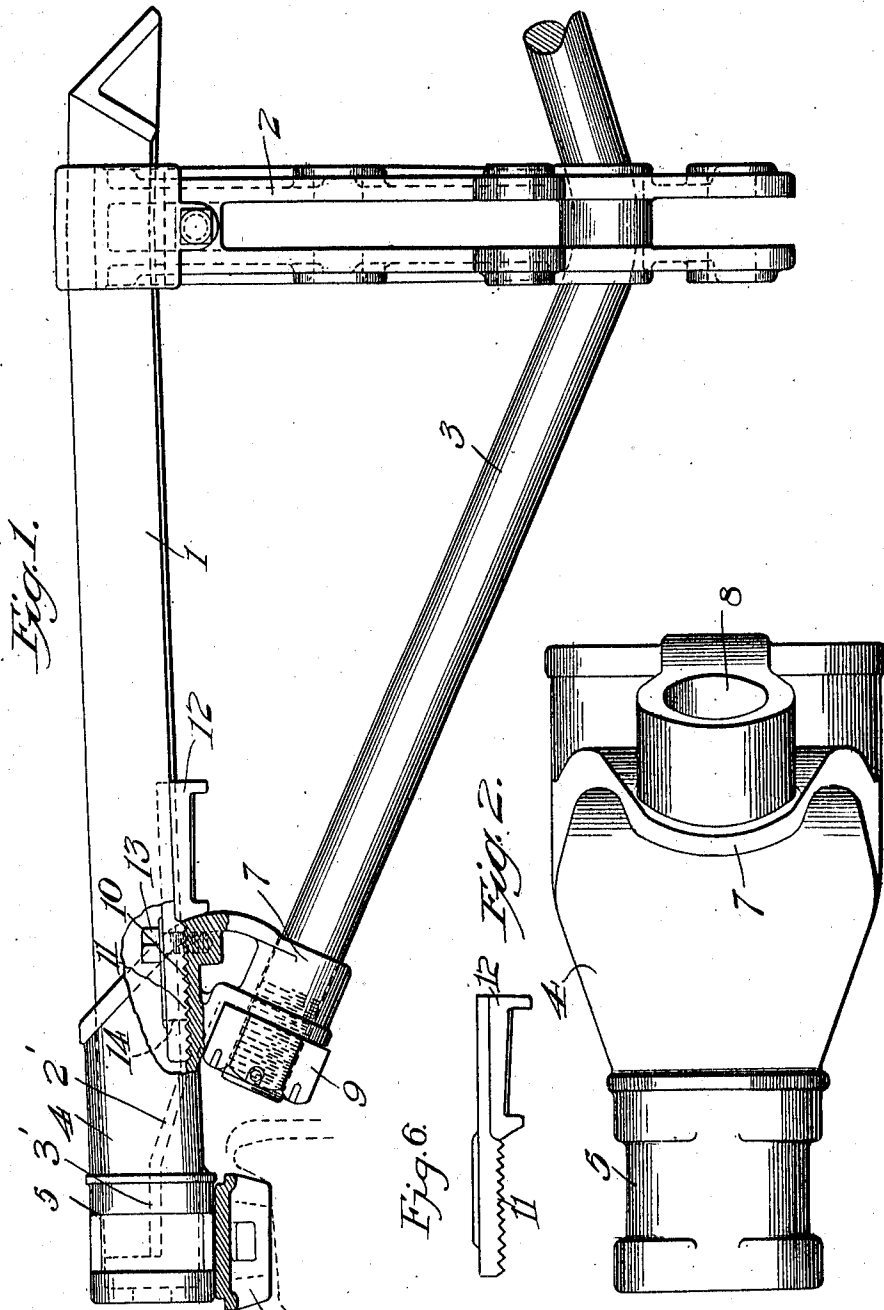


P. T. HANDIGES.
BRAKE BEAM.
APPLICATION FILED AUG. 30, 1910.

988,773.

Patented Apr. 4, 1911.

2 SHEETS-SHEET 1.



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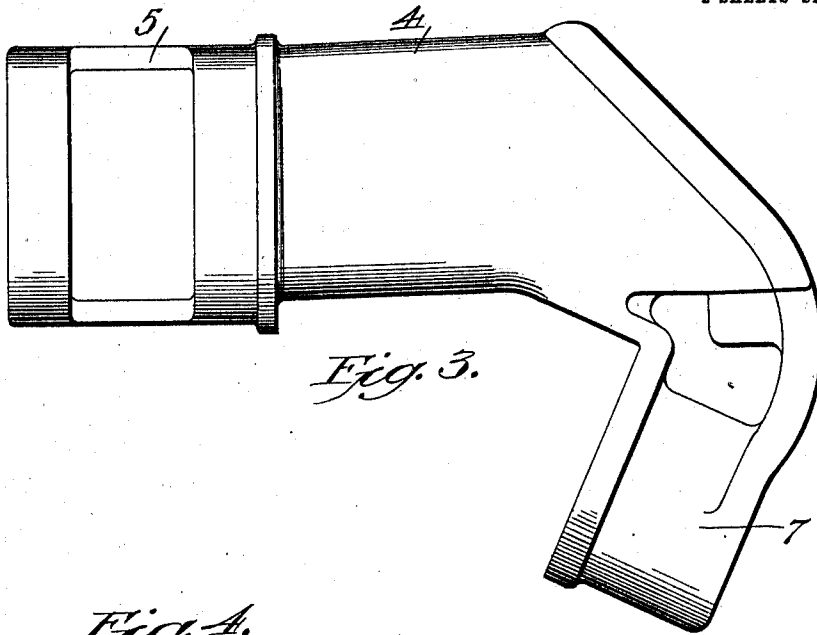
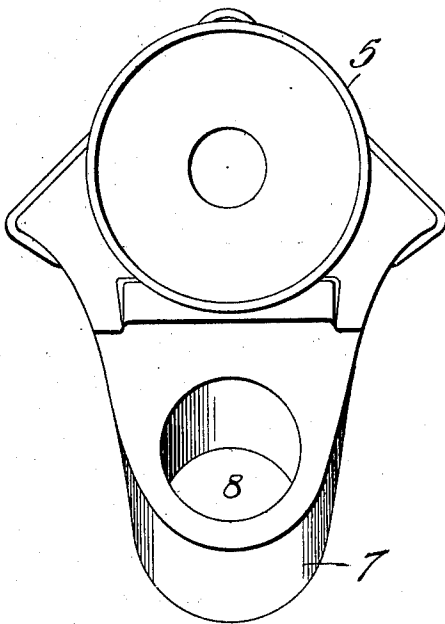


Fig. 3.

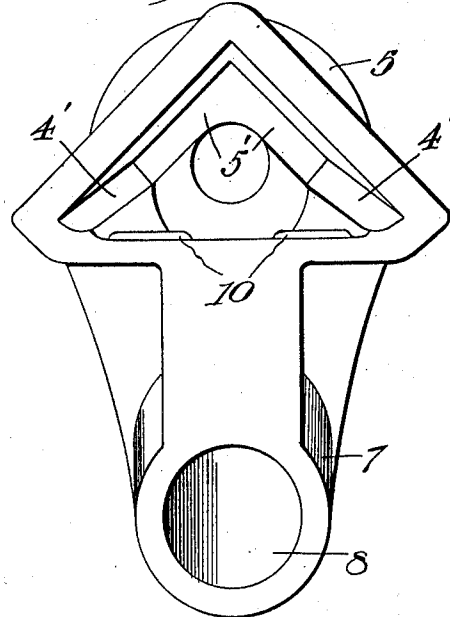
Fig. 4.



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Fig. 5.



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UNITED STATES PATENT OFFICE.

PHILIP T. HANDIGES, OF CLEVELAND, OHIO, ASSIGNOR TO THE DAMASCUS BRAKE BEAM CO., OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

BRAKE-BEAM.

988,773.

Specification of Letters Patent.

Patented Apr. 4, 1911.

Application filed August 30, 1910. Serial No. 579,737.

To all whom it may concern:

Be it known that I, PHILIP T. HANDIGES, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Brake-Beams, of which the following is a specification.

The present invention relates to brake beams for railway cars and more particularly to an arrangement for securing the brake-shoe sleeve to the compression and tension members of the brake beam, to the end that a brake beam may be constructed shorter in length and therefore applicable for trucks where space does not permit of the securing nut of the tension member being located beyond the end of the beam.

A further purpose of the invention resides in the construction of a brake beam for trucks of the character in question, wherein the securing nut for the truss rod is located between the inner side of the flange of the wheel and center of the brake beam, whereby to provide a clearance for the wheel flange, so that in the event of the brake-shoe being lost, the lugs on the brake head will come into play as the braking medium, and thus overcome the likelihood of the wheel flange cutting into the tension member, thus destroying the strength of the brake beam, which latter condition is one of the great faults of the trussed beams constructed heretofore.

Summarily stated, the invention comprises a sleeve fitted over the end of the compression member and secured in that position through the medium of an arm, to which is connected the tensioning rod, and the arrangement is such that the beam is trussed as a whole in direct proportion as the sleeve is secured to the compression member.

The sleeve which carries the brake head is further serviceable, in the present arrangement, in having a means associated therewith, whereby to afford an effective adjustable mount for the release spring clip, so that when it is adjusted with reference to the center of the beam to suit spacing of springs in the truck, it will be protected against lateral displacement, thus overcoming the disadvantages attending the present manner of mounting the spring clips, as in the latter arrangement, there is a constant tendency to shift from the set position.

The invention is shown by way of illustration in the accompanying drawings, wherein,

Figure 1 is a top plan view of the brake beam, parts being shown in section; Fig. 2 is a front elevation of the sleeve; Fig. 3 is a top plan view thereof; Figs. 4 and 5 are respectively opposite end elevations of the same; and Fig. 6 is a detail view of the release spring clip and release spring.

Referring to the several figures in further detail, and with like reference characters indicating corresponding parts in the several views shown, 1 designates the compression member of the beam, which is of the usual angle-iron construction; 2 is the fulcrum or strut member likewise constructed after the usual manner and 3 is the tensioning or truss rod.

At either end, the compression member 1 is cut away to provide inclined shoulders 2' and a reduced end 3', as indicated by dash lines, in Fig. 1. The sleeve 4 is interiorly constructed complementary to the end of the compression member, viz. with inclined shoulders 4' and a squared shoulder 5' for the elements 2' and 3' respectively. The sleeve 4 also carries the brake head mount 5 for the brake-shoe head 6. The brake head mount 5 is of substantially that structure shown (see Fig. 2) wherein the brake head is secured through the medium of wedge blocks. This construction of the sleeve 4 will permit of its being fitted over the compression member and held against rotation thereon (see Fig. 5).

The inner end of the sleeve 4 is formed with an integral and diagonally disposed arm 7, having an eye 8 for the reception of the tensioning rod 3. The member 7 is so disposed with relation to the brake head mount 5 as to afford a clearance for the securing nut 9 of the tensioning rod. When in position, the nut 9 lies wholly between the flanges of the car wheels and within the ends of the compression member, as distinct from being placed at the end of the compression member, and thus considerably reducing the over-all width of the brake beam as a whole. And with having the tensioning rod 3 terminated within the car wheels, affords an arrangement wherein said tensioning rod would not be subjected to wearing by the car wheel in the event that the brake-shoe is lost from the brake head, since in the event

of this happening, the lugs on the brake head would be subjected to such wear.

The inner face of the sleeve 4 is provided with a plurality of corrugations or teeth 10, adapted to engage with a like surface 11 on a face of the release spring clip 12, and said faces of the sleeve and spring clip are held in engaging relation through the medium of a locking bolt 13. The locking bolt 13 has screw threaded engagement with the sleeve and through the medium of a slot 14, the member 12 may be adjusted laterally with respect to the fulcrum of the brake beam. With this arrangement for securing the spring clip holder, it will be evident that the tendency for that member to shift from its set position would be reduced to the minimum.

By having a connection of the tension member with the sleeve offset from the bearing of the sleeve of the compression member in the direction of braking pressure, the brake head applied to the end of the sleeve at a point considerably removed from the connections which unite the compression and tension members, causes the brake pressure to balance any tipping tendency of the sleeve due to the tension of the tension member and conversely enables the tension member better to sustain the sleeve against any tendency to bend the end of the compression member under the braking pressure.

I claim:—

1. A brake beam comprising a compression member having its ends cut-away to provide shoulders, a fulcrum member, a tension member, a sleeve carrying a brake head, said sleeve constructed with shoulders complementary to the shoulders of the compression member and fitted over the end of the compression member, said sleeve having an inner and diagonally disposed arm constructed to receive the tension member, and a member securing the tension member to the

sleeve arm, said securing member being located intermediate the arm and the plane determined by the inner flange surface of the car wheel.

2. The combination with the compression and tension members of a brake beam, of a sleeve having a brake head mounted on the compression member, and a release spring clip mounted on the sleeve.

3. The combination with the compression and tension members of a brake beam, of a sleeve carrying a brake head mounted on the end of the compression member, and a release spring clip adjustably mounted on the sleeve.

4. The combination with the compression and tension members of a brake beam, of a sleeve carrying a brake head mounted on the end of the compression member and having a diagonally disposed arm, said tension member connected with the arm on the inner side of the plane determined by the inner flange surface of the car wheel; and a release spring clip adjustably mounted on the sleeve.

5. A brake beam comprising a compression member having its ends cut-away to provide inclined shoulders and a reduced portion, a fulcrum member, a tension member, a sleeve having inclined shoulders and a squared shoulder adapted to be engaged by the shoulders and the reduced end of the compression member when the parts are assembled, and an arm on said sleeve connected to the tension member; said connection being located intermediate the plane determined by the inner flange of the car wheel and the fulcrum member.

The foregoing specification signed this 1st day of August, 1910.

PHILIP T. HANDIGES.

In presence of—

C. P. WAGNER,
E. D. PUGH.