L. T. PYOTT.

Railway Car-Brakes.

No. 155,106. Patented Sept. 15, 1874.

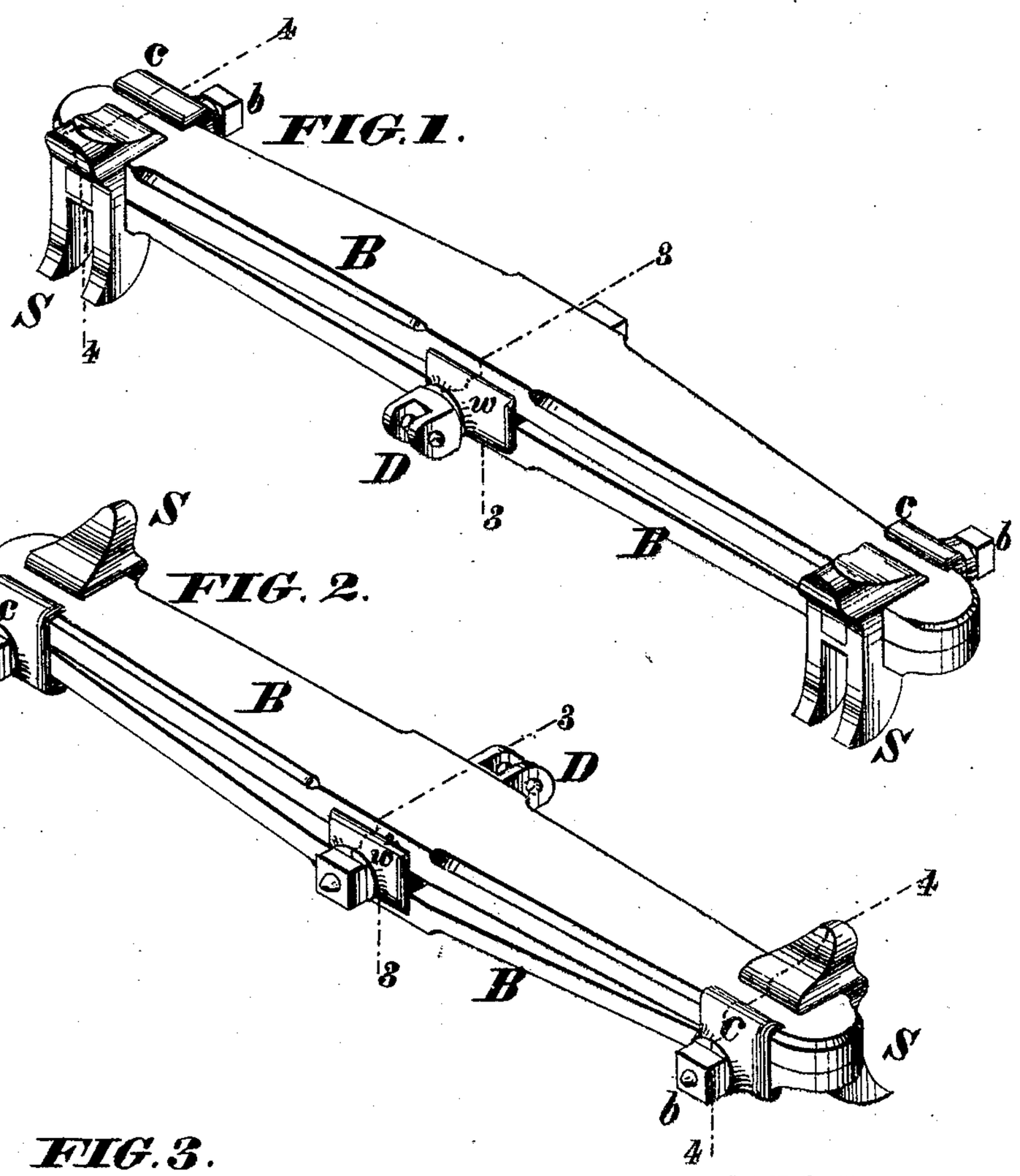


FIG. 1.

FIG. 2.

FIG. 3.

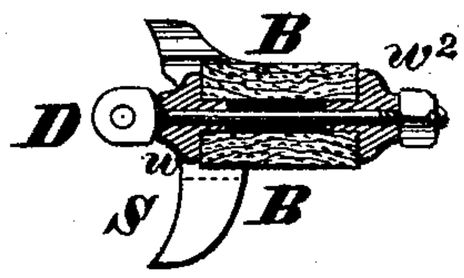
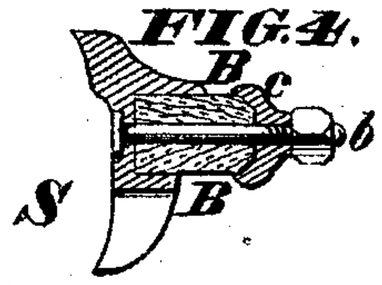


FIG. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

LOUIS T. PYOTT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND STEPHEN A. MORSE, OF SAME PLACE.

IMPROVEMENT IN RAILWAY-CAR BRAKES.

Specification forming part of Letters Patent No. **155,106,** dated September 15, 1874; application filed August 26, 1874.

To all whom it may concern:

Be it known that I, LOUIS T. PYOTT, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Brake-Beams for Railway-Cars, of which the following is a specification:

This invention relates to wooden beams for carrying and applying the shoes of car-brakes.

The primary object of the present invention is to combine lightness, elasticity, and strength in superior degree in a brake-beam of this description. The invention consists in forming the wooden beam of two longitudinal timbers clamped together at their ends to receive the shoes, and bowed apart at the middle to receive the center bolt or draft-bar between them without perforation. The beam is thus rendered elliptical, and without a reduced section at any point.

In the accompanying drawing, Figure 1 is a perspective front view of a brake-beam illustrating this invention. Fig. 2 is a perspective rear view of the same. Figs. 3 and 4 are transverse sections on the lines 3 and 4, respectively.

Wooden brake-beams, which are preferable, where applicable, on account of the elasticity, lightness, and cheapness of the material, have heretofore been made solid, or of one part, with a weakening horizontal perforation at the middle, to receive the center-bolt or draft-bar. Consequently they have been made of larger size than would otherwise have been necessary, and in proportion have had less elasticity and proportional strength, while they almost invariably break at this point. This improved brake-beam is composed of two longitudinal bars or timbers, B B, or is divided horizontally throughout its length. Ordinary iron shoes, S, are employed with horizontal attaching-bolts *b* and clamp-washers *c*, and an ordinary center-bolt or draft-bolt, D, is applied horizontally to the middle of the beam. To receive the shoe-bolts *b*, shallow notches are cut in the adjoining inner faces of the parts of the beam, which are clamped together upon these bolts at the ends, by the clamp-washers *c*, and corresponding flanges on the backs of the shoes, as clearly illustrated in Fig. 4. Notches at these points will not materially weaken the beam, but they may be dispensed with, if preferred. To receive the center-bolt D, with its washers *w* w^2, the wooden bars or timbers B, of which the beam is composed, are bowed apart at the middle, which renders the beam elliptical, and forms a space through which the bolt passes, without any reduction of the section of the wood. This feature is clearly illustrated in section, at Fig. 3, the elliptical form of the beam adding greatly to its strength and rigidity in a vertical direction. The washers *w* w^2 of the center-bolt D, are by preference constructed with bosses or projections on their inner faces to spread the beam beyond the thickness of the bolt, as illustrated in Fig. 3.

In the present beam all the peculiar advantages of wood, as a material for such structures have been retained, while objectionable bulkiness has been avoided, and elasticity and great strength have been combined in superior degree.

The following is claimed as new, namely:

1. A compound wooden brake-beam composed of two longitudinal parts spread apart in the middle to receive the draft-bar, all combined substantially as shown and described.

2. The combination of the beam timbers B B, flanged shoes S S, clamp-washers *c*, shoe-bolts *b*, and the center-bolt D, with washers *w* w^2, substantially as described, for the purpose specified.

LOUIS T. PYOTT.

Witnesses:

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