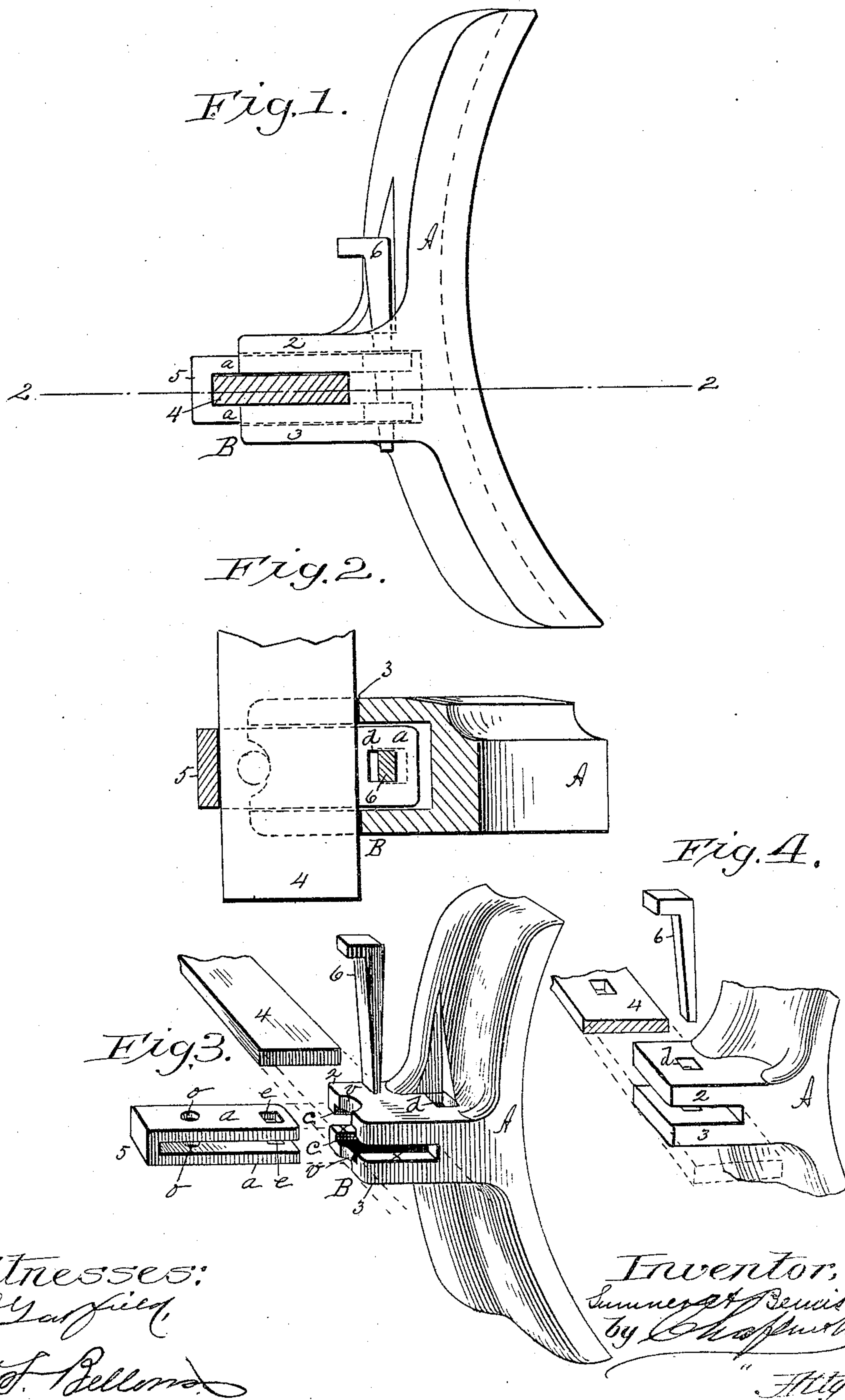


(No Model.)

S. A. BEMIS.
BRAKE SHOE AND BEAM ATTACHMENT.

No. 429,674.

Patented June 10, 1890.



UNITED STATES PATENT OFFICE.

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BRAKE SHOE AND BEAM ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 429,674, dated June 10, 1890.

Application filed February 10, 1890. Serial No. 339,927. (No model.)

To all whom it may concern:

Be it known that I, SUMNER A. BEMIS, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Brake-Shoe and Brake-Beam Attachments, of which the following is a specification.

This invention relates to car-brakes, and pertains to improved means for attaching brake-shoes to brake-beams, all as hereinafter fully described, and pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a view of a brake-shoe having brake-beam attachments embodying my improvements, this figure showing a brake-beam in cross-section connected to said shoe. Fig. 2 is a transverse section of the brake shoe and beam attachments on the line 2 2, Fig. 1, this figure showing in plan view a portion of the brake-beam connected to said shoe. Fig. 3 is a perspective view of the brake-shoe, the brake-beam-locking parts, and of a portion of a brake-beam. Fig. 4 illustrates a modification hereinafter described.

In the drawings, A indicates a brake-shoe, made, preferably, of iron by casting in the usual way. The shoe A is provided on its outer side with a bifurcated bracket B, having a horizontal slot between its arms 2 and 3, to receive therebetween the brake-beam 4, in the position indicated in Figs. 1 and 2. The inner opposite walls of said bracket-arms 2 and 3 are grooved or recessed, as clearly shown in Fig. 3, to receive the ends of a saddle-clamp 5, the arms *a a* of which are adapted to enter the said grooves *c c* in the said opposite walls of the bracket B, the thickness of said saddle-arms *a* being in practice equal to the depth of said grooves *c c*, and the opening between said saddle-arms being about equal to the thickness of the brake-beam 4, so that the said clamping-saddle may freely inclose said beam, as shown in Fig. 1. When the clamping-saddle 5 is placed in the grooves *c c* of the bracket B, the inner opposite walls of said saddle-arms are in substantially the same plane as are the adjoining portions *x* of the inner opposite walls of the arms of the bracket B, so that when the brake-beam 4 is in locked position

in said bracket, as shown in Fig. 1, it has a bearing by its opposite sides both against the inner opposite walls of said saddle-clamp and the said portions of the inner opposite walls of the bracket B.

A key-socket *d* is formed vertically through the rear end of the bracket B at or near its junction with the brake-shoe, to receive the locking-key 6, and corresponding openings *e* are made near the extremities of the saddle-arms *a*, which openings *e* so nearly register with the said key sockets or openings *d* through the bracket B that the key 6 will pass through the said openings *d* and *e* when the saddle is placed in the bracket, and, owing to the tapering or wedge shape of said key, will serve to rigidly lock the saddle within the bracket, together with that part of the brake-beam 4 embraced by said saddle, as shown in Figs. 1 and 2.

Fig. 1 shows the brake-shoe and bracket, the clamping-saddle, and the locking-key, all in the positions they occupy when the brake-shoe and brake-beam are locked together, said locking being effected by driving the tapering key 6 through the bracket and the arms of the saddle, thereby drawing the latter firmly against the outer edge of the brake-beam and drawing the saddle and the beam forcibly inward in said bracket. The said means for locking the brake-shoe and brake-beam together provide for a rigid attachment of said parts to each other, whereby vibratory motion is avoided and consequent wear and noise are obviated, and the brake-shoe is made adjustable longitudinally on the brake-beam to provide for varying gages of track and wheels.

The circular openings *o* through the arms *a* of the saddle-clamp are brought partially within the semicircular recesses *v* in the ends of the arms of the bracket B, as indicated by dotted lines in Fig. 2, when the saddle-clamp is locked in said bracket, and said openings *o* are provided, so that by driving a tapering pin through said openings, which shall at the same time engage with the end of the bracket-arms, the saddle-clamp may be forced out of the bracket-arms in order to detach the brake-beam from the brake-shoe after the locking-key shall have been removed. If desired, the bracket on the brake-shoe may be made,

as shown in Fig. 4, with plain inner opposite walls, and adapted to receive the brake-beam therebetween without the interposition of the clamping-saddle, the beam being locked to
5 the bracket by the same key 6 passing through suitable perforations in the bracket-arms and a perforation in the beam; but this modified connection is less rigid and durable than that shown in the other figures of the drawings.

10 What I claim as my invention is—

1. Means for locking a brake-shoe to a brake-beam, consisting of a bifurcated bracket on said shoe receiving said beam, a clamp,
15 substantially as described, inclosing said beam and extending into said bracket, and a locking-key passing through said bracket and

clamp, combined and operating substantially as set forth.

2. A brake-shoe having a bifurcated beam-supporting bracket thereon, the inner oppo- 20 site walls of the arms of said bracket having grooves extending from their outer ends inward, and a saddle-clamp, substantially as described, fitting in said grooves between said arms, combined with a locking-key passing 25 through said bracket and clamp, substantially as set forth.

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Witnesses:

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