(No Model.)

S. A. BEMIS.

TRUSS PLATE FOR CAR TRUCKS.

No. 309,510. Patented Dec. 16, 1884.

Fig 1

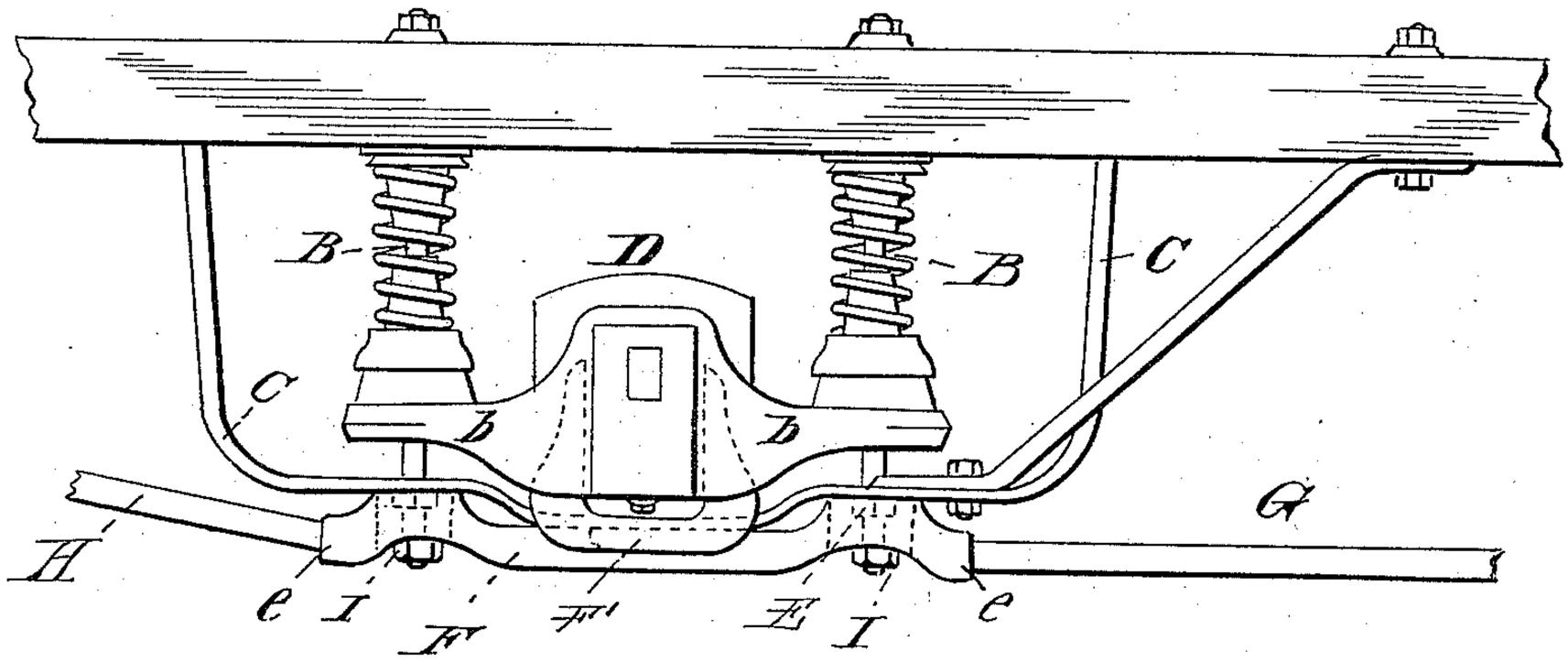

Fig 2

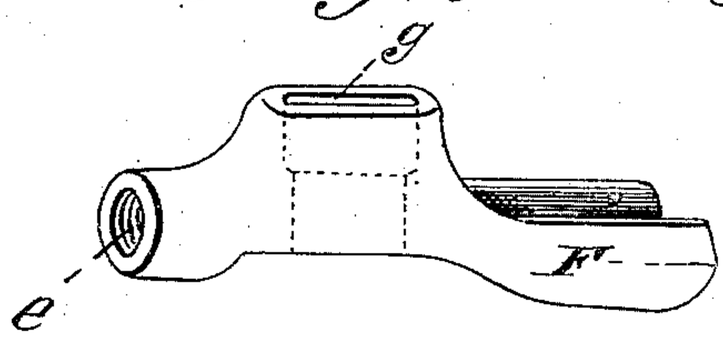

Fig 3

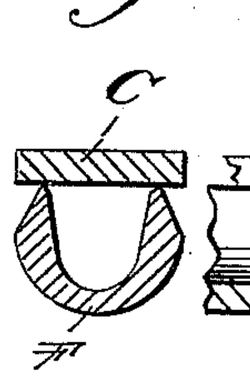

Fig 4

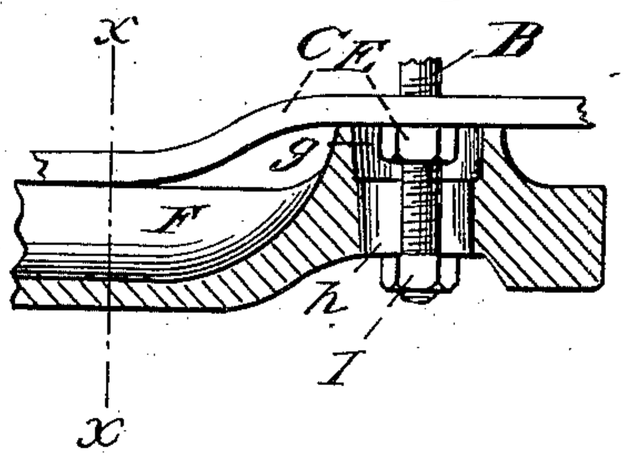

Fig 5

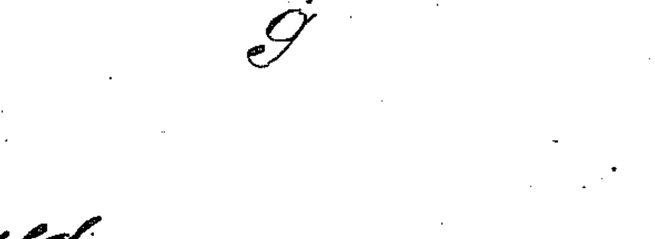

Fig 6

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TRUSS-PLATE FOR CAR-TRUCKS.

SPECIFICATION forming part of Letters Patent No. 309,510, dated December 16, 1884.

Application filed September 29, 1884. (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 Truss-Plates, of which the following is a specification.

This invention consists of an improved plate forming a section of the side truss of a railway-car, and adapted to be combined with the car-axle box, spring-posts, and spring-post brace, to permit the bottom chord of the truss to be secured in place independently, and then be combined with said box, spring-posts, and brace, to seat the brace, inclose the nuts securing the brace and spring-posts together, and form of the spring-posts ties to said side truss, the object of the invention being to permit the bottom chord of the truss to be combined loosely at first with the box, spring-posts, and brace previously adjusted, to then be completed by the addition of one or both of its end struts without the longitudinal movement of said chord due to the addition of a strut operating to deflect the springs-posts, and to leave the side truss when complete in position to be united to the spring-posts, to form ties of them, and to provide in the truss a pocket to receive the nuts holding the brace and posts together to guard them from any disturbance by accidental blows. My invention is fully illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved plate combined with a car-axle box and forming part of a truss. Fig. 2 is a perspective view of one end. Fig. 3 is a cross-section on line *x x* of Fig. 4. Fig. 4 is a side section of one end, and Figs. 5 and 6 are opposite views of one end of my improved truss-plate.

B B are the spring-posts.

D is the car-axle box having the wings *b b*, through which pass the spring-posts.

C is a brace for preventing lateral motion of the car upon the axle. The brace C is flattened upon its lower side, as seen in Fig. 3, and the posts B B pass therethrough and are secured thereto by the nuts E, as shown in Fig. 4. When a shoe, F′, as seen in Fig. 1, is used in connection with a car-axle box, it is bolted to the brace C.

F is a truss-plate forming a part of the lower chord of the truss G, and adapted to receive one end of the strut H, and to also receive the end of the intermediate rod forming with a duplicate truss-plate (not shown) the lower chord of the truss. The ends of the spring-posts B B pass through the truss-plate F, and are secured to it by nuts I I, which, by inclosing the truss-plate between them and the brace, form ties of the spring-posts both to the brace C and side truss, G.

Hitherto the enlargement in the lower chord, G, through which passed the ends of the spring-posts, has been brought against the lower sides of nuts E, and the posts B B, passing through ordinary bolt-holes in the truss below, were secured to the truss by the nuts I I, which arrangement left a space between the brace C and the truss, which were separated by the nuts E to expose the nuts and to catch dirt; also, it was necessary to complete the truss—after the posts B B were vertically adjusted and the box D and brace C adjusted to the posts—by securing in its place one or both of the struts H, one of which is shown, and which required a nice adjustment to leave the truss stiff, and at the same time leave the posts B B undeflected from their proper position, to obviate which I provide a truss-plate adapted at its ends *e e* to receive the end of the strut H and one end of the intermediate bar of the chord, and having, to permit the spring-posts to pass therethrough, elongated openings of configuration shown—that is, the upper part of each opening is an elongated pocket, *g*, adapted to receive the nut E and permit a longitudinal movement of the truss-plate F over said nut—while the lower part, *h*, of each opening corresponds in length with the pocket *g*, but is reduced to the diameter of the post B, and is provided with a flat surrounding bearing-surface for the nut I. The opening in the truss-plate so constructed permits the truss-plate to be moved over the end of a spring-post, and the truss-plate, having corresponding openings for each post, is passed over their ends and the nuts E, as seen in Fig. 1, to have the truss completed by the strut H being screwed into place. The required movement of the truss-plate is permitted by the openings therein above described, and the nuts I are

run up to compactly tie the truss G and brace C by means of the posts B B. The truss-plate F is shown concave in cross-section, with its mouth in its upper side to receive the bolt ends and nuts, securing the brace C to the shoe F'. It is also swelled upon each side of the bearing-surface thereon for the nuts I I, to form a guard to said nuts against accidental disturbance through blows.

Now, having described my invention, what I claim is—

1. The within-described improved section of the bottom chord of a railway-car side truss, consisting of a plate, F, adapted at its ends to be connected to a strut, H, and to a rod connecting it with a duplicate plate, provided with elongated openings opposite the spring-posts B B, and adapted to be combined, as shown and described, with the posts B B, brace C, nuts E, and nuts I.

2. The within-described improved truss-plate F, provided with elongated openings, adapting it to receive the nuts E and posts B B and have a longitudinal latitude of adjustment relative thereto, and provided with a concavity in its upper face, and with a depression in its lower, forming a bearing-surface for the nuts I, for the purpose set forth.

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Witnesses:
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