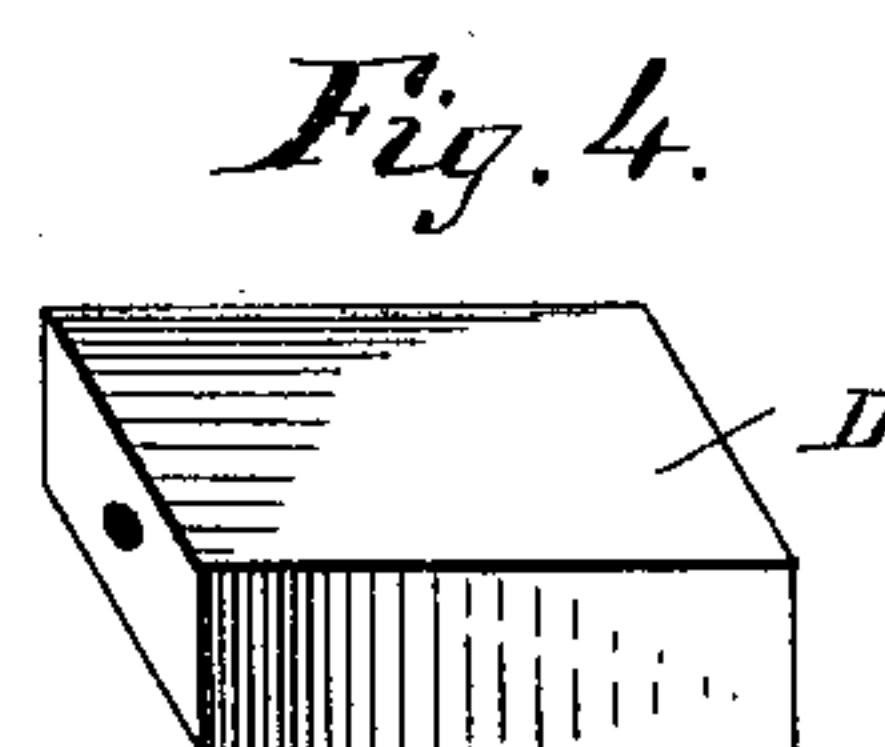
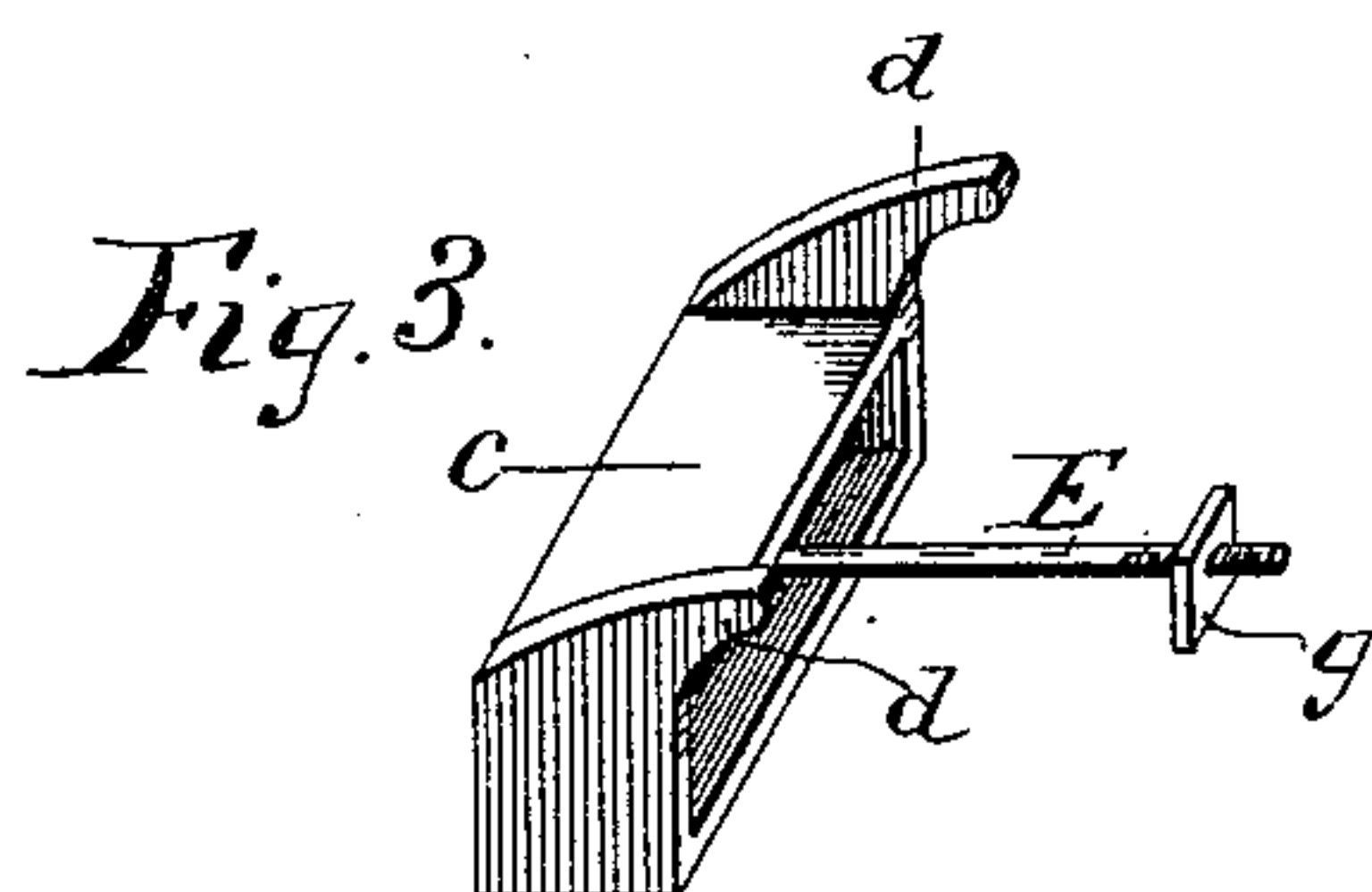
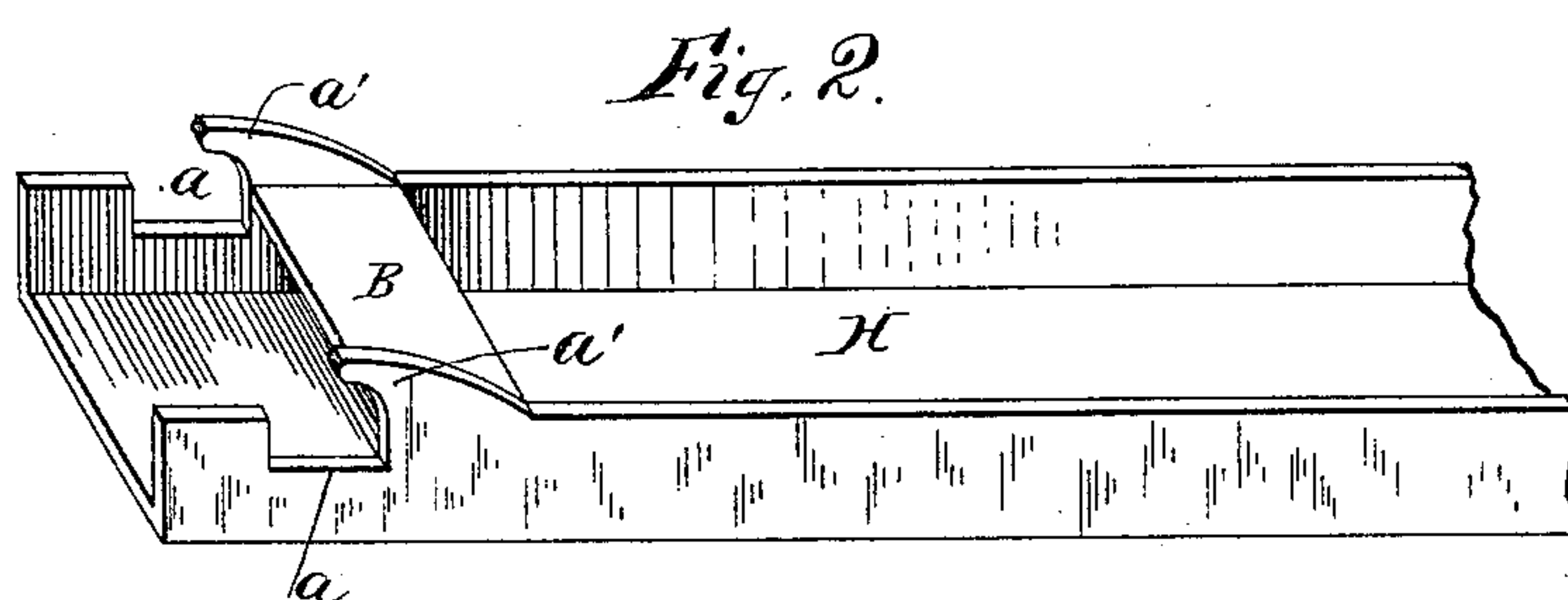
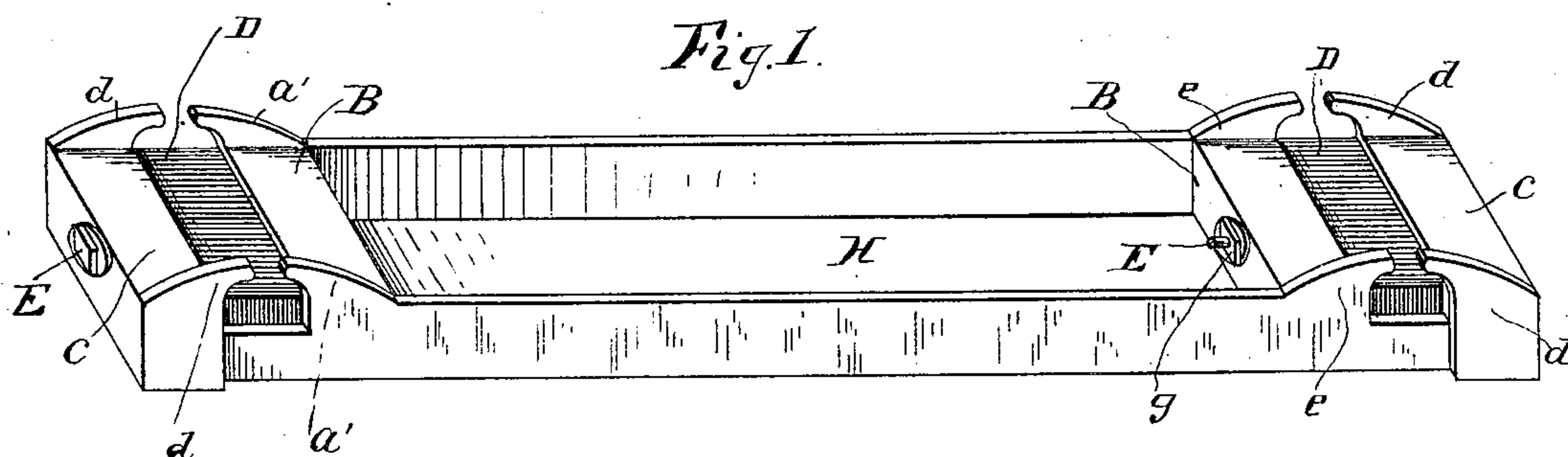


(No Model.)

W. H. BAGBY.
COMBINATION RAILROAD CROSS TIE.

No. 403,634.

Patented May 21, 1889.



WITNESSES,

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UNITED STATES PATENT OFFICE.

WILLIAM HENRY BAGBY, OF WACO, TEXAS.

COMBINATION RAILROAD CROSS-TIE.

SPECIFICATION forming part of Letters Patent No. 403,634, dated May 21, 1889.

Application filed December 26, 1888. Serial No. 294,611. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY BAGBY, a citizen of the United States, residing at Waco, McLennan county, Texas, have invented certain new and useful Improvements in Railroad-Ties; and I do hereby declare the following to be a full, clear, and exact description of the invention, 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, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention pertains to certain new and useful improvements in railroad-ties, having for its object the production of a metallic tie extremely simple in construction, and by means of which a rail can be readily removed or secured in place and a firm elastic bearing is secured for said rail.

The invention also comprises the details of construction, combination, and arrangement of parts, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of my improved tie. Fig. 2 is a similar view with parts removed or broken away. Figs. 3 and 4 are detail views.

Referring to the drawings, A designates the metallic tie or sleeper, preferably of U shape in cross-section, with open top, so as to place the necessary ballast therein.

In the outer reduced ends of the tie are formed grooves or recesses *a a*, adjacent to which are overhanging ears or short arms *a'* *a'*, formed with or struck up from the sides of the tie. The lower ends of these ears or arms are connected by a right-angular partition, B, the vertical portion of which is apertured, as shown. These partitions also serve to hold the sides of the tie firmly together.

C C are hollow end caps, designed to fit over the ends of the tie. These caps are also pro-

vided with overhanging ears or short arms *d* *d*, which, together with the ears or arms *a'*, firmly clasp or hold the rails in position seated upon blocks D D in the ends of the tie.

E E are nutted bolts inserted through the caps C, blocks D, and after being passed through the apertures of the partitions B are firmly secured by nuts screwed on their ends.

The blocks D are preferably made of wood, compressed paper, or other suitable elastic material.

The advantages of my invention will be apparent to those skilled in the art to which it appertains. It will be particularly observed that by means of the construction described the end caps can be readily removed, so as to insert new blocks, when necessary, or to replace a broken or worn rail.

I claim as my invention—

1. The herein-described improved railroad tie or sleeper having removable end caps inclosing the ends thereof and provided with overhanging ears or short arms, substantially as set forth.

2. The herein-described improved railroad tie or sleeper having removable end caps inclosing the ends of said tie or sleeper, and the blocks secured by said caps, substantially as set forth.

3. The herein-described improved metallic railroad-tie having overhanging ears or short arms, and the removable end caps, also provided with ears or short arms, substantially as set forth.

4. The herein-described improved metallic railroad-tie having overlapping ears or short arms, the apertured partitions, the end caps, also having ears or short arms, the apertured blocks, and the nutted bolts, substantially as set forth.

WILLIAM HENRY BAGBY.

Witnesses:

M. D. HERRING,

D. A. KELLEY.