(No Model.)

J. S. FOX.

RAILROAD TIE PLATE.

No. 496,115. Patented Apr. 25, 1893.

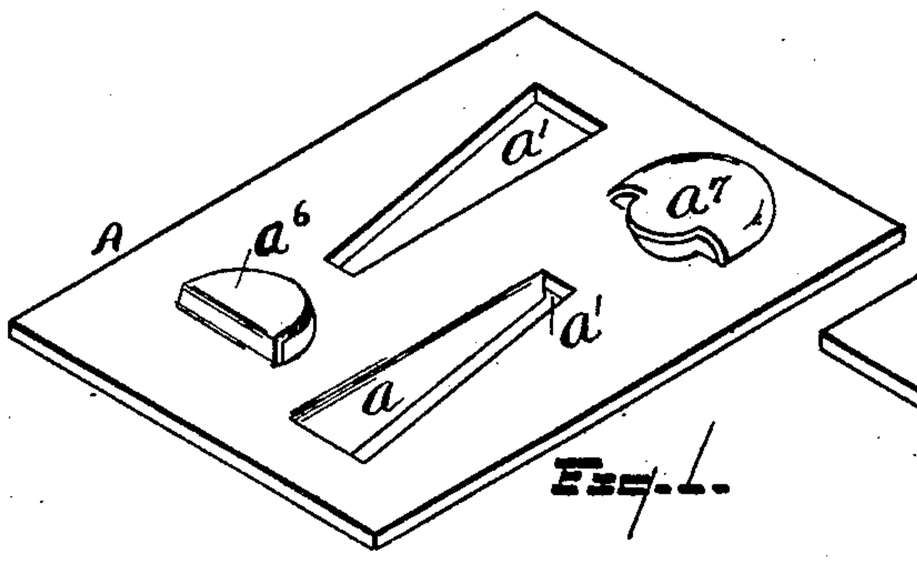

Fig. 1.

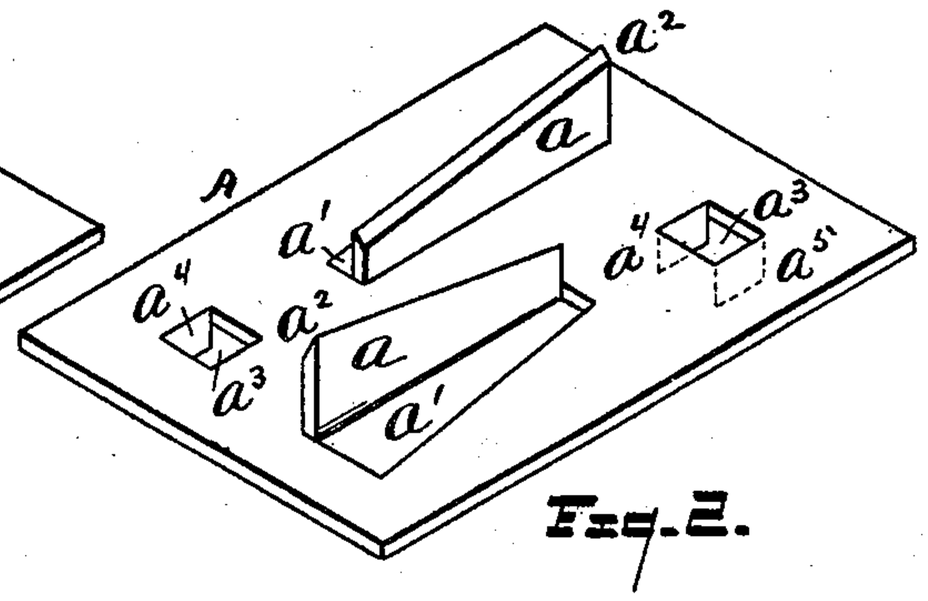

Fig. 2.

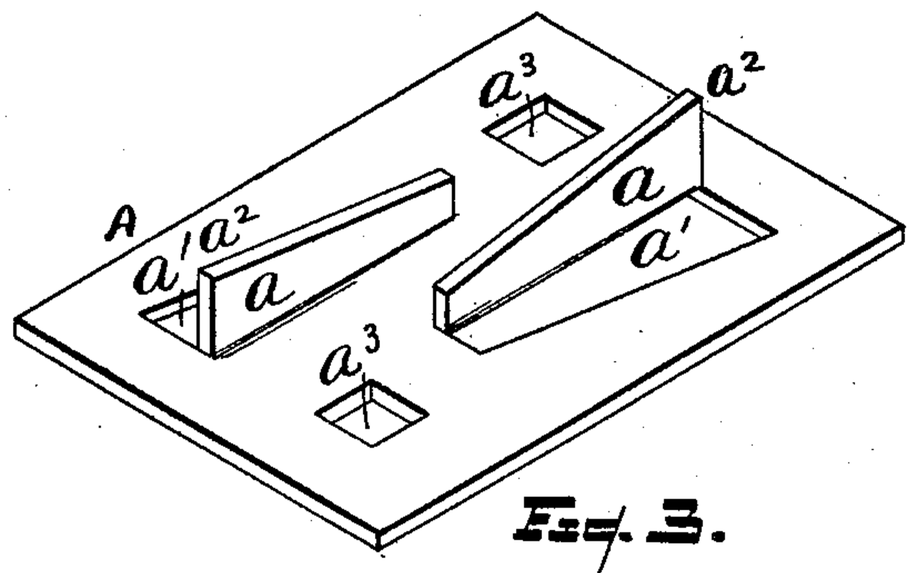

Fig. 3.

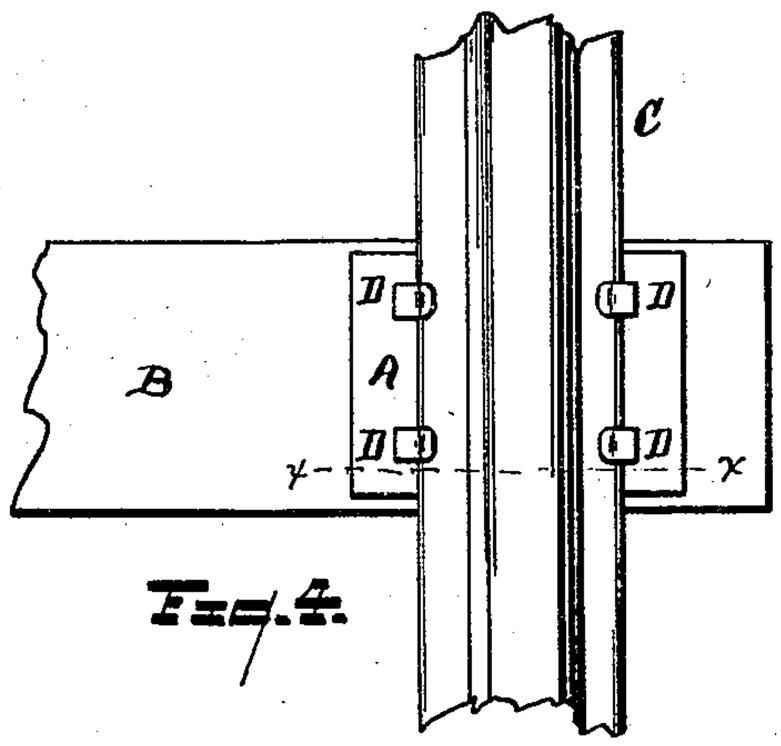

Fig. 4.

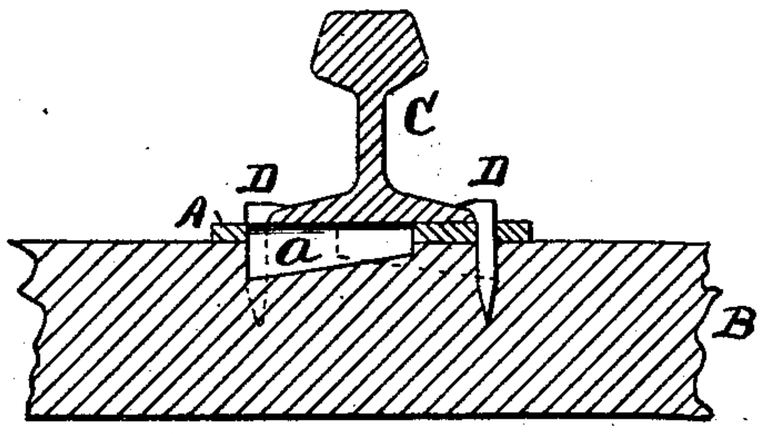

Fig. 5.

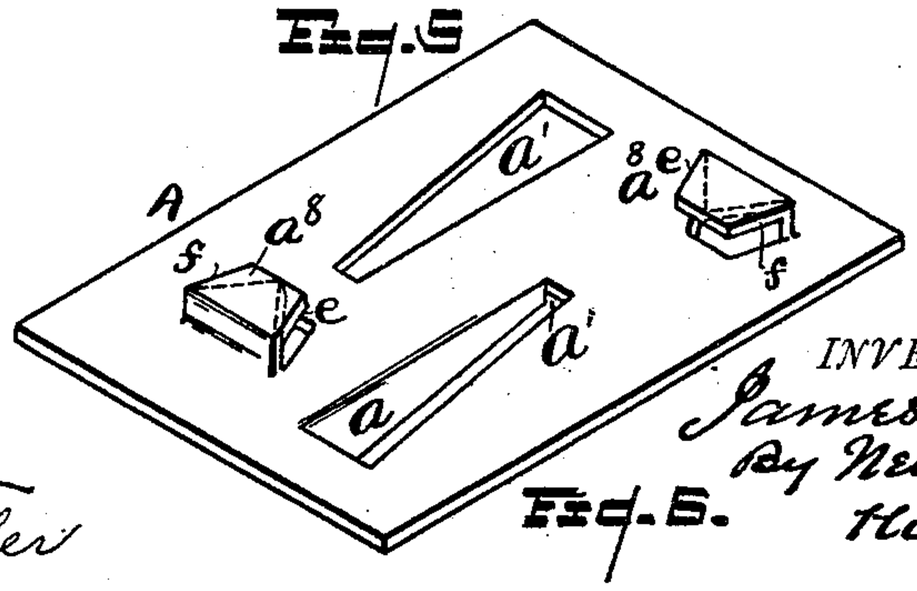

Fig. 6.

WITNESSES

S. B. Thomas

John F. Miller

INVENTOR

James S. Fox

By Newell S. Wright

His Attorney.

UNITED STATES PATENT OFFICE.

JAMES S. FOX, OF DETROIT, MICHIGAN.

RAILROAD-TIE PLATE.

SPECIFICATION forming part of Letters Patent No. 496,115, dated April 25, 1893.

Application filed October 13, 1892. Serial No. 448,744. (No model.)

To all whom it may concern:

Be it known that I, JAMES S. FOX, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Railroad-Tie Plates; and I 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, which form a part of this specification.

My invention relates to certain new and useful improvements in a railroad tie plate, and it consists of the device hereinafter specified and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of plate in perspective; Fig. 2 an inverted view in perspective. Fig. 3 is a similar view of a modification. Fig. 4 shows the engagement of the plate upon the tie, beneath the rail in plan, and Fig. 5 is a vertical cross section on the line *x*—*x* Fig. 4. Fig. 6 is a modification of the device shown in Fig. 1.

The object of my invention is to provide a railroad tie plate of improved construction, which shall possess greater simplicity, economy and efficiency than those heretofore employed.

To these ends I carry out my invention as follows:

A represents my improved tie plate. B a railway tie, on which the same is located, and C denotes a railway rail located upon said plate. The plate is constructed with ribs "*a*," preferably two in number, struck from the body of the plate and bent downwardly therefrom, leaving the edges of the plate intact and in a flat condition. The striking out said ribs is effected by cutting down the plate on three sides intermediate the edges of said plate, and turning downward the rib so cut, along the edge left integral with the plate, leaving an orifice "a'" in the formation of each rib. These orifices may be of angular or other desired form. By striking out an angular shaped rib, there is formed an entering point thereon, as at "a^2," and in entering the tie, the flange has a shear cut. But I do not limit myself to any particular form of the rib or corresponding orifice. The plate may be made of metal, either forged, stamped or cut or otherwise, as I do not limit myself to any particular manner of manufacturing the same.

My invention contemplates the formation of the ribs at such parts of the plate, that the rail when secured thereupon will cover said orifices entirely with the exception of a small portion at the outward extremities thereof sufficient to receive a spike D, which when driven home, fills and covers said orifices at the outer extremities thereof, so that the said orifices are completely covered by the rail and the head of the spikes.

Another great advantage in said tie plate consists in the obvious fact that the ribs which are driven into the wood are in such a position that the grain of the wood where the ribs enter is covered and protected from the weather by the plate and the rails and spike head, so that the wood where the ribs enter is not exposed to damage and decay as where the wood is not so protected.

If desired additional holes "a^3" for additional spikes may be struck out of the plate as shown in Fig. 3. In striking out the plate for said spike holes "a^3," the metal may be cut so as to be pressed upward to form two upwardly projecting flanges, as shown in dotted lines at "a^4," "a^5" in Fig. 2. These flanges "a^4," "a^5," it will be seen, will extend upward against the sides of the under flange of the rail, and act as a brace to hold the rail more firmly in place.

As shown in Fig. 1, I contemplate as coming within the scope of my invention, if desired, to strike out from the plate ears "a^6" or "a^7," the ears "a^6," "a^7" being slight modifications one of another. The ear "a^6" as shown is cut out on a circle and bent upward and inward, suitably to overlap the adjacent edge of the lower flange of the rail. The ear "a^7" is similar, but is cut out and bent of a little different shape. The plate provided with said ears may be applied under a rail by turning the plate at an acute angle to the rail until the edges of the flange of the rail are engaged under the ears, when the plate may be turned at right angles to the rail, or in required position.

As shown in Fig. 6, I prefer to provide the plate with angular shaped ears "a^8" made three-sided, the edges "*e*," "*e*" of opposite ears being parallel one with the other and the ears

"*f*," "*f*" of opposite ears also being parallel. This construction will obviously facilitate the application of the plates underneath the rails. Instead of the ears being three sided, they might be made V-shaped, as indicated in dotted lines Fig. 6.

What I claim as my invention is—

1. A tie plate provided with downwardly projecting ribs struck therefrom, forming orifices "*a'*" in the body of the plate, said orifices arranged to receive a spike at the outer extremity of each, and to be covered throughout their remaining portion by the railway rail, substantially as set forth.

2. A tie plate provided with downwardly projecting ribs struck therefrom, forming elongated orifices "*a'*" in the body of the plate, and with an ear projecting upward from the plate to engage the edge of the lower flange of the rail, said plate kerfed and struck upward outside said kerf to form said ear, said kerf formed at the inner edge of said ear, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

JAMES S. FOX.

Witnesses:
N. S. WRIGHT,
LEE BURT.