

(No Model.)

E. H. STONE.

APPLIANCE FOR SECURING FLANGED RAILS TO METAL SLEEPERS.

No. 513,838.

Patented Jan. 30, 1894.

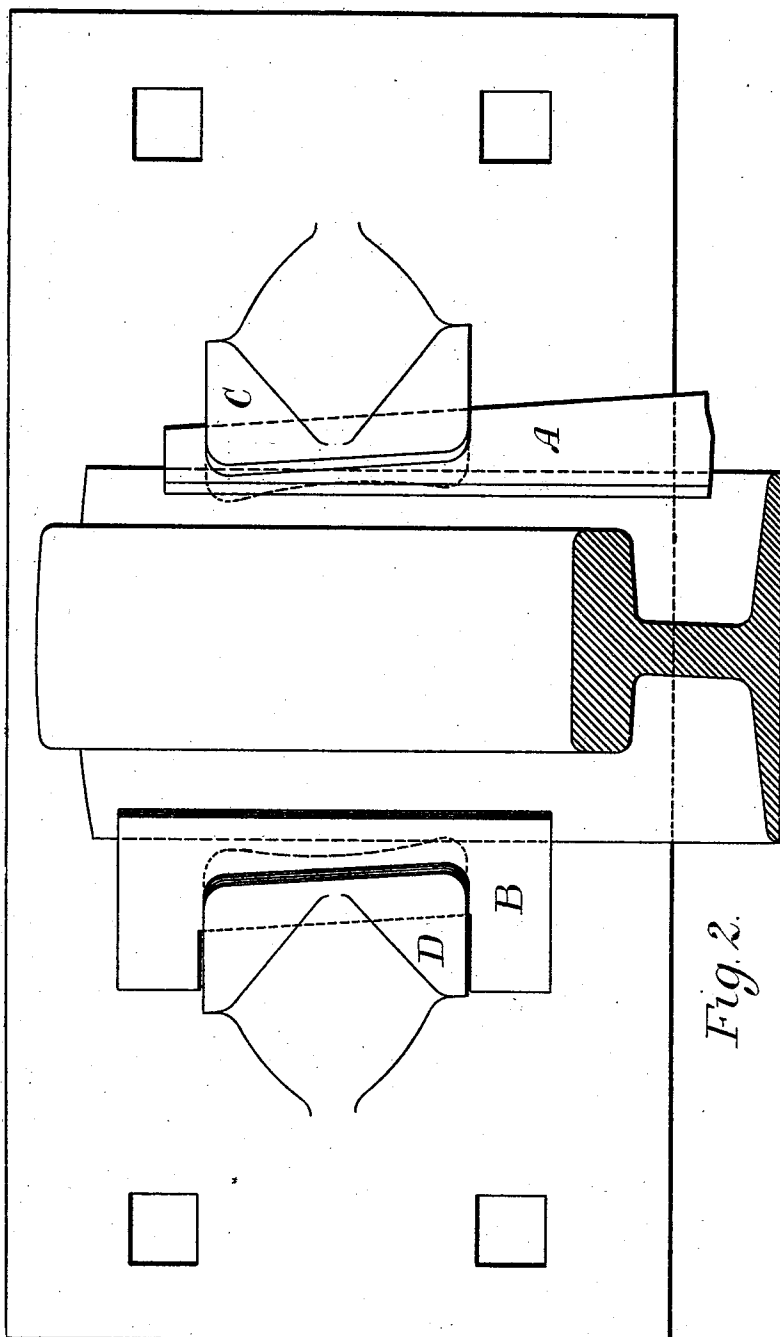


Fig. 2.

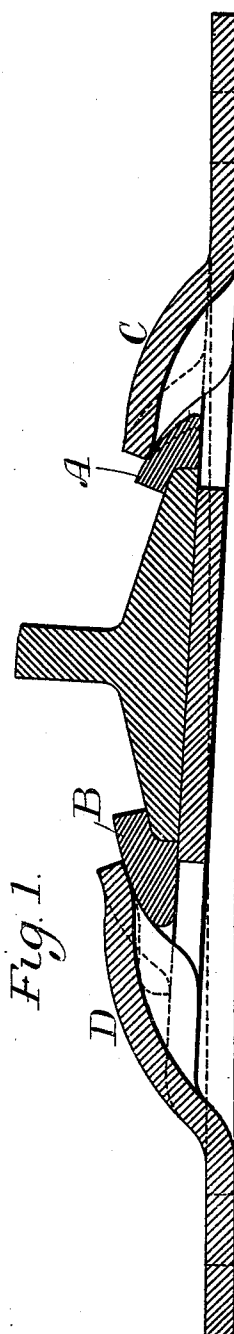


Fig. 1.

Witness:
G. W. Rea,
Thos. A. Gunn

Inventor,
Edward H. Stone
By James L. Norris
att'y

UNITED STATES PATENT OFFICE.

EDWARD H. STONE, OF SIMLA, INDIA.

APPLIANCE FOR SECURING FLANGED RAILS TO METAL SLEEPERS.

SPECIFICATION forming part of Letters Patent No. 513,838, dated January 30, 1894.

Application filed August 24, 1893. Serial No. 483,997. (No model.) Patented in England September 2, 1892, No. 15,788.

To all whom it may concern:

Be it known that I, EDWARD HERBERT STONE, a citizen of England, residing at Simla, India, have invented a new and useful Appliance for Adjustably Securing Flanged Rails to Metal Sleepers or Bearing-Plates, (for which I obtained a patent in Great Britain, September 2, 1892, No. 15,788,) of which the following is a specification.

10 This invention relates to means for securing flanged rails to metal sleepers or bearing plates in such a manner that the rail can be readily fixed or removed and that several variations of gage can be made to suit curved
15 parts of the line without having to change the sleeper or the position of the bearing plate.

Figure 1 of the accompanying drawings is a transverse section and Fig. 2 is a plan showing the fixing of a rail to a bearing plate according to this invention.

The special feature of the invention is the use of a key A and a distance piece B in combination with the bearing plate or sleeper so
25 that the jaws C. D can be placed sufficiently wide apart to allow of a rail being readily put in place or removed. The distance piece B determines the definite gage and the key A tightens up and keeps the rail firmly secured. For normal gage the distance piece B is applied outside each rail. For the widest
30 gage it is applied on the inside of each. An intermediate gage between the normal and the widest can be obtained by applying a distance piece inside the one rail and outside the other. A graduation of gage from normal to intermediate or from intermediate to widest is obtained by the substitution of a
35 second key for one of the distance pieces, the adjustment of the two keys (one on each side of the rail) allowing the graduation to be effected over such length as may be desired, instead of making a sudden change in gage between one sleeper and the next.

45 The distance piece B is by preference formed as a gib with two ears or lugs to give it greater security against being tipped backward, and with a taper corresponding with the taper of the key. The jaws C D being
50 similarly inclined the rail is then fixed at right angles to the bearing plate.

The jaws or clips C D are shown as being

punched up from the body of the bearing plate. They might obviously be fixed on the plate by riveting or otherwise, or the plate
55 itself might be cast with these. Also the mode shown of fixing the rail to a bearing plate is obviously applicable in the case of a metallic sleeper, having clips or jaws punched up or otherwise formed on or fixed to the
60 sleeper.

The bearing plate shown in the drawings is dished in order to increase its stiffness and also to give the bed for the rail an inclination suited for its tilt. The jaws C D are punched
65 up preferably with a corrugation in the middle, forming as it were an abutment to support them against the strain to which they are subjected by keying the rail in position. When a metal sleeper is employed instead of
70 a wood sleeper with bearing plate, the upper face of the rail seat may be inclined like that of the bearing plate to give the tilt for the rail, and the jaws may be similarly corrugated.

75 It is to be understood that I make no general claim to the use of metal bearing plates or sleepers having jaws either plain or corrugated to hold rails secured in them by keys, but,
80

Having thus particularly described the nature of this invention and the best means I know for carrying the same into practical effect, I claim—

The herein described fastening for flanged
85 rails, consisting of a metal bed-plate, provided with jaws between which the rail is located, a tapering distance piece having lugs or projections on its tapering side, said distance piece being located between one of the
90 jaws, and one side of said rail, and a wedge-shaped key inserted between the opposite jaw and other side of the rail, as and for the purpose set forth.

In testimony whereof I have signed my
95 name to this specification, in the presence of two subscribing witnesses, this 22d day of February, A. D. 1893.

E. H. STONE.

Witnesses:

A. R. WALSH,
Assistant Engineer.

C. O'LEARY,
Supr. E. C. Ry.