

No. 821,408.

PATENTED MAY 22, 1906.

G. S. FINKLE.
RAIL FASTENING.
APPLICATION FILED JAN. 25, 1906.

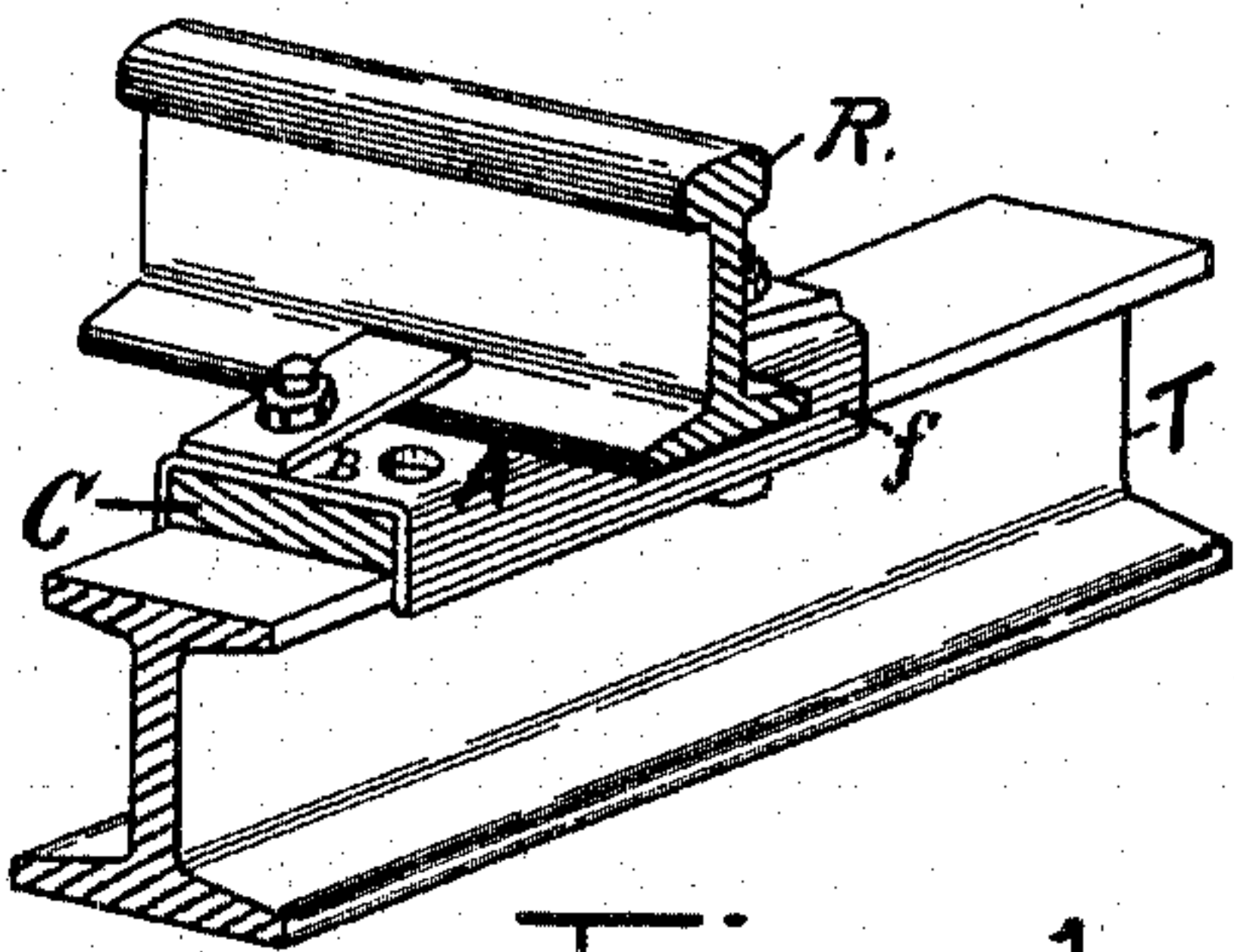


Fig. 1.

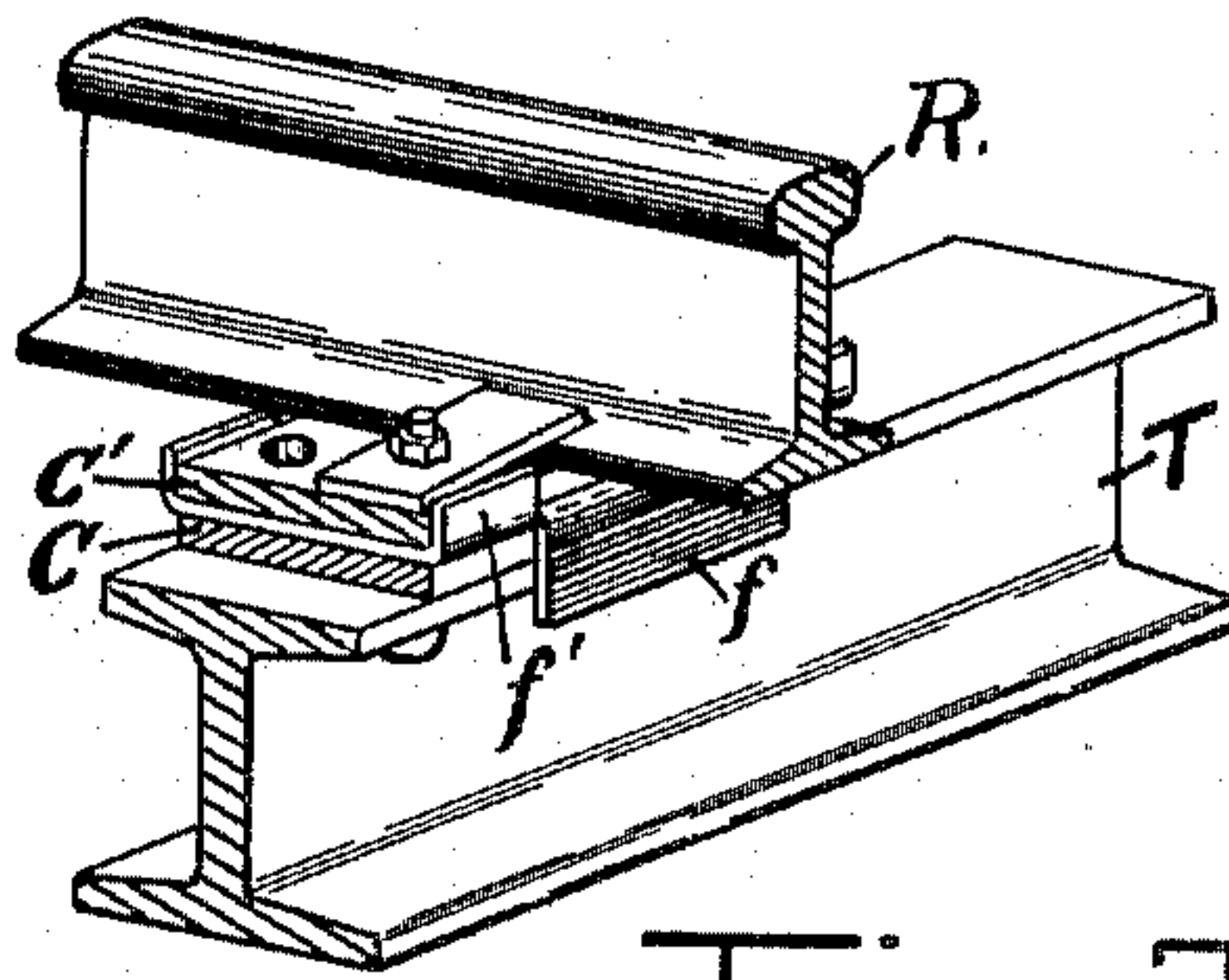


Fig. 2.

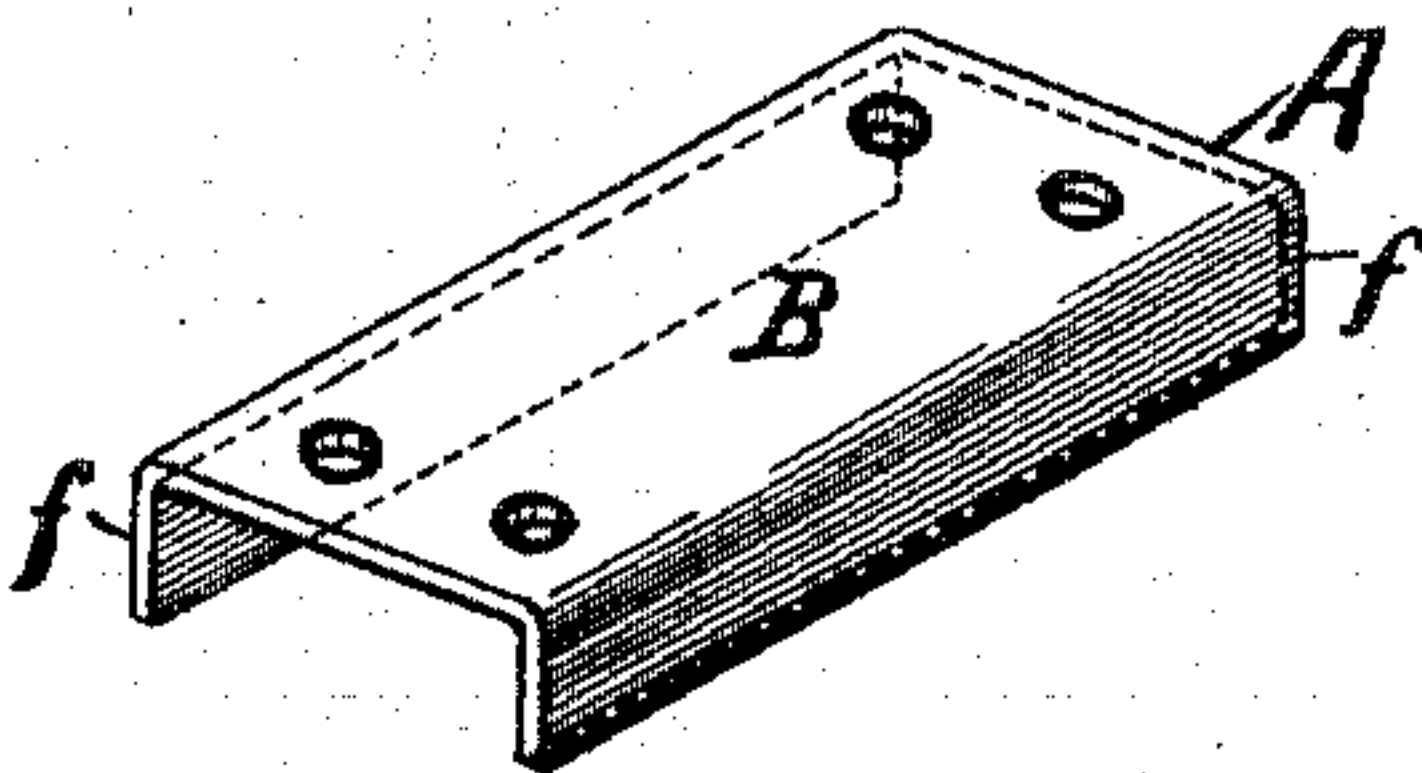


Fig. 3.

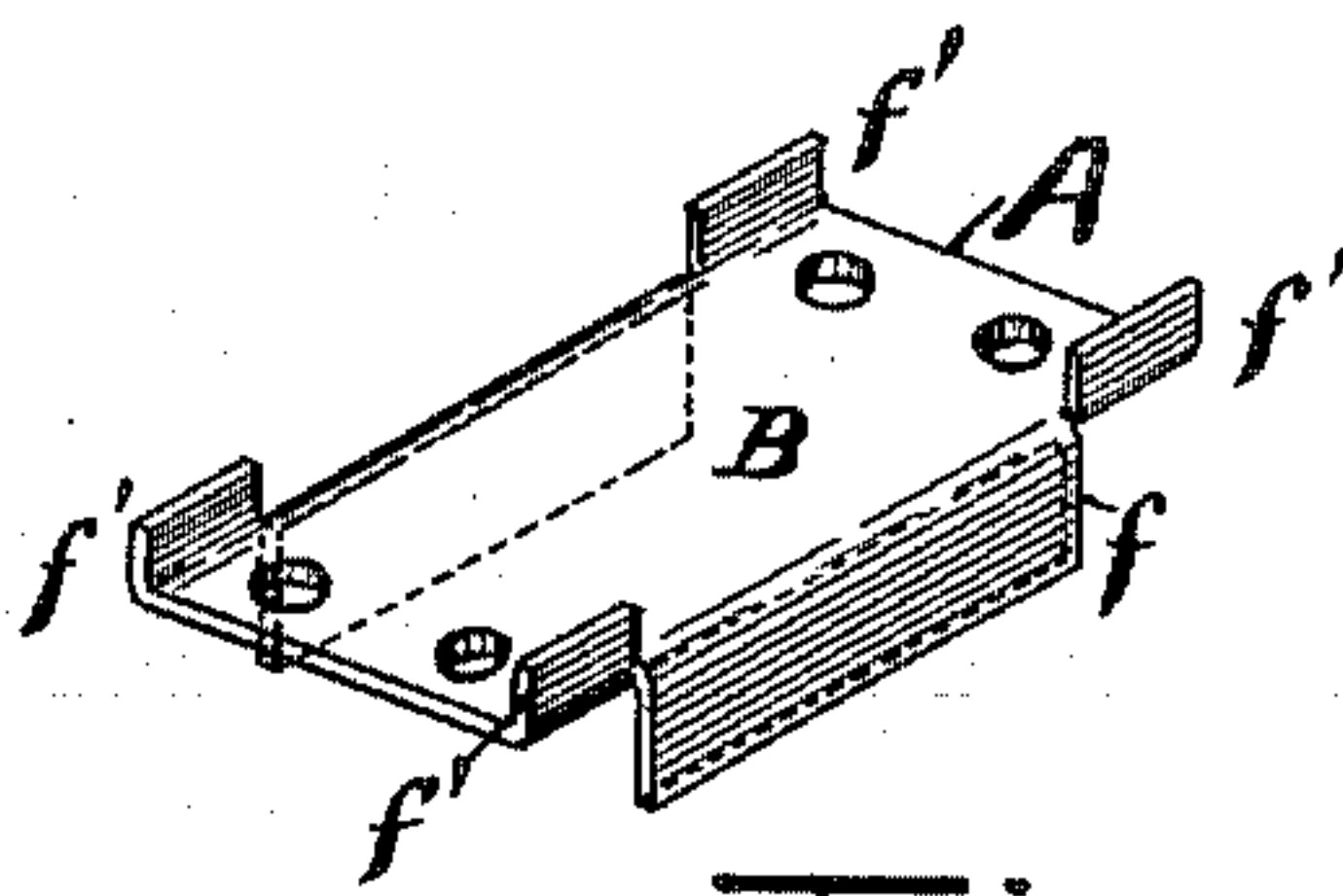


Fig. 4.

WITNESSES:

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RAIL-FASTENING.

No. 821,408.

Specification of Letters Patent.

Patented May 22, 1906.

Application filed January 25, 1906. Serial No. 297,741.

To all whom it may concern:

Be it known that I, GEORGE S. FINKLE, a citizen of the United States, residing at the town of East Greenbush, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Rail-Fastenings, of which the following is a specification.

My invention relates to metal railway-ties; and the object of my invention is to provide a means whereby the cushion which is inserted between the metal tie and the rail and upon which the rail rests is protected and prevented from chipping and falling out. I attain this object by means of the device illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my invention as applied to a metal tie. Fig. 2 is a perspective view of a modified form of my invention as affixed to a metal tie. Fig. 3 is a perspective view of my invention having two flanges *f f*. Fig. 4 is a perspective view of my invention, showing six flanges *f* and *f'*.

Similar letters refer to similar parts throughout the several views.

In the use of metal railway-ties it is necessary to provide a cushion *C*, Fig. 1, on the metal tie upon which the rail may rest, which is constructed of wood or some other elastic material. This cushion, owing to the weakening effect caused by the bolts which clamp the rail down passing through it and also because of the great weight brought to bear upon it by means of the passing trains, is constantly splitting and falling out. To protect said cushion and prevent its splitting and falling out, I provide a metal plate *A*, Fig. 3, with flanges *f*, said flanges being of sufficient length to laterally embrace the cushion *C* and also the upper sides of the metal tie, as shown in Fig. 1, thus acting as a clamp to prevent the sides of said cushion *C* from splitting and falling out.

As it may be desirable to use an extra cushion or shim *C'*, Fig. 2, I provide a modified form of my invention consisting of a plate *A*, Fig. 4, having six flanges *f* and *f'*, turned at angles to its base *B*, said flanges *f* being constructed of sufficient length so that they laterally embrace the cushion *C* and also the upper portion of the metal tie *T*. The said flanges *f'* are so constructed and placed that they laterally embrace the cushion or shim *C'*, thus acting as a clamp and preventing the

said cushions and shims from splitting and falling out.

It is apparent that as the plate *A* lies at right angles to the rails it is essential that the cushion and shim holding flanges be so disposed as to give a seat for the rail *R*, while at the same time they will effectually retain and support the cushions or shims above and below the plate *A*, and this desirable and necessary result I accomplish by turning the flanges *f* in the middle portion of the plate *A* downwardly, thereby providing a rail-seat and at the same time embrace the cushion *C*, the end flanges *f* being turned upwardly, so as to embrace the top shim or cushion *C'* on each side of the rail *R*. It will be observed, furthermore, that in both forms of my invention herein disclosed the depending flanges *f* on the plate *A* drop below the cushion *C* and embrace the tie, and this I consider of particular importance, for the reason that the cushion is by this construction supported and bound at every point, and all danger of lateral spreading and disintegration under pressure is eliminated.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with a metal tie; a chair-cushion thereon; a rail-chair on said cushion, said rail-chair having depending flanges which span said cushion at its sides and lap the tie; and rail-clamps secured to said chair.

2. In combination with a metal tie; a chair-cushion thereon; a rail-chair on said cushion; a rail-supporting shim on said chair; depending flanges at the middle of said chair which span said cushion at its sides, lap the tie, and provide an unobstructed rail-seat; upwardly-turned flanges at the ends of said chair which span the rail-supporting shim at each side of the rail; and means for securing the rail to said chair and tie.

3. In combination with a metal tie; a chair-cushion thereon; a rail-chair formed of a slit plate having its relatively wide central tongues turned downwardly at substantially right angles to the chair-body to form a rail-seat, span said cushion, and lap the tie, and having its end flanges turned up at substantially right angles; a shim resting upon said chair and confined against lateral movement by said end flanges; and means for securing the rail to said chair and tie.

4. A rail-chair formed of a metal plate laterally slit near its ends and having its central tongue portions bent downwardly at substantially right angles to form cushion and
5 tie embracing flanges, and its end tongues bent upwardly at substantially right angles to form shim and tie-plate embracing flanges.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE S. FINKLE.

Witnesses:

DUDLEY B. WADE,
LOTTIE PRIOR.