(No Model.)

A. L. WITHERS, Jr.

COMBINED RAILWAY CHAIR AND SLEEPER.

No. 260,724. Patented July 4, 1882.

Fig. 1.

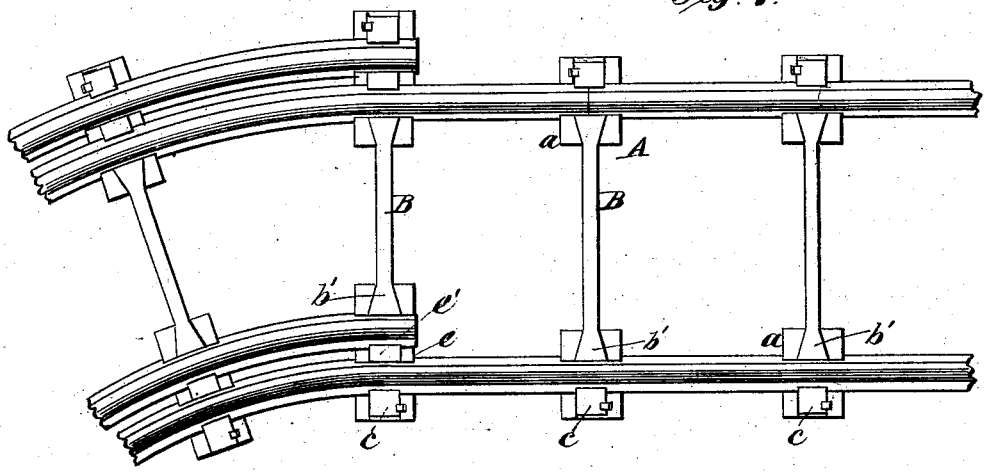
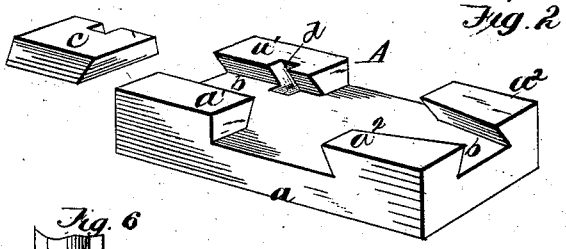


Fig. 5.

Fig. 2.



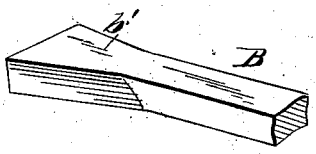


Fig. 6.

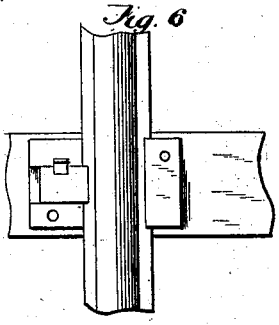


Fig. 3.

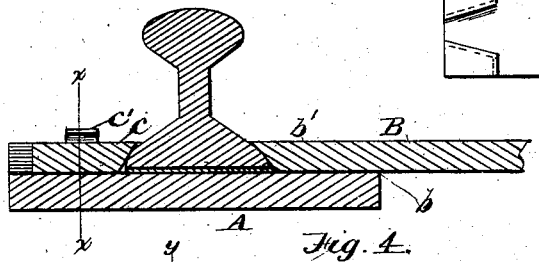


Fig. 7.

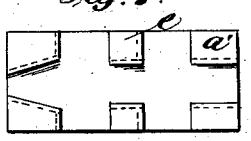
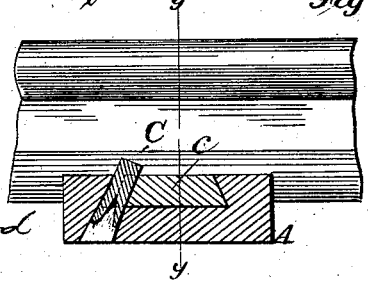


Fig. 4.



WITNESSES

W. H. N. Knight

Harry Bernhard

A. L. Withers Jr.

INVENTOR

By Edson Bros

Attorneys

UNITED STATES PATENT OFFICE.

ADDISON L. WITHERS, JR., OF SUMMIT POINT, WEST VIRGINIA.

COMBINED RAILWAY CHAIR AND SLEEPER.

SPECIFICATION forming part of Letters Patent No. 260,724, dated July 4, 1882.

Application filed April 1, 1882. (No model.)

To all whom it may concern:

Be it known that I, ADDISON L. WITHERS, Jr., a citizen of the United States, residing at Summit Point, in the county of Jefferson and State of West Virginia, have invented certain new and useful Improvements in Combined Railway Chair and Sleeper, of which the following is a specification, reference being had therein to the accompanying drawings, and in which—

Figure 1 is a plan view of my improved combined railway chair and sleeper. Figs. 2, 3, 4, 5, and 7 are detailed views thereof; and Fig. 6 is a similar plan view, showing the application of key and cheek-pieces to an ordinary tie and rail.

This invention relates to an improved combined sleeper and chair for railway-rails, having for its object to dispense with the ordinary tie-chair, fish-plates, bolts, and spikes, thereby greatly promoting simplicity, reducing expense, and facilitating the laying of the track; and it consists in the employment of a sleeper adapted to permit the attachment thereto of a tie-rod and the securing thereon of the rail, by means substantially as hereinafter more fully set forth and claimed.

As will be observed by referring to the accompanying drawings, A indicates the sleeper, formed in two sections, *a a*, one placed under each rail of the track. The sleeper A has a socket formed in its upper surface for the rail to rest in, providing it with cheeks a' a^2, of which a^2 is beveled toward its lower edge to fit upon the flange on one side of the rail, and thus aid to secure the rail in position as against lateral and vertical displacement. This inner cheek-piece, a^2, has a tapering dovetailed groove, *b*, extending through it at right angles to the socket of the sleeper, to permit the connecting thereto without other fastenings of the tie-rod B, made with a tapering beveled enlargement, b', at each end, fitting in said groove. Endwise movement of the tie-rod is prevented by the rails resting in the sockets of the sleeper and in contact with the ends of said rod. The other or outer side, a', of the socket of the sleeper is perpendicular to permit the ready insertion from above therein of the rail, which is held as against vertical displacement on that side by means of a movable cheek-piece, *c*, tapered toward its upper surface, to slide into and be held in said socket, and beveled at its inner end to enable it to rest upon the flange on that side of the rail. The cheek-piece *c* is itself secured in place by means of a key, C, forked at its lower end, and having its arms thus formed turned slightly outward to permit the springing of the key into the flaring socket *d*, one-half of the upper portion thereof made in one edge of the cheek-piece *c*, and the opposite half and lower portion thereof made in the sleeper, and the wedging of the key in place when driven home.

It is obvious that the key will by its wedging action secure itself in place as against downward displacement.

To provide for the reception and holding in place of the usual curved guard-rails at a curve in the track, the sleepers used at the curves are provided in each section *a* with a duplication of the rail-socket, the separating wall or partition *e* between the two sockets thus formed having a dovetailed groove, which receives a correspondingly-shaped block, e'. (See Fig. 1.) The block e' projects over the lower-rail flange on each side to assist in securing it in place.

It will be learned from the foregoing that the ordinary tie, chair, fish-plates, bolts, and spikes are dispensed with, which effects a great saving of expense, promotes simplicity, and facilitates the laying of the track.

It is observed that the key is made with a solid head, or, in other words, the arms of the forked portion are not permitted to extend to a point where it comes in contact with the cheek-piece resting against the rail, as, were such the case, the vibrations received from the rail upon the cheek-piece, which are also transmitted to the key, would have the effect to spring the key out of place.

I claim and desire to secure by Letters Patent—

1. The combination of the tie-rod B, having beveled tapering ends, with the sleeper A, having a transverse socket, a longitudinal dovetailed groove crossing its socket and cheeks a' a^2, and the keyed cheek-piece *c*, substantially as and for the purpose set forth.

2. The combination of the tie-rod B b', the sleeper A, having the rail-socket, the cheeks a'

a^2, and the dovetailed groove b, the cheek-piece c, and the forked key C with its arms turned outward, substantially as and for the purpose set forth.

3. The combination of the tie bar or rod B b', the sleeper A, having the double rail-socket, the separating-partition e, having a dovetailed groove, the dovetailed block or slide e', the sliding cheek-piece c, and the key C, substantially as and for the purpose set forth.

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

ADDISON L. WITHERS, JR.

Witnesses:

JOSEPH FORREST,

HARRY BERNHARD.