R. D. WATSON.

Car-Replacers.

No. 158,656. Patented Jan. 12, 1875.

Fig 1

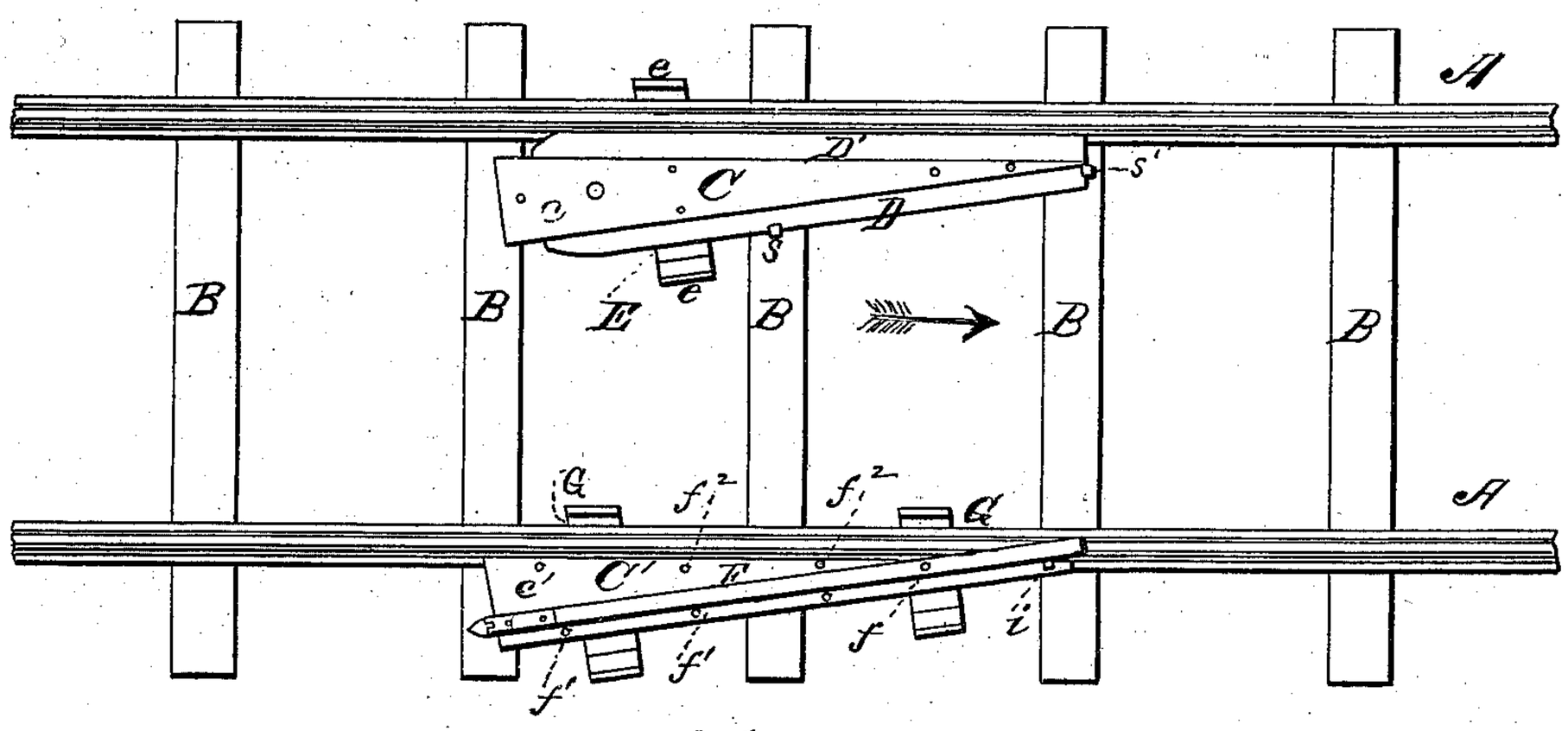


Fig 2

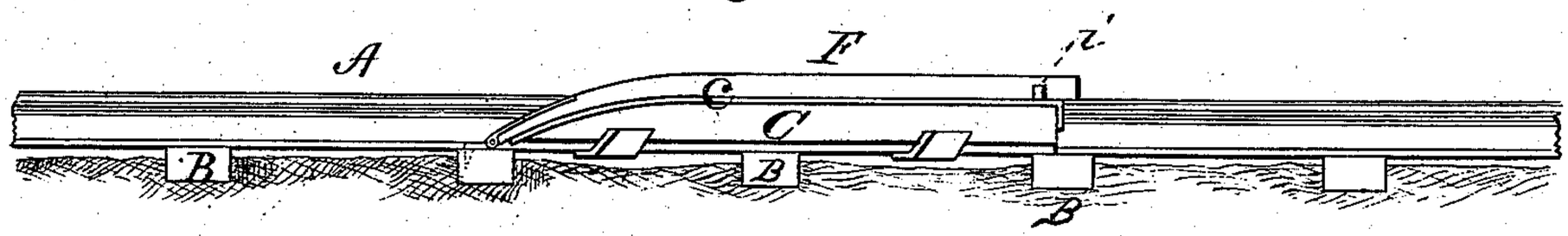


Fig 3

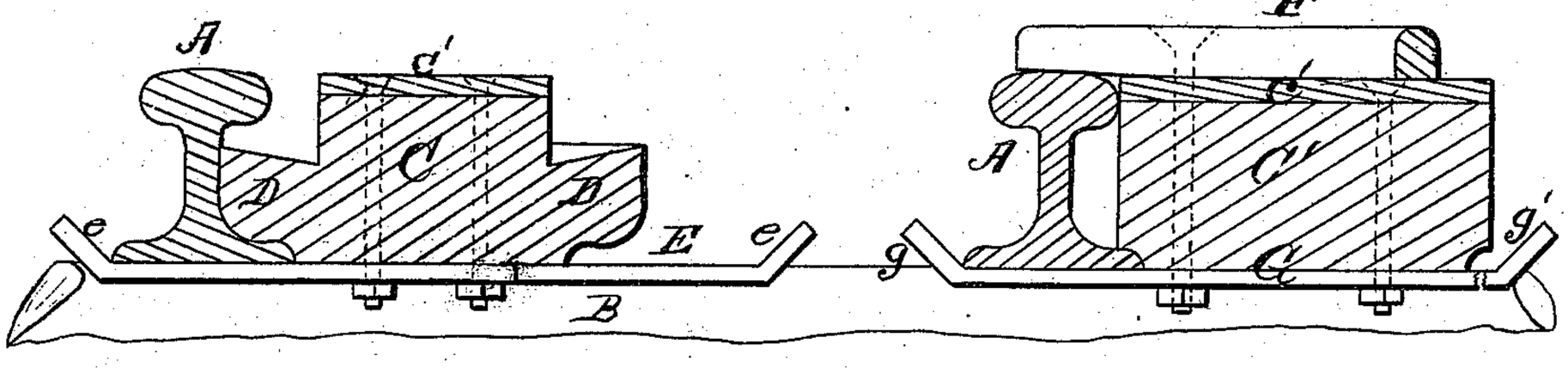
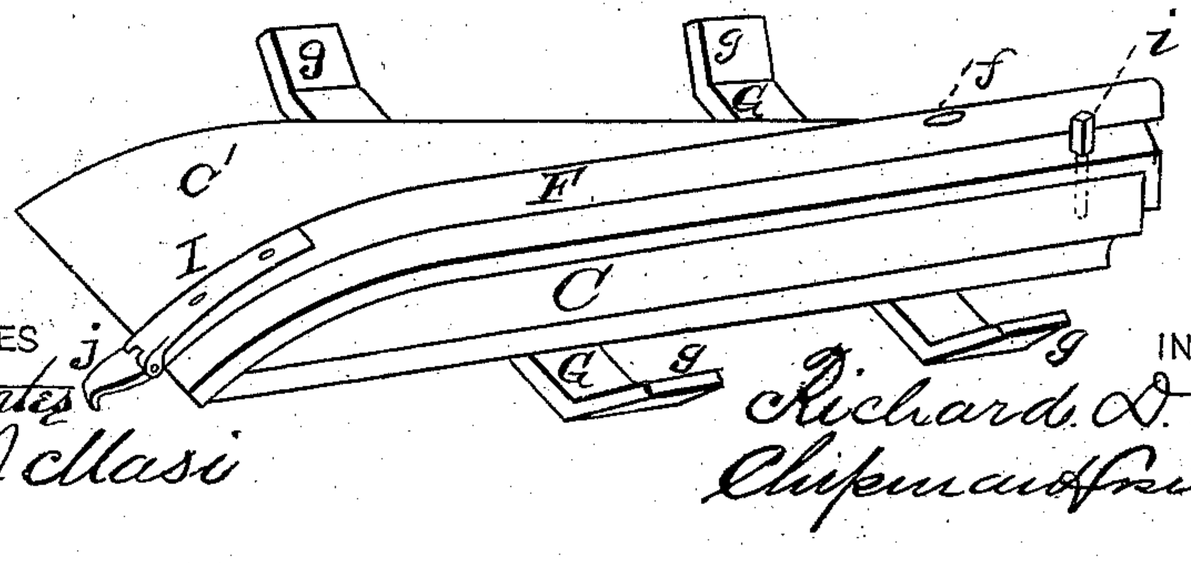


Fig 4



WITNESSES

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RICHARD D. WATSON, OF FINDLEY, OHIO.

IMPROVEMENT IN CAR-REPLACERS

Specification forming part of Letters Patent No. **158,656,** dated January 12, 1875; application filed October 24, 1874.

To all whom it may concern:

Be it known that I, RICHARD D. WATSON, of Findley, in the county of Hancock and State of Ohio, have invented a new and valuable Improvement in Car-Replacers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a plan view of my device. Fig. 2 is a side view of the same. Fig. 3 is a sectional view, and Fig. 4 a detail view, of the same.

This invention has relation to devices which are designed for replacing untracked cars upon a railway; and the nature of the invention consists, mainly, in two angular blocks, the inner one having track-flanges rigidly secured to the edges of its two longer sides, below the level thereof and of the track, and the outer angular block having a section of rail upon its upper surface, whereby an untracked car, when it is drawn up upon the two blocks, will have the flange of its front outer wheel arrested by the rail-section, causing its tread to mount thereon, thereby directing the car in a proper course for engaging the flange of the inner wheel in the depression between the rail and the inner block, thus effectually replacing the front wheels of the car upon the rails, upon which the rear wheels will consequently be placed by a forward movement of the car.

It also consists in a dog having a downwardly-bent spike end, which is hinged to vibrate vertically to the downwardly-inclined end of the rail of the outer block, which, when driven into a tie of a railway, will prevent the said block from sliding forward when it is forcibly struck by the front wheels of a car being replaced.

It also consists in a rail-section of the angular outer block, which is pivoted thereto at or near its apex or acute angle, both sides of the inner block being of exactly the same construction, whereby the two blocks are adapted to be used in replacing a car thrown off at either side of the track when going in either direction.

It furthermore consists in metallic plates having a hooking part upon each end, rigidly secured to the under side of the two angular blocks, so that the hooks shall turn upward and project equally beyond the longer sides thereof, whereby the said blocks are adapted to be readily attached to or detached from the rails, all as will be fully understood from the following description.

In the annexed drawings, A designates the two rails of a railroad, which are applied to ties B in the usual well-known manner.

For the purpose of exemplifying the method of using my improved replacer, I have supposed the car to be progressing in the direction of the arrow shown in the drawings, and that the car had been untracked to the right. With these observations I shall proceed with the description.

C designates the inner, and C′ the outer, angular block, both of which are preferably of the same size and present equal corresponding angles, and are provided, as to their upper surfaces, with a metal sheathing, *c c′*, rigidly secured thereto. The ends of both of these blocks, opposite to their acute angles, are beveled downwardly, presenting inclined surfaces, to which the sheathing conforms; and the latter may be rigidly secured to the under side of the said blocks by means of tongues, which may be a part of the sheathing, and which are nailed to the blocks. D D′ indicate track-flanges, which are rigidly secured to long sides of the block C below the level of upper sheathing; and E designates a plate, which is rigidly secured to the under side of the said block, so that its upturned ends, forming hooks *e e*, shall project equally beyond the track-flanges D D′, as shown in Fig. 1. F designates a section of rail, which is pivoted at *f* to vibrate horizontally on the block C′, and is prevented from undue vibration by the studs f^1 f^2, which are arranged along both edges of the block, and by a removable pin, *i*, which is inserted into a perforation in the block in front of the pivot *f*, and slightly in rear of the front end of the rail F. G designates hooked plates, similar in all essentials to the plates E, and, like them, having their hooked ends projecting equally beyond the block C′.

A car having left the track to the right while going in the direction of the point of the

arrow, the blocks are applied to the track by engaging their hooks under the rail, the block C to the inside of the left-hand rail, and the block C′ to the outside of the right-hand rail, as shown in Fig. 1, when the front end of the rail F will overlap the latter. The replacer being in this position, the car will be drawn toward and up the blocks by the locomotive, the right front wheel coming in contact with the rail F, whereby it is prevented from going off in that direction, while the inclination thereof causes the inner front wheel to be approximated nearer and nearer to the left-hand rail until its flange falls into the space between the inner edge of the block C and the said rail. The forward movement of the locomotive being still continued, the right-hand front wheel will mount the track F, and will be thereby directed to its point of junction with the rail, within which the flange will become engaged, thus placing the front wheels of the truck upon the track. It is generally well known that the rear wheels of a truck accurately track with the front; hence, a further advance will replace the former upon the track. If it should be the case that both trucks have left the track, a repetition of this process will effect a like result. If the car has left the track to the left, the relative positions of the blocks C C′ are changed, the latter being attached to the outside of the left-hand track, and the former to the inside of the right-hand track. In this case the pin *i* is withdrawn from its perforation in the block C′, and the rail F rotated against the studs f^2, and, the pin having been replaced, the blocks are ready for use.

With a view to preventing a forward displacement of the blocks C C′, I drive a spike in front of the former and at its sides, as shown at *s′ s* in Fig. 1, and provide the rear end of the rail F with a dog, I, which has a downwardly-bent spike end, *j″*, (shown in Fig. 4,) which is adapted to be driven into the tie B, and which is preferably hinged to the said end of rail F.

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

1. The combination, with the detachable block C′, of the hinged dog I and rail F, substantially as specified.

2. The combination, with the pivoted rail F, of block C′, the studs f^1 f^2, and the detachable pin *i*, substantially as and for the purpose set forth.

3. The hooked plates E G, rigidly secured to the under side of the block C, (said block having track-flanges D D,) and the block C′, in combination with the rails A A, as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

RICHARD DAVID WATSON.

Witnesses:

A. BLACKFORD,

I. R. CLARK.