

(No Model.)

H. GREER.  
RAILWAY RAIL.

No. 489,948.

Patented Jan. 17, 1893.

FIG. 1.

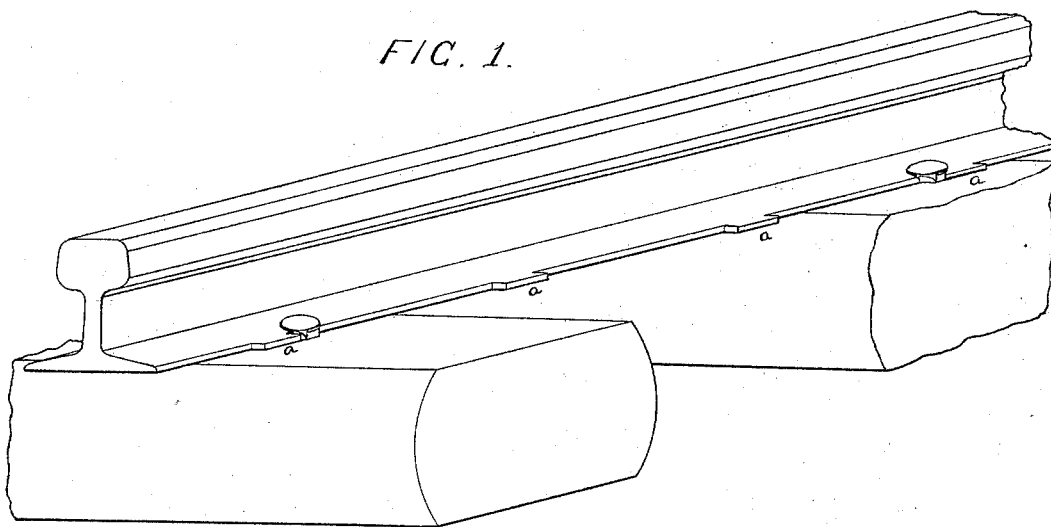
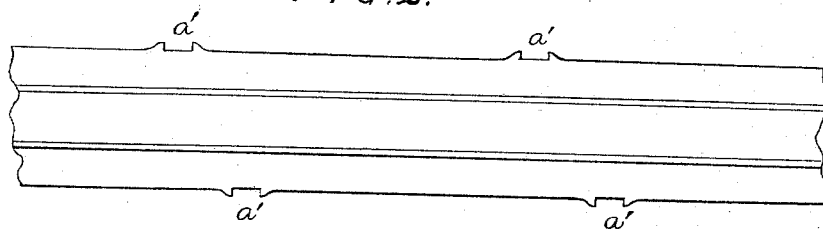


FIG. 2.



Witnesses  
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# UNITED STATES PATENT OFFICE.

HOWARD GREER, OF CHICAGO, ILLINOIS.

## RAILWAY-RAIL.

SPECIFICATION forming part of Letters Patent No. 489,948, dated January 17, 1893.

Application filed February 17, 1890. Serial No. 340,754. (No model.)

*To all whom it may concern:*

Be it known that I, HOWARD GREER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented or discovered a certain new and useful Improvement in Railway-Rails, of which improvement the following is a specification.

Figure 1 is a view in perspective of a portion of a railway track showing one form of my present invention. Fig. 2 is a top view of a railway rail illustrating a modification of the form of my invention as shown in Fig. 1.

The object of my invention is to provide any of the known forms of railway rails with any desirable number of lugs or projections extending outward from the flanges of the rails in such manner and position and to such extent as will securely engage the spikes, clamps, bolts or other devices usually employed to fasten the rails to the cross-ties or longitudinal sleepers and thereby effectually prevent the longitudinal travel of the rails called "creeping of the track." "Creeping of track" always has been a difficult problem with steel rails since the brittle nature of rail steel precludes the use of the spike slots or notches so generally relied upon to prevent iron rail tracks from traveling. Most railroads use the angle splice bars with spike slots in their flanges to prevent creeping. This is a poor expedient first because only a few ties in thirty feet of track can be engaged secondly the great strains brought on the splice bar bolts in resisting the creeping so loosens the bars as to greatly impair their joint supporting properties. All these difficulties are effectually and economically overcome by my system of forming lugs or projections exterior to the usual edges of rail flanges. Figs. 1 and 2 show these projections as formed by rolling. They extend horizontally from either one or both flanges of the rails as at *a, a, a, a* and *a', a', a', a'*.

To enable skilled mechanics to make my improved rails I will describe the best mode of forming them.

The simpler and more desirable form of my improvement shown by Figs. 1 and 2 is made as follows: In the finishing passes or grooves of any of the usual two or three high trains of rail rolls on the rail flange forming grooves

upon the roll opposite the one carrying the guides depressions or matrices should be cut of such shape and size and at such distances apart as will produce the desirable number and kind of projections when the rails in the ordinary operation of rolling are passed through said grooves.

The rolls and other machinery necessary for producing my improved rails will form the subject-matter of other applications if deemed advisable.

I do not broaden the rail flanges where such flanges lie on the ties or stringers for the purpose of giving additional bearing or wearing surface or to prevent the rail-way rails from being tilted or turned over but simply add small lugs or projections of proper shape, size and location to engage the rail-way spikes or devices for holding the rails to the ties or stringers. For the purpose of arresting the longitudinal not lateral motion of the rails and my object will be accomplished if the lugs be rounded or flared upward so as to stand free from the surfaces of the ties provided said lugs extend outwardly in a horizontal direction far enough to engage the spikes on their edges. In fact a foot or lug of sufficient size to give lateral stability to rail-way rails by resting on the tie would destroy the uniformity of elasticity, arrest the wave line of deflection, due to passing loads and thereby impair the strength of the rail flange.

The entire utility of my invention consists in providing small catches for the spikes without disturbing the uniformity of the rail flanges.

I claim herein as my invention:—

Rail-way rails provided with small lugs or projections extending horizontally beyond the usual edges of the rail flanges said projections being on one or both flanges and at convenient distances apart to engage the rail spikes or clamps for the purpose of preventing the creeping of the track substantially as set forth.

In testimony whereof I have hereunto set my hand.

HOWARD GREER.

Witnesses:

G. S. BUTLER,  
E. E. BUTLER.