(No Model.)

E. M. TURNER & L. A. BROWN.

METHOD OF MAKING COMBINED GUARD AND GUIDE RAILS.

No. 456,100. Patented July 14, 1891.

Fig. I.

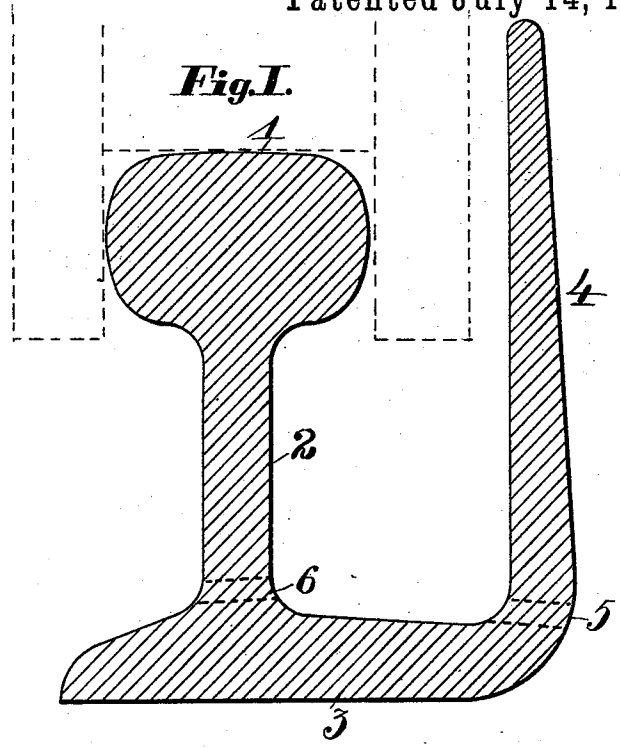
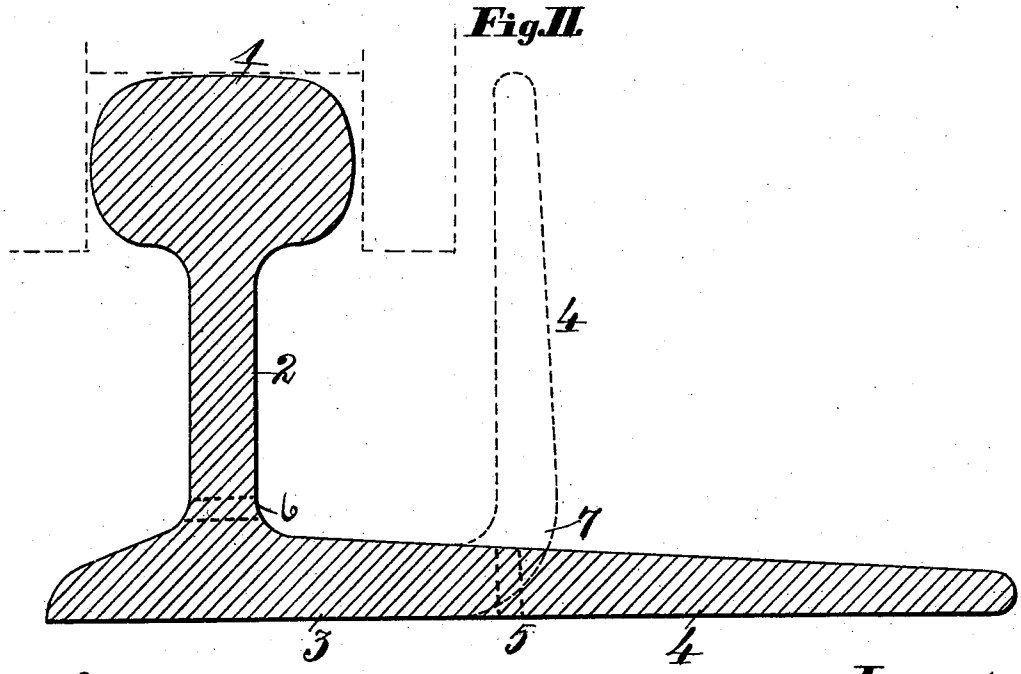


Fig. II.



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UNITED STATES PATENT OFFICE.

EPHRAIM M. TURNER AND LEWIS A. BROWN, OF ST. LOUIS, MISSOURI, ASSIGNORS TO THE NATIONAL UNICYCLE ELEVATED RAILWAY CONSTRUCTION COMPANY, OF EAST ST. LOUIS, ILLINOIS.

METHOD OF MAKING COMBINED GUARD AND GUIDE RAILS.

SPECIFICATION forming part of Letters Patent No. 456,100, dated July 14, 1891.

Application filed October 2, 1890. Serial No. 366,867. (No model.)

To all whom it may concern:

Be it known that we, EPHRAIM M. TURNER and LEWIS A. BROWN, of St. Louis, Missouri, have invented certain new and useful Improvements in Methods of Making Combined Guide and Guard Rails, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

Our invention relates to an improved method of making combined guide and guard rails particularly adapted for the usages set forth in United States Patent No. 424,693, granted to Ephraim M. Turner and James P. Taylor April 1, 1890; and the said method consists in the novel steps hereinafter described and claimed.

In the drawings, Figure I is an end section of the completed rail, and Fig. II is a similar view showing the method of forming the guard-flange on same.

1 represents the head, 2 the web, and 3 the base of the rail, said head and web being of the ordinary form, but during the process of rolling and shaping the rail one side or edge of the base 3 is provided with an additional amount of metal integral with the usual amount, making a comparatively thick and heavy portion of the base on the enlarged side, and then this thick portion is further subjected to a rolling operation, and thereby reduced in thickness and correspondingly increased in width, until the base takes the form of an extension 4, which is then tapered in thickness from the web 2 to the outer edge of said extension, and a hole 5 is punched through said projecting base-extension, and the extension is then provided with a bend at 7, and said extension is turned upward at right angles to the base 3 (or at an angle thereto) and about parallel to the web 2 and, as shown by dotted lines, it may project not only as high as the top of head 1, but considerably above same.

A series of the holes 5 should be punched in the extended base, the series extending longitudinally of its length, and another series of holes 6 is punched in the web 2, just above the base and directly opposite the holes 5, into which the ends of the braces described in the patent before referred to may be inserted in hanging and securing these improved rails.

Although we prefer using our invention as "combined guide and guard rails" for the purpose of preventing derailment upon breakage of one of the flanges on double-flanged wheels, (indicated by dotted lines,) yet it is apparent that the rail is equally adapted for use upon elevated or surface roads for the purposes of a guard-rail.

What we claim is—

The herein-described method of making webbed and headed combined guide and guard rails, which consists in first rolling the rail with a base which is thicker and heavier on one side of the web than on the other side; second, reducing said heavy portion in thickness by rolling, thereby increasing its width, and, third, bending said widened portion into a plane parallel with that of the web of the rail, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

EPHRAIM M. TURNER.
LEWIS A. BROWN.

Witnesses:
C. C. LOGAN,
GEO. F. BUGFELD.