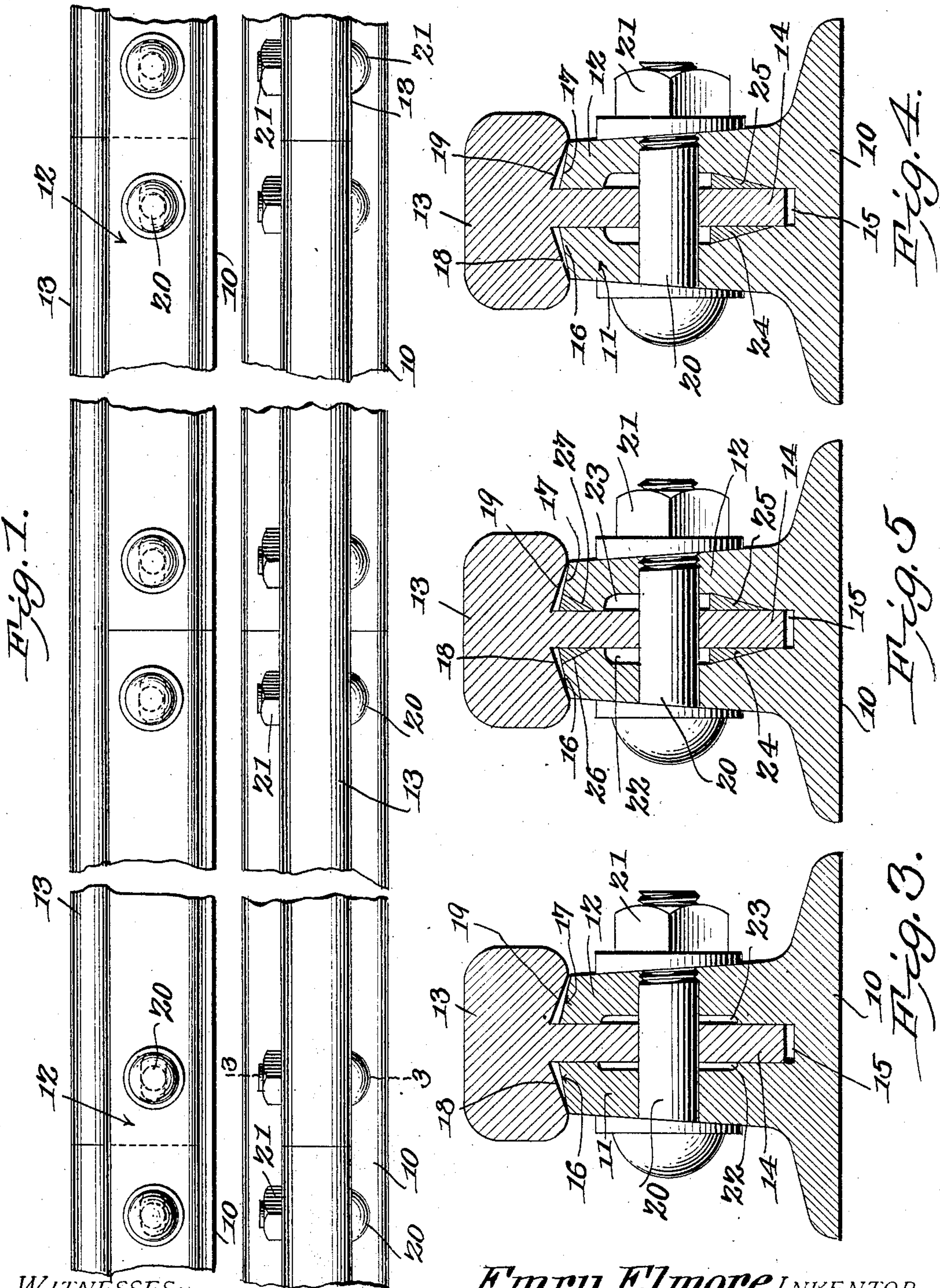


No. 828,543.

PATENTED AUG. 14, 1906.

E. ELMORE.
RAILWAY RAIL.
APPLICATION FILED MAR. 24, 1906.



WITNESSES:

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Fig. 2.

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UNITED STATES PATENT OFFICE.

EMRY ELMORE, OF GIBBS, MISSOURI.

RAILWAY-RAIL.

No. 828,543.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed March 24, 1906. Serial No. 307,894.

To all whom it may concern:

Be it known that I, EMRY ELMORE, a citizen of the United States, residing at Gibbs, in the county of Adair and State of Missouri, have invented a new and useful Railway-Rail, of which the following is a specification.

This invention relates to improvements in railway-rails, and has for its object to improve the construction and increase the durability, efficiency, and utility of devices of this character.

With this and other objects in view, which will appear as the nature of the invention is better understood, the invention consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of the embodiment of the invention capable of carrying the same into practical operation.

In the drawings, Figure 1 is a side elevation, and Fig. 2 is a plan view of portions of a plurality of the improved rails, illustrating the construction and means of connecting them. Fig. 3 is a transverse section, enlarged, on the line 3 3 of Fig. 2. Fig. 4 is a view similar to Fig. 3, illustrating a modification in the construction. Fig. 5 is a view similar to Figs. 3 and 4, illustrating another modification in the construction.

The improved rail comprises a lower member including the tie-flange 10 and with spaced webs 11 12 extending therefrom and an upper member including the head or tread 13 and a vertical web 14 depending therefrom between the spaced webs 11 12, the vertical web 14 being less in height than the spaced webs 11 12, so that when in position between them a space 15 will be maintained between the upper face of the tie-flange 10 and the lower face of the depending web 14. The upper faces of the spaced webs 11 12 are inclined outwardly and downwardly, as represented at 16 17, while the lower face of the head portion 13 is provided with longitudinal channels inclined inwardly and upwardly to a greater extent than the inclined faces 16 17, as shown at 18 19, so that when the two members are united the head portion bears only upon the outer corners of the webs 11 12 with the adjacent inclined faces drawing away from each other toward their inner ends. By these means the downward strains have a

tendency to compress the spaced webs 11 12 toward each other and bind the depending web 14 firmly between them, and in event of the wearing of the parts the constant downward pressure will take up the wear and maintain the parts in their closely-related condition and prevent all tendency to rattle or vibrate under the severe strain to which the rails are subjected by the passage of the trains. The three parts 11, 12, and 14 are connected at suitable intervals by clamp-bolts 20 and clamp-nuts 21 in the usual manner.

The base 10, together with their spaced webs 11 12, and the member 13, with its depending web 14, will preferably be of uniform length and arranged with the joints between the ends of the lower members centrally of the upper members and the joints between the upper members centrally between the joints of the lower members, thereby producing a continuous rail without transverse joints and doing away with the necessity for employing fish-plates or clamp-plates or other similar fastening means, the clamp-bolts 20 being applied directly to the rail members and requiring no other fastening. This "break-joint" arrangement of the rails is illustrated in Figs. 1 and 2. The apertures for the bolts will preferably be elongated, as indicated by dotted lines in Fig. 1, to provide for the expansion and contraction, as will be obvious. The inner faces of the webs 11 12 are preferably provided with longitudinal channels 22 23 to increase the "grip" of the spaced webs upon the depending webs.

In Fig. 4 a slight modification in the construction is shown consisting in forming the lower portions of the channels 22 and 23 inclined to receive web-shaped bars 24 25, which will constantly press with increasing force between the web 11 12 and the depending web 14 and materially increase the grip between the parts and effectively prevent any tendency of the parts to become loosened or to rattle.

In Fig. 5 another slight modification in the construction is shown, consisting in forming the inner upper faces of the spaced webs 11 12 inclined to receive wedge-shaped strips 26 27, which still further increase the strength of the grip between the parts and automatically "take up" any wear which may occur or which automatically maintains the parts in close relation, even in event of the bolts 20 working loose.

The device is simple in construction, can be inexpensively manufactured, and will outlast the ordinary rail, as the wearing parts are distributed over the whole length of each rail-section and causing uniformity in the wear, which prevents the development of weakness at any particular point.

The rail-sections may be of any desired length, but will generally be the same as ordinary rails, running from thirty feet upward, and may be of any desired weight to correspond to the ordinary railway-rails and varied in weight, as may be required, as the device is equally applicable to all sizes or weights of rails.

Having thus described the invention, what is claimed as new is—

1. A railway-rail consisting of a lower member including the tie-flange portion and having vertical webs spaced apart with their upper edges inclined outwardly and downwardly, and an upper member including the tread portion and having a depending web for bearing between said spaced webs and of less height than the same, said head portion having channels bearing over said spaced webs and inclined inwardly and upwardly to a greater degree than the inclined faces of the spaced webs, whereby the upper member bears only upon the outer portion of the spaced webs.

2. A railway-rail consisting of a lower member including the tie-flange portion and having vertical webs spaced apart with their upper edges inclined outwardly and down-

wardly and with recesses in the inner faces of the spaced webs and inclined at the lower sides, an upper member including the tread portion and having a depending web for bearing between said spaced webs and of less height than the same, said head portion having channels bearing over said spaced webs and inclined inwardly and upwardly to a greater degree than the inclined faces of the spaced webs, and wedge-shaped members between said depending web and spaced webs and within the inclined recesses in the same.

3. A railway-rail consisting of a lower member including the tie-flange portion and having vertical webs spaced apart with their upper edges inclined outwardly and downwardly, and an upper member including the tread portion and having a depending web for bearing between said spaced webs and of less height than the same, said head portion having channels bearing over said spaced webs and inclined inwardly and upwardly to a greater degree than the inclined faces of the spaced webs, whereby the upper member bears only upon the outer portion of the spaced webs, and clamp-bolts extending through said webs.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EMRY ELMORE.

Witnesses:

D. C. GIBBS,
JOHN A. ELMORE.