

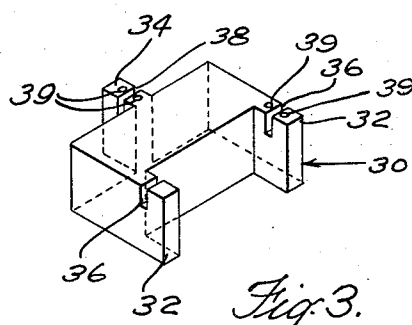
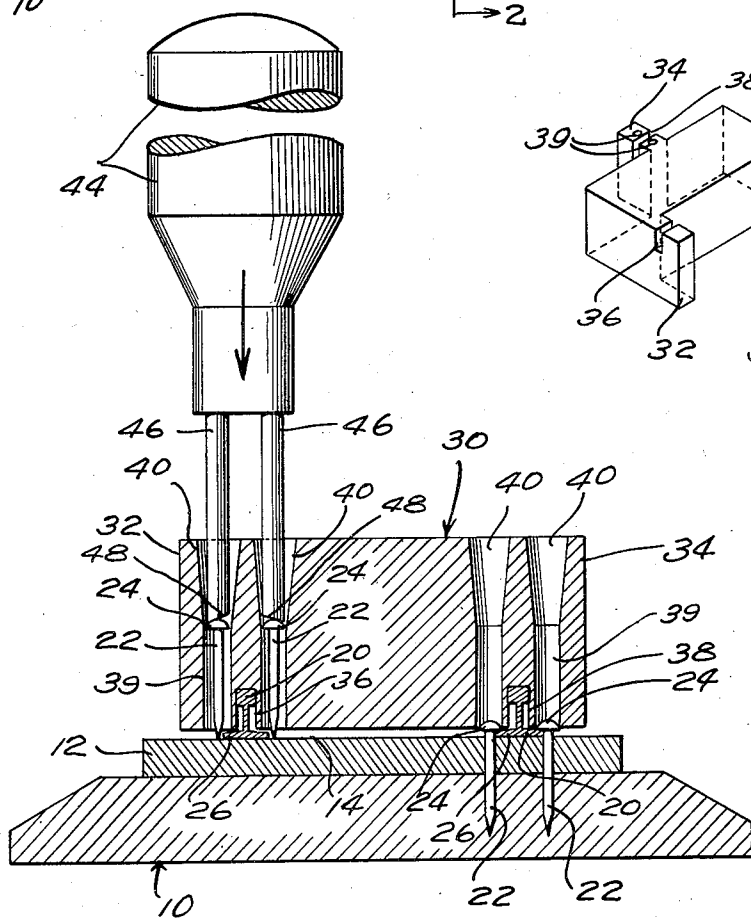
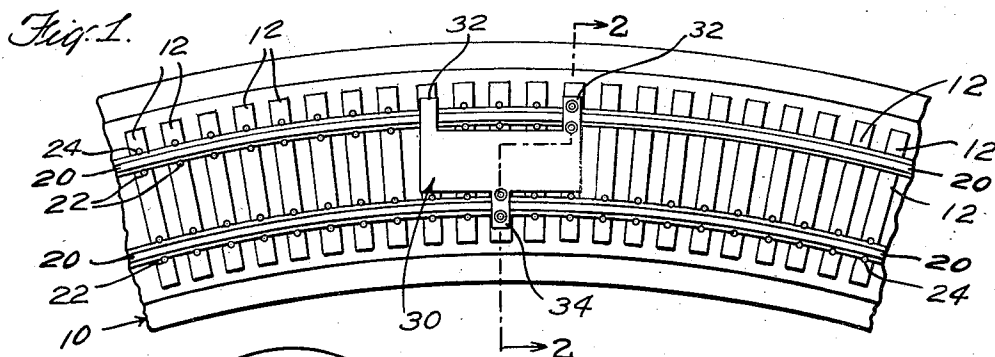
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C. D. WEBSTER

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IMPLEMENT FOR LAYING MODEL RAILWAY TRACKS

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INVENTOR
CARMEN D. WEBSTER

BY
Moss, Nolte, Crews & Berry
ATTORNEYS

UNITED STATES PATENT OFFICE

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IMPLEMENT FOR LAYING MODEL RAILWAY TRACKS

Carmen D. Webster, Jackson Heights, N. Y.

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This invention relates to implements for facilitating the laying of rails of tracks for model railways. In making model railways, particularly those designed to simulate accurately in appearance and operation actual railways, it is customary to provide a base or road bed for the tracks usually made of wood, fiber or the like which may be formed on its surface to simulate cross ties, or may be used with separate ties or tie strips, and to provide separate rails of conventional cross section held to the ties and base by small spikes. The present invention comprises instrumentalities for facilitating the proper spacing of the rails and securing them in place by means of the small nails or spikes.

In actual railway construction, curves of large radius are used, and the gauge of the track is held constant. To prevent binding of the wheels of rolling stock with a long rigid wheelbase, such as a large locomotive, on curves, the back to back spacing of the wheels on the end axles of such equipment is made slightly smaller than normal. On model railways, usually constructed in limited space and necessarily using curves of much shorter radius, it is not practical to use this method, but prevention of binding is obtained by increasing the track gauge in inverse relationship to the radius of the curve.

It is an object of the invention to provide a gauging device for properly spacing the rails apart on either straight or curved model railway track, the device automatically increasing the gauge on curves in inverse relationship to the radius of the curve.

It is also an object of the invention to provide a gauging device combined with guides for properly locating the spikes and facilitating the driving thereof.

It is also an object of the invention to provide a combined guide and spike driving tool.

In the accompanying drawings I have shown one preferred embodiment of the invention in order to illustrate the principles thereof, but it is to be understood that the invention may be embodied in modified constructions.

In the drawings:

Figure 1 is a plan view of a section of curved track and of the improved rail gauge and spike guide in place thereon;

Figure 2 is a transverse section on line 2—2 of Figure 1 on an enlarged scale showing the spike driving tool in position to drive spikes with the aid of the gauge and guide;

Figure 3 is a perspective view of the underside of the gauge member.

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Referring to the drawings in detail, Figure 1 shows a conventional track base or road bed 10 usually made of wood on which are placed the cross ties 12. The invention, however, is not limited for use with a road bed or ties of this type, as it may be used with any type of road bed or ties.

The miniature rails which are preferably of conventional T section are shown at 20. These are secured to the ties by means of small nails or spikes 22 which are driven in at each side of the rail base and have heads 24 overlying the edges of the base flanges 26 of the rails in the manner of actual railroad construction. If individual ties or thin tie strips are used, the spikes should be long enough to go through the ties and secure the ties to the road bed as shown in Figure 2. 30 is the gauge member and spike guide and comprises a body of metal having spaced lugs 32 projecting from one side thereof and a single lug 34 projecting from the opposite side thereof. Each of the lugs is provided on its under surface with a longitudinal groove, the two lugs 32 having aligned grooves 36 and the lug 34 having a groove 38. These grooves are of such size as to embrace loosely the rails and are so spaced as to hold the rails to the proper gauge. By having the two spaced lugs at one side of the gauge member and the single lug 34 intermediate thereof at the other side, it is possible to use the gauge block on curved tracks of various radii of curvature, as well as on straight track. When used on a curved track, the single lug 34 should point towards the center of the curvature of the track, as shown in Fig. 1.

By the use of the gauge member as described, as shown in Fig. 1, it will be seen that the gauge of the track is greater than it would be were the track straight, and this increase in gauge becomes greater as the radius of the curve becomes smaller. It will be seen also that on straight track the grooves in the two lugs on one side hold the gauge member so that the groove in the single lug on the other side is at the required gauge distance, as there is no possibility of applying the gauge member at any but a right angle. Naturally, if the gauge body were at any other angle, the track gauge would be decreased.

The use of the gauge member with the two spaced track engaging grooves fitting the outer rail of the curve, and the single intermediate groove fitting the inner rail of the curve results in the desired increase in the gauge around the curve, such increase being greater as the radius of curvature is shorter. This is so because the

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distance between a straight line passing through the pair of grooves and a parallel line passing through the single intermediate groove is equal to the normal gauge of a straight piece of track. On a curved track, on the other hand, the line joining the two spaced grooves constitutes the chord of the arc subtended by such grooves. At its center this arc is obviously spaced from its chord by distance which increases with the sharpness of curvature, the distance being greater if the radius of curvature is smaller and vice versa. Accordingly the gauge of the track on the curve which is of course the distance from the inner intermediate groove to the point on the arc of the outer rail radially opposite thereto, is greater than the normal straight gauge. The use of the gauge member in the manner described thus results in a widening of the gauge on curves, such widening depending upon the degree of curvature.

For properly locating and guiding the spikes, one of the lugs 32 and the intermediate lug 34 are provided with vertical guide holes 39 which extend entirely through the lugs and which are of sufficient size to permit the shanks and heads of the spikes to slide therethrough. The upper parts of the holes are preferably tapered as indicated at 40 to facilitate introduction of the spikes and driving tool.

The thickness of the member 30 is preferably greater than the length of the spike used, so that when the spikes are dropped into the holes they will be completely received therein leaving a small unoccupied space at the top of the hole above the head of the spike. This facilitates the application of the spike driving tool shown in Figure 2 which comprises a body 44 carrying a pair of projecting punch members 46 of such size as to slide into the holes above the heads of the spikes. The members 46 are as long as or longer than the thickness of the member 30, so that the body 44 of the tool can be hammered or forced downwardly until the spikes are driven completely home into engagement with the base of the rail as shown in the right hand side of Figure 2. The fact that the spikes are held in the guiding holes while being driven into position assures the proper location of the spikes and also that they shall be driven straight and with their heads brought into proper engagement with the base of the rail. The two holes in each lug are spaced just far enough apart to accomplish this result.

Preferably, the bottoms of the punch members 46 are slightly beveled in reverse directions as indicated at 48 as this will help to force the heads of the spikes tightly against the rail base flanges.

The spacing of the lugs 32 and 34 is preferably such that the space between one of the lugs 32 having holes therein and the lug 34 is equal to the distance between two successive ties or to a multiple of that distance, such as the distance between alternate ties. With this spacing it is possible to set the gauge block in such a way that a pair of spikes may be inserted in each pair of holes, and both rails may be secured with pairs of spikes for a single setting of the gauge block. The gauge block as well as guiding the spikes also holds the rails properly spaced apart so that a track of true gauge is constructed.

The spacing of the lugs 32 at a considerable distance apart with the lug 34 spaced midway between them is important, as the wide spacing produced an adequate enlargement of the gauge of the track upon curves as is required by good model railway practice. For example, the spacing of

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the lugs 32, with each lug spaced at a distance from the transverse axis passing through the lug 34 equal to the distance between two successive ties or a multiple of that distance, results in lugs 32 being spaced apart a distance at least equal to the distance between alternate ties, while in the example shown in Fig. 1 twice this spacing is utilized. With the customary spacing of ties indicated the narrower separation of the lugs 32 will therefore be somewhere near the gauge of the track, while the larger limit will be closer to twice this spacing.

While I have illustrated and described in detail certain preferred forms of my invention, it is to be understood that changes may be made therein and the invention embodied in other structures. I do not therefore desire to limit myself to the specific constructions illustrated, but intend to cover the invention broadly in whatever form its principles may be utilized.

Having described my invention, what I claim is:

1. A track laying implement for model railways comprising a gauge body having two spaced lugs at one side thereof widely spaced with reference to the gauge of the track, and a single lug at the other side thereof intermediate said spaced lugs, said lugs having rail engaging grooves formed therein.

2. A track laying implement for model railways comprising a gauge body having two spaced lugs at one side thereof, and a single lug at the other side thereof intermediate said spaced lugs, said lugs having rail engaging grooves formed therein, at least one of the lugs on each side of the body having a vertical spike guide hole therethrough.

3. A track laying implement for model railways comprising a gauge body having two spaced lugs at one side thereof, and a single lug at the other side thereof intermediate said spaced lugs, said lugs having rail engaging grooves formed therein, at least one of the lugs on each side of the block having a pair of transversely spaced vertical spike guide holes extending therethrough.

4. A track laying implement for model railways comprising a gauge body having two spaced lugs at one side thereof and a single lug at the other side thereof intermediate said spaced lugs, said lugs having rail engaging grooves formed therein, at least one of the lugs on each side of the block having a pair of transversely spaced vertical spike guide holes extending therethrough, the vertical dimensions of said lugs being greater than the length of the spikes to be used therewith.

5. A track laying implement for model railways comprising a body having spaced vertical spike guide holes extending therethrough in combination with a spike driving member comprising a body having spaced vertical spike setting pins extending downwardly from said body, said spike setting pins being of such size and so spaced as to slide freely through said spike guide holes, said spike setting pins having reversely beveled lower ends facing towards each other.

6. A track laying implement for model railways comprising a gauge body having two spaced lugs at one side thereof and a single lug at the other side thereof intermediate said spaced lugs, said lugs having rail engaging grooves formed therein, at least one of the lugs on each side of the block having a pair of transversely spaced vertical spike guide holes extending therethrough, in combination with a spike driving member comprising a body having a pair of spaced vertical pins projecting downwardly therefrom, adapted to pass through said spaced guide holes.

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7. A track laying implement for model railways comprising a gauge body having two spaced lugs at one side thereof and a single lug at the other side thereof intermediate said spaced lugs, said lugs having rail engaging grooves formed therein, at least one of the lugs on each side of the block having a pair of transversely spaced vertical spike guide holes extending therethrough, the vertical dimensions of said lugs being greater than the length of the spikes to be used therewith, in combination with a spike driving member comprising a body having a pair of spaced vertical pins projecting downwardly therefrom adapted to pass through said spaced guide holes, said projecting pins being at least as long as the vertical dimensions of said lugs.

8. A track laying implement for model railways comprising a gauge body having two spaced rail engaging formations at one side thereof, and a single rail engaging formation at the other side thereof intermediate said two spaced formations, said formations constituting the apices of a triangle and being so constructed as to maintain said gauge body in definite angular relationship with any portion of the track rails with which the three formations are in engagement said first two spaced rail engaging formations being spaced apart a distance at least equal to the distance between alternate cross ties.

9. A track laying implement for model railways comprising a gauge body having two spaced rail engaging formations at one side thereof, and a single rail engaging formation at the other side midway of said two spaced formations, said formations constituting the apices of a triangle, said

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two spaced formations being spaced apart a distance not less than approximately the gauge of the track.

10. A track laying implement for model railways comprising a gauge body having two spaced rail engaging formations at one side thereof, and a single rail engaging formation at the other side midway of said two spaced formations, the spacing of said two spaced formations being sufficient to cause an increase in the gauge of the track on curves, sufficient to accommodate free passage of a model vehicle around said curve without binding of the wheel flanges on the rails.

11. A track laying implement as claimed in claim 10 in which the rail engaging formations are lugs having rail engaging grooves therein, said grooves being deep enough to substantially receive the heads and webs of the rails.

CARMEN D. WEBSTER.

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