J. L. COWEN.

TOY RAIL JOINT.

APPLICATION FILED APR. 12, 1915.

1,152,490. Patented Sept. 7, 1915.

Fig. 1

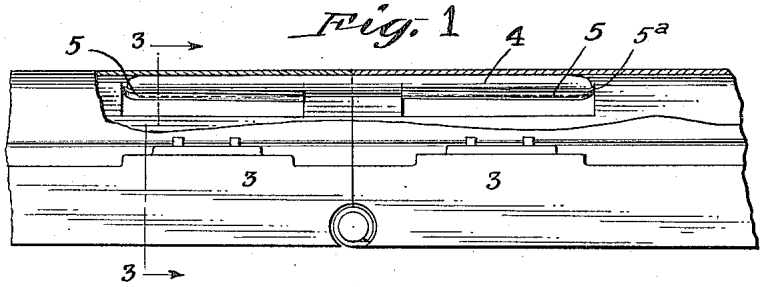


Fig. 2

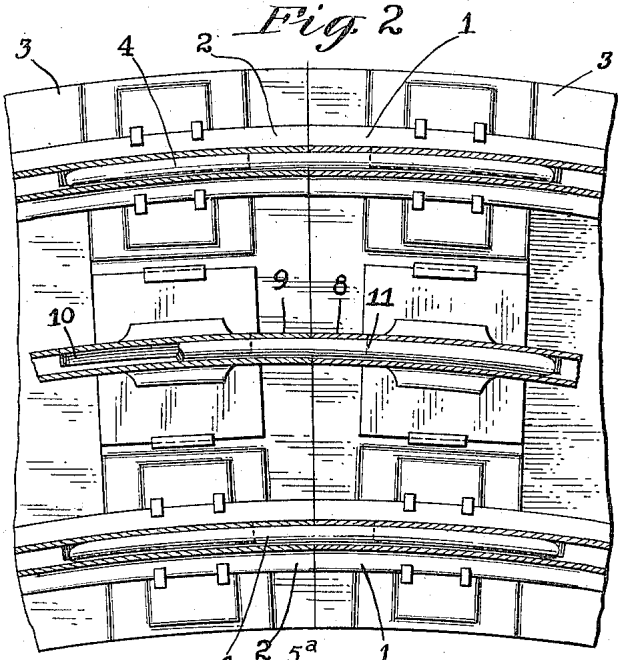


Fig. 3

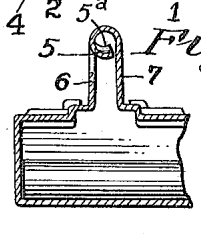
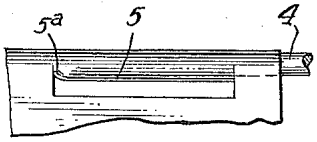


Fig. 4



Witnesses:
Maurice Lessin
Wm. J. Cohen

Inventor
Joshua L. Cowen
By his Attorneys
Ashley & Cohen

UNITED STATES PATENT OFFICE.

JOSHUA L. COWEN, OF NEW YORK, N. Y.

TOY-RAIL JOINT.

1,152,490. Specification of Letters Patent. Patented Sept. 7, 1915.

Application filed April 12, 1915. Serial No. 20,781.

To all whom it may concern:

Be it known that I, JOSHUA L. COWEN, a citizen of the United States, and resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Toy-Rail Joints, of which the following is a specification.

This invention relates to rail joints for toy railways, and is particularly adapted for a toy railway track such as described in my copending application Ser. No. 20,780.

In the manufacture of toy railways the matter of cheapness of construction is very important, and to attain that end I have described and claimed in my copending application, above referred to, a railway track in which the rails are drawn from the body of the track and integral therewith. This leaves the rail with two substantially parallel side walls, and it therefore becomes a problem how to unite the adjoining rail sections without necessitating the soldering of the uniting pin, or any other operation of this character which is comparatively tedious and expensive.

In the improved joint, which constitutes the subject matter of the present invention, I form a socket adjacent to the abutting ends of the rail sections out of the material of one of the parallel side walls of the latter. This is obtained in a simple and inexpensive manner by punching a tongue from the side wall of the rail sections and bending the same inwardly. This tongue is formed with an upturned corner at the inner end thereof which serves as a limiting stop for the uniting pin. This upturned corner serves also to hug the pin more closely when the rail sections are connected.

The various further objects and advantages will more fully appear from the following detailed description and the features of novelty will be particularly pointed out in the claims.

In the drawings, Figure 1 is an enlarged, fragmental, elevational view, partly in section, of adjoining rails in which is embodied my improved joint. Fig. 2 is a fragmental, plan view, partly in section, of adjoining rails showing the rail joint. Fig. 3 is a partial section taken along the line 3—3 of Fig. 1, showing the upturned inner end of the socket. Fig. 4 is a fragmental, detail view, showing the outside appearance of the socket.

My improved rail joint is adapted for use in connection with toy railways of all descriptions, whether electrically, spring, or manually operated. By way of complete illustration, I have shown a track having a third rail for electrically actuated cars, as obviously such track could also be used in connection with spring or manually operated cars. Referring, therefore, particularly to the drawings, the adjoining pairs of rails 1, 2, are drawn up out of the sheet metal road bed sections 3, so that the tread and web are formed hollow. Thus, a coupling or uniting pin 4 may be inserted in the adjoining rails. However, as the rails are formed with parallel walls, it is necessary to form a socket for the uniting pin, and this socket must be made in an operation involving small expense, so as not to unduly increase the cost of the track. To this end, I punch a tongue 5 out of the wall 6 of the web adjacent each end of the rail sections, and bend it inwardly between the walls 6, 7, of the web. The tongue is bent up closely adjacent to the tread of the rail section so as to constitute a tight socket for each end of the pin in the adjoining rail sections. To secure a still tighter fit, and to prevent the pin from being forced beyond the inner end of the socket, the tongue is formed with an upturned corner 5^a, so that the inner end of the socket is more constricted than the outer portion, as clearly shown in Fig. 3. The ends of the pins are preferably reduced in diameter so as to be more easily inserted and to conform with the contour of the socket. The ends of the pin are thus firmly held in the sockets, which are positioned closely adjacent the tread, so that the pins lie contiguous to the latter. In this way the rail sections are maintained in true alinement when under load.

The joining of the third rail sections, 8, 9, which are employed for electrically operated cars, is effected in the same manner as above described. Thus, there is a tongue 10 punched out of the web near each end of the rail sections forming a socket, and a pin 11 is inserted in the latter, making electrical connection between the third rail sections.

It will thus be seen that I have provided a rail joint which is of a very simple construction and easily and cheaply manufactured. No soldering or other extrinsic means are necessary in the construction of the joint. The rail sections, by virtue of my

improved joint, may be effectively joined and readily taken apart.

Having thus described my invention, I claim:

1. In combination with a sheet metal rail having a hollow tread and web, a tongue bent inwardly of the web adjacent the tread and forming a socket, and a pin held in said socket.

2. In combination with a sheet metal rail having a hollow tread and web, a tongue punched out of one of the walls of the web and bent inwardly adjacent the tread and forming a socket, and a pin held in said socket.

3. In combination with a sheet metal rail having a hollow tread and web, a tongue punched out of one of the walls of the web and bent inwardly of the latter adjacent the tread forming a socket, said tongue being formed with an inner upturned corner, and a pin held in said socket and abutting said corner.

4. In combination with a sheet metal rail having a hollow tread and web, a tongue punched out of one of the walls of the web and bent within the web adjacent the tread to constitute a socket and formed with a tapering inner upturned corner to form a stop, and a pin adapted to be held within said socket.

Signed at New York in the county of New York and State of New York this 2nd day of April A. D. 1915.

JOSHUA L. COWEN.

Witnesses:
WM. I. COHEN,
MINNIE S. MILLER.