A. H. NELLER.

OVERHEAD TRACK CONNECTION.

APPLICATION FILED APR. 3, 1922.

1,419,684. Patented June 13, 1922.

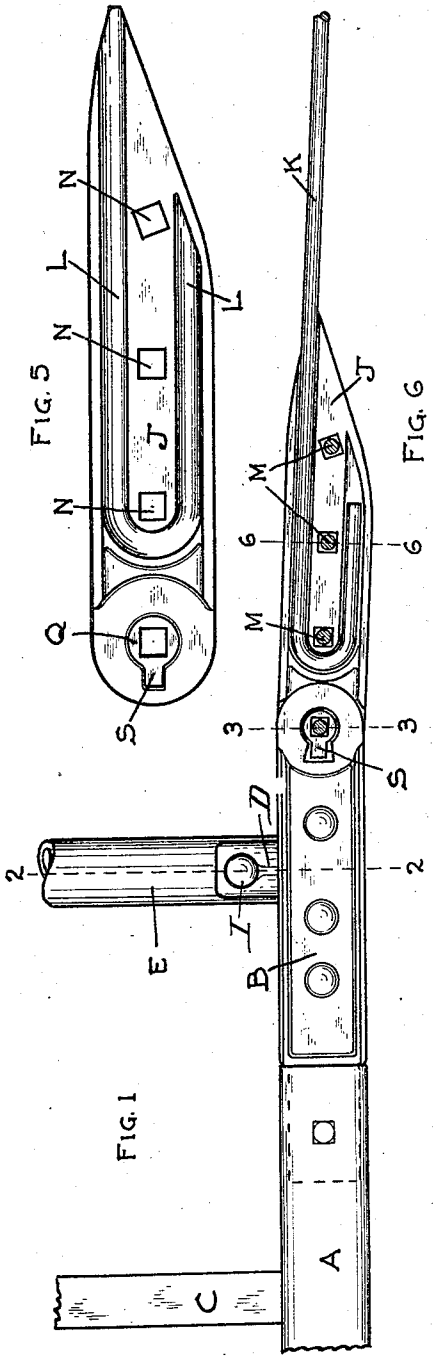


FIG. 1

FIG. 5

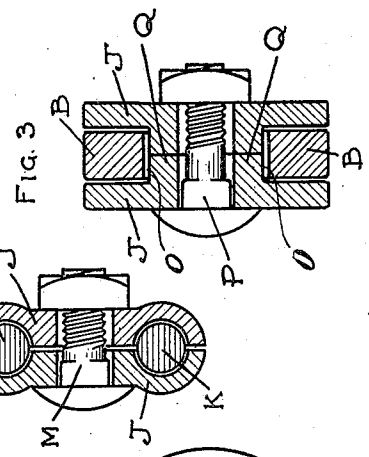


FIG. 3

FIG. 6

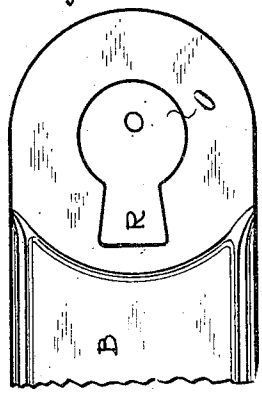


FIG. 4

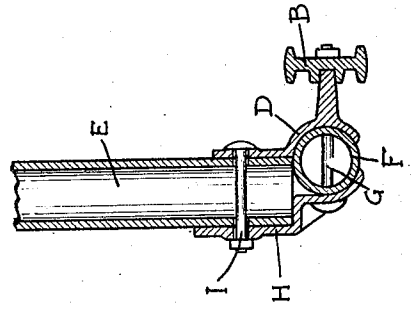


FIG. 2

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OVERHEAD-TRACK CONNECTION.

1,419,684. Specification of Letters Patent. **Patented June 13, 1922.**

Application filed April 3, 1922. Serial No. 548,893.

To all whom it may concern:

Be it known that I, ALBERT H. NELLER, a citizen of the United States, residing at Fairfield, in the county of Jefferson and State of Iowa, have invented a new and useful Improvement in Overhead-Track Connections, of which the following is a specification.

My invention relates to connections for rigid and flexible overhead tracks, such as those used in barns and stables wherein a metallic rail, which is generally used in the building, is connected with a track wire or cable which is generally extended out in the yard, and it consists of an improvement in attaching said flexible track wire or cable to said connection, whereby it will have a jointed or hinged connection therewith, and also of other improved features which will be hereinafter described and set forth in the claims.

Referring to the accompanying drawings, forming a part of this specification, Fig. 1 is a side view of a section of overhead track embodying my invention, in which one of the parts on the near side has been removed to give a clearer view of the interior portions, as will be explained hereafter. Fig. 2 is a transverse section on line 2—2 of Fig. 1. Fig. 3 is an enlarged transverse section on line 3—3 of Fig. 1, the part removed being replaced to make the structure complete. Figs. 4 and 5 are enlarged detail views. Fig. 6 is an enlarged transverse section on line 6—6 of Fig. 1, the part removed being replaced to make the structure complete.

Referring to the drawings, A represents a metallic track-rail adapted to be attached to the connecting member B in any suitable manner and C is one of the hangers adapted to support said track-rail in elevated position. D represents a supporting member adapted to hold the connecting member B in position, and to be itself supported by a member E, which in use is attached to an overhead portion of the building in which the apparatus is installed, but which overhead portion is not shown in the drawing.

The supporting member D is preferably connected to a member F (shown in Fig. 2) by means of a bolt G passed through it, and also through the members B and F, and through a clamping member H, the members D and H being preferably secured to the member E by a bolt I. When the member F is used, it may be extended longitudinally at an upwardly inclined angle so as to form a brace as shown in my Patent No. 1,326,607, dated December 30, 1919, of which this invention is designed to be an improvement. I do not however, confine myself to the method of supporting and bracing the track shown in that patent. I refer to it simply to give a better idea of the supporting of the connection shown herein.

The improvement herein shown is confined to the construction and attachment of the wire supporting member J which is preferably comprised of two mating members, as shown in Fig. 6, the member on the near side in Fig. 1 being removed to give a better view of the attachment of the track-wire K. An enlarged and detached view of one of the members J is shown in Fig. 5. Each of these members is fitted on their inner sides with a semi-circular U-shaped mating groove, in which the track-wire K bent as shown in Fig. 1, is placed. The members J are clamped together by bolts M passed through holes N in them, so as to hold the track-wire securely between them.

The end of the connecting member B adjacent to the wire supporting members J is preferably rounded, and is fitted in the central portion of said end with a large opening O, as most plainly shown in Fig. 4. The adjacent ends of the members J are also preferably rounded and are provided with mating bosses Q which are adapted to meet together in the opening O. The bosses Q are also provided with a central opening through which a bolt P is passed to hold these ends of the members J together, and the bosses Q in secured engagement with the opening O in the end of the connecting member B.

This arrangement insures a jointed connection between the adjacent ends of connecting member B and the wire supporting member J the purpose of which is to prevent the bending and resulting crystallization or elongation of the track-wire and its consequent breakage where it is connected to the rigid portion of the structure.

As the apparatus has been heretofore constructed, the track-wire has always been brought in direct contact with the rigidly held connecting member represented by B in the drawing. When so constructed, the loaded carrier which runs on the track, will cause the wire to bend or spring to a certain extent at this point, which in due time will cause crystallization or elongation, and the wire will break or pull apart at this point.

My invention overcomes this defect. There will be no bending or springing of the

wire at the point of connection with the other parts of the structure because this bending or springing of the wire is taken care of by the jointed connection between the supporting members J and the track connecting member B, and there is nothing except the natural sag of the wire to affect it, and this sag of the wire is transmitted to the jointedly connected supporting members J, the same as to the wire itself.

The defect inherent in the old styles of connections has been a serious trouble in the combination of rigid overhead track-rails with flexible track-wires, and different devices have been tried to overcome it. One of these devices has been a member hinged to the rigid connecting member through which the wire has been passed before it has been brought in contact with the rigid connecting member. This did not overcome the trouble which was caused by bringing the track-wire in direct connection with the rigidly supported track connection. I overcome the trouble by having no direct connection between the track-wire and the track connection. The wire supporting members J are interposed between the wire and the rigid track connection and the flexible joint between them prevents any bending or springing of the wire at this crucial point.

While a jointed connection is indispensible between these two parts, it is preferable that the joint be limited to a certain extent. In carrying out this limiting feature, I have made an extension R in the opening O, and added extensions S to the bosses Q, the extension R in the opening being large enough to allow a certain movement of the extensions S on the bosses Q. By this means the jointed connection while being sufficient to prevent injury of the wire will not become doubled up which would be liable to prove objectionable.

The outer ends of the wire supporting member J are preferably tapered as shown, whereby the carrier will run smoothly over them. If desired a cable may be used instead of the wire K. The device is extremely simple and inexpensive in construction and is efficient in operation.

What I claim is—

1. In overhead track connections for joining rigid and flexible tracks together, the combination of a rigidly supported connecting member adapted to be joined to the adjacent end of a rigid track, and a flexible track supporting member having a hinged connection with the rigidly supported connecting member, the latter member being adapted to support the adjacent end of a flexible track and permit it to spring downward without being bent at the point where it is connected to the rigidly supported member.

2. In overhead track connections for joining rigid and flexible tracks together, the combination of a rigidly supported connecting member adapted to be joined to the adjacent end of a rigid track, and a flexible track supporting member having a limited hinged connection with the rigidly supported connecting member, the latter member being adapted to support the adjacent end of a flexible track and permit it to spring downward to a limited extent, without being bent at the point where it is connected to the rigidly supported member.

3. In overhead track connections for joining rigid and flexible tracks together, the combination of a rigidly supported connecting member adapted to be joined to the adjacent end of a rigid track, and a flexible track supporting member consisting of a pair of mating parts having a hinged connection with the rigidly supported connecting member, the latter member being adapted to support the adjacent end of a flexible track between said parts and permit it to spring downward without being bent at the point where it is connected to the rigidly supported member.

4. In track connections for flexible and rigid overhead tracks, a rigidly supported connecting member in combination with a pair of flexible track supporting members adapted to hold an end of a track-wire between them and having a jointed connection with said connecting member, each of said flexible track supporting members having a U shaped mating groove on their inner faces, a track-wire having a bent end to fit said grooves placed therein, and means to clamp the members together.

5. In track connections for flexible and rigid overhead tracks, a rigidly supported connecting member in combination with a pair of flexible track supporting members adapted to hold an end of a track-wire between them, the connecting member having an opening in its outer end, and the supporting members having bosses on the inner faces of their ends adjoining said connecting members, said bosses being adapted to enter the opening in the connecting member, whereby the members will be jointedly connected together.

6. In track connections for flexible and rigid overhead tracks, a rigidly supported connecting member in combination with a pair of flexible track supporting members adapted to hold an end of a track-wire between them, the connecting member having an opening in its outer end, and the supporting members having bosses on the inner faces of their ends adjoining said connecting members, said bosses being adapted to enter the opening in the connecting member, whereby the members will be jointedly connected together and means to limit the extent of the jointed movement.

7. In track connections for flexible and

rigid overhead tracks, a rigidly supported connecting member in combination with a pair of flexible track supporting members adapted to hold an end of a track-wire between them, the connecting member having an opening in its outer end and the supporting members having bosses on the inner faces of their ends adjoining said connecting members, there being an extension in said opening and the bosses being provided with extensions adapted to loosely fit in the extension of the opening, whereby the members will have a limited jointed connection between them.

Fairfield, Iowa, April 1st, 1922.

ALBERT H. NELLER.