J. E. EVANS.

SECTIONAL TRACK.

APPLICATION FILED AUG. 4, 1911.

1,048,668. Patented Dec. 31, 1912.

Fig. 1.

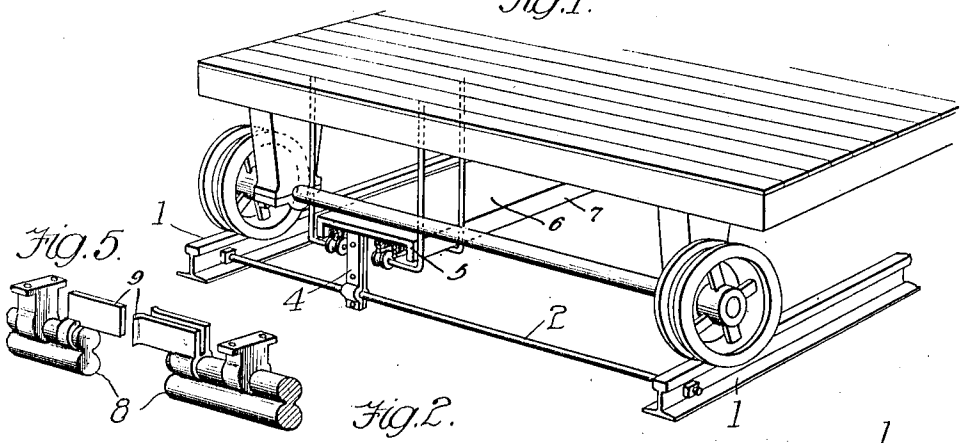


Fig. 5.

Fig. 2.

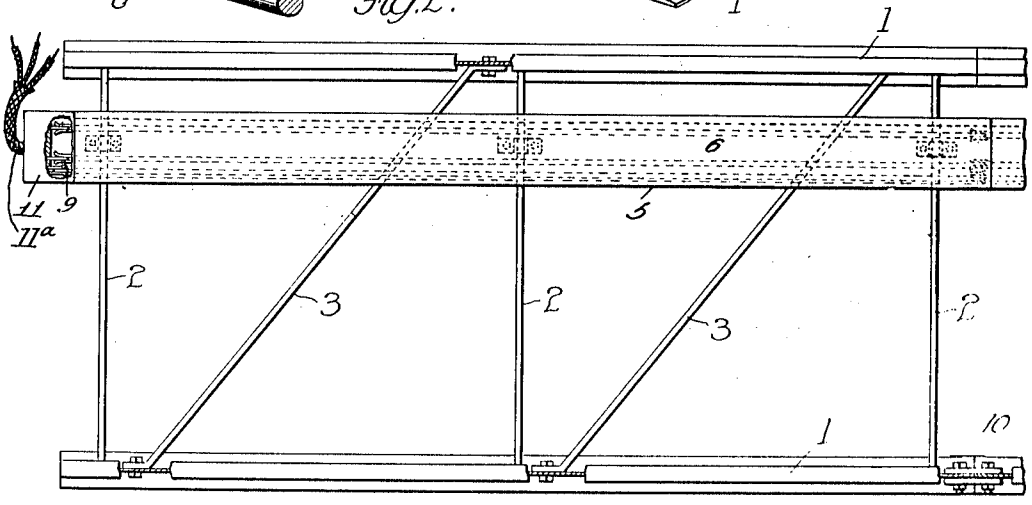


Fig. 3.

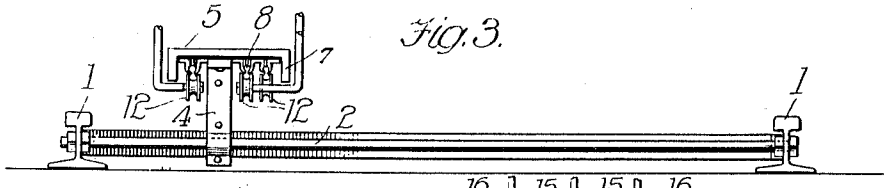
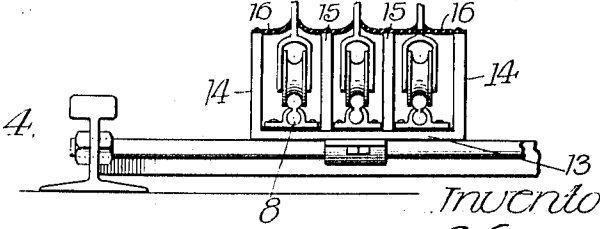


Fig. 4.



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SECTIONAL TRACK.

1,048,668. Specification of Letters Patent. Patented Dec. 31, 1912.

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To all whom it may concern:

Be it known that I, JOSEPH E. EVANS, a citizen of the United States, residing at Bedford, in the county of Lawrence and State of Indiana, have invented certain new and useful Improvements in Sectional Tracks, of which the following is a specification.

My invention relates to tracks for stone channeling or other machines requiring the use of tracks of like character, constructed in sections which may be readily laid down and taken up and transported, and provided with electrical conductors for supplying current to an electric motor carried by the machine used upon the track.

It has for its object the provision of a track composed of such detachable sections or units, in which the conductors of the sections are provided with end switches by which they are automatically connected as the sections are laid, and in which the conductors are so disposed as to avoid the danger of accidental contact with them by workmen and others crossing the track, and which thus obviate the dangers and objections incident to using a loose cable attached directly to the motor, which cable, in the usual operation of a channeling machine, is dragged back and forth as the machine travels on its track, and is thus subjected to much wear and tear tending to destroy its insulation, besides being liable to injury from being dragged into the path of other machinery or apparatus in the vicinity.

With the above and other incidental objects in view, the elements of which are recited in the appended claims, I have embodied my invention in the form hereinafter described, and illustrated in the accompanying drawings forming a part of this specification.

Of said drawings Figure 1 is a perspective showing the end of a track section to which my invention is applied and part of the frame of a car mounted to travel thereon; Fig. 2 is a top plan view of a section showing the switch block or cap 11 applied to the end of the conductor housing, the cap being partly broken away to show the switch connection sheltered thereby; Fig. 3 is an end view of a track section, partly in section, showing the trolley wheels of the car in contact with the conductors; Fig. 4 a vertical cross-section of a modified form of housing for the conductors, also showing the trolley wheels; and Fig. 5 is a detail of the switches for uniting the conductors.

The track sections each comprise short T-rails 1, usually 12 to 16 feet in length secured firmly together by the cross-rods 2 and diagonal braces 3 bolted to said rails. By means of brackets 4 bolted to said cross-rods a longitudinally-extending casing or conductor housing 5 is supported, this housing in the present instance comprising a flat top strip 6 and depending side flanges 7. Secured to the housing in the recess between such flanges and insulated from the strips are electrical conductors 8, which at their ends are provided with the interlocking knife switches 9. The switch members at one end of the housing of a section, those at the right-hand end of the complete section shown in Fig. 2, are located within and sheltered by the recess on the housing; while the members at the other end project from the housing in proper position to coöperate with the sheltered switch members of a similar section. The sections are arranged to be secured together in some suitable manner, as by means of the usual fish-plates 10 bolted to the rails, the conductors abutting and the switches interlocking and completing continuous electrical connection between the conductors of adjacent sections.

A connecting switch block or cap 11, providing a sheltered connection with the insulated leads of the power cable 11^a—in the present instance the three insulated leads of a three-phase system being shown bound together to form the cable—is adapted to be secured to that end of the housing 5 of a track section which is provided with projecting switch members, the switch block being recessed and equipped with switch members electrically connected to the leads of the cable and adapted to coöperate respectively with the projecting switch members of the conductors 8 within the housing of the section, so that when the block is applied to the section a sheltered electrical connection between the leads of the power cable and the conductors of the section will be established. However, an end section of track may be provided equipped with sheltered binding posts for connecting the power cable leads to the connections, the housing of said end section being provided at its inner or con-

necting end only with switch members for connection with the switch members of sections such as those hereinbefore described.

The machine for which the track is provided is equipped with suitable contact devices adapted to complete electrical communication between the source of current and the motor upon the car. In the present instance I have shown three trolley wheels 12, adapted to complete the electrical connections of a three-phase motor system, mounted to engage the three conductors secured in the recess of the housing, but it is obvious that the number of conductors and form of mounting of the contact device may be varied, without departing from my invention.

In the modified form of housing shown in Fig. 4, a bottom strip or plate 13 is provided with uprising side flanges 14 and partitions 15 lying between and parallel with such flanges. The conductors 8 are secured at the bottom of the channels formed by the side flanges and partitions of the housing, and the trolleys, or other contact devices, are adapted to travel thereupon. Strips of insulating material 16, preferably of a flexible character, such as heavy rubber fabric, secured to said flanges and partitions and extending toward each other from the sides of the channels in which the conductors are mounted serve to close such channels at their top, except for the slit left for the travel of the trolley-wheel suspension. In case the closing strips or flaps are of a sufficiently flexible material to yield to the movement of the trolley-wheel suspension they may practically close the top of the channels.

I claim:

1. A portable track section of the character described, comprising a frame consisting of parallel rails and connecting members, a housing secured to said frame parallel with said rails and having a longitudinal recess, a conductor in said recess adapted to cooperate with a contact device carried by a truck traveling on said rails, said section being adapted to be secured to another similar section with the ends of the rails and conductors abutting and the conductor on said first mentioned section being equipped with means arranged to automatically engage coöperating means on the conductor of said other section to electrically unite said conductors when the two sections are brought together in position to be secured.

2. A portable track section of the character described, comprising a frame consisting of parallel rails and connecting members, a housing secured to said frame parallel with said rails and having a longitudinal recess, a conductor in said recess adapted to coöperate with a contact device carried by a truck traveling on said rails, said section being adapted to be secured to another similar section with the ends of the rails and conductors abutting, and an electric switch member on the conductor of said section adapted to engage a coöperating switch member or conductor of said other section.

3. A portable track section of the character described, comprising a frame consisting of parallel rails and connecting members, a housing secured to said frame parallel with said rails and having a longitudinal recess, a conductor in said recess adapted to coöperate with a contact device carried by a truck traveling on said rails, said section being adapted to be secured to another similar section with the ends of the rails and conductors abutting, and a fixed electric switch member on the conductor of said section arranged to automatically engage a coöperating fixed switch member on the conductor of said other section when the two sections are brought together in position to be secured.

4. A portable track section of the character described comprising a frame consisting of parallel rails and connecting members, brackets secured to said frame, a housing secured to said brackets parallel to said rails comprising a top strip and depending side strips, a conductor secured in the recess between said side strips and adapted to coöperate with a contact device carried by a truck traveling on said rails, said section being adapted to be secured to another similar section with the ends of the rails and conductors abutting, and means for electrically connecting said conductor with the conductor of said other section.

5. A track section of the character described comprising a frame consisting of parallel rails, cross rods bolted thereto and truss members, brackets secured to said cross-rods, a housing secured to said brackets parallel to said rails and having longitudinal walls forming a recess open at one side, a conductor at the bottom of said recess adapted to coöperate with a contact device carried by a truck traveling along said rails and mounted to engage said conductor through the open side of the casing, and an interlocking slip-switch member electrically connected with said conductor adapted to engage a coöperating switch member connected with the conductor of another similar section.

6. The combination, with a portable track section of the character described, comprising a frame consisting of parallel rails and connecting members, a housing secured to said frame parallel with said rails and a sheltered conductor secured in said housing and equipped at one end with a sheltered switch member and at the other end with a projecting switch member, of a connecting switch block having a sheltered

switch member adapted to coöperate with said projecting switch member of the conductor and having insulated electric cable connections.

7. A portable track section of the character described, comprising a frame consisting of parallel rails and connecting members, a housing secured to said frame parallel with said rails, and a sheltered conductor secured in said housing and equipped at one end with a sheltered switch member and at the other end with a projecting switch member adapted to coöperate with the sheltered switch member of the conductor of another similar section.

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