

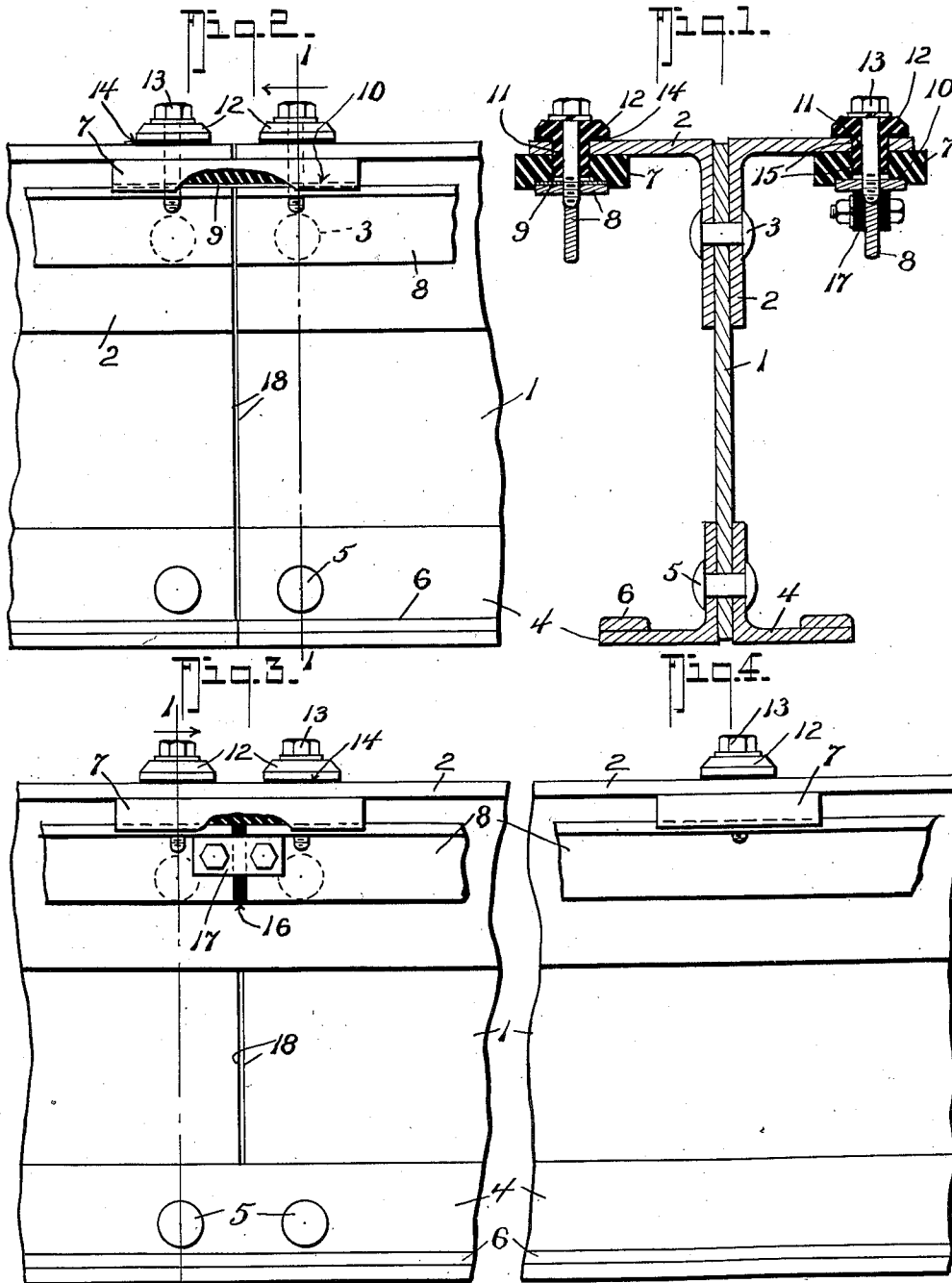
May 12, 1931.

E. HANAK

1,805,175

MOTOR CONVEYER TRACKWAY

Filed Aug. 8, 1929



INVENTOR
Edward Hanak
BY *Albert Dietrich*
ATTORNEY

UNITED STATES PATENT OFFICE

EDWARD HANAK, OF HOUSTON, TEXAS

MOTOR CONVEYOR TRACKWAY

Application filed August 8, 1929. Serial No. 384,360.

The invention relates generally to conveyor systems, and particularly to those of the electrically operated type wherein are provided trackways, conductor rails, and electric motor operated trolleys which ride along the rails and to the motors of which current is supplied from the conductor rails.

The invention has for an object the provision of certain new and useful improvements in the trackway and conductor rail structures and methods of insulating the conductor rails which will provide for greater strength and economy in use and manufacture, greater ease and economy in handling and mounting, and greater safety in use by practically eliminating arcing and sparks.

More particularly, the present invention seeks to provide certain improvements over the trolley rail disclosed in my application filed August 25, 1927, Serial No. 215,485.

Other objects will in part be obvious and in part be pointed out hereinafter.

To the attainment of the aforesaid objects and ends, my invention consists in the novel features of construction and in the combination, connection and arrangement of parts, hereinafter more fully described and then pointed out in the appended claims.

In the drawings:—

Figure 1 is a cross section of a trackway embodying my present invention, the figure being a section taken on the line 1—1 of each of Figures 2 and 3 looking in the direction of the arrow.

Figure 2 is a side elevation looking from left to right in Figure 1.

Figure 3 is a side elevation looking from right to left in Figure 1.

Figure 4 is a detail side elevation at an intermediate position in the length of the trackway.

In the drawings in which like numerals of reference indicate like parts in all of the figures, 1 represents the web of the rail which may be made in suitable lengths held end to

end as indicated at 18 in Figures 2 and 3. To the web 1 is secured upper angle irons 2, preferably by riveting as at 3, while to the lower edge of the web lower angle irons 4 are secured by rivets 5 or in any other suitable way, the angle irons 2 and 4 together with the web 1 constitute an I-beam. Preferably in assembling the I-beam the angle irons 2 at one side lap the joints of the rails 8 so as to increase the rigidity of the I-beam.

Secured to the upper faces and flush with the outer edges of the lower angle irons 4 are steel strips or laminations 6 on which the trolley wheels run. These strips are secured by welding or in any other suitable way and are preferably of hardened steel so as to reduce wear to the minimum.

7 designates a series of insulators preferably of moisture-proofed wood, grooved on their under faces as at 10 for the reception of the heads of the conductor rails 8, the latter being preferably copper plated metallic bars of T shape in cross section. These bars are made in suitable lengths and where their ends are brought together and the electrical continuity is to be maintained, they are overlaid by a strip 9 of copper or other suitable conductor bar, one of the insulators 7 bridging the joint as shown in Figure 2.

Where, however, the conductor bars 8 are to be insulated from one another they are spaced apart as indicated in Figure 3, the space being filled by a suitable insulator 16, preferably of vulcanized fibre or other hard non-conducting substance, the insulator conforming in cross section to that of the conductor bars 8. The bars 8 and insulator 16 are mechanically held together by tie plates 17 of insulating material which are bolted as at 19 to the rails 8 on each side of the insulators 16.

The angle irons 2 and the insulators 7 are provided with aligning apertures 15 in which the bushing 11 of insulating material (preferably moisture-proofed wood) is located.

The insulators 11 have heads 12 to lie on the upper angle irons and they are apertured for the passage of the cap screws 13 that are tapped into the conductor rails 8 and serve to secure the rails 8, insulators 7 and 12 to the I-beam in their proper correlative positions.

In order that moisture may not work down into the apertures 15, suitable washers 14 are provided to effect a tight seal between the heads 12 and the angle irons 2. These washers 14 are preferably composed of tar paper or other suitable substance possessing the required characteristics.

The conductor bars 8 are preferably copper plated to increase their conductivity. The continuous rails where their ends approach may be separated by insulation 16, see Figure 3.

From the foregoing it will be seen that I have provided a simple and inexpensive trackway for the purposes hereinbefore alluded to which can be constructed at a low cost and in which maintenance costs have been reduced to the minimum.

From the foregoing description, taken in connection with the accompanying drawings, it is thought the construction, operation and advantages of my invention will be clear to those skilled in the art to which it relates.

While I have disclosed the I-beam as composed of sections riveted together it is obvious that an ordinary or regular one-piece I-beam may be employed in lieu of the built-up type.

What I claim is:

1. In conveyor trackways, an I-beam including lower and upper horizontal flanges constituting trolley-riding flanges and conductor rail mounting flanges respectively, conductor rails located beneath said upper horizontal flanges, a series of insulation-blocks located between said horizontal flanges and the tops of said conductor rails, said blocks and said upper flanges having aligning holes, insulating bushings in said holes, cap screws held in said bushings and threaded into said conductor rails for securing said conductor rails, said blocks, and said bushings together in place on said upper horizontal flanges.

2. In conveyor trackways, an I-beam including lower and upper horizontal flanges constituting trolley-riding flanges and conductor rail mounting flanges respectively, conductor rails located beneath said upper horizontal flanges, a series of insulation-blocks located between said horizontal flanges and the tops of said conductor rails, said blocks and said upper flanges having aligning holes, insulating bushings in said holes, cap screws held in said bushings and threaded into said conductor rails for securing said conductor rails, said blocks, and said bushings together in place on said upper

horizontal flanges, said conductor rails being composed of lengths, certain ones of which having opposing ends spaced apart, insulating inserts located between said ends, and tie plates of insulation bolted to the conductor rails and overlaying said insulating inserts.

3. In conveyor trackways, an I-beam including lower and upper horizontal flanges constituting trolley-riding flanges and conductor rail mounting flanges respectively, conductor rails located beneath said upper horizontal flanges, a series of insulation-blocks located between said horizontal flanges and the tops of said conductor rails, said blocks and said upper flanges having aligning holes, insulating bushings in said holes, cap screws held in said bushings and threaded into said conductor rails for securing said conductor rails, said blocks, and said bushings together in place on said upper horizontal flanges, said conductor rails being composed of lengths, certain ones of which have their ends opposite one another and brought close together, one of said insulator blocks overlying the gap between said ends and a strip of conductor bar overlying the gap and secured in good electrical contact with the opposite rail ends.

4. In conveyor trackways, an I-beam, T-shaped conductor rails located beneath the upper lateral flanges of the I-beam, insulating spacing blocks located between said upper lateral flanges and said conductor rails, said upper lateral flanges and said blocks having aligning apertures, bushings having flanged heads projected into said apertures, cap screws passing through said bushings and threaded into said conductor bars, and sealing washers between said bushings and said upper lateral flanges for the purpose specified.

5. In conveyor trackways, an I-beam including lower and upper horizontal flanges constituting trolley-riding flanges and conductor rail mounting flanges respectively, conductor rails located beneath said upper horizontal flanges, a series of insulation-blocks located between said horizontal flanges and the tops of said conductor rails, said blocks and said upper flanges having aligning holes, insulating bushings in said holes, means passing through said bushings and connecting to said conductor rails for securing said conductor rails, said blocks, and said bushings together in place on said upper horizontal flanges.

6. In conveyor trackways, an I-beam including lower and upper horizontal flanges constituting trolley-riding flanges and conductor rail mounting flanges respectively, conductor rails located beneath said upper horizontal flanges, a series of insulation-blocks located between said horizontal flanges and the tops of said conductor rails, said

blocks and said upper flanges having align-
ing holes, insulating bushings in said holes,
means passing through said bushings and
connecting to said conductor rails for secur-
ing said conductor rails, said blocks, and said
5 bushings together in place on said upper
horizontal flanges, said conductor rails being
composed of lengths, certain ones of which
having opposed ends spaced apart, insulating
inserts located between said ends, and tie
10 plates of insulation bolted to the conductor
rails and over-lying said insulating inserts.
EDWARD HANAK.

15

20

25

30

35

40

45

50

55

60

65