May 17, 1932. W. H. JUERGENS 1,858,895

TROLLEY FRAME

Filed Nov. 12, 1930 2 Sheets-Sheet 1

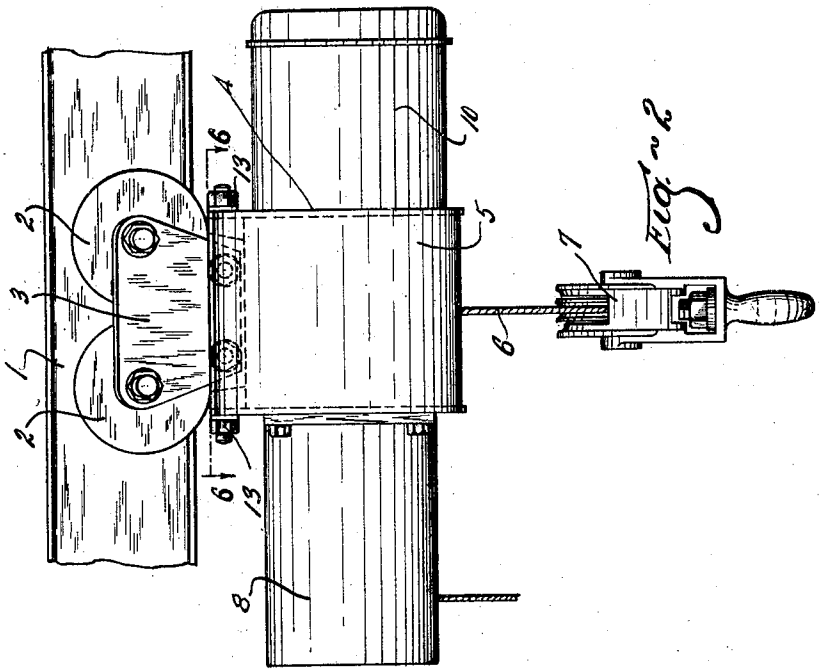


Fig. 2

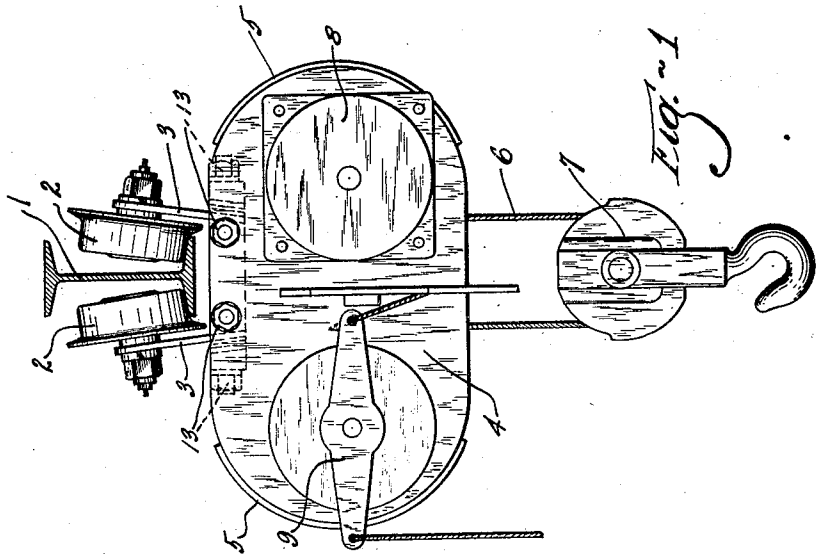


Fig. 1

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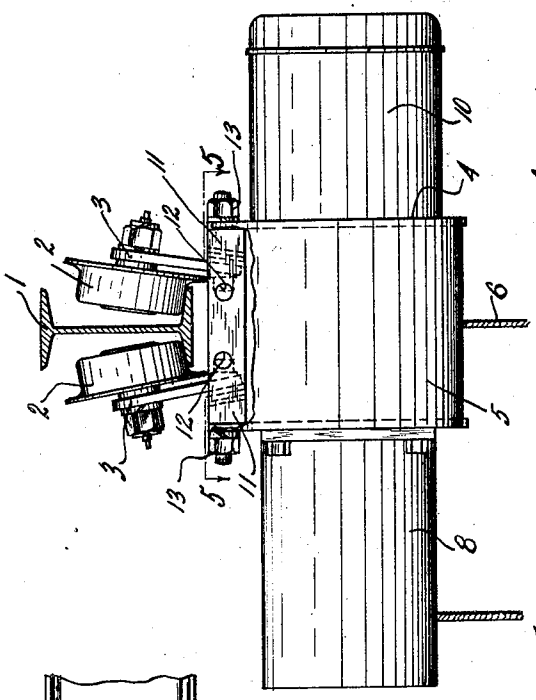


Fig. 4

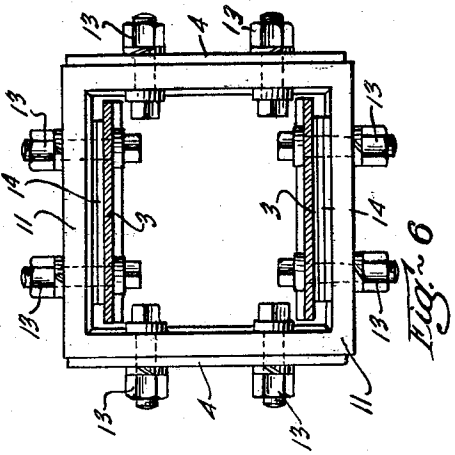


Fig. 6

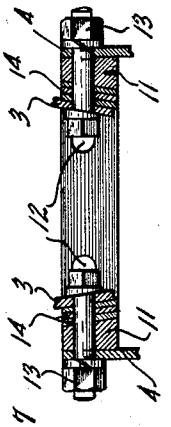


Fig. 7

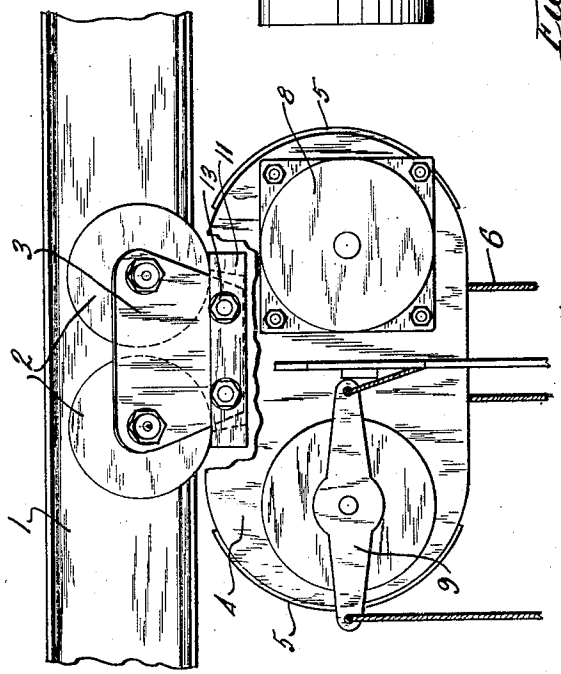


Fig. 3

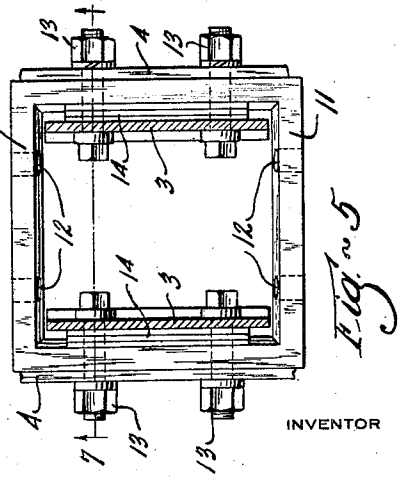


Fig. 5

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UNITED STATES PATENT OFFICE

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TROLLEY FRAME

Application filed November 12, 1930. Serial No. 495,119.

This invention relates to hoisting apparatus of the type including a carriage movable along an I-beam trackway or the like, and having a hoisting assembly supported by the carriage. The hoisting assembly of such apparatus is usually of greater dimension in one horizontal direction than the other so that clearance conditions in one installation require a relation between hoisting and carriage assemblies such that the hoisting assembly extends with the trackway, whereas clearance conditions in another installation may require that the hoisting assembly extend transversely thereto. Production requirements, however, do not conveniently permit the provision of separate special parts for the two arrangements; yet rigid interassociation of the carriage and hoisting assemblies is required in the installation.

It is an object of my invention to provide for either such relation of the assemblies, by interposing therebetween a carriage frame which allows the hoisting assembly to be mounted upon the carriage assembly, oriented in either of the two rectangularly related positions.

A further object of the invention is to make provision for adjustment in the assembly of the parts for the sizes of I-beam which forms the trackway.

The exact nature of the invention together with further objects and advantages thereof will be apparent from the following description taken in connection with the accompanying drawings, in which Figs. 1 and 2 are end and side elevations respectively with the parts assembled in one relation and Figs. 3 and 4 are corresponding views but showing the parts assembled in the other optional relation, parts being broken away to show details of construction; Fig. 5 is a section as in the plane of line 5—5, Fig. 4; Fig. 6 is a corresponding section as in the plane of line 6—6, Fig. 2; and Fig. 7 is a vertical section as in the plane of line 7—7, Fig. 5.

With reference now to the drawings, 1 is the I-beam trackway upon which the hoisting apparatus is to run. A carriage is supported thereon for movement therealong by a pair of wheels 2 on either side of the I-beam, each wheel having a tread portion bearing upon one of the lower flanges of the I-beam. The wheels are carried by opposed side plates 3 on which the wheels are mounted in the spaced relation indicated. The wheel axes are conveniently perpendicular to their side plates; so that in order that the wheel treads may nicely bear upon the I-beam flanges it is necessary that the side plates 3 be angularly related converging downwardly as indicated. These parts then comprise the carriage assembly of the apparatus.

The hoisting part of the apparatus includes a pair of parallel opposed side plates 4, spaced apart a somewhat greater distance than are the carriage side plates 3, below the trackway. The side plates 4 are the supporting part of the frame of the hoisting assembly, so that the hoisting assembly may be supported thereby. Further details of the hoisting part of the apparatus are immaterial here, but as shown, a cover 5 extends between the side plates 4 to house the hoisting drum from which the line 6 is led over the pulley block 7 in the usual fashion. Extending on one side of the cover 5 is a motor 8 with the usual controller 9 and on the other side a gear box 10 by which the power of the motor is applied to the drum.

According to my invention I mount the side plates 4 of the hoisting assembly upon the side plates 3 of the carriage assembly by interposing therebetween a frame 11. This frame is rectangular, preferably square as indicated. Its outside dimensions are such that the frame will fit between the side plates 4. The inner faces of the frame side members have angularity corresponding with that between the side plates 3, and the inner dimension of the frame is such that it will more than take these side plates within its opening.

Each side of the frame is provided with a pair of spaced openings 12, and each of the side plates 3 and 4 have corresponding openings.

Thus when the relation of assemblies as shown in Figs. 3 and 4 is desired, with the hoisting assembly extending transversely of the trackway, the frame 11 may be inserted as

indicated Figs. 3, 4 and 5, with each of one opposed pair of its legs between one of the side plates 3 and the corresponding side plate 4. Thus four bolts 13 may be passed through the four corresponding openings 12 and those in the side plates aligned therewith, to rigidly secure the carriage and hoisting assemblies together. That the wheels 2 may be properly spaced for the I-beam sizes to be used, fillers 14 may be interposed between each side plate member 3 and its corresponding side of the frame 11, a sufficient number of fillers being employed to properly space the parts, dependent upon the I-beam size. In this arrangement it will be noted that four of the openings 12 are not used.

When the relation of assemblies as shown in Figs. 1, 2 and 6, is desired, with the hoisting assembly extending along the trackway, the frame 11 is inserted as before except that now the side plates 3 of the carriage assembly are interposed to run along one pair of side members of the frame 11, and the side plates 4 of the hoisting assembly run along the other pair of frame side members. Thus as shown particularly in Fig. 6, eight bolts 13 are necessary as all eight of the openings 12 are employed. Fillers 14 may be inserted between the carriage assembly side plates 3 and the corresponding sides of the frame 11, as before.

What I claim is:

1. Hoisting apparatus of the class described comprising a hoisting assembly having opposed side plates, a carriage assembly having opposed side plates, and a rectangular frame having side members adapted to be secured with said side plates to inter-associate said assemblies with the one thereof oriented in either of two rectangularly related positions relative to the other.

2. Hoisting apparatus of the class described comprising a hoisting assembly having opposed side plates, a carriage assembly having opposed side plates, and an open rectangular frame adapted to be positioned between the side plates of said hoisting assembly and to receive the side plates of said carriage assembly, whereby one of the assemblies may be secured with the other thereof oriented in either of two rectangularly related positions.

3. Hoisting apparatus of the class described comprising a hoisting assembly having opposed side plates, a carriage assembly having opposed non-parallel side plates, and an open rectangular frame adapted to be positioned between the side plates of said hoisting assembly and to receive the side plates of said carriage assembly, a pair of opposed inner faces of said frame being non-parallel to correspond with the angularity of said carriage side plates.

4. Hoisting apparatus of the class described comprising a hoisting assembly having opposed side plates each with a pair of horizontally spaced bolt openings, a carriage assembly having opposed side plates with correspondingly spaced bolt openings, and a square frame adapted to be secured between said assemblies and for the purpose having side members each with bolt openings spaced correspondingly with those of said side plates, the side plates of said hoisting assembly being farther spaced than those of said carriage assembly, the outer dimension of said frame corresponding with the spacing of said hoisting assembly side plates and the inner dimension of said frame corresponding with the spacing of said carriage assembly side plates, whereby said frame may be interposed between said assemblies with the one thereof oriented in either of two rectangularly related positions relative to the other, and bolt means for securing together the plates with said frame.

5. Hoisting apparatus of the class described comprising a carriage assembly having opposed side plates, wheels carried by said plates, said plates being angularly related to converge downwardly whereby the treads of said wheels may bear upon the flanges of an I-beam therebetween, a frame having a hoisting assembly associated therewith, said frame having opposed side members adapted to receive therebetween said plates, the inner faces of said side members having angularity corresponding with that of said plates, and bolt means for securing the plates with their frame side members.

6. Hoisting apparatus of the class described comprising a carriage assembly having opposed side plates, wheels carried by said plates, said plates being angularly related to converge downwardly whereby the treads of said wheels may bear upon the flanges of an I-beam therebetween, a frame having a hoisting assembly associated therewith, said frame having opposed side members adapted to receive therebetween said plates, the inner faces of said side members having angularity corresponding with that of said plates, filler means between said plates and their frame side members to adjust the spacing of said wheels to said I-beam, and bolt means securing each plate to its side frame member with the filler clamped therebetween.

In testimony whereof I hereby affix my signature.

WINFRED H. JUERGENS.