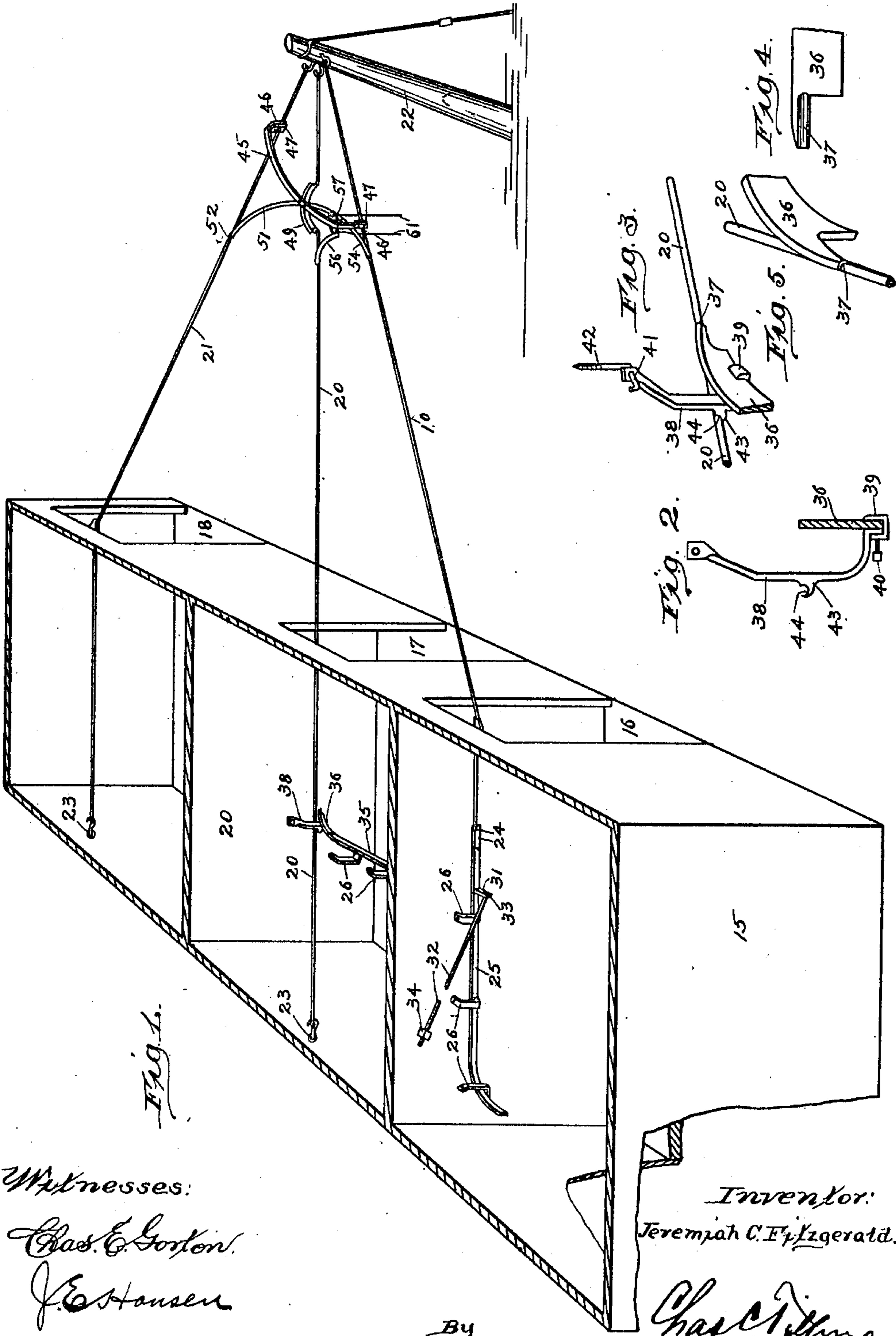


J. C. FITZGERALD.
ELEVATED TRACK SYSTEM FOR OVERHEAD CARRIERS.
APPLICATION FILED JUNE 9, 1910.

970,032.

Patented Sept. 13, 1910.

3 SHEETS—SHEET 1.



Witnesses:

Chas. E. Gorton.

J. E. Hansen

By

Inventor:
Jeremiah C. Fitzgerald.

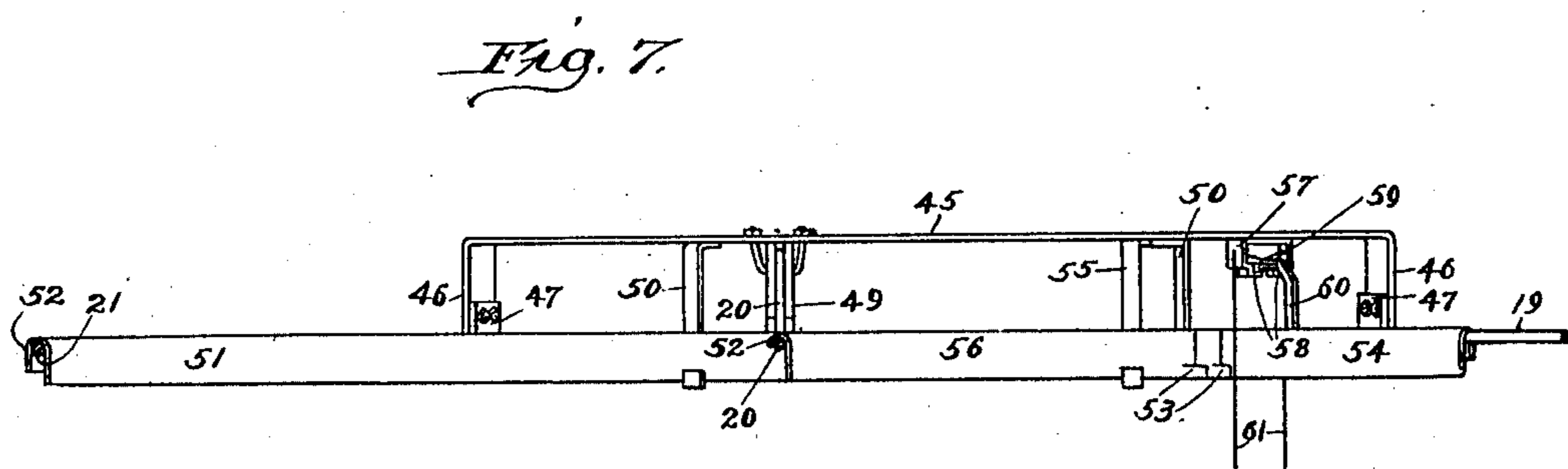
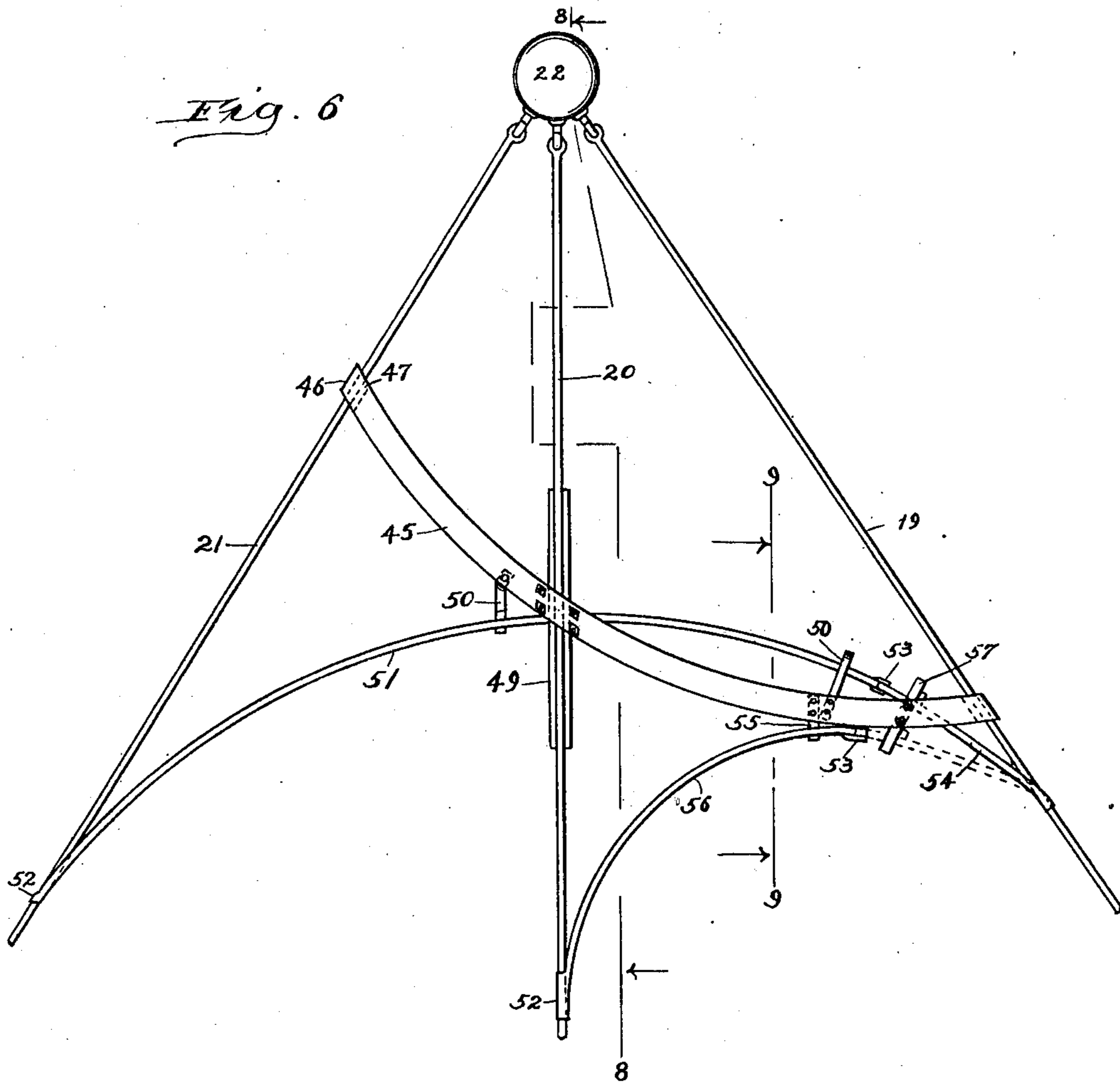
Chas. E. Gorton
Atty.

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3 SHEETS—SHEET 2.



Witnesses:

Chas. E. Gorton.
J. E. Hansen.

Inventor:
Jeremiah C. Fitzgerald.

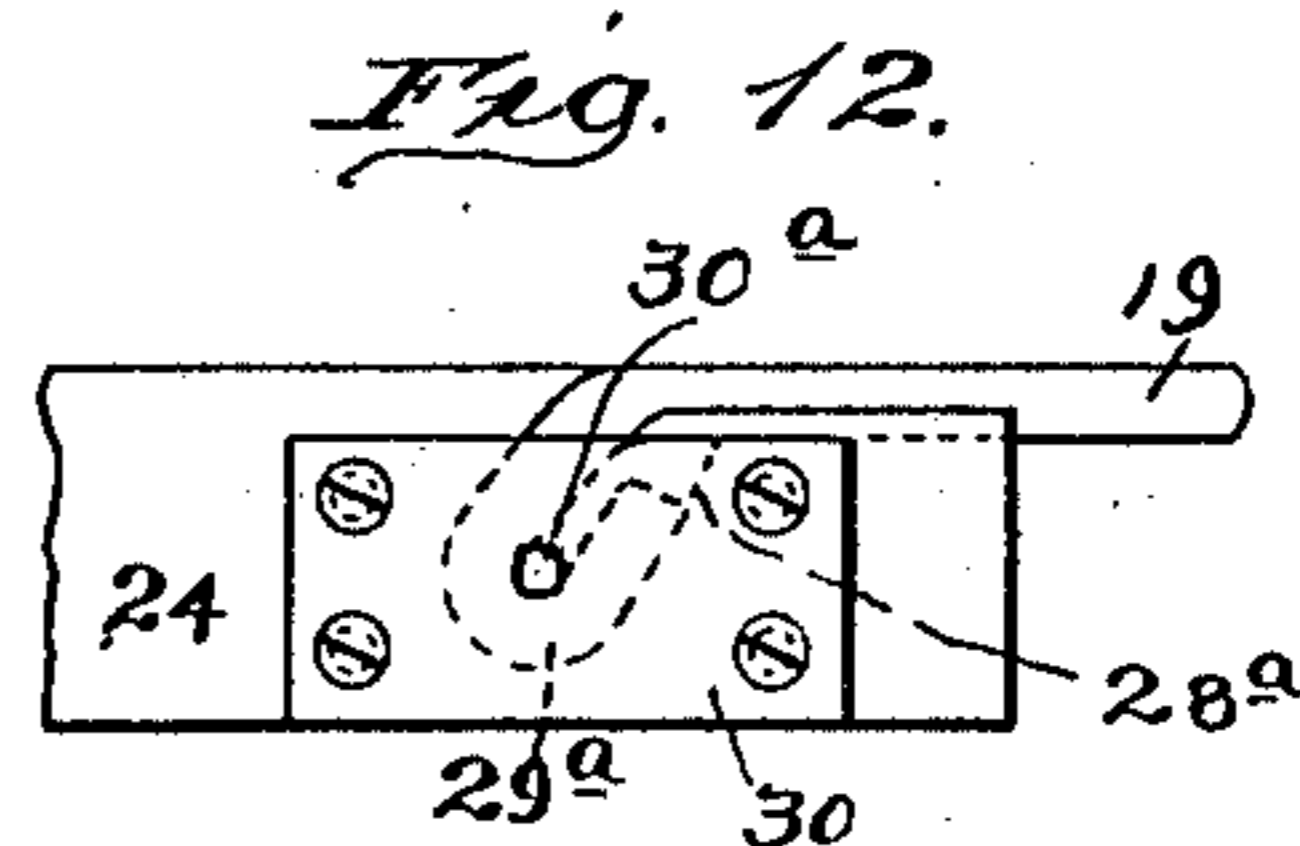
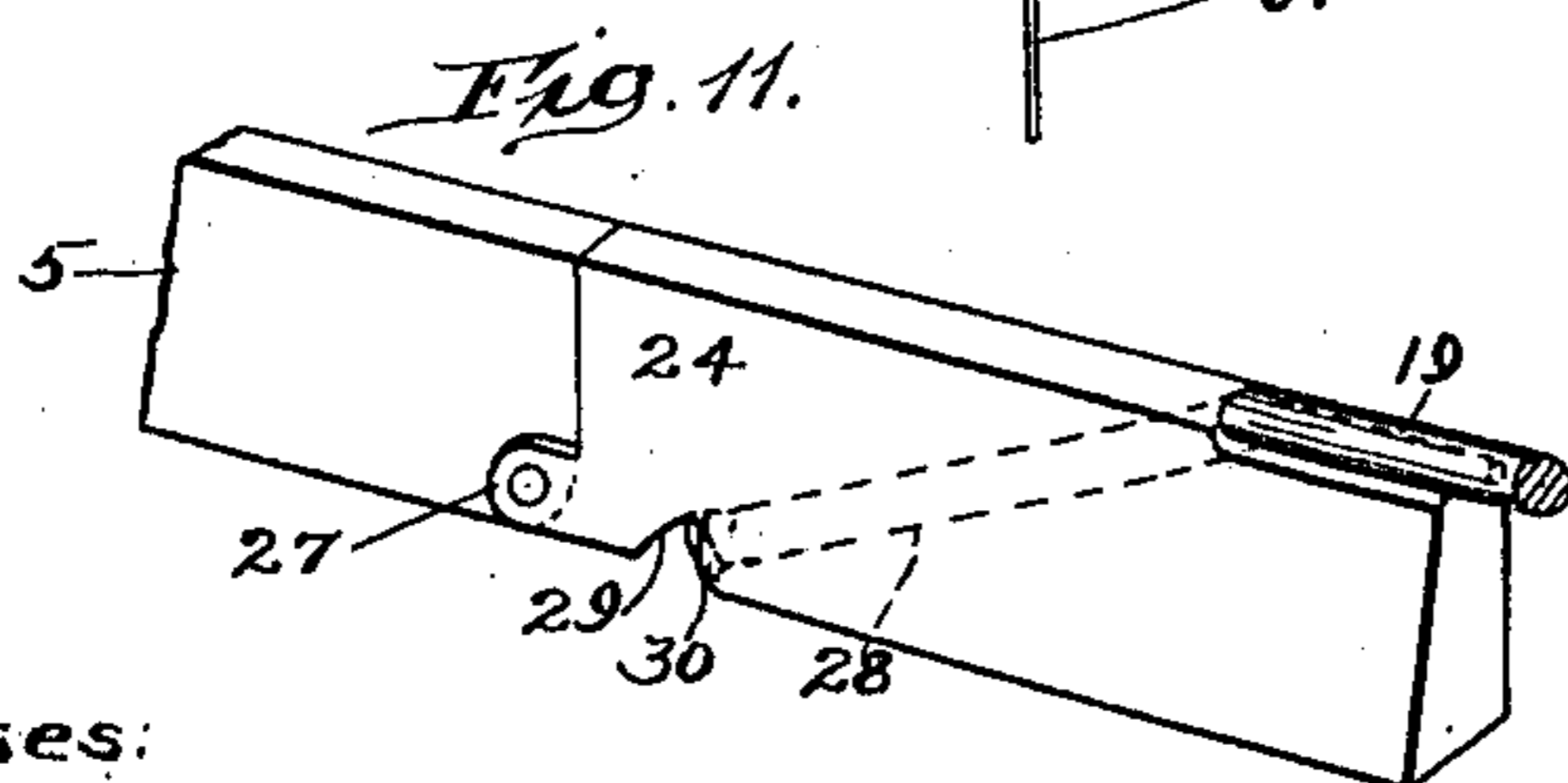
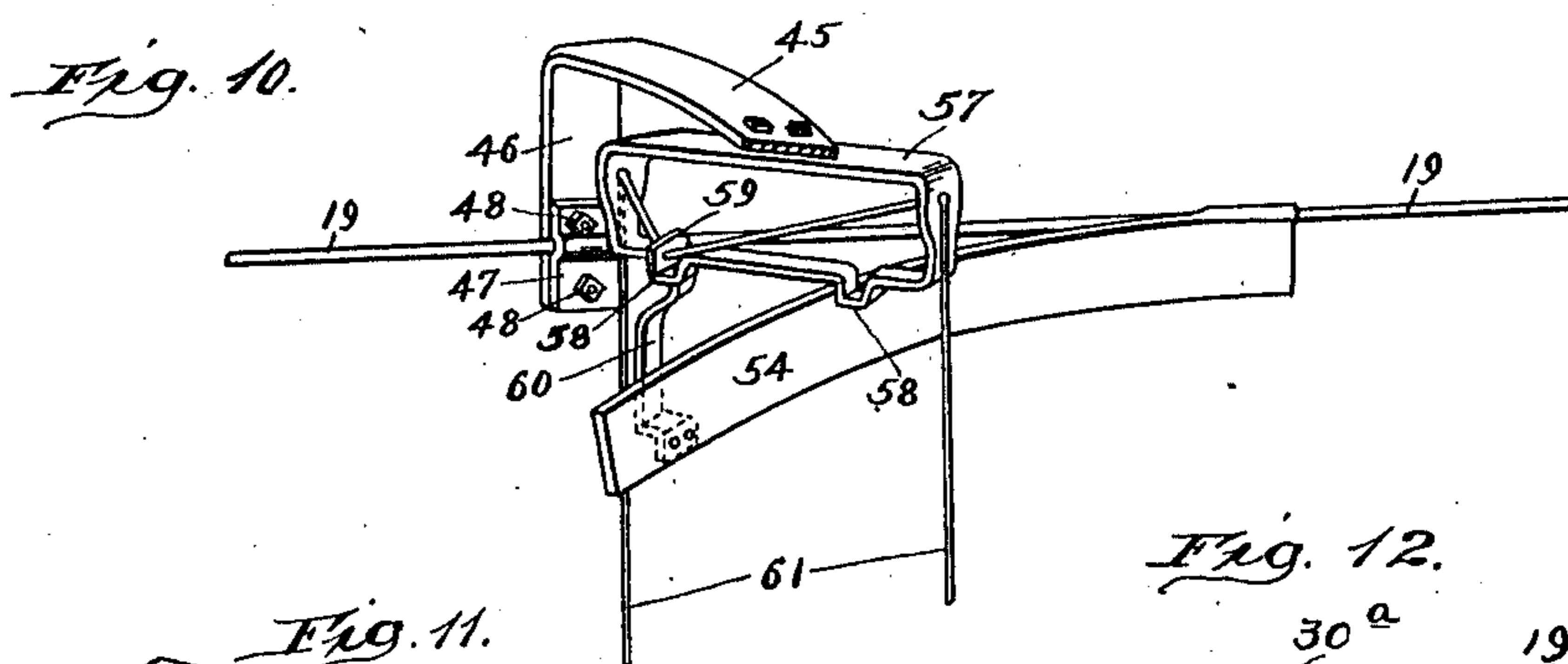
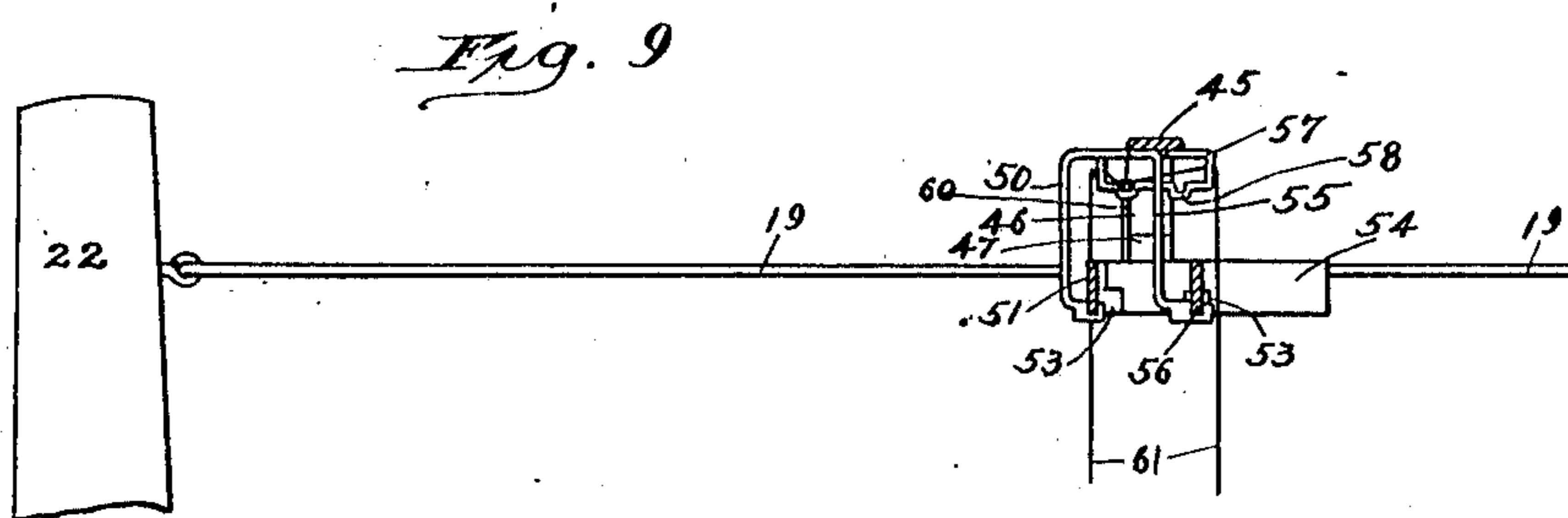
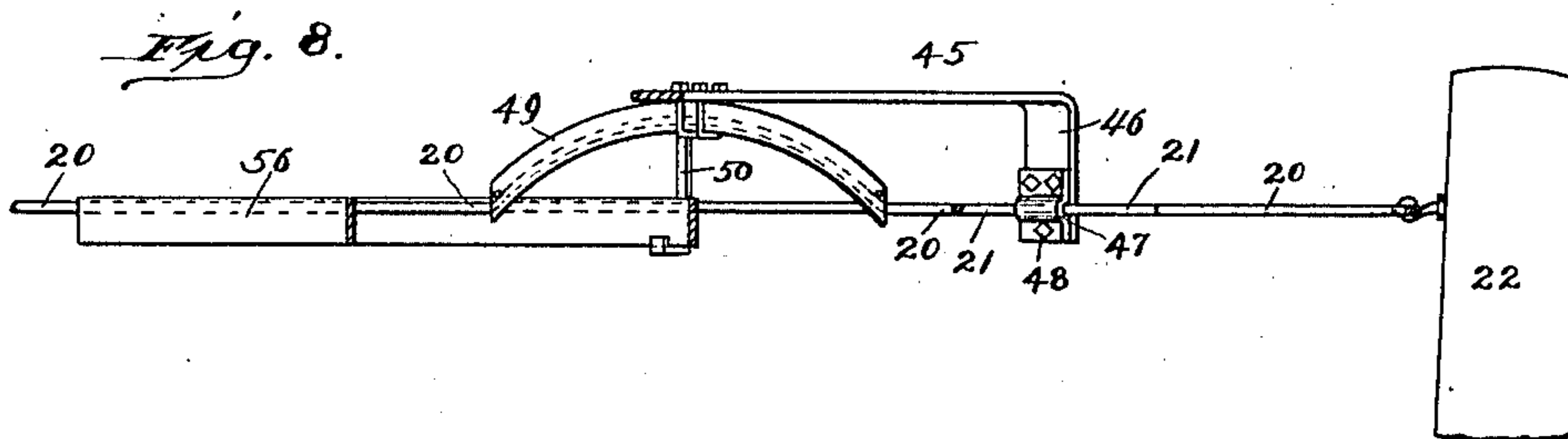
By *Chas. C. Tiltman*
Atty.

J. C. FITZGERALD.
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3 SHEETS—SHEET 3.



Witnesses:

Chas. E. Gorton.
J. E. Hansen.

Inventor:

Jeremiah C. Fitzgerald.

By Chas. C. Kilman
ATTY.

UNITED STATES PATENT OFFICE.

JEREMIAH C. FITZGERALD, OF DE KALB, ILLINOIS, ASSIGNOR TO SMITH MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

ELEVATED-TRACK SYSTEM FOR OVERHEAD CARRIERS.

970,032.

Specification of Letters Patent. Patented Sept. 13, 1910.

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To all whom it may concern:

Be it known that I, JEREMIAH C. FITZGERALD, a citizen of the United States, residing at De Kalb, in the county of Dekalb and State of Illinois, have invented certain new and useful Improvements in Elevated-Track Systems for Overhead Carriers, of which the following is a specification.

This invention relates to improvements in an elevated track system for overhead carriers, used for transferring materials of various kinds, such as grain, feed, manure, ore, coal, and the like, from one place or point to another, and in the present instance it is designed to be used and is shown in connection with a barn, and as consisting of a series of tracks some of which are of flexible material, and have their outer ends approximated and suitably secured, while others are stiff or of rigid material, and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The principal object of the invention, is to furnish a system of elevated tracks so constructed and arranged that but one car or carrier need be used for traversing the entire system.

Another object is to connect the flexible and rigid track in direct alinement and to furnish resisting means to overcome the longitudinal strain on the rigid track caused by high tension of the flexible track.

Other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

In order to enable others skilled in the art to which my invention pertains, to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1, is a perspective view of an elevated track system, embodying the invention; Fig. 2, is a view in side elevation of a hanger for a portion of one of the branch track sections; Fig. 3, is a perspective view of a portion of one of the flexible tracks and a part of a branch track showing the hanger illustrated in Fig. 2, connecting the same; Fig. 4, is a side view of a portion of the member of the branch track showing the recess in one of its ends to receive the flexible track; Fig. 5, is a perspective view

of a portion of the flexible track and a part of one of the members of the branch track showing them connected together and viewing them from the opposite direction shown in Fig. 3; Fig. 6, is a plan sectional view of the outer portion of the flexible tracks showing the means for supporting the same, as well as the means for transferring a car or carrier from one of the flexible tracks to another; Fig. 7, is a horizontal or end view looking toward the converging ends of the tracks; Fig. 8, is a side view taken on line 8—8 of Fig. 6, looking in the direction indicated by the arrows; Fig. 9, is a side view partly in section taken on line 9—9 of Fig. 6, looking in the direction indicated by the arrows; Fig. 10, is a perspective view of a portion of the bridge, which connects the flexible tracks near their outer ends, showing the keeper for the switch member mounted thereon; Fig. 11, is a perspective view of parts of one of the rigid track sections and one of the flexible tracks, showing the means for connecting them together. And Fig. 12, is a similar view of a modification in the means of connecting one of the flexible tracks to the splice bar which unites it with a rigid track or section.

Like numerals of reference, refer to corresponding parts throughout the different views of the drawings.

The reference numeral 15, designates the basement or the lower portion of a barn which is provided with a series of doorways 16, 17, and 18, through which the main or flexible tracks 19, 20, and 21, are extended. As shown in Fig. 1, these flexible tracks which may be made of cables, rods, or any other flexible form, are secured at their outer ends to a post 22, located at a desired distance from the barn. The inner ends of the tracks 20, and 21, may be secured or supported in any suitable manner, but in the present instance they are shown as being secured to the rear wall of the barn by means of tension bolts 23, engaging therewith. The inner end of the flexible track 19, is shown in Figs. 1, and 11, of the drawings as being secured to a splice member 24, of a rigid branch track 25, which is supported by means of hangers 26, the upper ends of which may be secured to the joists or to overhead supports, not shown. The splice member 24, is connected to the adjacent end of the branch track 25, by means of a pivot

or hinge 27, so as to permit of slight vertical movement of said member to compensate for the sagging of the flexible track 19, which is connected thereto by having its inner end extended through a diagonally disposed opening or bore formed in the member 24, and which bore extends from the upper portion thereof near one of its ends and obliquely or diagonally through the splice member and out through its lower surface. The lower portion of the opening 28, is enlarged as at 29, so as to receive the enlargement 30, on the end of the flexible track 19, which enlargement may be produced by upsetting said end when the track 19, is formed of a rod. As the branch track 25, will be subjected to great downward strain, at its end adjacent to the splice member 24, by reason of the weight of the carrier as it travels back and forth over the splice member, it is desirable to provide additional supporting means for the rigid branch track 25, which is accomplished by providing the track 25, near its end adjacent to the flexible track with a laterally disposed projection 31, through an opening in which is passed a bolt 32, which has at one of its ends a head 33, to rest against the projection 31, and is provided with screw-threads near its other end for engagement with a nut 34, used for regulating the tension of the flexible track. The upper or screw-threaded portion of the rod 32, may be extended through an opening in one of the joists or overhead timbers (not shown) of the barn when the nut can be screwed on the end of the rod 32, on the opposite side of said timber from the projection 31, by which means it will be understood that the track 25, will be strengthened in its support.

Instead of connecting the inner end of one or more of the flexible tracks directly to, or in alinement with a branch track by means of the splice member 24, as just above described, a branch track 35, suitably supported by means of hangers 26, secured at their upper ends to overhead supports (not shown) and located at an angle to the flexible track, may be used, in which construction it will be understood that the end of the rigid or branch track 35, adjacent to the flexible track will be located at some distance from the flexible track. To said adjacent end of the branch track 35, is hinged a switch member 36, which is slightly curved and has its free end cut away and formed in its upper portion with a groove 37, (see Figs. 4 and 5,) to receive or engage the flexible track 20, when it is desired to transfer the carrier from said flexible track to the branch track 35, or vice versa. The switch member 36, is movably supported by means of a hanger 38, which is preferably provided at its lower portion with a channeled extension 39, to receive the lower portion

of the member 36, which may be held in place by means of a set screw 40, seated in one side of said channeled part. The upper portion of the hanger 38, is provided with an opening to loosely engage the horizontal portion 41, of a hooked bolt or screw 42, secured to an overhead support. The hanger 38, is located between the switch member 36, and flexible track 20, and has on its surface adjacent to the flexible track a projection 43, provided with a recess 44, to receive the flexible track, when it and the switch member are united. By this arrangement it will be understood that by moving the hanger 38, on the horizontal portion 41, of the bolt or screw 42, the member 36, can be thrown in or out of engagement with the flexible track and when in engagement therewith, the groove 37, of the member 36, will receive the upper portion of the track 20, while the recess 44, of the projection 43, will embrace the lower portion of said track, thus securely holding it and the switch member together.

Mounted transversely on the flexible tracks 19, and 21, near their outer ends, is a bridge 45, which is provided at its ends with downwardly extended portions 46, which may be secured to the flexible tracks by means of clamping plates 47, and bolts 48, or otherwise, so as to hold the bridge at a suitable distance above the flexible tracks. Mounted on the lower surface of the bridge 45, is a by-pass arch or segment 49, which is preferably made of channel iron or may be made of any suitable kind of material and provided with a longitudinally extended groove on its upper surface to receive and support, a portion of the flexible track 20, which is located between the tracks 19, and 21, as is clearly shown in Figs. 1, and 6, of the drawings. Supported on suitable hangers 50, depending from the bridge 45, is a curved rigid track section 51, which is connected at one of its ends to the track 21, and for this purpose is preferably provided at its end adjacent to the said track with an overhanging lip or flange 52, to engage said track. The other end of the curved track 51, is preferably provided on its lower portion with a channeled extension 53, to receive one end of a switch member 54, which has its other end loosely connected to the flexible track 19, so as to permit of lateral as well as vertical movement of said member. Supported near one of its ends by means of a hanger 55, depending from the bridge 45, is a curved track section 56, which has its other end connected to the flexible track 20, and for this purpose may be provided with an overhanging flange 52, to overlap said track. By reference to Fig. 6, it will be seen that the ends of the curved track sections 51, and 56, adjacent to the switch member 54, are approximated, and that the section 55, is

also provided at its free end with a channeled extension 53, to receive the free end of said switch member.

Mounted on the bridge 45, near the free ends of the track sections 51, and 56, and transversely with respect thereto, is a keeper 57, for the upper portion of the hanger of the switch member. As shown in Fig. 10, the keeper 57, has in its lower portion recesses 58, to receive the upper and horizontally disposed part 59, of the hanger 60, for the switch member 54, which hanger has in its upper portion, an opening through which is fastened a cord or cable 61, which is also extended through suitable openings in the ends of the keeper 57, and depends at each end thereof, so that by pulling downwardly on the cord or cable, the hanger 60, and switch member 54, may be raised sufficiently to be disengaged from one of the recesses 58, and to be moved to the other of said recesses, when shifting the switch member from one of the track sections 51, and 56, to the other, in which position the switch member will be securely held by reason of the engagement of its hanger with the proper recess.

From the foregoing and by reference to the drawings, it will be readily understood and clearly seen that if the car or carrier is located on the track 19, and it is desired, it can be caused to run on to the track 21, and into the barn if desired, or it can be run from track 21, on to track 19, and into the barn if desired, by placing the switch member 54, in the position shown by continuous lines in Fig. 6, but if it should be desired to transfer the car from track 19, to track 20, or vice versa, the switch member 54, should be shifted to the position shown by dotted lines in Fig. 6, in which position its free end will engage the free end of the track section 56, as is apparent.

While I have shown only one of the flexible tracks, as being connected by means of a splice member to a branch track, and have shown only one of the flexible tracks adapted to be placed in connection with a branch track 35, yet it is apparent that either of said means may be employed on one or more of the flexible tracks, and it is further obvious that the invention is susceptible of considerable modification without departing from the principle or spirit thereof, and for this reason I do not desire to be understood as limiting myself to the precise form and arrangement of the various parts of the apparatus, in carrying out my invention in practice. For instance, instead of connecting one of the flexible tracks to a rigid track by the means shown in Fig. 11, and above described, the construction shown in Fig. 12, may be used, in which the splice member 24, may be provided with a recess 28^a, in one of its sides, instead of with the

opening 28, as in the other construction, and the track 19, provided with a hook 29^a, to engage a bolt 30^a, located on the member 24, and securing a plate 30^b, over said recess. By employing the adjusting rod or bolt 32, which it will be understood will be located longitudinally with respect to the track 25, and as nearly in parallelism therewith as may be possible, means will be afforded for resisting the strain incident to the high tension of the flexible track when a loaded car is passed thereover and it will also be understood that the flexible track and branch track 25, will be connected in alinement with one another by means of the hinged splice member.

Having thus fully described my invention what I claim as new and desire to secure by Letters-Patent is—

1. In an elevated track system, the combination with a plurality of main tracks, of a plurality of track sections, each connected at one of its ends to a different main track, a by-pass support for one of the main tracks disposed across one of said sections, and a switch member connected to one of the main tracks and adapted to be moved from one of said sections to another.

2. In an elevated track system, the combination with a plurality of main tracks, of a plurality of track sections supported thereby and each connected at one of its ends to a different main track, a by-pass support supporting one of the main tracks across one of said sections, and a switch member supported on the main tracks and connected to one of the same and adapted to be moved from one of said sections to another.

3. In an elevated track system, the combination with a plurality of suitably supported main tracks, of a plurality of track sections each connected at one of its ends to a different main track and diverged therefrom, the other ends of said sections being located common to another of the main tracks, a switch member loosely connected at one of its ends to the said common track and adapted to be moved at its other end from one track section to another.

4. In an elevated track system, the combination with a plurality of main tracks, of a plurality of track sections, each connected at one of its ends to a different main track, a bridge extended across the main tracks and supported thereon, a by-pass support for one of the main tracks disposed across one of said sections and mounted on said bridge, and a switch member connected to one of the main tracks and adapted to be moved from one of said sections to another.

5. In an elevated track system, the combination with a plurality of main tracks, of a plurality of track sections, each connected at one of its ends to a different main track, a bridge extended across the main tracks

and supported thereon, a by-pass support for one of the main tracks disposed across one of said sections and mounted on said bridge, a switch member connected at one 5 of its ends to one of the main tracks and having its other end extended to one of the track sections, a keeper mounted on the bridge above the switch member and having recesses in its lower portion, a hanger con- 10 nected at its lower end to the switch member and having an extension at its upper end to rest in the recesses of the keeper, and means to shift the position of said hanger and switch member.

6. In an elevated track system, the combination with a plurality of flexible tracks having their outer ends converged and suitably supported and their inner ends extended through the doorways of a structure and suitably supported therein, of a 20 plurality of track sections, each connected at one of its ends to a different flexible track near its outer end, a bridge extended across and above the flexible tracks and supported thereon near their outer ends, a channeled by-pass support for one of the flexible tracks disposed across one of said sections and mounted on said bridge, a switch 25 member connected at one of its ends to one of the main tracks and extended at its other end to one of said sections, and means to move said member from one of said sections to another.

7. In an elevated track system, the combination with a suitably supported rigid 35 branch track, of a splice member pivotally connected for vertical movement to one end of said track, and a flexible track secured at one of its ends to the splice member and suitably supported at its other end.

8. In an elevated track system, the combination with a suitably supported rigid 40 branch track, of a splice member pivotally connected for vertical movement to one end of said track and having a diagonally disposed bore extended therethrough from

near the upper portion of its free end to its lower surface, and a flexible track having one of its ends located in said bore and its other end suitably supported. 50

9. In an elevated track system, the combination with a rigid branch track having near one of its ends an apertured projection, of supporting hangers for said track, a rod provided with a head on one of its 55 ends and screw-threaded near its other end extended through the opening in said projection and through a suitable overhead support, a nut on the screw-threaded portion of said rod on the opposite side of the support 60 therefor from said projection, a splice member loosely secured to the end of the branch track near said projection, and a flexible track connected at one of its ends to the splice member and suitably supported at its 65 other end.

10. In an elevated track system, the combination with a suitably supported flexible track, of a suitably supported branch track having one of its ends located near the flexible track, a switch member loosely connected 70 at one of its ends and having a cut away portion in its other end and provided with a recess at said end to receive a portion of the flexible track, a hanger connected at its 75 lower end to the switch member and movably supported at its upper end, said hanger having a recessed projection between its ends to engage the flexible track.

11. In an elevated track system, the combination with a suitably supported flexible 80 track, of a by-pass support elevating and supporting a portion of said track between its ends, and another track suitably supported and extended below said by-pass support and in the same horizontal plane with 85 the main portion of the first-named track.

JEREMIAH C. FITZGERALD.

Witnesses:

J. E. HANSEN,
CHAS. C. TILLMAN.