H. SCHEID.

FOLDING SUPPORT.

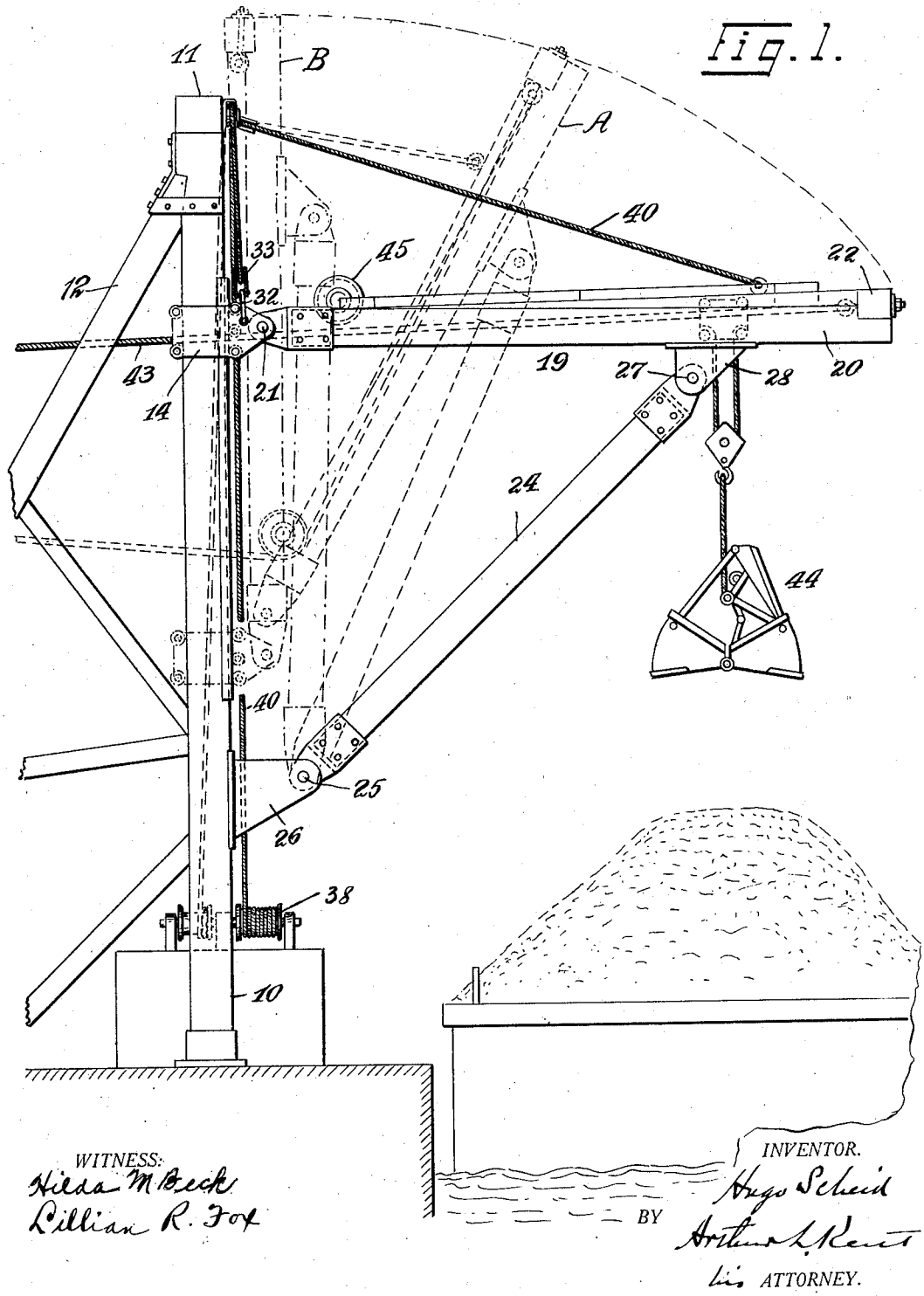
APPLICATION FILED JUNE 11, 1920.

1,361,409.

Patented Dec. 7, 1920.

3 SHEETS—SHEET 1.

Fig. 1.



WITNESS:
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3 SHEETS—SHEET 2.

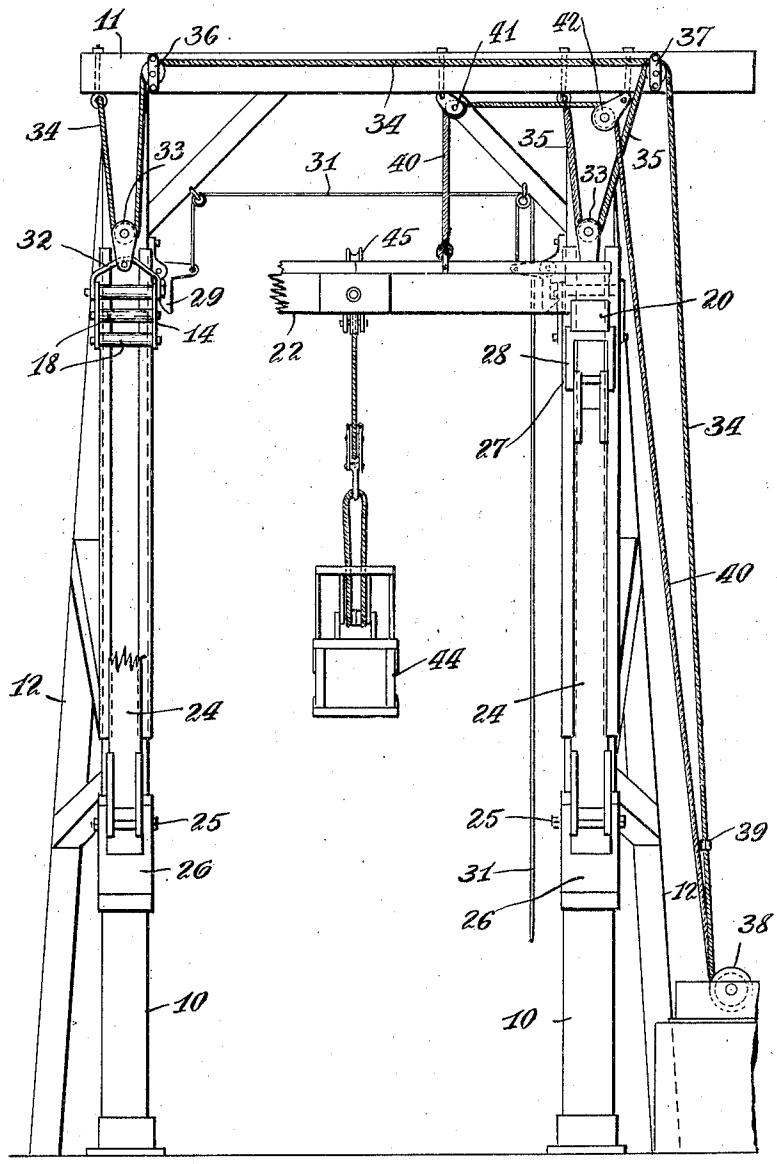

Fig. 2.

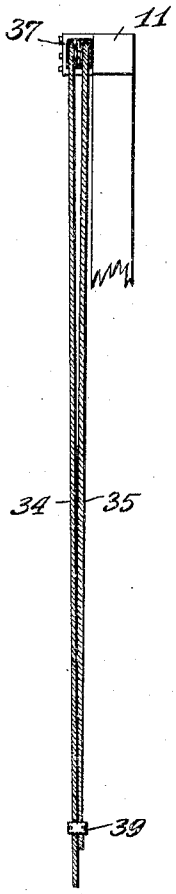

Fig. 3.

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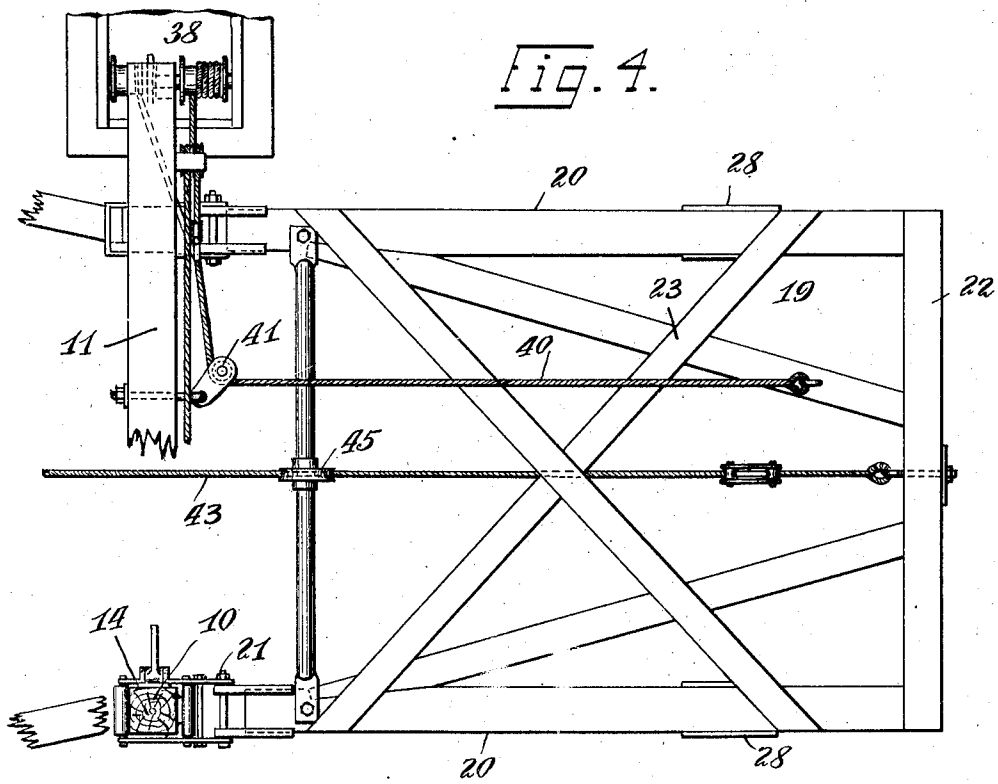
3 SHEETS—SHEET 3.

Fig. 4.



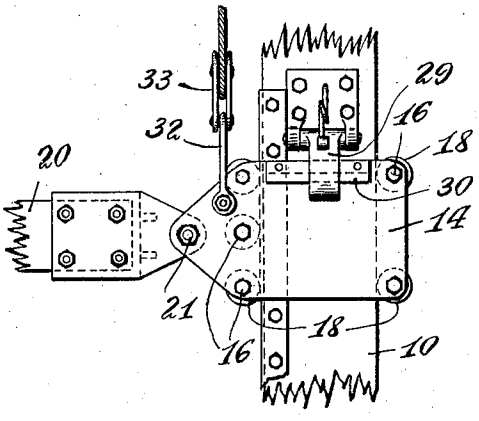


Fig. 5.

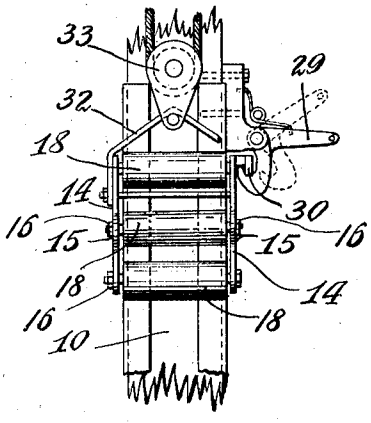


Fig. 6.

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UNITED STATES PATENT OFFICE.

HUGO SCHEID, OF NEW YORK, N. Y.

FOLDING SUPPORT.

1,361,409. Specification of Letters Patent. Patented Dec. 7, 1920.

Application filed June 11, 1920. Serial No. 388,201.

To all whom it may concern:

Be it known that I, HUGO SCHEID, a citizen of Germany, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Folding Supports, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to folding supports, and has for an object to provide such a support for use in connection with track-way or cable-way conveyers.

When my invention is used in connection with conveyers it provides a support for the conveyer-way which may be projected over a railroad, road or water-way when the conveyer is in use in loading or unloading railroad cars, wagons or boats, and may be folded so as not to obstruct the passage of vehicles or boats when the conveyer is not in use.

Further objects and advantages of my invention will be pointed out in connection with a detailed description of the specific embodiment of the invention which is shown in the accompanying drawings; in which—

Figure 1 is a side elevation of an end support for a conveyer cable showing in full lines the boom in operative position, and in dotted lines the boom in balanced position, and in dots and dashes the boom is folded position;

Fig. 2 is a front elevation showing the boom in operative position and showing a part of the boom broken away;

Fig. 3 is a fragmentary side elevation showing the arrangement of the ropes for elevating the slides;

Fig. 4 is a plan view showing a portion of one of the uprights and of the cross-tie broken away;

Fig. 5 is an enlarged detail side elevation showing one of the slides and one of the catches; and

Fig. 6 is a similar front elevation of the parts shown in Fig. 5, with the boom removed.

The structure illustrated in the drawings is used as an end support for a conveyer cable to be used in loading or unloading boats or vehicles. The two uprights 10 are erected near the side of a water-way or highway. The uprights 10 are connected by a cross-tie 11. Bracing 12 extends rearwardly from each upright. The space between the uprights 10 is left open to afford an unobstructed passage for the conveyer.

On each of the uprights 10 is a slide or carriage 14. Each slide consists of two side plates 15 between which extend spacer bolts 16. About the bolts 16 are placed sleeves or rollers 18 to facilitate the moving of the slides upon the uprights, (Figs. 5, 6).

The boom 19 consists of two side pieces 20, the cross-piece 22, and bracing 23. Each of the side pieces 20 is hinged to one of the slides 14 by means of a bolt 21.

Two braces 24 connect the outer portion of the boom with the lower portion of the uprights. Each brace 24 is hinged at one end by a bolt 25 to a bracket 26 attached to one of the uprights below one of the slides 14, and is hinged at the other end by a bolt 27 to a bracket 28 upon the lower side of one of the side pieces 20 of the boom 19.

Each upright is provided with a spring catch 29 adapted to engage a projection 30 on its slide 14, (Figs. 5, 6). Cords 31 (Fig. 2) are provided to trip the catches 29 to release the slides.

Each slide 14 is provided with a bail 32 to which is attached a sheave 33. Two ropes or cables 34, 35 are provided for raising the slides. The arrangement of these ropes is shown in Figs. 2 and 3. The rope 34 is attached to the cross-tie 11 and passes around the sheave 33 of one of the slides, over a sheave 36 upon the cross-tie, over one sheave of the double block 37 upon the cross-tie, and to the hoist 38. The rope 35 is attached to the cross-tie and passes around the sheave 33 of the other slide over the other sheave of the double block 37 and is attached to the rope 34 by a clamp or splice 39.

A rope 40 is attached near the outer end of the boom 19, passes over the sheave 41 and 42 on the cross-tie 11, and thence to the hoist 38.

The conveyer cable 43 is attached to the cross-member 22 of the boom 19. A conveyer 44 is mounted upon the conveyer cable 43 in the known manner. The ropes for raising and lowering the conveyer 44 and for causing its travel along the conveyer ca-

ble 43 are not shown in the drawings, as they form no part of the present invention.

If desired, a sheave 45 may be mounted near the inner end of the boom 19 above the conveyer cable 43.

The operation of the device described is as follows:—When the catches are released and no strain is placed on either the ropes 34, 35, or the rope 40, the boom will assume a balanced position in which it extends at an acute angle from the uprights 10, as shown by the dotted lines A in Fig. 1. The boom is moved from balanced position to working position by drawing in the ropes 34, 35, by means of the hoist 38 until the slides 14 engage and are held by the spring catches 29. The boom and braces then occupy the position shown by the heavy lines in Fig. 1 and shown in the other drawings. While the boom is in this position, it forms a rigid support for the conveyer cable, and the conveyer 44 may be operated to load or unload boats or vehicles on the water-way or high-way beside the uprights 10. As there is no bracing between the uprights 10, an open space is provided for the operation of the conveyer 44.

When the loading or unloading is completed, the boom may be folded so as not to project over the water-way or high-way, and thus to leave an unobstructed passage for boats or vehicles. This is accomplished by releasing the catches 29 by a pull on the trip cord 31. The slides will then slip down the uprights 10, and the boom will assume the balanced position shown at A in Fig. 1. The boom is drawn from balanced position to folded position, shown by the dotted lines B in Fig. 1, by drawing in the rope 40 by means of the hoist 38.

When it is desired again to to use the conveyer, the rope 40 is released and the boom reassumes the balanced position A from which it is drawn into working position in the manner described.

The pulley 45 keeps the conveyer cable 43 taut when the boom is folded and during the folding operation and thus keeps the cable off the ground when the boom is folded.

Many changes may be made in the specific device described without departing from my invention, and my folding support may be used for other purposes than that referred to in the description of this device. It may, for example, be used in connection with track-way conveyers and for other purposes.

What is claimed is:

1. A folding support for conveyer-ways, comprising two spaced uprights between which the conveyer passes, slides upon said uprights, a boom hinged to said slides and acting as a support for the conveyer-way, and braces hinged to said boom and hinged to said uprights.

2. A folding support for conveyer-ways, comprising two spaced uprights between which the conveyer passes, slides upon said uprights, a boom hinged to said slides and acting as a support for the conveyer-way, braces hinged to said boom and hinged to said uprights, means for drawing said slides upward along the uprights so as to cause the boom to project from the uprights, a catch to hold said slides in raised position, and means for drawing said boom against said uprights.

3. A folding support for conveyer-ways, comprising two spaced uprights between which the conveyer passes, slides upon said uprights, a boom hinged to said slides and acting as a support for the conveyer-way, means for drawing said slides upward along said uprights to cause the boom to project from said uprights, and means for drawing the outer end of the boom toward the uprights.

4. An end support for conveyer cables, comprising spaced vertical uprights between which the conveyer passes, slides upon said uprights, a conveyer boom having spaced side members hinged to said slides and a transverse member connecting said side members and supporting the end of the conveyer cable, and braces each hinged to one of the uprights and to one of the side members of the boom.

5. A folding support, comprising an upright, a slide upon said upright, a boom hinged to said slide and arranged to extend horizontally therefrom when in working position, a brace below said boom hinged to said upright and to said boom near its outer end, means for moving said slide upon said upright, and means for drawing said boom against said upright.

6. A folding support, comprising an upright, a slide upon said upright, a boom hinged to said slide, a brace hinged to said boom and to said upright below said slide and so arranged that in balanced position the boom extends from the upright at an acute angle, means for raising said slide to draw the boom from balanced position to horizontal position, and means for drawing the boom from balanced position to vertical position.

7. A support for conveyer-ways, comprising a frame having an open space for the passage of the conveyer, a vertically movable slide upon said frame, and a boom acting as a support for the conveyer-way hinged to said slide and arranged to project laterally from said support when the conveyer is in use and to be folded against said support when the conveyer is not in use.

8. An end support for conveyer cables, comprising spaced uprights between which the conveyer passes, slides upon said up-

rights, a boom hinged to said slides, means near the outer end of said boom for the attachment of the end of the conveyer cable, means for raising said slides upon said uprights to cause the boom to project laterally from said uprights, means for drawing said boom into folded position against said uprights, and a member mounted on said boom near its inner end and arranged to engage the conveyer cable and hold it taut when the boom is in folded position.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HUGO SCHEID.

Witnesses:
C. R. RICHARDSON,
MARTIN C. HANSEN.