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DEVICE FOR SWINGING SHIPS

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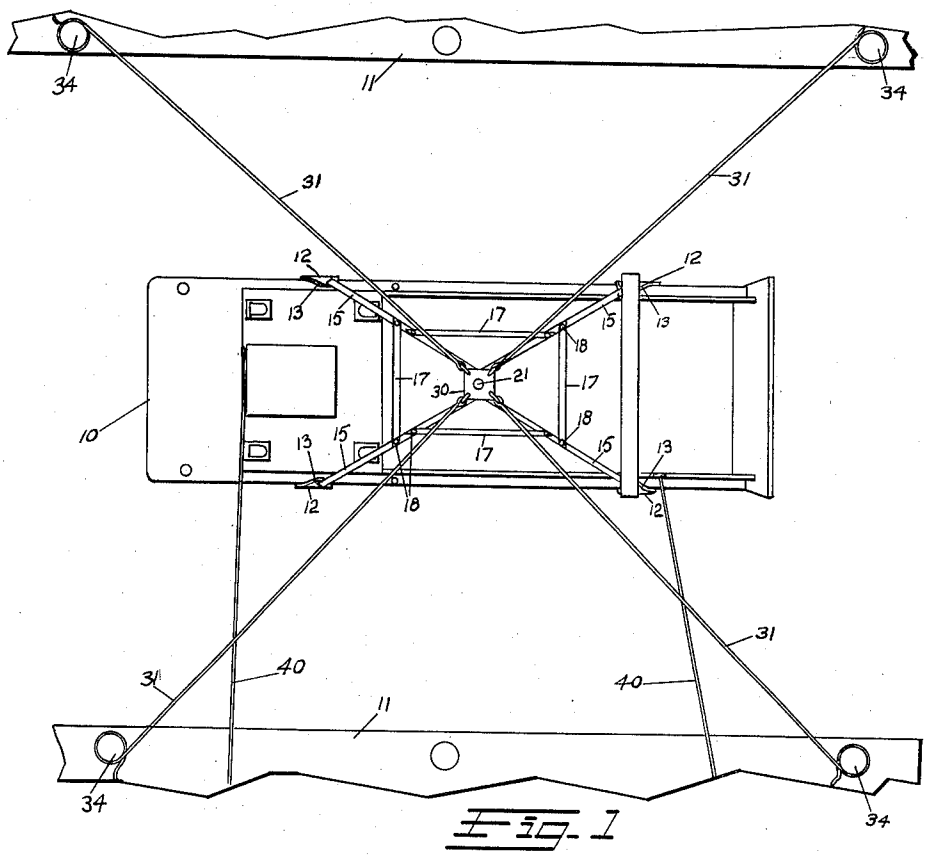

Fig. 1

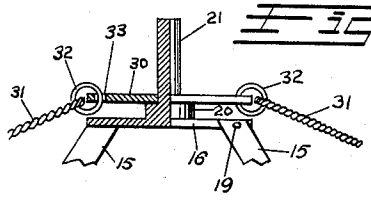

Fig. 3

Fig. 2

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DEVICE FOR SWINGING SHIPS

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1 Claim. (Cl. 114—0.5)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

1

This invention relates to a device for swinging a ship in a small area.

Iron and steel ships, boats and vessels in general have magnetic qualities and their magnetism affects magnetic compasses on board. The divergence between correct magnet direction and the direction indicated on a magnetic compass is known as "deviation" and varies in amount for different vessels, for different headings of the same vessel, and with large changes in latitude.

To eliminate the effect of the ship's magnetism insofar as possible and to make a table or chart of the deviation remaining for various headings of the vessel, several methods are used involving steaming on many different headings. This procedure is known as "swinging ship" and requires a large, open body of navigable water, engines in operating condition, a calm sea, and good visibility.

This invention presents a device for swinging ship in a small area of water, as between piers in a shipyard and can be used under almost all conditions of sea and visibility and without the use of the vessel's engines.

Reference is made to copending applications S. N. 609,703 filed August 8, 1945, now Pat. #2,466,753 issued April 12, 1949, and S. N. 609,704 filed August 8, 1945, now abandoned, which, also disclose and claim devices for swinging ship in a small area.

An object of this invention is to provide a device for swinging ship in a small area.

Another object is to provide a device for swinging ship without use of the ship's engines.

Further objects and advantages of this invention, as well as its construction, arrangement and operation, are apparent from the following description and claim in connection with the accompanying drawing.

Fig. 1 is a top plan view of a vessel with the device for swinging ship and the piers with which used.

Fig. 2 is a side elevation of a vessel with the device for swinging ship.

Fig. 3 is a fragmentary view of the pintle.

A vessel is designated by the reference numeral 10 and the piers that define the body of water where the vessel 10 is to be swung are designated by the reference numeral 11.

Welded to the sides of vessel 10 are brackets 12 that have inwardly bent portions 13. Attached to portions 13 as by bolts 14 are upwardly and inwardly inclined members 15 that form with the plate 16 a shape in the form of a truncated pyramid strengthened by cross bars 17 attached by bolts 18 to the inclined members 15 attached to plate 16 by screws 19. Integral with the plate 16 is a block 20 that has integral therewith a pintle.

Rotatably mounted on pintle 21 is a plate 30 maintained in a relatively fixed position by means

2

of guys 31 attached to plate 30 by rings 32 that pass through apertures 33 in plate 30 and that are attached at their free ends to cleats 34 on piers 11.

In operation, in order to swing ship, movement of the vessel 10 is achieved by guide lines 40 attached to cleats on the vessel 10, or in any other suitable manner. The guide lines 40 are manipulated by hand or otherwise to place the vessel 10 on the heading desired, whereupon the compass deviation is then determined in the usual manner.

It is to be understood that various modifications and changes can be made in this invention without departing from the spirit and scope thereof as set forth in the appended claim.

The invention described herein may be manufactured and used by or for the Government of the United States of America for governmental purposes without the payment of any royalties thereon or therefor.

What is claimed is:

In combination with a vessel having brackets on the sides thereof, elongated support members, said members being attached to said brackets, said members extending upwardly and inwardly toward a common point, a plate connecting the upper ends of said members, said members and said plate forming the general shape of a truncated pyramid, a spacing block on the upper side of said plate, said block having a pintle, a second plate, said second plate having a central aperture, said aperture receiving said pintle and serving as a bearing therefor, guys attached to said second plate, the free ends of said guys being attached to land structures, and guide lines attached to said vessel, whereby manipulation of said guide lines will permit turning of said vessel about the axis of said pintle.

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