E. F. ROBBINS.

Anchor-Shoe.

No. 214,792. Patented April 29, 1879.

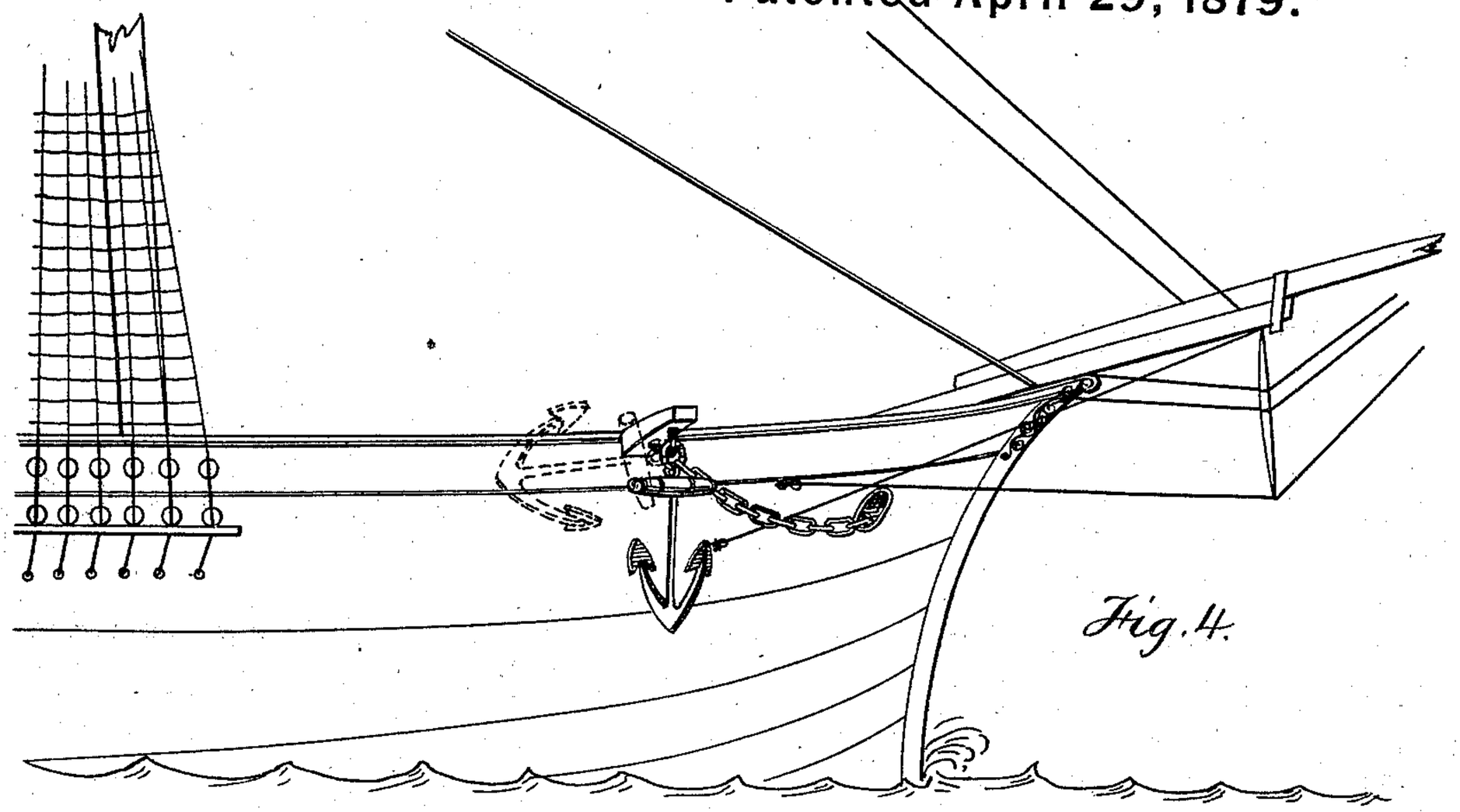

Fig. 4.

Fig. 2.

Fig. 1.

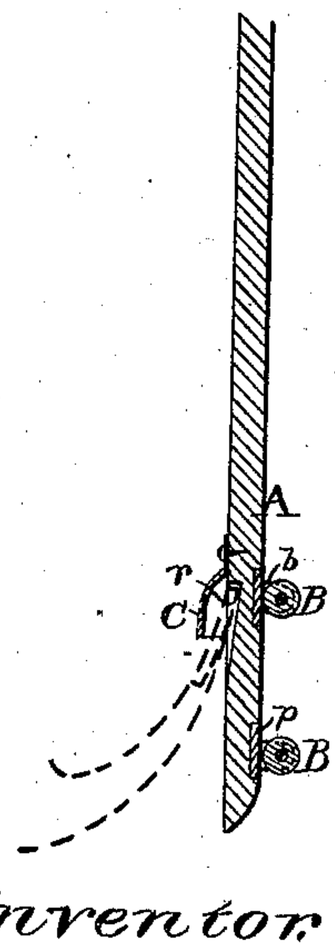

Fig. 3.

Witnesses.

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UNITED STATES PATENT OFFICE.

ELISHA F. ROBBINS, OF READING, MASSACHUSETTS.

IMPROVEMENT IN ANCHOR-SHOES.

Specification forming part of Letters Patent No. **214,792**, dated April 29, 1879; application filed October 21, 1878.

To all whom it may concern:

Be it known that I, ELISHA F. ROBBINS, of Reading, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Anchor-Shoes, of which the following is a specification.

This invention relates to anchor-shoes which are interposed between a vessel's side and the anchor during the operation of raising or swinging the anchor after it has been hauled to the "cat-head," so as to deposit one of the flukes on the rail of the vessel; the object of the shoe being to prevent injury to the side of the vessel by the fluke of the anchor.

An anchor-shoe, in its usual form, consists of a flat plate of wood of suitable width, provided with a handle by which it may be lowered over the side of a vessel. The outer side of the shoe is usually recessed to receive one of the flukes of the anchor.

When the shoe is placed between the anchor and the vessel it is in rubbing contact with the vessel's side as the anchor is raised, the engagement of the fluke with the shoe causing the anchor to move the shoe.

While the shoe thus constructed prevents the extreme injury to the side of the vessel which would result from direct contact of the angular fluke of the anchor with the vessel, its rubbing contact is sufficient to cause some wear and disfigurement, and the friction resulting from the rubbing contact increases the labor of raising the anchor.

My invention has for its object to obviate, as far as possible, the wear and friction, and also to enable the shoe to be readily engaged with the fluke of the anchor.

To these ends the invention consists; first, in providing the shoe with friction-rollers on its inner side, arranged to bear against the side of the vessel.

It consists, secondly, in the provision of a hood or projection over the recess in the outer side of the shoe to guide the shoe, so that its recess will be readily engaged with the fluke, as I will now proceed to describe.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a perspective view of an anchor-shoe embodying my invention. Fig. 2 represents a view of the outer side of the same. Fig. 3 represents a longitudinal section of the same. Fig. 4 represents a side view of a vessel, showing the anchor in different positions.

Similar letters of reference refer to like parts in all the figures.

In the drawings, A represents an anchor-shoe of the usual form, the same consisting of a broad wooden plate of considerable thickness, provided with a suitable handle, *a*, which may be rigid or pliable, and having in its outer side an indentation or recess, *r*, to receive the fluke of an anchor.

B B represent the friction-rolls, which constitute a portion of my improvement. These may be of any desired number and material, and are arranged on the inner side of the shoe, so as to be in rolling contact with the side of the vessel when the shoe is in operation. The rolls B are supported in metallic bearings *b*, which are attached to the shoe in any suitable manner. Said bearings are preferably formed on metallic bars or plates *p*, which are let into the side of the shoe and secured by bolts or screws.

I prefer to surface the rolls B with rubber, although they may be made of wood, metal, or any desired material.

Ordinarily two rolls will be a suitable number for each shoe; but one or any desired number may be employed.

C represents a hood or projection attached to the outer side of the shoe, and arranged to cover a portion of the recess *r*, and form a stop or guide, to facilitate the entrance of the fluke of the anchor into the recess.

When the anchor has been raised to the cat-head and hangs therefrom, as shown in full lines in Fig. 4, the shoe is lowered by its handle until the point of the inner fluke enters the recess *r*, as shown in dotted lines in Fig. 3. The shoe is thus engaged with and caused to rest on the anchor, and is interposed between the latter and the side of the vessel, the rolls B bearing against the vessel. Now, as the anchor is raised to its usual position when not in use, as shown in dotted lines, the shoe rises with the anchor, the rollers revolving on the side of the vessel and preventing, in a great measure, wear or injury to the latter,

and also facilitating the operation of raising the anchor, the shoe becoming a truck, partially supporting the anchor.

The hood or projection C enables the shoe to be readily engaged with the fluke, and especially useful when a rope is used as the handle *a*, as shown in Fig. 2.

I claim—

1. An anchor-shoe having one or more friction-rollers, as set forth.

2. An anchor-shoe having a hood or projection, C, over its fluke-receiving recess, as set forth.

3. In combination with an anchor-shoe, the rolls B and hood C, arranged and operating as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ELISHA F. ROBBINS.

Witnesses:
C. F. BBOWN,
T. MCNULTY.