No. 721,465. PATENTED FEB. 24, 1903.

R. C. REAVLEY.

HAWSER ATTACHMENT FOR VESSELS.

APPLICATION FILED MAY 6, 1902.

NO MODEL.

Fig. 1.

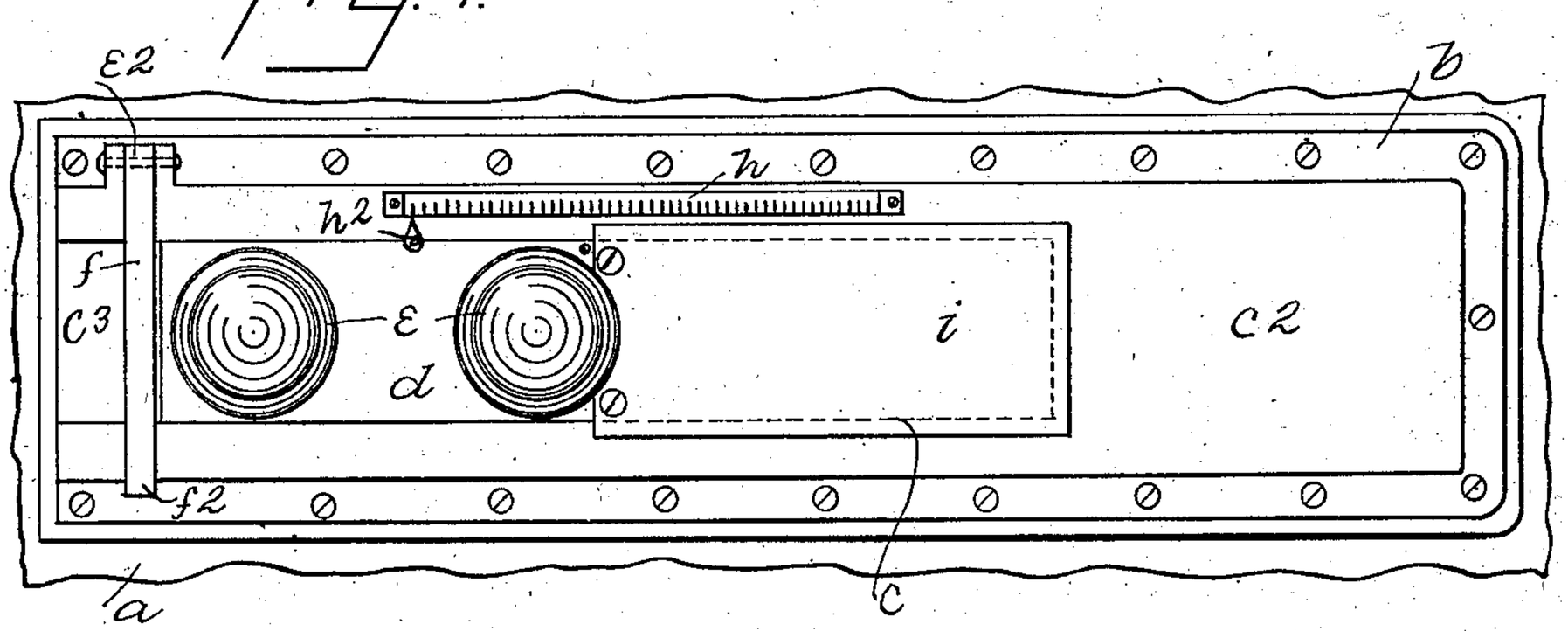


Fig. 2.

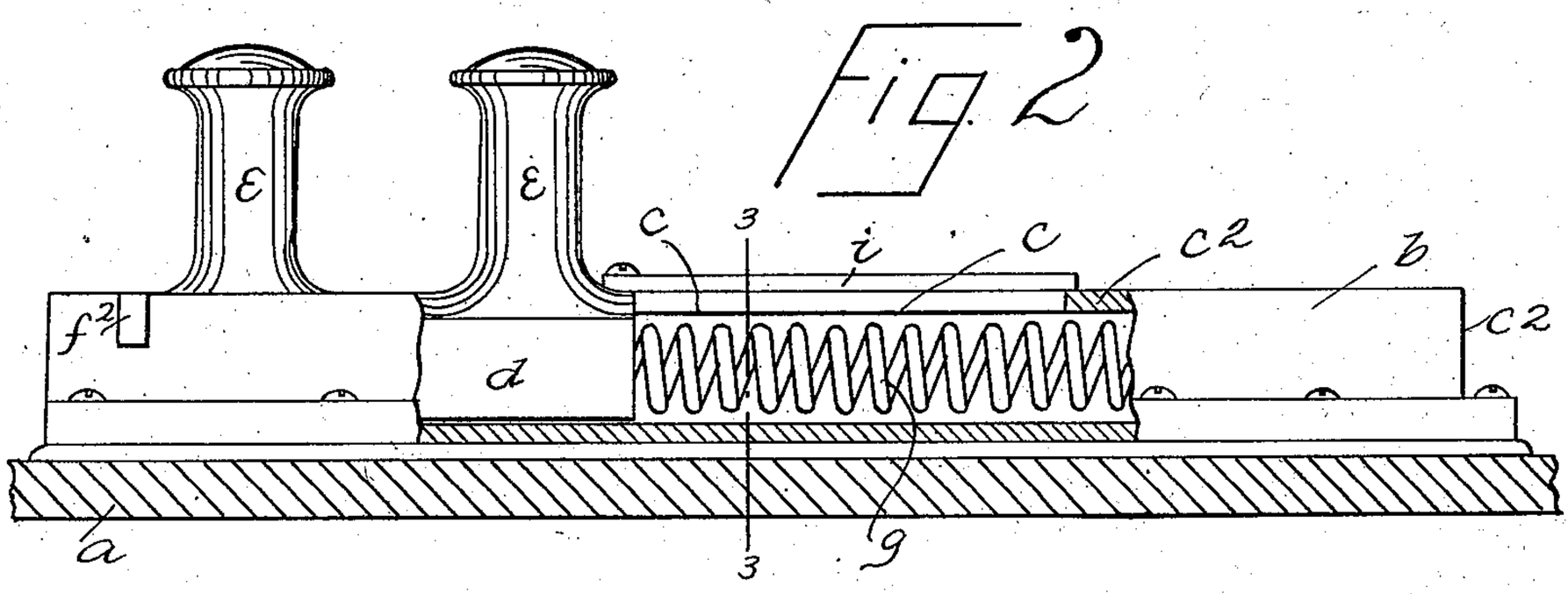
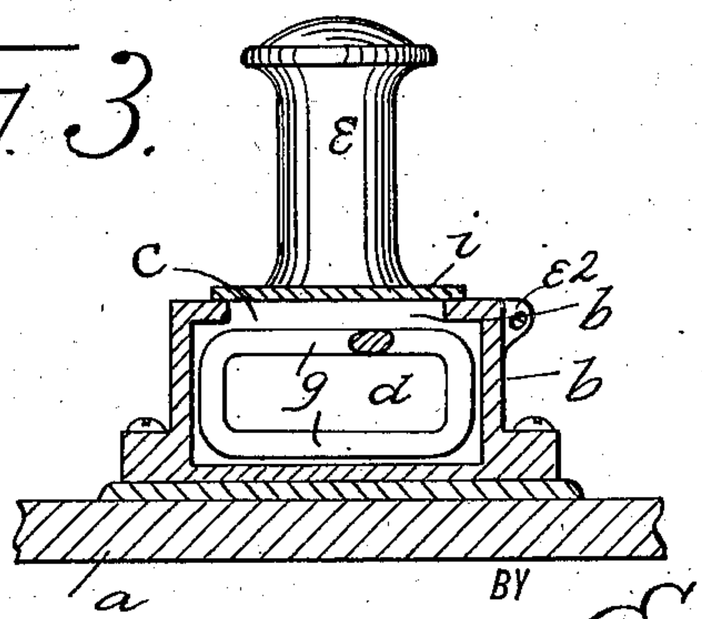


Fig. 3.



WITNESSES

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RICHARD C. REAVLEY, OF PENARTH, ENGLAND.

HAWSER ATTACHMENT FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 721,465, dated February 24, 1903.

Application filed May 6, 1902. Serial No. 106,138. (No model.)

To all whom it may concern:

Be it known that I, RICHARD C. REAVLEY, a subject of the King of Great Britain, residing at Penarth, England, have invented certain new and useful Improvements in Hawser Attachments for Vessels, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide an improved attachment or securing device for the hawsers or cables of vessels of various kinds and classes, said fastening or securing device being adapted to be secured to the deck of a vessel and being provided with sliding and spring-supported bitts, with which the hawsers or cables may be connected when desired and by means of which the power thrown onto the hawsers or cables in mooring a vessel or connecting the same with a wharf or pier will be yieldingly borne by the springs on which the bitts operate.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same reference characters in each of the views, and in which—

Figure 1 is a plan view of a part of the deck of a vessel and showing my improved hawser or cable attachment connected therewith; Fig. 2, a side view thereof, partly in section; and Fig. 3, a cross-section on the line 3 3 of Fig. 2.

In the drawings forming part of this specification I have shown at *a* a part of the deck of a vessel, and in the practice of my invention I secure thereto at any suitable point or points an elongated keeper *b*, which is provided in the top thereof with a longitudinal slot or opening *c*, which is closed at one end, as shown at c^2, and open at the other end, as shown at c^3, and mounted in said keeper and movable longitudinally therein is a slidable block *d*, which is provided with two bitts *e*.

The top of the block *d* is preferably flush with the top of the keeper *b*, and the sides of the keeper at the top overlap the sides of the block *d*, so as to hold it in place and prevent its removal from said keeper except through the open end c^3 thereof, and in order to prevent the said block *d* from being thrown out of the keeper I pivot in one side of the latter at the open end c^3 thereof, as shown at e^2, a transverse lock-pin *f*, which is adapted to fit in a transverse groove in the end of the keeper and the free end of which at f^2 may be secured in any desired manner, or instead of this device an ordinary bolt may be passed through the sides of the keeper, and said bolt or locking device *f* limits the outward movement of the block *d*.

Between the block *d* and the closed end c^2 of the keeper and within said keeper is placed a spiral spring *g*, and said spring may be of any desired strength or resisting capacity. I also provide the top of the keeper at one side with a scale *h*, and the block *d* is provided with a corresponding pointer h^2, and by means of this pointer and scale the strain on the spring *g* will be indicated at any time, and it may thus be determined to exactly what pressure the cable or hawser is subjected. I also provide a cover-plate *i*, which is bolted or secured to the block *d*, as shown, and which covers the opening in the keeper *b* and protects the spring *g* and is free to slide with the block *d*.

In using this device the cable or hawser is passed through suitable openings in the guards of the vessel in the usual manner and connection is made with the bitts *e* in the usual manner, and by passing the cable or hawser one or more times around one of said bitts or around both of them and arranging the same as usual with this class of devices the ship or vessel may be easily and safely tied up and the strain on the cable or hawser regulated, together with that on the bitts or bollards, and the danger of breaking the cable or hawser will be largely if not entirely obviated.

The object of having one end of the keeper open and means for securing the slide therein is to provide means whereby the slide and spring may be removed from the keeper and repaired whenever necessary or a new spring placed in position.

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

1. A cable or hawser attachment for vessels, comprising an elongated keeper adapted to be secured to the deck of a vessel or other

support and having a longitudinal opening in the top thereof, a slide mounted in said keeper and provided with bitts which pass upwardly through said opening, a spring placed in said keeper and between one end thereof and the slide, and a cover-plate secured to the slide and adapted to partially close the opening in the top of the keeper and protect said spring, said keeper being also provided at one side of the slot or opening, in the top thereof with a scale, and said slide being provided with a pointer which operates in connection with said scale, substantially as shown and described.

2. A cable or hawser attachment for vessels, comprising an elongated keeper adapted to be secured to the deck of a vessel or other support and having a longitudinal opening in the top thereof, a slide mounted in said keeper and provided with bitts which pass upwardly through said opening, a spring mounted in said keeper between one end thereof and the slide and on which the slide is adapted to bear, and a cover-plate secured to said slide and partially covering the opening in the top of the keeper so as to protect said spring, said keeper being also provided at the end opposite the spring with a locking device for securing the slide therein, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 3d day of May, 1902.

RICHARD C. REAVLEY.

Witnesses:

F. A. STEWART,

C. E. MULREANY.