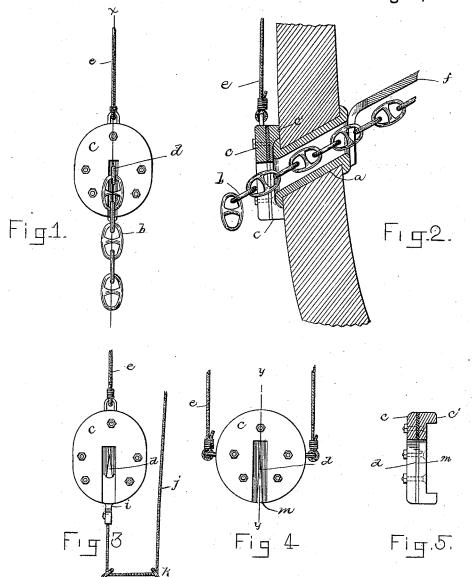
## E. F. ROBBINS.

### HAWSE PIPE STOPPER.

No. 346,685.

Patented Aug. 3, 1886.



WITNESSES:

N.H. Brown

NVENTOR: E. F. Robbins by might Boom ocorolly Attyp.

# United States Patent Office.

ELISHA F. ROBBINS, OF BOSTON, MASSACHUSETTS.

### HAWSE-PIPE STOPPER.

SPECIFICATION forming part of Letters Patent No. 346,685, dated August 3, 1886.

Application filed February 20, 1886. Serial No. 192,665. (No model.)

To all whom it may concern:

Be it known that I, ELISHA F. ROBBINS, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Hawse-Pipe Stoppers, of which the following is a specification.

This invention has for its object to provide a simple and serviceable stopper for hawse-pipes of vessels, adapted to be held in place by the 10 anchor-chain when the anchor is not in use, and capable of being instantly released to free the hawse-pipe from obstructions when the anchor is to be dropped.

To these ends the invention consists in the 15 improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a side view of my improved stopper in place on the outer end of the hawse pipe. Fig. 2 represents a section on line x x, Fig. 1. Fig. 3 represents a side view showing also an auxiliary stopper. Fig. 4 represents a side view of a somewhat different construction, and Fig. 25 5 represents a section on line y y, Fig. 4.

The same letters of reference indicate the

same parts in all the figures.

In the drawings, a represents a hawse-pipe, and b a portion of the anchor chain passing

c represents my improved stopper, which is composed of a plate of sufficient size to cover the outer end of the pipe a, and having at its inner side a marginal  $\tilde{r}$ im or flange, c', which surrounds the projecting outer end of the hawse-pipe when the stopper is in place and keeps the stopper from slipping edgewise off from the pipe.

In the stopper is formed a slot, d, of suitable 40 size to receive one of the links of the chain b, the link being inserted edgewise in the slot. When the stopper is thus engaged with a chainlink, the adjoining links are close to the opposite sides of the stopper and stand crosswise 45 of the slot, so that the stopper cannot move in

the direction of the length of the chain. The stopper is provided with an eye or eyes for the attachment of a lanyard or lanyards, e, by which the stopper can be lowered from the

50 ship's rail to the outer end of the hawse-pipe and engaged with the chain passing there-

with the chain, the latter is drawn inwardly by the windlass until the stopper is pressed firmly against the side of the vessel, and thus held in 55 place by the chain. A plug, i, may be inserted in the lower end of the slot, as shown in Fig. 3, to prevent the admission of water through the slot below the chain. Said plug is provided with a lanyard, j, passing through 60 an eyebolt, k, on the side of the vessel and upwardly to the rail, so that the plug may be readily withdrawn when it is desired to remove the stopper and let go the anchor. I prefer to place a sheet of rubber, m, in the slot 65 d, said sheet normally extending across the slot and being slitted to receive the chain b. When the chain is in place in the slot, the rubber fits closely around it, and thus practically prevents the admission of any water to the 70 hawse-pipe. The rubber sheet is preferably applied to the stopper by being clamped between two plates, as shown in Fig. 5, said plates composing the body of the stopper. It will be seen that this device is simple and ef- 75 fective and is capable of being easily applied and removed.

The absence of a positive connection between the stopper and the hawse-pipe and the provision of the lanyard as the means for apply- 80 ing and removing the stopper enable the operation of applying and removing the stopper to be performed from the ship's rail, and there is no occasion for the sailor to go down upon the outside of the ship to either apply or re- 85 move the stopper. When it is desired to quickly release the chain, as is often necessary, a pull upon the lanyard is all that is required.

The application of the stopper to the outer end of the hawse-pipe enables the stopper to 90 be held in place against the hawse-pipe by the chain, the latter being drawn inwardly by the windlass, as before described.

The slot may extend from the side of the stopper horizontally instead of from the bottom.

The stopper may be applied to the inner end of the hawse pipe instead of the outer end, and when used at the inner end may serve as a "devil's claw," to prevent the chain from slippling outwardly through the hawse pipe.

1. A hawse-pipe stopper composed of a loose or independent plate formed to cover the outer through. When the stopper is thus engaged | end of a hawse-pipe, but having no positive attachment thereto, and provided with a slot formed to receive a chain-link and with a supporting device or lanyard whereby it may be applied to and removed from the hawse-pipe, the arrangement being such that the stopper may be held in place against the hawse-pipe by the chain and quickly disengaged by an upward pull on the supporting device, as set forth.

2. A hawse-pipe stopper composed of a loose or independent plate formed to cover the outer end of a hawse-pipe, and provided with a chain-receiving slot formed to inclose the outer end of the hawse-pipe, a marginal flange, and a supporting device or lanyard, as set forth.

3. A hawse-pipestopper composed of a plate formed to cover the end of a hawse-pipe, and provided with a chain-receiving slot and a sheet of rubber extending across said slot and having a slit to receive the chain, as set forth.

4. The combination of a hawse-pipe stopper composed of a loose or independent plate formed to cover the outer end of a hawse-pipe and having a chain-receiving slot and a supporting-lanyard, a plug formed to enter the outer end of said slot e, and a lanyard, j, whereby said plug may be removed from the slot, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 12th day of February, 30 1886

#### ELISHA F. ROBBINS.

Witnesses:

N. H. Brown, C. F. Brown.