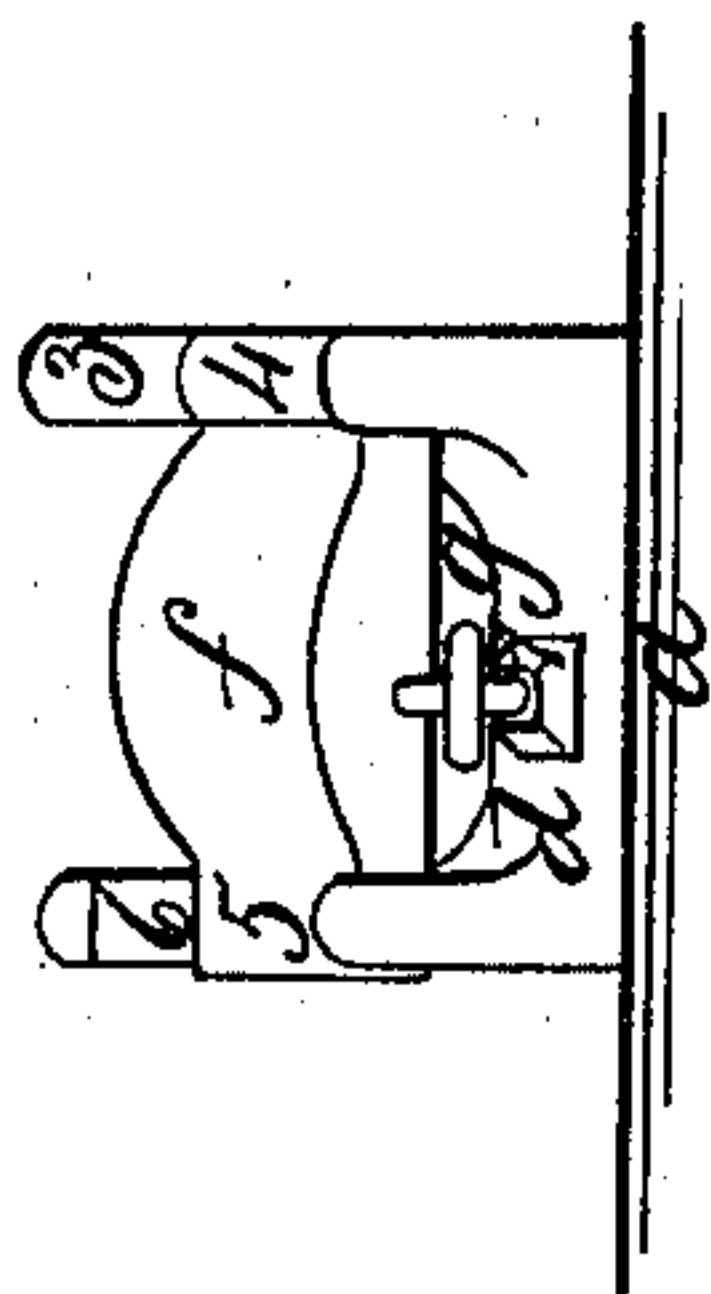


*C. Perley.*  
*Cable Stopper.*

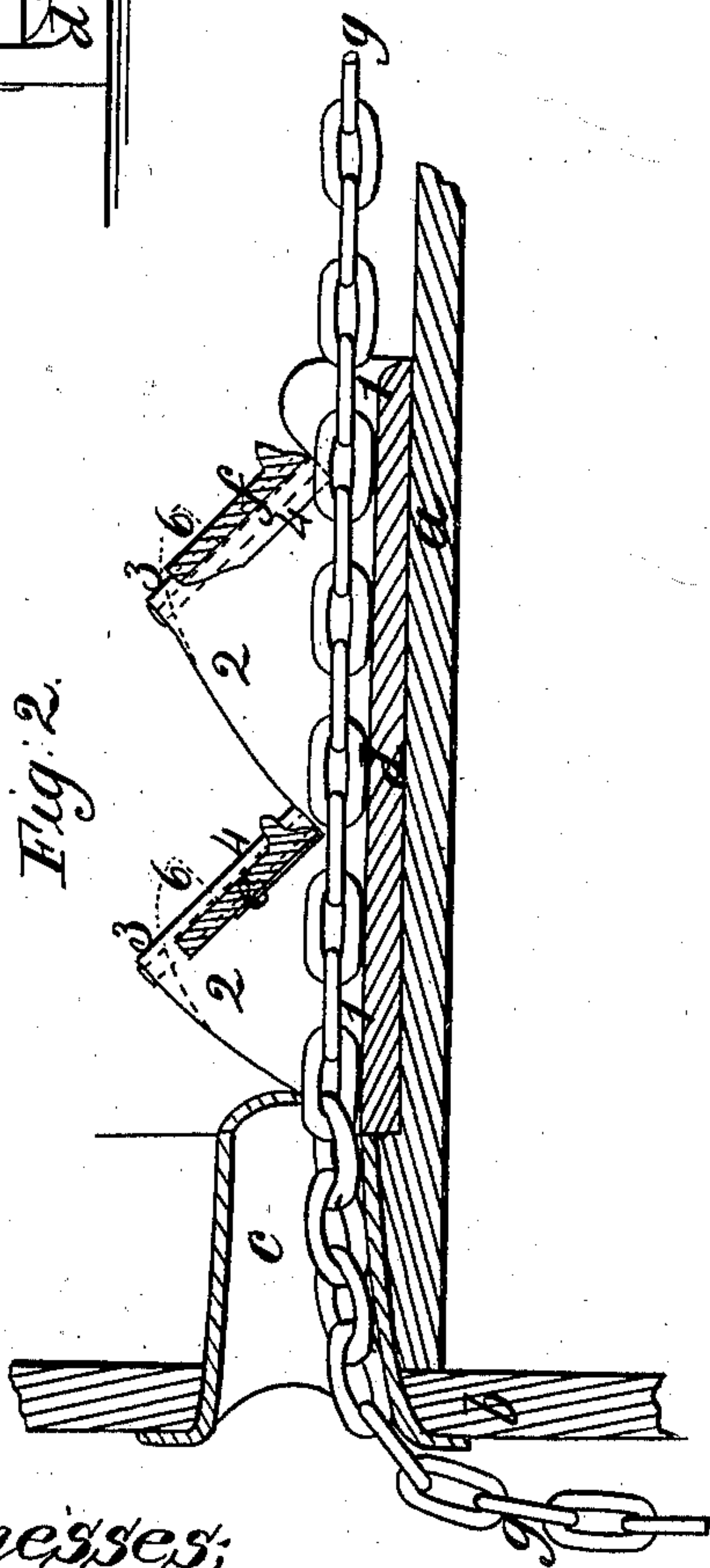
*N<sup>o</sup> 11,080.*

*Patented Jun. 13, 1854.*

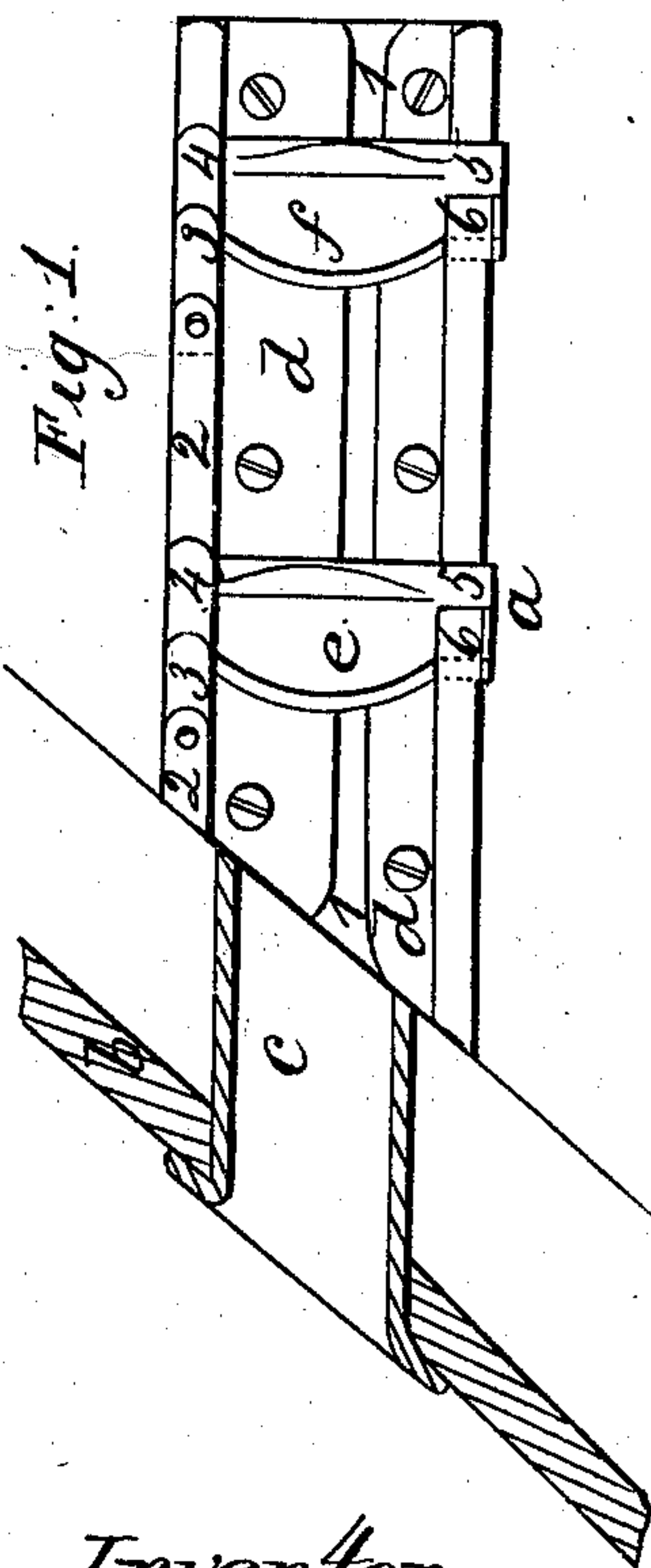
*Fig. 3*



*Fig. 2.*



*Fig. 1.*



*Witnesses;*  
*Samuel W. Drrell*  
*Thomas & Hancock*

*Inventor;*  
*Charles Perley*



# UNITED STATES PATENT OFFICE.

CHARLES PERLEY, OF NEW YORK, N. Y.

## CHAIN-CABLE STOPPER.

Specification of Letters Patent No. 11,080, dated June 13, 1854.

*To all whom it may concern:*

Be it known that I, CHARLES PERLEY, of the city, county, and State of New York, have invented, made, and applied to use certain new and useful Improvements in Cable-Stoppers, which I term a "Compound Chock and Cable-Stopper;" and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1, is a plan. Fig. 2, is a sectional elevation of the apparatus complete as in use, and Fig. 3, is an end view of the same.

The like marks of reference denote the same parts.

The nature of my said invention consists in attaching a metallic chock to the deck of a vessel close against and on the line of the hawser pipe or hawses near the bows; and this chock carries one two or more metallic pawls hinged on one side and inclined at about an angle of  $45^\circ$ , beneath which pawl or pawls the chain cable is drawn and as each link passes beneath the pawl it is raised, and then falls down behind the link preventing the same from running back, and where two or more of these pawls are used they furnish a secure and safe stopper to the chain when the vessel is riding at anchor; and when the pawls are thrown over they are entirely out of the way and the chain can run over the chock and through the hawser pipe without the least obstruction.

*a*, is the deck of the vessel; *b*, the bulwarks; *c* is the hawser pipe, all as usual.

*d*, is a chock or plate bolted to the deck in which is a groove 1 of a size and shape to receive the lower part of the vertical link, while the horizontal link slides on the chock. See Fig. 3.

On each side of the chock are flanches, thereby forming a gutter for the chain to run in, and the flanch 2, on one side is formed as shown in Fig. 2, with a lug or projection 3 overlying the round end 4, of the pawls *e* or *f*, and through this lug 3 and end 4, is a pin forming a hinge upon which the pawl lifts, and the pawl is inclined at about an angle of  $45^\circ$  with the deck of the vessel, so that the operation of pulling the chain beneath the same shall turn the pawl on its hinge and lift the same,

and being inclined it will drop again even though a large amount of motion is given to the pawl.

The outer or moving end 5 of the pawl *e*, is fitted to fall against a bearing on the flanch beneath the overhanging projection 6, which is at right angles or nearly so with the face of the pawl. It will now be seen that when the chain draws back against the pawl, the strain is taken across the width of the pawl onto the projection 6 and part 3 of the hinge, and the chain cannot escape without breaking these parts, and as the pawl stands at nearly  $45^\circ$ , the tendency of the strain is divided, a portion tending to lift the pawl, while another portion tends to break the pawl across flatwise, and to prevent any rupture of the pawl in this direction the same may be provided with a rib to strengthen it as shown. The pawl *f* is similarly fitted to the pawl *e*, and the flanches receiving and supporting the same rise on an incline from the base of the pawl *e*.

Two, three, or more pawls may be used, and the distance between them may be such compared with the links of the chain that they fall in succession and prevent the chain slipping back more than a third or quarter of the length of a link as the case may be.

It is not absolutely necessary that the chock be provided with a groove, because the inclination of the links as they lie on a flat plate would be sufficient to cause them to take the pawls. And it will be evident that the hinge on which the pawl turns might be made in any convenient manner, either as shown with a pin, or by casting pins on the pawl to slip into holes in the flanches.

I am aware that a pawl has been hinged above the hawser hole so as to clamp the chain onto the deck, and also that a pawl has been used with a projection on the deck and also with a roller; but in all these cases the strain of the pawl was taken on the bulwarks or upon bits rising above the deck, thereby the strain operated to distress the bulwarks or by a leverage to damage the deck, and for these reasons could scarcely ever be trusted for a vessel to ride by when at anchor and I am also aware that pawls have been attached to a horizontal hinge on flanches at the sides of the chock, but in all these cases when the chain is running



out if the pawl or pawls fall by any accident the whole apparatus would inevitably be taken to pieces and very probably the strain on the vessel be such as to cause her to leak.

5 All these difficulties are overcome in my compound chock and cable stopper, because all the strain is taken directly and without leverage on the deck, and there is no chance of accident from the pawls catching the  
10 chain because they are thrown over, entirely out of the way, leaving the gutter required for the chain to run in. And where a roller is used the chain cannot be run over it on  
15 account of the great speed consequent on the falling anchor, or not without great risk of breaking the same.

I am not aware that a pawl set on an inclined hinge has ever been used for a cable

stopper by taking the cable against its lower side as specified, therefore

20

I claim—

The method herein described and shown of hinging and sustaining one or more pawls on an inclined hinge or hinges attached to the chock *d*, to clamp or stop a  
25 chain cable between said pawl or pawls and the chock or plate on the deck in the manner and substantially as specified.

In testimony whereof I have hereunto set my signature this eleventh day of May one  
30 thousand eight hundred and fifty four.

CHARLES PERLEY.

Witnesses:

LEMUEL W. SERRELL,  
THOMAS G. HAROLD.