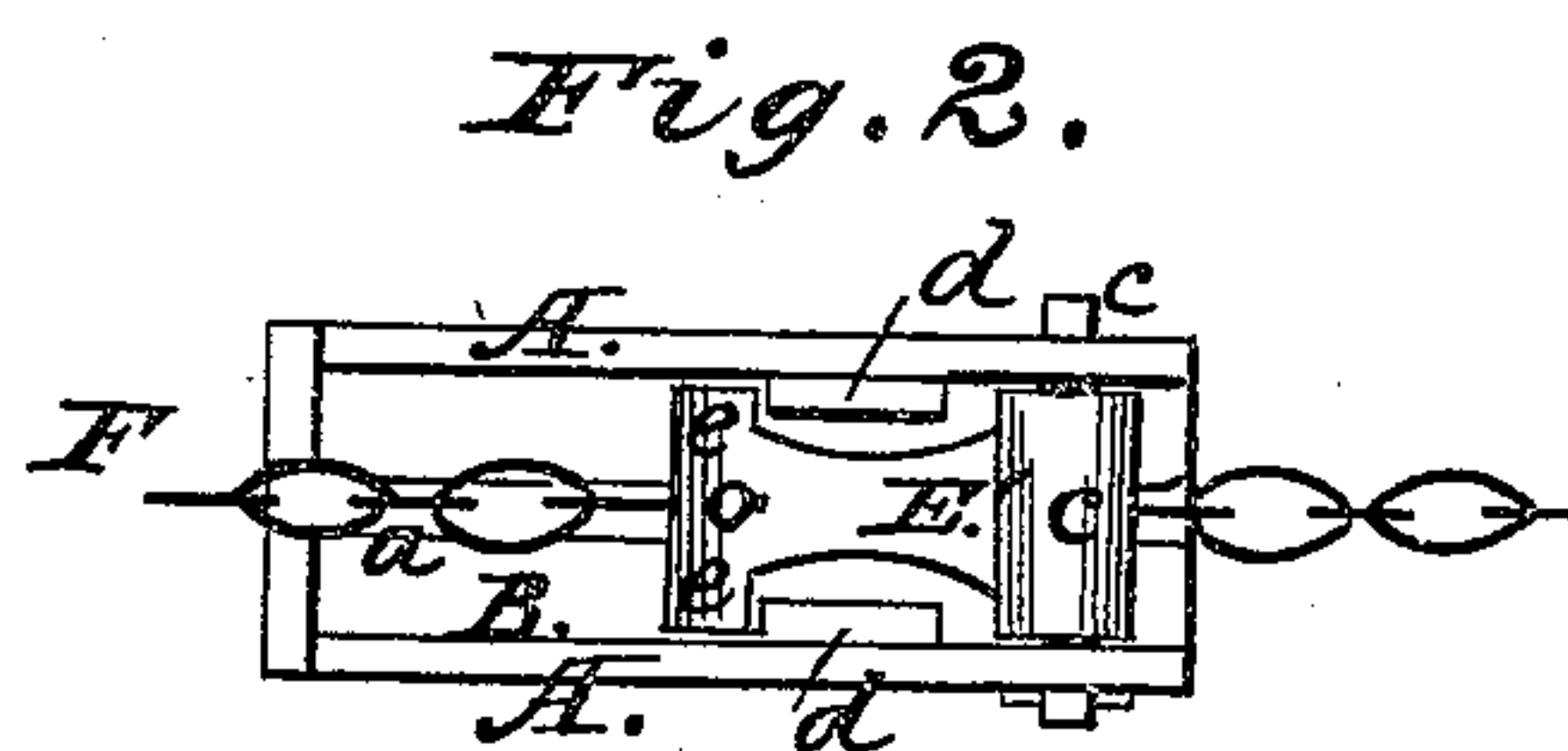
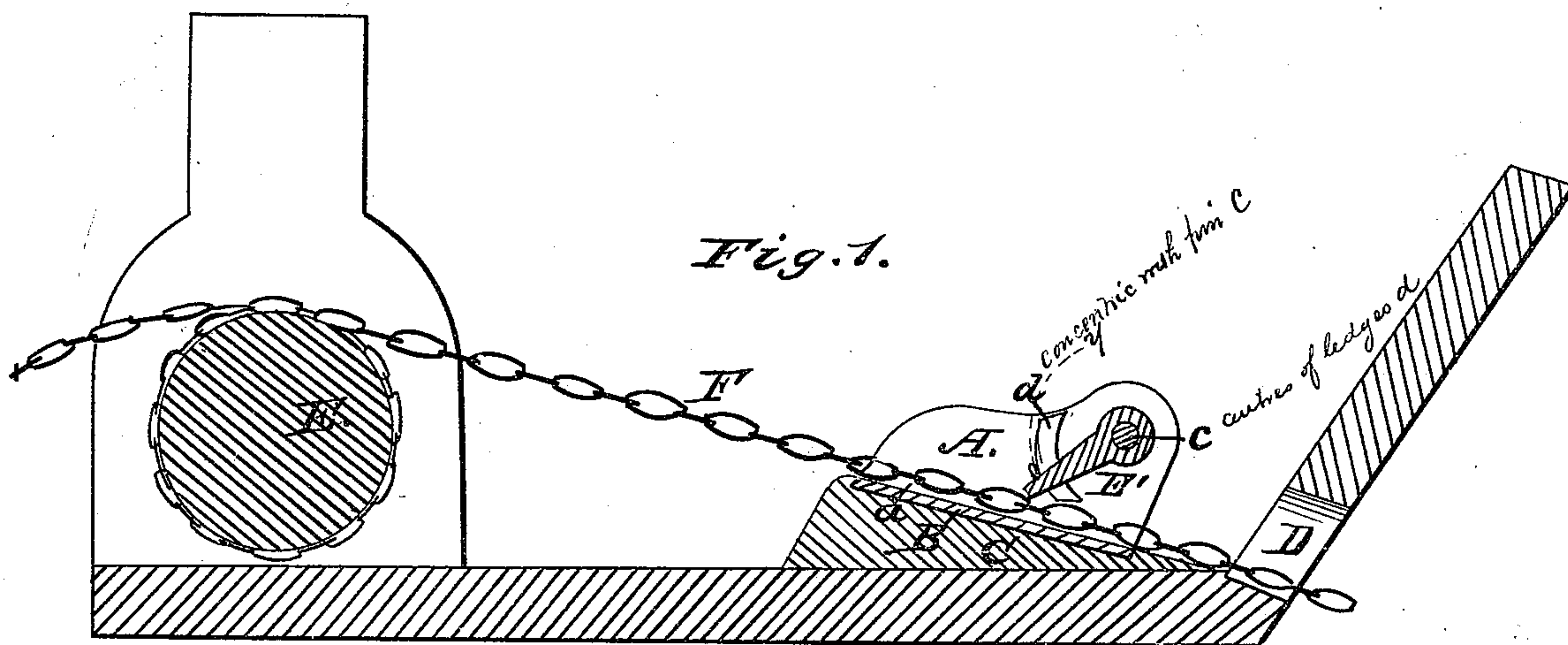


J. E. Crane
Cable Stopper.

Nº 19,131.

Patented Jan. 19, 1858.



UNITED STATES PATENT OFFICE.

JOHN E. CRANE, OF LOWELL, MASSACHUSETTS.

CHAIN-CABLE STOPPER.

Specification of Letters Patent No. 19,131, dated January 19, 1858.

To all whom it may concern:

Be it known that I, J. E. CRANE, of Lowell, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Chain-Stopper for Windlasses; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a longitudinal vertical section of my improvement applied to a windlass, the plane of section passing through the center. Fig. 2, is a detached plan or top view of my improvement.

Similar letters of reference indicate corresponding parts in the two figures.

My invention consists in placing a pawl between suitable cheek plates which have segment ledges or projections on their inner sides when said ledges or projections are directly behind shoulders near the outer ends of the pawl and are set eccentric to the axis of said pawl and serve as stays to the pawl and prevent by their eccentricity the pressure brought against the pawl by the chain, from bearing or acting upon the pin on which the pawl is hung, the bed plate underneath the pawl being grooved as usual so that the links of the chain or cable will be retained in proper position while passing over the bed plate, every alternate link being upright and the intermediate ones in a horizontal position.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, A, represent two vertical cheek plates attached to the sides of a bed plate B the upper surface of which has a longitudinal groove (a), made in it at its center.

The bed plate B, is permanently secured to a block C, which is in line with the hawse hole and drum or cylinder E, of the windlass as shown in Fig. 1. The upper surface of the block C, is inclined as shown clearly in Fig. 1.

E', is a pawl which is hung on a pin (c), which passes transversely through the upper parts of the cheek plates, A, A. The lower end of the pawl E', bears against the upright links of the chain or cable F, which passes over the bed plate B, and through the hawse hole D, the chain being wound around the drum or cylinder E, of the windlass, as shown in Fig. 1. Every alternate link of the chain or cable F, is in a

horizontal position while on the bed plate B, and the intermediate links are in a vertical position. This position of the links on the bed plate is effected by means of the groove (a), which receives the lower parts of the upright links.

On the inner side of each cheek plate A, there is a segment ledge or projection (d). These ledges or projections are parts of a circle struck from the center * which is eccentric to the pin (c). The lower end of the pawl E, has a shoulder (e), at each side which shoulders are directly in front of the segment ledges or projections (d), as shown clearly in Fig. 2.

The object of the invention will be readily seen. When the chain or cable F, is wound upon the drum or cylinder E, the chain or cable will pass underneath the pawl E', without opposition owing to the position in which the pawl is hung. When the chain or cable is to be let out, the pawl E', is raised and when the chain or cable is to be stopped the pawl is allowed to drop and its lower end will catch against one of the upright links and stop it. The pin c, is relieved from the weight and pressure of the chain by the eccentricity of the ledges to the pin c, for when the pawl slides under the eccentric segments it is drawn downward by reason of the top ends of the segments being a little nearer the center of the pin than the bottom of the segments which of course makes it slightly wedging. Now as the pawl is held by the segments, no strain comes on the pin and in cases of emergency when necessity demands the cable to be slipped it can be done by taking the pin out and pressing on the top of the pawl at c, and thus it may be thrown out and the chain permitted run.

I do not claim separately the pawl E', nor the grooved bed plate B, for they have been previously used, but—

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

The combination of the pawl E', eccentric segment ledges or projections (d) (d), on the inner sides of the cheek plates A, A, and the grooved bed plate B, arranged substantially as shown for the purpose specified.

JOHN E. CRANE.

Witnesses:

JOS. GEO. MASON,
WM. TUSCH.