

*J Reed,
Cable Stopper.*

Nº 12,325.

Patented Jan. 30, 1855.

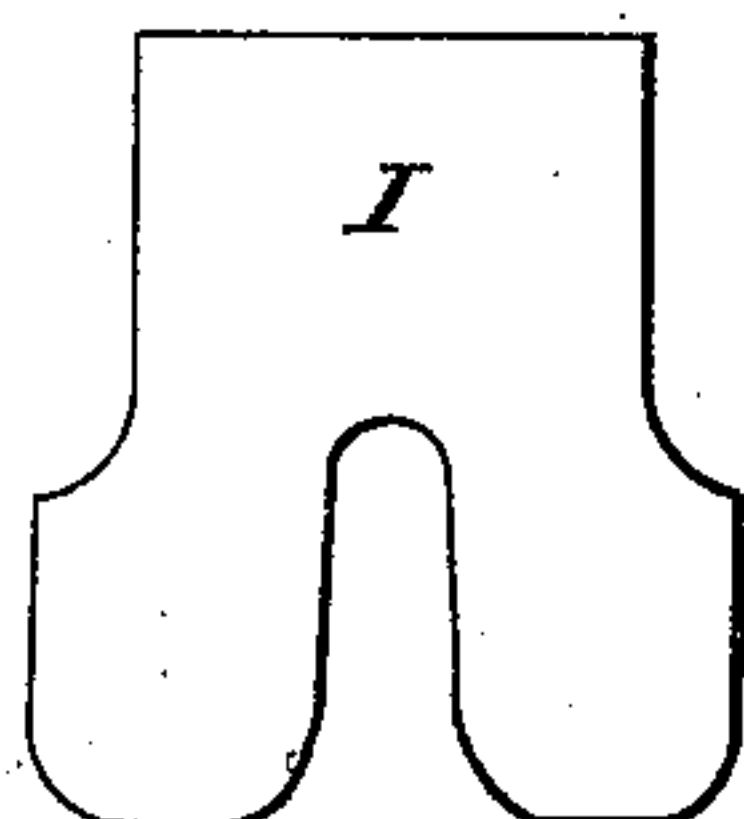
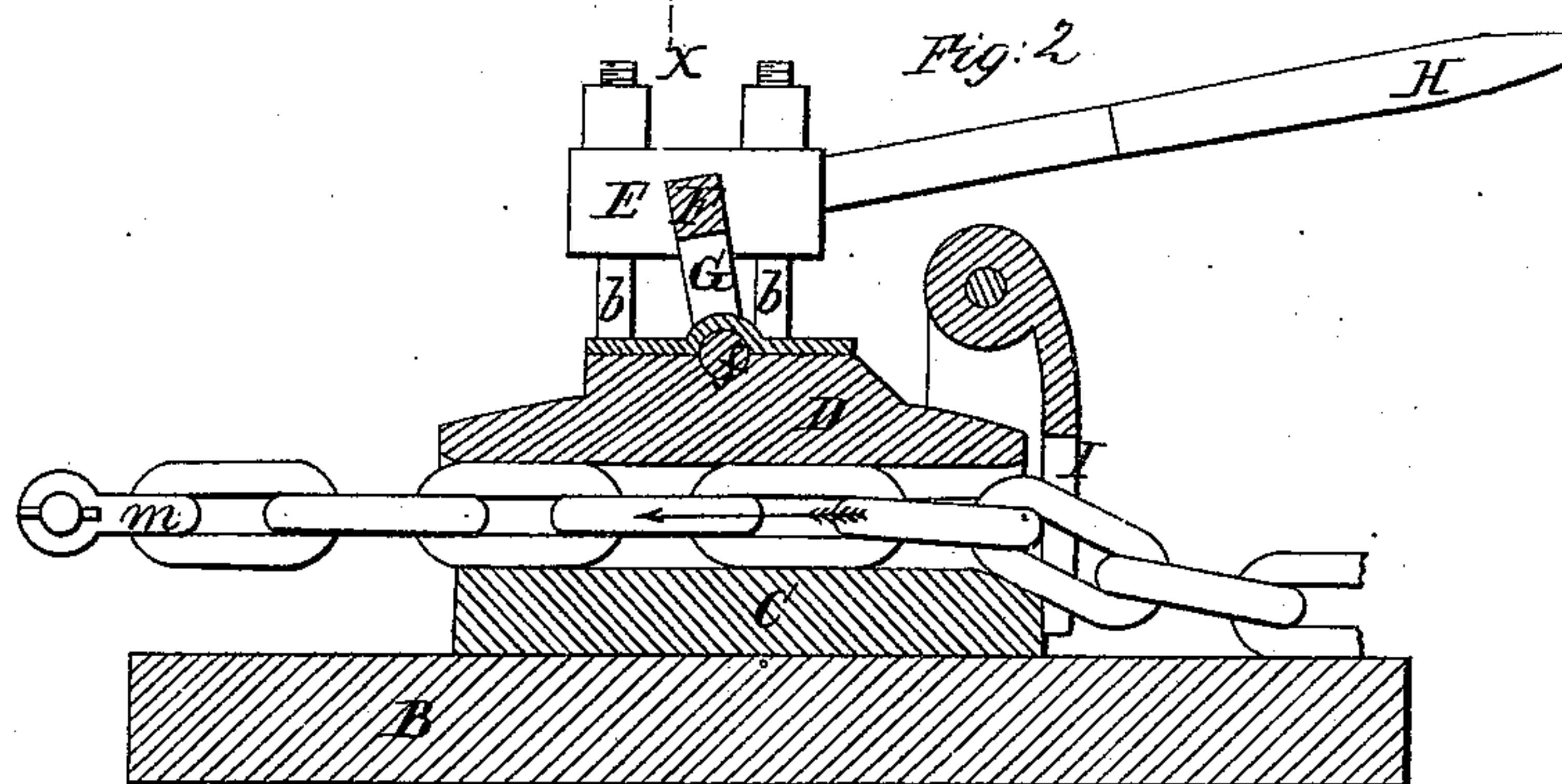
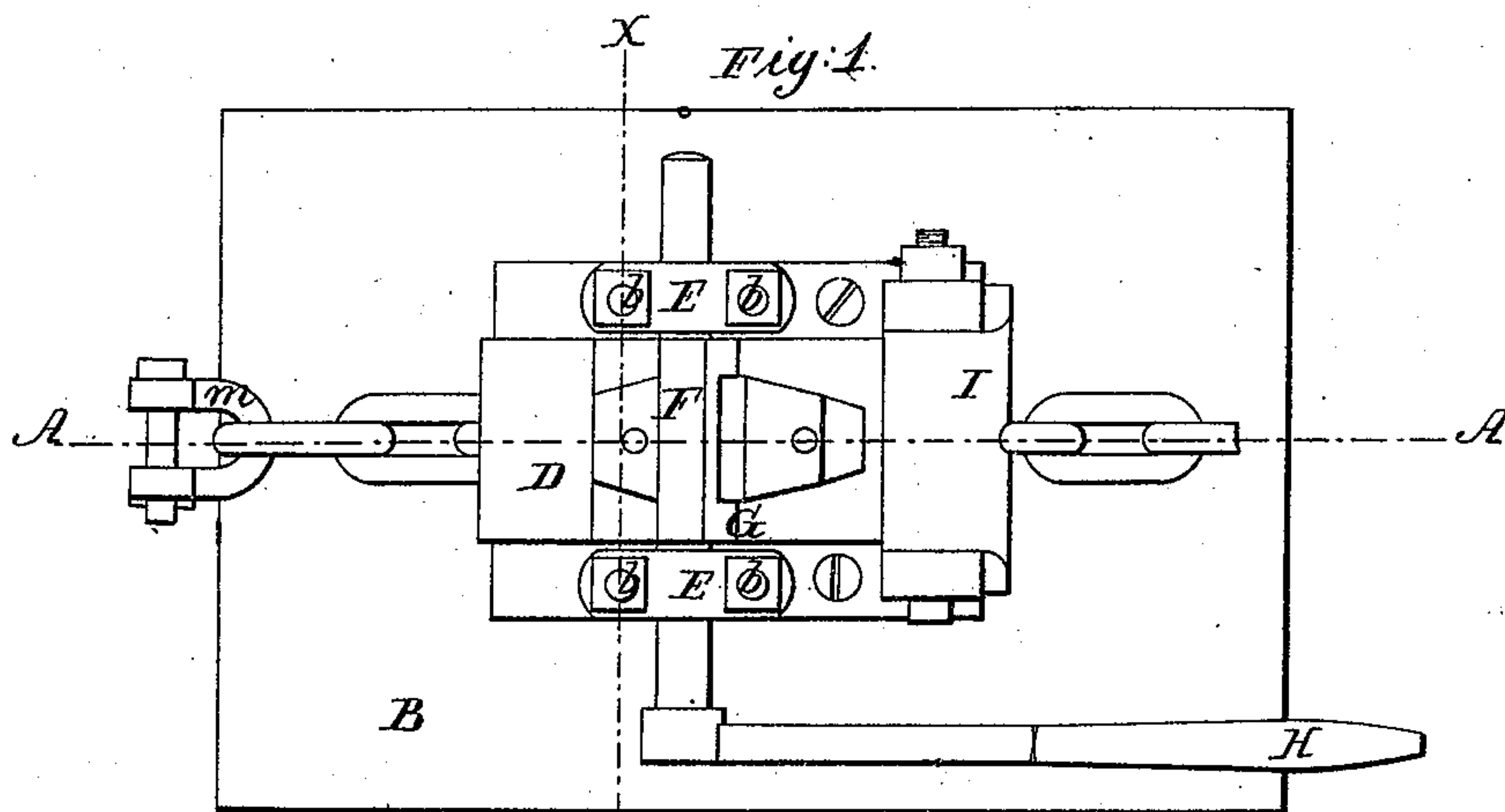
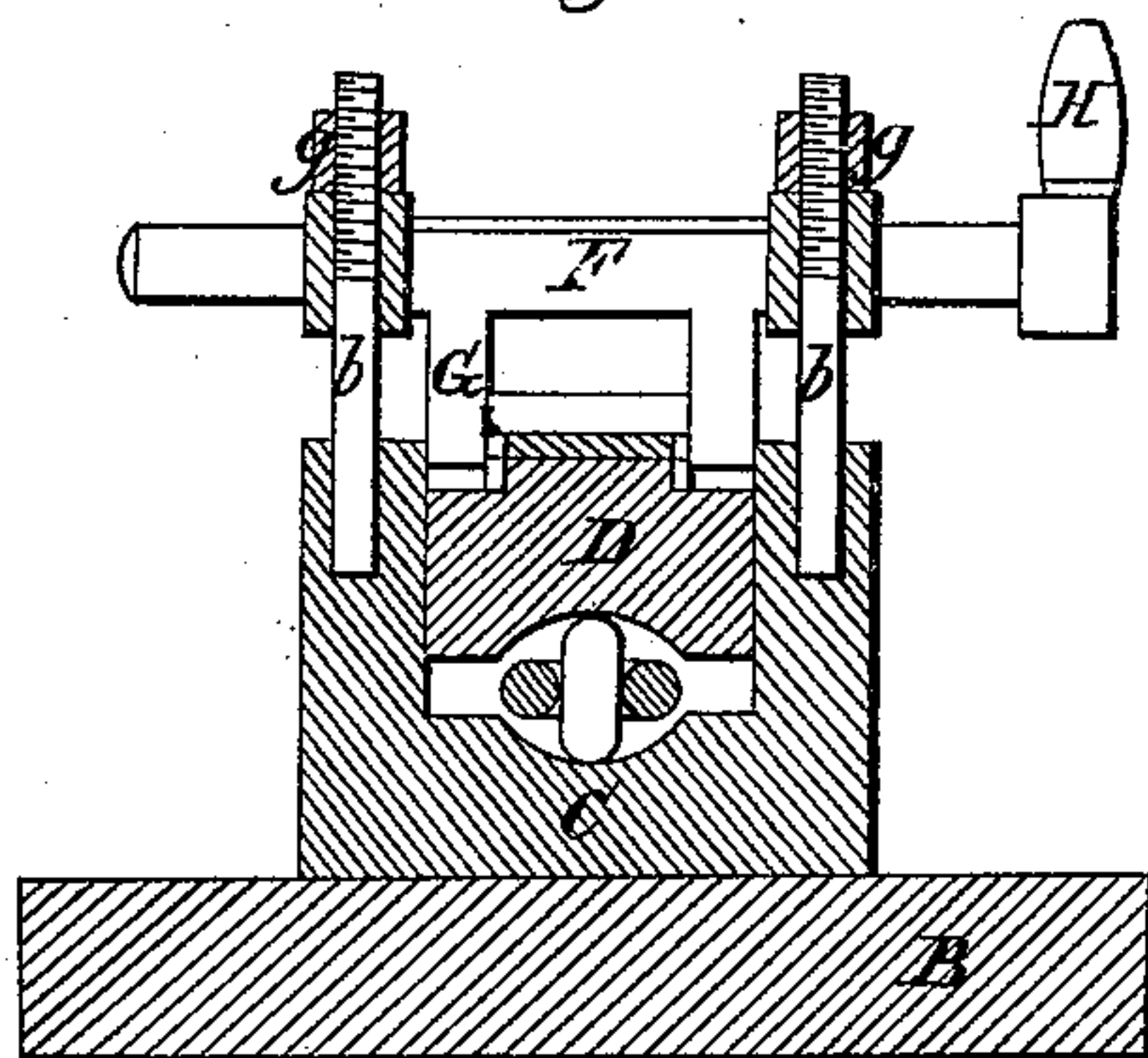


Fig: 3.



UNITED STATES PATENT OFFICE.

JESSE REED, OF MARSHFIELD, MASSACHUSETTS.

CABLE-STOPPER.

Specification of Letters Patent No. 12,325, dated January 30, 1855.

To all whom it may concern:

Be it known that I, JESSE REED, of Marshfield, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Chain Cable-Stoppers, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a plan. Fig. 2 a vertical longitudinal section upon the line A, A. Fig. 3 a transverse vertical section upon the line X X of Fig. 1.

In most of the cable stoppers heretofore employed, a rigid stop or pawl has been allowed to fall into or upon the links of the chain and stop its motion suddenly. This may not result in injury when the momentum of the chain running out is simply to be arrested, but after the anchor has taken hold upon the bottom, and while the vessel is still drifting to leeward, if the chain be suddenly stopped it is subjected to an immense strain, and is often snapped before the motion of the vessel can be checked. The vessel and cargo, as well as the lives of those on board may thus be lost. To remedy these defects the attempt has been made to stop the cable by subjecting it to pressure between two parallel surfaces, whereby the motion of the cable is checked gradually, and without danger of being broken. In the only stopper of this class which has come to my knowledge, the two jaws remain constantly parallel with each other, and when a larger link passes through it takes the whole strain and relieves the other links; there was also such an arrangement of parts employed for the purpose of bringing the jaws together, that it was not found practicable to apply sufficient force to the stopper to arrest the motion of the chain.

My present improvements are designed to remedy all these inconveniences, and in order that others skilled in the art may understand the nature of my invention, I will proceed to describe the method in which I have carried it out, and the details of the construction of my stopper.

In the accompanying drawings B is the deck of the vessel.

C is the lower jaw of the stopper. D the upper jaw.

b are standards or upright rods which rise from the bottom jaw, and upon which slide the boxes E. These boxes carry the shaft

F, by the rotation of which the stopper is operated.

G is a crank or rigid link upon the shaft F, to which is hinged the upper jaw D, at f. This jaw is allowed to vibrate slightly around this point, and thus accommodate itself to any variation in the size of the links, and find an even bearing upon them. When the upper jaw is connected by several rigid arms to the lower one, the bearing surfaces of the two always remain parallel to each other, and this uniform action cannot take place. The shaft F is revolved by means of the lever H.

I is a well known form of stopper which is made use of to secure the chain after its motion has been arrested. The shaft and upper jaw are adjusted in position to suit the size of the chain in use by the nuts g, working upon screws upon the upper ends of the rods b.

It is evident from the position of the crank with respect to the upper jaw as seen in Fig. 2, that a moderate force applied to depress the lever H, will produce a great pressure upon the chain, while all the friction of the chain upon the upper jaw operates to increase this pressure. When it is necessary to pass a shackle m, through the stopper, the upper jaw may be momentarily raised by the lever H, and instantly brought down upon the chain again when the shackle has passed.

Operation.—The stopper is to be secured to the deck between the capstan and the hawse hole. The position of the upper jaw being adjusted by the screws g to the size of the chain in use, the latter is passed through between it and the lower jaw. When the anchor is running out, the pawl I and the lever H are raised, and the chain is allowed to run freely, or it is but slightly checked by pressure upon the upper jaw to prevent it from running too freely, or upon a rocky bottom to prevent the breaking of the anchor. After the chain has run out and the anchor has taken hold upon the bottom, the motion of the vessel to leeward is to be checked by a pressure upon the chain so graduated as not to endanger its being broken. This is effected by means of the lever H, the position of the crank being such that the pressure so applied will be greatly increased as it is transferred to the chain, while the friction of the chain itself upon the upper jaw as it moves in the direction of

the arrow (Fig. 2) tends greatly to depress this jaw, and thus assist the operation of the lever, at the same time that this pressure is entirely under the control of the person
5 holding the lever H.

I do not claim stopping the motion of a chain cable by subjecting it to pressure between two plane surfaces, but

What I do claim as my invention and desire to secure by Letters Patent is—
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The within described arrangement of the

lever H the crank G, and the upper jaw D, whereby the latter is allowed to accommodate itself to the varying size of the links, and the operation of stopping the chain is
15 assisted by the friction of the chain itself upon the upper jaw.

JESSE REED.

Witnesses:

H. B. OSGOOD,
JOHN S. CLOW.