

W. S. Auchincloss.

Port Stopper.

N^o 40,895.

Patented Dec. 15, 1863.

Fig. 1.

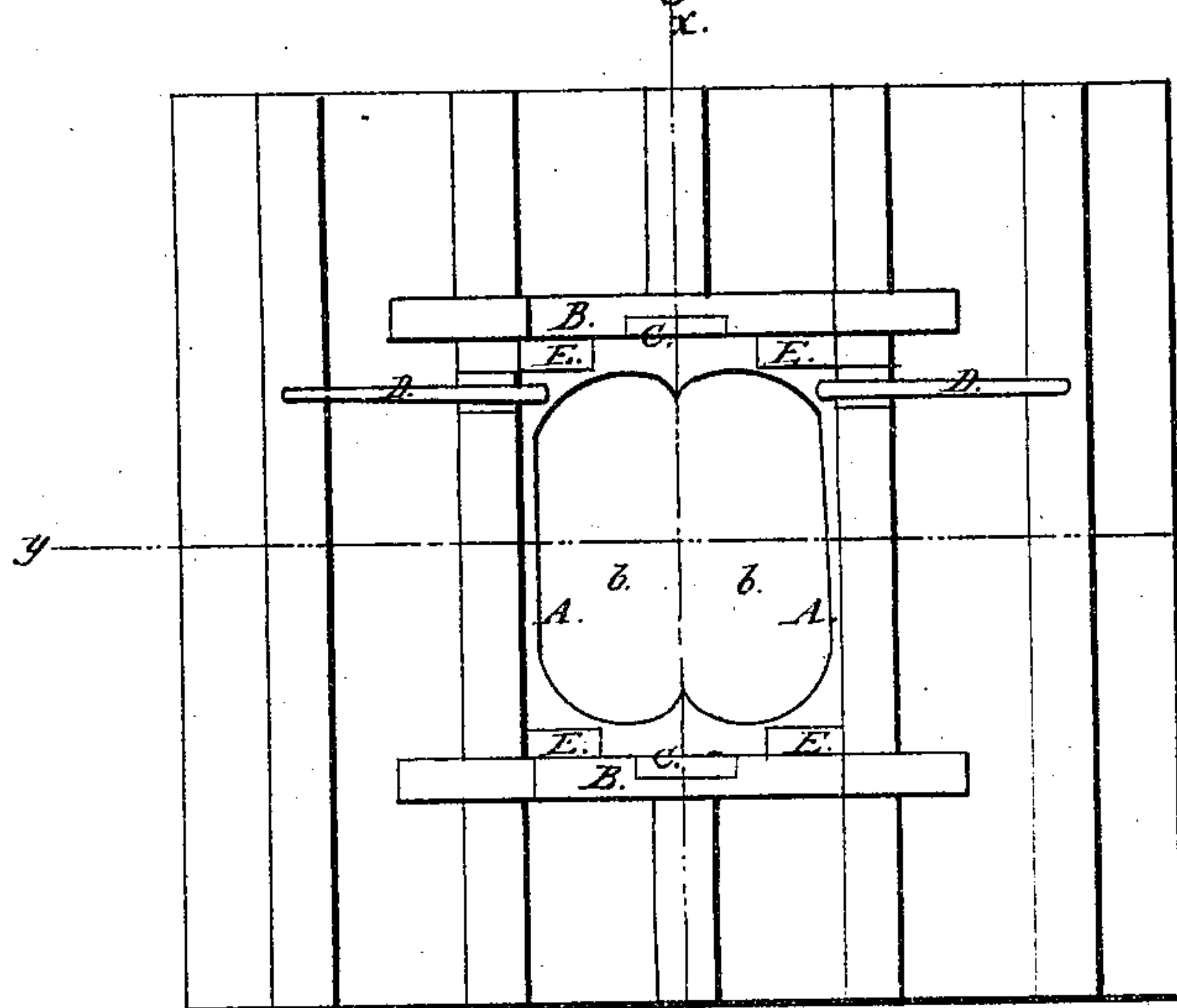


Fig. 2.

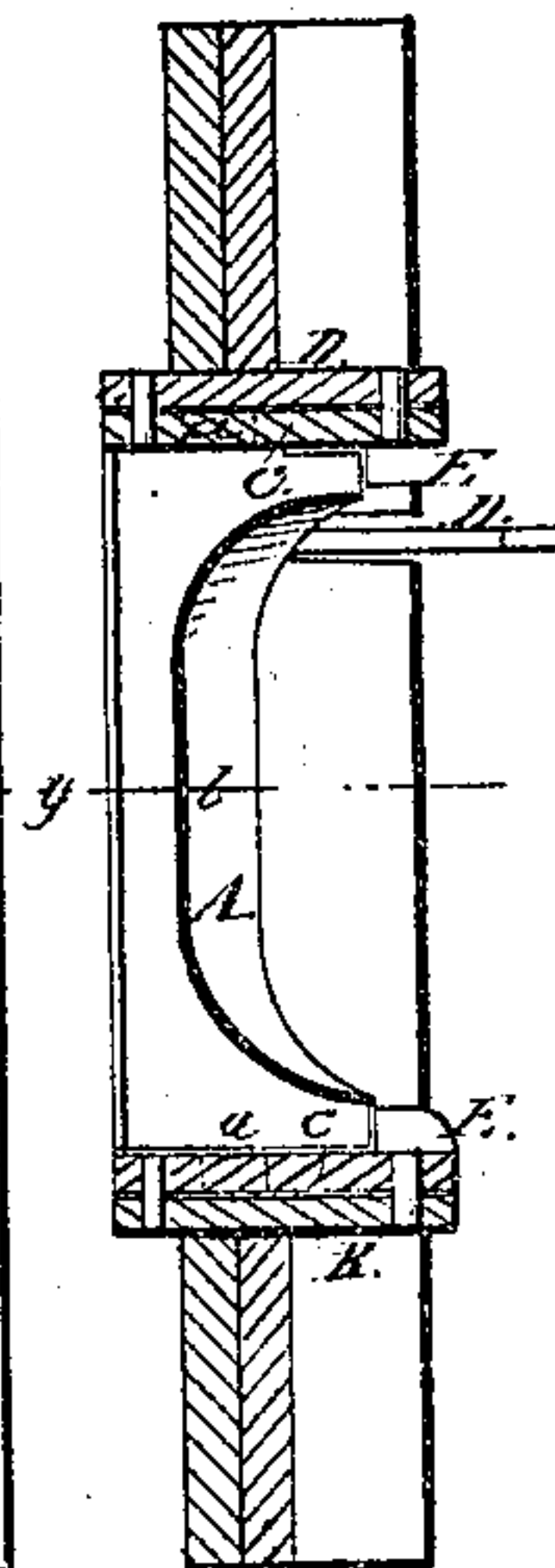


Fig. 3.

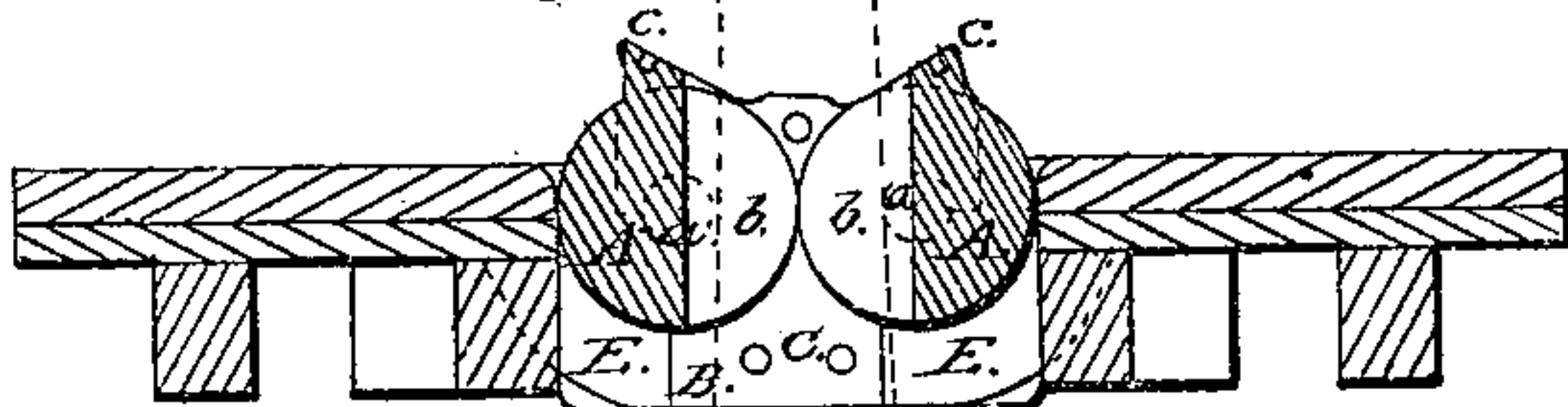
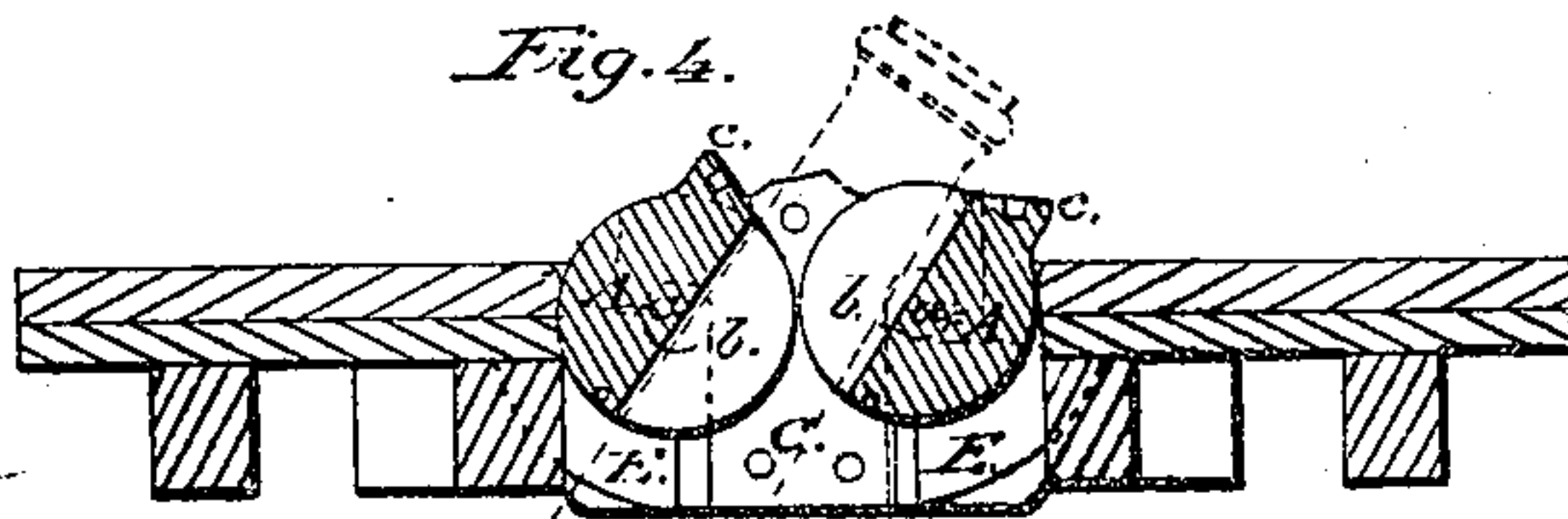


Fig. 4.



Witnesses:

Thos. L. Douglas
Geo. W. Reed

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UNITED STATES PATENT OFFICE.

WILLIAM STUART AUCHINCLOSS, OF NEW YORK, N. Y.

IMPROVED PORT-CLOSER FOR VESSELS OF WAR.

Specification forming part of Letters Patent No. 40,895, dated December 15, 1863.

To all whom it may concern:

Be it known that I, WILLIAM S. AUCHINCLOSS, of the city, county, and State of New York, have invented a new and useful Improvement in Port-Closers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents an inside view of my invention, the port being closed. Fig. 2 is a transverse vertical section of the same, the plane of section being indicated by the line *x x*, Fig. 1. Figs. 3 and 4 are horizontal sections of the same, both taken in the plane indicated by the line *y y*, Fig. 1, and showing the port-closers in different positions.

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

The essential features of a good port-closer are that the same, whether open or closed, offers a perfectly firm and solid resistance to hostile shot or shell which may be thrown against it; that it is not liable to be carried away by such shot or shell or by any other accident; that it closes firmly and perfectly water-tight, and that when open it allows of elevating the gun to any desired angle or of training it to an angle of forty-five degrees or more with the beam. All these advantages are combined in my port-closer, the construction of which will be readily understood from the following description.

A A represent two cylinders or rollers, of iron or any other suitable material, and provided with gudgeons *a*, on which they may be freely rotated in either direction. Each of the rollers A is hollowed out on one side, so as to form a cavity, *b*, and each is provided with a nose, *c*, whereby a flat surface is produced. If the two rollers are brought in such a position that their flat surfaces come in contact with each other, the port is closed, and if they are turned so that their cavities face each other the port is opened. The gudgeons *a* of the rollers A have their bearings in plates B, inserted firmly into the side of the vessel above and below the port. The bearings may either be formed partly by semicircular cavities made in the plates B and partly by keys C, so that each roller can be introduced from the outside and secured in its

place by the key; or the lower plate may be made with holes to receive the gudgeons, and in this case each roller has to be introduced in an inclined position until its lower gudgeon catches in the corresponding hole in the lower plate, and the upper gudgeon has to be secured by a key, or in any other desirable manner. I do not wish to confine myself, however, to any particular method of inserting the rollers, as this operation may be accomplished in various different ways. The plates B are provided with semicircular flanges E close on the inside of the rollers A A, and the gudgeons are made to fit loosely in their sockets, so that in case one of the rollers is struck by shot or shell the gudgeons are relieved, and the flanges sustain the entire strain. These flanges may either be forged solid with the plates, or they may be secured to the same in any other suitable manner, or when the vessel is armor-plated said flanges may be formed by an extension of the armor-plates adjacent to the port. The rollers are turned on their gudgeons by means of bars D, which may be permanently inserted in the same or so arranged that they can be readily inserted into suitable holes or be rotated by any other suitable means.

In turning the rollers to the position shown in Fig. 3, an opening is formed large enough to admit the muzzle of the gun and high enough to allow of giving to said gun any desired elevation. The rollers may, however, be turned in an oblique position, as shown in Fig. 4, and the opening formed by the cavities *b* still remains large enough to admit the muzzle of the gun. By this peculiar feature of my port-closer I am enabled to sweep an arc of ninety degrees or more with each gun. It is obvious that in order to effect this purpose the gun will have to be so arranged that it can be readily brought in an angular position and still be in line with the port. In order to accomplish this purpose when using a pivot-gun, I intend place its fighting-bolt under or near the center line of the port-hole.

For the purpose of closing the port perfectly water-tight, india-rubber or other packing may be inserted in the rollers at suitable places.

In training, the gun may be run out, and by hauling on the train-tackle the gun will act as

a lever, adjusting the rollers to the desired position.

What I claim as new, and desire to secure by Letters Patent, is—

1. The employment or use, for a port-hole closer, of two rollers, A A, each being made to rotate independently of the other, and provided with a cavity, *b*, as described, so that by turning the rollers to the proper position an opening is obtained which allows of giving to the gun any desired elevation, or of train-

ing the same to an angle of forty-five degrees or more, substantially as set forth.

2. The combination of the flanges E with the rollers A A, constructed and operating substantially as and for the purpose herein shown and described.

WILLIAM STUART AUCHINCLOSS.

Witnesses:

THOS. S. J. DOUGLAS,
GEO. W. REED.