

(No Model.)

J. W. SHARRETT.  
FAIR LEADER FOR ROPES, &c.

No. 248,061.

Patented Oct. 11, 1881.

Fig 1.

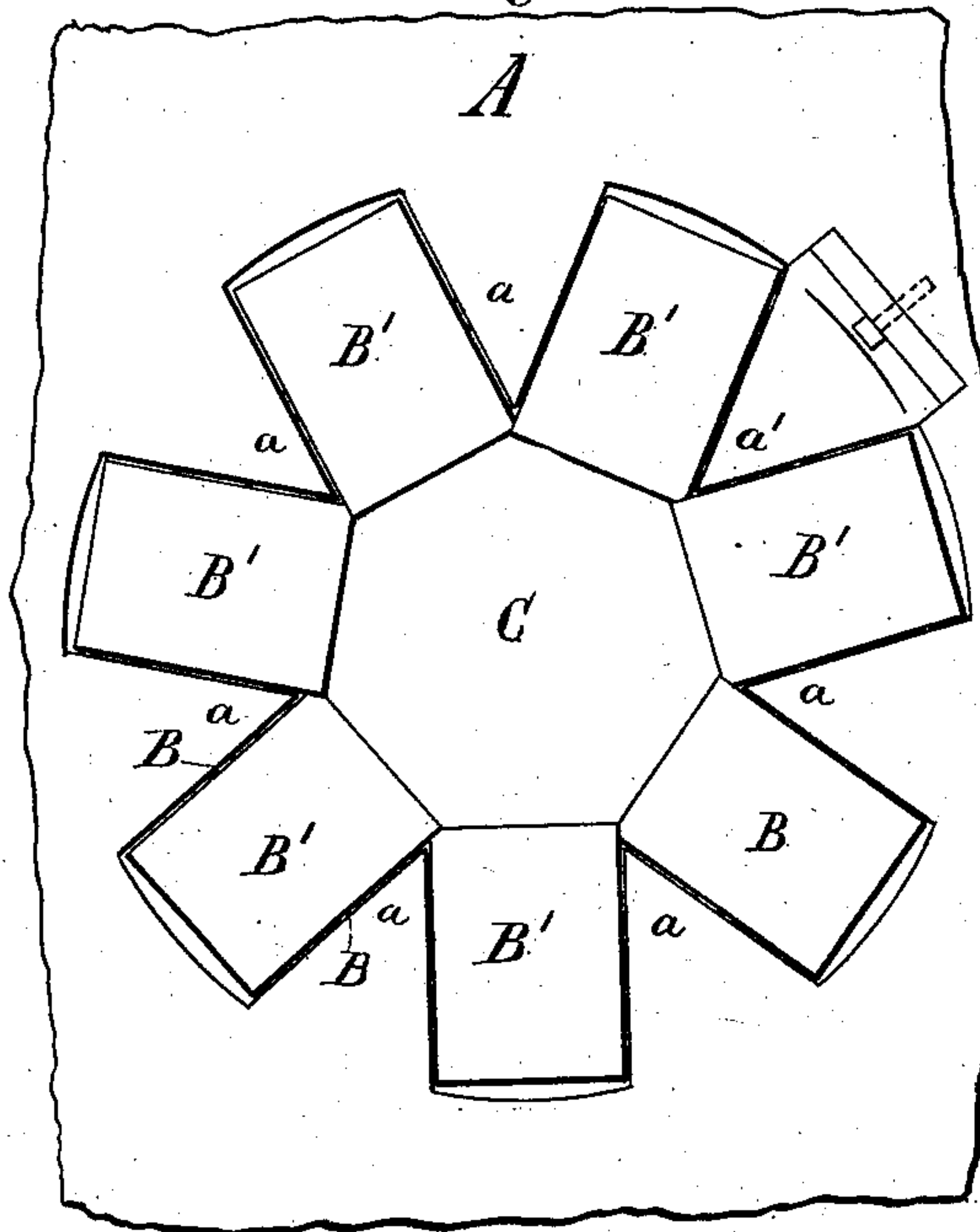


Fig 2.

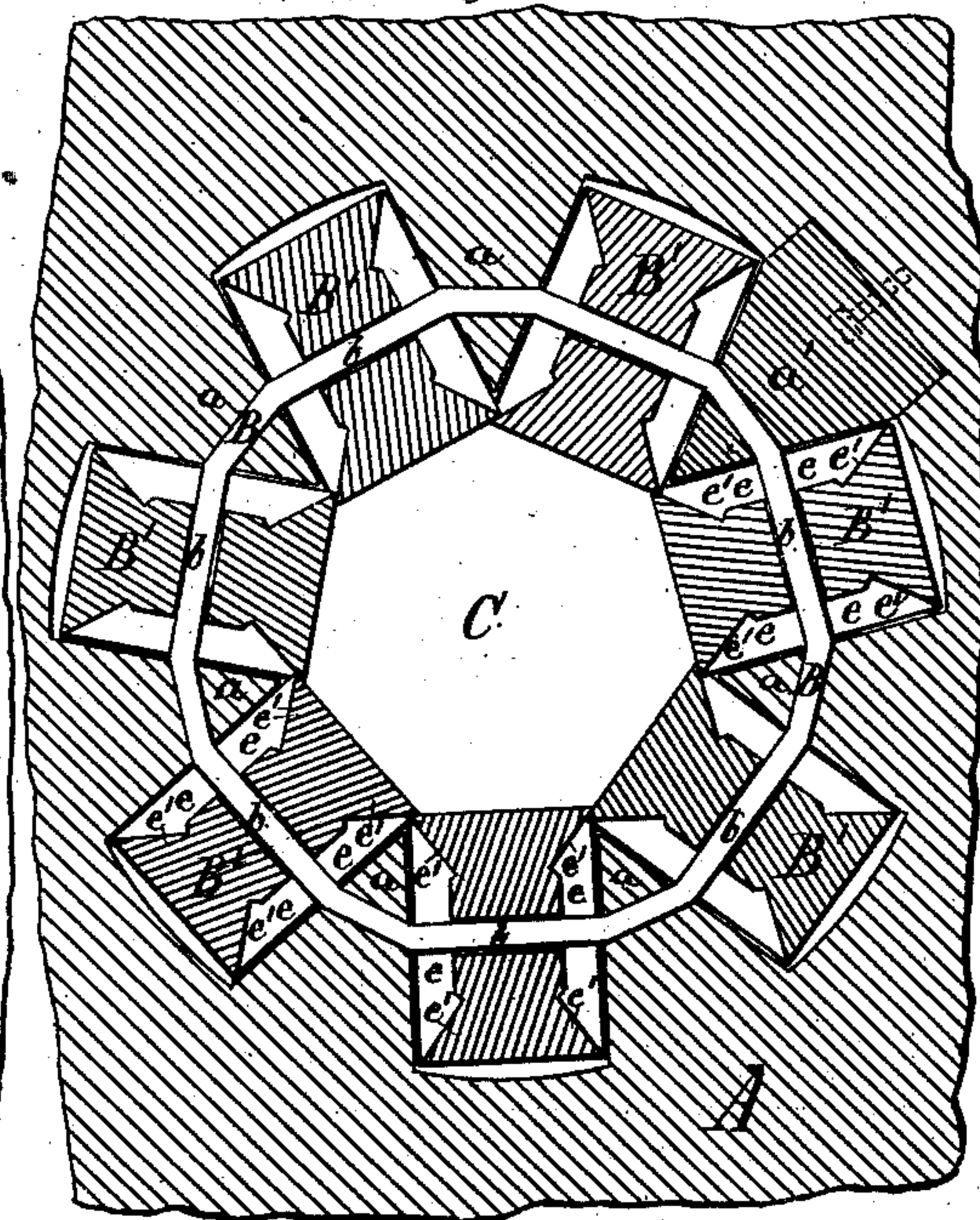


Fig 3.

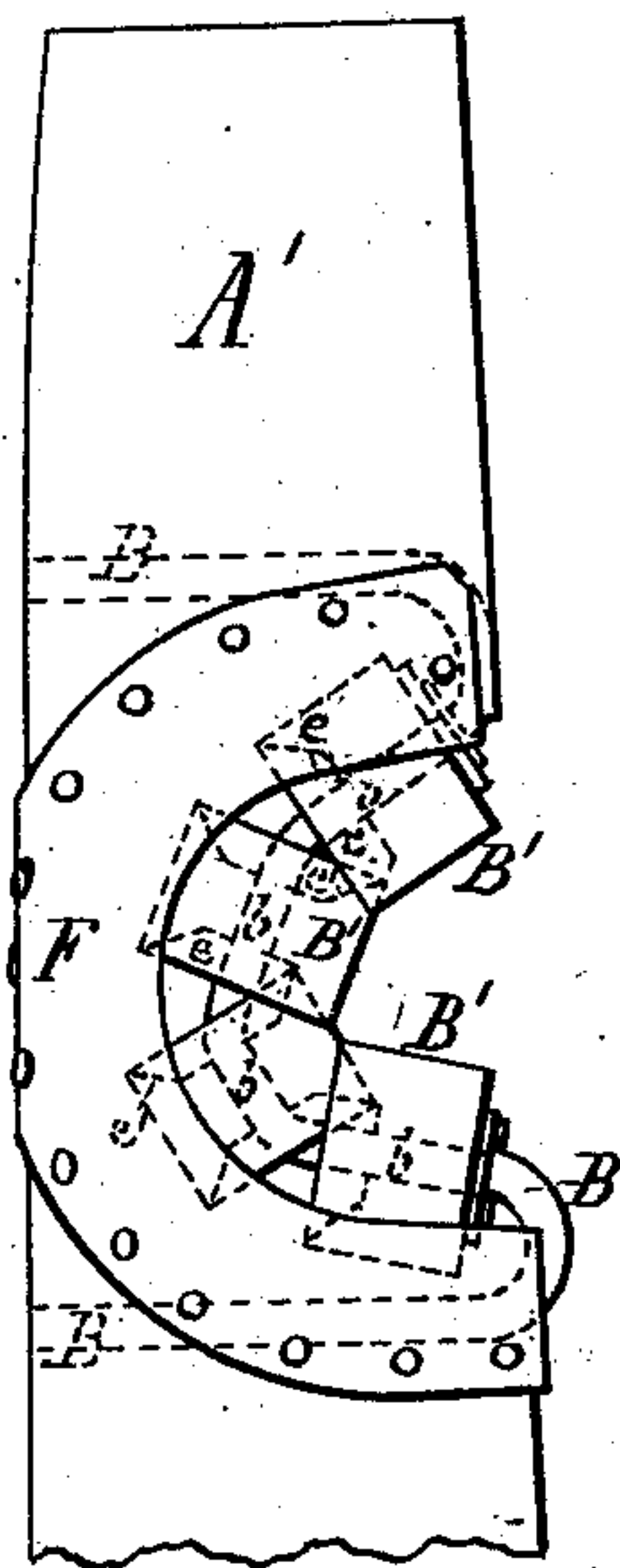


Fig 4.

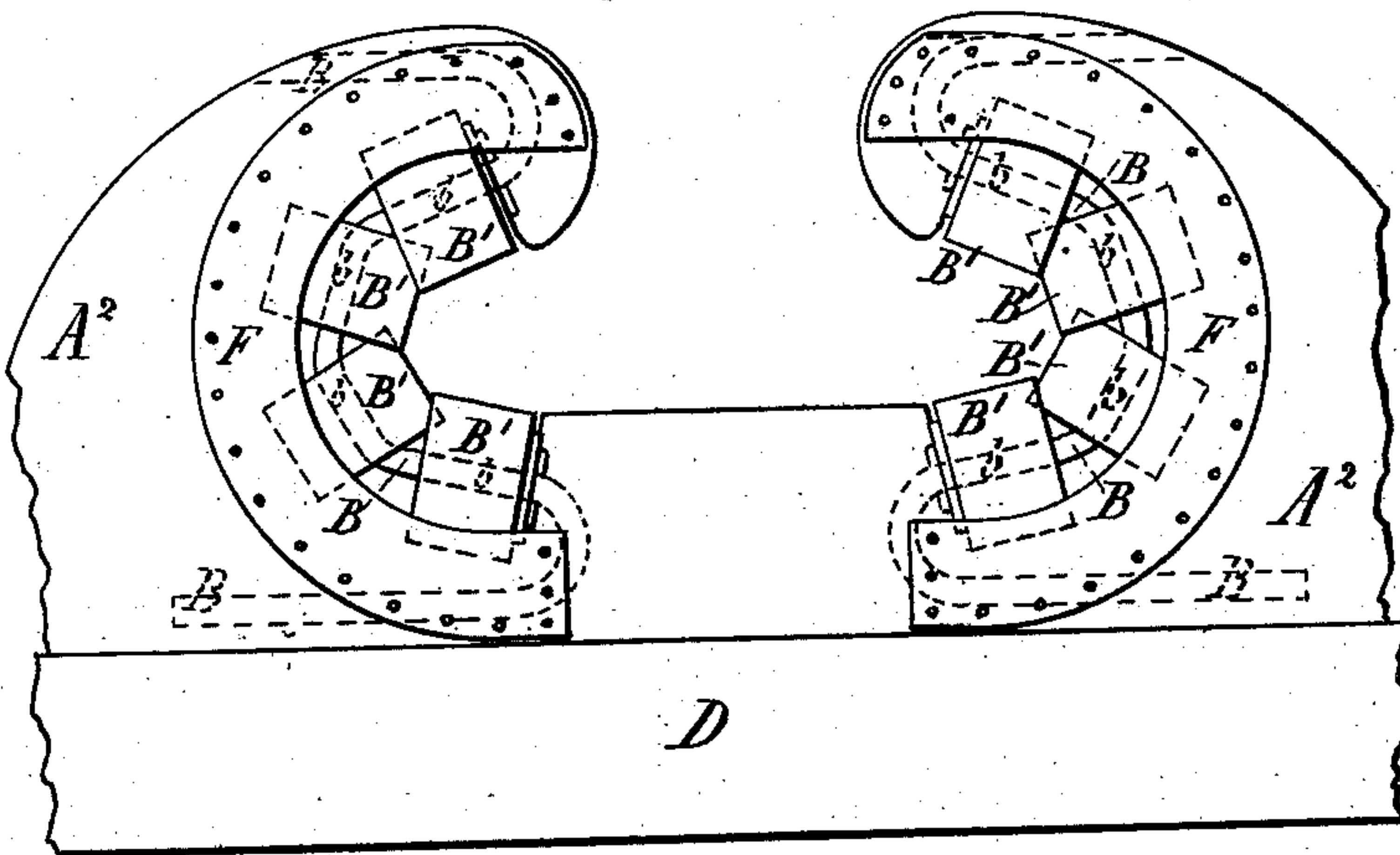
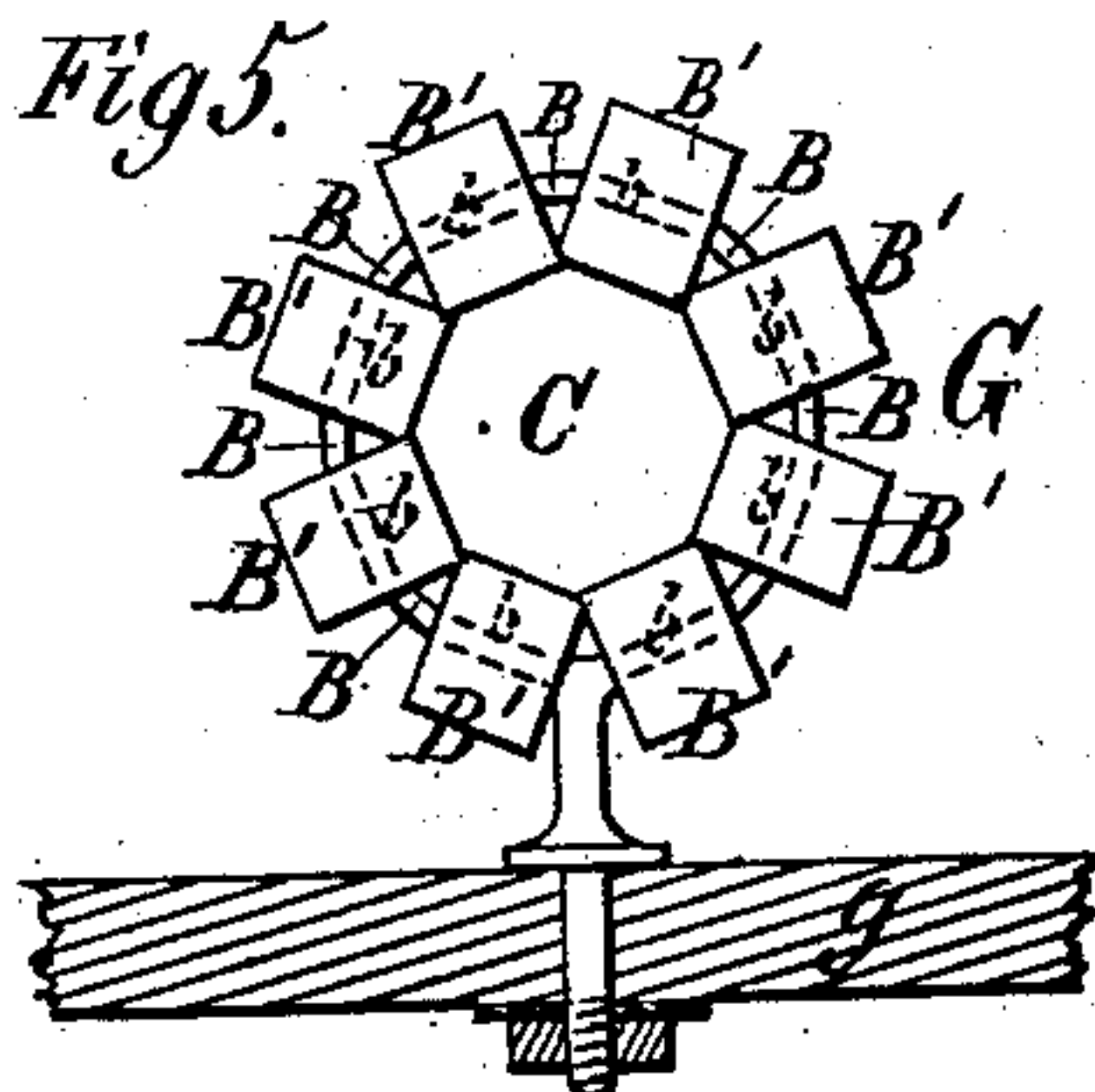


Fig 5.



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# UNITED STATES PATENT OFFICE.

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## FAIR-LEADER FOR ROPES, &c.

SPECIFICATION forming part of Letters Patent No. 248,061, dated October 11, 1881.

Application filed June 10, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. SHARRETT, of Portsmouth, in the county of Norfolk and State of Virginia, have invented a new and useful Improvement in Fair-Leaders for the Ropes and Chains of Ships and other Vessels; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and letters of reference marked thereon, forming a part of this my specification of said invention.

Like letters in the several figures indicate the same parts.

Sheaves are ordinarily used as fair-leaders for ropes and chains on board of vessels; but when the rope or chain, in passing through a sheave, becomes twisted or "skewed" the sheave then becomes to a greater or less extent useless as a fair-leader for the same, owing to the binding action of the rope or chain thereon.

The object of my invention is the production of a fair-leader upon which a rope or chain will not bind in the act of passing through it, whatever direction the rope or chain may have when in contact therewith; and practically, I intend to utilize it in place of the ordinary hawse-pipe of water-craft, also in connection with the dredge-posts of vessels, the rail-chocks of vessels, the quarter-chocks of vessels, the deck bull's-eye and deck-eyebolts of vessels, and also in connection with the top-sail sheet-block of vessels. In fact, I intend to apply my improved fair-leader for ropes and chains wherever the same can be advantageously used on ships and other water-craft, and I herein present a few examples of its application.

Figure 1 of the drawings is a view in elevation of my improved fair-leader applied in the night-heads of a vessel in lieu of the ordinary hawse-pipe, and Fig. 2 is a central vertical section of Fig. 1. Fig. 3 is a view in elevation of a dredge-post used on board of dredging-vessels and having my improved fair-leader applied thereto. Fig. 4 is a view in elevation of a rail-chock of a vessel having my said improvement applied thereto, and Fig. 5 shows in elevation a deck bull's-eye constructed with said improvement.

Having reference to Figs. 1 and 2, A indicates a portion of the bow, or that part of a vessel in which a hawse-pipe is ordinarily applied,

the timber being cut away so as to form a proper opening, C, through the same, and with angular projecting portions or chocks, as at *a*, which are integral with or form a connected portion of the wood-work of the vessel. At *a'* in these figures I show one of the chocks formed separately from the wood-work A and applied to said wood-work by means of a bolt, as shown. It may, however, be secured in place in any other suitable manner.

B indicates a strong round metallic bar, which is made to pass through the chocks *a* and *a'*, as shown, which bar is so formed as to constitute at portions *b* of its length suitable axial bearings for a series of fair-leading metal rolls, B', which are made to occupy the spaces between the said chocks, as shown. These fair-leading rolls are formed to freely turn or rotate upon the axial portions *b* of the bar B, and said bar being bent, as shown, at those portions which pass through the chocks *a*, is prevented from moving longitudinally in its bearings within said chocks, and thus the rolls B' always maintain their proper working position. The rolls B', as clearly shown in Fig. 2, are on each side formed with a concavity, as at *e*, and with a sloping interior annular face, *e'*, so that when said rolls are placed upon their axial bar B, as shown in the several figures, the face *e'* of one roll will overlap a portion of the periphery of the next adjoining roll, as shown in Figs. 1, 2, and 5, or, as in Figs. 3 and 4, one roll may be overlapped by the two next adjoining rolls, and in this manner said rolls may be made to always present a rolling working-surface, against which a rope or chain may impinge in passing through the central aperture, C.

In Fig. 3, A' indicates a dredge-post with my fair-leader device applied thereto in the general form of a half-circle. In this figure, B indicates a round metal bar in somewhat the form of a half-circle, and with its ends let into the dredge-post and secured therein in any proper manner. The post itself is cut away in half-circle form, so as to allow the fair-leader rolls B' to be applied upon the metal bar B and freely articulate or rotate thereon, and with the annular face *e'* of one roll either overlapping or underlapping a portion of the next adjoining roll or rolls, as shown.



In Fig. 4, D indicate a portion of a rail of a vessel with a rail-chock, A<sup>2</sup>, thereon, but having portions of it broken away, as signified by the figure. In this case, as in Fig. 3, the metal  
5 bar B has its ends secured in the wood-work of the rail-chock in any proper manner, and the fair-rolls B' are axially applied thereon in the same manner as shown in Figs. 2 and 3, while, as in Fig. 3, the rail-chock is provided with  
10 guard-plates F to properly house and protect the rolls.

In Fig. 5 I represent my invention as subserving the purpose of a deck bull's-eye, G, secured to the deck *g* of a vessel, and in this  
15 instance of the application of my invention the fair-leading rolls B' have a portion of their perimeters either overlapping or underlapping a portion of the perimeters of the next adjoining rolls, the same as shown in Figs. 1 and 2.  
20 In this manner, in each of the instances or conditions shown in the several figures a rolling or rotary moving surface will be presented to a rope or chain when applied in connection with said devices, as it is customary to use a  
25 rope or chain in connection with the devices

for which my improved fair-leader is intended as a substitute or an improvement upon.

In Figs. 3, 4, and 5 the chocks *a* shown in Figs. 1 and 2 are not represented, though in practice they may be applied in the condition of  
30 separate wedge-form pieces between the rolls B', if desired.

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

The fair-leading rolls B', formed with a concavity, *c*, and a sloping annular face, *c'*, in combination with a circularly formed or curved bar, B, provided with axial bearings *b*, whereby  
40 when a series of rolls, B', are in position upon said bearings a portion of one of the rolls will overlap or be overlapped by a portion of an adjoining roll, substantially as and for the purpose described.

Signed in presence of two subscribing witnesses.

JOHN W. SHARRETT.

Witnesses:

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JOHN H. BROWN.