

(No Model.)

A. M. HASWELL.
MEANS FOR PROPELLING BOATS.

No. 481,113.

Patented Aug. 16, 1892.

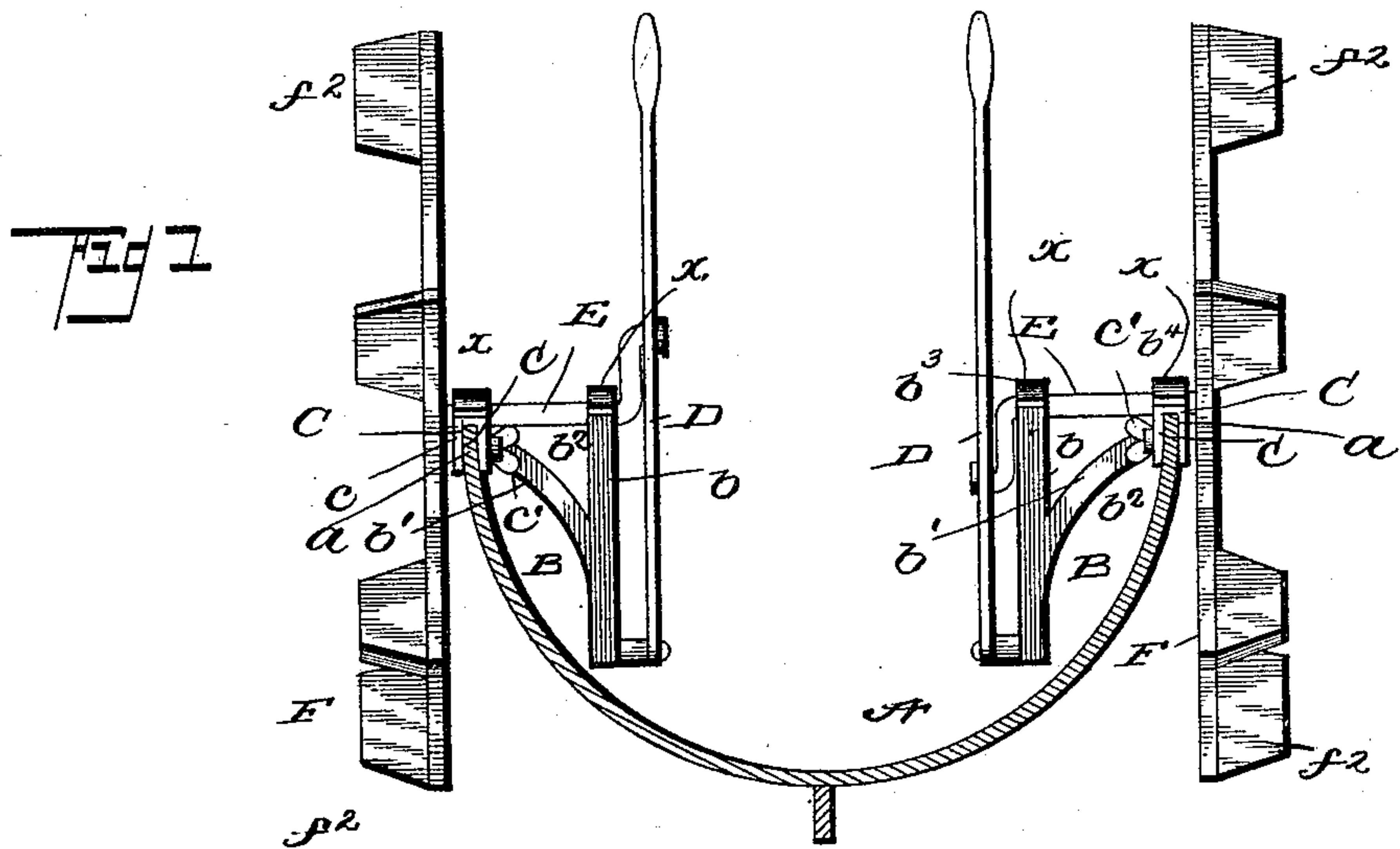


Fig. 2

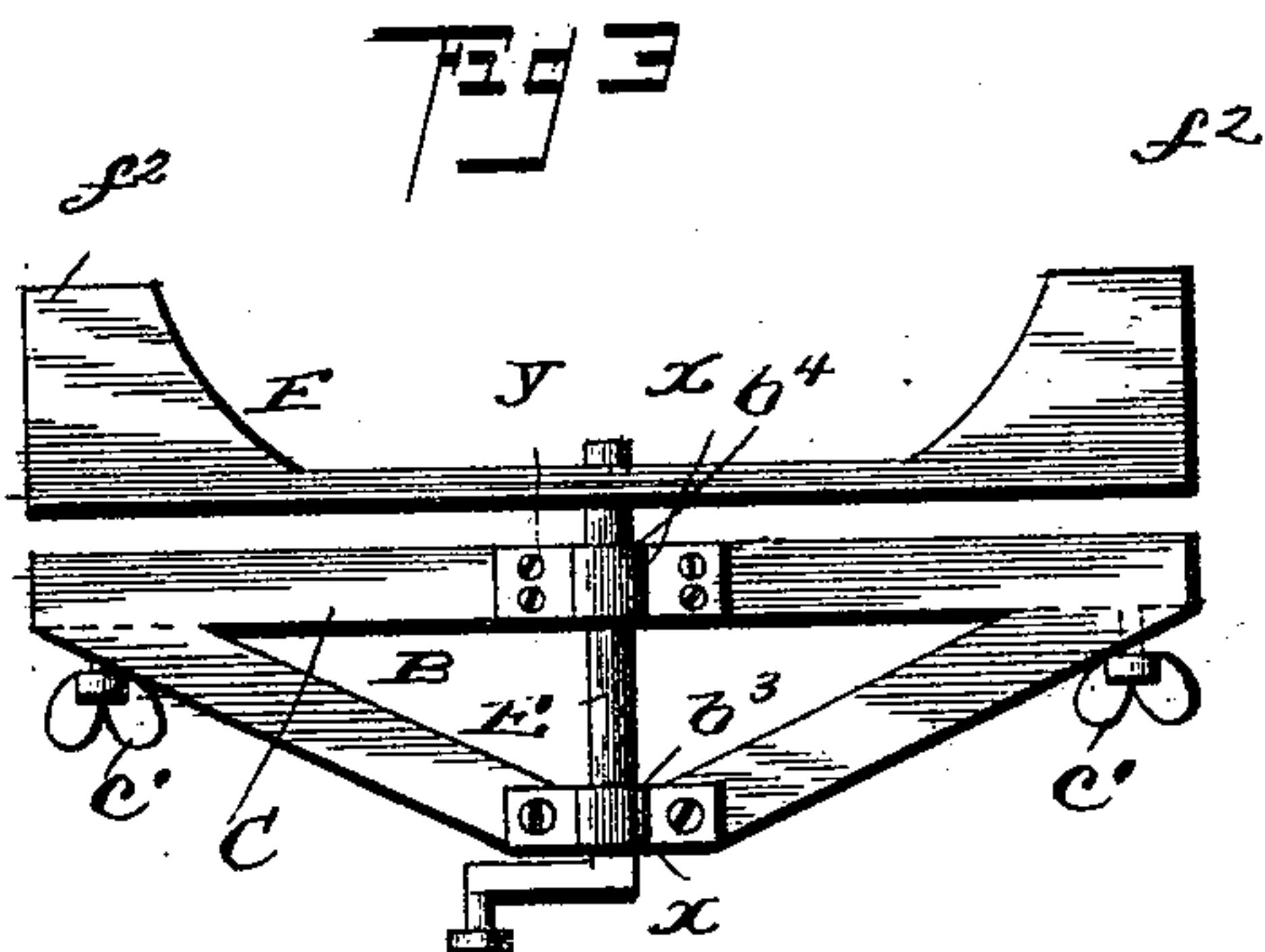
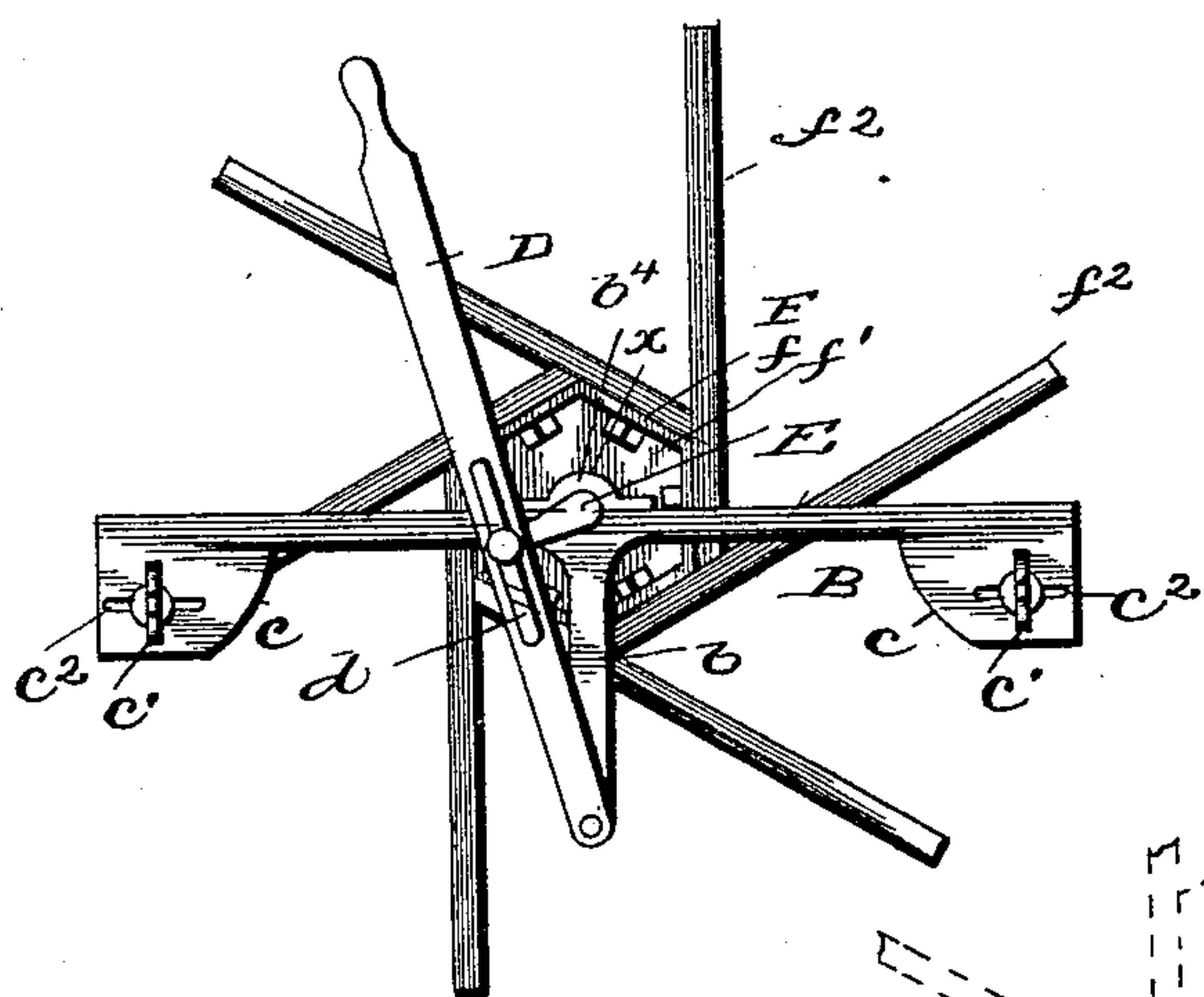
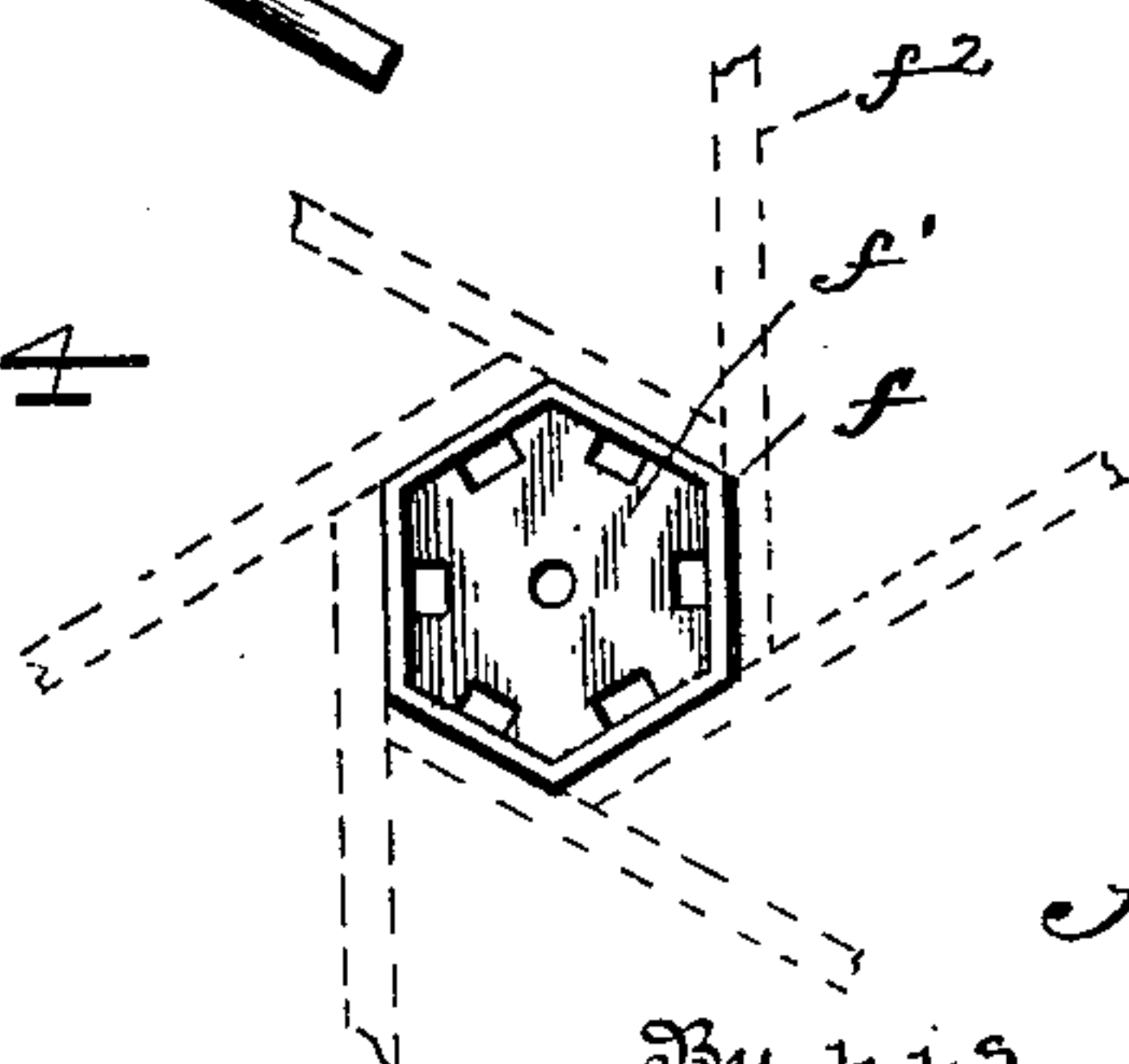


Fig. 5



Witnesses

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UNITED STATES PATENT OFFICE.

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MEANS FOR PROPELLING BOATS.

SPECIFICATION forming part of Letters Patent No. 481,113, dated August 16, 1892.

Application filed February 12, 1892. Serial No. 421,306. (No model.)

To all whom it may concern:

Be it known that I, ALANSON M. HASWELL, a citizen of the United States, residing at Springfield, in the county of Greene and State of Missouri, have invented certain new and useful Improvements in Means for Propelling Boats, &c.; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Figure 1 is a view, partly in section and partly in elevation, of a boat having this device applied as in use. Fig. 2 is a side elevation of one of the paddle-wheels and its connections detached from the boat. Fig. 3 is a top plan view of the same. Fig. 4 is a detail in side elevation of the hub.

This invention relates to improvements in mechanism for propelling boats by means of hand-power; and the novelty consists in the details of the structure and the combination as a whole and in combining the entirety with a boat, all as will now be more fully described, as well as pointed out in the claims, reference being had to the accompanying drawings, in which—

A denotes any ordinary boat, and, as now shown, is an open boat; but the detail of structure in this respect is not at all material to the present invention because it is equally applicable to an open boat, or one partly decked or covered in, or one fully decked.

The operative or propelling mechanism consists of the frame B, which, as now shown, is made of the vertical part b , the inclined part b' , and having angled parts b^2 , the former extending from the lower end of b to the center of the gunwale-strip C, and the latter from its upper end converging on each side, respectively, to ends of said strip C. Each of the outer ends c of the gunwale-strip C is bent, at a right angle, so as to form a clamping-strap, which is of proper shape and size to fit on the gunwale a of any ordinary boat. It is here secured by means of the thumb-screw c' operating from the inside of the boat through the slot c^2 in the strap.

To the lower end of the vertical part b is pivoted the handle-lever D at its lower end. This lever has a slot d about mid-length, in

which slot the inner end of the crank-shaft E plays. This crank is journaled in bearings b^3 in the top of vertical part b and in the gunwale-strip at b^4 , the place where the upper end of the inclined piece b' connects with it. Suitable removable caps x at the top of b and y at the top of b' serve to hold the shaft in these bearings. On the outer end of this crank-shaft is secured in any suitable way the paddle-wheels F, whose blades f' are provided at their outer ends with lateral wings or extensions f^2 , as clearly shown in Figs. 1 and 3, standing outward from said blades. The shanks of the blades f' of this wheel are fixed by nuts and bolts to the exterior of this hub f , which is hexagonal or any convenient shape to accommodate the desired number of blades. The faces of this exterior are such that the blades will be properly extended for use. There are suitable notches or openings in the hub for permitting the application of the securing-nuts on the ends of the bolts which hold the blades.

The above description applies to the frame and wheel as adapted to one side of the boat. The opposite side is equipped in like manner.

It will be noticed that this apparatus can be readily applied to any part of the boat—that is, midships or forward or aft. This is a point of large value, because the propelling-piece can be applied as is rendered necessary by the number of passengers. For instance, when but a single person is on the boat, he may put the wheels where he pleases, or when a crowd is on the boat the wheels can be adapted to suit their convenience. The occupant of the boat or the one who propels it, being seated so as to grasp in each hand one of the lever-handles, can operate the paddle-wheel simultaneously, so as to produce a direct forward movement of the boat, or can operate them at the same time in reverse direction, as in turning the boat, or can operate one at a time.

It will be noted that the peculiar way in which the operating-lever is secured admits not only of great strength, but allows the use of a very long lever without disfiguring the appearance of the apparatus or at all incommoding the operator or the occupant of the boat.

It is preferred to make the frame entirely of metal; but this of course is a matter of expense. I design to make this frame in any way that will make its cost low and secure
5 lightness and strength.

If desired, a spring or any other clamp can be used instead of the strap *c* and set-screw. Its ease of adaptability to any ordinary boat and its solidity when secured to the boat recommend it very strongly. When desired for
10 use, the wheel and its frame are detached from the boat and so can be put under cover, as well as remove temptation for using the boat by strangers or others not entitled to its
15 use, and, as above remarked, it enables the position of the wheels to be arranged to suit the convenience of the occupants of the boat.

Having described my invention, I claim—

1. In a boat-propelling apparatus, the combination, with the paddle-shaft and means for operating it, of the frame B, consisting of the vertical part *b*, the inclined part *b'*, and angle parts *b²*, connected to and combined with the gunwale-strip C, having means for horizontally adjusting it upon the boat, substantially
25 as set forth.

2. In combination with the frame B, made as described, and the gunwale-strip C, bearing said frame, the lever D, pivoted to part *b*
30 of the frame and slotted at *d*, the crank-arm E, passed through the slot *d'*, and paddle-wheel connected to said arm, substantially as and for the purpose set forth.

3. The frame B, bearing the gunwale-strip
35 C and having oppositely-inclined portions se-

cured to the ends of said gunwale-strip at their divergent ends, and the aligned bearings or boxes, one secured upon said strip and the other secured to the converging ends of said inclined portions, in combination with the
40 crank-shaft E, bearing the paddle-wheel, and means for operating said shaft, said frame with the shaft and wheel all being horizontally adjustable upon the boat, substantially as and for the purpose set forth.

4. The combination of the gunwale-strip having means for its horizontal adjustment upon the vessel and the frame carried by said gunwale-strip and adapted to bear the paddle-wheel shaft and comprising a central
50 pendent bar having an outward and upward inclined bar or arm connected to said gunwale-strip, substantially as set forth.

5. The gunwale-strip having pendent screw-clamps for adjustably connecting it to the vessel, and the frame having its inclined portions connecting with said gunwale-strip, and a central pendent bar at the converging ends of said inclined portions, provided with an upward and outward inclined bar or arm connecting with said gunwale, in combination
60 with the paddle-wheel shaft and means for operating said shaft, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALANSON M. HASWELL.

Witnesses:

L. E. ALEXANDER,
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