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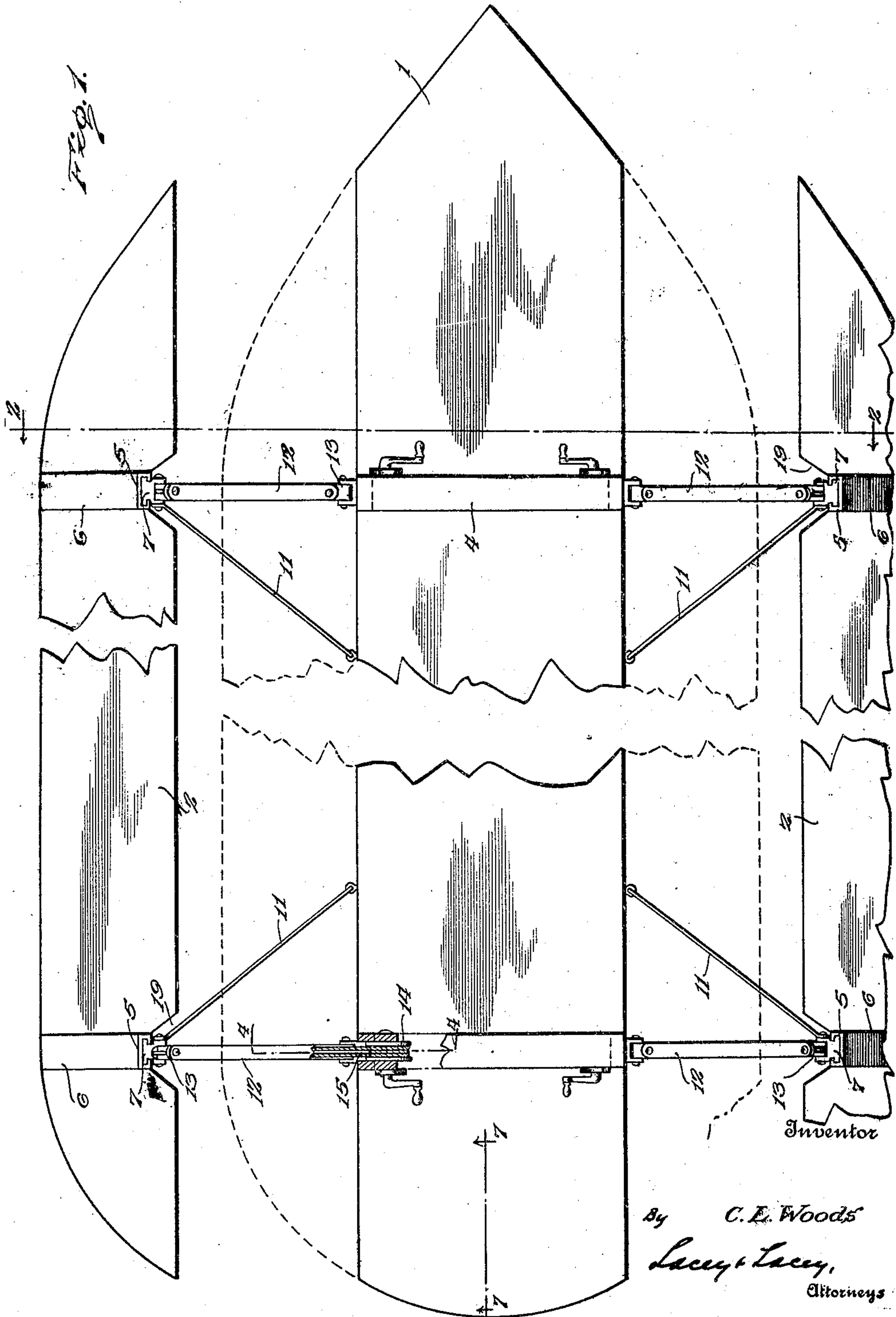
C. L. WOODS

1,683,276

BOAT

Original Filed Feb. 27, 1926

4 Sheets-Sheet 1





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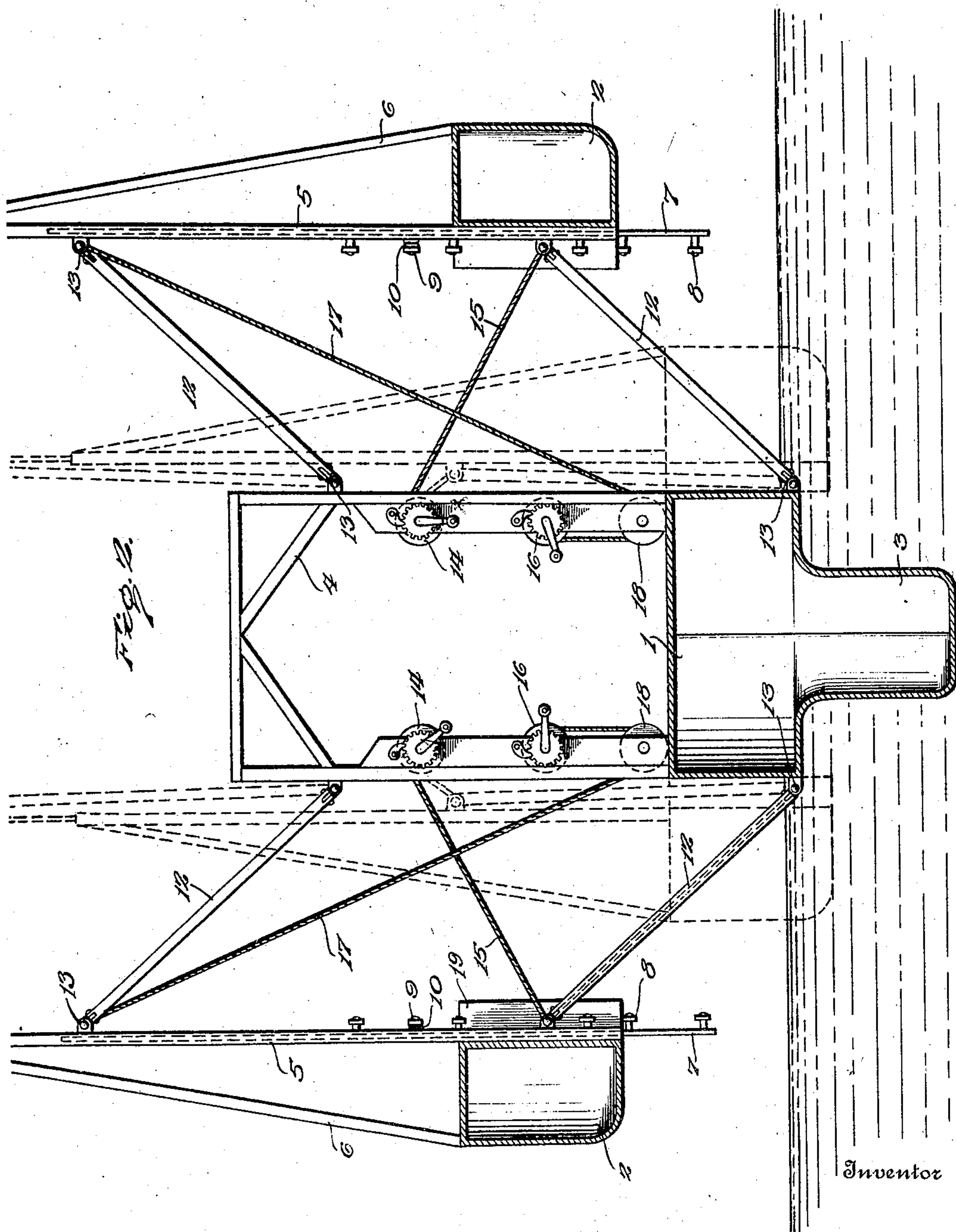
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4 Sheets-Sheet 2



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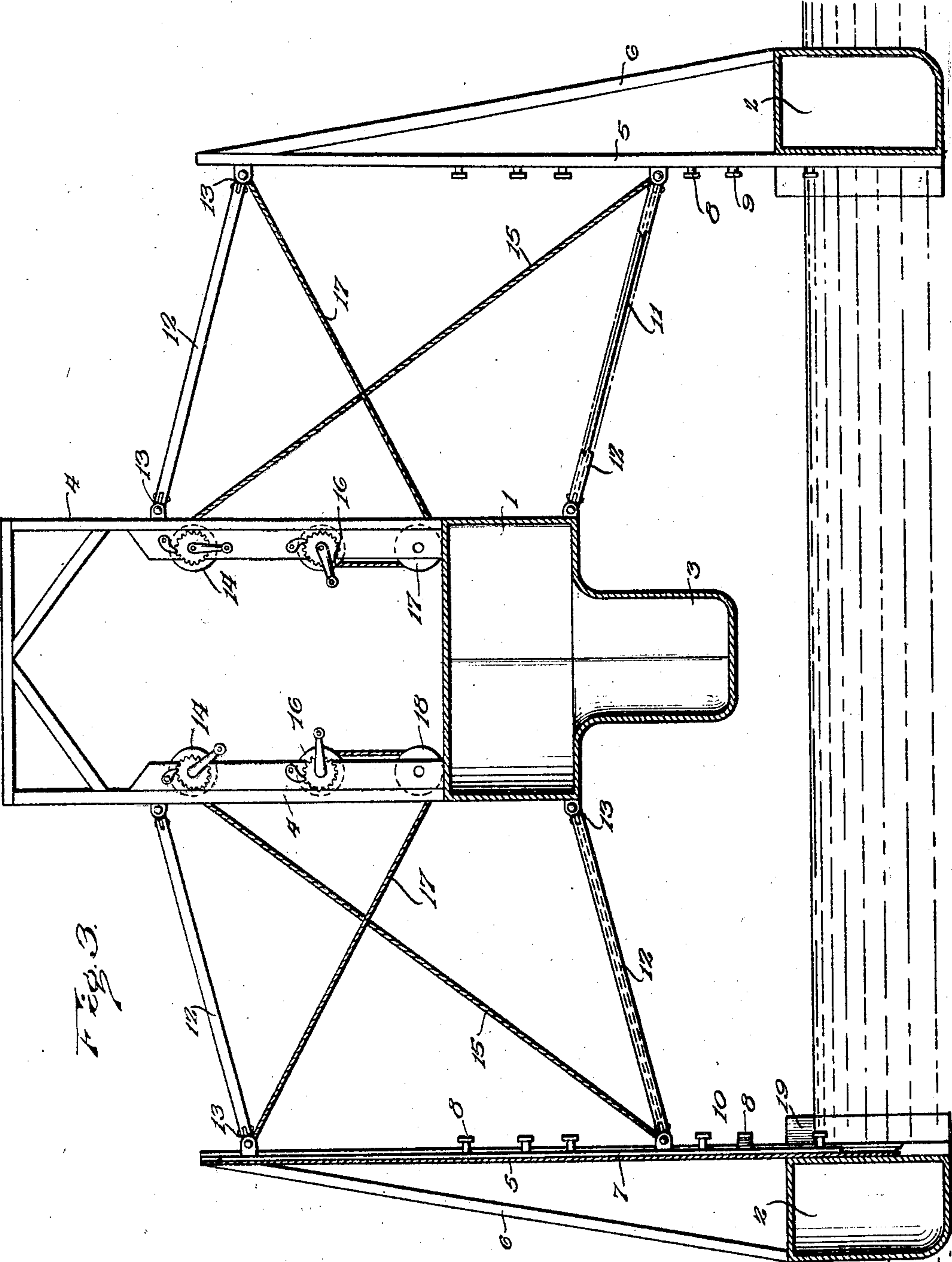
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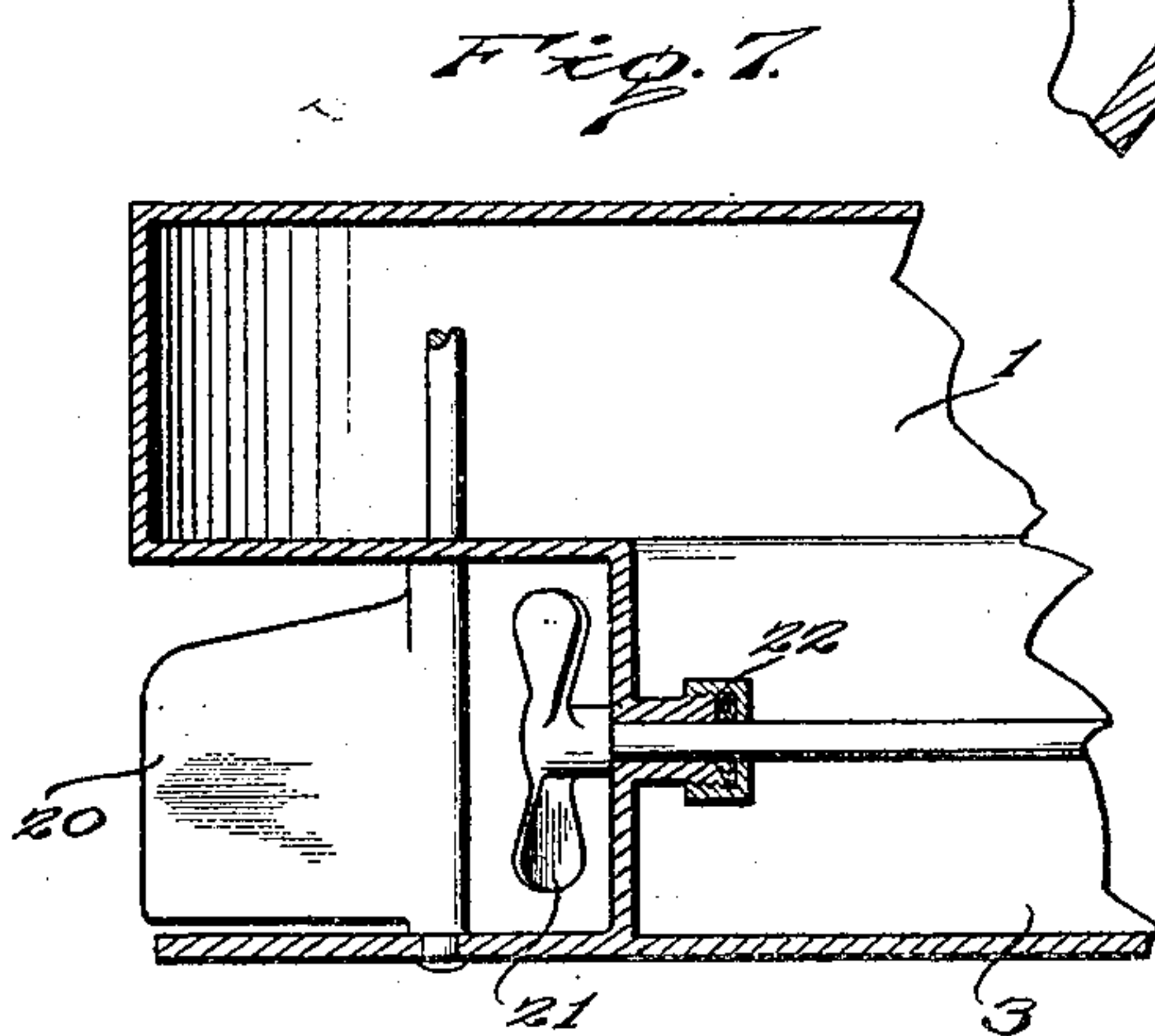
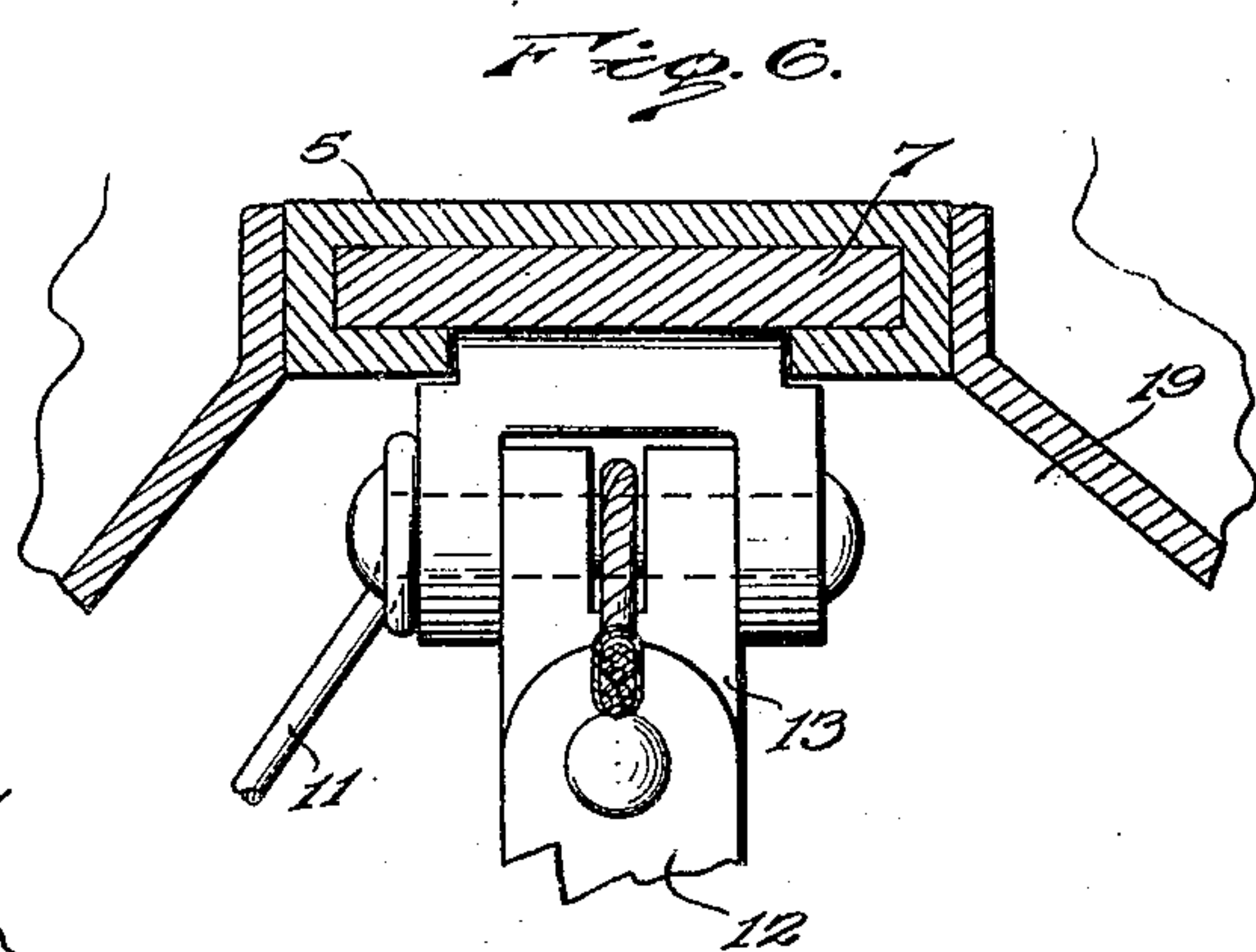
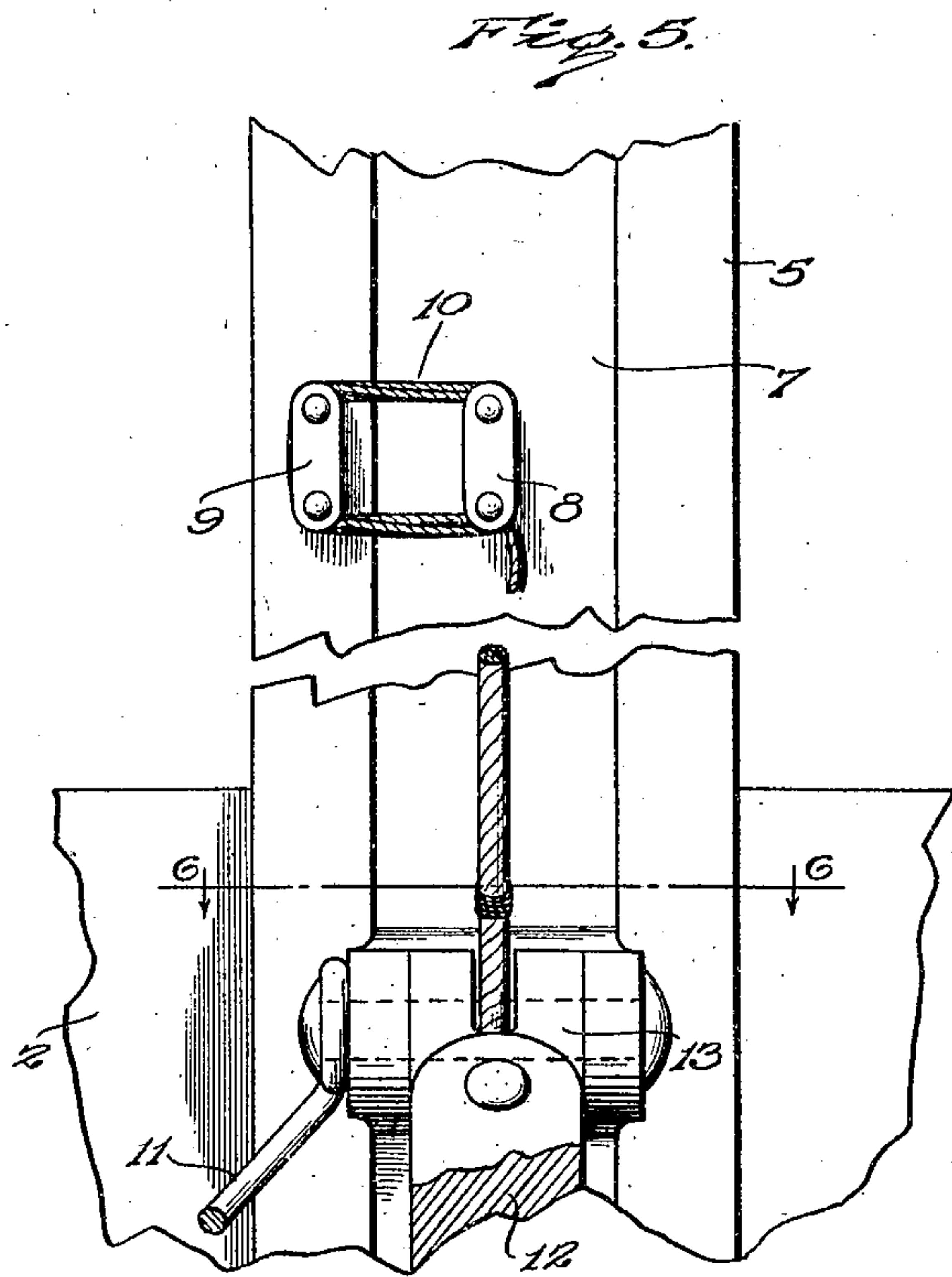
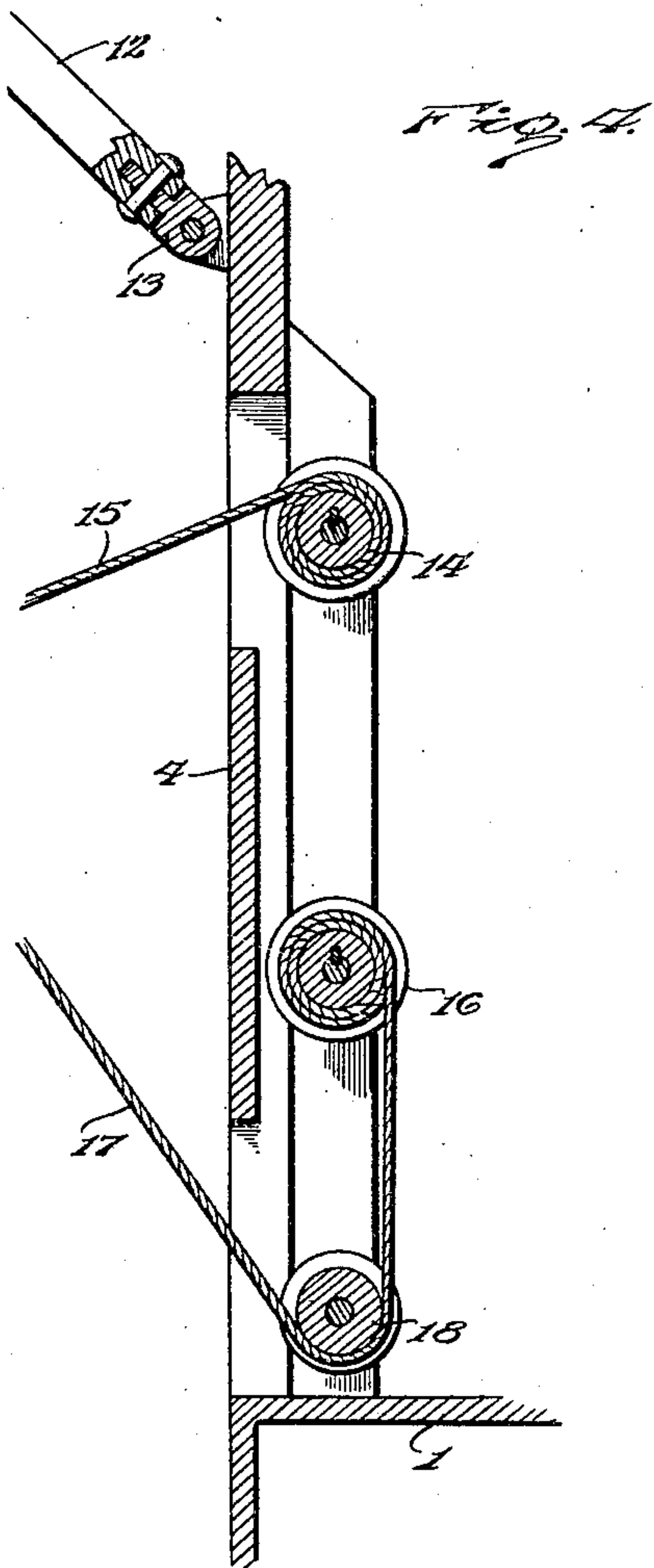
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BOAT

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## UNITED STATES PATENT OFFICE.

CHARLES L. WOODS, OF ALTON, ILLINOIS.

BOAT.

Application filed February 27, 1926, Serial No. 91,106. Renewed February 18, 1928.

The invention relates to water craft and provides a boat which admits of repairs to the rudder, repacking the stuffing box of the propeller shaft and cleaning, painting and repairing the hull without the necessity of dry-docking.

The invention also provides a boat which may negotiate shallow water and which may free itself in the event of running afoul of a sand bar or other obstruction. In accordance with the invention the boat comprises sections and means associated with the several sections, whereby any selected section may be elevated to admit of every portion being readily accessible, the operating and connecting means being such as to space the sections any required distance from the adjacent section in the range of adjustment. The invention provides a boat which in general outline is not unlike a boat of usual construction but which admits of any one of the sections being elevated for inspection or repairs without necessity of the boat going into dry-dock or out of commission and which is adapted to negotiate shallow water and float itself in the event of grounding.

While the drawings illustrate a preferred embodiment of the invention, it is to be understood that in adapting the means to meet specific needs and requirements, the design may be varied and such other changes in the minor details of construction may be resorted to within the scope of the invention as claimed, without departing from the spirit thereof.

For a full understanding of the invention and the merits thereof, reference is to be had to the following description and the drawings hereto attached, in which,—

Figure 1 is a diagrammatic view of a boat illustrative of the invention, the full lines showing the side sections adjusted and the dotted lines indicating the normal position of the side-sections,

Figure 2 is a vertical transverse sectional view on the line 2—2 of Figure 1, the full lines designating the side sections in elevated and lateral adjusted position, and the dotted lines showing the normal position of said part,

Figure 3 is a sectional view similar to Figure 2, with the side sections lowered and the middle section elevated,

Figure 4 is an enlarged fragmentary sectional view on the line 4—4 of Figure 1,

Figure 5 is an enlarged elevational view of

a portion of a slide, the cooperating slide, a connecting arm between the slide and main section and a portion of the side section to which said parts are connected, showing the lashing between the slide and side,

Figure 6 is a detail sectional view on the line 6—6 of Figure 5, and

Figure 7 is an enlarged fragmentary sectional view on the line 7—7 of Figure 1.

Corresponding and like parts are referred to in the following description and designated in the several views of the drawings by like reference characters.

The boat is of sectional formation and each of the sections may be adjusted to admit of ready access to every part for inspection, scraping, repairing, painting and the like. In the preferable construction, the sections are disposed longitudinally and comprise a middle section 1 and similar side sections 2, the several sections fitting close together, as indicated by the dotted lines in Figures 1 and 2. The middle section 1 is provided with the keel 3 and a super-structure 4 of any design, which forms supporting means for the lifting mechanism. Each of the side sections 2 is provided with a super-structure comprising an upright 5 and a brace 6. The upright 5 constitutes a guide upon which is mounted a slide 7 for vertical movement. The slide 7 is provided at intervals in its length with cleats 8 and the upright or guide 5 is supplied with a cleat 9. A lashing 10 engages the cleat 9 and a selected cleat 8 to hold the slide 7 in the required adjusted position. While each of the sections 2 may be equipped with any desired number of parts 5 it is sufficient to illustrate two, one being located near each end of the section. A guy 11 connects each of the slides 7 with the section 1 to prevent any relative fore and aft movement of the sections as will be readily appreciated.

Arms 12 form connecting means between the several sections and are disposed to admit of vertical and lateral adjustment of the sections, as indicated most clearly in Figures 2 and 3. The arms 12 are pivotally connected at one end to the respective slides 7 and at the opposite end to the middle section 1. Corresponding arms 12 and guys 11 are in the same plane, as indicated most clearly in Figure 3. It is preferred to employ a universal joint 13 between the arms 12 and the parts to which said arms are connected so that in the event of any one of the



guys 11 breaking the section braced thereby may move longitudinally without injury to the arms 12 and the connecting means between said arms and the parts to which the arms are connected.

Suitable operating means are employed for effecting adjustment of the sections and, as shown a windlass 14 is provided for each of the lower arms 12 and is mounted upon a portion of the super-structure 4 and a cable or chain rope 15 is associated with each of the windlasses and forms connecting means between the windlass and the lower portion of the respective slides 7, so that winding and unwinding of the cable effects adjustment of the sections. Other windlasses 16 are mounted upon the superstructure 4 and ropes, or chains or cables, 17 associated therewith are connected to the upper portion of the slide 7. A guide pulley 18 adjacent the foot of the super-structure 4 has the rope or cable 17 passed thereunder, so that winding the rope or cable 17 upon the windlass 16 will exert a down-pull upon the sections 2 and an up-pull upon the section 1 with the result that the middle section is elevated, as indicated in Figure 3, and the outer sections 2 depressed because of the additional load imposed thereon. Each of the windlasses is provided with a crank handle and a detent mechanism such as, a ratchet and pawl to prevent backward rotation and an unwinding of the rope or cable when under tension to sustain the desired section in elevated position. When the sections are in normal position, as indicated by the dotted lines in Figures 1 and 2, the opposing sides are in contact and to accommodate the connecting means a depression 19 is provided in the inner side of one of the sections, preferably the outer sections. The relative elevation and the distance apart of the sections when elevated depend upon the angular position of the arms 12 which may be regulated by vertical adjustment of the slide 7 in the guide or upright 5, said slide being held in the required adjusted position by lashings 10 and the cleats 8 and 9. The slides 7 are adjusted preliminary to operating the windlasses to effect vertical and lateral adjustment of the sections. When the windlasses 14 are operated to wind the rope or cable 16 thereon, a downpull is exerted on the middle section 1 and an up-pull upon the side sections 2, with the result that the latter sections are elevated, as indicated most clearly in Figure 2. Upon operating the windlasses 16 an uppull is

or operated in shallow water by elevating the middle section, thereby lifting the keel 3 to enable it to clear the bottom of the water. When either section is elevated access may be readily had to every part for any desired purpose and should it be required to inspect or repair the rudder 20, propeller 21 or repack the stuffing box 22, as indicated in Figure 7, the middle section 1 may be lifted so that access may be readily had to such parts. It will thus be understood that the hull of the boat may be inspected, scraped, painted or receive other attention without necessitating placing of the boat in dry-dock or throwing it out of commission.

The parts 15 and 17 preferably consist of chains, although any preferred flexible connection such as a rope or cable may be employed. It is noted that the windlasses 14 and 16 may be operated by any suitable power, such as steam, electric, or explosive engine. Under normal conditions, the middle section 1 carries the load and the side sections 2 ride upon the surface of the water. This arrangement insures maximum speed. Having thus described the invention, I claim:

1. A boat including a hull comprising independent sections, arms forming connecting means between adjacent sections and pivoted thereto, means for adjusting the effective point of connection between the arms and one of the sections for varying the relative adjustment of the sections and means for adjusting the sections vertically, whereby they simultaneously receive a lateral adjustment.

2. A boat comprising a hull including independent sections, a member carried by one of the sections and adjustable vertically with reference thereto, arms forming connecting means between the said member and the section of the hull adjacent that carrying the said member, and means for adjusting the sections vertically.

3. A boat comprising a hull formed of independent sections, upper and lower arms forming connecting means between adjacent sections and pivoted thereto and means mounted upon one of the sections and having connection with the adjacent section to effect positive vertical adjustment of the sections.

4. A boat comprising a hull formed of independent sections, upper and lower arms connecting adjacent sections, upper and lower windlasses mounted upon one of the sections, a cable forming connecting means between the upper windlass and the lower



5 5. A boat comprising a hull formed of independent sections, a super-structure upon each of the sections, a slide carried by one of the sections, means for securing the slide in  
10 an adjusted position, upper and lower arms between said slide and the adjacent opposite section and means for moving either of the sections vertically.

10 6. A boat including a hull comprising a middle and side sections, a super-structure on each of the sections, slides carried by the

side sections, means for securing the slides in adjusted position, upper and lower arms connecting the slides with the middle sections, upper and lower windlasses mounted  
15 upon the middle section and flexible connecting means between the windlasses and the side sections to effect relative vertical adjustment thereof.

In testimony whereof I affix my signature.

CHARLES L. WOODS. [L. s.]