

Feb. 14, 1933.

R. DUCROUX

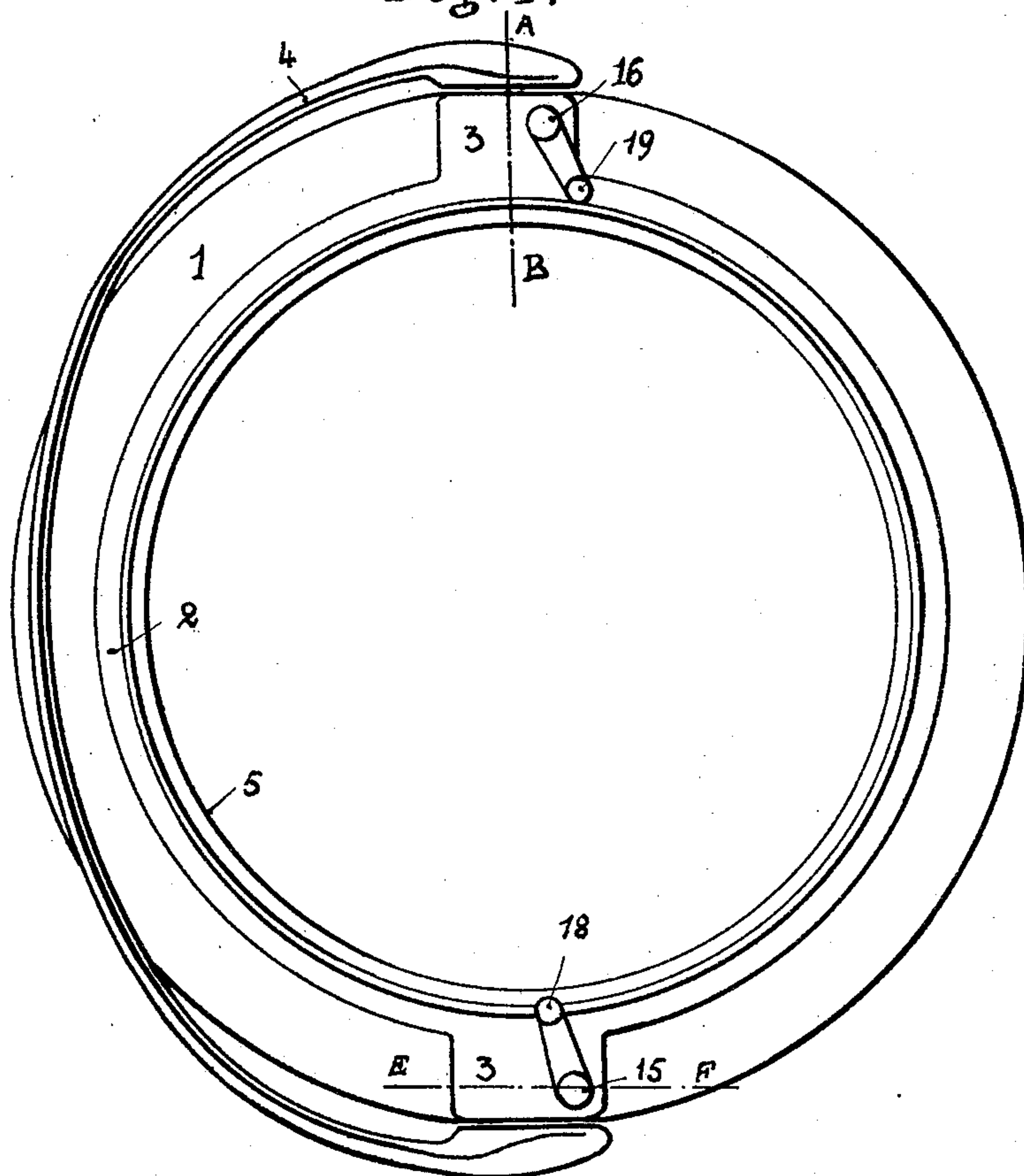
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SHIP'S SCUTTLE

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3 Sheets-Sheet 1

Fig. 1.



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3 Sheets-Sheet 2

Fig. 5.

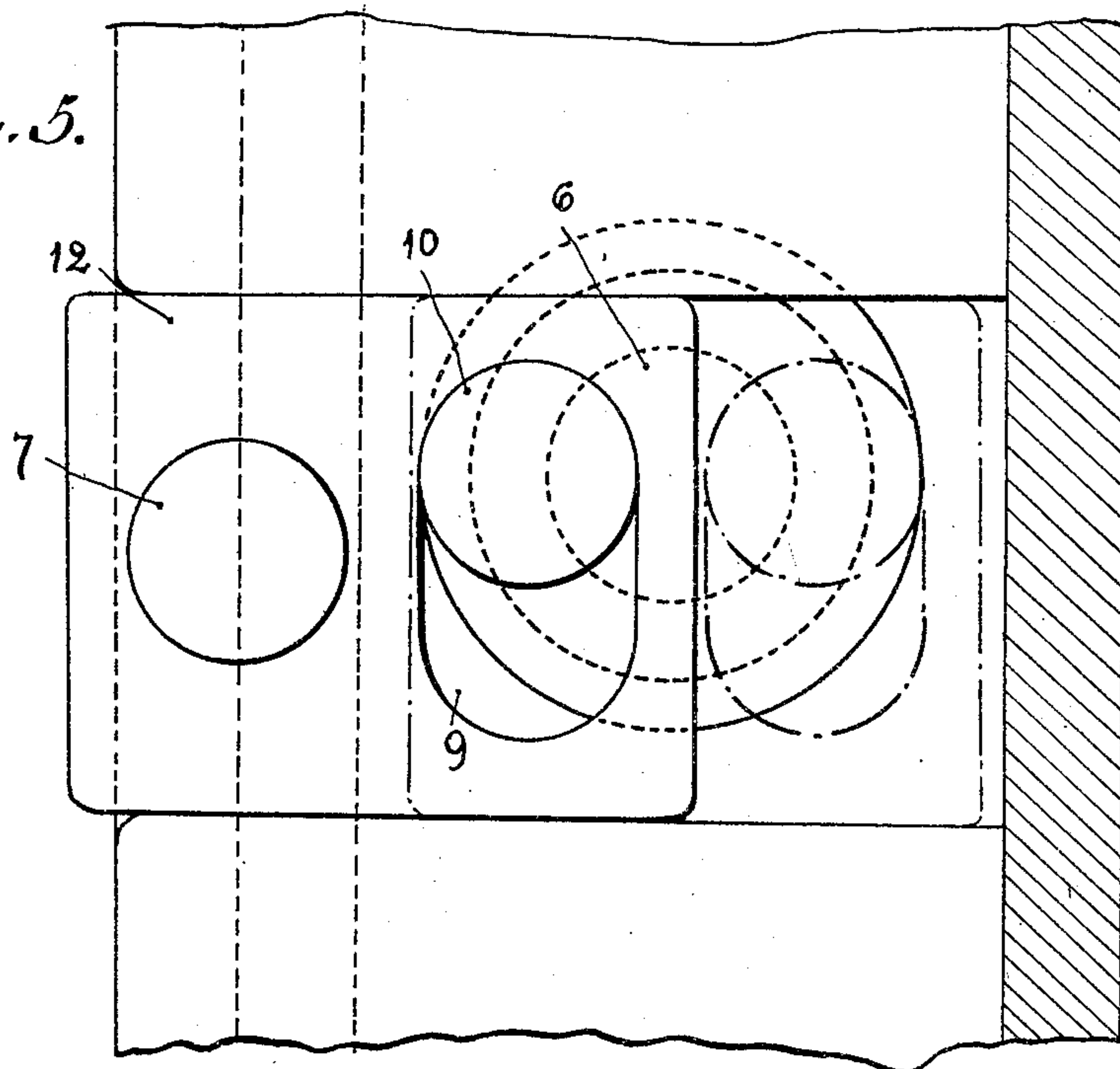
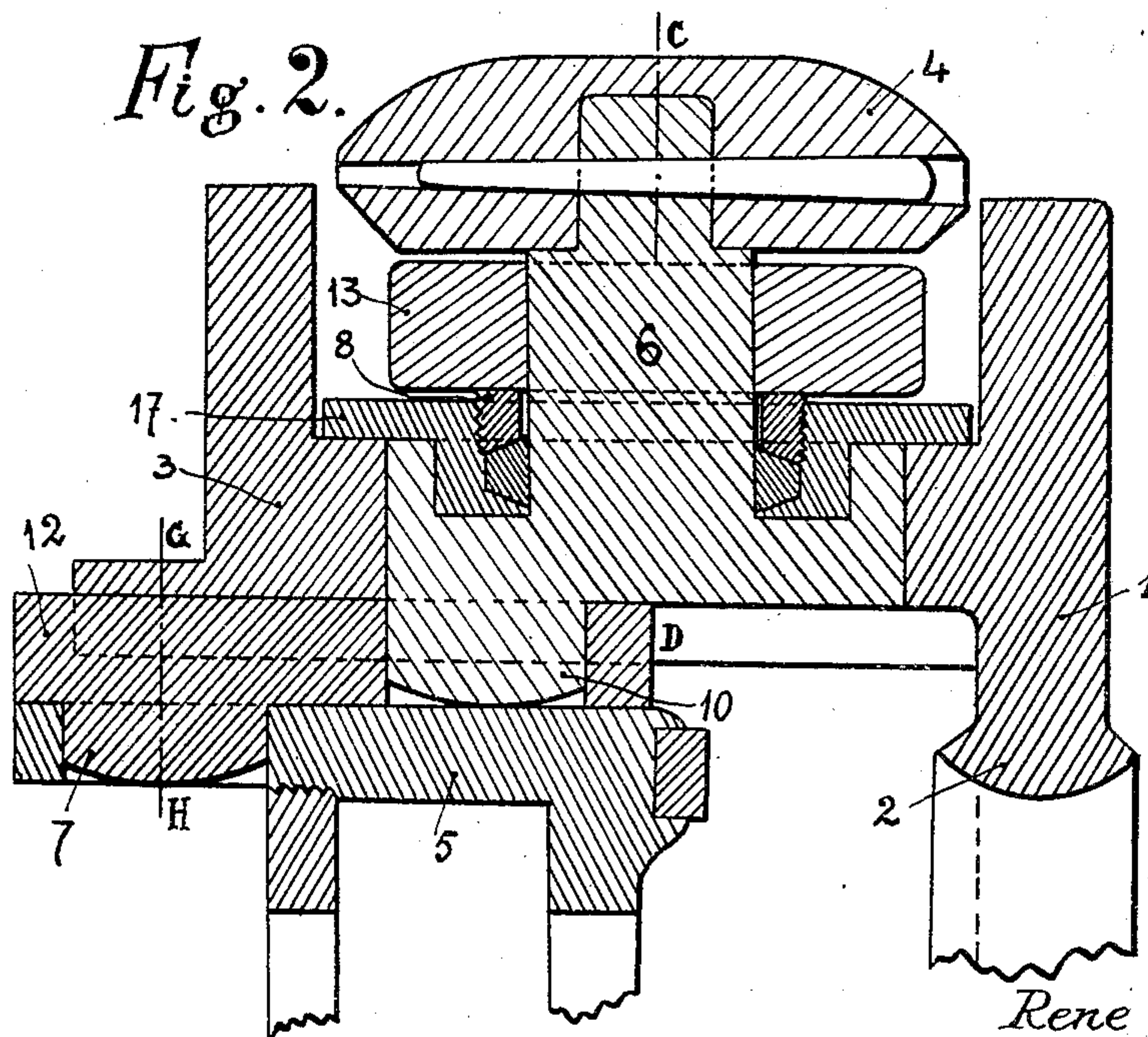


Fig. 2.



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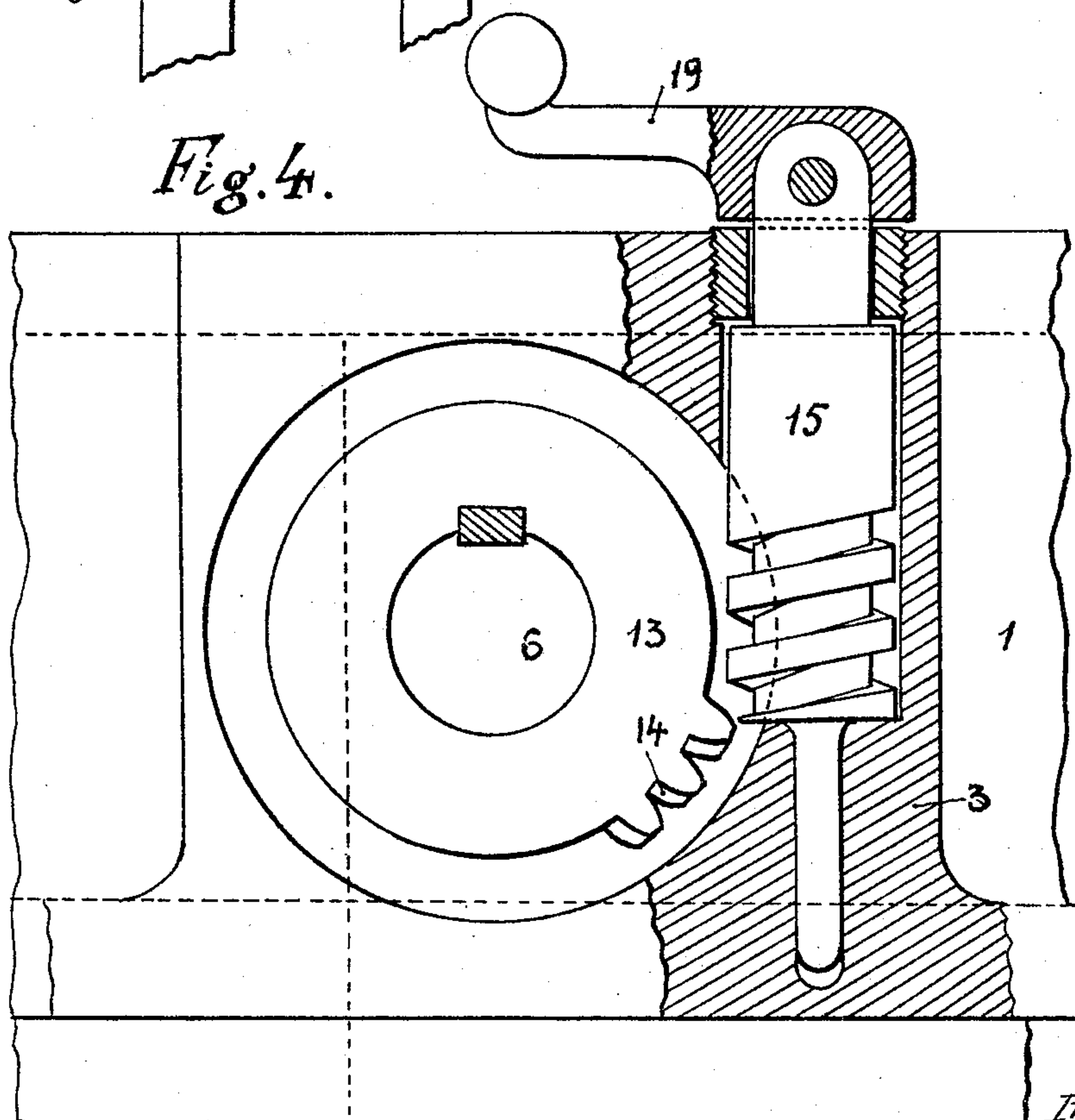
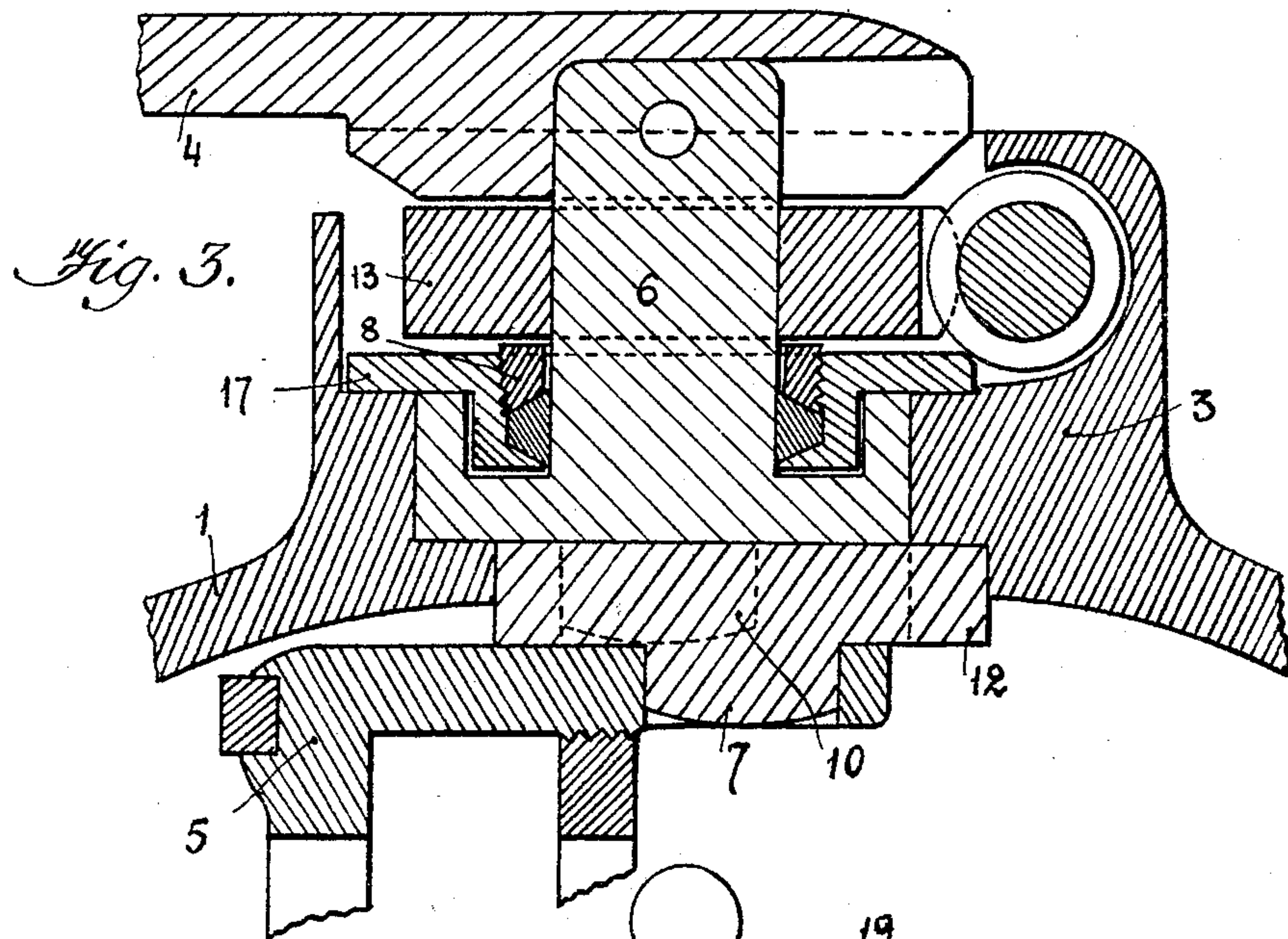
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3 Sheets-Sheet 3



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UNITED STATES PATENT OFFICE

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SHIP'S SCUTTLE

Application filed November 25, 1931, Serial No. 577,359, and in France November 27, 1930.

This invention comprises improvements in and connected with side-lights, side-scuttles or port openings for ships and is concerned with that type of apparatus in which the closure, usually a glazed sash, is mounted to swivel upon trunnions or diametral pivots so that it can be readily opened, but is nevertheless capable of being pressed strongly against a seating to ensure water-tightness in the closed condition. Before such a closure or sash can be swivelled to an open position, it must be moved bodily a certain distance away from the seating so that its approaching arc will clear the port opening during the swivelling movement. The principal object of this invention is to construct a side-light or scuttle of this character having among the other advantages, those of rendering the said operation easy and rapid, of dispensing with members which are prominent and ungainly at the cabin side of the scuttle, of being simple in construction and inexpensive while being particularly strong.

The arrangements provided in accordance with the invention also enable a dead-light to be inserted immediately and without difficulty.

The improved arrangements provided in accordance with the invention are suitable for all pivotal scuttles, but the invention is more particularly applicable to pivotal scuttles which are adapted to be opened outwards. It is applicable also to scuttles which are oval in shape, and which constitute the object of my prior United States Patent No. 1,823,790.

The objects and features of the invention will be evident from the following description, which, with reference to the accompanying drawings, shows, solely by way of example, how the invention could be put into practice.

Figure 1 is a schematic view in elevation of a scuttle provided with an embodiment of the arrangements in accordance with the invention.

Figure 2 is a section on line AB of Figure 1, on a larger scale, while Figure 3 is a section on CDGH of Figure 2 (the scuttle being open).

Figure 4 is a section on the line EF of Figure 1, also on a larger scale, while Figure 5 is a plan view of the sliding lower member, the glass-holder being removed.

Referring first to Figure 1, the frame of the scuttle is shown at 1 secured to the side of the ship and carrying a continuous seat ring 2, which is integral with the frame. This seat ring is circular in the embodiment of the invention illustrated, but it could be oval, as well as the glass-holder, as described in the specification of the above-mentioned patent.

In accordance with the present invention, the frame 1 has, for example at the top and at the bottom, two casings 3, in each of which is a member 6, constituting a crank for the displacement of the corresponding pivot of the glass-holder, these members 6 in the two casings 3 being connected by an external semi-circular member 4.

In the example illustrated, each member 6 is cylindrical at the outer part and passes through a packing gland 8 maintained in position by a cover-plate 17, which is screwed to the casing 3. Its lower part is in the form of a flange and carries a crank-pin 10, which is adapted to slide in an oval aperture 9 in a member 12, which itself is adapted to slide in the frame 1 and carries the pivot-pin 7 of the glass-holder 5.

As shown, the pivots 7 of the glass-holder 5 are eccentric with respect to the latter, which permits of the glass-holder being swivelled after a smaller movement of the slide 12 in the frame 1 than would be necessary if the pivots were in the plane of the glass-holder. For holding the glass-holder against its seat, a ring 13 keyed on to the stub of each member 6 is formed with a toothed sector 14 which comes into engagement with a screw 15 when the glass-holder is substantially in its closed position. The screw 15 at the lower part of the scuttle is secured in position, whereas the corresponding screw 15 at the upper part of the scuttle is arranged so as to be capable of sliding parallel to its axis. Adjustment for securing purposes effected by the screw at the lower part of the scuttle is transmitted to

the upper part by the handle 4, the upper screw 15 being meanwhile displaced parallel to its axis. It is then possible to rotate the latter screw so as to lock the upper part of the glass-holder in the position to which it has been set with the lower part.

Alternatively each of the screws 15 is replaced by a screw which is grooved longitudinally in such a way that the toothed sector 14, which may extend around the entire ring 13, normally engages with this groove. Upon rotating the grooved screw 15 through a fraction of a rotation, the threaded part thereof engages the toothed sector 14 so that the glass-holder can be secured against its seat. This latter arrangement allows the glass-holder to be secured against a dead-light interposed between said glass-holder and the seating ring.

The operation of the scuttle is as follows:

To open the scuttle, the upper and lower screws 15 are rotated, which liberates the members 6, and the semi-circular member 4 is then passed from one side of the scuttle to the other.

This operation causes the members 6 to be rotated, and consequently the crank-pins 10 cause the members 12 to slide in the frame (in Figure 5 the members 12 move from the position illustrated with dotted lines to that illustrated with full lines).

The scuttle is then open, and the glass-holder 5 is able to swivel about the pivots 7.

To close the scuttle, the operation is the reverse.

When the arrangements in accordance with the invention are applied to a scuttle opening inwardly, the packing gland 8 is evidently in this case omitted.

Suitable arrangements may be provided to retain the semi-circular member in intermediate positions, and if it be desired to open the glass-holder partially.

As the scuttle has no prominent members towards the interior of the ship, its decoration may be particularly æsthetic.

In the example illustrated, the seat ring 2 has a sufficiently large diameter to permit of the glass of the glass-holder being replaced from the cabin side of the scuttle.

It will be evident that the invention is not limited to the particular construction and arrangement of the parts hereinbefore described, which may be varied as desired to suit particular requirements, with exceeding the scope of the invention.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

1. A ship's scuttle, comprising a glass-holder, pivoting means for said glass-holder, a slide engaging said pivoting means and having an elongated slot formed therein, and a rotatable member provided with an eccen-

trically disposed projection extending into the elongated slot of said slide.

2. A ship's scuttle, comprising a glass-holder, diametrical pivots for said glass-holder, slides engaging said pivots and having an elongated slot formed therein, a pair of rotatable members, each provided with an eccentrically disposed projection extending respectively into the elongated slot of said slides and a semi-circular operating member connecting the rotatable members.

3. A ship's scuttle comprising a glass-holder, pivoting means for said glass-holder, a slide engaging said pivoting means and having an elongated slot formed therein, a rotatable member provided with an eccentrically disposed projection extending into the elongated slot of said slide, a toothed sector carried by said member, and an operating screw engageable with said sector.

4. A ship's scuttle comprising a glass-holder, diametrical pivots for the glass-holder, slides engaging said pivots and having an elongated slot formed therein, a pair of rotatable members each provided with an eccentrically disposed projection extending respectively into the elongated slot of said slides, a toothed sector carried by each of said members, an operating screw engageable with said sector, and one of said screws being mounted for longitudinal displacement whereby to lock said glass-holder in position.

5. A ship's scuttle comprising a glass-holder, diametrical pivots for the glass-holder, slides engaging said pivots and having an elongated slot formed therein, a pair of rotatable members each provided with an eccentrically disposed projection extending respectively into the elongated slot of said slides, a toothed sector carried by each of said members, an operating screw engageable with said sector, and one of said screws having a longitudinal groove of the same section as the teeth of the toothed sectors whereby, upon actuation thereof, to secure the glass-holder against its seat.

6. Swivelling ships-light, comprising a frame with a seating, a glass-holder, diametrical pivots for said glass-holder, diametrically opposed rotatable adjustment devices engaging said pivots for adjusting said glass-holder towards and away from the seating and a handle extending around said frame to connect said devices.

7. Swivelling ships-light, comprising a frame, a glass-holder, diametrical pivots for said glass-holder, diametrically opposed eccentric devices rotatably mounted for adjusting said glass-holder towards and away from the frame, and a handle adapted to swing from a position adjacent one side of the frame to a position adjacent the other side of said frame for the purpose of actuating the adjusting devices in co-ordination.

8. Swivelling ships-light comprising a

light, a frame with a seating for said light,
diametrically opposed swivel pivots for said
light, revoluble adjustment means engaging
said pivots for moving the light bodily to-
5 wards and away from the seating, said ad-
justment means being arranged on the frame
at diametrically opposed points, and a com-
mon actuating device for said revoluble ad-
justment means in the form of a bail connect-
10 ing the same and swingable from one side
of the frame to the other.

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