

(No Model.)

2 Sheets—Sheet 1.

W. MILLS.

ENGAGING AND DISENGAGING GEAR FOR BOATS.

No. 512,045.

Patented Jan. 2, 1894.

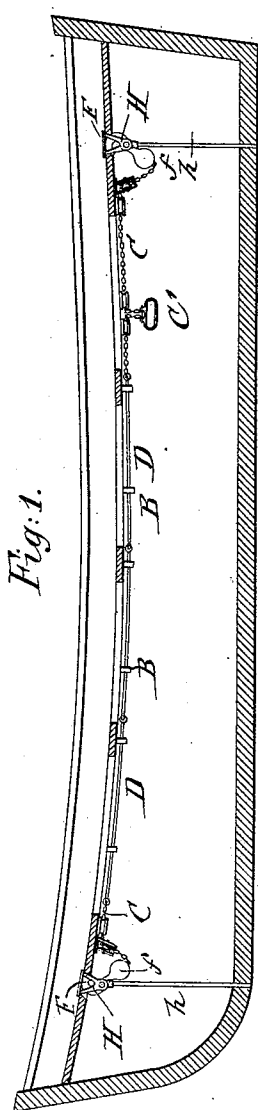


Fig. 1.

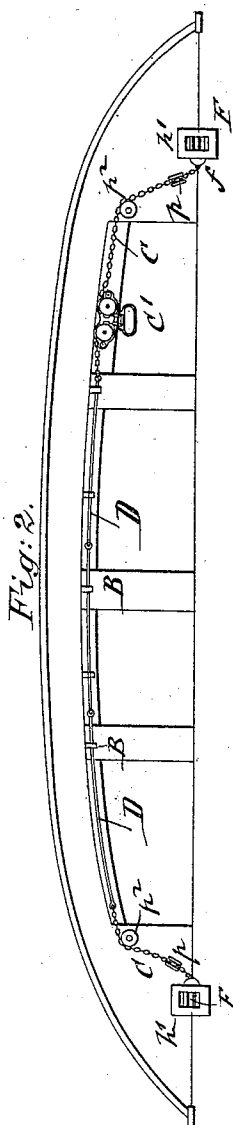


Fig. 2.

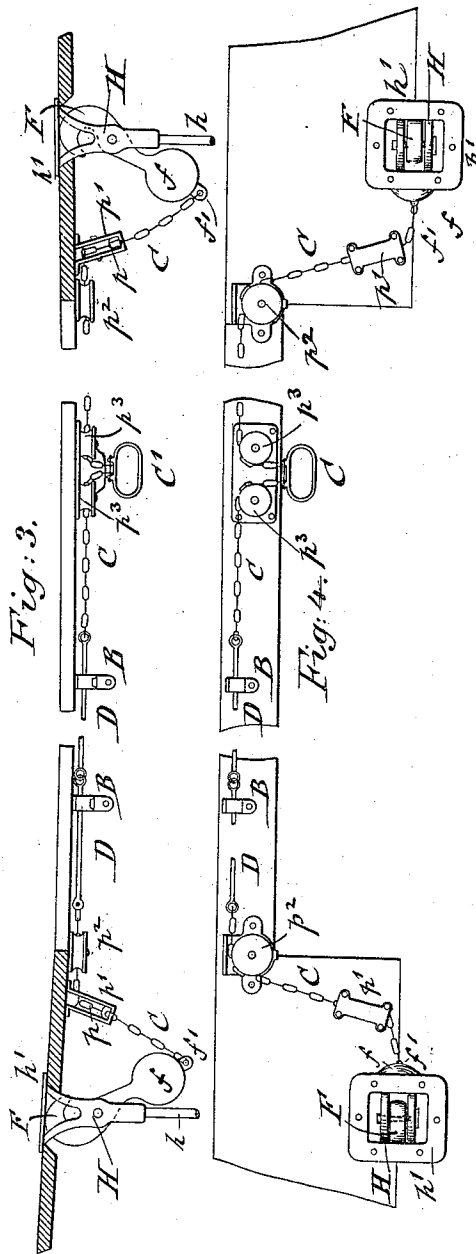


Fig. 3.

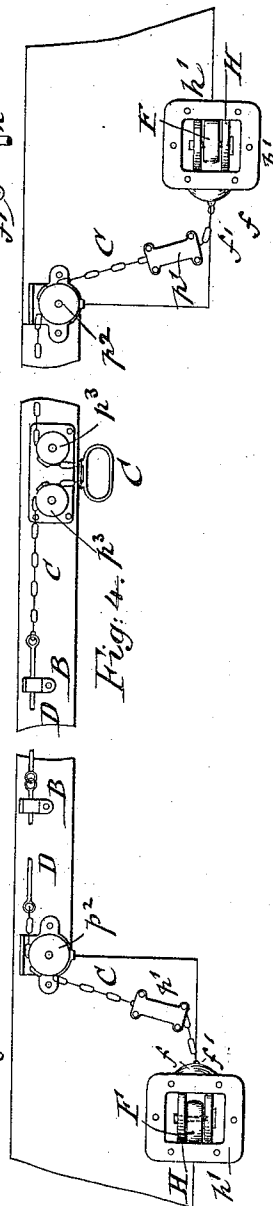


Fig. 4.

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Fig:5.

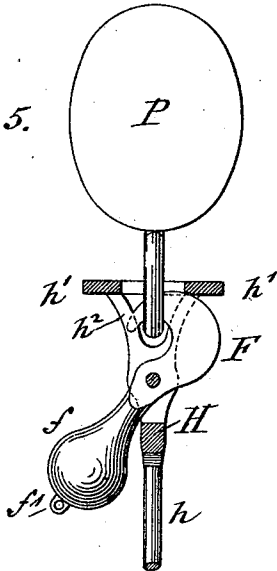


Fig:6.

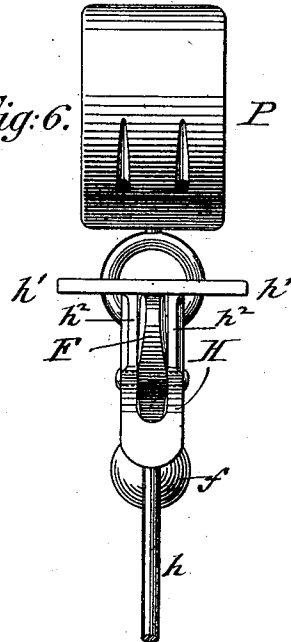


Fig:7.

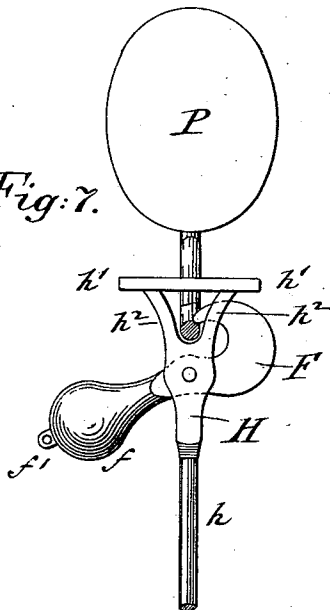
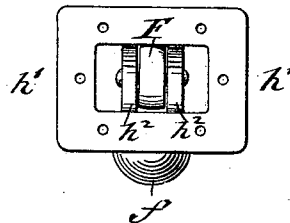


Fig:8.



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UNITED STATES PATENT OFFICE.

WILLIAM MILLS, OF SUNDERLAND, ENGLAND.

ENGAGING AND DISENGAGING GEAR FOR BOATS.

SPECIFICATION forming part of Letters Patent No. 512,045, dated January 2, 1894.

Application filed June 27, 1893. Serial No. 478,955. (No model.) Patented in England March 30, 1892, No. 6,141.

To all whom it may concern:

Be it known that I, WILLIAM MILLS, a subject of the Queen of Great Britain, residing at Bonner's Field, Sunderland, in the county of Durham and Kingdom of England, have invented certain new and useful Improvements in Engaging and Disengaging Gear for Boats, (for which Letters Patent were granted to me in England, No. 6,141, dated March 30, 1892,) of which the following is a specification.

This invention has reference to certain improvements in gears, used for raising or lowering boats, and for instantaneously disengaging or engaging the parts of the gear, and the invention consists in certain features of construction to be fully described hereinafter and finally pointed out in the claim.

In the accompanying drawings Figure 1 represents a vertical longitudinal section of an ordinary life-boat fitted with my improved engaging and disengaging gear. Fig. 2 is a plan of Fig. 1, showing one half of the boat and the gear applied to the same. Fig. 3 is a vertical longitudinal section of the engaging and disengaging gear, drawn on a larger scale. Fig. 4 is a plan of Fig. 3, and Figs. 5, 6, 7 and 8 are detail views of the tripping or engaging hook, and the support for the same, said figures also drawn on a larger scale.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, H H are the forked supports which are provided with downwardly-extending shanks *h* that are attached at their lower ends to the keel of the boat. The upper ends of the forked supports H H are connected by an oblong plate *h'* that is rigidly attached to the transverse end webs of the boat, said plate being provided with an opening of sufficient size to permit the entrance of the ring or eye of the fall or pulley-block P. The forked support H is made V-shaped at the upper ends, so as to guide the ring or eye of the fall or pulley-block P in the same when lowered into the opening of the plate *h'*, and permit it to engage with the tripping or engaging hook F which is pivoted to the forked support H below the V-shaped upper ends *h²* of the same. The tripping-hooks

F are provided with weights *f* below the pivots and with eyes *f'* at the lower ends of the weights. The eyes *f'* are connected by chains C with jointed rods D of metal, which are guided in suitable eyes B that are arranged along at the inside of the gunwale of the boat. The chains C, by which the connection with the lower ends of the tripping hooks is made, are guided over an intermediate pulley *p* that is supported in an inclined frame *p'*, and over horizontal pulleys *p²* arranged in line with the eyes B.

The disengaging chain C near one end of the boat is provided with a handle C' that is interposed between the chain sections, the end-links of the chain sections being applied to the straight middle portion of said handle, and both chain sections being then guided over pulleys *p³* which are arranged closely together, as shown in Figs. 3 and 4, so that by pulling the handle in inward direction toward the center line of the boat, the chain C and the rods D are operated, and the lower weighted ends of the tripping hooks F raised, so that the hook-shaped upper ends disengage the eyes or rings of the fall or pulley-blocks P, as shown in Fig. 7. When the handle is released, the weights at the lower ends of the tripping hooks F produce the dropping of the hooks into closed position, and the pulling of the chains and connecting-rods back into their initial position, as shown in Figs. 1 and 3. The guide-pulleys *p* are supported in suitable bracket-plates or knees which are attached to the supporting frame work of the boat, and which may be made of any suitable construction. Owing to the V-shaped upper ends of the forked supports H H, the eyes or rings of the fall or pulley blocks are readily guided in position so as to be engaged by the tripping hooks F, as shown in Figs. 5 and 6. The pulling of the handle and the lifting of the lower weighted ends of the tripping hooks produces the instant disengaging of the gear, in the usual well known manner.

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

The herein-described disengaging or engaging gear for raising or lowering boats, the

same comprising pivoted counterweighted tripping-hooks and means for supporting them at each end of a boat, chains connected with the hooks, pulleys over which the chains
5 pass, two of the pulleys being in juxtaposition, metallic rods with the outer ends of which said chains are connected, guide-eyes through which said rods pass, the same being
10 arranged along the inner side of the gunwale of the boat, and a pendent handle connected with the chain which passes over said juxta-

posed pulleys and being arranged between them, said handle being operated by a direct pull toward the center-line of the boat.

In testimony that I claim the foregoing as
15 my invention I have signed my name in presence of two subscribing witnesses.

WILLIAM MILLS.

Witnesses:

JAMES WOOLACOTT,
J. STANLEY TAYLOR.