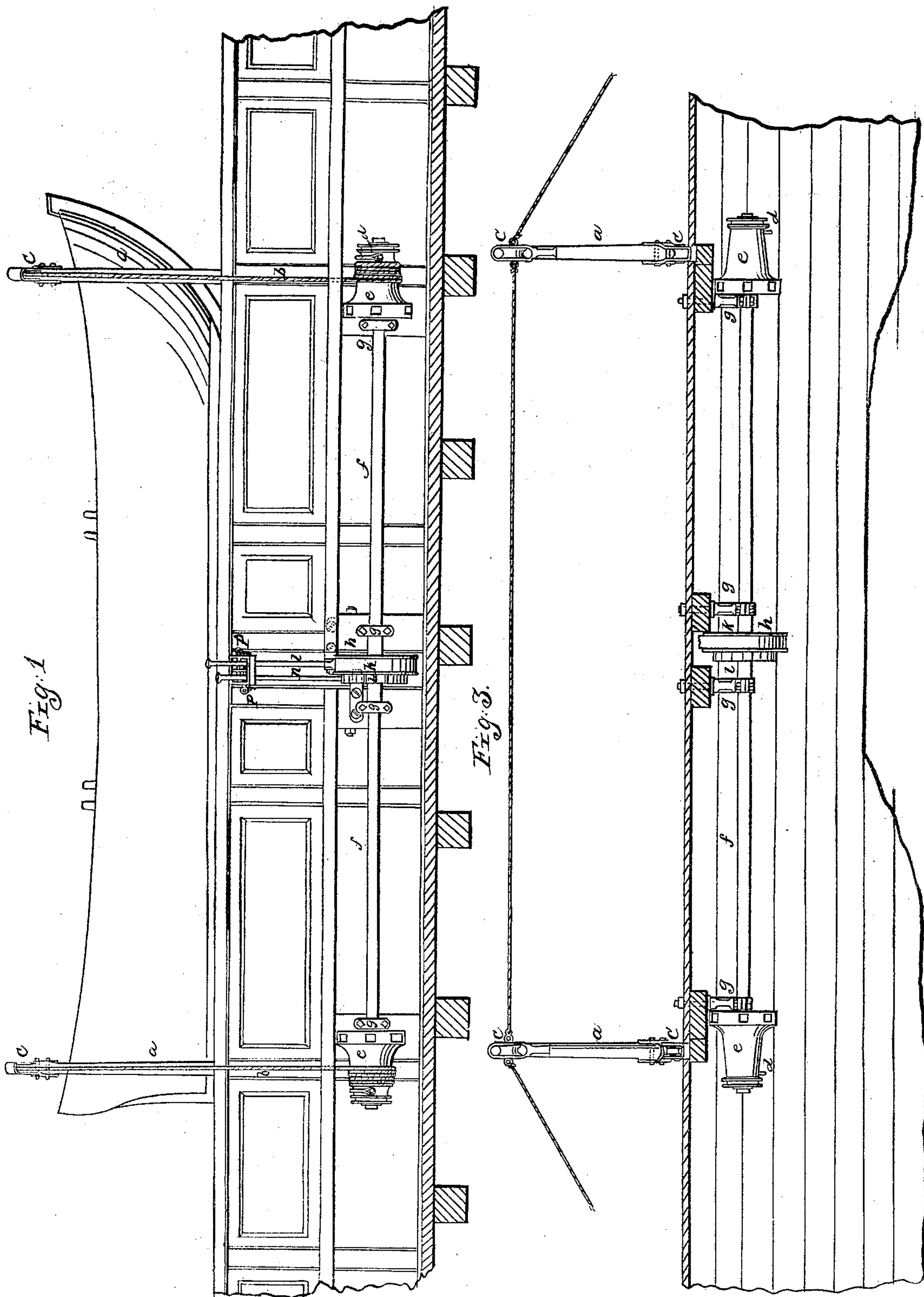


Sheet 1. 2 Sheets
W. S. LACON.
Boat Detaching.

N^o 9,594.

Patented Feb. 22, 1853.



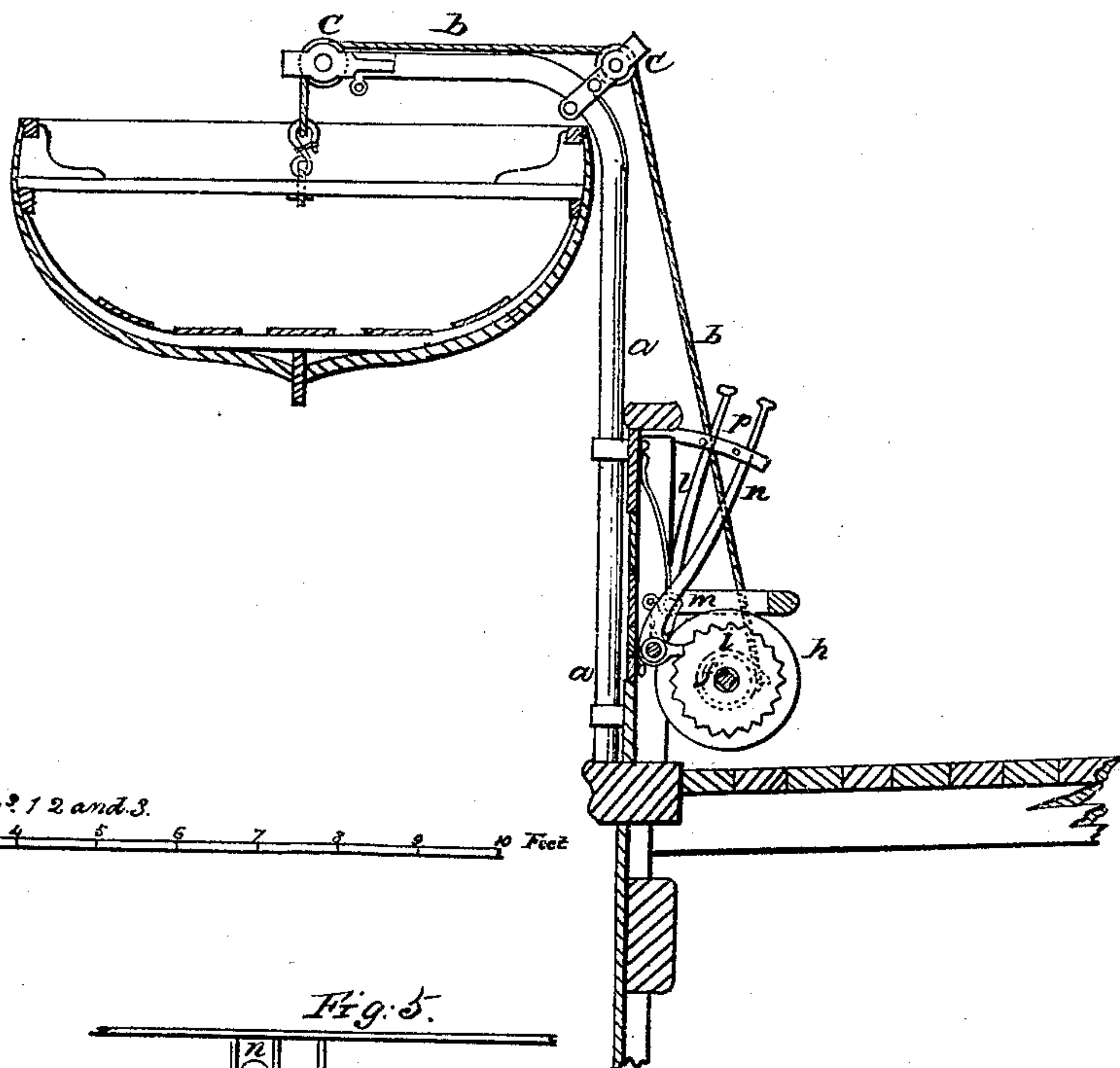
Sheet 2 of 2 Sheets

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Patented Feb. 22, 1853.

Fig. 2.



Scale of Fig. 2 and 3.
Inches 1 2 3 4 5 6 7 8 9 10 Feet

Fig. 5.

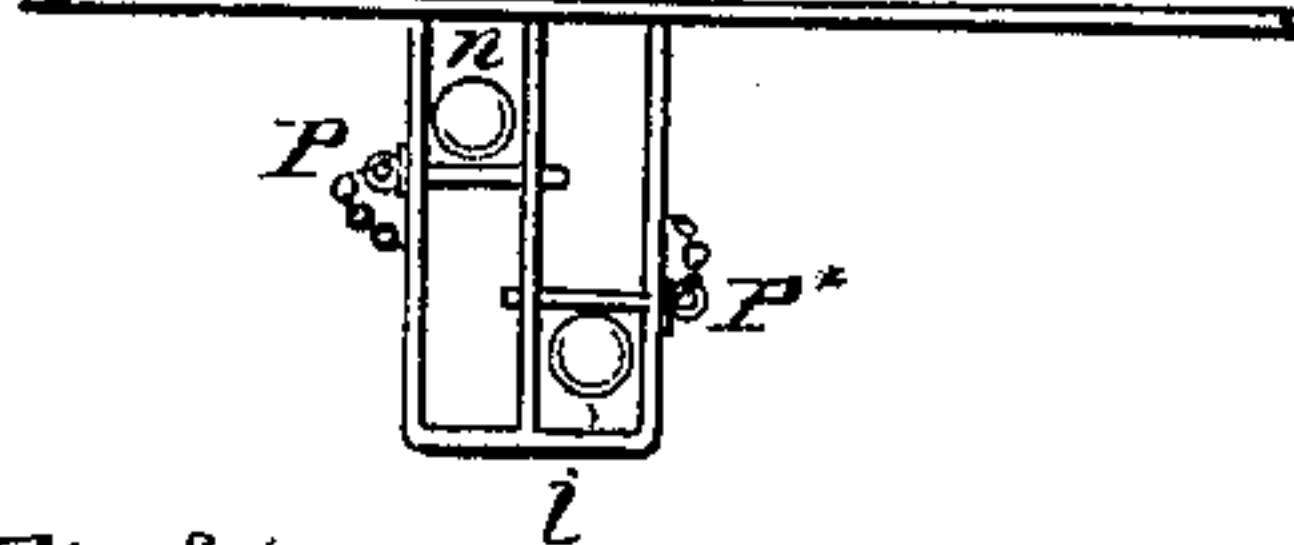


Fig. 4.

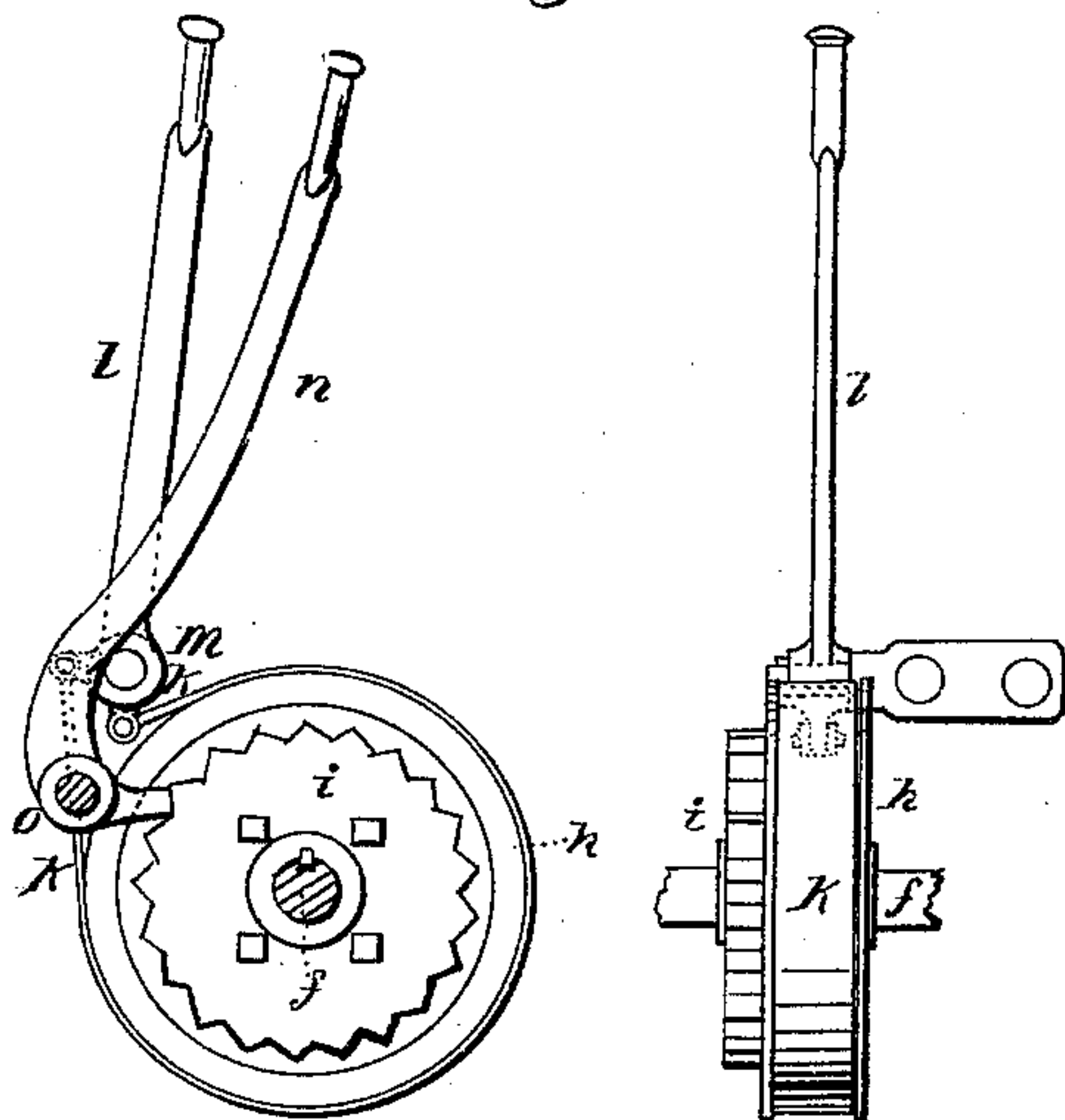
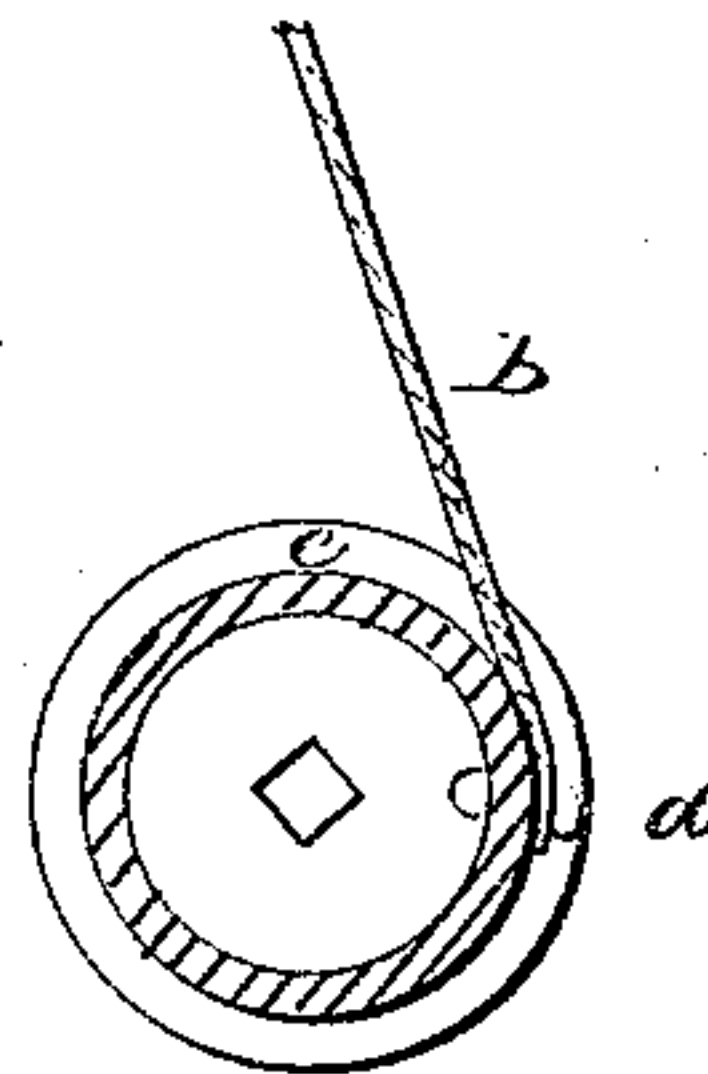


Fig. 6.



UNITED STATES PATENT OFFICE.

WILLIAM STIRLING LACON, OF GREAT YARMOUTH, ENGLAND.

SUSPENDING, LOWERING, AND LIBERATING SHIPS' BOATS.

Specification of Letters Patent No. 9,594, dated February 22, 1853.

To all whom it may concern:

Be it known that I, WILLIAM STIRLING LACON, of Great Yarmouth, county of Norfolk, England, gentleman, a subject of Her Britannic Majesty, have invented Improvements in the Means of Suspending Ships' Boats and of Lowering the Same into the Water; and I do hereby declare that the following is a full and exact description of my said invention.

The object of this invention is so to suspend ships' boats at the sides or the stern of a vessel that in the case of any sudden emergency as the conflagration or the foundering of a vessel her boats may be readily lowered and put to sea without the risk of the tackles or other contrivances which connect the boats to the ship retarding the operations of lowering and floating them clear of the ship.

The manner in which I overcome the difficulties hitherto attendant on the lowering of ships' boats during tempests on dark nights and at periods of excitement and danger is by suspending the boats from chains or ropes which pass over the davits of the ship and thence down to a winch or windlass, around which they are wound, but are attached thereto in such a manner that when the winch is free to revolve the ropes or chains will unship or disengage themselves from their attachment by their own weight and the pull of the boat. By this means I prevent the possibility of the ship in its onward progress through a rough sea dragging forward a lowered boat and capsizing or swamping it, the weight of the chains or ropes, to say nothing of the resistance of the boat, being sufficient to disconnect them from the winch and thereby render the boat free of the ship.

In the accompanying drawings I have shown the manner in which my invention may be carried out.

Figure 1 represents in side view a boat suspended according to my improvements from the davits at the side of a ship and also the apparatus employed for lowering the boat into the water as fitted to the deck of a ship, and Fig. 2 is a cross section of the same.

In these figures *a, a*, are two davits or iron brackets firmly secured to the bulwarks of the ship and provided with sheaves or friction pulleys *c, c*, over which the ropes or chains *b, b*, for supporting the boat pass.

The boat may be hoisted up at sea if desirable by means of the ordinary tackle and when thus hoisted up I permanently retain the boat in the desired position by attaching the ropes or chains to the boat by the ordinary method in use. The ropes or chains *b, b*, pass down from the davits to conical barrels *e, e*, and are connected thereto by the last link in each chain or an eye at the extremity of the rope, hooking onto a curved pin *d, d*, projecting from the periphery of its barrel. (See the sectional view Fig. 6.) These barrels are mounted on a shaft *f, f*, which turns in bearings in the bracket pieces *g, g*. The barrels *e, e*, are caused to rotate by the means hereafter described for the purpose of tightening the suspending chains or ropes and causing them to sustain the weight of the boat. The tackles before mentioned as employed for hoisting up the boat are then removed. At about the middle of its length the shaft *f* carries a large friction pulley *h, h*, to which a ratchet wheel *i, i*, is affixed. Around this pulley *h* a friction strap *k, k* is placed and the ends of the strap are jointed to a lever *l* which works on a fulcrum pin *m*. (See the detached views Fig. 4.) Into the teeth of the ratchet wheel a catch projecting from a lever *n*, which works on a pin *o*, takes for the purpose of preventing the running down of the chains or ropes *b, b*, by the rotation of the barrels and is kept forward in its place in any well known way either by the weight of the lever or by a spring. The levers *l n* are set fast by means of the pins *p, p**, (or in any other appropriate manner known to machinists, although the arrangement represented in the detached Fig. 5 is preferred,) which are readily withdrawn when the apparatus is to be brought into operation.

Let it now be understood that the boat which has been raised to the position shown in the drawing is required to be lowered into the water. The seaman to whom this duty is assigned first pulls forward the lever *l* in order to make the friction strap *k* retain its hold of the friction pulley *h* and thus prevent the premature revolution of the shaft *f*. He then thrusts back the lever *n* and releases the catch from the teeth of the ratchet wheel *i*, the lever end being kept back by means of the pin *p** as shown in Fig. 5. On loosening the friction strap *k* the boat will descend by its own gravity

and cause the chains or ropes to unwind from the barrels *e, e*. When the boat has reached the water the weight of the chains or ropes and the pull of the boat will, if
5 the shaft *f* is still free to revolve, turn the barrels until by the slipping of the last link of each chain (or the eye at the extremity of the rope) from the projecting pin *d* of its respective barrel the ropes or chains fall
10 away from the ship and consequently free the boat of its connection with the ship. In order to prevent the boat from running down into the water too rapidly it is only necessary for the seaman to keep the friction strap in contact with the pulley *h* by
15 holding the lever *l* in its forward position and thus any requisite amount of retardation may be put on the rotation of the barrels *e, e*, and consequently on the descent of
20 the suspending chains or ropes.

If desirable the shaft *f* may be furnished with a cog wheel for the purpose of gearing into a pinion mounted on a short shaft provided with a winch handle, by turning
25 which the boat may be hoisted up or the winding of the suspending ropes or chains *b, b*, onto the barrels may be effected either when the ropes or chains are connected to or are free of the boat or the ordinary hand

spike may be used to raise the boat to its elevated position instead of employing the tackles as at present.

Having now set forth my invention and the manner of carrying the same into effect I wish it to be understood that I do not confine myself to the precise arrangement of apparatus above described for carrying out my invention but

I claim—

Suspending ships' boats by having the chains or ropes so connected with drums or barrels, substantially as specified, that the two ends of the boat shall descend together and with equal or nearly equal velocity, and so that the chains or ropes shall be free to
45 disengage themselves from the barrels, in combination with the mode of controlling the turning of the barrels by the weight of the boat, &c., substantially as specified.

In witness whereof I, the said WILLIAM STIRLING LACON, have hereunto set my hand and seal this twenty-first day of August, one thousand eight hundred and fifty-two.

WM. STIRLING LACON. [L. s.]

Witnesses:

J. W. MOFFATT,
FRED WALKORN.