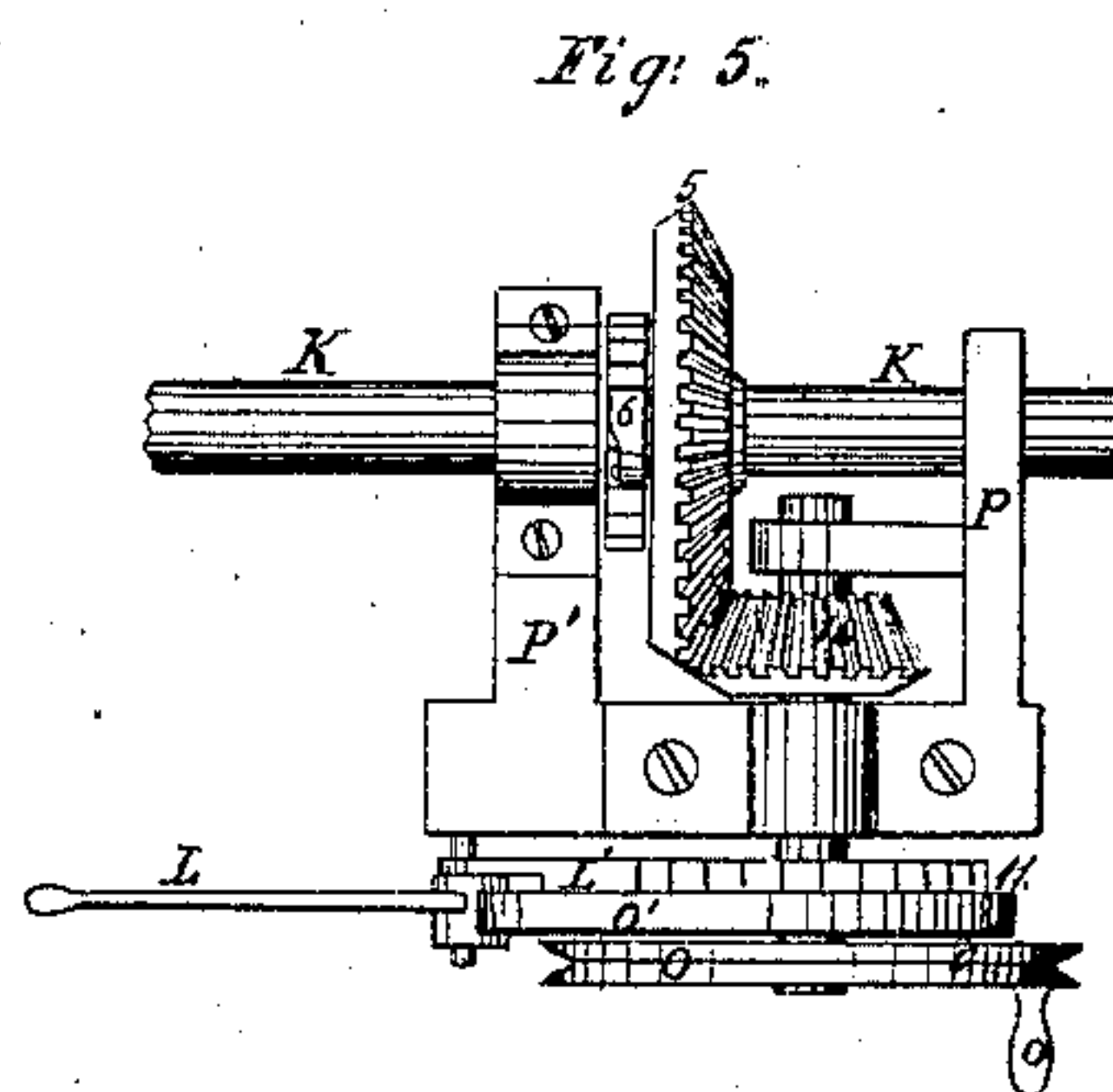
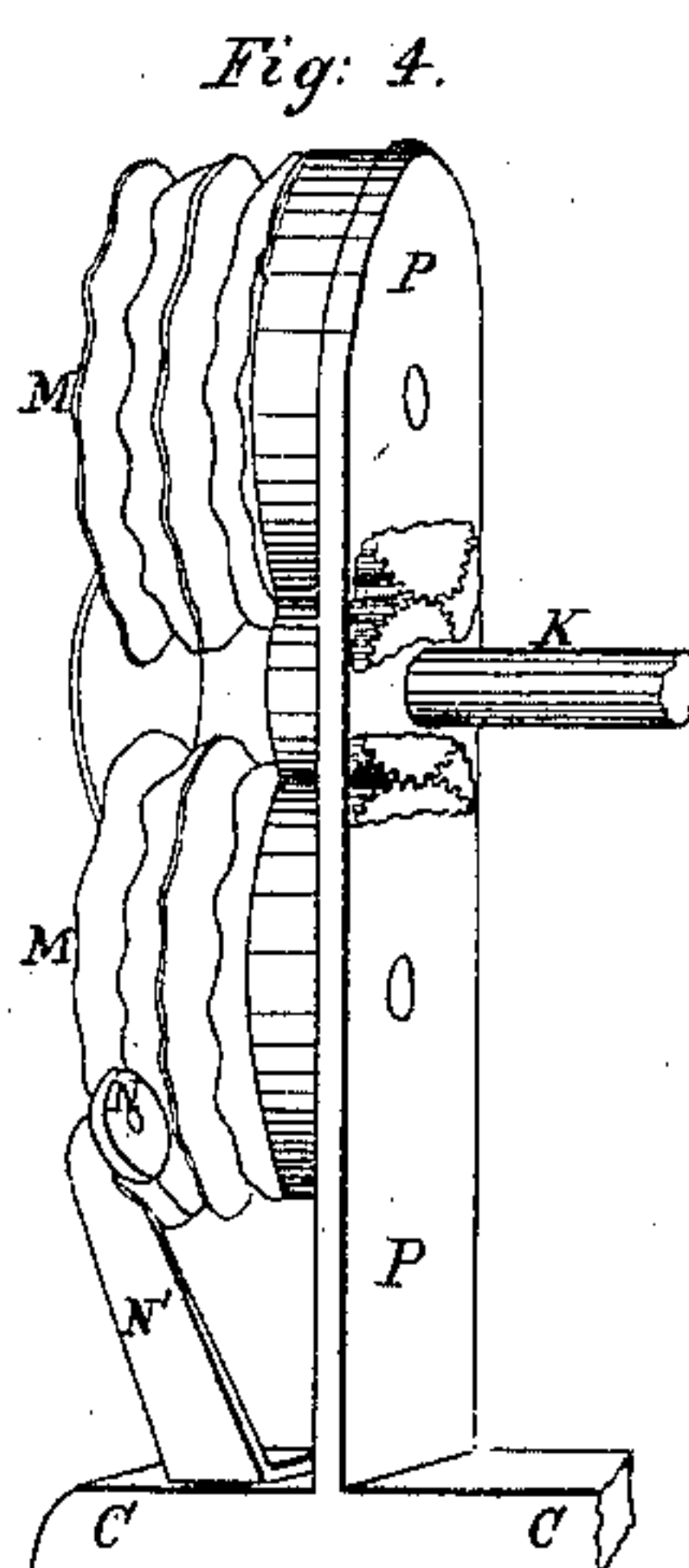
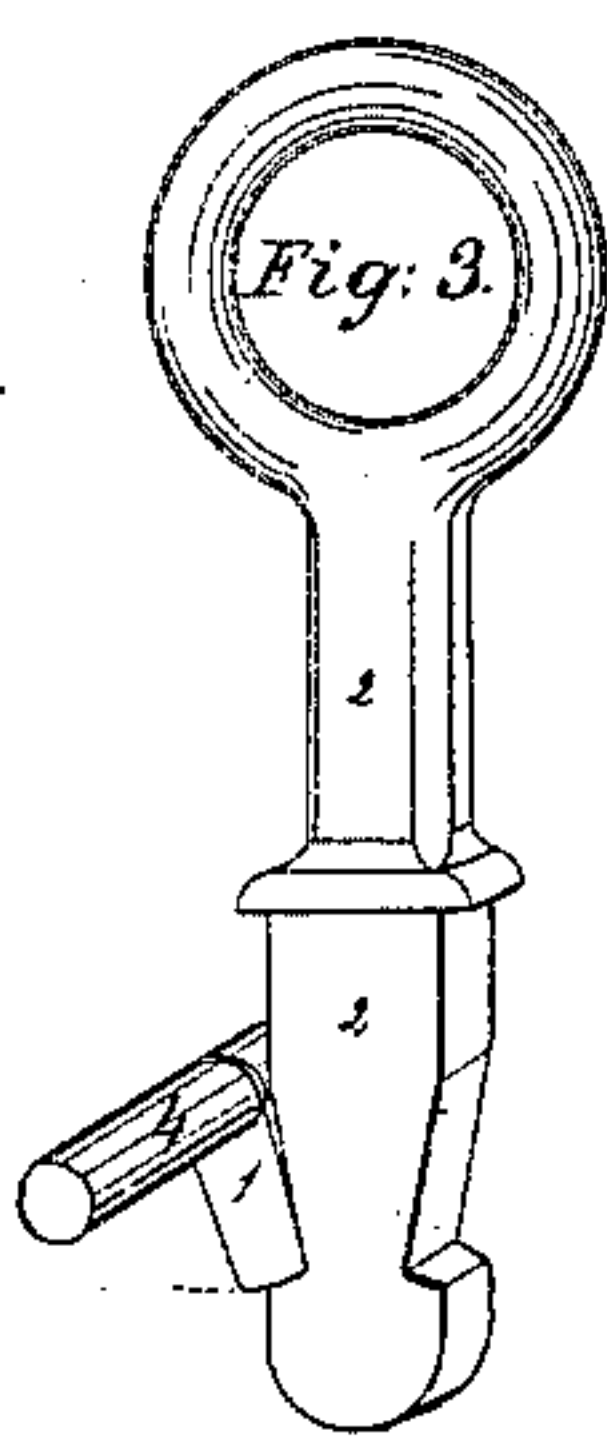
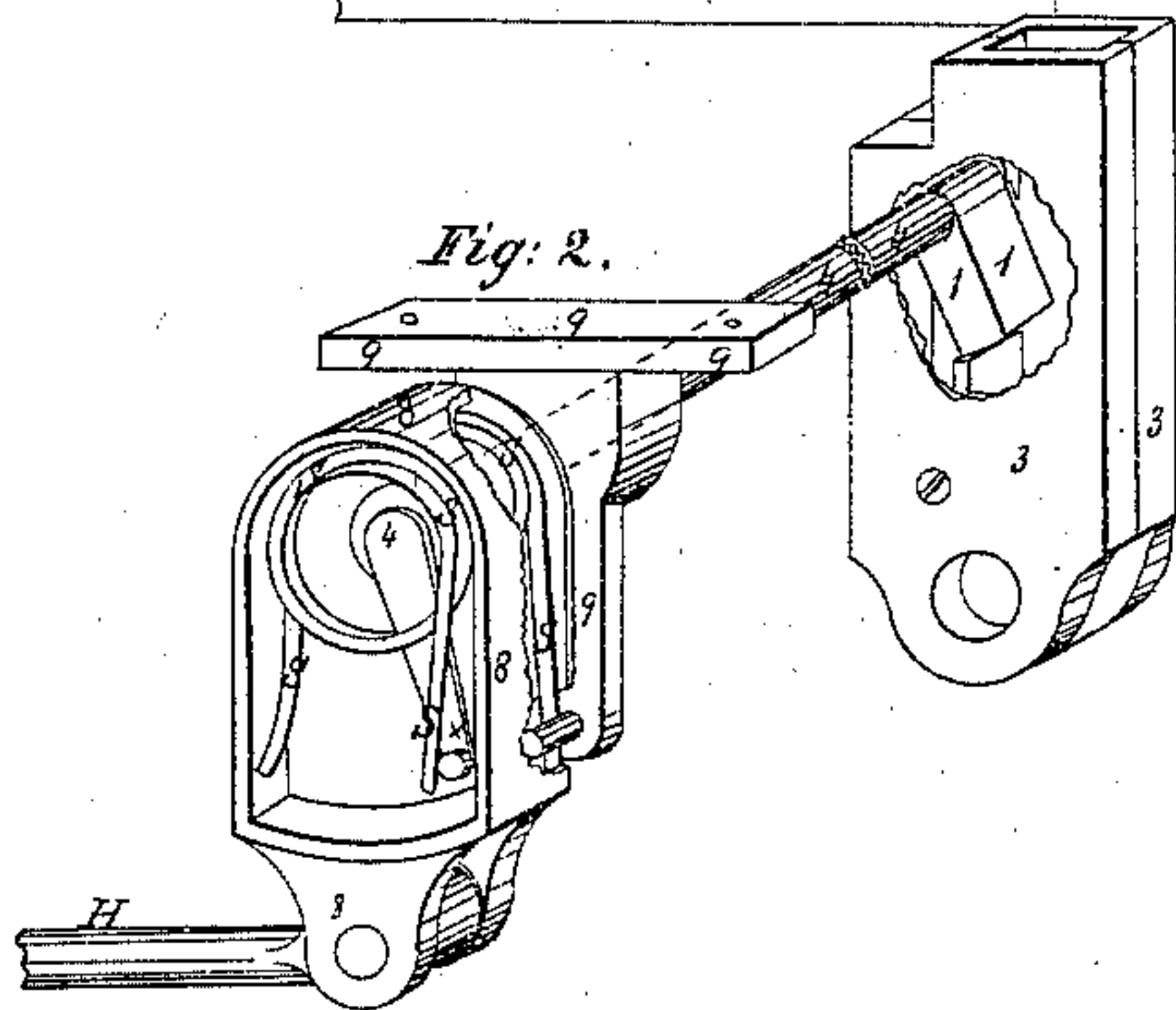
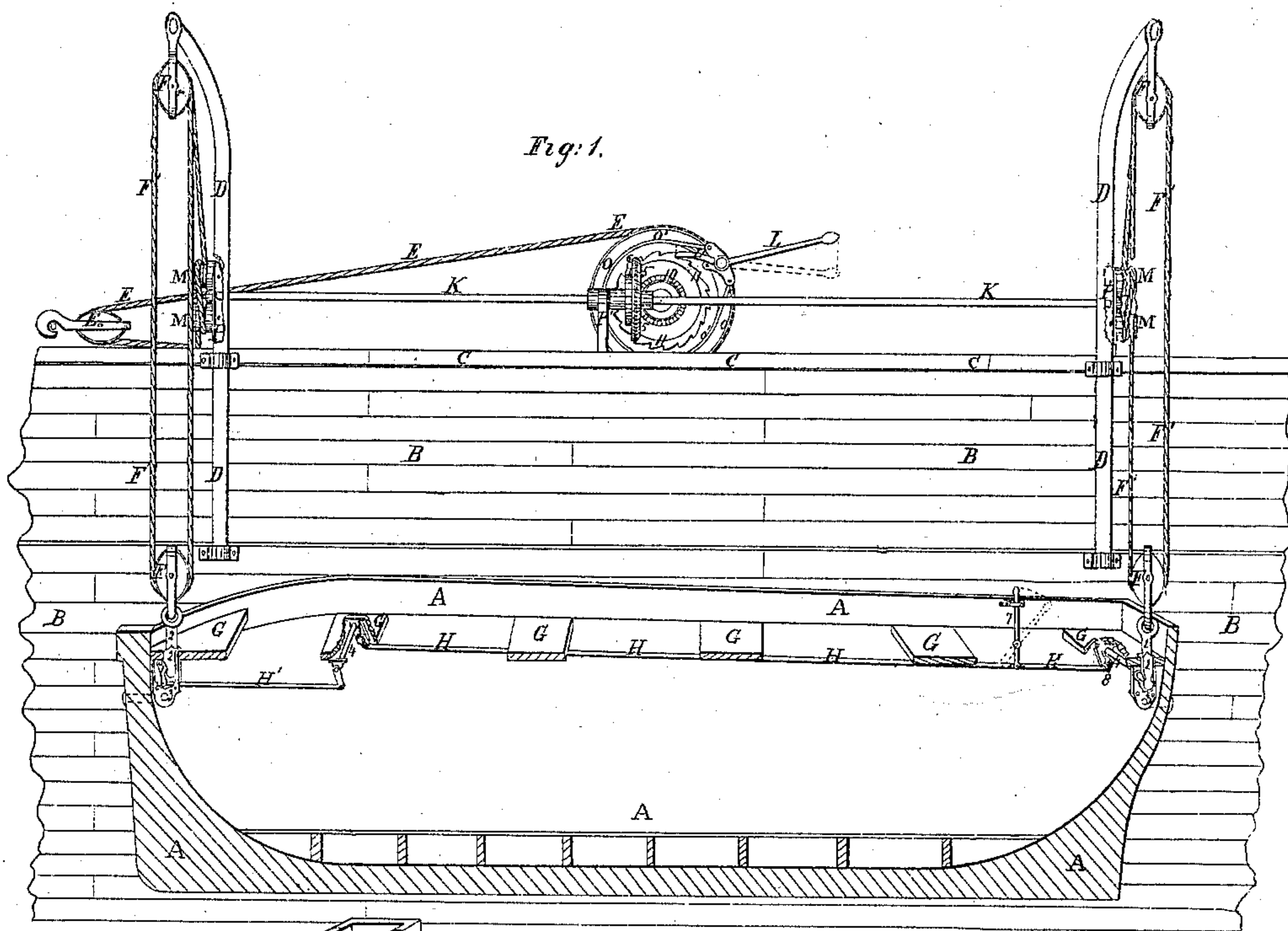


*R. S. Stubbs,
Boat Detaching.*

*N^o 2,106
N^o 33,110*

Patented Aug. 20, 1861.



Witnesses:

*R. W. Silsbee
E. S. Carpenter*

Inventor:

R. S. Stubbs

UNITED STATES PATENT OFFICE.

ROBERT S. STUBBS, OF CLAREMONT, NEW HAMPSHIRE.

APPARATUS FOR WORKING SHIPS' BOATS.

Specification of Letters Patent No. 33,110, dated August 20, 1861.

To all whom it may concern:

Be it known that I, ROBERT S. STUBBS, of Claremont, in the county of Sullivan and State of New Hampshire, have invented and made a certain new and useful Improvement in Means for Attaching, Lowering, and Detaching Boats from Vessels; and I do hereby declare that the following is a full, clear, and exact description of my said invention, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1, is a sectional view of a boat as hanging from the davits at a vessel's side. Fig. 2, is a perspective view of the means used for attaching and detaching the boat, some of the parts being represented as broken open to show the interior. Fig. 3, perspective view of bolt at end of fall. Fig. 4, perspective view of double winch for fall ropes and Fig. 5, is a plan of the bevel gears and ratchets applied to rotate the double winch.

Similar marks of reference denote the same parts.

In the drawing A, represents the vessel's boat, and B, a portion of the vessel's side, and c, the upper rail of the bulwarks; D, D, are the boat davits, F, F, the fall blocks and F' the ropes. These parts are to be of any usual or desired construction. Upon the lower fall block F is the bolt 2, in the sides of which notches are provided that take the catch or blocking piece 1, see Figs. 1, 2 and 3, to sustain the boat or disconnect the same when the latch or blocking piece 1, is pressed aside from contact with the said bolt.

The blocking piece 1, (Figs. 2 and 3) is on the rock shaft 4, sustained at one end in the case 3, that receives the bolt 2, and near the other end by the standard 9.

S, is a coiled spring within the hollow crank 8, that acting upon the arm X of the shaft 4, keeps the block 1, to the notch of the bolt 2, but allows of said block being pressed aside by entering the said bolt 2, within the case 3. From the end of the hollow crank 8, the rod H connects to a similar hollow crank and the parts connected to the blocking piece 1, so that upon moving this rod H by a suitable means such as the lever 7 (Fig. 1) both blocking pieces 1, 1, will be simultaneously withdrawn from the notches of the bolts 2, and each end of the boat instantly disconnected from the falls.

For convenience of arrangement the rock shaft 4, and hollow crank 8, may be placed under one of the thwarts G, as seen at the bow (the left hand end) of the boat A, Fig. 1, in this case the rod H' connects from a second crank at the end of the rock shaft 4, to the blocking piece 1, and acts upon the same by means of a depending arm.

The fall ropes F', are wound around the double winches M, M, Fig. 4, as seen in Fig. 1, in order that the respective falls may be drawn upon to raise up the boat by revolving the double winches M, M. Each of these winches is composed of two grooves (or more) of a V form but instead of being plain as heretofore the grooves are indented or slightly zig-zag, so as to take hold of the rope more firmly, and I also make use of a roller N upon a spring arm N', the pressure of which roller upon the rope in the groove of the winch M causes the rope to remain tightly in the groove and hence the attendance of a man at each fall to take up the slack is avoided. It will be seen that these double winches are so arranged that the rope can be wound around in the grooves with ease, and does not have to be threaded through any openings hence a bight can be taken around then with a rope at any point of its length. P P are frames or standards upon the bulwarks carrying these double winches, near each of the davits. In order to revolve these winches M, I make use of gear wheels upon the ends of a longitudinal shaft K, said gear wheels taking above and below into wheels upon the respective winches M M, see Figs. 1 and 4.

Upon the shaft K is a gear wheel 5, fitted loose and provided with a pawl to a ratchet wheel 6, keyed firmly on K. 10 is a gear wheel on the shaft of the hand wheel o, o', is a friction brake around a cylindrical part of o, L is a lever to this brake o', and L', is a pawl to a ratchet wheel 11, formed on the side of the wheel o. The operation of this arrangement is that the pawl and wheel 6, allow the shaft K to be rotated by the act of pulling in the ropes F' and thereby revolving the double winches M, M, but not revolving the wheels 5 or 10. When the wheel o, is revolved the boat can be drawn up by the increased purchase afforded by the gearing; the pawl L', retaining all that is taken up; and if the boat is to be lowered the lever L and friction band o', are em-

ployed to cause a gradual and regulated descent, and a pin on the lever L, seen in Fig. 1, rising under the pawl L' as the friction band is applied raises said pawl from the wheel 11, allowing the weight of boat to be controlled alone by the band, o', and this pawl L' again drops in place when the friction band is released.

If desired the endless rope E might be applied to the wheel o, in order to take up slack more quickly the same as set forth in my patent of November 20th 1860.

What I claim and desire to secure by Letters Patent is—

1. The means herein specified for attaching or detaching the boat and fall, consisting of the blocking piece 1, in combination with

the rock shaft 4, and rod H, fitted and acting substantially as specified.

2. The double winch M formed with wavy or zig-zag grooves and arranged in the manner specified to act upon the ropes or chains of the falls to the boat as set forth.

3. The arrangement of the wheel o, friction band o', lever L, pawl L', and wheel 11, to control the raising or lowering of the boat in the manner set forth.

As witness my signature this thirteenth day of May 1861.

ROBT. S. STUBBS.

Witnesses:

LYMAN J. BROOKS,
IRA COLBY, Jr.