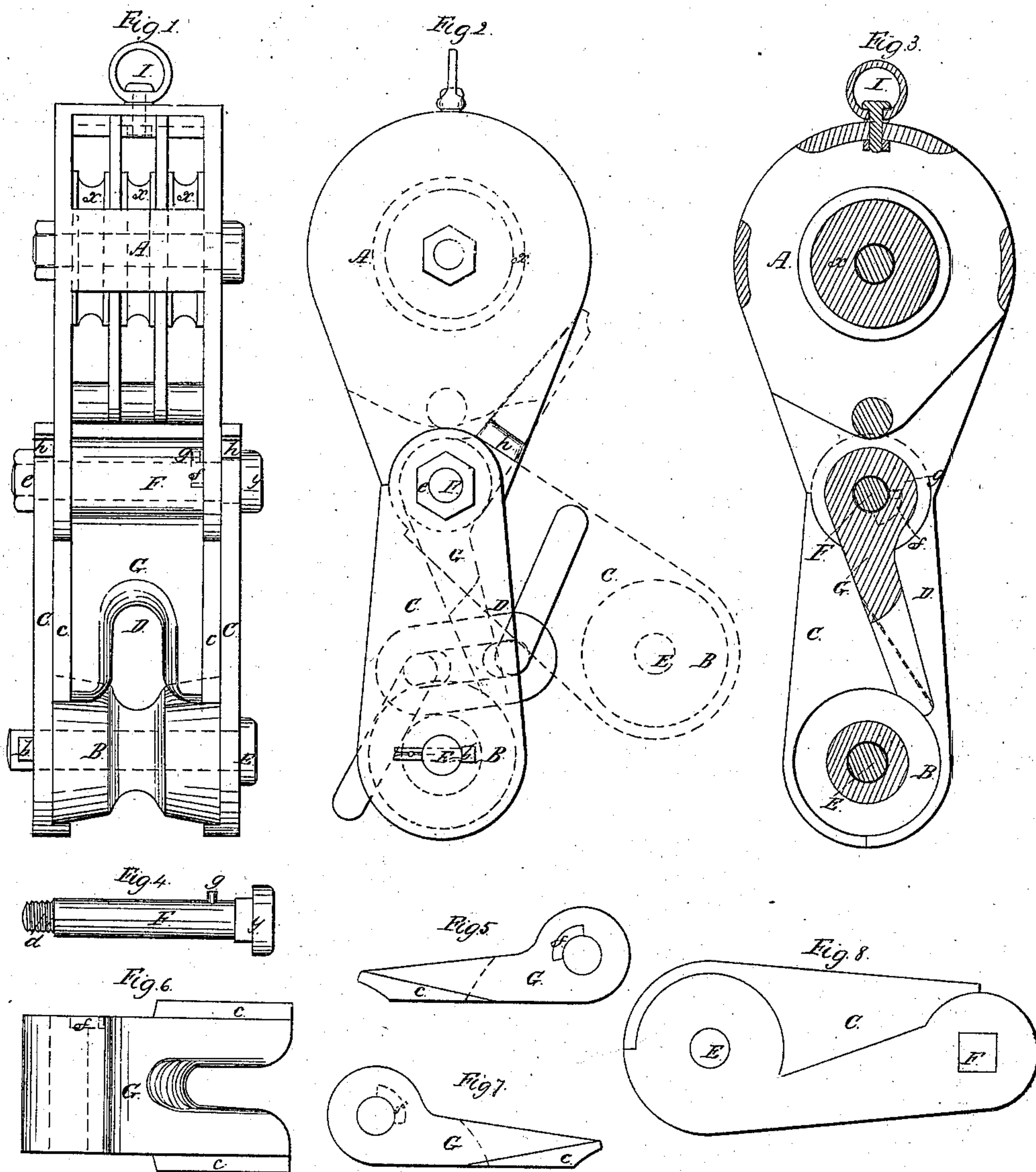


G. Gilmour,
Tackle Block.

No. 7,085.

Patented Apr. 21, 1857.



UNITED STATES PATENT OFFICE.

GEORGE GILMOUR, OF CHELSEA, MASSACHUSETTS.

MESSENGER SHACKLE-BLOCK.

Specification of Letters Patent No. 17,085, dated April 21, 1857.

To all whom it may concern:

Be it known that I, GEORGE GILMOUR, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented a new and
5 useful or Improved Messenger Shackle-Block; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, of which,—

10 Figure 1, is a front view, Fig. 2, a side elevation, and Fig. 3, a longitudinal and central section of the same; Fig. 4, is a side view of the bolt on which the pawl turns; Fig. 5, is an edge view of the pawl showing
15 the recess therein, for the reception of the stud of the pawl pin, all of which will be hereinafter explained.

The object of my invention is to enable a purchase block to be connected with a
20 chain cable when such may be attached to an anchor, a vessel or other article and particularly when said chain cable may be under water.

In the drawings, A, exhibits a pulley provided with three or any suitable number of
25 sheaves, *x, x, x*, and so connected with a roller, B, by extensions, C, C, of the pulley frame, that there may be a chain space or passage, D, between the said roller and pulley, the roller turning on a pin or bolt E
30 passing through the parts, C, C, and held in place therein by a key, *b*, the same being arranged as shown in the drawings.

Between the sheave or sheaves of the pulley and the chain passage D, a pin, F,
35 extends through the pulley frame and serves as a journal or fulcrum for a bifurcated pawl, G, which turns on the said pin and across the chain space or passage, D, and
40 from the roller, B, back toward and nearly up to the sheaves or until certain shoulders *c c* (made in the edge of the pawl. See Fig. 5; also Figs. 6 and 7, Fig. 6 being a
45 top view of the pawl and Fig. 7 another edge view of it) are made to abut against the frame.

In constructing the frame, the parts, C, C, instead of being immovable with respect to the remainder of the frame, may be separated therefrom and hinged thereto, that is,
50 the pin F may extend through the said parts, they being separate from the remainder of the frame as shown in the drawings. Such pin, F, where it passes through
55 one of the parts, C, or that which is adjacent to its head, *y*, is made square or polygo-

nal in transverse section, and so as to fit a corresponding square or polygonal hole formed in the said part C, as shown in Fig. 8, which is an inner side view of the part
60 C. This will cause the pin to turn or move with the two parts, C, C. The remainder of the pin F or that part which passes through the pawl is formed cylindrical and with a screw *d* to receive a holding nut, *e*.
65 Furthermore, a curved recess *f* is made in one edge of the pawl as shown in Fig. 5 and receives a stud *g* extended from the pin F, the same being applied or arranged together so that after the pawl has been raised
70 upward into about a right angle with a plane passing through the axis of the bolt F and that of the sheaves, such pawl by its action on the stud and when moved further
75 toward the sheaves, shall move the parts C C into the angular position with respect to the pulley, as shown by dotted lines in Fig. 2.

From the above it will be seen that the pawl is thus made to operate as a lever to
80 move the parts C C up to certain stops *h, h*, fixed on the side of the pulley or projecting therefrom as shown in Figs. 1 and 2.

The pulley may have an eye, I, for the purpose of connecting it with one end
85 of a purchase rope when such is run through the pulley and around its sheaves.

In explaining the mode of using my invention we may suppose a chain cable or a rope connected with the same to be suspended from a vessel at the surface of the
90 water and to extend down into the water, and that it is desirable to clutch the messenger shackle block thereto. Now this chain may be a short chain connected with
95 an anchor that may rest on the ground under the water, or it may be a chain extended upward from a sunken vessel or any other object beneath the surface of the water, and which it may be desirable to
100 raise upward. In applying the shackle block to such chain, we should first remove the roller B, from the parts C, C, so as to enable the chain to enter the passage D. It having been introduced into the said
105 passage as shown in Fig. 2, the roller should be restored to its place, this having been accomplished, the block is to be lowered down on the chain or on the rope to and on the chain to the distance required to clutch the
110 two together, the pressure of the chain against the pawl causing the said pawl not

only to slip freely on it, but to raise the parts C C on the roller so as to facilitate the passage of the block on the chain. As soon as the block has attained the depth required, the purchase rope may be operated so as to raise the block, such causing the pawl, G, to so pass between the links of the chain and rest against the roller as to firmly clutch or fasten the block to the chain. The further use of this block apparatus and its utility will be apparent to most nautical men:

What I claim as my invention is—

1. The said messenger shackle block, or combination and arrangement of the sheaves or pulley, the forked pawl the roller, and the chain space or passage substantially as hereinbefore specified.

2. I also claim hinging or jointing the

parts C C and the pawl to the remainder of the frame in order that the roller and pawl may be turned toward the sheaves of the pulley as specified.

3. I also claim combining with the pawl and the pulley frame, a mechanism substantially as described or its equivalent, by which by pressure of the chain against the pawl, such pawl may be caused to lift the parts C C and the roller in manner, and to facilitate the movement of the shackle block on the chain as specified.

In testimony whereof, I have hereunto set my signature.

GEO. GILMOUR.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.