

(No Model.)

J. A. WHITING.  
SHIP'S WINDLASS.

No. 304,152.

Patented Aug. 26, 1884.

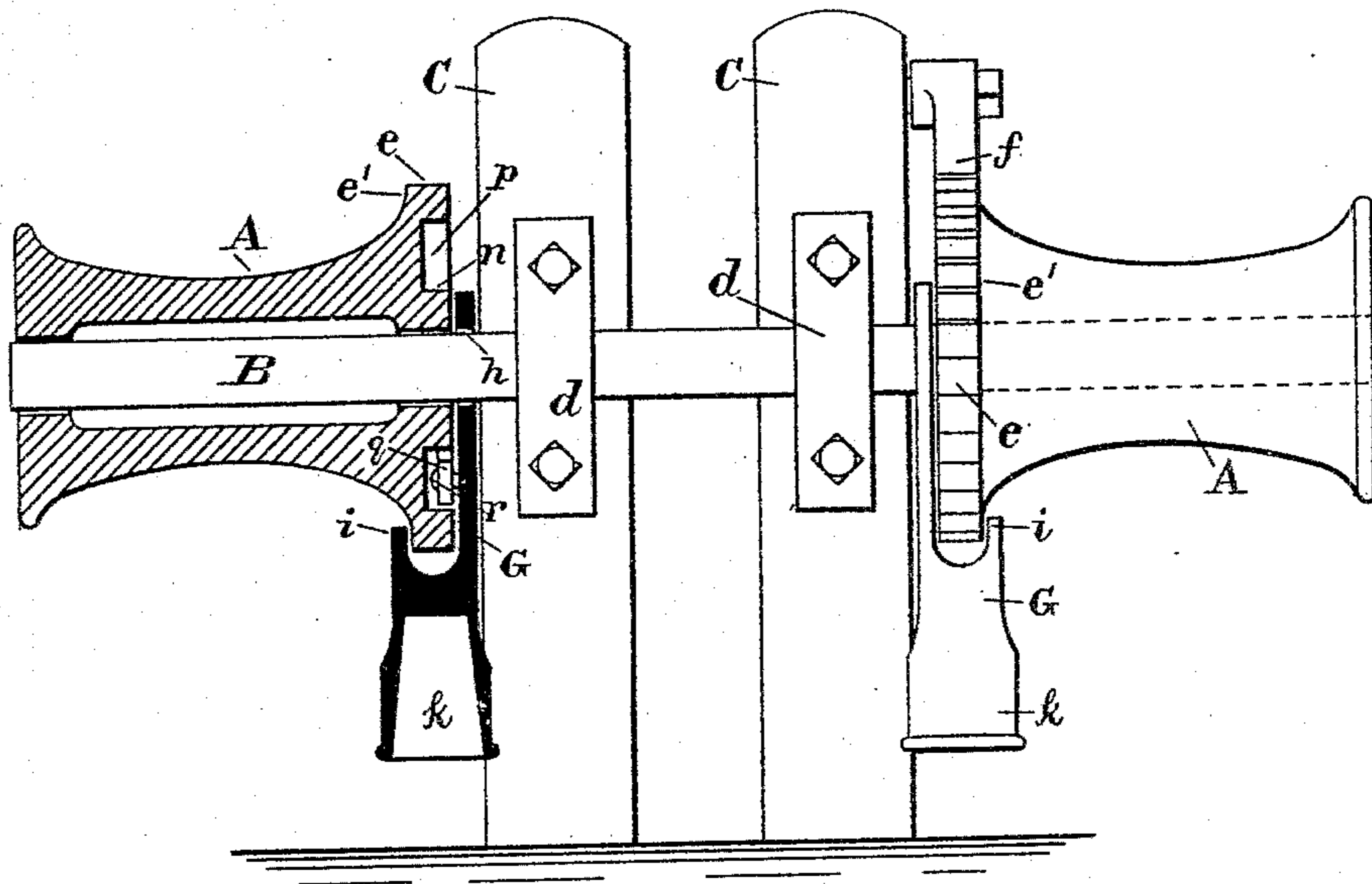


Fig. 1.

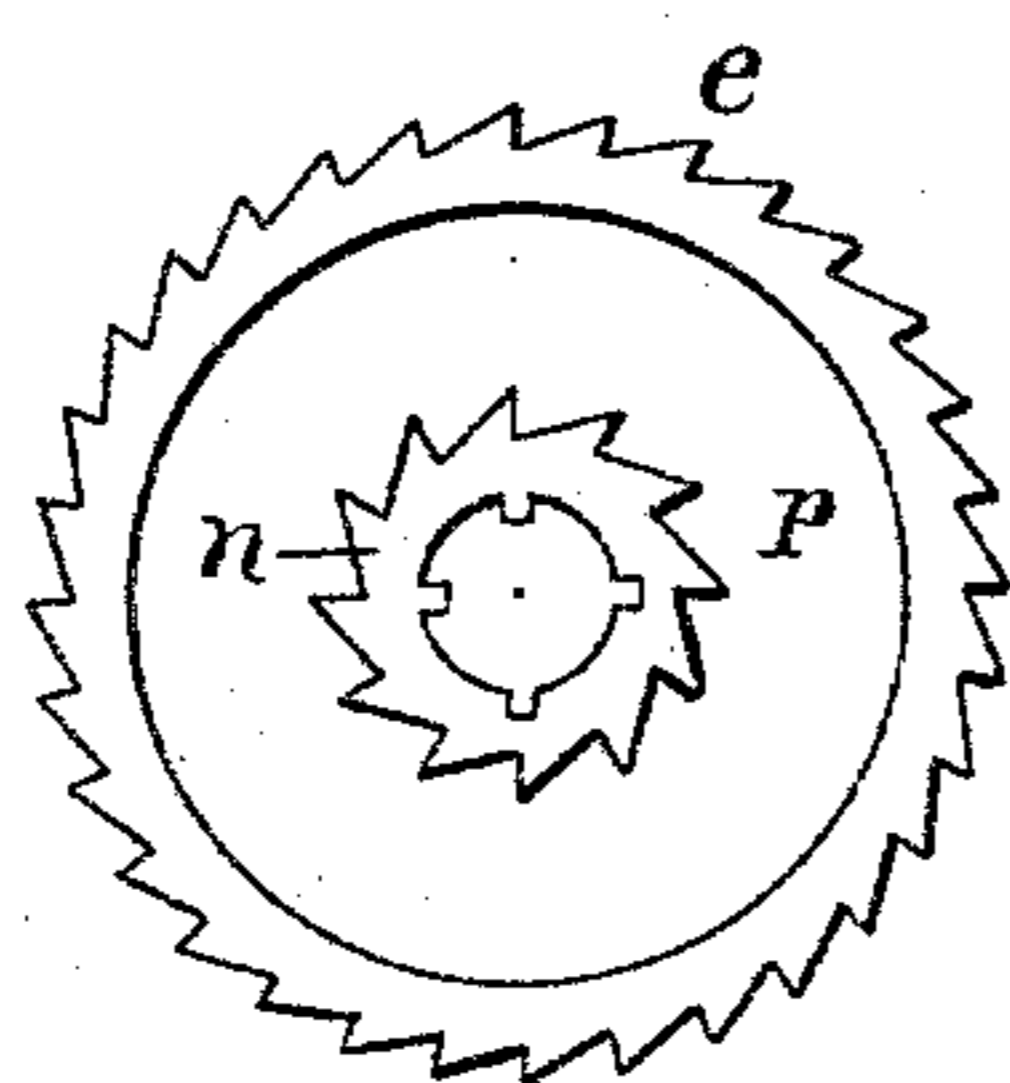


Fig. 2.

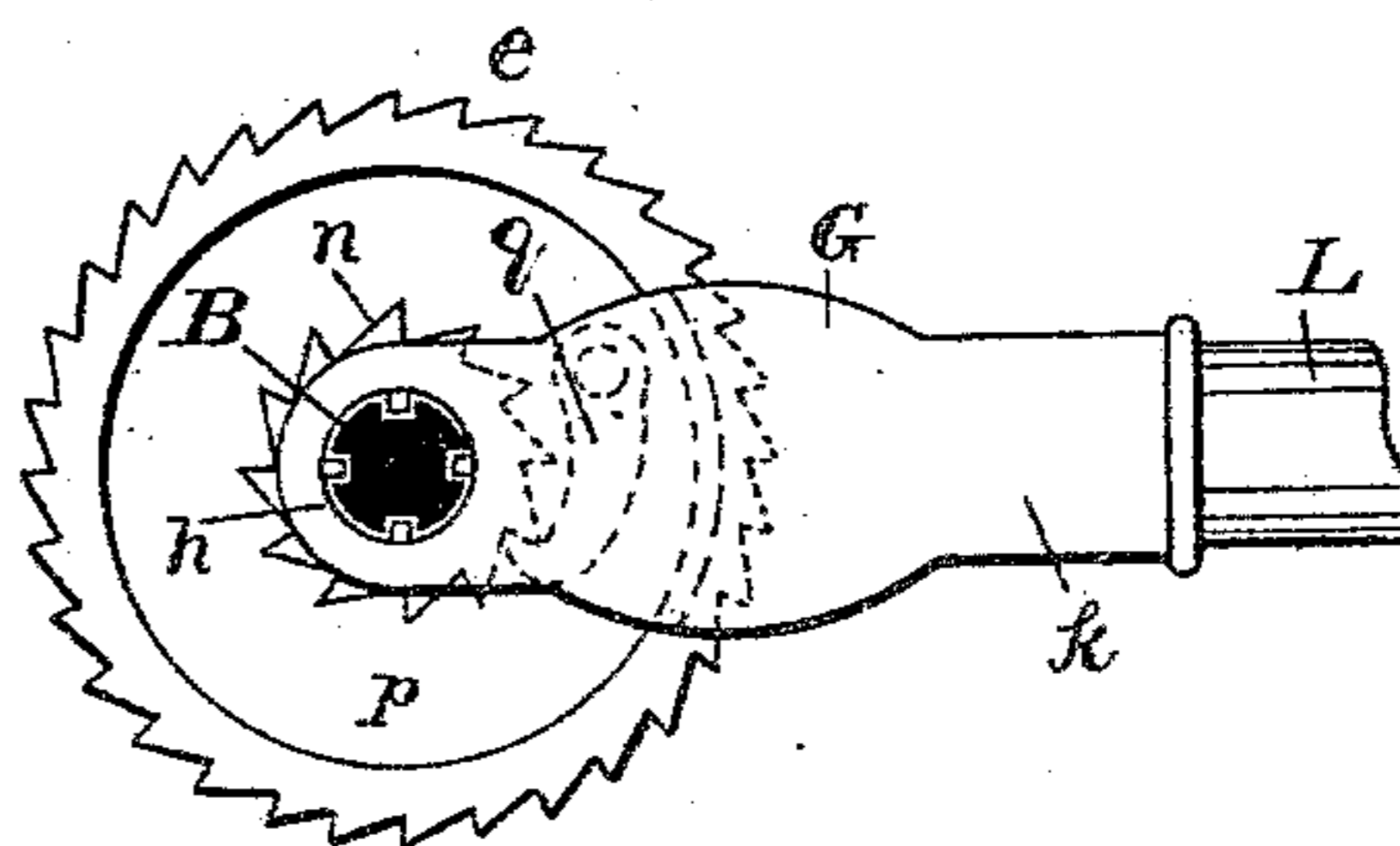


Fig. 3.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

JAMES A. WHITING, OF BALTIMORE, MARYLAND.

## SHIP'S WINDLASS.

SPECIFICATION forming part of Letters Patent No. 304,152, dated August 26, 1884.

Application filed April 9, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES A. WHITING, a citizen of the United States, residing at Baltimore, State of Maryland, have invented certain new and useful Improvements in Ships' Windlasses, of which the following is a specification.

My invention relates to certain improvements in ships' windlasses, which will be described, and then claimed.

In the accompanying drawings, Figure 1 is an elevation of the windlass. Fig. 2 is a view showing the recessed head of the concave winding-drum. Fig. 3 is a view showing the recessed head of the winding-drum and the lever with its hook-pawl rotating the said drum.

The letter A designates the concaved winding-drum; B, the horizontal shaft on which it is mounted, as shown on the same shaft; C, the cheeks or standards on which are the bearings *d* for shaft. The concave winding-drum has on the perimeter of its largest head ratchet-teeth *e*, with which a drop-pawl, *f*, engages to prevent backward rotation. A lever, G, has near its end a round hole, *h*, which takes about the horizontal shaft B, and thereby it is pivoted on the said shaft close to the end of the drum. This lever also has a flange, *i*, which straddles or takes on the inner side *e'* of the ratchet-teeth rim, and the lever has a socket, *k*, for the insertion of a hand-spike, L.

The foregoing parts are of ordinary construction; and my improvement consists in recessing a small ratchet-wheel, *n*, in the end of the large head, which adjoins the standard, and providing an annular space or recess, *p*, around the outside of said small wheel. To work in connection with this small ratchet-wheel, a hook-pawl, *q*, is pivoted by a pin, *r*, on the side of the lever G, near its pivot-hole *h*. It will be seen the hook-pawl projects from the side of the lever and occupies the space or re-

cess *p*, in the end of the large head, and its hook engages with the small ratchet-wheel. The advantage of this construction is that the lever G is more effective because its hook-pawl takes hold close to the axis of the winding-drum, and at the same time as this is effected by recessing the small ratchet-wheel in that end of the drum which is next to the standard, and, providing an annular space for the hook-pawl, the device requires less room and does not add to the cost.

It will be seen the small ratchet-wheel *n* on which the lever-pawl acts is at the same end of the windlass-drum as the ratchet *e*, on which the drop-pawl acts. By this construction room is economized.

I do not claim to have invented a recessed windlass-drum with a ratchet therein, but claim only the construction and arrangement of parts, as hereinafter stated.

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

The herein-described windlass, consisting of the standard C, horizontal shaft B, windlass-drums having, on the perimeter nearest the said standard, ratchet-teeth *e*, and a pawl, *f*, pivoted on the standard, engaging with said teeth, a recess in the drum-head next to the standard, a small ratchet-wheel, *n*, on the shaft within the recess, with an annular space, *p*, around the outside of said small ratchet-wheel, and a lever, G, pivoted on the shaft between the drum and standard, and provided with a pawl which occupies the annular space, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES A. WHITING.

Witnesses:

JNO. T. MADDON,  
JNO. E. MORRIS.