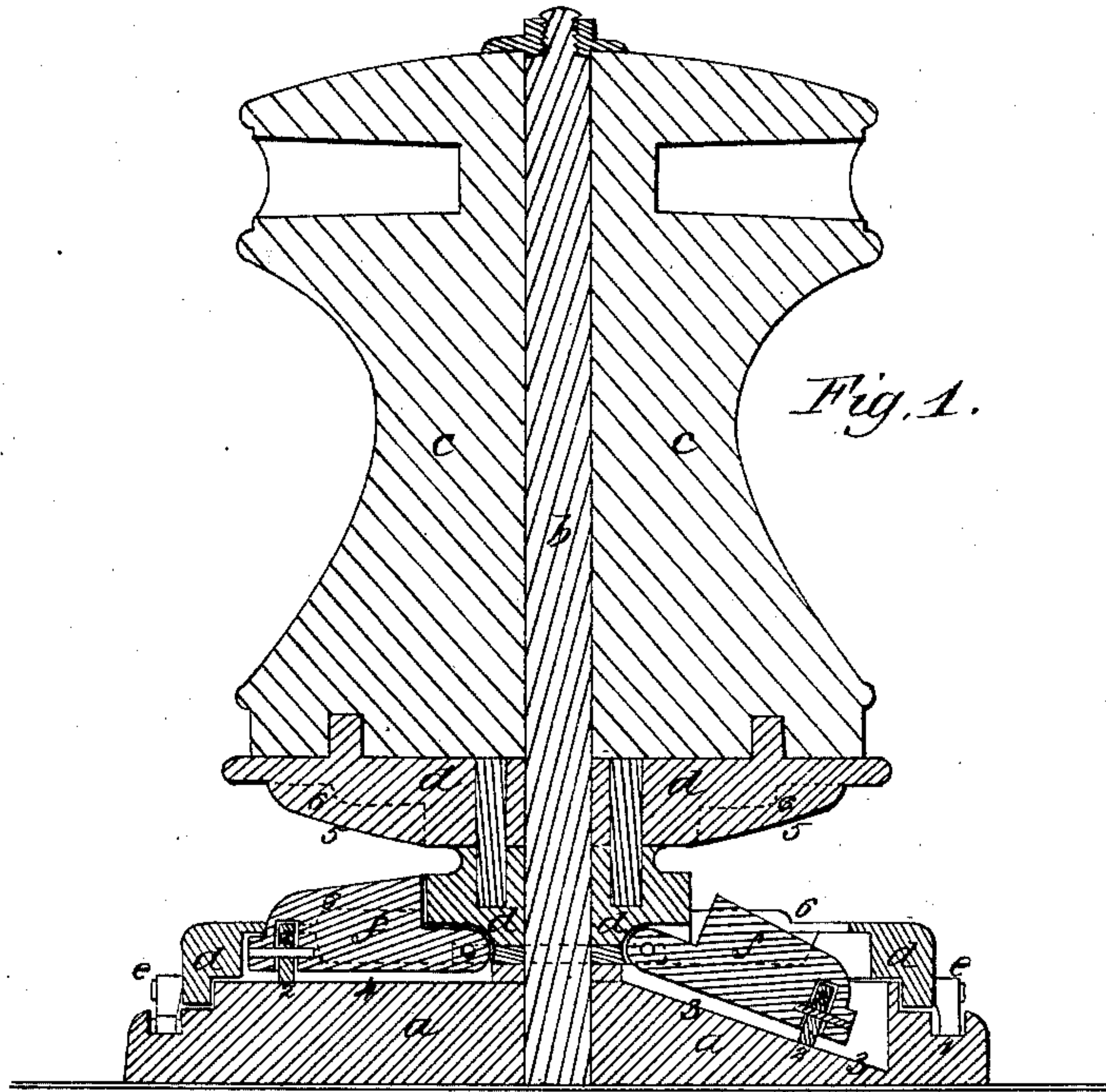


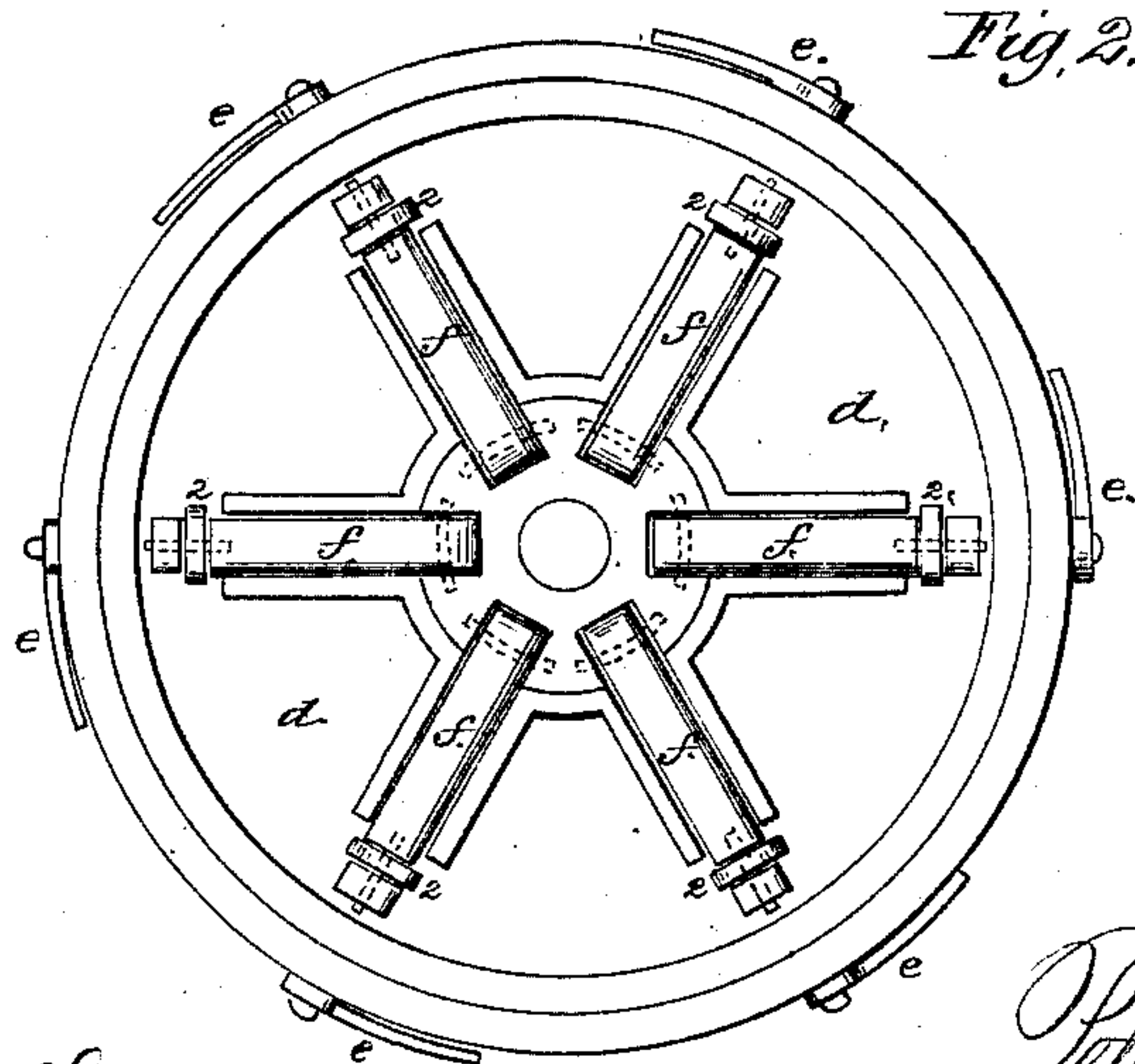
*Jackson & Eddy,  
Windlass.*

*N<sup>o</sup> 46,110.*

*Patented Jan. 31, 1865.*



*Fig. 1.*



*Fig. 2.*

*Witnesses.*

*Thos Geo Harold  
Chas N Smith.*

*Inventors.*

*Peter A Jackson  
Samuel Eddy.*



# UNITED STATES PATENT OFFICE.

PETER H. JACKSON, OF NEW YORK, AND SAMUEL EDDY, OF BROOKLYN, N. Y.

## IMPROVED WINDLASS.

Specification forming part of Letters Patent No. 46,110, dated January 31, 1865.

*To all whom it may concern:*

Be it known that we, PETER H. JACKSON, of the city and State of New York, and SAMUEL EDDY, of Brooklyn, in the county of Kings and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Windlasses; and we do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a vertical section of our improved windlass, and Fig. 2 is an inverted plan representing the under side of the chain-wheel.

Similar marks of reference denote the same parts.

The nature of our said invention consists in a series of movable radial ribs that act as clamps to confine the links of a chain passed around a wheel, in which such movable radial ribs are fitted; and said radial ribs are moved or drawn back in a portion of the circle in which they rotate, so that the chain-links are dropped successively at the points where the chain leads away from the chain-wheel. By this construction the chain-wheel is adapted to a variety of sizes of chains, and there is no risk of the links becoming wedged into the wheel, because the withdrawal of the radial ribs successively leaves the chain entirely free at the point of delivery.

In the drawings, *a* represents the base of the windlass from which the center shaft or axis, *b*, rises and receives the capstan-barrel *c*, that may be of any usual character, and also the chain-wheel *d*, to which our improvement relates, and which chain-wheel forms the windlass for working the chain-cable. The said chain-wheel is represented as connected with the capstan and deriving its rotary movement from the same, handspike-sockets being provided in the head of the said capstan; but it will be apparent that the said windlass can be rotated by any suitable means. Around the base of our chain-wheel *d* pawls *e e* are affixed, taking the pawl-bed at 1 1, around the base *a*, or said pawls may be fitted in any other convenient manner.

*f f* are our radial ribs hinged at their inner ends and setting within mortises formed

through the lower flange or disk of the chain-wheel. These radial ribs are provided with rollers 2 2, that travel upon the upper surface of the bed *a* as the chain-wheel revolves, and said surface of *a* is formed with a depression at 3, occupying about one-third of the circumference of said base, the rest of said base being level, as at 4. The said depression is formed as a gradual incline, (from 4 to 3,) so that the rollers 2 2, traveling over the surface of *a*, allow the ribs *f* to descend, and then again raise such ribs. The chain-cable is passed around this chain-wheel in the usual manner, coming in on one side of said wheel and going off on the other, said parts of the chain, in approaching and leaving the windlass, being nearly parallel, and the chain itself forming a half-circular bend around the windlass. The base *a* is to be so placed relatively to the lead of the chain, that the high portion 4 shall be at the part where the chain passes around the windlass, while the low portion 3 is at the part where the chain leaves the windlass.

The result of this arrangement will be apparent—viz., that the ribs *f* are forced up in succession and take the chain-links as they are drawn in by the revolution of the windlass, and that they descend or draw away from the chain at the point where said chain leaves the chain-wheel. We prefer and use ribs on the upper side of the annular space of the chain-wheel, as at 5 5, so that the chain will be less liable to slip, because the vertical links of the chain will bear against the sides of said ribs, while the horizontal links lie between said ribs. We also make the surfaces of the disks, forming the top and bottom of the annular space for the chain, with offsets at 6 6, so that the larger sizes of chains will not enter the smaller part of the recess, but their vertical links be supported by said offsets, while the smaller sizes of chain will pass into the narrower part of the annular recess.

The movable radial ribs may be constructed with longer rollers than those shown, so as to take a larger bearing on the surface of the base *a*, or two or more rollers may be applied to each of these radial ribs. The outer ends of the radial ribs may be fitted so as to enter a stationary slot, to draw them down or away from the chain, or any other convenient device may be resorted to for insuring the ra-

dial rib drawing away from the chain-links and leaving the chain free.

What we claim, and desire to secure by Letters Patent, is—

1. A chain-wheel or windlass formed with radial ribs that are movable, substantially as specified.

2. Forming the annular space around a chain-wheel with offsets 6 6, to better adapt

the same to different sizes of chain, as specified.

In witness whereof we have hereunto set our signatures this 13th day of December, 1864.

PETER H. JACKSON.

SAMUEL EDDY.

Witnesses:

LEMUEL W. SERRELL,

CHAS. H. SMITH.