R. Packard,

Windlass.

No. 20,170. Patented May 4, 1858.

Fig. 2.

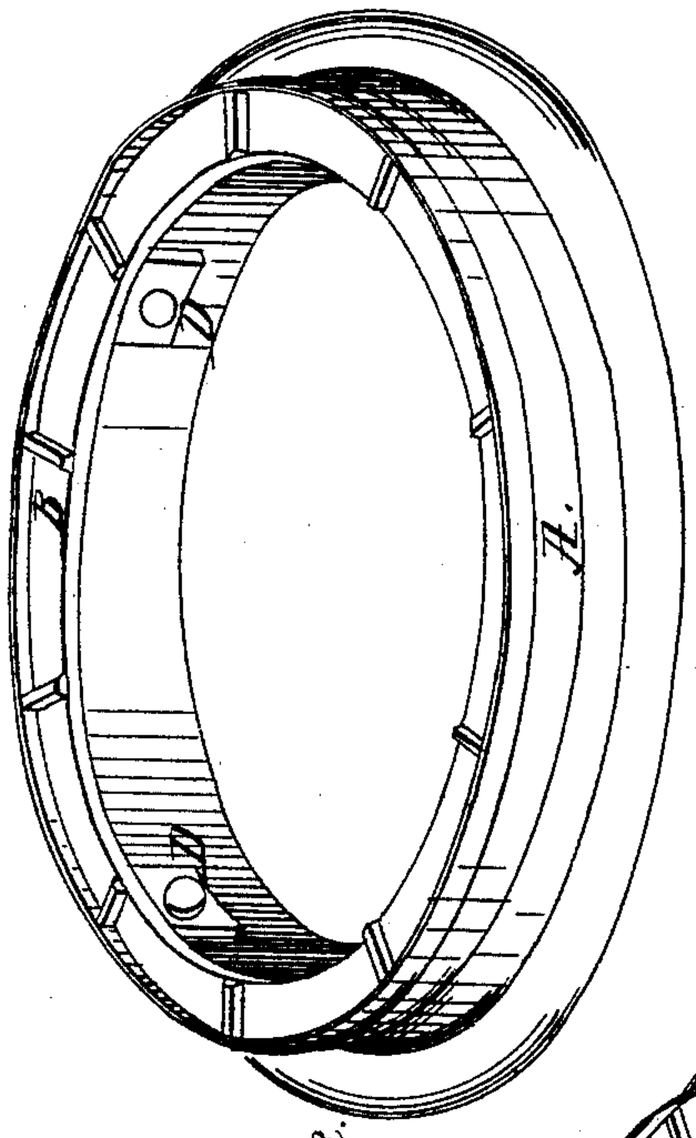
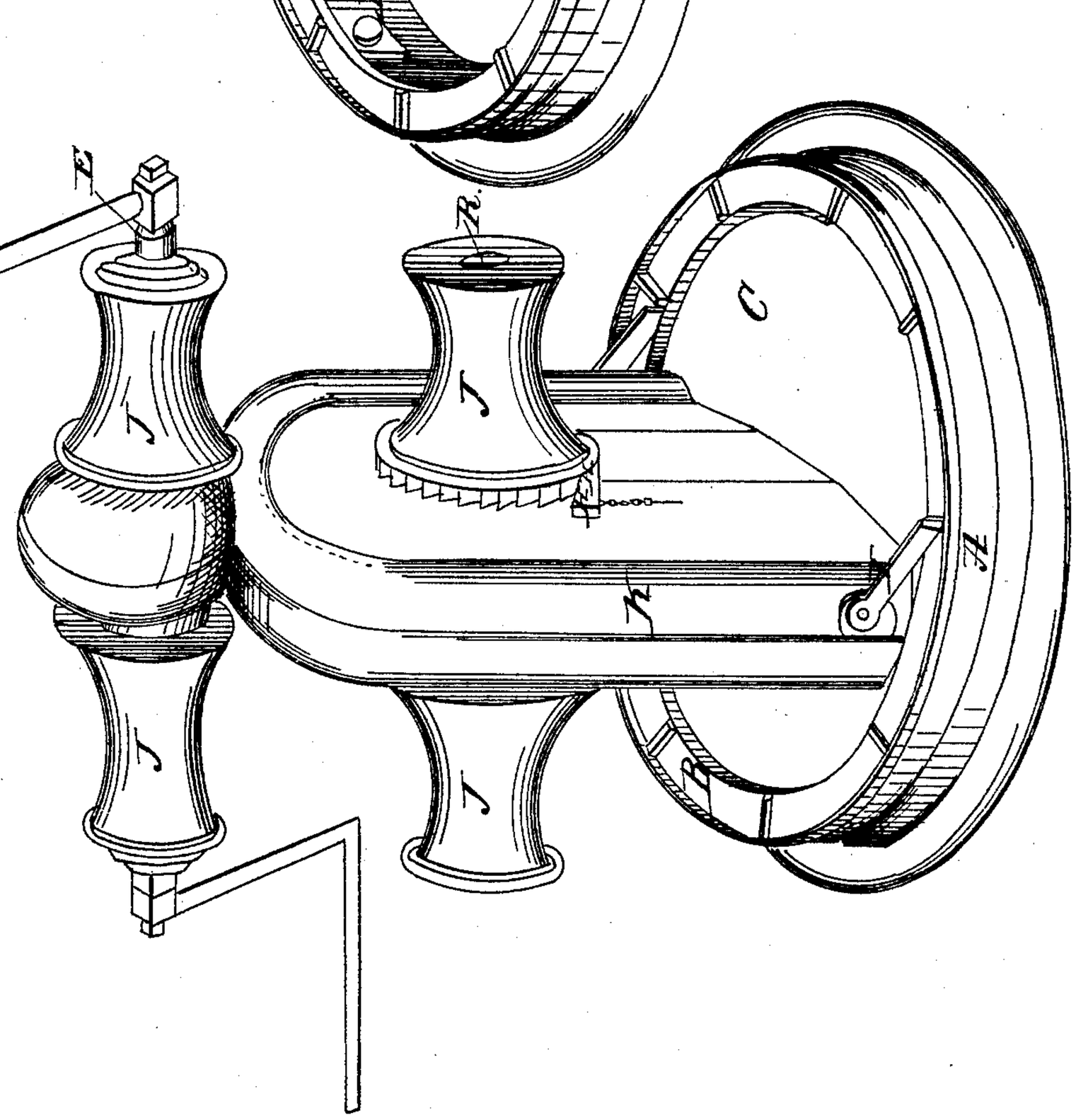


Fig. 1.

UNITED STATES PATENT OFFICE.

REUBEN PACKARD, OF ROCKLAND, MAINE.

HOISTING-MACHINE.

Specification of Letters Patent No. 20,170, dated May 4, 1858.

To all whom it may concern:

Be it known that I, REUBEN PACKARD, of Rockland, in the county of Lincoln and State of Maine, have invented a new and useful machine, called the "mariner's revolving purchase," for lifting or drawing heavy bodies or their equivalents, such as setting up rigging, raising and lowering yards and masts, swaying up sails, warping, getting anchors, and various other uses known only to the mariner on shipboard, warehousemen, or others in need of such machines; and I do hereby declare that the following is a clear, full, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of side elevation. Fig. 2 is a view of the bed piece independent of the rest of the machine.

The nature of my invention consists in the arrangement of a circular plate (or other device which shall be its equivalent) of iron or other material in such manner as to be turned freely around when desired and fastened in any position by pawls or other device, upon which to build or construct any combination of mechanical powers to be used for the purpose of drawing or lifting heavy bodies or their equivalents, and also the application of the barrels or heads to the shells or framework substantially as described so as to be used as a portable purchase on shipboard or otherwise as may be desired.

To enable others skilled in the arts to make and use my invention the following is a description of its construction and operation.

I construct the circular bed piece A of such diameter and height as may be desired with a flange B projecting on the inside near the top. I then fit inside the bed piece A a circular piece of iron or other material or device so that it will revolve freely around and underneath the plate C. On the inside of the bed piece A are firmly bolted three or more cleats D D (shown in Fig. 2) at such distance below the flange B as to allow the plate C to revolve freely around, resting on the cleats D D D and prevented from rising out of its place by the flange B. I then build or construct on the plate C or its equivalent the shells or framework K, of iron or other material of such shape or form as to admit one strong shaft of iron E with a gear or cog wheel firmly fastened on or near the middle of its length to revolve, and at the same time admit another shaft F with a small pinion or cogged wheel securely fastened on or near the middle of its length to be placed in such position that the cogs of the two wheels shall connect together in the usual manner. Then by causing the shaft F to revolve by means of cranks, levers or other device the shaft E will also revolve in the same time or otherwise according to the proportions of the gears or cogged wheels employed. I then fasten on each end of the two shafts E and F barrels or heads J, J, J, J, of suitable size and form to receive the turns of a rope line or chain, and on the inner ends of the two heads on shaft E are placed two ratchet wheels G G in such position as to be opposite to one another and receive into their teeth two pawls H, H, which are firmly bolted to the shells or framework and work on opposite sides in order that the barrels may be worked in either direction, or by dropping both pawls on the ratchet wheels at the same time the shafts and barrels cannot be turned in either direction. Upon the outer edges of the shells or framework K, are placed two other pawls I, I, in such manner as to drop into a row of teeth around the upper edge of the bed piece A and thereby hold the shells or framework which are firmly fastened on the plate C or its equivalent securely in such position as may be required for doing the work which may for the time being be required.

Fig. 2 represents the bed piece A, showing the flange B on the inside near the top and also the cleats D D D bolted on the inside for forming the connection of the plate C or its equivalent with its accompanying purchase arranged as before described.

The construction of the mariner's revolving purchase is such that by lifting the pawls I, I, the circular plate C with its combination of mechanical powers attached may be turned around till the axis of the barrels forms a right angle with a rope or line leading from any direction. Then dropping the pawls I I into the teeth the purchase is securely held in its position for use. Then by throwing turns of a line around either of the four barrels or heads and holding the turns in the usual manner while the shafts F and E are caused to revolve by means of cranks, levers or other device the line is

forcibly drawn in and the substance fastened to be moved.

What I claim is—

The circular plate or its equivalent arranged substantially as described in order that it may be turned easily and held in any desired position by pawls or their equivalents for the purpose of sustaining any combination of mechanical powers constructed thereon for drawing or lifting heavy weights or their equivalents.

REUBEN PACKARD.

Witnesses:
L. W. Howes.
Philo Thurston.