

*W. & R. Skene,
Cotton Press.*

N^o 24,585.

Patented June 28, 1859.

Fig. 2.

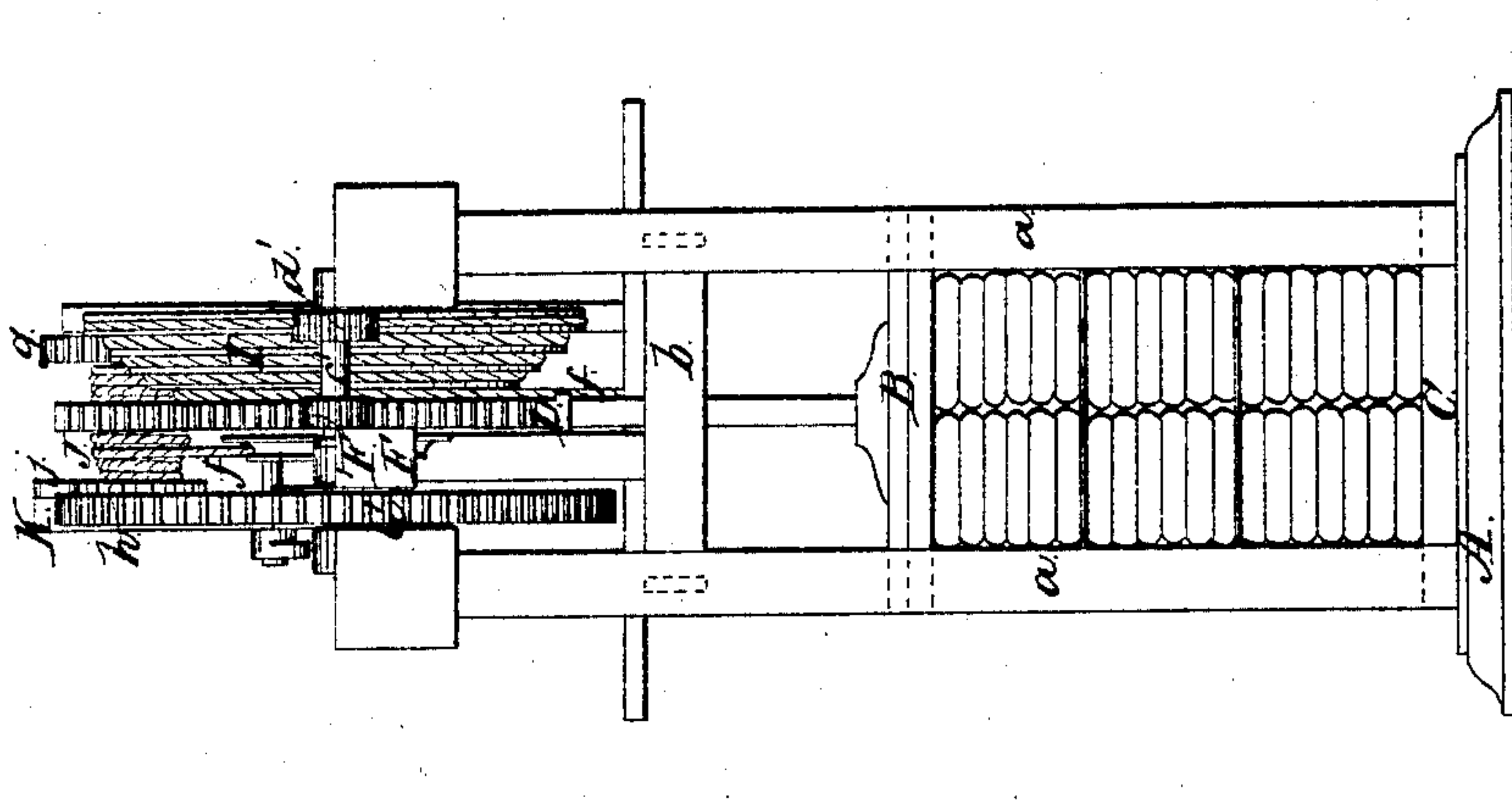
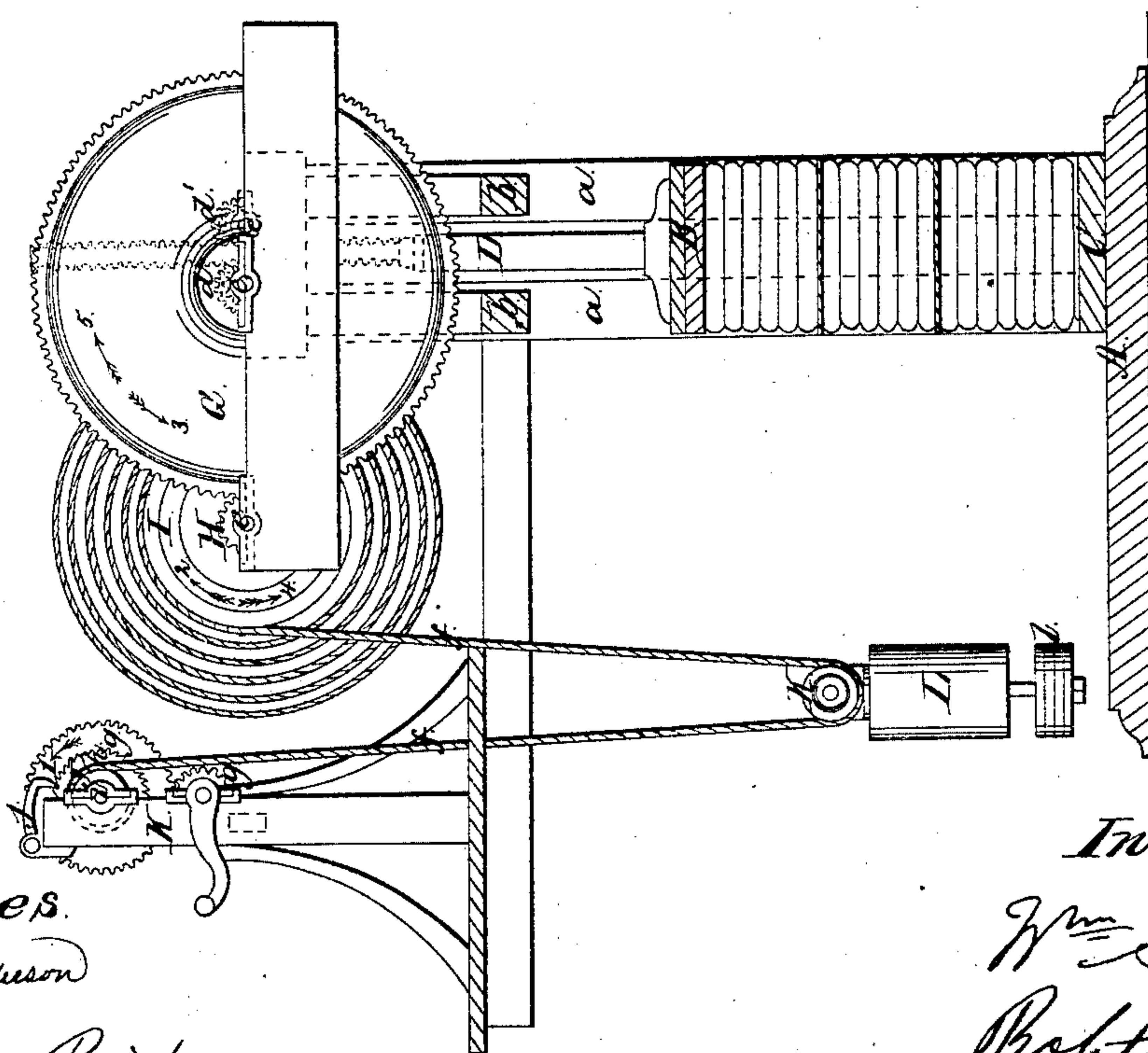


Fig. 1.



Witnesses.

H. Clay Anderson

David Reid

Inventors.

Wm Skene

Robt Skene

UNITED STATES PATENT OFFICE.

WILLIAM SKENE AND ROBERT SKENE, OF LOUISVILLE, KENTUCKY.

IMPROVEMENT IN POWER-GEAR PRESSES.

Specification forming part of Letters Patent No. 24,585, dated June 28, 1859.

To all whom it may concern:

Be it known that we, WILLIAM SKENE and ROBERT SKENE, both of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and Improved Progressive Power-Gear Press; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a longitudinal vertical section of our invention. Fig. 2 is a front elevation of the same.

Similar letters of reference in both views indicate corresponding parts.

This invention consists in arranging a windlass and a scroll or fusee in combination with a series of gear-wheels and pinions, and with a rack toothed on both sides in such a manner that, by means of a weight suspended from a rope which extends from the windlass to the scroll, a progressive power is exerted on a follower which is attached to the lower end of the rack, so that a substance placed between the follower and the press-bottom can be exposed to an ever-increasing power during a certain period of time, as will be hereinafter more fully explained.

To enable those skilled in the art to make and use our invention, we will proceed to describe it.

A represents a frame constructed of timber, with four upright standards, *a*, which are connected by cross-bars *b*, and which form the guides for the follower B of the press.

C represents the press-bottom, which is rigidly attached to the frame A. The follower B is connected to a vertical rack, D, which is toothed on both sides, and which meshes into two pinions, E E', which are mounted on horizontal axles *c c'*, and these two axles communicate with each other by means of gear-wheels *d d'*, the wheel *d* being secured to the axle *c* and gearing into the wheel *d'* on the axle *c'*, so that the motion from one of these axles is communicated to the other. Both of these axles have one of their bearings on a separate framing, F, and the axle *c* extends beyond this framing, and a large cog-wheel, G, is secured on the same, which gears into a pinion, H, which is mounted on an axle, *e*, and secured on this axle is the scroll or fusee, I, which is arranged in the same manner as a fusee of a watch, hav-

ing a helical groove running from its circumference down to its center; and secured to its circumference is a rope, *f*, which extends to a windlass, J, which is mounted on a separate frame, K, and which is operated by means of gear-wheels *g g*; and a ratchet-wheel, *h*, is attached to the axle *i* of the windlass, which engages with a pawl, *j*, in such a manner that it allows the windlass turning in the direction of arrow 1, but it prevents it turning in the other direction. The pinion H is so arranged on the axle *e* that a longitudinal sliding motion can be given to it, so that it can be brought in gear or out of gear with the cog-wheel G.

Suspended from the rope *f*, between the windlass J and the scroll I, by means of a roller, K, is a weight, L, which can be wound up by the windlass J.

The operation is as follows: The scroll I is filled with rope from the windlass by turning it in the direction of arrow 2, and during this operation the pinion H is thrown out of gear with the cog-wheel G, so that the scroll can be turned independent from the other machinery, and the follower B is raised by turning the cog-wheel G in the direction of arrow 3. The substance to be pressed—such as lard placed in bags or wrapped up in cloth—is now put on the press-bottom, and the space between the same and the follower is filled up, and the weight being attached to the rope *f*, the pinion H is thrown in gear with the cog-wheel G. By the action of the weight the scroll begins to turn in the direction of arrow 4, and motion is imparted to the cog-wheel G in the direction of arrow 5, whereby the follower B is depressed. The pressure exerted on the substance under the follower is considerably increased by the proportion existing between the diameters of the scroll, the pinion H, the cog-wheel G, and the pinions E E', and, as the work progresses the diameter of the scroll increases, and the pressure exerted on the substance under the follower becomes larger and larger as the follower descends; and if it is found necessary to increase the power still further, slip-weights *l* are added to the weight L, so that any amount of power can be brought to bear on the substance under the follower. It must be remarked that this press is self-acting, the weight exerting a pressure on the follower as long as some of the rope is left on the scroll, so that the substance un-

der the follower can be exposed to a powerful and a long-continuing progressive pressure without any attendance to the press. After the pressing is finished, the follower is raised by turning the cog-wheel G in the direction of arrow 3, and the press is emptied and cleaned and recharged for a new operation. This press is particularly adapted to pressing lard or other similar substances which require not only a strong but also a long-continuing pressure.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The arrangement of the windlass J, the weight L, the scroll I, and the pinion H to operate in combination with the cog-wheel G, the pinions E and E', the double rack D, and the follower B, substantially as and for the purpose specified.

WM. SKENE.
ROBT. SKENE.

Witnesses:

H. CLAY ANDERSON,
DAVID REID.