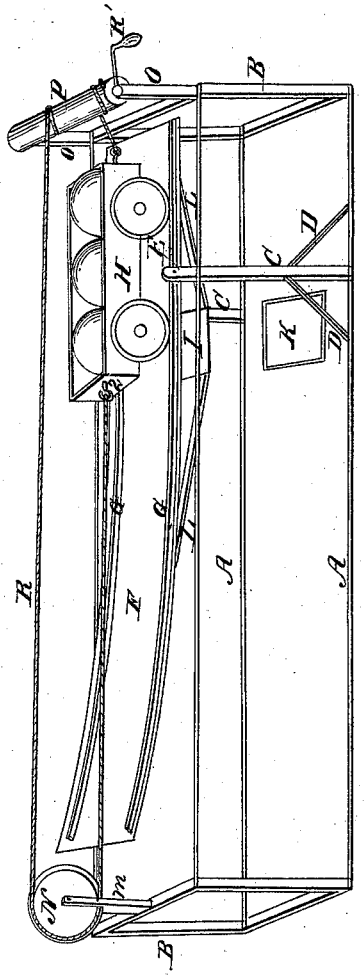
R. Sanderson,

Motor.

No. 3,446. Patented Feb. 20, 1844.



UNITED STATES PATENT OFFICE.

ROBERT SANDERSON, OF ATHENS, OHIO.

LEVER-POWER FOR PRESSING.

Specification of Letters Patent No. 3,446, dated February 20, 1844.

To all whom it may concern:

Be it known that I, ROBERT SANDERSON, of Athens, in the county of Athens and State of Ohio, have invented a new and improved lever-power to be applied to cheese-presses, cider-presses, for expressing oils, pressing hay, cotton, paper, cloth, and all substances where great power is required, and also for raising or lowering great weights into and out of canals, lock-pits, &c.; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing in perspective, making part of this specification.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

For a cider-press I construct a substantial frame A, A, as represented in the annexed drawing, about eighteen feet long and six feet wide, the uprights B, B, six or eight feet high; about five or six feet from one end I insert in the sill and upper plate of the frame, two strong posts C, C, and where great power is required, it may be necessary to attach the braces as seen in the drawing at D, D. Near the top of the posts make a hole as seen at E, six or eight inches diameter to receive the trunnions of the axle or shaft hereafter described.

I next construct my lever of two or more pieces of timber of a length nearly equal to the frame, and spike on them crosswise plank of a length, so as to let the lever play on the fulcrum freely within the frame, see F. I then spike down on the top of the lever two iron or wooden rails G, G, the whole length of the lever, to receive the wheels of the car H. In the sides of the lever and under the rails, let in and fasten by bolts and screws or otherwise the axle or shaft forming the fulcrum with the trunnions passing into the holes E in the posts C. On the under side of lever immediately in front of the axle, fasten three or four pieces of timber crosswise of the lever to form the platen I, to correspond with the bed K. below. On the opposite ends of the platen I fasten the braces L, L, to the lever in order to give it strength. The bed K is simply a block of wood or other material made with or without ledges around its upper edges placed vertically below the platen. In the center of the front end, and on the top of the frame I insert firmly, the upright M, to receive the pulley N. At the opposite end of the frame insert two uprights O, O, to receive the cylinder P and crank R′. The cylinder and pulley may be of greater or less diameter according to circumstances of which the workman will be the best judge.

The car will be similar to those used in coal mines, filled with rock or other ponderous material, and increased or diminished as may be required.

At Q, in the forward end of the car I place a hook, and from it extend the rope or chain R, over the pulley N, and back to the cylinder P, coil around once or twice and fasten it to the cylinder. From the other end of the car I extend a similar rope or chain to the cylinder and coil around it inversely, a sufficient number of times to permit the car to reach the extreme end of the lever when the rope is unwound.

To apply my lever, I place the substance to be pressed on the bed K, and block against the platen I. Then by turning the cylinder with the crank, draw the loaded car to the forward end of the lever which will be pressed down with a force proportionate to the weight of the car; reverse the motion of the crank and you draw back the car and the lever will be raised up ready for reblocking.

If you wish to raise or lower any weight, attach a rope to the forward end of the lever, and pass it over a pulley similar to the one already described, fasten to the weight, run forward the car and the work is done.

To apply this lever to the purposes mentioned it is impossible to give the dimension for each, the mechanic will be the best judge of the strength required, and will vary the length of the lever, weight of the car, and strength of timber accordingly.

What I claim as my invention and desire to secure by Letters Patent, is—

The combination of the loaded car and rails or track with the lever F causing it to operate as such for the purpose of pressing the whole to be constructed and operated as above described.

ROBERT SANDERSON.

Witnesses:

A. J. VAN VORHIS,

A. VAN VORHIS.