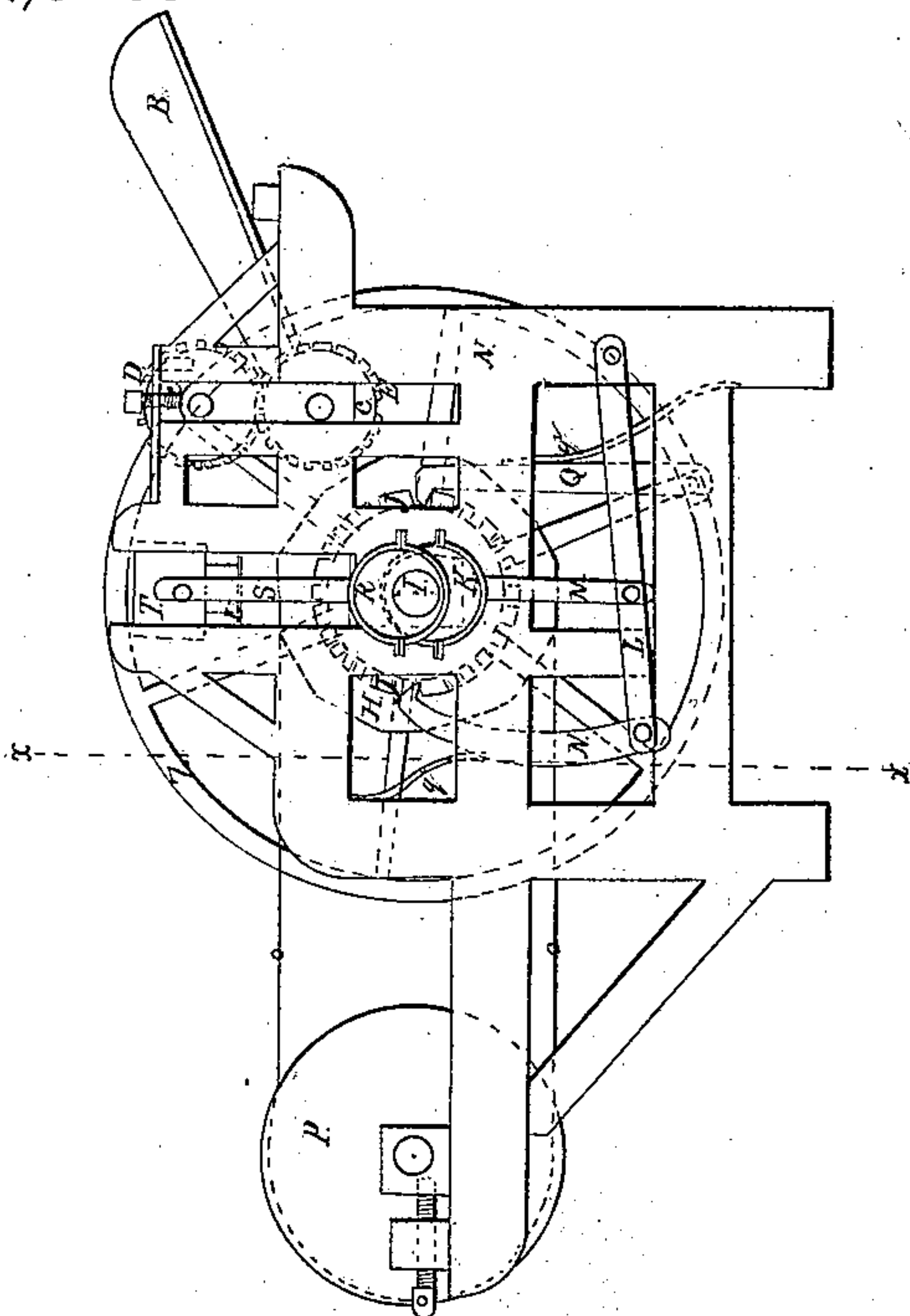


*P. Emmons,*  
*Cracker Machine,*

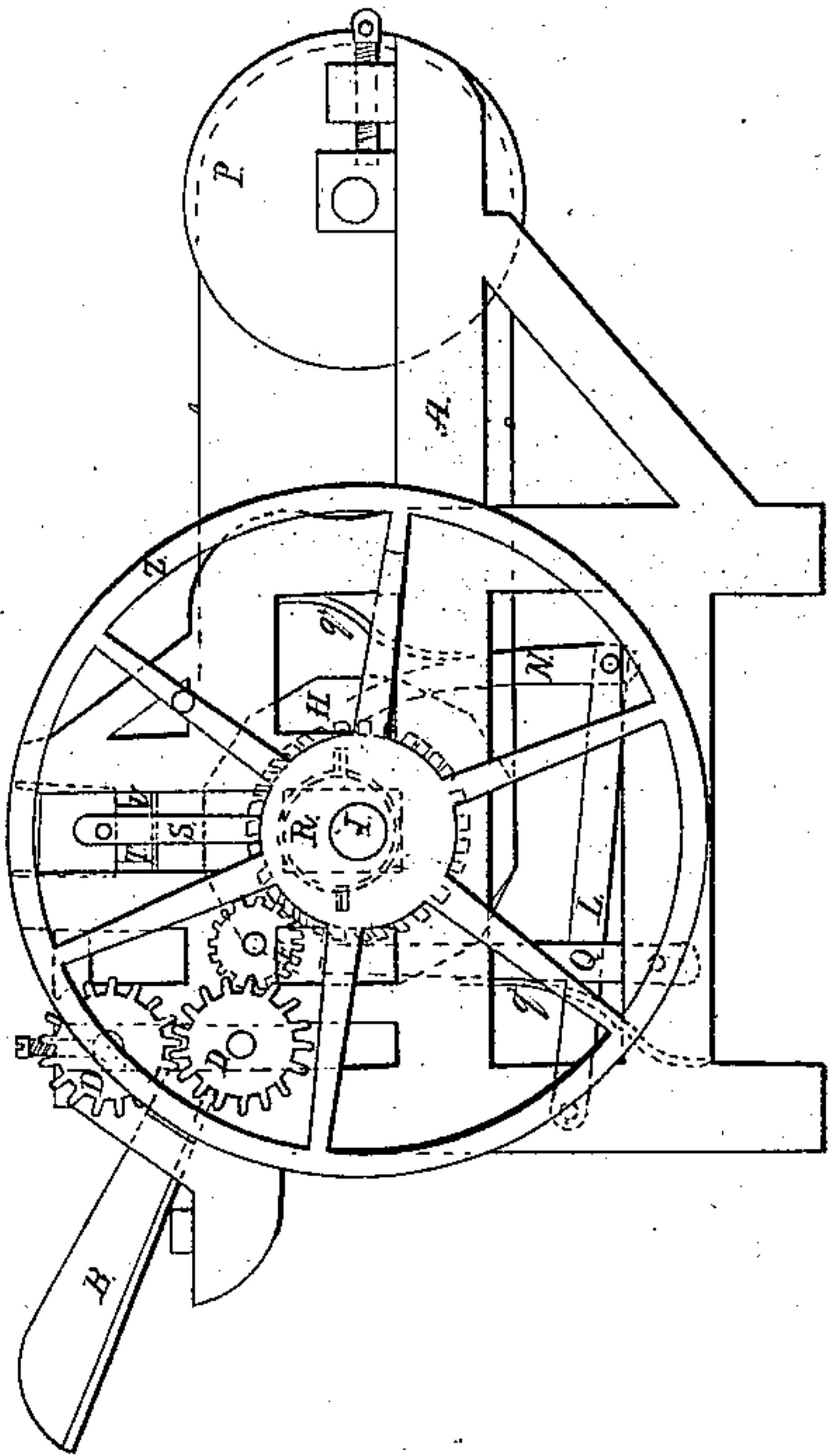
*N<sup>o</sup> 12,383.*

*Patented Feb. 13. 1855.*

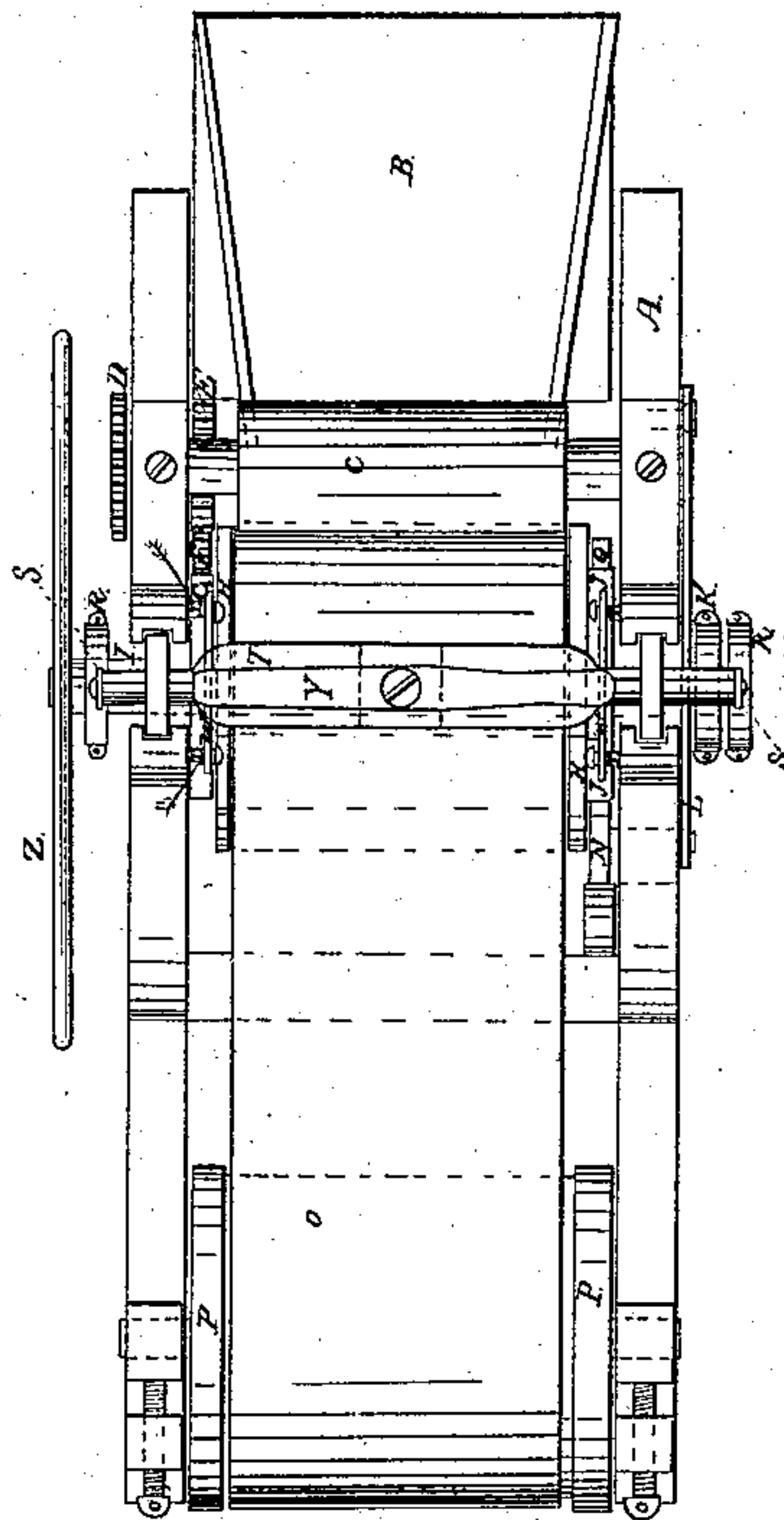
*Fig. 2.*



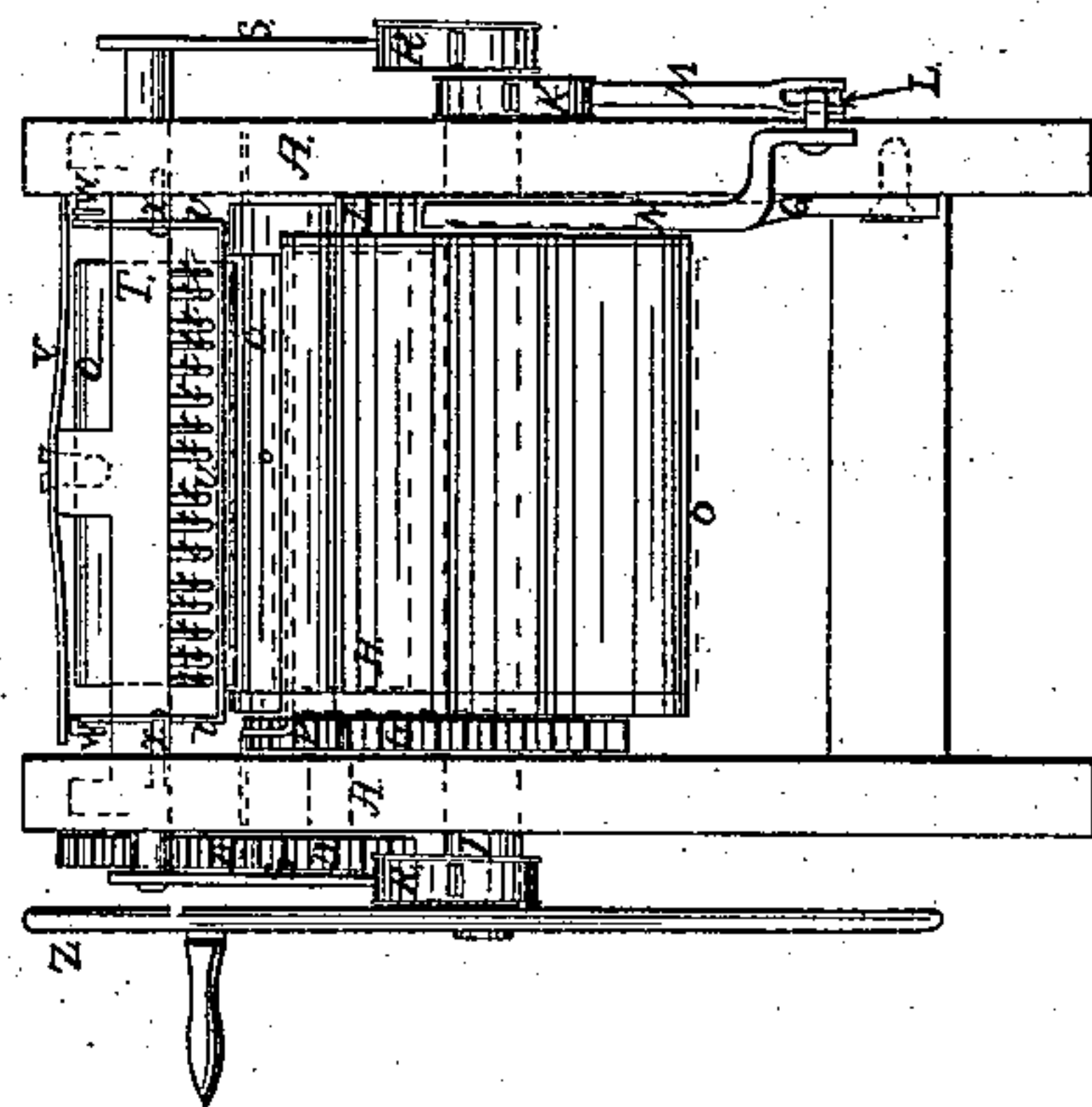
*Fig. 1.*



*Fig. 4.*



*Fig. 3.*





# UNITED STATES PATENT OFFICE.

PHINEAS EMMONS, OF NEW YORK, N. Y.

## CRACKER-MACHINE.

Specification of Letters Patent No. 12,383, dated February 13, 1855.

*To all whom it may concern:*

Be it known that I, PHINEAS EMMONS, of the city, county, and State of New York, have invented a new and useful Improvement in Machines for Cutting Crackers and other Articles; and I do hereby declare the following is a full description of the same.

The nature of my invention consists in making a cylindrical bed plate, having twelve or more or less flat faces cut on it, and combining with it a cog wheel having a corresponding number of teeth in it, to the number of faces on the cylinder, and pawls operated upon by a lever and connecting rod on an eccentric on the cylinder shaft, so that as the shaft revolves at each revolution the pawls take up a notch on the cog wheel, which being attached to the head of the cylinder turns it one twelfth its circumference, to present a face, and at the same time carry the endless apron around the cylinder and a carrying roller forward with the cracker just cut; and also in the arc of the dockers and prickers in combination with the movable cleaner, having a relative motion with the dockers and prickers, and operated substantially as set forth. But to describe my invention more particularly I will refer to the accompanying drawings forming a part of this schedule, the same letters of reference whenever they occur referring to the same parts.

Figure 1, is a side elevation of the left side of the machine. Fig. 2, is an elevation of the right side of the machine. Fig. 3, is a cut section of the machine through the red dotted lines X, X, Fig. 2. Fig. 4, is a plan view of the machine.

Letter A, is the frame of the machine, B, the feed trough or board, and C, C, two feed rollers. These rollers have an intermittent motion, which is communicated to them by means of the match wheels D, D, on the ends of their shafts, and a driving cog wheel E, on the lower feed roller shaft, gearing into a carrying cog wheel F, propelled by a third cog wheel G, on the end of the revolving bed plate H. The object of this intermittent motion in the feed rollers is to have a relative motion to the revolving bed plate, so that there will always be a supply of dough to be cut, but never too much feed. The revolving bed plate H, is twelve sided, though more or less sides may be cut if desired, and is placed loosely upon the driving shaft I, arranged in boxes in the

side frame of the machine. Letter J, is a wheel having twelve notches cut in its periphery, corresponding with the twelve faces of the bed plate. This wheel is secured to the end of the bed plate, so that as the eccentric K, on the driving shaft I, rotates, it operates the lever L, through the connecting rod M, and the pawl N, attached to the end of the lever L, for taking up a notch on the wheel J, and moving one of the faces of the revolving bed plate forward for the purpose of carrying in a new feed of dough, and at the same time by means of the endless apron O, and roller P, carrying off the cracker already cut. Letter Q, is a hold fast pawl intended to hold the revolving bed plate from turning back, while the take up pawl is being thrown forward to take up a new notch. Back of these pawls are springs  $q^2, q^2$ , for holding them firmly against the pawls.

Letters R, R, are two eccentrics on the driving shaft I, having connecting rods S, S, for attaching to a stock T in which are arranged a series of cutters and prickers  $t, t$ , for cutting the crackers. This stock works in guide ways cut in the frame vertically, so as to act at each revolution of the shaft I upon a new face to the bed plate. Connected with this pricker and cutter stock is a movable cleaner plate V. This plate is suspended by rods  $v, v$ , having cross heads W, W, to the stock, and by means of stop pins X, X, in the frame of the machine, and against which the ends of the cross heads W, W, acting are prevented from being carried down with the cutters and prickers through the entire stroke, but are held from rising with them, till their edges are cleared, by a spring Y, on the upper side of the pricker and cutter stock pressing upon the cross heads of the clearer rods, till the prickers and cutters are entirely sheathed. Letter Z, is a fly wheel on the main shaft I.

The operation of my machine is that when the dough is placed upon the feed board, and motion given to the driving shaft, it rotates the eccentrics on the ends of it, causing thereby, through the eccentric K, the connecting rod M, lever L, and pawl N and wheel J, the revolving bed plate H, to turn forward one twelfth of its circumference, and as it has a cog wheel G, on its opposite end gearing into a carrying cogwheel F, for driving the feed roller, by means of the cog wheel E, they also move forward simul-



taneously with the revolving bed plate to carry in the requisite feed of dough. When this has been done the eccentrics R, R, then force down the stock carrying the prickers  
5 and cutters upon the feed of dough for cutting it, which having done, is then drawn back, and in doing so is cleared by a clearer plate held down by a spring till the points of the prickers and cutters are entirely  
10 sheathed, preparatory to the next forward motion of the revolving bedplate, which carries off the crackers by means of the endless apron, while the new feed of dough is being carried in.

15 Having now described my invention and its operation, I will proceed to state what I claim and desire to secure by Letters Patent of the United States.

What I claim is—

20 The revolving intermittent bed plate, op-

erated by means of an eccentric on a driving 25 shaft, and the connecting rod, lever, pawls and notched wheel in combination, and this I claim whether the said intermittent bed plate be or be not combined with the endless band surrounding it for the purpose of con- 30 veying away the cracker, substantially as hereinbefore set forth, it being understood that I do not claim in general the making of the machine so as to convey the dough be- 35 neath the cutters with an intermittent motion, that having been before done in other machines by passing the dough upon an endless band carried with an intermittent motion, over a fixed table upon which the cutters work.

PHINEAS EMMONS.

Witnesses present:

LEWIS T. VOIGT,

CHARLES L. BARRITT.