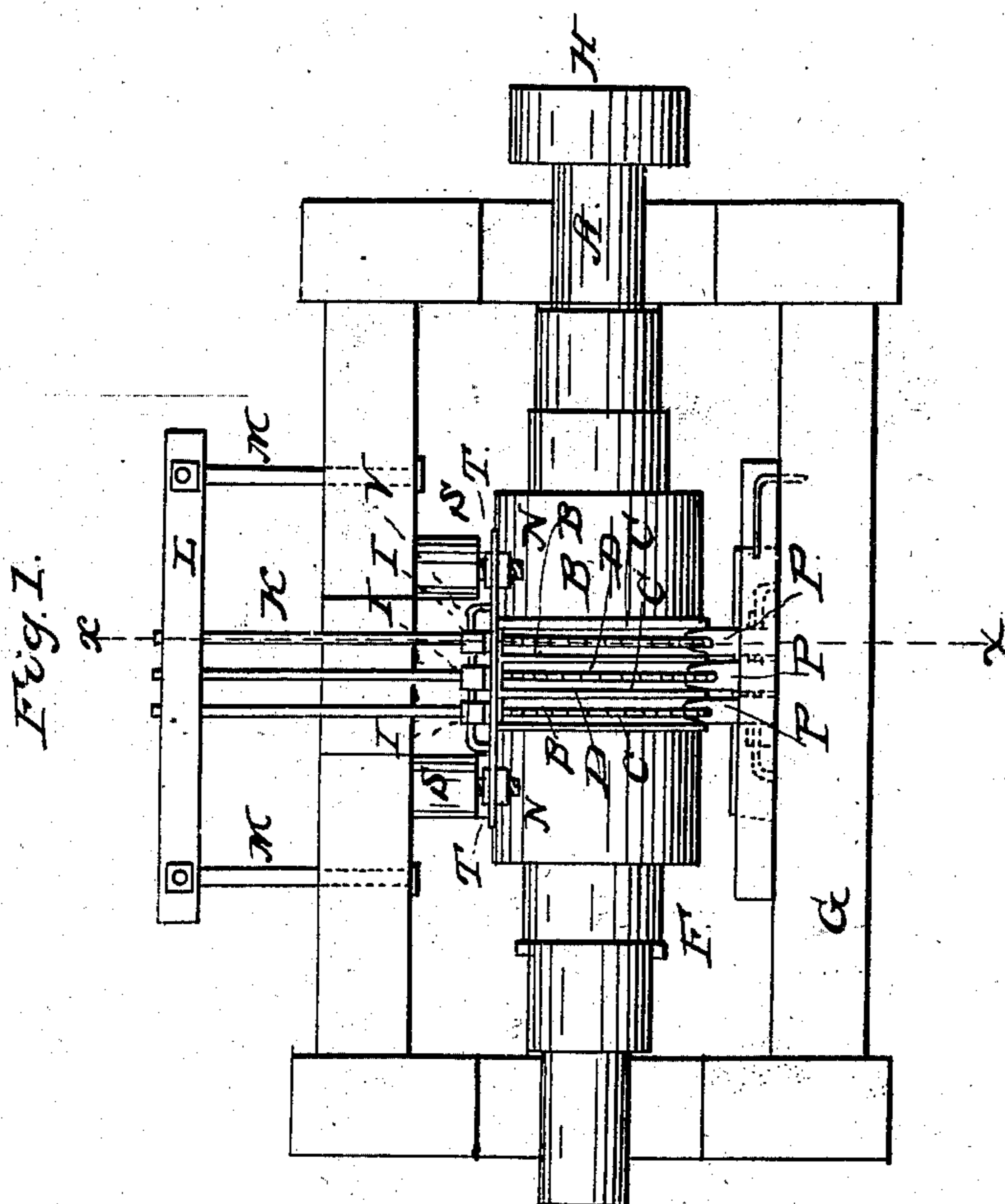
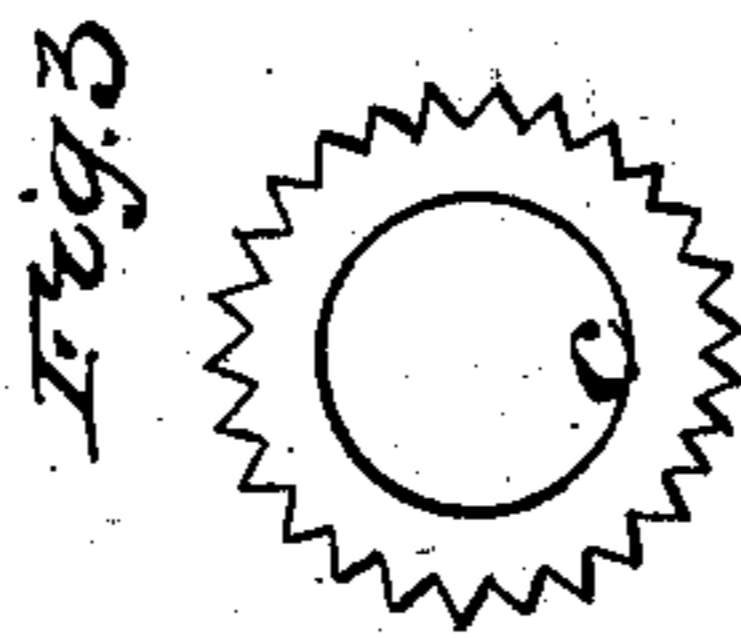
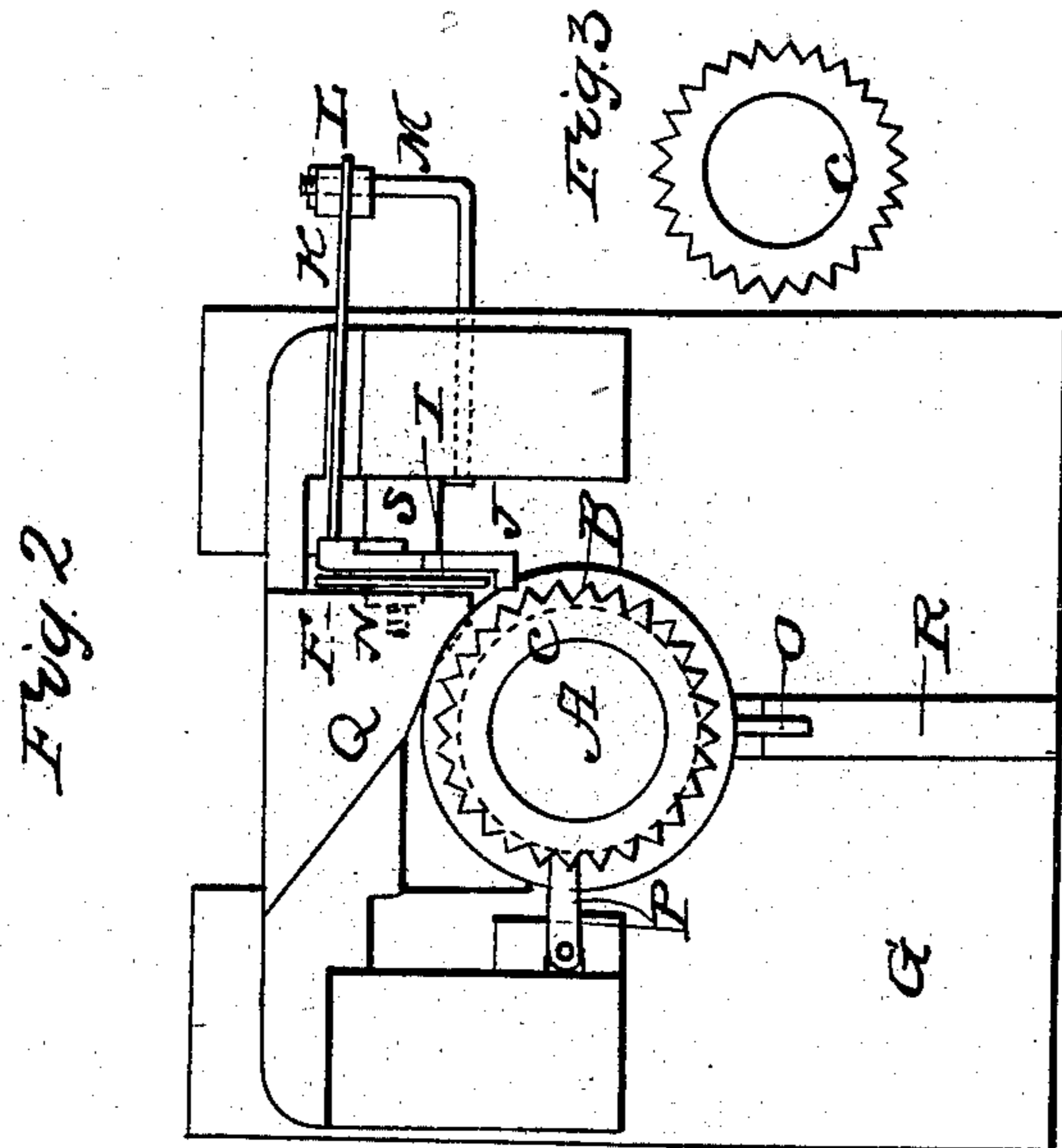


S. FAHRNEY.

Machine for Separating Garlic from Wheat.

No. 3,367.

Patented Dec. 5, 1843.



# UNITED STATES PATENT OFFICE.

SAMUEL FAHRNEY, OF NEAR BOONSBORO, MARYLAND.

## GARLIC-MACHINE.

Specification of Letters Patent No. 3,367, dated December 5, 1843.

*To all whom it may concern:*

Be it known that I, SAMUEL FAHRNEY, of near Boonsboro, Washington county, State of Maryland, have invented a new and useful Machine for Separating Garlic from Wheat, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a top view. Fig. 2 is a vertical transverse section at the line  $x x$  of Fig. 1. Fig. 3 is a plan of one of the serrated plates.

This machine consists of a horizontal revolving axle A, on which are placed and secured a number of circular disks B, a number of circular plates C notched or serrated on their peripheries resembling circular saws, and a number of circular rings D arranged in the following manner. A shoulder is formed on the shaft or axle. One of the circular disks B, perforated, in the center with an aperture the diameter of the smaller part of the shaft is put on the shaft against said shoulder. Then one of the rings D is put on the shaft against said plate; then a toothed plate C; then another ring D; then a disk B; then a ring D; then another toothed plate C and so on until a sufficient number of said toothed plates or disks are added; then a hub or collar E is put on the shaft and brought firmly against the outer disk of the series and secured by a pin F passed through the shaft; this holds them all firmly on the shaft. The shaft is supported in a suitable frame G of the requisite size and material for the purpose intended. On the outer end of the shaft is a pulley H by which it is turned. In each space between every pair of disks in which a toothed plate is arranged is brought the lower end of a spring bar I having a shoulder J on its lower end which hangs near the points of the teeth of the serrated plate and an eye in its upper end into which is inserted one end of a spring rod K, the other end of said spring rod being inserted into a horizontal rising and falling bar L which is raised or lowered on the vertical portions of two right angled rods or arms M inserted into the frame for the purpose of bringing the lower or large ends of the spring bars nearer to, or removing them farther from the teeth of the serrated plates and increasing the strength of the spring.

The spring bars are held against a metallic plate T by a staple U inserted into said

plate which plate is held in a vertical position by means of two horizontal parallel studs or supports projecting from the frame, said plate with the springs being brought nearer to serrated plates by nuts N on said studs. Beneath the revolving shaft and serrated plates is arranged a coarse rack O upon one of the cross timbers of the frame. The teeth of the serrated plates pass or revolve in the spaces of said rack. This rack scrapes off the wheat from the teeth of the serrated plates while it allows the garlic to pass through the spaces between the bars of said rack, these being sufficiently large for that purpose. In the rear of and about the middle of the aforesaid revolving shaft and plates and disks, is arranged another rack P or comb in which the teeth of the serrated plates revolve and by which they are cleaned of the garlic adhering to the teeth. Above the disk and serrated plates is arranged a suitable hopper Q for conducting the grain and garlic to the teeth of the serrated plates and between them and the spring bars where the garlic is caused to adhere to the teeth. The shaft is turned by any convenient power applied to the pulley H on the end of the same. The diameter of the serrated plates is less than the diameter of the circular disks and greater than that of the rings between which they are placed thus forming circular channels or grooves for receiving the grain and garlic to be separated by the teeth of the serrated plates. These channels or grooves are colored dark in the drawing Fig. 1.

The operation of the machine is as follows: The machine being put in motion the wheat and garlic to be separated are put into the hopper Q and by it conducted to the circular grooves or channels and spaces between the teeth of the notched plates C and the large or lower ends of the spring bars I when the garlic and wheat become jammed or wedged between the points of the teeth and the springs and the garlic being of a softer nature than the wheat is pierced by the teeth of the serrated plates to which it adheres and is carried around to the fine comb P when it is scraped off from the teeth and falls at the rear of the dividing board R of the frame while the wheat resists the teeth, pushes the springs back or causes them to contract and thus open a space between them and the teeth sufficiently large to admit or allow the wheat to de-

scend and fall into the space in front of the aforesaid dividing board and thus the heretofore very difficult and almost impracticable operation of separating garlic from wheat, is effected.

Whenever it is desired to diminish the space between the lower ends of the spring bars and the teeth the bar L into which the rods M are inserted is depressed which draws the upper ends of the spring bars I outward and forces the lower ends inward toward the teeth. By raising the aforesaid bar an opposite result is produced. This operation also increases or diminishes the stiffness of the spring bars I. The spring

bars I are also removed nearer to or farther from the teeth of the plate C by moving the plate T to which the springs are attached, on the studs S by turning the nuts N.

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

The aforesaid combination of the disks B toothed or serrated circular plates C spring bars I and combs O, P for separating the garlic from the wheat with which it is found intermixed—as set forth.

SAML. FAHRNEY.

Witnesses:

WM. P. ELLIOT,

ALBERT E. JOHNSON.