P. SWEENEY.

Corn Sheller.

No. 46,155. Patented Jan'y 31, 1865.

FIG. 1

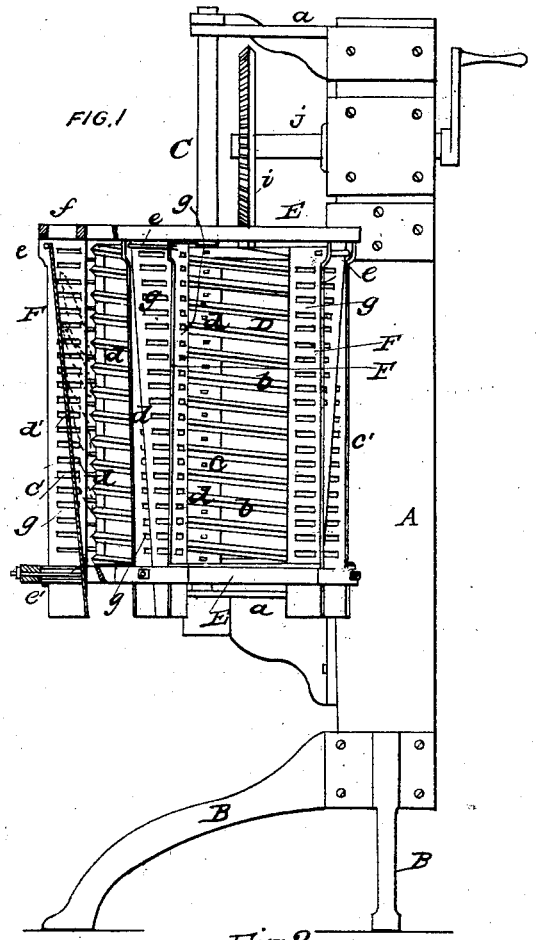
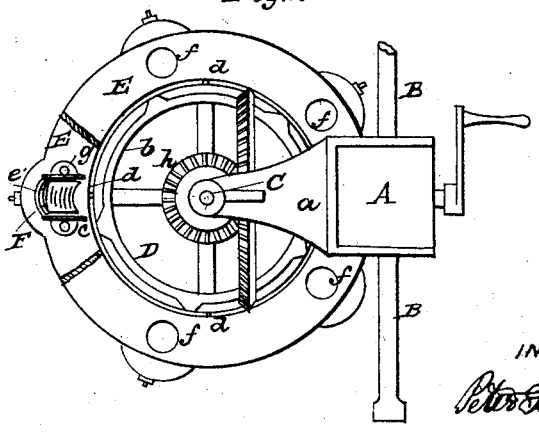


Fig. 2



WITNESSES

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IMPROVEMENT IN CORN-SHELLERS.

Specification forming part of Letters Patent No. **46,155**, dated January 31, 1865.

To all whom it may concern:

Be it known that I, PETER SWEENEY, of 79 Mangin street, in the city, county, and State of New York, have invented a new and Improved Corn-Sheller; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a sectional side elevation of this invention. Fig. 2 is a plan or top view of the same, partly in section.

Similar letters of reference in both views indicate corresponding parts.

This invention consists in the employment or use of a revolving open cylinder with a helical flange and pegs, in combination with a series of hoppers situated at suitable distances apart around the periphery of the flanged cylinder in such a manner that ears of corn dropped endwise into said hoppers are brought in contact with the flange and pegs of the cylinder, and by their combined action the corn is shelled. The hoppers are composed each of three plates, perforated with slots of sufficient size to admit the passage of the kernels. Two of these plates are placed in a radial and the third in a tangential position, and the radial plates are rigidly secured to the frame, whereas the tangential plate is made yielding, so that by its action the ears are held in contact with the periphery of the cylinder while passing through the hopper.

A represents a standard, made of wood or other suitable material, and supported by legs B or by any other desirable means, in an upright position. From this standard extend two arms, *a*, which form the bearings for the vertical shaft C, to which the cylinder D is rigidly attached. This cylinder is open, being composed of a helical flange, *b*, and a series of vertical strips, *c*, from which the arms extend which support the cylinder on the shaft C. Said strips are provided with pegs *d*, which project between the coils of the helical flange, as shown in Fig. 1 of the drawings, and the outer edge of the flange is sharp, like the point of triangular screw-thread.

The cylinder D revolves between two rings, E, which are secured to the standard A—one above and the other below the cylinder—and these rings support the hoppers F. These hoppers are composed of three plates each, two of which are placed in ara dial and the third in a tangential position. The radial plates *c'* are firmly secured to the rings E, but the tangential plate *d'* is hinged by means of a pivot, *e*, to the upper ends of the radial plates, and its lower end is pressed up against the periphery of the cylinder by a spring, *e'*, of india-rubber or other suitable material. By the action of this spring the yielding plate *d'* is held in an inclined position, as clearly shown in Fig. 1 of the drawings, the upper end thereof being far enough from the periphery of the cylinder to admit an ear of corn of the largest size. Suitable holes, *f*, in the upper ring lead to the hoppers, and the lower ring is perforated with suitable openings, through which the cobs escape.

The plates *c' d'*, which constitute the hoppers, are provided with slots or apertures *g*, large enough to let the kernels pass, and the shaft C bears a bevel-wheel, *h*, which gears in another wheel, *i*, mounted on the end of a horizontal shaft, *j*, which serves to impart motion to the cylinder by hand or any other suitable power.

The ears of corn are dropped endwise into the hoppers either by hand or they are conducted thereto by suitable chutes, and by the combined action of the helical flange and of the pegs *d* the shelling operation effected. The kernels escape through the apertures in the plates of the hoppers and through the open spaces of the cylinder, and the empty cobs drop out underneath. A number of ears can thus be shelled simultaneously, and the whole operation is effected without requiring any particular attention and with a comparatively small expenditure of power.

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

1. The revolving open cylinder D, with a helical flange, *b*, and pegs *d*, in combination with a series of hoppers, F, arranged around said cylinder, and operating substantially in the manner and for the purpose herein shown and described.

2. The perforations *g* in the plates *c' d'*, composing the hoppers, arranged substantially as and for the purpose described.

PETER SWEENEY.

Witnesses:

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E. WOLFF.