J. S. GRIFFITH.

Grinding Mill.

No. 12,348. Patented Feb. 6, 1855.

Fig. 2

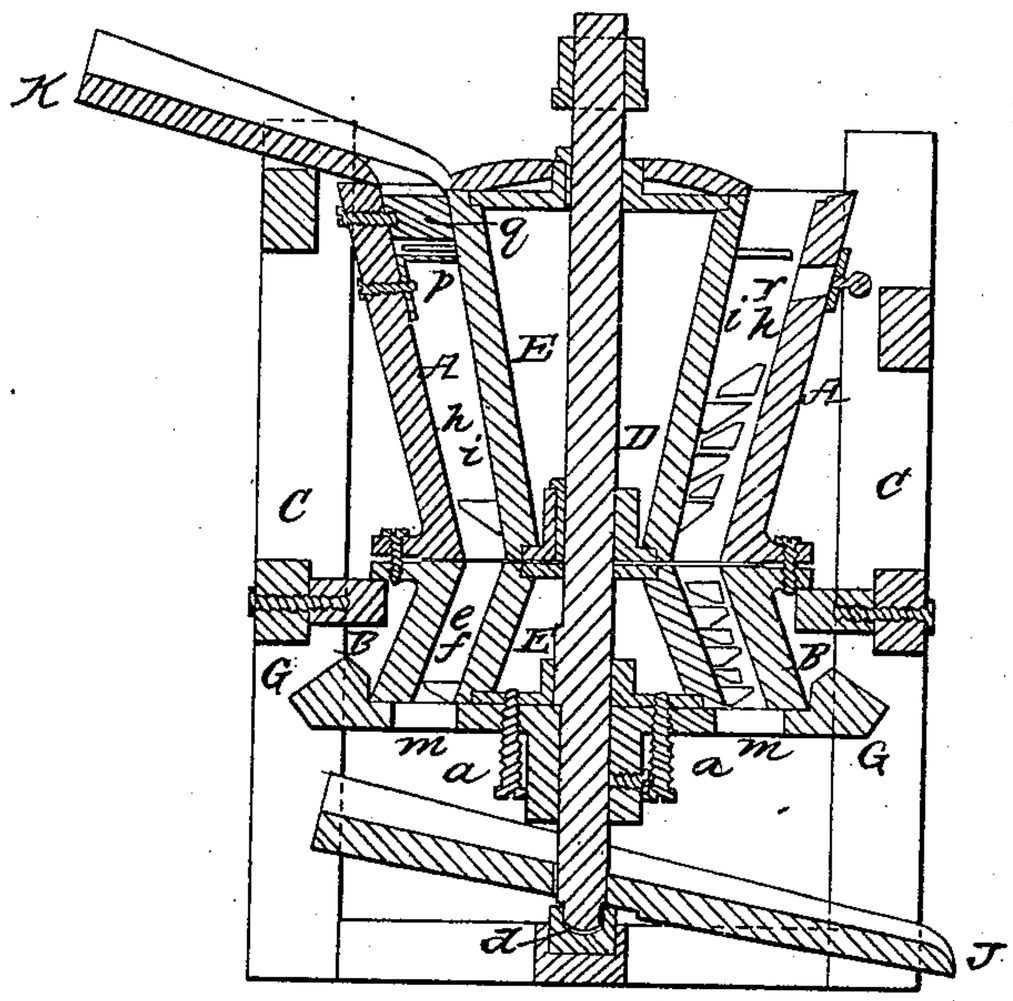
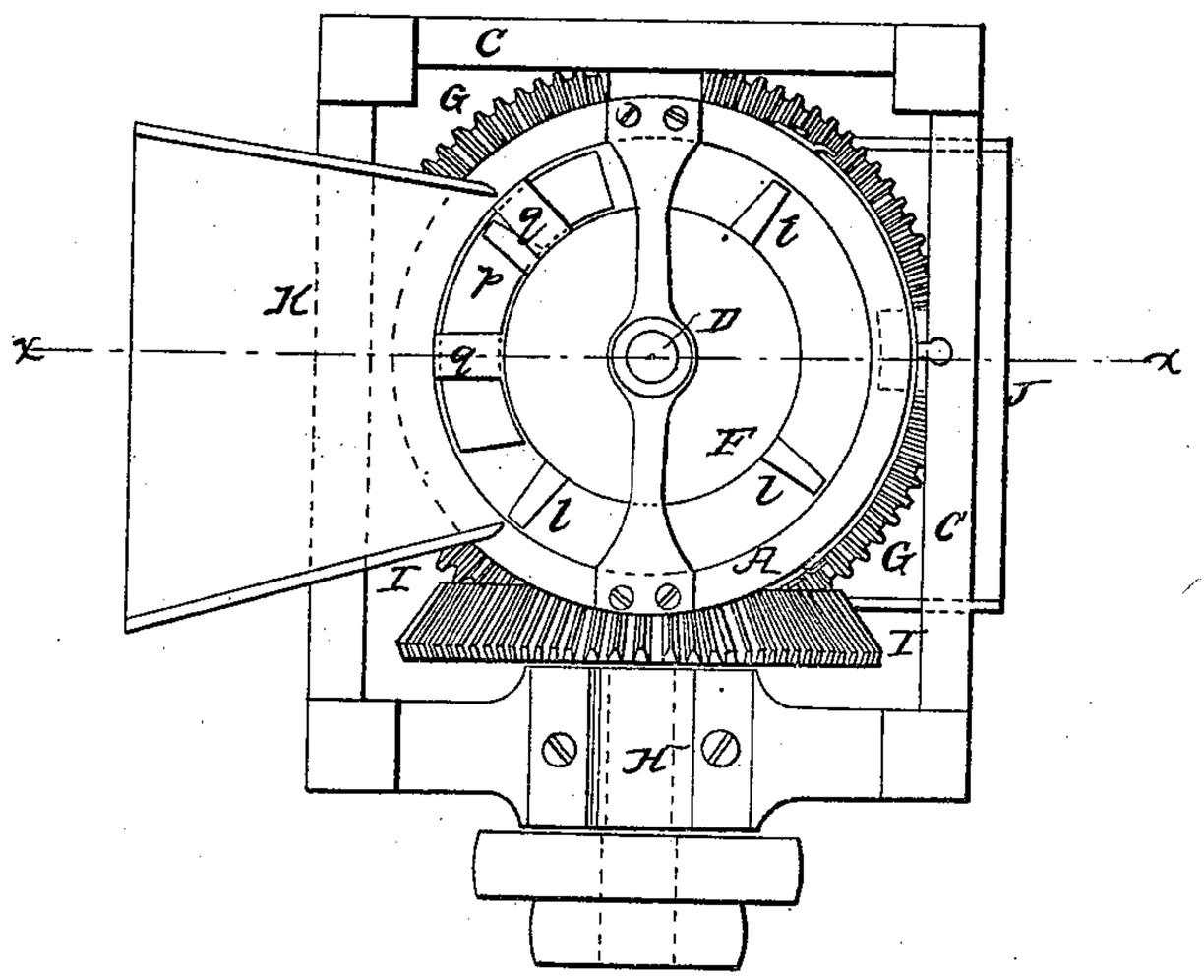


Fig. 1.



UNITED STATES PATENT OFFICE.

JOHN S. GRIFFITH, OF HUNTINGDON, PENNSYLVANIA.

CORN AND COB CRUSHER.

Specification of Letters Patent No. 12,348, dated February 6, 1855.

To all whom it may concern:

Be it known that I, JOHN S. GRIFFITH, of Huntingdon, in the county of Huntingdon and State of Pennsylvania, have invented a new and useful Improvement in Machines for Crushing Corn and Cobs and Cutting and Crushing Stalks; 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 annexed drawing, forming part of this specification, in which—

Figure 1 is a top view of my improved machine, and Fig. 2 a vertical section on line *x x* of Fig. 1.

Similar characters of reference in the several figures denote the same part of the machine.

The nature of my invention consists in the construction of the crusher with a concave composed of two hollow frustums of cones, united at their smaller bases, within which revolve two corresponding frustums; the elements of the upper frustums being the greatest distance apart at their larger bases, and the surfaces of the lower frustrums parallel, the revolving lower frustrum being adjustable; the concave and revolving frustums being arranged for grinding the stalk as well as the ear: the construction, arrangement, and operation of the several parts being as set forth in the following description.

In the drawing A and B are the frustums constituting the concave, supported in a suitable manner by a frame C. The shaft D stepped at *d*, has the inverted frustum of cone E permanently secured to it. The cog wheel G is also secured to the shaft, and is connected with the lower frustum F by means of the screws *a*, by which the said frustum F may be raised or lowered and the distance between the surfaces *e* and *f* regulated. The surfaces *h* and *i* converge toward the lower bases of the frustums. These surfaces have the teeth usual to machines of this character, set spirally.

H is the driving shaft, communicating motion to the wheel G and frustums E and F through cog wheel I.

K is the feeding and J the delivering boards, and *m* the discharge passages from the machine.

In the upper part of the concave is a small platform or shelf *p*, (adjustable vertically if desired) and holders *q*. This combination being designed to receive the ends of the stalks and hold them so that the revolving knives *l* shall cut said stalks preparatory to their grinding. When cobs and corn are fed, the board K is removed to the opposite side of the machine, and so placed that the material to be ground will enter through the opening *r;* this is designed to preserve the knives *l*.

The operation of this machine does not differ materially from other crushers. The stalks being held on end upon the platform *p* and in contact with the holders *q*, while the revolution of the frustum holding the knives produces the cutting of the stalk into pieces, which dropping between the rotating frustums and concave, are by the teeth thereof, crushed, broken and ground, and pass from the mill through the discharge passages *m*.

Having described my invention and the operation of the same, what I claim as new and desire to secure by Letters Patent, is—

The combination of platform *p*, holders *q*, and knives *l*, arranged with the crushing frustums and concaves as constructed and operating for the purposes set forth.

In testimony whereof, I have hereunto signed my name before two subscribing witnesses.

J. S. GRIFFITH.

Witnesses:

GEORGE PATTEN,

SAML. GRUBB.