

J. O. GRISHAM.  
Corn Cutting and Grinding Mill.

No. 230,547.

Patented July 27, 1880.

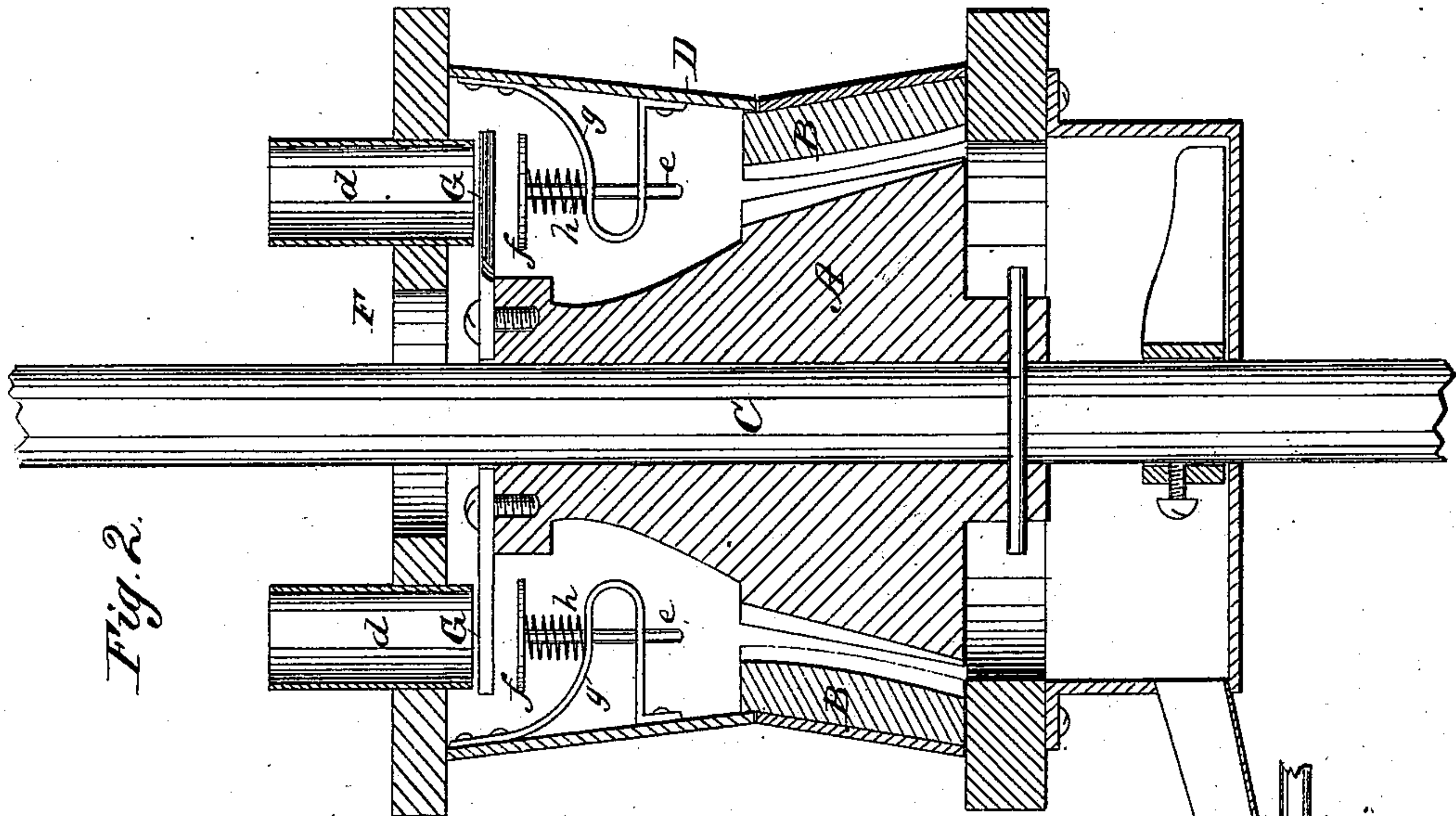


Fig. 2.

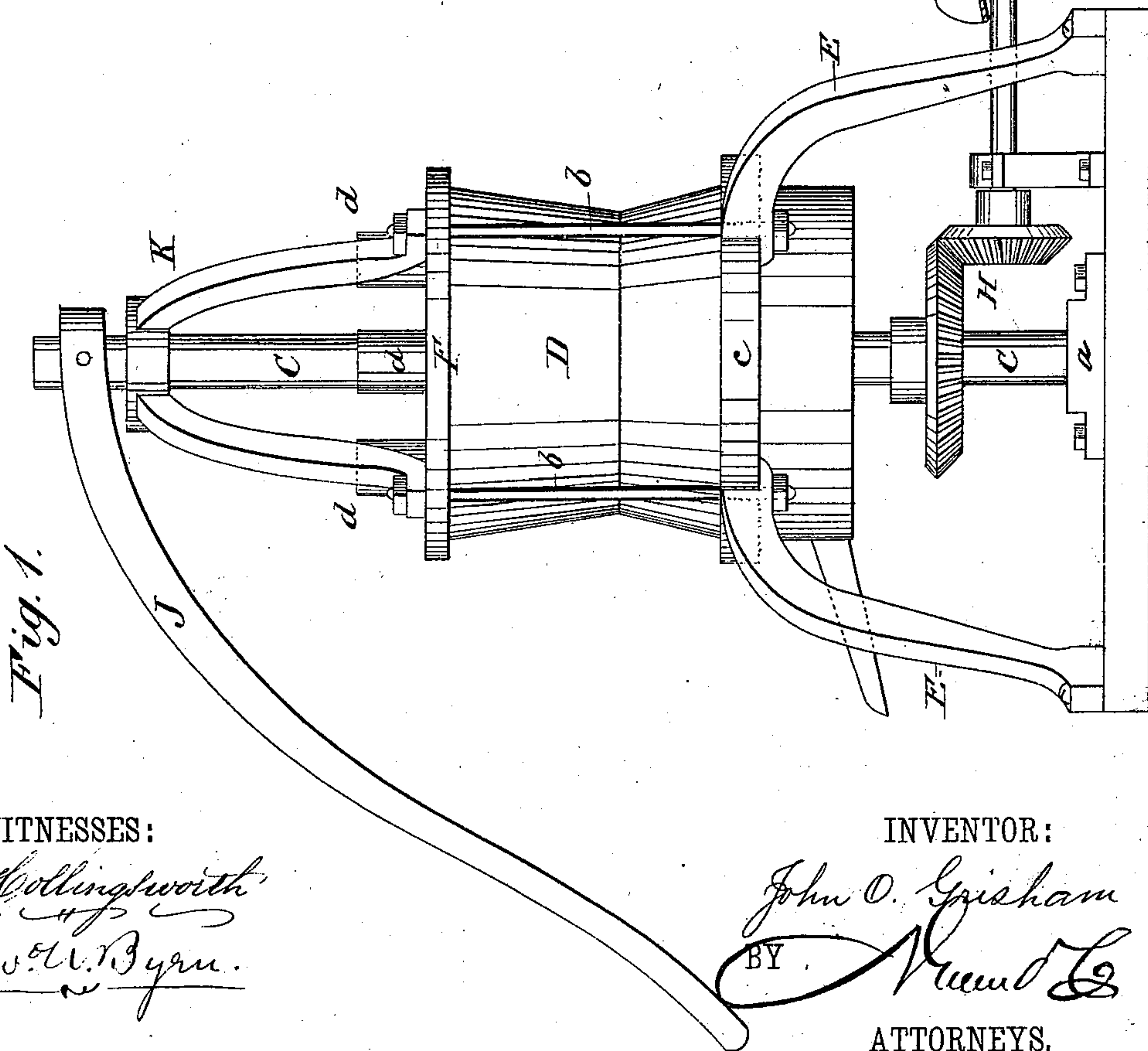


Fig. 1.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN O. GRISHAM, OF STATE LINE, MISSISSIPPI.

## CORN CUTTING AND GRINDING MILL.

SPECIFICATION forming part of Letters Patent No. 230,547, dated July 27, 1880.

Application filed December 12, 1879.

*To all whom it may concern:*

Be it known that I, JOHN O. GRISHAM, of State Line, in the county of Greene and State of Mississippi, have invented a new and Improved Corn-Crusher; 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—

10 Figure 1 is a side elevation. Fig. 2 is a vertical section of the body of the mill, drawn on a larger scale.

My invention is an improvement upon that form of corn-crusher in which the ears of corn 15 in the husk are fed through throats, sliced into sections by revolving knives, and these sections then rendered fine by passage between grinding-surfaces.

My invention consists in combining, with 20 the feeding-throats and knives, a set of spring-seated tables, which hold the ends of the ears of corn while being cut, and which springs allow the sections being cut off to press down to accommodate the thickness of the knife, 25 thus preventing the knife from hanging in the ear, and rendering the cutting action easier.

In the drawings, A represents the runner or grinder. B is the outer shell, having its internal surface wrought into grinding-faces.

30 The runner is firmly keyed to the vertical shaft C, which latter is stepped at *a* in the frame-work below, while the case D, inclosing the shell and runner, is supported upon legs E.

F is the top plate of the crusher, which is 35 fastened down by long bolts *b*, passing through a flange, *c*, at the lower edge of the case. Projecting upwardly from the top plate, F, are four (more or less) tubular throats, *d*, and just beneath each of these throats there is a 40 disk-shaped table, *f*, fixed to a stem, *e*, which latter passes loosely through offsetting supports *g*, projecting from the sides of the case, and are encompassed by spiral springs *h*, which cause the table to be yielding.

45 Upon the upper surface of the runner are bolted two (more or less) horizontally-projecting knives, G G, which, in the revolution of the runner, are adjusted to pass close to the lower edges of the throats *d*.

Now, it will be seen that when the ears of 50 corn with the husk or shuck attached are passed into the throats said ears rest endwise upon the several spring-seated tables *f*. Then, as the knives G pass around between said heads and the lower edge of the throats, they cut 55 transversely through the ear of corn—husk, cob, and all—and the section thus cut drops down between the grinding-surfaces to be comminuted, while the ear feeds down by gravity until its cut face rests upon the table *f*, ready 60 for another section to be sliced therefrom.

In this manner, it will be seen, I am enabled to utilize for chopped food the corn, husk, and cob, gaining in bulk of food and saving the labor of husking the corn. 65

In operating the crusher it may be run either by power or by hand. When run by power a bevel-gear, H, may be employed to connect a horizontal shaft, I, with the vertical shaft of the grinder, and when run by hand or horse 70 power I prolong the vertical shaft above the mill a considerable distance, and attach thereto a rigid bent arm, J, dipping down into convenient range for a man to push or a team to pull on the same in traveling in a circle around 75 the mill. When such arm J is employed I place upon the top of the crusher a bracing-frame, K, which, by giving a bearing at a high point of the shaft, gives steadiness to the same in its revolution. This frame is made suffi- 80 ciently high to give the person who feeds the ears free access to the throats.

Just below the edges of the grinding-surfaces the case may be housed in, and a revolving scraper attached to the shaft, so that the 85 ground food may all be discharged through a spout at one side.

Having thus described my invention, what I claim as new is—

The combination, with the feeding-throats 90 and the revolving knife, of the spring-seated tables, arranged substantially as and for the purpose described.

JOHN OVERTON GRISHAM.

Witnesses:

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