No. 753,129. PATENTED FEB. 23, 1904.

P. FAUST.

COCOA MILL.

APPLICATION FILED JUNE 20, 1903.

NO MODEL.

FIG. 1.

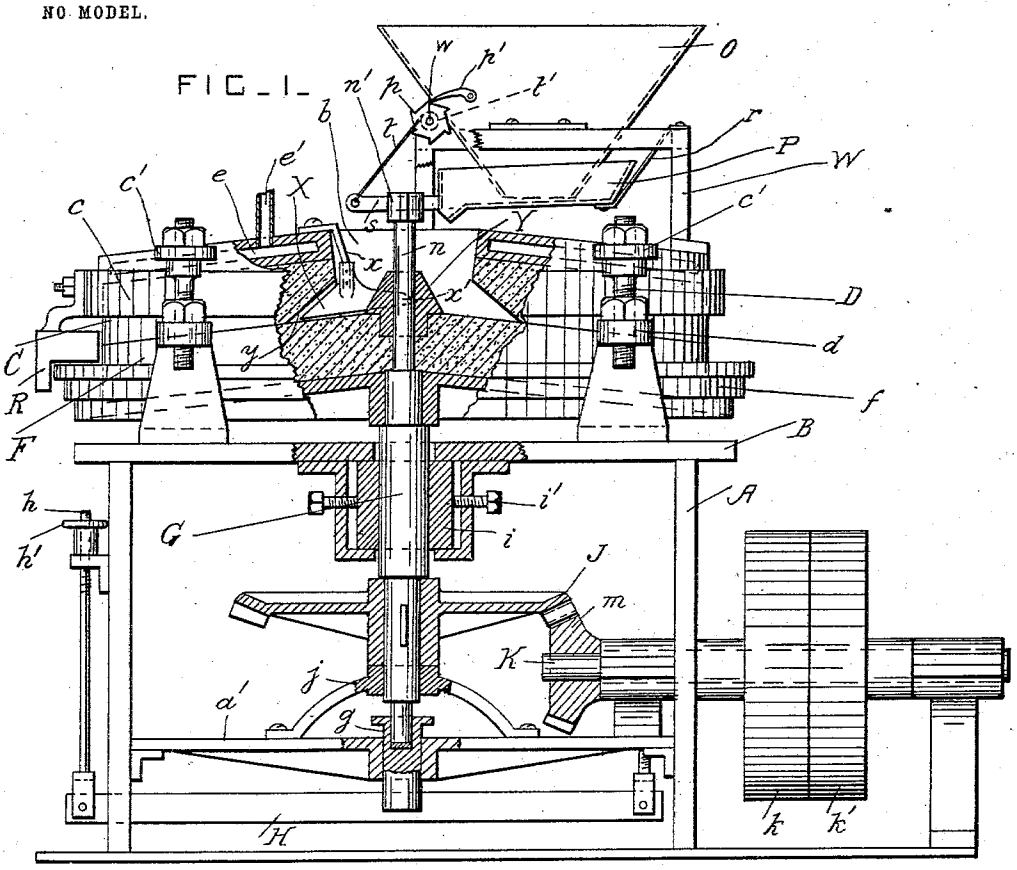
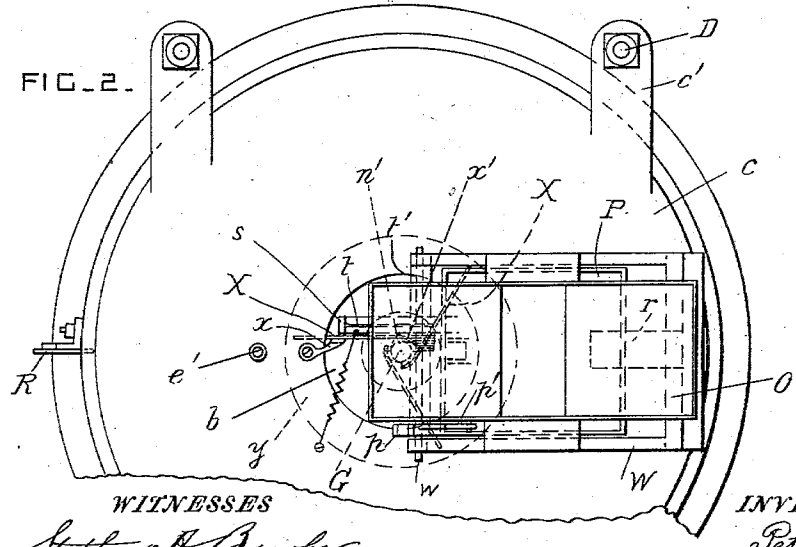


FIG. 2.



WITNESSES

Stephen A. Brooke

James M. Shea

INVENTOR

Peter Faust.

by Herbert W. J. Jenner.

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 753,129. Patented February 23, 1904.

UNITED STATES PATENT OFFICE.

PETER FAUST, OF BROOKLYN, NEW YORK.

COCOA-MILL.

SPECIFICATION forming part of Letters Patent No. 753,129, dated February 23, 1904.

Application filed June 29, 1903. Serial No. 163,548. (No model.)

To all whom it may concern:

Be it known that I, PETER FAUST, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Cocoa-Mills; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to mills for grinding cocoa and other similar substances; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view of the mill, partly in section. Fig. 2 is a partial plan view of the mill.

A is a supporting-frame having a flat table B at its upper part.

C is the upper grinding-stone, which is stationary and which is secured in an inverted pan or case *c*. The pan *c* has projecting lugs *c'*, and D are adjustable screw-threaded pillars which support the pan *c*. The upper parts of the pillars D engage with the lugs *c'*, and their lower parts engage with brackets *d*, which rest on the table B. The number of pillars may be varied; but four pillars are preferably used. The pan *c* has a chamber *e* in its upper part, and *e'* is a pipe for admitting fluid to the said chamber. Steam or water is admitted to heat or to cool the upper grinding-stone, as found desirable.

F is the lower grinding-stone, which is mounted on a vertical driving-shaft G and which is secured in a pan or casing *f*. The lower stone has a projecting or convex grinding-face, and the upper grinding-stone C has a recessed or concave grinding-face, which works in close proximity to the face of the lower stone. The upper stone C also has an eye *b*, so that the material to be ground is fed through the said eye onto the central part of the lower stone.

The vertical driving-shaft G is mounted in a step *g*, which is carried by a pivoted lever H, and the said step is slidable in a cross-bar *a'* of the frame A. A screw *h* and a hand-wheel *h'* are provided for operating the lever H, and thereby adjusting the position of the lower stone; but any other adjusting mechanism of approved construction may be used in carrying out this invention in place of the adjusting mechanism shown. The vertical driving-shaft G is also journaled in bearing-blocks *i*, supported from the under side of the table B, and *i'* are screws for adjusting the position of these bearing-blocks laterally.

J is a beveled toothed wheel which is splined to the driving-shaft G, and *j* is a bracket which rests on the cross-bar *a'* and which forms a bearing for the said shaft and a support for the hub of the said wheel J.

K is a horizontal driving-shaft provided with driving-pulleys *k* and *k'*. The shaft K is journaled in suitable bearings and drives a beveled toothed pinion *m*, which gears into the wheel J.

The vertical shaft G has an extension *n*, which projects through the eye of the upper stone and which has a tappet *n'* on its upper end.

O is a supply-hopper for the material secured to the casing of the upper stone, and P is a feed-pan under the hopper. The feed-pan is pivotally supported and is jarred by the tappet *n'* as long as the shaft G revolves. This causes the unground material to be fed to the stones as long as the mill is running, and the feed ceases when the mill stops. The pan P is pivoted at its rear end to the frame which supports the hopper by means of a flexible connection or strap *r*, so that it can move vertically and horizontally. The pan has an arm *s* at its front end for the tappet *n'* to strike, so that the pan is vibrated horizontally. The feed-pan is provided with a regulating device *p*, which may be set so as to cause the pan P to feed the material as fast or as slow as desired. The regulating device *p* preferably consists of a ratchet-wheel provided with a sustaining-pawl *b'* and a flexible connection or cord *t*, attached to the free end of the arm *s* and wound on a barrel *t'* projecting from the ratchet-wheel. The ratchet-wheel and barrel are journaled on a pin *w*, supported from the frame W, which supports the hopper. The amount of the feed is regulated by varying the opening or space between the bot-

tom edge of the hopper and the pan P by turning the ratchet-wheel *p*.

R is a scraper which is secured to one side of the pan or casing *c* of the upper stone and which bears against the rim of the lower stone and the upper parts of the casing or pan.

X represents guide-blades having bent arms *x* secured to their middle parts. The upper ends of these arms are secured to the top side of the upper stone. The blades are arranged at an inclination to the axis of the stones. The lower side of the upper stone is beveled at *y* around its eye, so that the outer ends of the blades project between the stones.

Y is a cone secured upon the axis of the lower stone and projecting within the eye of the upper stone. The inner ends of the blades extend part way over this cone and are provided with curved end portions *x'*. These blades and cone guide the material between the two stones as it falls from the hopper.

What I claim is—

1. In a mill, the combination, with a frame provided with a cross-bar, and a table for supporting the grinding-stones arranged above the said cross-bar; of a step slidable vertically in the said cross-bar, means for sliding the said step, a shaft journaled in the said step and revolving one of the grinding-stones, a bearing-bracket for the said shaft secured to the said cross-bar, a driving-wheel splined to the said shaft and resting on the said bracket, and bearing-blocks for the upper part of the said shaft to revolve in supported from the said table and provided with means for adjusting them laterally.

2. In a mill, the combination, with a stationary upper grinding-stone having an eye, and a revoluble lower grinding-stone provided with a cone which projects within the said eye; of a guide-blade arranged at an inclination to the axis of the stones with its edge adjacent to the said lower stone, said blade being provided with a curved end portion which projects over the said cone, and an arm which supports the said blade from the upper stone.

In testimony whereof I affix my signature in presence of two witnesses.

PETER FAUST.

Witnesses:
HERMAN GERMER,
GUSTAV FAUST.