G. B. BOOMER & R. E. BOSCHERT.

Pressure-Plate for Apple-Grinders.

No. 225,456. Patented Mar. 16, 1880.

FIG. 1.

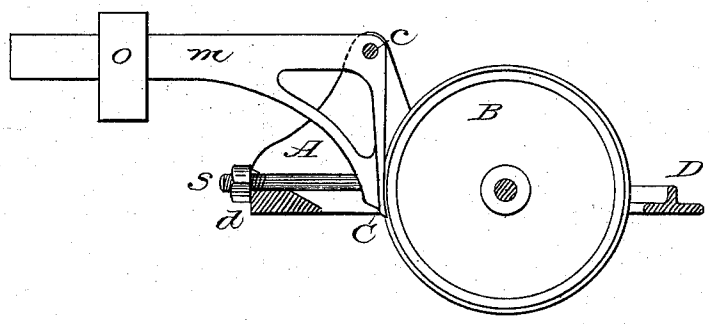
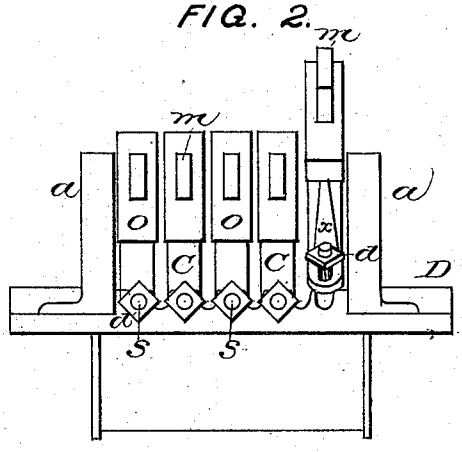


FIG. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE B. BOOMER, OF MEXICO, AND RUFUS E. BOSCHERT, OF SYRACUSE, NEW YORK.

PRESSURE-PLATE FOR APPLE-GRINDERS.

SPECIFICATION forming part of Letters Patent No. 225,456, dated March 16, 1880.

Application filed January 28, 1880.

To all whom it may concern:

Be it known that we, GEORGE B. BOOMER, of Mexico, Oswego county, New York, and RUFUS E. BOSCHERT, of Syracuse, Onondaga county, New York, have jointly invented a new and Improved Pressure-Plate for Apple-Grinders, which is fully described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 is a cross-section, showing manner of mounting. Fig. 2 is a back view.

Our invention consists of an improved swinging concave pressure-plate with a long weighted arm extending back from the upper part and a regulating check or stay rod rigidly attached to and extending back from the lower part of the plate, in combination with slots in the frame to receive these rods.

A is the frame of the machine, on which the grinding-cylinder B is mounted in any ordinary manner, and *a a* are upright posts, one upon each side of the frame and rigidly secured thereto, which are connected at the top by the transverse rod *c*.

C C are the pressure-plates, concaved upon the inner face, and *m m* are the arms extending back, upon which the sliding weights *o* are placed, one on each arm. The arms *m* are simply flat pieces of metal a foot or so in length, and are either rigidly attached to the top of the pressure-plate or the whole may be made in one piece. These plates C C may be of any width desired; but about two inches is the usual width across the concave face. They are placed upon the rod *c* close together, side by side, until the space is filled between the bands of the cylinder, and hang from the rod so that their concave faces are next to the cylinder and their lower ends are just below the center of the cylinder.

Each plate has a check or stay rod, *s*, rigidly attached to it or made a part of it. Upon the back end of this rod a thread is cut and a nut, *d*, placed thereon.

D is an end piece of the main frame A, upon which are projections forming the perpendicular slots *x x*, which are open at the top and wide enough to loosely receive the rod *s*, and they are so arranged that there will be a slot for each pressure-plate rod *s*. These pressure-plates operate as follows: The space between the cylinder and the pressure-plates is controlled by the nuts upon the rods *s*. When a nut is unscrewed upon a rod, by reason of the lever power of the arm *m* and weight *o*, the concave face of that plate C, swinging upon its fulcrum-point on the transverse rod *c*, is thrown toward the face of the cylinder as much as the nut is unscrewed, and when the nut is screwed up it draws the plate away from the cylinder. Each plate is adjusted in the same manner.

The weights *o* upon the arms *m m* allow each plate to yield or give to permit a stone or piece of hard foreign substance to pass through between the face of the cylinder and the concave plate, and as soon as it passes the plate drops back to its position. The nut upon the rod *s* coming up against the outside edges of the slot *x*, in which the rod lies, prevents the concave plate from striking the cylinder. The open top of the slot allows the rod *s* to be attached rigidly to the plate C, and also permits the rod to be raised entirely out of the slot by raising the lever-arm *m*.

By this construction all springs back of and bearing against the plates C are dispensed with, and also any joint in the rod *s*.

Having thus described our device, what we claim as our invention, and desire to secure by Letters Patent, is—

The above-described pressure-plate C, when constructed with a lever-arm, *m*, extending back from the upper part, and having an adjustable weight, *o*, thereon, and with the stay-rod *s*, having a thread-nut, *d*, on it, rigidly attached to the lower end of the plate, the rod *s* lying in one of the perpendicular open top slots, *x*, on the cross-piece D, the nut *d* resting against the sides of the slot *x* and regulating the plate C, which is hung or pivoted upon the transverse rod *c*, supported by the posts *a a*, and operating in an apple-grinder substantially as and for the purposes set forth.

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Witnesses:
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