M. RIECH.

Improvement in Portable Grist-Mills.

No. 132,777. Patented Nov. 5, 1872.

Fig. 1.

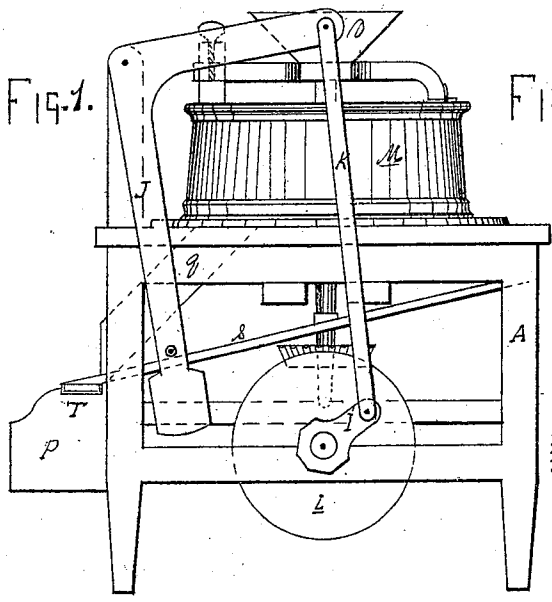


Fig. 2.

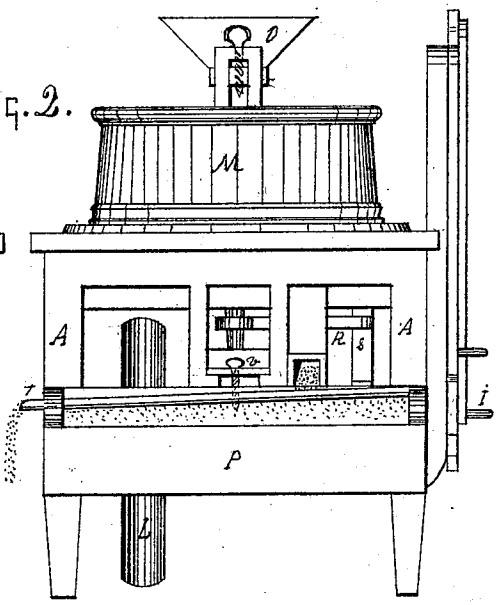
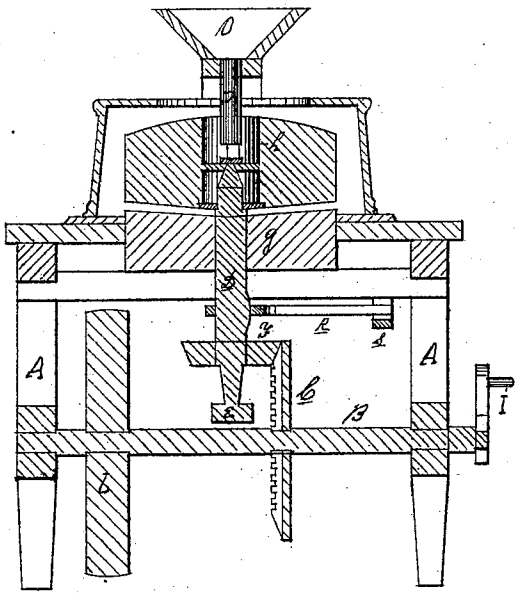


Fig. 3.



WITNESSES.

Blanton M. Howard

William Erskine

INVENTOR.

Marcus Riech

By J. B. McEwen his Attorney.

AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

MARCUS RIECH, OF WHEELING, WEST VIRGINIA.

IMPROVEMENT IN PORTABLE GRIST-MILLS.

Specification forming part of Letters Patent No. **132,777**, dated November 5, 1872.

To all whom it may concern:

Be it known that I, MARCUS RIECH, of the city of Wheeling, in the county of Ohio and State of West Virginia, have made the invention hereinafter described, of which the following is a specification, reference being had to the accompanying drawing and the letters of reference thereon.

My invention relates to a portable grist-mill operated by hand or other power, to be used for manufacturing corn, oat, or barley meal, and for grinding grain for stock-feed; and consists in the combination hereinafter described and claimed.

In the drawing, Figure 1 is a front elevation of such a mill; Fig. 2 is a left-side elevation of the same; and Fig. 3 is a vertical section of Fig. 2 taken through the center from right to left.

Like letters of reference indicate like parts.

A, supporting-frame, consisting of four or more upright posts and their connecting-beams; B, horizontal axis, supported by the connecting-beams extending from post to post; C, large bevel-gear wheel on axis B; D, vertical shaft or axis, supported at the lower end by movable lever or beam E, and on which it is journaled; its upper end extends up through the lower stone or grinder; F, small bevel-gear wheel on shaft D, which meshes with wheel C; *g*, lower stone or grinder, supported in place by frames beneath; *h*, upper stone or grinder, which is supported by and revolves upon the end of shaft D; I, crank on end of axis B; J, bent lever having its fulcrum on upright frame; K, pitman connecting this lever with crank I; L, balance-wheel on axis B; O, grain-hopper; *n*, feed-tube; M, circular box inclosing the stones; P, meal-box; *q*, spout to convey the meal from stones to meal-box; R, lever operated by an eccentric on shaft D and connected with lever S, which last is connected with sifter T and shakes the same. The movable beam E is operated by screw *v* so as to raise or lower the upper stone.

Operation.

The power is applied either by bent lever J or the crank or wheel I, which, through the beveled wheels C and F, gives motion to the upper stone, the grain being supplied thereto through the feed-tube *n*. When made into meal it is conveyed therefrom into the meal-box by spout *q*.

The great utility of this mill is that it is portable and of but small cost. Besides, families cannot now supply themselves with meal and stock-feed without the trouble and expense of going to the fixed grist-mills, which last, in many sections of our country, are few and far from their homes. For the western and southern country it is more particularly useful and convenient, yet its use will be needed in even the more favored sections.

I claim as my invention—

In combination with the stones the shafts B and D, the bevel-wheels, and the balance-wheel of a portable grinding-mill, the eccentric, the vibrating spout and sifter, as and for the purpose set forth.

MARCUS RIECH.

Witnesses:

J. B. MCLURE,

WILLIAM ERSKINE.