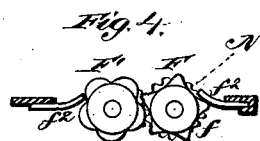
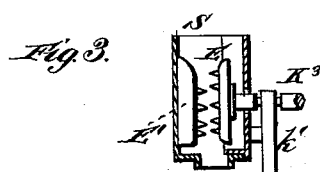
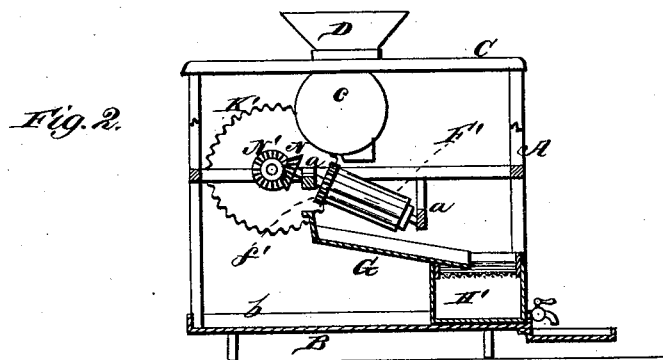
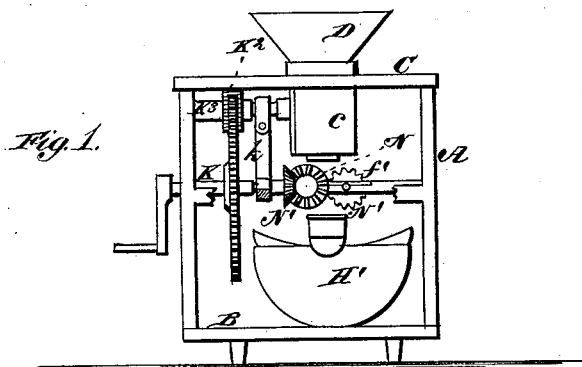


S. T. MARSH & F. H. BRANDT.  
Cider-Mill.

No. 215,950.

Patented May 27, 1879.



WITNESSES  
*Robert E. Watts*  
*James J. Sheehy*

By

INVENTORS  
*Frederick H. Brandt.*  
*Samuel T. Marsh.*  
*Gilmore, Smith & Co.*  
ATTORNEYS

# UNITED STATES PATENT OFFICE

SAMUEL T. MARSH AND F. HERRMAN BRANDT, OF DETROIT, MICHIGAN.

## IMPROVEMENT IN CIDER-MILLS.

Specification forming part of Letters Patent No. **215,950**, dated May 27, 1879; application filed April 12, 1879.

*To all whom it may concern:*

Be it known that we, SAMUEL T. MARSH and F. HERRMAN BRANDT, of the city of Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Cider-Mills; and we 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 drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of an end elevation of our cider-mill. Fig. 2 is a vertical sectional view of the same, and Figs. 3 and 4 are sectional detail views.

Identical parts in the drawings are designated and referred to by the same letters.

Our invention relates to cider-mills; and it consists in the grinding devices, pressing-rollers, cider-receptacle, and frame, constructed and arranged as herein will more fully appear.

A is the frame of the mill. B is a metallic or wooden bottom, constructed with a flange or edge, *b*, so as to hold and prevent waste of cider. C is a metallic or wooden top, connecting the frame and providing a support for the casing of the grinder. D is a hopper. E is the revolving grinding-disk, and E' is a stationary grinding-disk, each provided with projections common to such devices. F is a crushing or pressing roller, provided with four concave sides and a pinion, N, engaging the pinion N', which is located on the driving-shaft K; also, a pinion, *f*, which engages pinion *f*', located on the reverse crushing or pressing roller F', which is provided with four convex ribs, closely

meshing into the four concave sides of the crushing-roller F. *f*<sup>2</sup> represents elastic scrapers for cleaning the rollers while in operation.

G is the cider-conductor, which conducts the cider into the cider-receptacle H'. K<sup>1</sup> is the driving spur-wheel. K<sup>2</sup> is the pinion, located on the shaft K<sup>3</sup>, which drives the grinder, and is supported by the uprights *k k'*. The crushing or pressing rollers F F' are supported by the transverse frame-pieces *s a a*, located as shown on the drawings.

What we claim as new, and desire to secure by Letters Patent, is—

1. The frame A of a portable cider-mill, constructed as described, and provided with the bottom B and top C, uprights *k k'*, and transverse pinions *f f*<sup>1</sup>, in combination with the driving mechanism K<sup>1</sup> K<sup>2</sup>, the grinding-disks E and E', the press-rollers F and F', and the scrapers *f*<sup>2</sup>, constructed, arranged, and operating together as and for the purposes substantially as set forth.

2. In a cider-mill, the combination of the press-roller F, constructed with concave sides and provided with a pinion, *f*, with the press-roller F', constructed with corresponding convex sides, and provided with pinion *f*<sup>1</sup>, constructed and operated substantially as set forth.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

SAMUEL T. MARSH.  
F. HERRMAN BRANDT.

Witnesses:

FRED. GUENTHER,  
PETER GUENTHER.