

*H. K. Parsons,
Cider Press.*

N^o 44,651.

Patented Oct. 11, 1864.

Fig: 1.

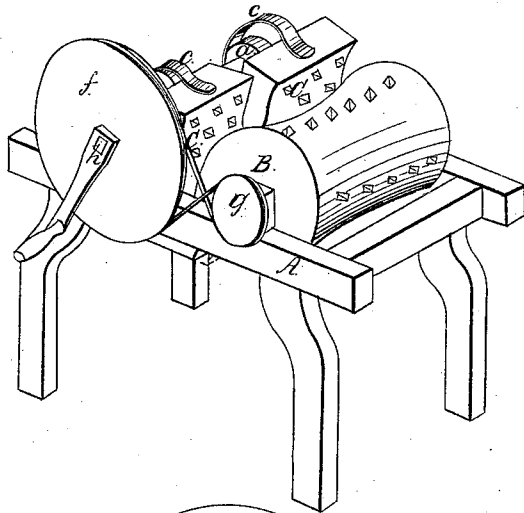


Fig: 2.

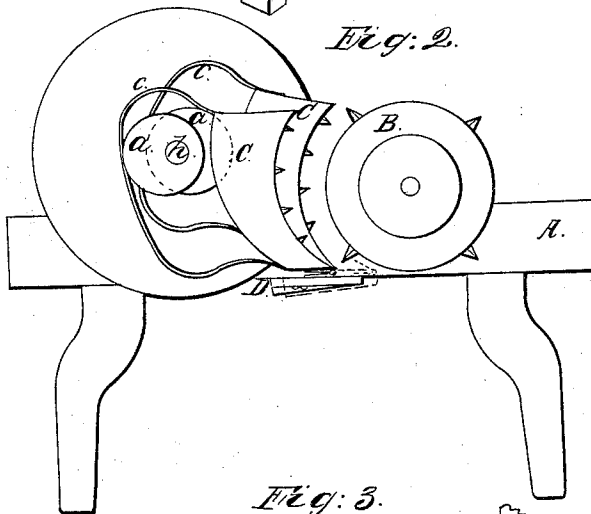
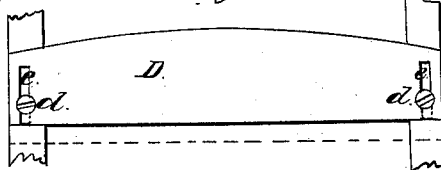


Fig: 3.



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UNITED STATES PATENT OFFICE.

H. K. PARSONS, OF HARRISBURG, PENNSYLVANIA.

IMPROVEMENT IN CIDER-MILLS.

Specification forming part of Letters Patent No. 44,651, dated October 11, 1864.

To all whom it may concern:

Be it known that I, H. K. PARSONS, of Harrisburg, Dauphin county, State of Pennsylvania, have invented a new and useful Improvement in Machines or Mills for Grinding or Crushing Apples and Similar Substances; and I do hereby declare that the following is a clear, full, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a perspective view; Fig. 2, a longitudinal vertical section; and Fig. 3, a plan view, looking from below, of a detached portion of the same.

Similar letters indicate corresponding parts wherever they occur on the drawings.

The nature of my invention consists in a novel method of constructing certain portions of the machine, whereby they may be adjusted at pleasure, and the machine thus made to grind the material coarser or finer, as may be desired.

To enable others skilled in the art to construct and use my invention, I will proceed to describe it.

A represents the frame of the machine, which may be made of any suitable form and size.

B represents a grinding-cylinder, which may be made concave longitudinally, as shown in Fig. 1, and which is armed on its surface with suitable projections or teeth for grinding the apples. Near the lower side of the cylinder A is located a breast-board, D, which is secured to the frame of the machine by means of bolts passing through slots *e* in each end thereof, as clearly shown in Fig. 3.

C represents a concave armed with teeth similar to those on the cylinder. Two of these concaves are mounted side by side, each occupying in width, a space equal to one-half the length of the cylinder. They are hinged or pivoted at their lower ends to the adjustable breast-board D, as shown in Fig. 2.

In the rear of the concaves C is mounted a shaft, *h*, upon which is secured the two eccentrics *a*, as shown in Figs. 1 and 2. The shaft *h*, with its eccentrics, is so located that at each revolution the concaves C are forced alternately back and forth to and from the cylinder. B is a metallic strap or yoke, *c*, at-

tached at each end to the concaves C, inclosing the eccentric *a*, and serving to keep the latter in contact with C at all times. These straps *c* should be made of such a length that the space inclosed by them should be greater from top to bottom than is merely necessary to permit the rotation or movement of the eccentrics *a*.

By reference to Fig. 2 it will be observed that when D is adjusted, by being moved forward, as indicated in red, the lower portion of C will also be carried forward with it, and, as the upper portion is prevented from being moved forward by the shaft *h*, it follows that the upper ends of C will be brought somewhat lower just in proportion as their angle of inclination is changed by moving their lower ends more or less forward. If the yoke *a* extended only to such a height before the adjustment of C as to permit the eccentric to operate, it is obvious that when the lower end of C is carried forward, whereby the upper portion of the yoke *c* is brought lower, it would bind upon the eccentric so tightly as to prevent it from operating; hence the necessity where the parts are adjusted as here shown of increasing the length of the opening in the yoke or loop. By this means the adjustment of the parts is permitted, and the operation of the machine not interfered with as it otherwise would be.

In the drawings, *f* represents a driving wheel mounted upon shaft *h*, and from which motion is transmitted to the cylinder B by a cord and pulley, as shown, or in any other suitable manner. A crank may be attached to wheel *f* when the machine is to be used by hand; but when in ordinary use for the purpose of manufacturing cider upon a large scale, it will be propelled by horse-power, or in any of the usual methods. By loosening the bolts *d* of the breast-board D and concaves C may be adjusted to any desired extent; and thus the machine can be made to grind fine or coarse, as may be desired.

By thus constructing my machine I am enabled to use it for crushing, grinding, or bruising roots and vegetables, for feeding stock also without changing any of the parts, except to adjust it as above described, and thus to make one machine answer the farmer's purposes where two are usually required.

A hopper will be provided and attached to.

the machine in the usual manner, but, not being required to illustrate my invention, it is omitted in the drawings.

Having thus described the construction and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The concaves C, in combination with the adjustable breast-board D, constructed and operating as shown.

2. The elongated yoke e, in combination with the concaves C and adjustable breast-board D, when constructed and arranged to operate as and for the purposes herein set forth.

H. K. PARSONS.

Witnesses:

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