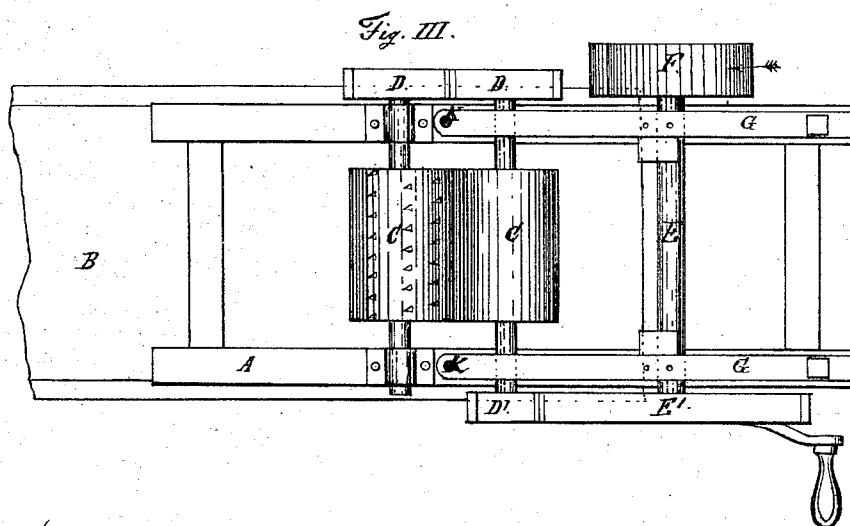
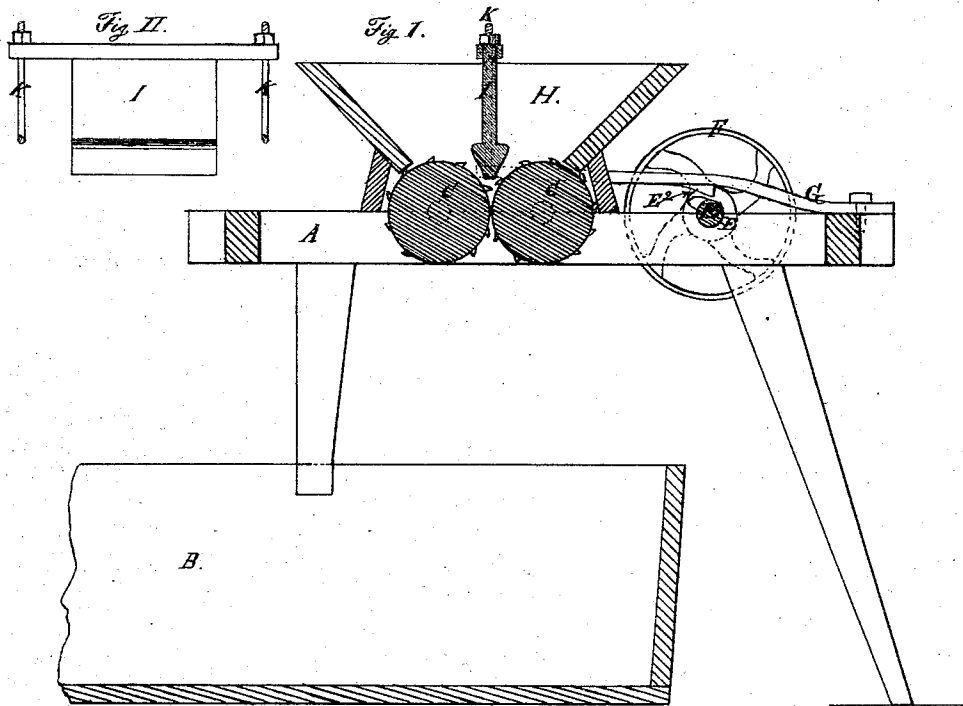


J. SIMS.
Cider-Mills.

No. 156,467.

Patented Nov. 3, 1874.



Witnesses
H. William Dapp
A. J. Marshall

Inventor
John Sims

UNITED STATES PATENT OFFICE

JOHN SIMS, OF BOSTON, NEW YORK.

IMPROVEMENT IN CIDER-MILLS.

Specification forming part of Letters Patent No. **156,467**, dated November 3, 1873; application filed October 27, 1873.

To all whom it may concern:

Be it known that I, JOHN SIMS, of Boston, in the county of Erie and State of New York, have invented certain Improvements in Apple-Grinders, of which the following is a specification:

The nature of my invention consists in the application of two rollers provided each with teeth on their periphery, so arranged that the apple will get grated and crushed at once by means of the rollers, teeth, and an arrangement of a dash-head pushing the apple in between the rollers.

I refer to the annexed drawing, which makes part of this specification, and in which like letters of reference indicate like parts.

Figure 1 represents my apple-grinder in a longitudinal section. Fig. 2 represents the dash-head or feeder in a side view, having its connecting-rods K K attached. The lower ends of K K, intended to be connected to the elastic straps G G, are cut off. Fig. 3 is a plan view of my apple-grinder, having its hopper taken off.

A is the main frame, to which are secured the two rollers C C, driving-shaft E, elastic straps or bars G G, and hopper H. It is resting with its two short legs on a tank intended to receive the matter that has passed through between rollers C C. C C are two wooden rollers mounted with steel teeth on their periphery in a screw-like manner, as indicated on roller C, at left hand of Fig. 3. Through their center runs an iron shaft. A spur-wheel, D, is fitted to each of them, as seen in Fig. 3, in order that the one will drive the other. Roller C, at right hand of Fig. 3, is also provided with a pinion, D', into which fits a spur-wheel, E', of driving-shaft E. F is a driving-pulley secured onto driving-shaft E. G G are two

elastic straps or bars. They are secured with one end to the main frame A, and to their other end are secured connecting-rods K K of dash-head I. Driving-shaft E and elastic straps G G are provided with two cams, E², (see Fig. 1,) for the purpose of raising the dash-head I once in every revolution of the driving-shaft E. The dash-head I is forced down again as soon as the cams E² have passed one another by means of the elastic straps G G. H is the hopper into which the apples are to be put in order to grind them. I is a dash-head. It is connected to the elastic straps or bars G G by means of the rods K K. Its office is to hold and push the apple in between rollers C C.

Be it observed that the steel teeth of rollers C C are arranged so that when the rollers are revolving the steel teeth will pass one another, and that the teeth of one roller will meet corresponding holes in the other roller, in order that the rollers can work close together.

To operate my apple-grinder, it may suffice to say, fill the hopper with apples, turn the crank or pulley of driving-shaft E, as indicated by the arrow. This will set the rollers C C revolving and operate the dash-head I, so that it will crowd the apples in between the rollers.

Having thus fully described my invention, what I desire to secure by Letters Patent is—

The combination, with the hopper H and a pair of rollers, C C, arranged as described, of the feeder or dash-head I, straps or bars G, and cams E², the whole being constructed and operating as set forth.

JOHN SIMS.

Witnesses:

H. WM. DOPP,
A. J. MARSHALL.