

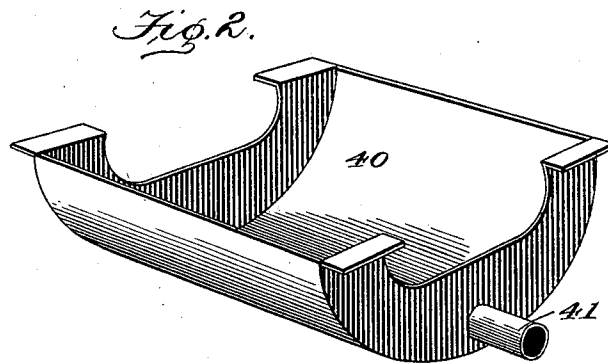
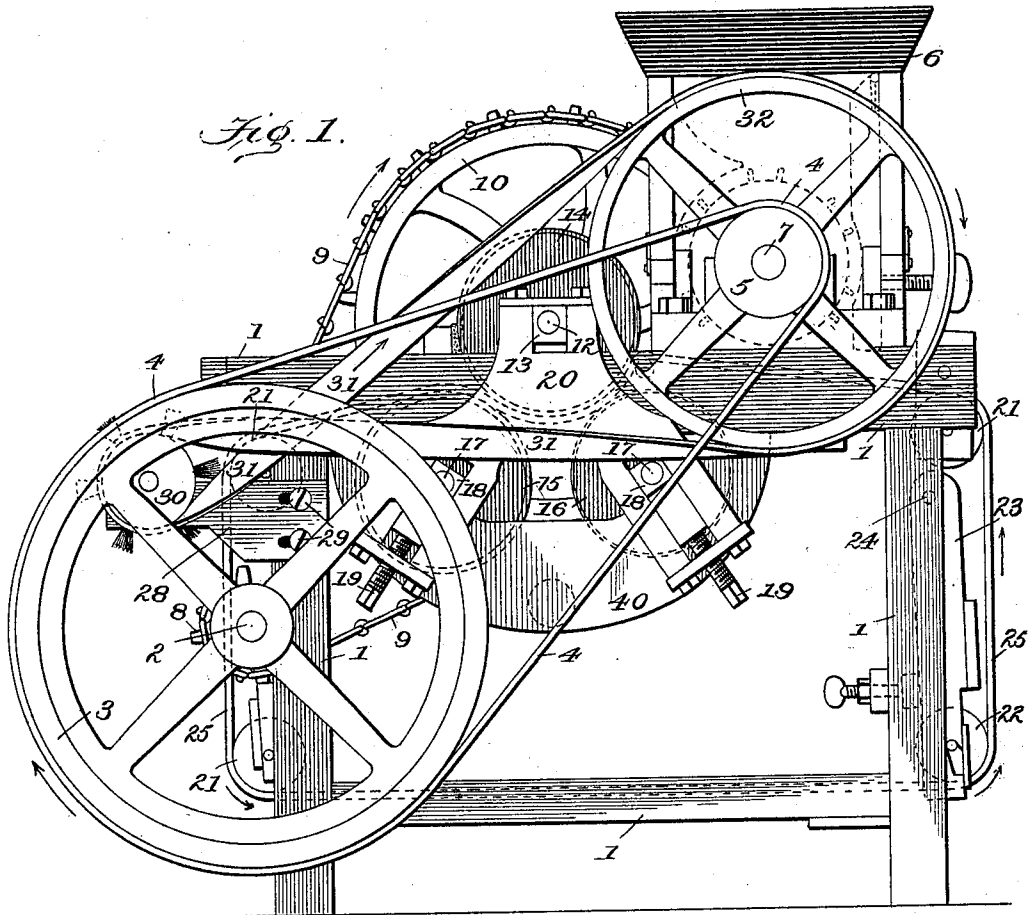
(No Model.)

2 Sheets—Sheet 1.

M. M. APPLEMAN.  
FRUIT PRESS.

No. 594,189.

Patented Nov. 23, 1897.



WITNESSES:

*Bessie Hogan*  
*Edwin L. Bradford*

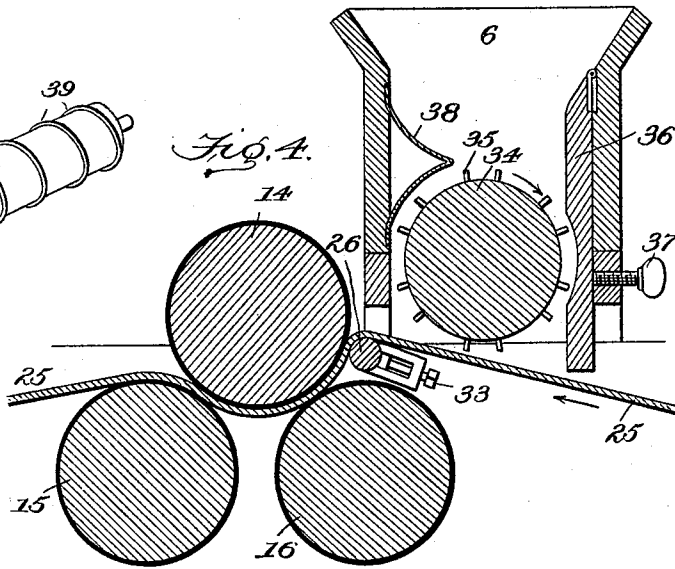
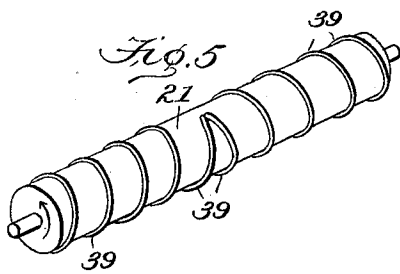
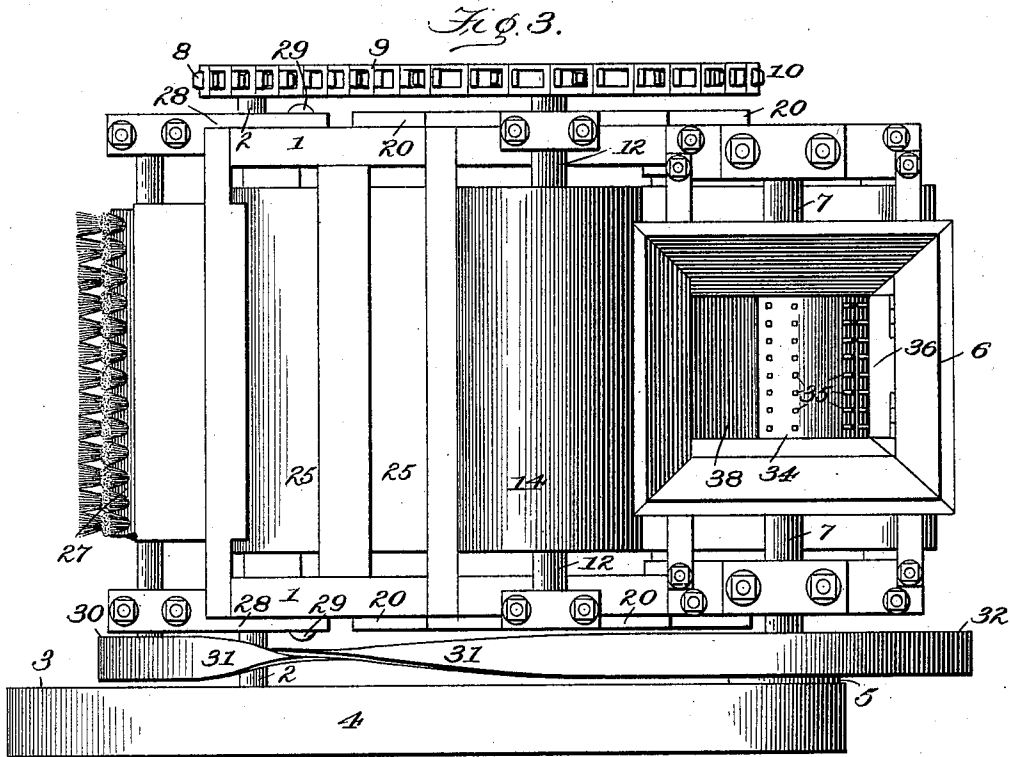
INVENTOR

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# UNITED STATES PATENT OFFICE.

MATHIAS MILLER APPLEMAN, OF ROHRSBURG, PENNSYLVANIA.

## FRUIT-PRESS.

SPECIFICATION forming part of Letters Patent No. 594,189, dated November 23, 1897.

Application filed January 4, 1897. Serial No. 617,975. (No model.)

*To all whom it may concern:*

Be it known that I, MATHIAS MILLER APPLEMAN, a citizen of the United States, residing at Rohrsburg, in the county of Columbia and State of Pennsylvania, have invented certain new and useful Improvements in a Combined Fruit Mill and Press; and I do hereby declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain improvements in combined cider mills and presses, and the object is to provide a simple and effective mill for crushing the fruit and extracting the juice from the pulp in the same continuous operation.

To these ends the novelty consists in the construction, combination, and arrangement of the several parts of the same, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings the same reference-characters indicate the same parts of the invention.

Figure 1 is a side elevation of a combined cider mill and press embodying my invention.

Fig. 2 is a perspective view of the drip-pan removed from the machine. Fig. 3 is a top plan view. Fig. 4 is a longitudinal section through the mill and pressing-rollers, and Fig. 5 is a detail perspective view of one of the endless-apron guide-rollers.

1 1 represent the timbers which constitute the frame, and 2 the horizontal driving-shaft, upon which is mounted a band-wheel 3, carrying a belt 4, which runs to a pulley 5, mounted on a shaft 7, journaled in the lower end of the hopper 6. A sprocket-wheel 8 is also mounted on the main driving-shaft 2, and it carries a sprocket-chain 9 to a larger sprocket-wheel 10, mounted on the outer end of a shaft 12, journaled in bearing-boxes 13 13, secured in the side plates 20 20, fixed to the frame. This shaft 12 carries a pressure-roller 14, and 15 16 represent two similar rollers fixed on shafts 17 17, journaled in boxes 18 18, secured in plates 20 20 and radially adjustable therein

with reference to the roller 14 by means of the set-screws 19 19.

21 21 21 represents fixed rollers mounted in the frame 1, and 22 represents an adjustable roller mounted in the lower end of a swinging frame 23, pivoted on a shaft 24 in the main frame 1. An endless apron 25 passes around these rollers 21 and 22 and also over a feed-roller 26 and between the pressure-rollers 14 and 15 16, traveling in the direction shown by the arrows in Figs. 1 and 4.

27 represents a brush-cylinder mounted in bearings in the brackets 28 28, adjustably secured to the main frame by set-screws 29, and this cylinder is provided with a pulley 30, driven by a belt 31 from the band-wheel 32 on the hopper-shaft 7.

The feed-roller 26 (shown in detail in Fig. 4) is adjustable to and from the pressure-roller 14 by means of the set-screws 33.

34 represents the disintegrating-cylinder, mounted on the shaft 7 in the hopper 6, and it is provided with the usual series of radial teeth 35.

36 represents a breastplate hinged at its upper end in the hopper and depending downwardly parallel with the cylinder 34, its lower end being adjustable to and from the cylinder by the thumb-screw 37.

38 is a sheet-metal guard located in the hopper above the cylinder to prevent the particles of fruit from being thrown out when the machine is in operation.

In Fig. 5 I have shown one of the apron-rollers 21 detached, and these rollers are each provided with a flange 39, which begins at the center of the roller and extends spirally outward toward the ends, and this flange serves to draw the fabric composing the apron outwardly from the center and to keep it taut while the machine is in operation. This apron is made of any suitable felt or woven fabric of sufficient texture to carry the pomace and act as a filtering medium for the expressed juice.

The fruit is placed in the hopper and is disintegrated by the cylinder 34 in the usual manner, after which the pomace falls by gravity on the apron 25, whence it is carried over the feed-roller 26, which is so adjusted

as to permit a suitable quantity to pass along with the apron between the rollers 14 and 16 to express the juice, which is filtered through the apron 25 and falls into the pan 40 from the spout 41, from which it is led to a suitable receptacle. After the pulp has been treated between the rollers 14 and 26 it is then carried forward between the rollers 14 and 15, which may be adjusted still closer, and thus what remaining juice there may be in the pomace is extracted. The pomace is then carried along by the apron until it comes in contact with the rapidly-revolving brush-cylinder, which entirely removes the refuse from the apron, so that a clean surface is continuously presented for the fresh pomace.

Although I have described the precise construction of my machine, I do not desire to be confined to the same, as various modifications will readily suggest themselves to those skilled in the art without departing from the spirit of my invention.

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

A combined fruit mill and press, comprising an endless apron 25, mounted upon a series of fixed rollers 21, a fixed pressure-roller 14 and a pair of adjustable pressure-rollers 15 16 located in the same horizontal plane, and in the path of said endless apron, a guide-roller 26, engaging said apron on the side opposite to that engaged by said fixed pressure-roller 14, and means substantially as described for adjusting said guide-roller radially with reference to said fixed pressure-roller, substantially as shown and described.

In testimony whereof I affix my signature in the presence of two witnesses.

MATHIAS MILLER APPLEMAN.

Witnesses:

B. K. APPLEMAN,  
G. M. QUICK.