Oct. 19, 1937. G. W. FOWLE 2,096,097

WINE PRESS

Filed Nov. 28, 1934 2 Sheets-Sheet 1

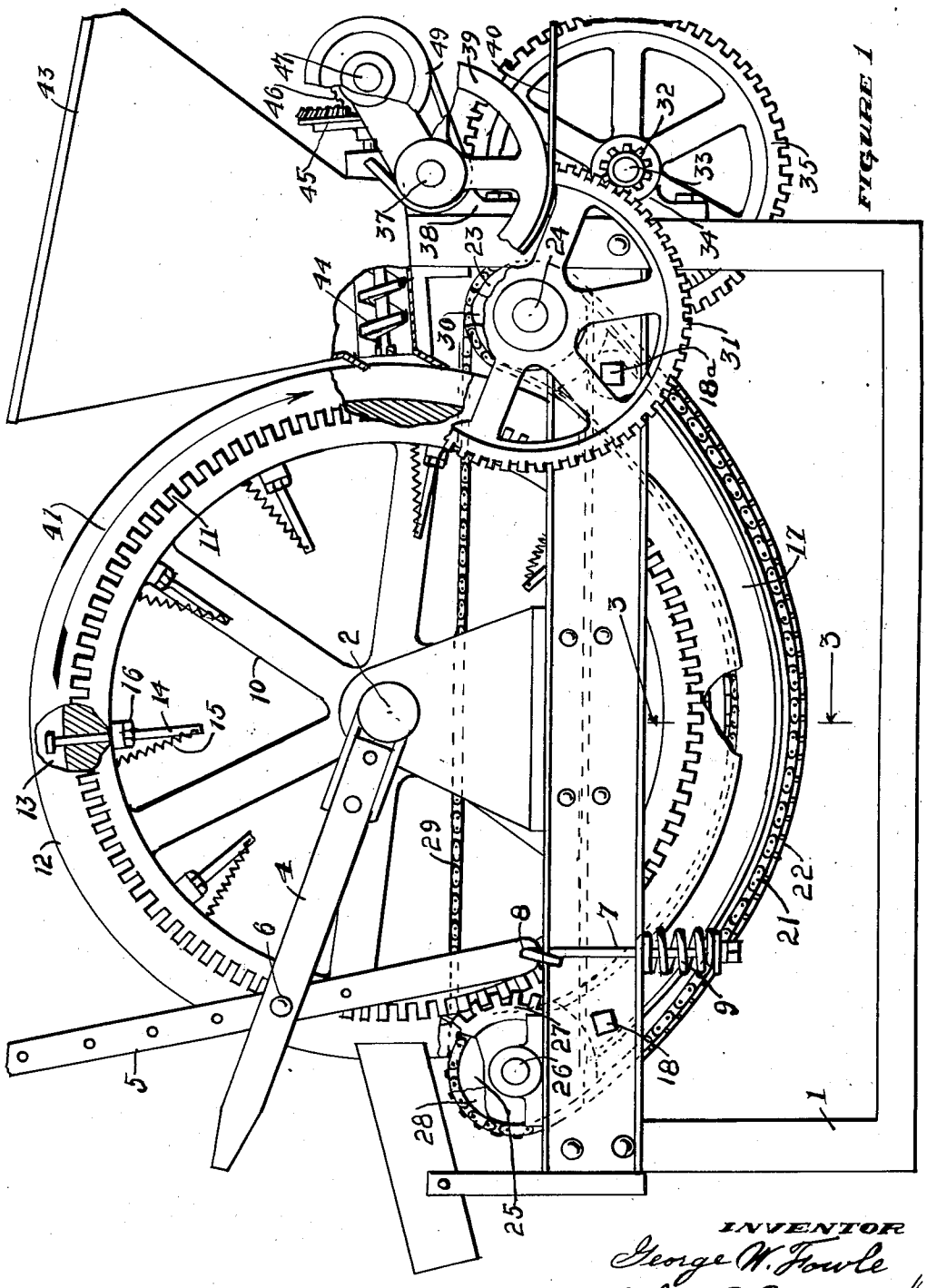


FIGURE 1

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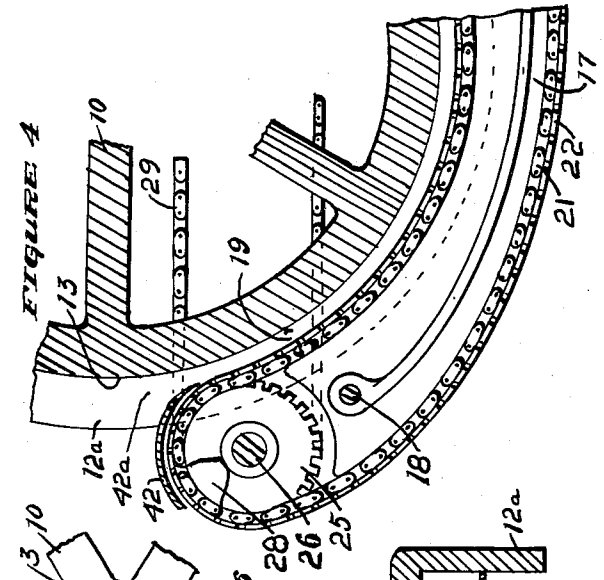


FIGURE 4

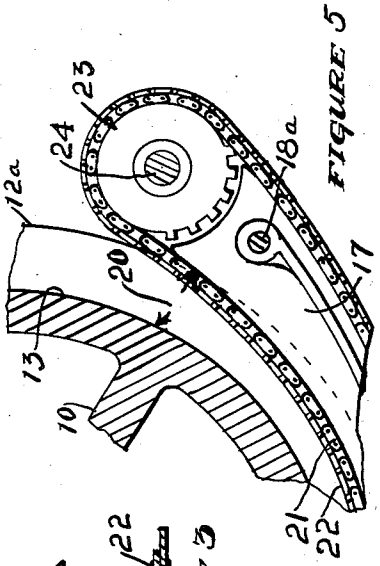


FIGURE 5

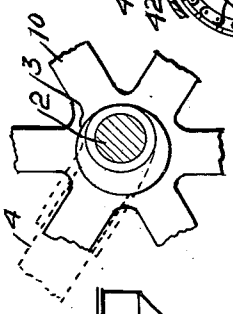


FIGURE 6

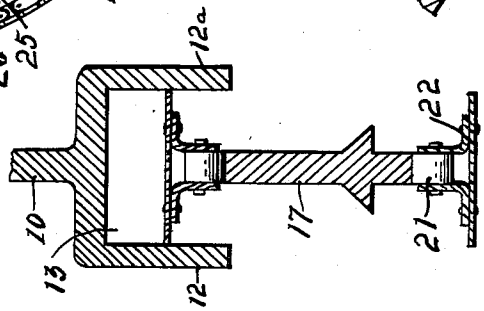


FIGURE 3

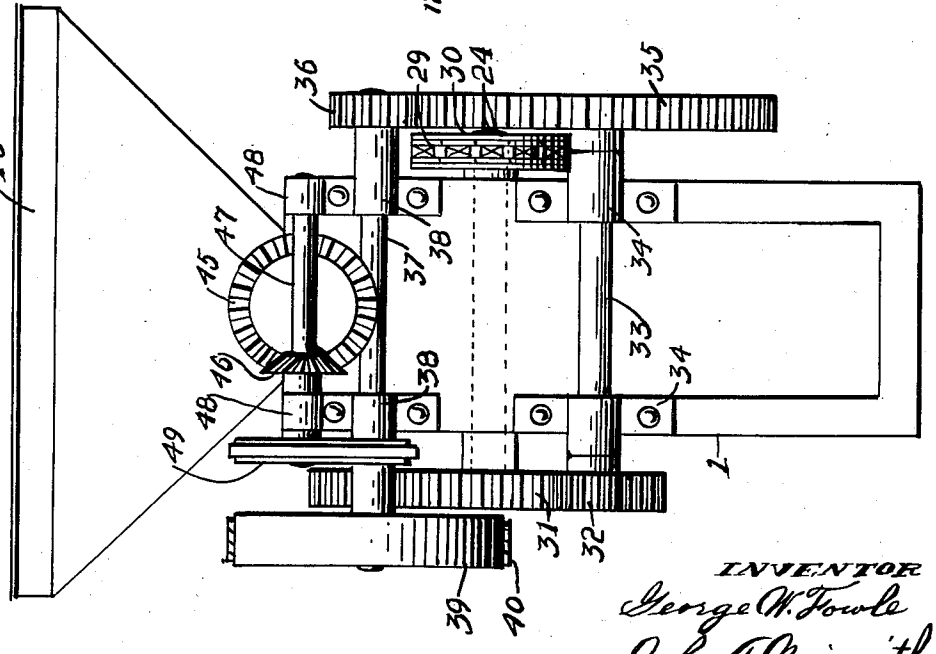


FIGURE 2

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Patented Oct. 19, 1937 2,096,097

UNITED STATES PATENT OFFICE

2,096,097

WINE PRESS

George W. Fowle, Willow Glen, Calif.

Application November 28, 1934, Serial No. 755,162

1 Claim. (Cl. 100—37)

It is the object of the invention to provide a press of the character indicated that will be capable of receiving a continuous flow of the grapes from which the juice is to be extracted, reducing them to a substantially juiceless pulp, and discharging the said pulp from the press in a continuous ribbon.

It is another object of the invention to provide a press of the character indicated wherein the juice extracted from the grapes will be substantially free from seeds and pulp and foreign material.

It is also an object of the invention to provide a press of the character indicated that will be economical to manufacture, simple in form and construction, strong, durable, and highly efficient in its practical application.

In the drawings:

Figure 1 is a side elevation of a press embodying my invention, with parts broken away.

Figure 2 is an elevation of the receiving end of the same.

Figure 3 is a section on line 3—3 of Figure 1.

Figure 4 is a vertical and longitudinal section through a portion of the discharge end of the machine.

Figure 5 is a vertical and longitudinal section through a portion of the receiving end of the machine.

Figure 6 is a detail showing the eccentric mounting of the presser wheel.

In the particular embodiment of the invention herein disclosed I show at 1 a frame upon which is mounted a shaft 2 which in turn has an eccentric 3 journaled thereon. The eccentric 3 is adjustably mounted on the shaft 2, the adjustment comprising an arm 4 connected thereto and having adjustable engagement with a second arm 5 as at 6. The arm 5 is resiliently connected to the frame 1 at one end through the medium of a rod 7 pivotally connected thereto as at 8 and passing downwardly through frame 1 where it is fitted with a spring 9. The spring normally holds the arm 5 in contact with frame 1 but permits the arm to move if subjected to any undue strain forcing the eccentric 3 to turn on the shaft 2.

Upon the eccentric 3 is journaled a wheel 10, this wheel having a spur gear 11 mounted on one side thereof and having radially directed peripheral side flanges as 12—12a forming a peripheral channel 13. At 14 are a number of plungers, each plunger being radially and slidably mounted in the wheel rim and having a head normally held projected into channel 13 by a spring 15, a nut 16 forming a stop therefor.

At 17 is a track-bar fixedly mounted on the frame 1 directly below wheel 10 by means of bolts as 18—18a and lying in the central plane of the wheel. The upper edge of this bar lies in opposed relation to channel 13 but is not concentric with wheel 10, one end, the discharge end, being spaced a distance therefrom, as at 19, and the other end being spaced a distance as 20 therefrom, the distance 20 being somewhat greater than the distance 19.

A chain 21 carrying flat plates 22 adapted to pass snugly between the flanges 12—12a is disposed on the track-bar 17, one end of the chain passing over a sprocket 23 on shaft 24 at the receiving end of the press, and the other end passing over a sprocket 25 on shaft 26 journaled on frame 1 adjacent the discharge end.

The shaft 26 also carries a spur gear 27 meshing with the spur gear 11 on wheel 10 to drive the same, the shaft being in turn driven by means of a sprocket 28, chain 29, sprocket 30, shaft 24 and gear 31. The gear 31 meshes with a pinion 32 on shaft 33 which is journaled in bearings 34 on the frame 1 and carries gear 35. The gear 35 meshes with a pinion 36 on a shaft 37 journaled in bearings 38, said shaft carrying a pulley 39 driven by means of a belt 40 from a source of power not shown.

By means of the structure above described the wheel 10 may be operated in the direction indicated by arrow 41, while the opposing portion of the endless chain 21 is operated in the same direction and at the same speed.

The result of this construction is, that when grapes are fed into the channel 13 at 20, they are carried forward by the rotation of wheel 10 and chain 21 and the plungers 14. But as the bottom of the channel 13 and the chain plates come closer and closer together as they advance it follows that the grapes are perfectly pressed, the juice flowing down into a receptacle below, not shown, and the pulp being carried forward until it is scraped off of the chain by the stripper plate 42 and discharged at 42a. As the plungers 14 pass the stripper plate they are returned to their normal positions by the springs 15, and this action assists in the freeing of the pulp.

The spacing between the wheel 10 and chain 21 may be varied at will by the adjustment at 6, the relative positions of the several parts involved being such that the spacing of the two elements where the pulp is discharged remains sub-

stantially unchanged while the spacing at the receiving portion **20** may be widely varied.

The grapes may be introduced into the channel **13** in any suitable manner as by means of a hopper **43** and screw **44**. In the present case the screw is operated by means of a shaft and gear **45** meshing with a bevel gear **46** on a shaft **47** journaled on frame **1** as at **48** and driven by means of a belt and pulley connection **49** to shaft **37**.

It is to be understood, of course, that while I have herein shown and described but one specific embodiment of the invention, changes in form, construction, and method of assembly and operation may be made within the scope of the appended claim.

I claim:

In a press of the character described comprising a wheel having a peripheral channel formed therein, travelling means permeable by a liquid closing off a portion of the channel to form a passage having a gradually reduced cross-sectional area from inlet to discharge, and cooperating actuating means for the wheel and travelling means; a supporting shaft for the wheel having an eccentric thereon inserted between the shaft and wheel, an adjusting arm associated with the eccentric, supporting means for the shaft, and a second arm adjustably associated with the first arm and resiliently associated with the supporting means whereby the wheel may be adjusted relative to the travelling means to vary the cross-sectional area of the channel at its inlet end without materially changing its cross-sectional area at the discharge end.

GEORGE W. FOWLE.