S. S. HEMBREE AND A. L. JOHNSON.

POWER TRANSMISSION MECHANISM.

APPLICATION FILED APR. 5, 1919.

1,337,908. **Patented Apr. 20, 1920.**

2 SHEETS—SHEET 1.

Fig. 1.

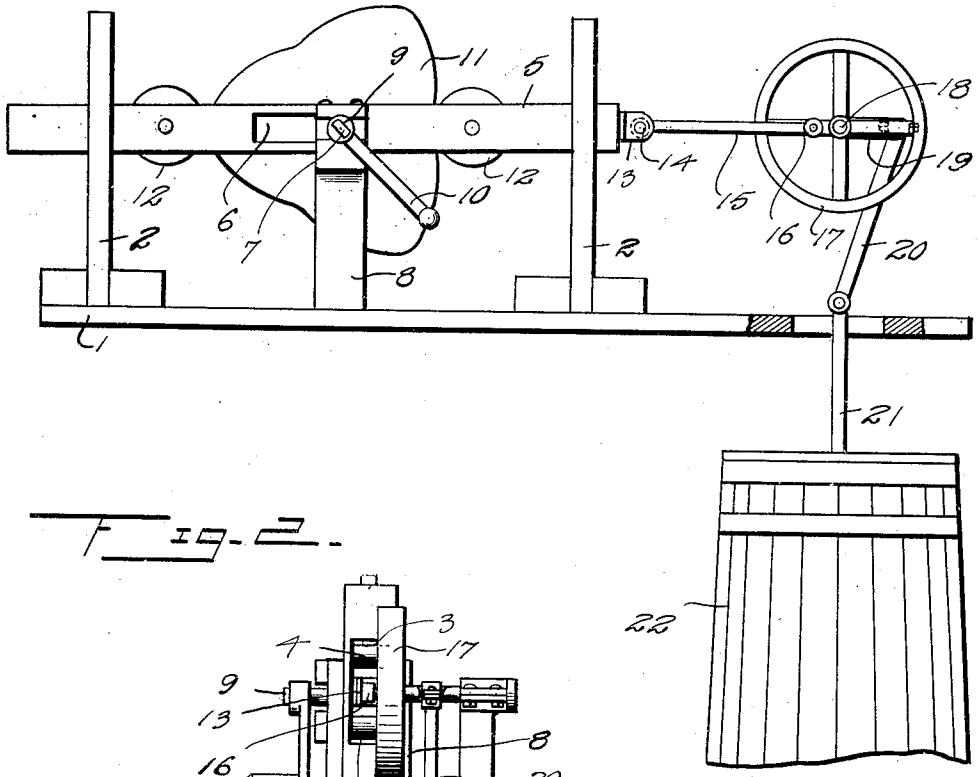
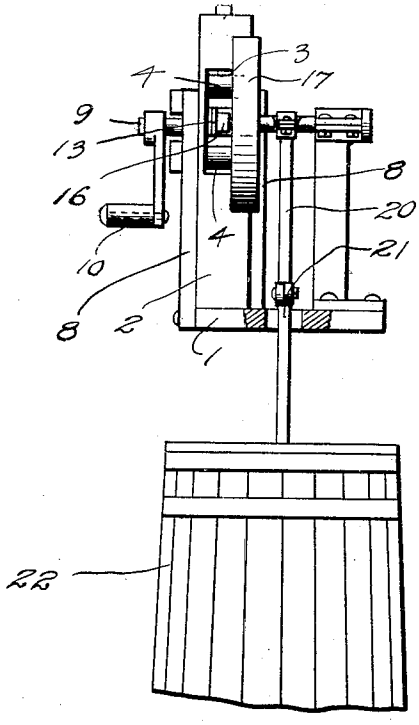


Fig. 2.



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2 SHEETS-SHEET 2.

Fig. 3.

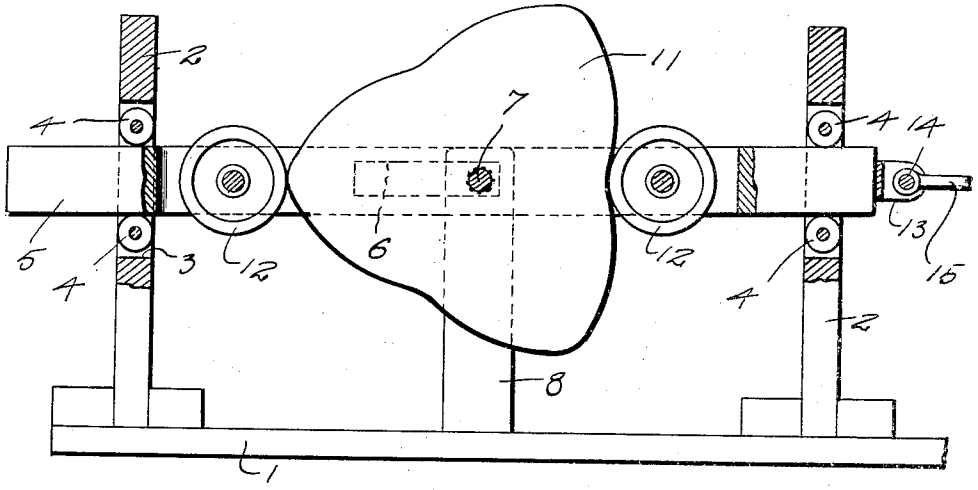


Fig. 4.

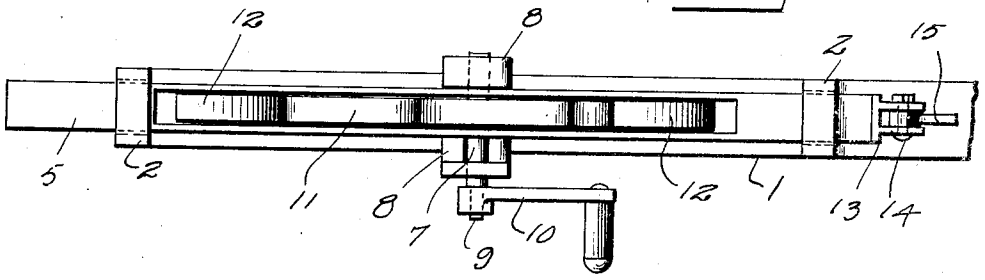
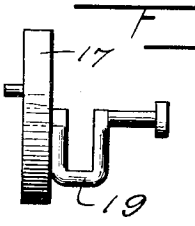


Fig. 5.



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SAMUEL S. HEMBREE AND AMBROSE L. JOHNSON, OF FARRIS, OKLAHOMA.

POWER-TRANSMISSION MECHANISM.

1,337,908. Specification of Letters Patent. Patented Apr. 20, 1920.

Application filed April 5, 1919. Serial No. 287,760.

To all whom it may concern:

Be it known that we, SAMUEL S. HEMBREE and AMBROSE L. JOHNSON, citizens of the United States of America, residing at Farris, in the county of Atoka and State of Oklahoma, have invented certain new and useful Improvements in Power-Transmitting Mechanisms, of which the following is a specification.

Our invention relates to improvements in power transmitting mechanisms, and refers specifically to means for converting rotary into reciprocating movements, and the main object of our invention is the provision of a mechanism which can be easily adapted for operating churns, washing machines and other structures which employ a reciprocating member, such mechanism being of compact and small compass, strong and durable, inexpensive of production, easy to operate without fatiguing the user, and which in an efficient and practical manner will convert rotary into reciprocatory movement for use wherever it would serve the purpose.

To attain the necesary objects the invention consists of a mechanism of the character and for the purposes stated embodying novel combinations and arrangements of parts, substantially as shown, described and specifically claimed herein, such changes as fall within the scope of the claim being allowed without departing from the invention or sacrificing any of the advantages thereof.

In the said drawings illustrating a preferred embodiment of the invention:

Figure 1 represents a side view of the mechanism shown in operative connection with a churn.

Fig. 2 represents an end view thereof.

Fig. 3 represents a view partly in elevation and partly broken away, to more clearly show concealed parts.

Fig. 4 represents a top plan view of the complete mechanism, and

Fig. 5 represents a detail view of the crank for connection with the link or pitmen.

Referring by numerals to the drawings in which the same numerals are used to denote like parts in all the views of the drawings;

The numeral 1, designates a suitable base or support, from which near each end rises the pair of standards 2, formed each with a cavity 3, in which are journaled the two sets or pairs of spaced apart guide rollers 4, in which is adapted to be guided horizontally the member 5, formed with a centrally disposed slot 6, movable upon the shaft 7, mounted in the post 8, which is disposed centrally of the base and between the end standards.

The shaft is extended at one end 9, and carries a hand crank 10, for rotating said shaft, although such shaft may be revolved by any suitable power, and rigidly secured upon such shaft is the angle shaped or three point cam 11, which naturally revolves with the shaft and is at all times in peripheral engagement with the pair of rollers 12, the effect of such construction relation, being to reciprocate the member in a horizontal direction, or in other words back and forth, and to a suitable bracket 13, at one end of the member is connected at 14, the inner end of the link or pitmen 15, the other end 16, being pivoted to the wheel 17, whose shaft 18, is suitably supported with reference to the base and is formed with a crank 19, to which is connected the upper end of the rod 20, the lower end being connected to the dasher rod 21, of the churn 22.

In operation the shaft carrying the cam is revolved and the cam thereon imparts to the member a horizontal or back and forth movement, and this revolves the wheel and it by means of the crank connection moves the dasher up and down and quickly effects the churning, and with very little effort or power.

The mechanism may be used for any purpose where it would be desirable and necessary to convert a rotary into a reciprocating movement, the application of a churn being merely for purpose of illustration, and it will also be evident that manual or other power may be used, and that each end of the horizontally movable member may be connected to operate a pair of machines or implements.

We claim:

A mechanism of the character described, consisting of a base, a pair of apertured upright standards thereon, twin spaced apart guide wheels in the aperture of each of said standards, a horizontal member engaging the said guide wheels at spaced points and guided between said rollers and having a longitudinal slot, a pair of rollers journaled in the ends of the slot of said horizontal member, a three point rotating cam mounted upon the base, said cam extending verti-

cally into the slot of said member and having its periphery in constant engagement with the pair of rollers of the said member centrally between the guide uprights, a link connected to the horizontal member, a wheel to which the other end of said link is connected, a shaft for the wheel having a crank, and a rod having one end connected to said crank and the other end connected to the element to be reciprocated, whereby a reciprocating movement is transmitted from a rotary movement in the plane of the horizontal member or at an angle thereto.

In testimony whereof we affix our signatures.

SAMUEL S. HEMBREE.
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