J. TAYLOR & B. RODEK.

CENTRIFUGAL MACHINE.

APPLICATION FILED JAN. 28, 1913.

1,067,887.

Patented July 22, 1913.

2 SHEETS—SHEET 1.

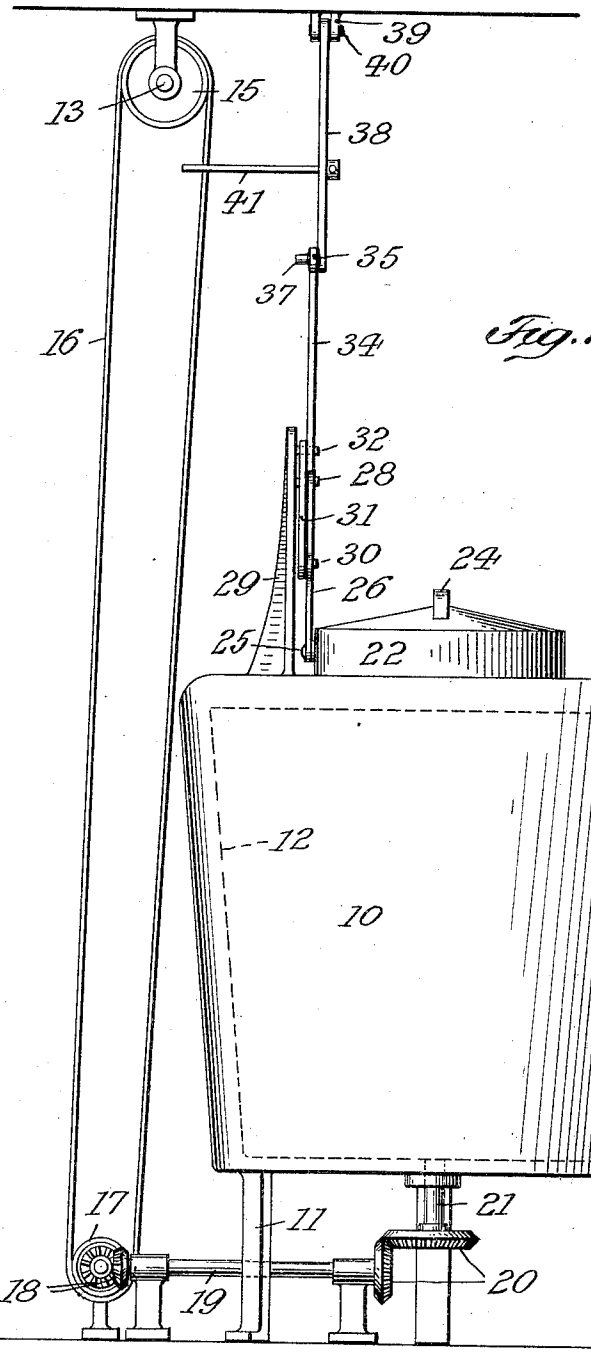


Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 2.

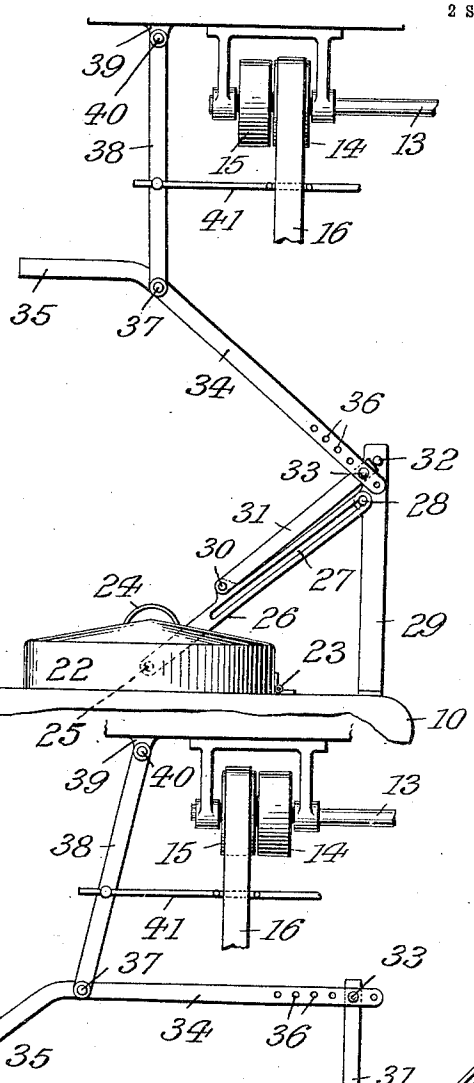


Fig. 4.

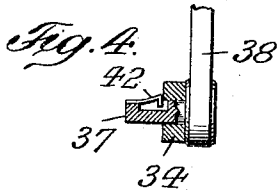
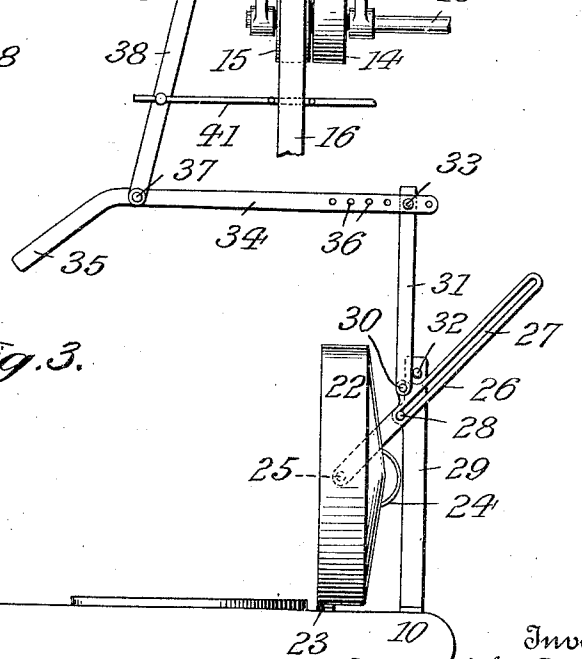


Fig. 3.



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CENTRIFUGAL MACHINE.

1,067,887. Specification of Letters Patent. Patented July 22, 1913.

Application filed January 28, 1913. Serial No. 744,619.

To all whom it may concern:

Be it known that we, JOHN TAYLOR and BOTHO RODEK, both citizens of the United States, and residents of New York city, borough of Bronx, and State of New York, have jointly invented a new and Improved Centrifugal Machine, of which the following is a specification.

This invention relates to a centrifugal machine provided with novel cover locking means, which are so constituted that the machine cannot possibly be operated unless the cover is closed and locked. In this way, the promiscuous flying about of the liquid contents of the centrifugal vessel, owing to a neglected or delayed closing of the cover prior to the starting of the machine, which is a condition frequently encountered in practice, is effectively obviated.

In the accompanying drawing: Figure 1 is a front elevation of a centrifugal machine embodying our invention; Fig. 2 a side view of the cover locking means, showing the cover closed; Fig. 3 is a similar view with the cover open, and Fig. 4 a detail of the catch for disconnecting the cover from the power.

Within a frame or shell 10, supported on legs 11, is adapted to rotate a foraminated centrifugal drum 12 within which the articles that are to be subjected to centrifugal action are introduced. Drum 12 receives its rotating movement from an overhead power shaft 13 carrying fast and loose pulleys 14, 15 and by driving belt 16 running over lower pulley 17, which by bevel gear 18, shaft 19 and bevel gear 20, is operatively connected to shaft 21 of drum 12.

Access to vessel 12 is obtained by means of a cover 22 hinged to shell 10 at 23 and provided with a handle 24. To cover 22, there is pivoted at 25, the lower end of a bar 26 having an elongated slot 27, which is engaged by a guide pin 28 that projects laterally from a post 29, mounted on shell 10. To bar 26 is in turn pivoted at 30, the lower end of an arm 31 which is adapted to encounter with its upper end a stop or abutment 32 of post 29. To the upper portion of arm 31, is pivoted at 33, a lever 34, having handle 35. The pivotal connection between parts 31, 34 is preferably rendered adjustable by providing lever 34 with a plurality of apertures 36, either one of which is adapted to accommodate pivot 33, such adjustment serving to adapt the device to covers of different sizes. To hand lever 34 is pivoted at 37, the lower end of a hanger 38 fulcrumed to an overhead bearing 39 at 40 and operating a shifting bar 41 that engages driving belt 16.

It is preferred to make the connection between lever 34 and hanger 38 detachable, so that the cover may be opened independently from the driving mechanism in case the apparatus is to be cleaned or repaired. For this purpose, pivot 37 is firmly secured to hanger 38 and carries a spring catch 42 that normally prevents lever 34 from slipping off said pivot, while upon depressing catch 42, the lever may be readily withdrawn from the pivot.

The operation of the device will be readily understood. When lever 34 is lowered (Fig. 2) it will by hanger 38 and shifting bar 41 slip belt 16 over fast pulley 14, and will at the same time swing the upper end of arm 31 down against stop 32. By this movement, bar 26 is correspondingly swung down to close cover 22, the cover being locked in its closed position by stop 32, so that it cannot possibly be opened as long as the belt engages the fast pulley. When lever 34 is raised, it will shift the driving belt to loose pulley 15, and will at the same time first withdraw the upper end of arm 31 from stop 32, and then open the cover (Fig. 3). Thus it will be seen that the cover locking means and the drum driving means are so interrelated that one cannot be manipulated without setting the other, and that the machine cannot be run at any time with an open cover. In this way the operator when placing his hands on the cas-

ing cannot possibly be hit by the revolving drum, so that he is effectively protected from serious injury.

We claim:

A centrifugal machine provided with a centrifugal drum, a hinged cover for said drum, a slotted bar pivoted to the cover, a guide pin engaging the slotted bar, an arm pivoted to said bar, a stop adapted to engage the arm, a lever pivoted to the arm, a power shaft adapted to operate the centrifugal drum, and a belt shifter for said power shaft operable by said lever.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."