D. A. SAWYERS.

WRINGER.

APPLICATION FILED JULY 24, 1907.

898,787.

Patented Sept. 15, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

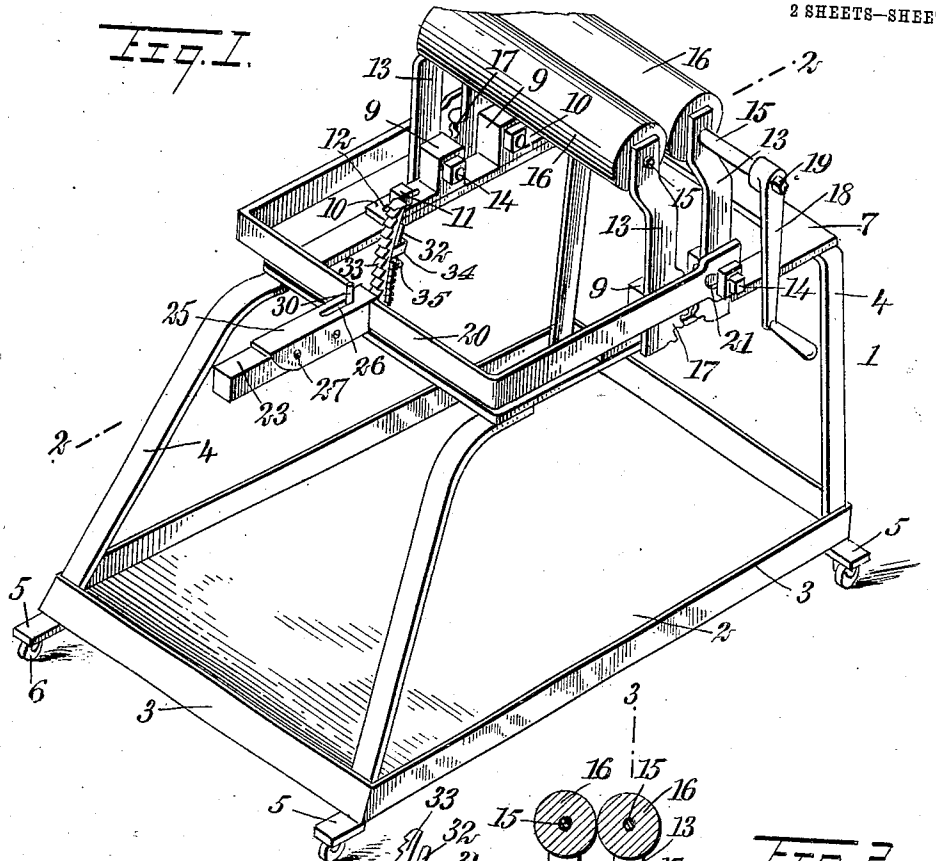
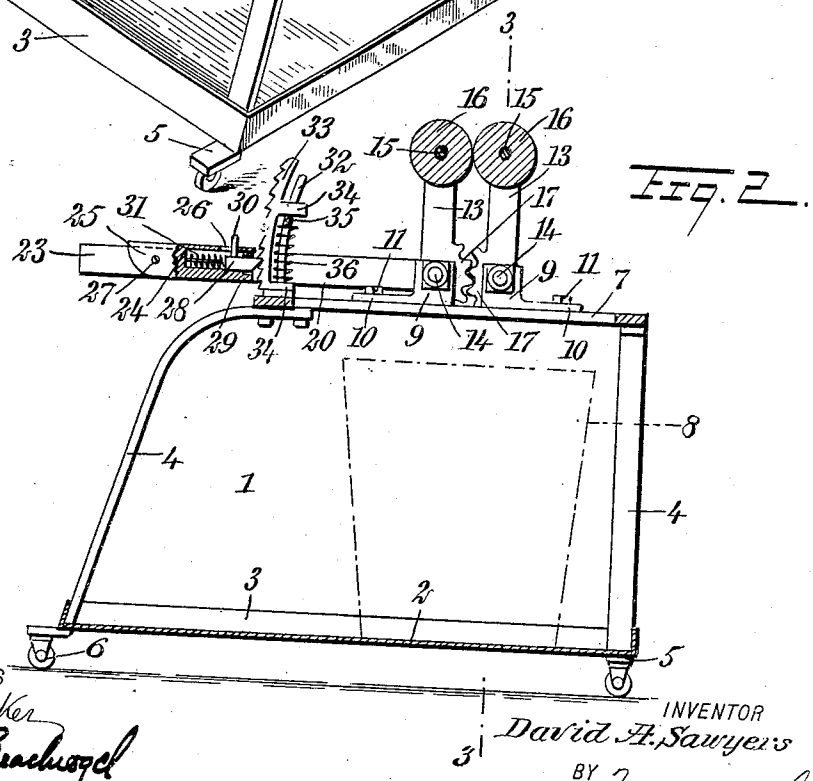


Fig. 2.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 3.

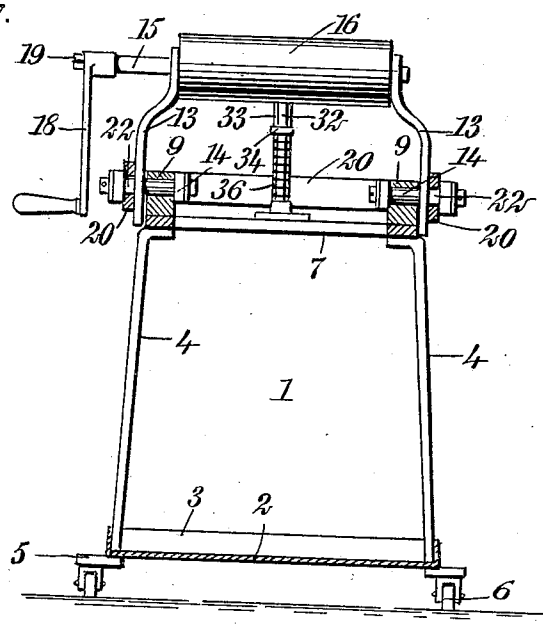


Fig. 5.

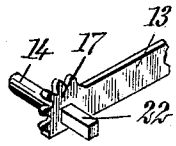


Fig. 4.

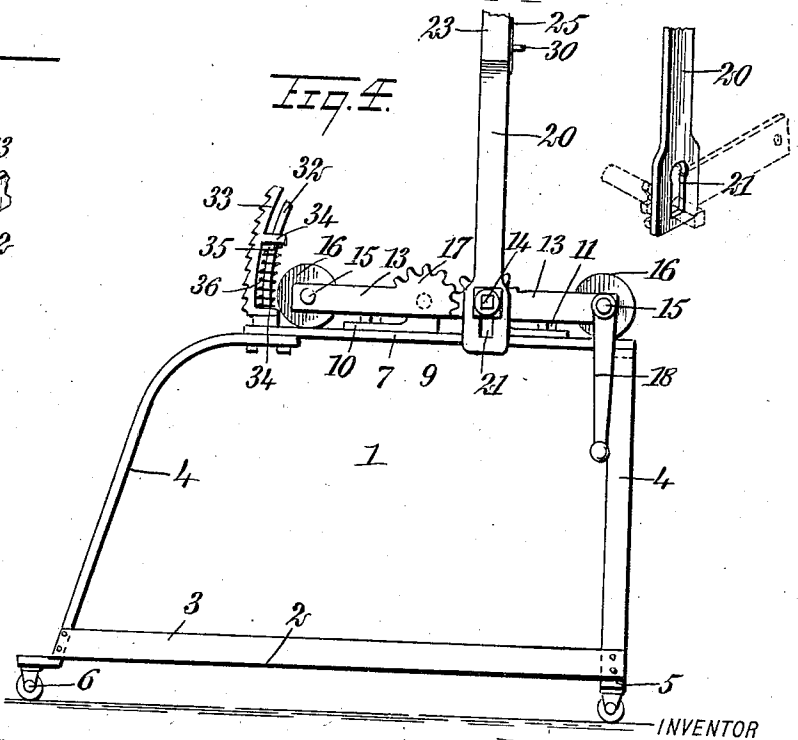


Fig. 6.

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WRINGER.

No. 898,787. Specification of Letters Patent. Patented Sept. 15, 1908.

Application filed July 24, 1907. Serial No. 385,255.

To all whom it may concern:

Be it known that I, DAVID A. SAWYERS, a citizen of the United States, and a resident of Unionville, in the county of Appanoose and State of Iowa, have invented a new and Improved Wringer, of which the following is a full, clear, and exact description.

This invention relates to wringers, and is particularly useful in connection with devices of this kind used for wringing out mops, wash-rags and the like.

An object of the invention is to provide a simple, strong and durable wringer arranged to be moved from place to place, having a frame adapted to support a receptacle such as a pail, and provided with means for wringing out mops, wash-rags and the like.

A further object of the invention is to provide a wringer having a frame carrying a receptacle and provided with manually operable rollers for wringing out mops and the like.

A still further object of the invention is to provide a device of the class described having a frame adapted to carry a receptacle, rollers arranged above said frame and serving to wring out mops and the like, and means for moving the rollers into inoperative positions to permit the receptacle to be placed upon the frame or removed therefrom.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification in which similar characters of reference indicate corresponding parts in all the views, and in which

Figure 1 is a perspective view of my invention; Fig. 2 is a longitudinal section on the line 2—2 of Fig. 1; Fig. 3 is a transverse section on the line 3—3 of Fig. 2; Fig. 4 is a side elevation of the device showing a part broken away; Fig. 5 is a perspective view of a portion of one of the roller supports; and Fig. 6 is a similar view of a part of a bail controlling the roller.

Referring more particularly to the drawings, 1 represents the frame of the wringer having a platform 2 provided with a rim 3 at the edges thereof. The frame includes uprights 4 having the ends secured to the platform 2 and laterally disposed at the sides thereof to form feet 5 mounted upon the rollers or casters 6 which support the device. The uprights 4 carry an open frame member 7 of preferably rectangular form. The parts of the frame may be secured together by welding, soldering, by means of bolts or screws, or in any other suitable manner. The platform 2 serves to carry a receptacle 8 such as a pail, and the latter can be placed in position upon the platform by being lowered through the open frame member 7.

A pair of brackets 9 having slotted laterally disposed feet 10, is mounted upon each of the sides of the frame member 7 and is adjustably secured in position thereupon by means of screws 11 passing through the slots 12 in the feet and arranged in suitably threaded openings in the frame member. It will be understood that the brackets can be adjusted longitudinally of the sides of the frame member and can be clamped in position thereupon by means of the screws 11. Each of the brackets 9 has pivotally mounted thereupon by means of a bolt 14, a roller support 13. The opposite corresponding roller supports carry revoluble rollers 16, mounted upon shafts 15 having the extremities pivotally carried by the respective supports. At the inner sides the adjacent roller supports have integral toothed segments 17, which are normally in mesh. One of the shafts 15 is laterally extended beyond one of the supports and carries a handle 18 by means of which it can be manually operated. The handle is rigidly mounted upon the extended shaft 15 by means of a nut 19. As the adjacent roller supports are operatively connected by means of the toothed segments, they can be swung toward each other or away from each other by correspondingly moving one of the rollers. Thus, as one of the rollers is swung into an inoperative position toward the frame member 7, the other roller is similarly swung in the opposite direction into an inoperative position toward the frame member. When one of the rollers is swung in the reverse direction the other roller is correspondingly moved until the rollers engage. The operation of the rollers is similar to that of the usual wringer. A cloth or other material is inserted between the rollers and the handle is turned, whereby the cloth is drawn through the rollers which rotate in opposite directions and the moisture is expressed or squeezed from the material.

A bail 20 having key-hole slots 21 near the ends, is mounted upon laterally extended portions of corresponding bolts 14 carried by

opposite brackets 9. The key-hole slots are arranged upon extended portions 22 of the bolts 14 and these extended portions are of substantially rectangular cross-section. The key-hole slots have parallel sides which operatively engage opposite faces of the bolt sections 22 so that the rollers can be swung by pivotally operating the bail. The key-hole slots have rounded portions which are adapted inoperatively to engage the bolt sections 22, to permit the bail to be swung in one direction or the other without correspondingly swinging the rollers apart or together.

The cross-bar of the bail 20 carries a rigid stem 23, having adjacent to the bail a longitudinal recess 24. A shoe 25 having a slot 26 is rigidly mounted upon the stem 23 by means of screws 27, and extends across the recess 24, the slot 26 being arranged above the recess. A slidable tongue 28 is located in the recess 24, and has a beveled extremity normally projecting through an opening 29 in the cross-bar of the bail. The tongue 28 has a stud 30 extending through the slot 26 and is normally projected through the opening 29 by means of a spring 31 arranged within the recess.

A rod 32 is mounted upon the frame member 7 at one end thereof, and extends upwardly from the frame member. A ratchet bar 33 has lateral extensions 34 which are loosely mounted by means of suitable openings, upon the rod 32. The latter has a cross-pin 35, and carries between the cross pin and one of the extensions 34 of the ratchet-bar, a helical spring 36 which resists the movement of the ratchet-bar longitudinally of the rod 32. When the bail is swung into a position against the frame member 7 at one side of the same, the tongue 28 operatively engages the teeth of the ratchet, to hold the bail in the depressed position. The length of the bail arms is such, that when the bail is held in the depressed position the key-hole slots operatively engage the bolt sections 22. Consequently, if the rollers are moved apart when the bail is in this position the bail would tend to swing upwardly, and this upward movement of the bail is resiliently resisted by the spring 36 which holds the ratchet-bar. In this manner the rollers are resiliently held in engagement and can give to a certain degree as the material is passed between them. It will be understood that when the material is passed between the rollers they frictionally co-act, and the movement of rotation given to one by means of the handle 18 is transmitted to the other.

The catch formed by the tongue 28 and the ratchet-bar 33 can be released by means of the stud 30, which can be employed to withdraw the tongue from the ratchet. When the bail is released it can be swung upwardly to separate the rollers. When the rollers are separated, the bail can be moved slightly in a direction transverse of the bolt sections 22, to move the rounded portion of the key-hole slot into engagement with the sections, to permit the bail to be swung again into an inoperative position without actuating the rollers, and leaving the same in an inoperative position. With both the rollers and the bail inoperatively disposed, the receptacle can be passed through the open frame member 7 without difficulty.

In the accompanying illustrations, I have shown for convenience, my invention applied to a device specifically designed for wringing out mops and the like. It will be understood however, that the invention does not reside in certain of the structural features illustrated, but that the underlying principle consists in the co-acting rollers which are controlled by the pivoted bail and which can be inoperatively disposed by means of the latter, the bail at the same time being so constructed that it can, if necessary, be operated independently of the rollers. The frame and certain other parts of the device can be fashioned from any suitable material such as sheet metal, cast-iron, and the like, while the rollers which may be either smooth or corrugated, can be formed from wood, metal and the like, and rubber or fabric covered, or if desired, without covering.

Having thus described my invention I claim as new and desire to secure by Letters Patent:

1. A wringer, comprising movable members provided with wringing means, said members having parts in engagement whereby the movement of one member in one direction effects a movement of the other member in an opposite direction, a bail movably mounted upon one of said members and having a part controlling the same whereby a pivotal movement of said bail approaches or separates said members, said part of said bail being so formed that said bail by a predetermined adjustment can be rendered pivotally movable, independently of said member upon which it is pivoted.

2. A wringer, comprising movable members constituting wringing means, said members having parts normally in engagement such that a movement of one of said members in one direction effects a movement of the other of said members in an opposite direction, one of said members having a stud, and a bail having an opening adapted to receive said stud whereby said bail is movably mounted upon said member having said stud, said opening having a part formed to receive said stud whereby said bail can be operated to control said members by a pivotal movement, said opening further having a part formed to receive said stud whereby said bail can move pivotally independently of said member.

3. A wringer, comprising pivoted supports, wringing means carried by said supports,

said supports engaging, one with the other whereby each of said supports is moved in one direction when either of said supports is moved in the opposite direction, a pivoted handle bail having means for engaging one of said supports operatively and inoperatively and controlling the movement thereof, and resilient means for holding said bail in position such that said supports are substantially adjacent.

4. A wringer, comprising a frame adapted to support a receptacle and having pivoted roller supports, rollers carried by said roller supports, said roller supports engaging one with the other, whereby each of said rollers is moved in one direction when the other of said rollers is moved in the opposite direction, a pivoted handle bail having means for engaging one of said roller supports operatively and inoperatively and controlling the movement thereof, and resilient means for holding said bail in position such that the rollers are substantially adjacent.

5. A wringer, comprising a frame adapted to support a receptacle, pairs of roller supports pivotally mounted upon said frame at opposite sides thereof and having toothed segments normally in mesh, rollers mounted between corresponding roller supports, a bail pivotally connected with corresponding roller supports and controlling the same whereby said rollers are approached or separated as said bail is swung in one direction or the other, and resilient means for holding said bail in position such that the rollers are substantially adjacent.

6. A wringer, comprising a frame having a platform adapted to support a receptacle and an open frame member above said platform, adjustable brackets mounted at opposite sides of said frame member, roller supports pivoted upon said brackets and having toothed segments in mesh, rollers carried by opposite roller supports, a bail pivotally connected with opposite roller supports and having a catch, and a resiliently mounted ratchet bar adapted to engage said catch to hold said bail in position, the arrangement being such that said rollers are substantially adjacent when said bail is held in position by said catch and said ratchet bar.

7. A wringer, comprising a frame having a platform adapted to support a receptacle and an open frame member arranged thereabove to permit the passing therethrough of the receptacle, pairs of adjustable brackets mounted at opposite sides of said frame member, pivoted bolts carried by said brackets, roller supports mounted upon said bolts and having toothed segments, said toothed segments of adjacent roller supports being in mesh, rollers carried by said roller supports, the bolt of one of each pair of said brackets having a portion of angular cross-section, a bail having key-hole slots at the extremities, each arranged upon a bolt portion of angular cross-section, whereby said bail is adapted operatively and inoperatively to engage said bolts, and means for resiliently holding said bail in position such that the rollers are substantially adjacent.

8. A wringer, comprising a frame having a platform adapted to support a receptacle and an open frame member arranged thereabove to permit the passing therethrough of the receptacle, pairs of adjustable brackets mounted at opposite sides of said frame member, pivot bolts carried by said brackets, roller supports mounted upon said bolts and having toothed segments, said toothed segments of adjacent roller supports being in mesh, rollers carried by said roller supports, the bolt of one of each pair of said brackets having a portion of angular cross-section, a bail having key-hole slots at its extremities, each arranged upon a bolt portion of angular cross-section, whereby said bail is adapted operatively and inoperatively to engage said bolts, means for resiliently holding said bail in position such that the rollers are substantially adjacent, said bail having a resiliently held catch, and a resiliently held ratchet-bar mounted upon said frame and adapted to engage said catch to hold said bail in a depressed position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DAVID ALLEN SAWYERS.

Witnesses:

E. M. PHILLIPS,

C. W. TAYLOR.