No. 883,984. PATENTED APR. 7, 1908.

J. C. STEINER.

PORTABLE SUPPORT AND POWER MECHANISM.

APPLICATION FILED DEC. 2, 1907.

2 SHEETS—SHEET 1.

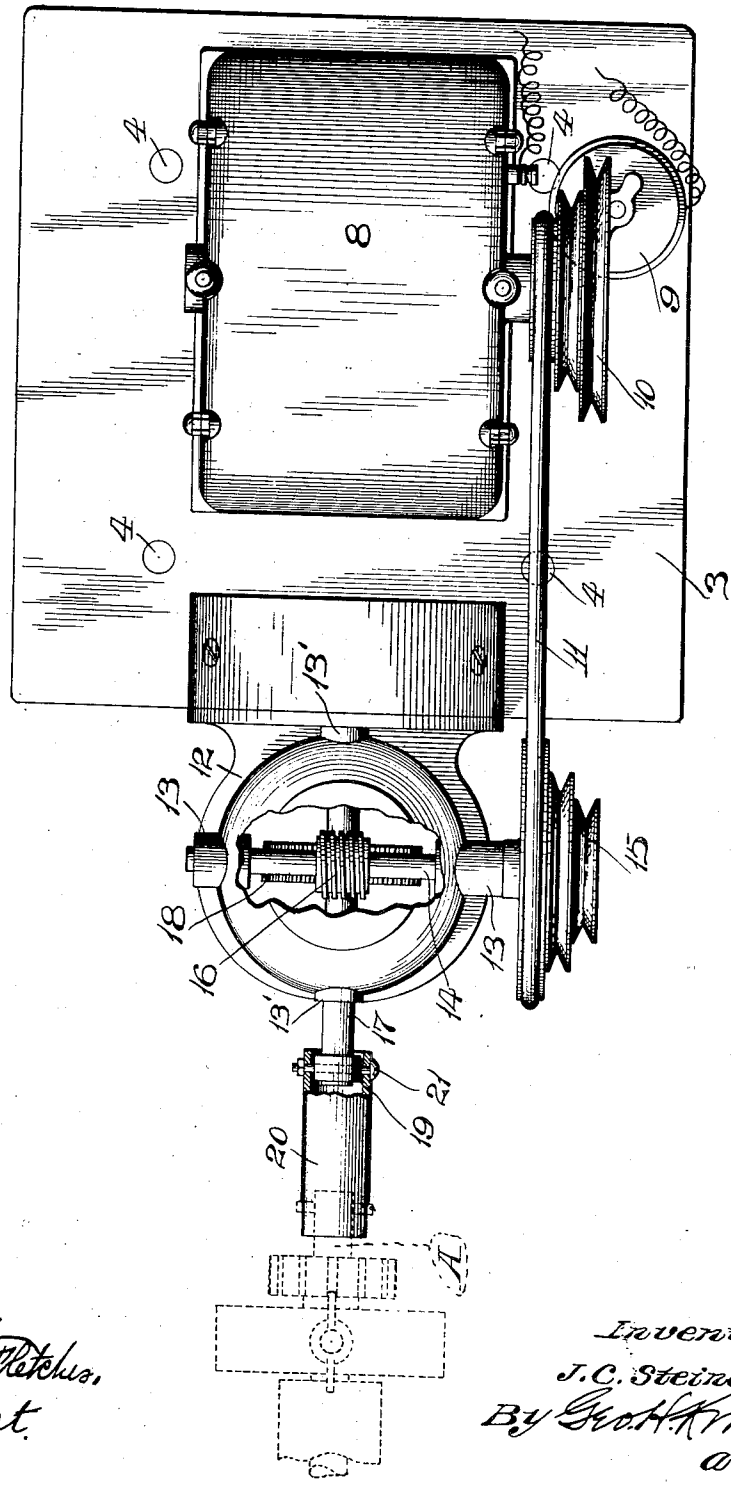


Fig. 1.

Attest.
L. G. Fletcher.
Lily Root.

Inventor,
J. C. Steiner.
By Geo. H. Knight
Atty.

No. 883,984.

PATENTED APR. 7, 1908.

J. C. STEINER.

PORTABLE SUPPORT AND POWER MECHANISM.

APPLICATION FILED DEC. 2, 1907.

2 SHEETS—SHEET 2.

Fig. II.

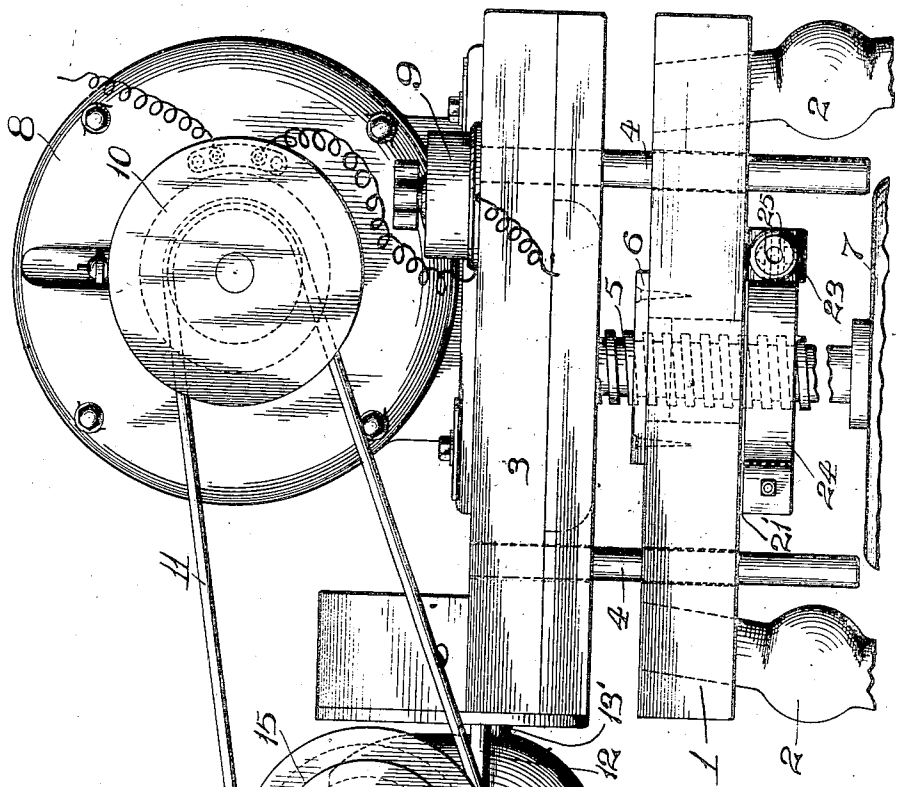
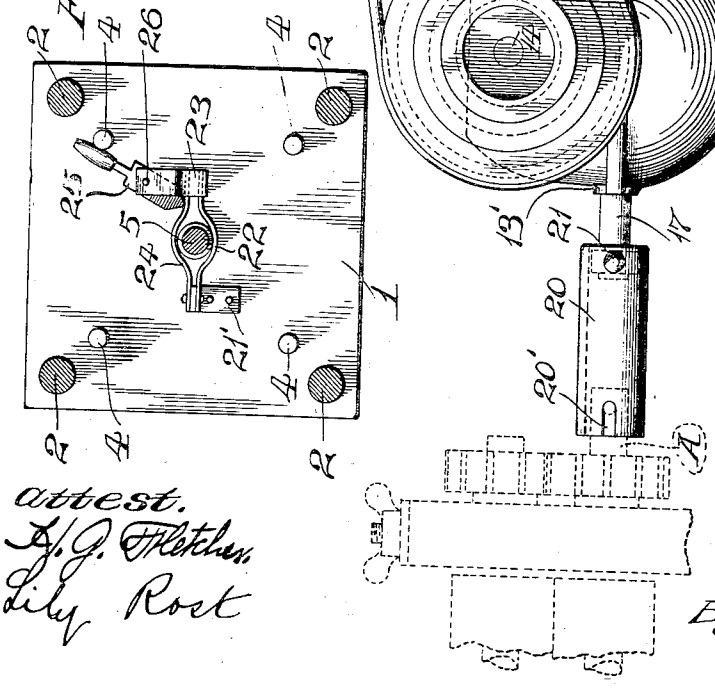


Fig. III.



Attest.
H. J. Fletcher.
Lily Root

Inventor.
J. C. Steiner.
By Geo. H. Knight
Atty.

UNITED STATES PATENT OFFICE.

JOSEPH C. STEINER, OF ST. LOUIS, MISSOURI.

PORTABLE SUPPORT AND POWER MECHANISM.

No. 883,984. Specification of Letters Patent. Patented April 7, 1908.

Application filed December 2, 1907. Serial No. 404,771.

To all whom it may concern:

Be it known that I, JOSEPH C. STEINER, a citizen of the United States of America, residing in the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Portable Supports and Power Mechanisms, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a portable support and power mechanism for operating clothes wringers and washing machines or the like, and it has for its object to provide a support and power mechanism of this character which may be readily placed in connection with the device to which power is to be communicated and be readily detached from a device it has served to operate in order that it may be applied to another device that is to be operated.

Figure I is a top or plan view of my support and power mechanism. Fig. II is a side elevation of the support and power mechanism. Fig. III is an inverted view of the top of the stand by which my mechanism is supported with the legs of the stand shown in horizontal section and also illustrating the clamp device employed to bind the lift screw that supports the table on which the mechanism is mounted.

1 designates the top of a stand which includes, besides said top, legs 2 that are adapted to be seated and moved upon a floor.

3 designates a table that is located above the top of the stand and in which are mounted vertically disposed stay pins 4 that extend downwardly from the table and are loosely seated in the stand top 1. These stay pins serve to guide the table when moved vertically by the means to be presently described.

5 designates a lift screw that extends vertically through the stand top 1 and is fitted in a threaded plate 6 that is mounted on said top, as seen in Fig. II. The lift screw 5 is provided at its lower end with a hand wheel 7 and at its upper end is loosely fitted to the table 3 in order that the screw may be rotated for the purpose of raising and lowering said table to place it at any desired degree of elevation, according to the height at which the mechanism supported by said table is to be connected to a device that it is to operate.

8 designates an electric motor that is mounted on the table 3 and which may be of any ordinary type. The flow of electrical current to this motor is controlled through the medium of a switch 9 mounted upon the table adjacent to the motor.

10 is a cone pulley fixed to the shaft of the motor 8 and which receives a belt 11 by which power is transmitted from the motor.

12 designates a bracket attached to the table 3 and provided with bearing boxes 13 that are arranged parallel with the snaft of the motor 8.

14 is the drive shaft of my power mechanism which is mounted in the bearing boxes 12 and which has fixed thereto a cone pulley 15 on which the belt 11 that leads from the motor shaft pulley 10 operates. The pulleys 10 and 15 are made of cone form in order that the drive shaft 14 of the power mechanism may be driven at varying speeds when the motor 8 is in operation.

16 is a worm carried by the drive shaft 14.

17 designates the driven shaft of my power mechanism which is journaled in bearing boxes 13′ supported by the bracket 12 and located at right angles to the bearing boxes 13 in which the drive shaft 14 operates. The shaft 17 is located at right angles to the drive shaft 14 and it has secured to it a worm wheel 18 that is arranged in mesh with the worm 16 carried by said drive shaft in order that power may be transmitted from the drive shaft to the driven shaft.

19 is a head fixed to the forward end of the driven shaft 17.

20 designates a connection member that is in the shape of a sleeve. This connection member is loosely united to the driven shaft 17 by a coupling bolt 21 that passes through the inner end of the member 20 and through the head 19 and the driven shaft to which said head is secured. By attaching the connection member in the manner described, I provide a universal joint between the connection member and the driven shaft in order that said connection member may operate to drive a shaft to which it may be connected irrespective of whether or not the shaft that is to be operated is in alinement with the driven shaft 17 of my mechanism. The connection member 20 is provided at its forward end with a slot 20′, see Fig. II, that is adapted to receive studs carried by a shaft to which the member is fitted, such as the shaft A of a clothes wringer, as illustrated in the drawings, and from which the connection member may be readily disconnected, due to the simplicity of the attach-

ment of the connection member to said shaft. It is obvious that attachment of the member 20 may be as readily made to the gearing shaft of a washing machine or other device, provided with studs adapted to enter the slots of the connection member.

For the purpose of retaining the table 3 in a position to which it may have been elevated for the proper adjustment of my mechanism relative to an object that is to be operated thereby, I provide a clamp shown in Figs. II and III and which is adapted to be brought into engagement with the lift screw 5 by which the table 3 is adjusted. This clamp comprises the following parts: 21′ is a bracket attached to the lower side of the stand top 1 and 22 is a clamp bar fixed at one end to said bracket alongside of the lift screw 5. 23 is a yoke fixed to the end of the clamp bar 22 farthest removed from the bracket 21′ and which extends laterally from said bar. 24 is a yielding clamp bar that is fixed at one end to the bracket 21′. This yielding clamp bar is located parallel with the clamp bar 22 and its end farthest removed from the bracket 21′ is located within the yoke 23. 25 is a lever pivotally mounted at 26 in the yoke 23 and the inner end of which is adapted to impinge against the yielding clamp bar 24. When the lever 25 is moved laterally to carry its inner end toward the free end of the yielding clamp bar 24, said clamp bar is moved toward the feed screw and the two clamp bars 22 and 24 are drawn toward each other with the result of causing them to grip the feed screw and hold it from rotation. The feed screw being held from rotation, acts to uphold the table 3 in a stationary position in order that the motor and mechanism supported by the table may not partake of a downward movement while the mechanism is being operated to drive the device with which it is connected.

I claim:

1. In a portable device of the character described, the combination of a stand, a table supported by said stand, a motor mounted on said table, a bracket supported by said table, a drive shaft journaled in said bracket, a power connection member between said motor and said drive shaft, a driven shaft geared to said drive shaft, and a connection member carried by said driven shaft and adapted to be attached to an object to be driven thereby; said connection member being in the form of a sleeve having a universal joint connection with said driven shaft, substantially as set forth.

2. In a portable device of the character described, the combination of a stand, a table supported by said stand, a motor mounted on said table, a bracket supported by said table, a drive shaft journaled in said bracket, a power connection member between said motor and said drive shaft, a driven shaft geared to said drive shaft, and a connection member carried by said driven shaft and adapted to be attached to an object to be driven thereby; said connection member being in the form of a sleeve containing slots at its forward end, substantially as set forth.

3. In a portable device of the character described, the combination of a stand having a top, a feed screw mounted in said top, a table supported by said feed screw, power mechanism supported by said table, and a clamp device secured to the top of said stand and adapted to grip said feed screw, substantially as set forth.

4. In a portable device of the character described, the combination of a stand having a top, a feed screw mounted in said top, a table supported by said feed screw, power mechanism supported by said table, and a clamp device secured to the top of said stand and adapted to grip said feed screw; said clamp comprising a pair of clamp bars, one of which is yieldable, a yoke secured to one of said clamp bars, and a lever mounted in said yoke and adapted to move said yieldable clamp bar to said feed screw, substantially as set forth.

JOSEPH C. STEINER.

In presence of—
LILY ROST,
H. G. COOK.