June 5, 1934.

J. POWELL

1,961,302

MOTOR FOR OPERATING CHURNS

Filed July 6, 1933

2 Sheets-Sheet 1

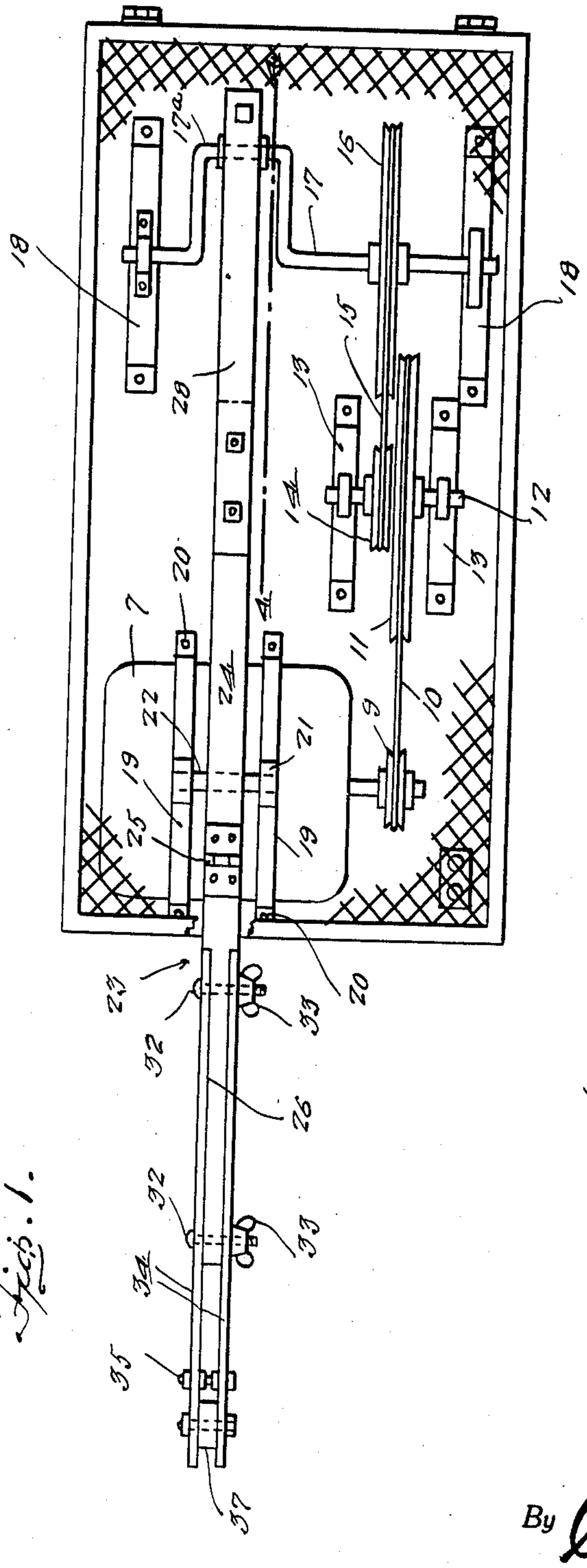

Fig. 1.

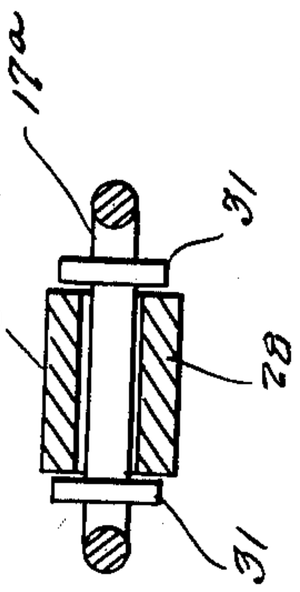

Fig. 5.

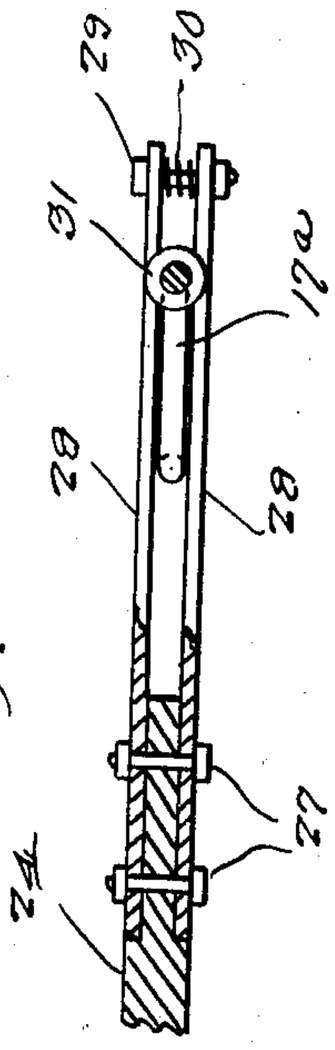

Fig. 4.

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2 Sheets-Sheet 2

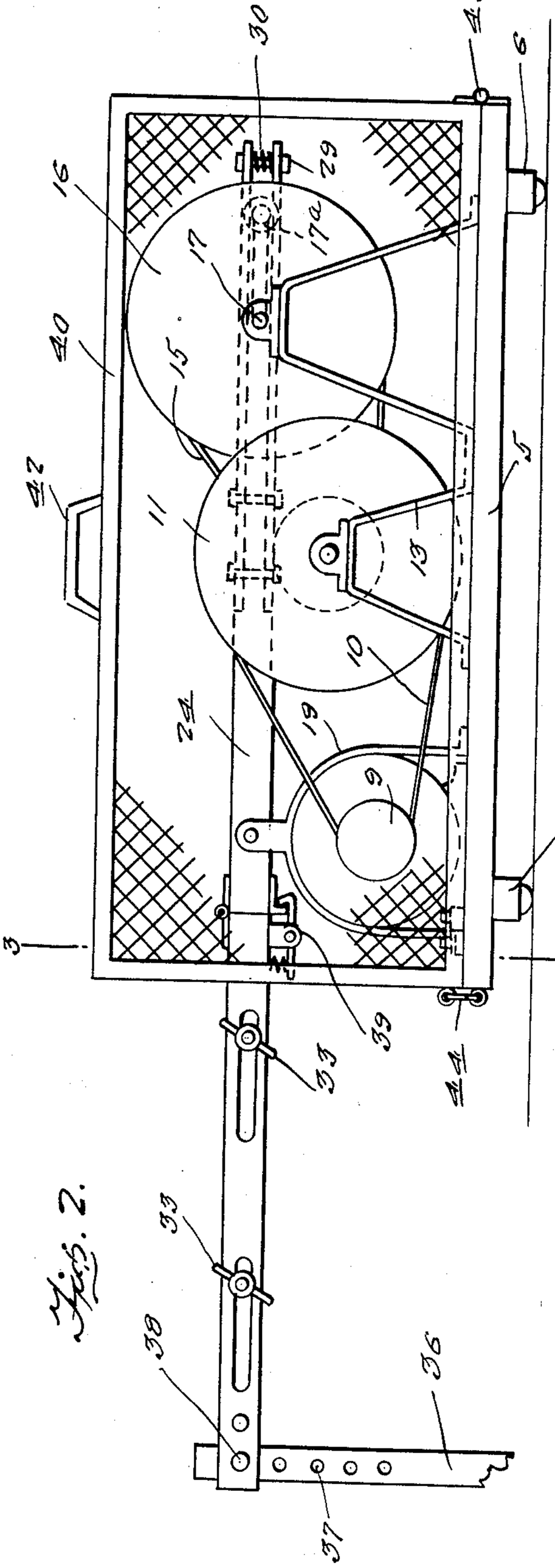
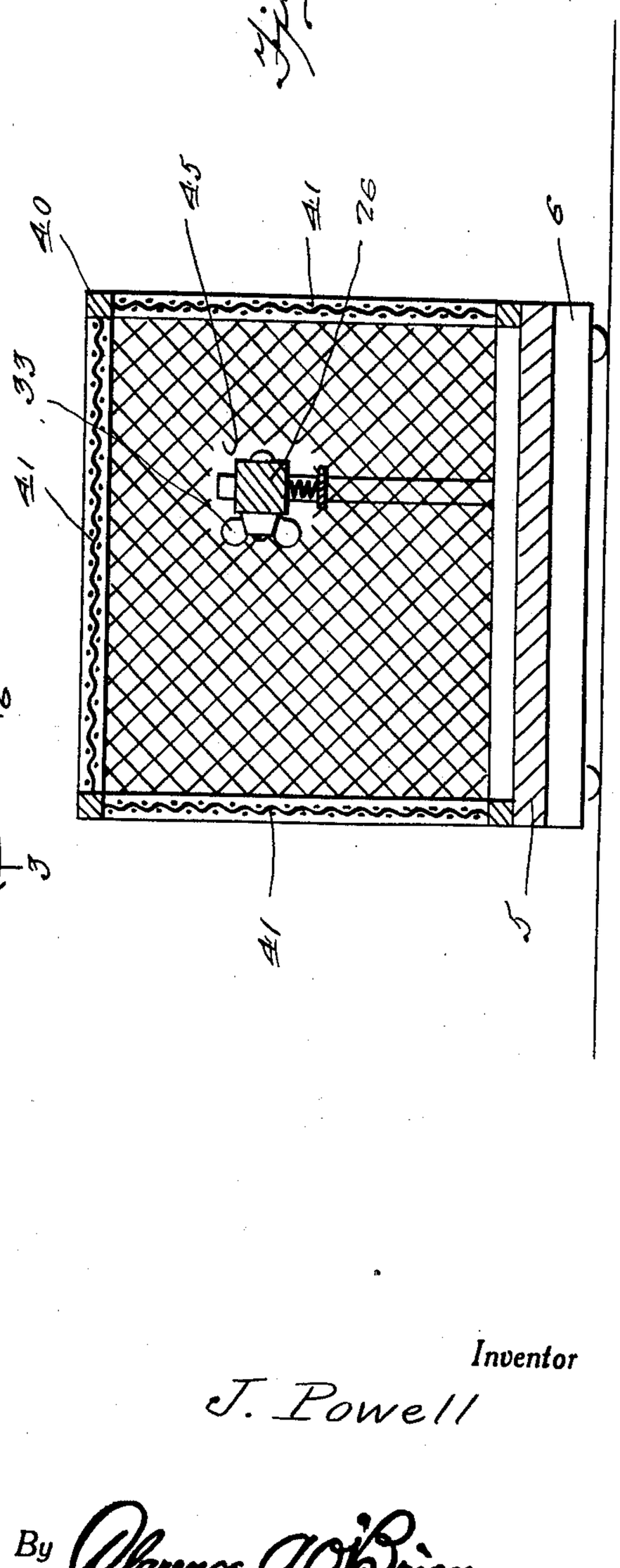


Fig. 2.

Fig. 3.



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Patented June 5, 1934 1,961,302

UNITED STATES PATENT OFFICE

1,961,302

MOTOR FOR OPERATING CHURNS

Jefferson Powell, Lynch, Ky.

Application July 6, 1933, Serial No. 679,244

2 Claims. (Cl. 74—14)

This invention relates to motors for operating churns; and the invention briefly consists in the provision of an electrically driven power that is portable and which is especially adapted for operating churns.

The invention together with its numerous objects and advantages will be best understood from a study of the following description, taken in connection with the accompanying drawings wherein is illustrated a preferred embodiment of the invention.

It is to be understood that the invention is in no wise intended to be restricted to the precise details of construction, combination and arrangement of parts as herein specifically illustrated and described other than may be necessary to meet the requirements of the prior art and scope of the appended claims.

In the drawings:

Figure 1 is a top plan view of the motor with certain parts removed.

Figure 2 is a side elevational view thereof.

Figure 3 is a vertical transverse sectional view taken substantially on the line 3—3 of Figure 2.

Figure 4 is a fragmentary sectional view taken substantially on the line 4—4 of Figure 1, and

Figure 5 is a fragmentary sectional elevational view illustrating the connection between the throw of the crank shaft and walking beam.

Referring to the drawings by reference numerals it will be seen that the invention comprises a base 5 provided with suitable stub-legs 6. Mounted on the base 5 adjacent one end is an electric motor 7, a control switch 8 being provided for the motor 7. The armature shaft of the motor 7 is provided with a pulley 9 that has trained thereover a drive belt 10 which is also trained over a relatively large pulley 11 mounted on a shaft 12 journalled in bearing standards 13 rising from the base 5 adjacent one side edge of the base. Also provided on the shaft 12 is a smaller pulley 14 that has trained thereover a belt 15, and belt 15 is also trained over a relatively larger pulley 16 provided on a crank shaft 17 that has the ends thereof journalled in bearing standards 18 also rising vertically from the base 5. It will thus be seen that through the medium of the belt and pulley drive connections power is transmitted from the motor 7 to the crank shaft 17.

A pair of relatively spaced substantially U-shaped bracket 19 straddles the motor 7 and are anchored at their ends to the base or platform 5 through the medium of any suitable fastening means 20. The brackets 19 have rising therefrom bearing lugs 21 which support a pivot pin 22.

A walking beam designated by the reference numeral 23 includes a section 24 pivotally connected with the pivot 22 and hingedly connected at one end as at 25 with a second section 26.

The free end of the walking section 24 has secured thereto as at 27 one end of a pair of bars 28 which are connected at their free ends through the medium of bolt and nut means 29 and are yieldably urged apart at said ends through the medium of a coil spring 30. The bars 28 receive in the space therebetween the throw 17*a* of the crank shaft 17, said throw being provided with collars 31 thereon which receive therebetween, as shown in Figure 5 the bars 28.

The free end of the walking beam section 26 has secured thereto through the medium of bolts 32 and wing nuts 33 a pair of bars 34, and as clearly shown in Figure 2 the bars 34 are slotted longitudinally for accommodating the bolts 32 whereby provision is made for adjusting the bars 34 relative to the beam section 26 and thereby control the length of the working stroke. Adjacent their free ends the bars 34 are retained in suitable spaced relation through the medium of a coupling device 35. The bars 34 at their free ends are also adapted to receive therebetween the upper portion 36 of the dasher rod of the churn, which rod, in the present instance is provided with a vertical series of openings 37 to accommodate a connecting pin 38; the apertures 37 permitting the motor to be set at any desired height within reason.

A spring latch 39 is provided at the hingedly connected ends of the walking beam section 24, 26 for holding the walking beam in extended or unfolded position when the device is in use. Manifestly when the device is not in use walking beam section 26 may be readily folded back upon the walking beam section 24. For the above described parts of the device there is provided a hood 40 which comprises a box like body of frame construction in which are suitably secured screens 41 providing top, side and end walls for the hood. A handle 42 is also provided on the hood and when the hood is secured in position the entire device may be readily carried about. The hood 40 is hinged to one end of the platform 5 as at 43 while a suitable fastener 44 is suitably provided for securing the hood in proper position. The screen 41 at the forward end of the device is provided with a

suitable opening 45 to accomodate the walking beam.

The operation of the device is thought to be clear. With the walking beam suitably connected to the dasher rod of the churn the switch 8 is operated for closing the circuit to the motor 17 and drive is transmitted from the motor through the belt and pulley connection herein described to the shaft 17 for operating the walking beam, causing the latter to rock about its pivot 22 and thereby operate the dasher of the churn.

Having thus described my invention, what I claim as new is:

1. In a power device of the class described, a base, a hood mounted on said base, an electric motor mounted within the hood on the base, a crank shaft mounted on the base within the hood, motion transmitting means connecting said electric motor with said shaft, a pivotally mounted sectional walking beam, an operating connection between said beam and said shaft, and said beam being foldable for storage within said hood, and quick releasable latch means at the adjacent end of the sections of said beam holding said sections in alinement when the beam is in extended or unfolded position.

2. In a device of the character described, a walking beam comprising a pair of hingedly connected sections, a spring latch at the joint between said sections for releasably holding the sections in alinement, a pair of bars secured at one end to the free end of one of the beam sections, a spring device yieldably retaining the free ends of said bars in spaced relation, and a second pair of bars adjustably connected with the free end of the other of the beam sections and provided at their free ends with means for connecting the beam with suitable work.

JEFFERSON POWELL.