Aug. 5, 1941. F. A. CONTERMAN 2,251,564

LAUNDRY DEVICE

Filed Nov. 14, 1939 3 Sheets-Sheet 1

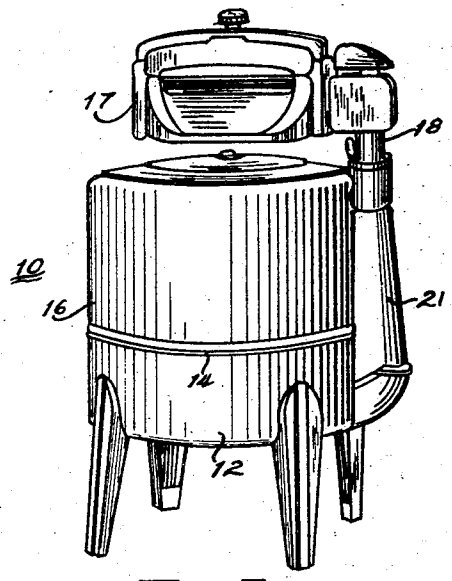


FIG-1

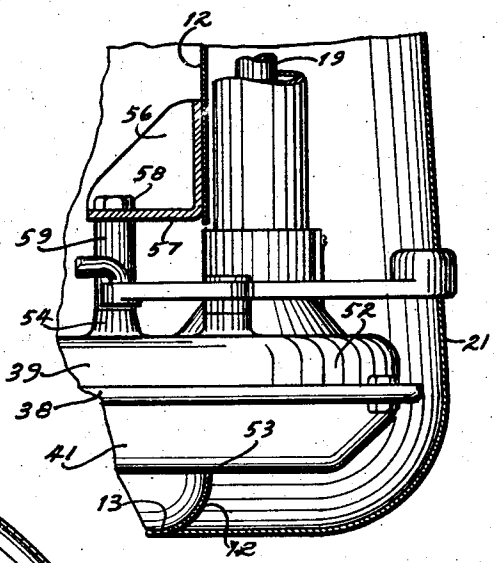


FIG-3

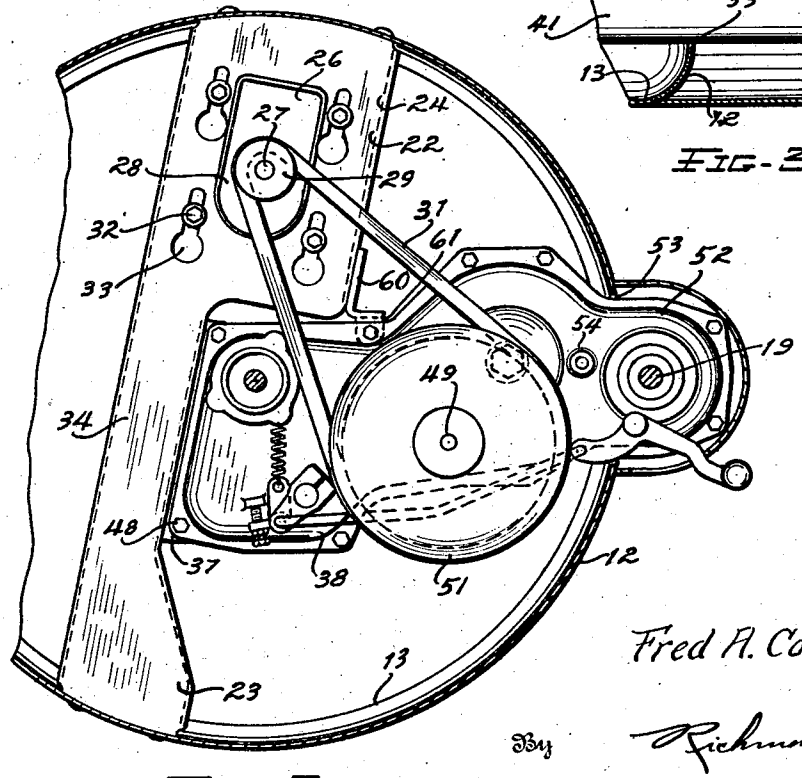


FIG-2

Inventor

Fred A. Conterman

By Richmond & Hayes

Attorney

Aug. 5, 1941. F. A. CONTERMAN 2,251,564

LAUNDRY DEVICE

Filed Nov. 14, 1939 3 Sheets-Sheet 2

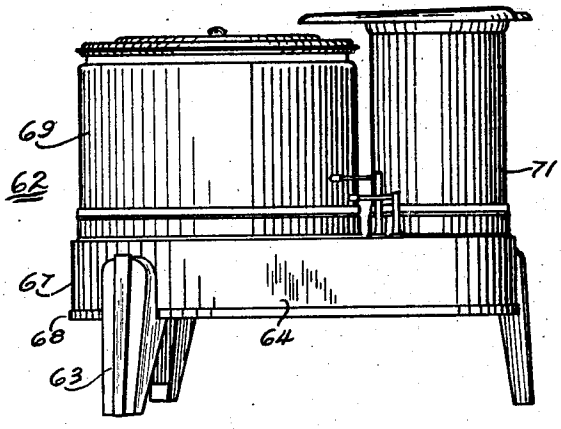


FIG. 4

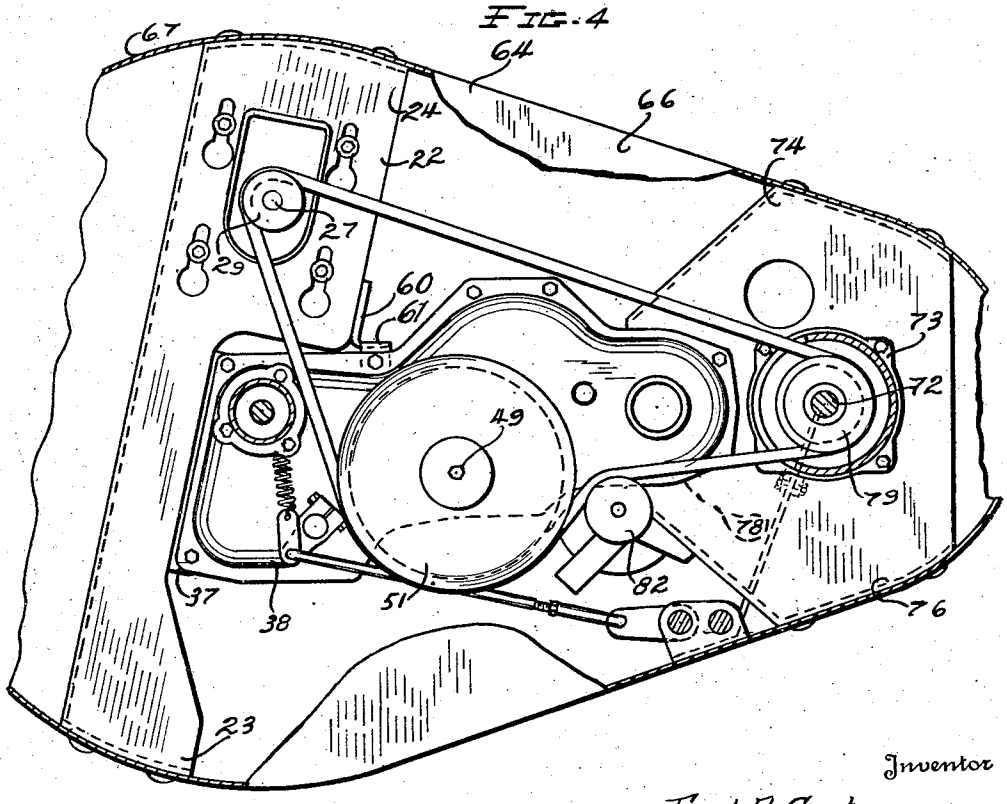


FIG. 5

Inventor

Fred A. Conterman

By Richmond A. Hayes

Attorney

Aug. 5, 1941. F. A. CONTERMAN 2,251,564

LAUNDRY DEVICE

Filed Nov. 14, 1939 3 Sheets-Sheet 3

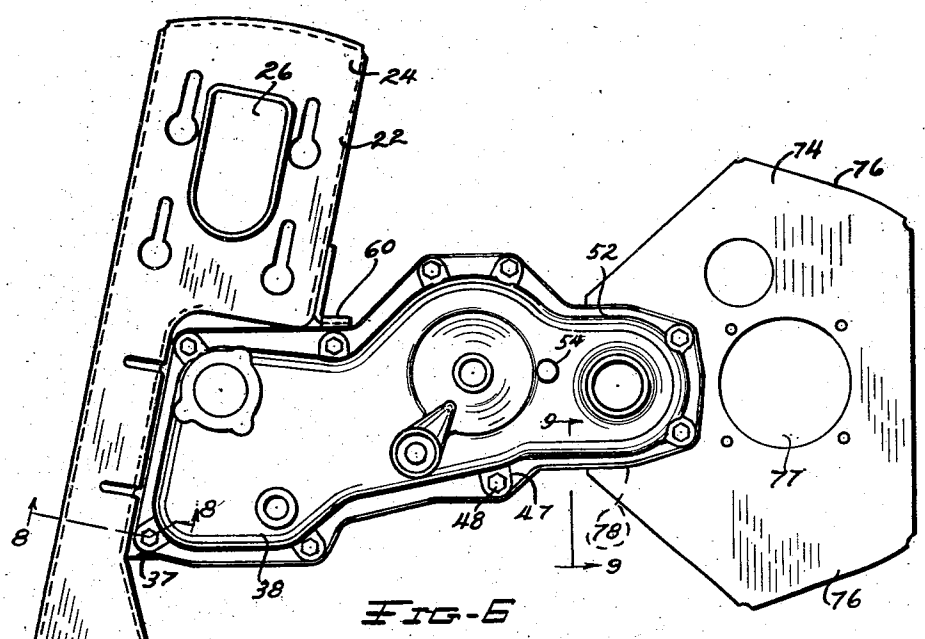


FIG-6

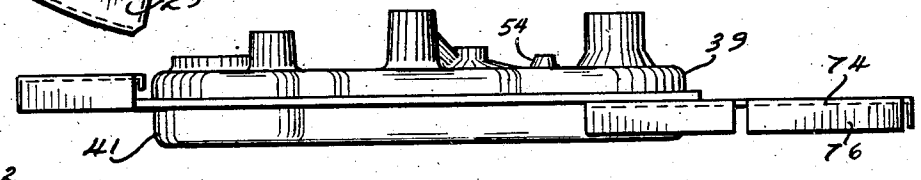


FIG-7

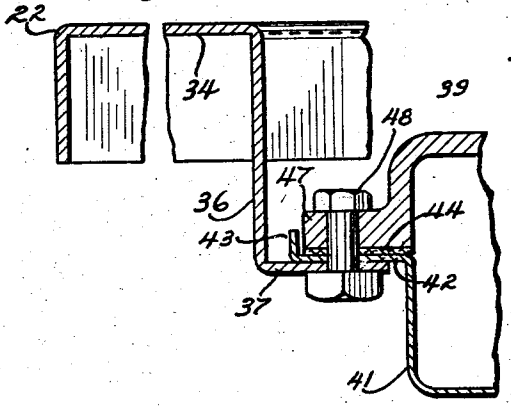


FIG-8

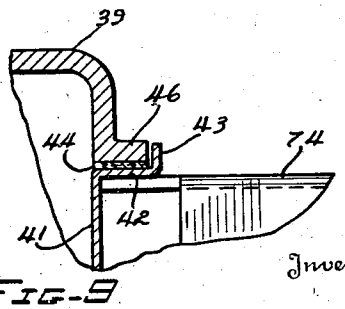


FIG-9

Inventor

Fred A. Conterman

By Richmond A. Hayes

Attorney

Patented Aug. 5, 1941 2,251,564

UNITED STATES PATENT OFFICE

2,251,564

LAUNDRY DEVICE

Fred A. Conterman, Jamestown, N. Y., assignor to Blackstone Manufacturing Company, Inc., Jamestown, N. Y., a corporation of New York

Application November 14, 1939, Serial No. 304,336

2 Claims. (Cl. 68—3)

This invention relates to an improvement in combination laundry devices and more particularly to a drive housing and support therefor.

The present embodiment of the invention discloses a drive mechanism and housing adaptable for use with washing machines that are combined with either a clothes wringer or a spinner dryer.

Prior to this invention it has been the practice of manufacturers of domestic washing machines to produce two types of machines; one a washing machine and wringer, and the other a washing machine and spinner dryer. This was necessitated by the fact that the purchasing public is of divided opinion as to the efficiency, speed, and convenience of these types of machines. The cost of production due to such demand is necessarily higher than it would otherwise be if all machines were of one or the other type.

It is the purpose of the present invention to greatly reduce the multiple production practices now employed in the manufacture of laundry devices of this type, by constructing certain parts in such a manner that they are equally adaptable to washer wringer or washer spinner dryer machines and this, therefore, constitutes one of the objects of the invention.

Another object of the invention lies in the provision of a gear housing for the drive mechanism of a laundry device that with one or two supports may be mounted in either of the types of laundry devices mentioned without additional supports or other structure.

Another object of the invention lies in the provision of a gear housing that, in conjunction with one or more supports, serves as the sole bracing means for the base of a laundry device.

Another object of the invention lies in the provision of a gear housing carried by two supporting members that serve to mount a motor for the mechanism of said housing and a spinner stand.

Other objects and advantages of the invention will be more fully understood from a consideration of the following specification, taken in conjunction with the accompanying drawings; and in which

Figure 1 is a side elevational view of a laundry device in which is embodied one form of the invention;

Figure 2 is a horizontal sectional view showing the position of the gear housing and support, being taken substantially on the line 2—2 of Figure 1;

Figure 3 is a vertical sectional view taken substantially on the line 3—3 of Figure 1;

Figure 4 is a side elevational view of another type of laundry device embodying the invention;

Figure 5 is a horizontal sectional view showing the gear housing supported in the device illustrated in Figure 4, being taken substantially on the line 5—5 of that figure;

Figure 6 is a plan view of the gear housing and supports prior to assembly in the base of the device illustrated in Figure 4;

Figure 7 is a side elevational view of the structure shown in Figure 6;

Figure 8 is an enlarged vertical sectional view showing one method of joining the gear housing to a support, being taken substantially on the line 8—8 of Figure 6; and

Figure 9 is an enlarged vertical sectional view showing the gear housing joined to a further support, being taken substantially on the line 9—9 of Figure 6.

Reference is now had to the drawings wherein the numeral 10 is employed to generally designate a laundry device embodying one form of the invention. The laundry device partakes of the nature of a combined washing machine and wringer wherein a single source of power and driving mechanism serves both purposes of the device. The washing machine includes a plurality of legs 11 on which is mounted and secured thereto in any suitable manner, a base member 12 that, in the present disclosure, is substantially circular and formed with an inwardly curved lower flange 13, as is conventional in structures of this nature. The upper edge of the member 12 is formed to mount a strip 14 on which is carried a tub 16. A wringer 17 is located above the tub 16, being supported in a conventional manner by a wringer head and reverse gear mechanism 18 that is located to one side of the tub and, together with a drive shaft 19, is enclosed in any suitable manner, as by a cover 21.

A bridge member 22 is formed with end portions 23 and 24 that are of the curvature of the cylindrical side wall of the base 12, being engageable therewith. Rivets, or other suitable means, secure the downwardly directed flanges of the member 22 to the base 12. Adjacent the end 24 is an opening 26, through which the drive shaft 27 of a motor 28 projects. A pulley 29, mounted on the shaft 27, is adapted to receive a belt 31. The motor is suspended beneath the

member 22 by means of bolts 32 that, being projected through keyhole slots 33, are adjustable lengthwise of the bridge member to vary the tension of the belt 31 as may be required.

The central portion 34 of the bridge 22 is formed with a depending flange 36 that terminates in a laterally directed flange 37. A gear housing 38 is formed with top and bottom elements 39 and 41. The element 39 is in the nature of a cover and the element 41 that of a pan. The pan is formed with an endless laterally directed flange 42 that terminates in an upstanding edge 43. The flange, at one end of the gear housing, rests upon flange 37. A suitable gasket 44 is located on the flange 42. The cover 39 is formed with an endless flange 46 that, at suitable intervals, includes apertured lugs 47. The flange 46 and lugs 47 rest upon the gasket 44 and suitable bolts 48 are provided for the purpose of securing the top and bottom elements 39 and 41 of the gear housing together. As may be seen by referring to Figure 2 of the drawings, one end of the gear housing is adapted to rest on the flange 37 of the bridge member 22, and bolts 48 serve to prevent displacement of the housing therefrom.

The gear housing 38 projects at nearly right angles to the bridge member 22 and is of such proportions as to accommodate necessary gearing for driving a washing machine agitator and wringer rolls. A shaft 49 projects upwardly through the cover 39 midway of the length of the housing and mounts a pulley 51 that is engaged by the belt 31. The end 52 of the housing 38, remote from the bridge member 22, projects through an opening 53 in the upstanding wall of the base member 12. A suitable opening is made in the cover 39 of this end of the housing and the drive shaft 19 of the wringer projects thereinto. Connection between the driving mechanism within the housing and shaft 19 may be had in any suitable manner, as, for example, by a readily disengageable coupling.

An upstanding boss 54, in the cover 39 adjacent the end 52 of the housing, is drilled and tapped. A bracket 56, secured in any suitable manner to the inner face of the base member 12 above the opening 53, is formed with an inwardly extending base flange 57, having an opening therethrough. A stud 58 projects downwardly through the opening in the bracket and has threaded engagement with the boss 54. A sleeve 59 of proper length serves to properly position this end of the housing. Additional support for the housing is provided by means of a bracket 60 that is permanently secured to one edge of the bridge member 22 and includes an offset flange 61 located beneath the flange 42 of the housing element 41. This flange is formed with an opening that coincides with the opening in one of the bosses 47, and one of the bolts 48 secures the housing to this portion of the bridge member. It will be understood that the bridge member 22 and housing 38 together serve as a three-point brace member for the walls of the base 12 and that no other brace or support is provided or needed. Furthermore, it is evident that the gear housing 38 may be readily assembled or disassembled from the base 12, since there are no interfering brace members above or below.

Reference is now had to another type of laundry device to which the present invention is applicable. In this instance, the laundry device includes a washing machine and spinner dryer, being generally indicated by the reference numeral 62 (see Figure 4). This device includes a plurality of legs 63 on which is mounted a base member 64. This base member may be of the shape illustrated in Figure 5 and includes a top 66 and substantially vertical side walls 67. The lower edge of the wall 67 may be rolled or beaded, as indicated at 68. Mounted in any conventional manner on the top of the larger part of the member 64 is a tub 69. On the smaller part of the member 64 and adjacent the tub is located a spinner receptacle 71. A suitable spinner basket (not shown) is located in the receptacle 71 and a shaft 72, joined thereto, projects downwardly through the top 66, being supported on a spinner stand 73.

Beneath the top 66 of the base member is located the bridge member 22 heretofore described. Inasmuch as that portion of the base member 64, at the point of mounting the bridge member 22, is identical with the base 12 heretofore described, the same method of mounting is employed. The gear housing 38 is, of course, attached to one end of the bridge member 22 in the manner set forth and shown in section in Figure 8 of the drawings. Inasmuch as the base member 64 is of elongated shape, the gear housing is located entirely therewithin and a supporting member 74 is attached to that end of the housing remote from the bridge member 22. The support 74 may include flanged edges 76 that conform to the tapered side walls 67 of the member 64 and are secured thereto in any suitable manner, as by rivets. Centrally of the support 74 is an opening 77 and in the inner edge thereof is a recess 78 that is adapted to conform to the contour of the end 52 of the gear housing 38. The parts are so designed that the flange 42 of the bottom element 39 of the gear housing rests on the marginal edge of the recess 78. This flange may be welded, bolted, or otherwise secured to the support 74 and, as may be seen in Figure 9 of the drawings, does not interfere with the assembly or disassembly of the cover element 39. The spinner stand 73 may be set into the opening 77 of the support 74 and secured thereto in any suitable manner. In the space between the support 74 and the top 66, a pulley is positioned on the shaft 72. A belt 81 of somewhat greater length than belt 31 is provided, being carried by pulleys 29, 51, and 79. A further pulley 82, connected with a water pump, is located adjacent the housing 38, being driven by the belt 81.

It will be noted that the bridge 22, gear housing 38, and support 74 constitute the sole bracing for the base member 64 in this type of laundry device, and that access for assembly or disassembly of the elements of the drive mechanism and housing may be readily accomplished since there are no interfering parts thereabove or below. Furthermore, it will be apparent that the gear housing 38 and bridge member 22, by the simple addition of the support 74, are fully adaptable to a laundry device that includes a washing machine and spinner dryer. Thus, it may be seen that the gear housing, enclosed drive mechanism, bridge, and motor may be standardized and made equally applicable to either type of laundry device disclosed and that the only additional elements for this purpose are the support 74 and spinner stand 73.

Having thus set forth my invention what I claim as new and for which I desire protection by Letters Patent is:

1. In a washing machine having a base in-

cluding substantially continuous sides, a bridge member for connecting opposite sides of said base, a downwardly offset horizontal flange disposed centrally of one edge of said member, a gear housing having a laterally extending rim flange, a portion of said rim flange at one end of said housing being seated on and secured to the flange of said member, a support engageable with the sides of said base remote from the points of engagement of said member with said base, said support being recessed to receive an end of said housing, a further portion of the rim flange being seatable upon and adapted to be secured to the walls of said recess, said member, housing and support being mountable as a unit in said machine and serving to brace the sides of said base.

2. In a washing machine having a base comprising a top having continuous vertically disposed sides and ends of substantially ovate contour, a bridge member beneath said top adapted to connect the sides of said base, a gear housing, means disposed centrally of said member for suspending and securing one end of said housing, a support conforming to an extensive area of one of the ends of said base to which it is attached, the other end of said housing being joined to said support, said bridge member, housing, and support being mountable as a unit in said machine and serving to brace said base.

FRED A. CONTERMAN.