Aug. 16, 1938. J. L. PERKINS 2,127,186

WRINGER HEAD

Filed Jan. 28, 1936

Fig. 1.

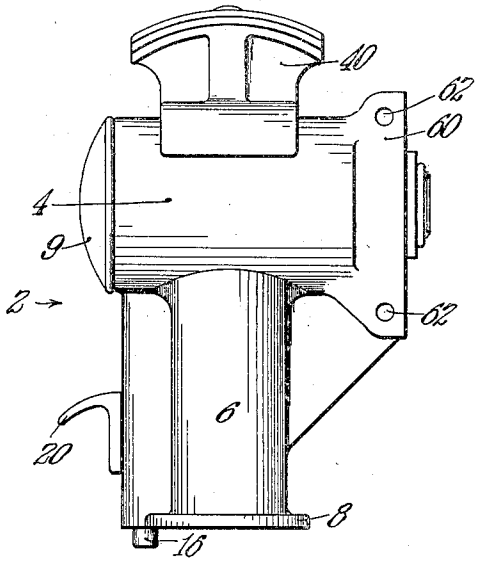


Fig. 2.

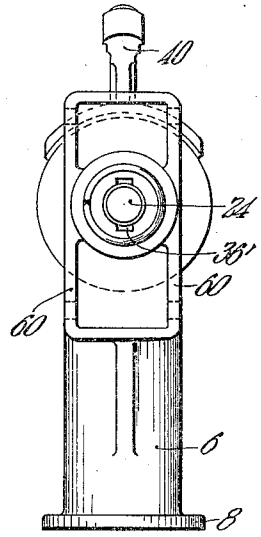


Fig. 3.

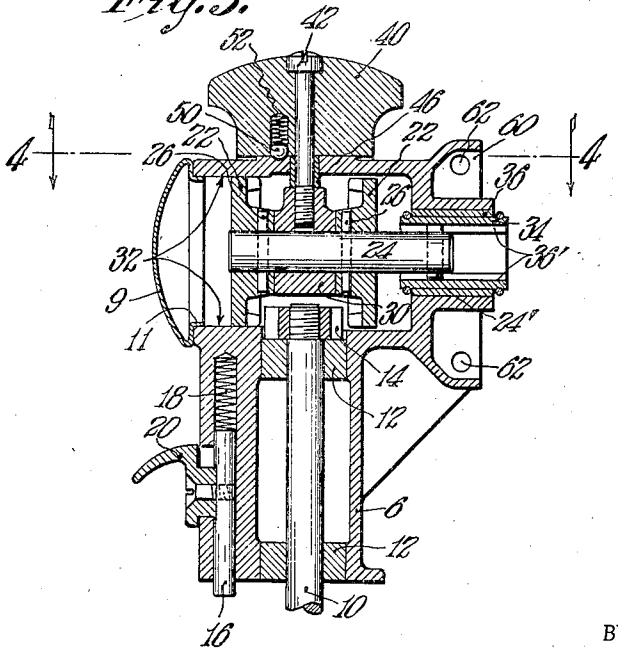
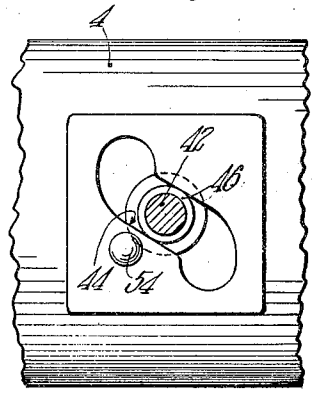


Fig. 4.



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WRINGER HEAD

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Application January 28, 1936, Serial No. 61,144

2 Claims. (Cl. 74—337.5)

This invention relates to improvements in wringers and is directed more particularly to wringer heads for supporting and driving wringers.

The principal objects of the invention are the provision of a wringer head which is not only simple in form and constitutes but a comparatively few parts but which is efficient in its operation. By reason of the simplicity of the wringer head of the invention it is economical to manufacture and so that it is possible to meet with the present day demands for low cost apparatus of this type. The wringer head is of novel form to facilitate ready assembling of the parts which contributes to its low cost of production.

Various novel features and advantages of the invention will be hereinafter more fully referred to in connection with the accompanying description of the present preferred form thereof, reference being had to the accompanying drawing wherein

Fig. 1 is a side elevational view of a wringer head embodying the novel features of the invention;

Fig. 2 is an end elevational view of the wringer head shown in Fig. 1;

Fig. 3 is a longitudinal sectional view through the wringer head shown in Fig. 1; and

Fig. 4 is a fragmentary plan view on the line 4—4 of Fig. 3.

Referring now to the drawing more in detail the invention will be fully described.

The wringer head includes a casing 2 which has an upper horizontally disposed hollow tubular part 4 and a lower vertically disposed tubular part 6. The lower tubular part 6 has a flange 8 for resting on a column which is usually associated with a washing machine and 10 indicates a driving shaft which is usually associated with a washing machine and is driven by the mechanism thereof. There may be bearings such as 12 for the shaft 10 in the lower tubular part 6. This shaft 10 on its upper end carries a driver 14 which in the form of the invention shown is a spur gear.

A detent 16 associated with the part 6 for sliding movements is spring pressed downwardly by means of a spring 18. A grip part 20 is associated with the detent 16 to facilitate moving it upwardly. The detent is used to lock the head in various positions on the column referred to.

A pair of spaced driven gears 22 are associated with a driven shaft 24 as by pins 26 so that the gears are non-rotatable relative to the said shaft. The gears 22 shown as being of the face gear type have teeth 28 on adjacent faces. A collar or a hub 30 is disposed between the gears and in this the shaft 24 rotates. Because the gears have no peripheral or radially extending teeth, as with a spur or bevel gear they have a smooth periphery and are adapted to rotate and slide in a bore 32 of the head. According to the modification of the invention shown, one only of the gears rotates and slides in the bore 32 which is enlarged to the right of the left hand gear 22.

A bushing or sleeve 34 is rotatable in a bearing 36 of the head and this is provided with one or more keyways or splines 36' which receive a pin 24' of shaft 24. The shaft and gears slide back and forth so that one or the other of the gears may be brought into engagement with the driver 14. The key 24' slides in the keyways 36' of bushing 34 provided therefor. The bushing 34 is at all times driven however by the shaft 24 and it may receive one end of the shaft of the roll of a wringer.

A shifter 40 carries a bolt 42 which has its lower end screwed into collar 30. There is an angularly disposed slot 44 in the upper side of the head and a bushing 46 around the bolt slides in said angularly disposed slot.

The member 40 is tilted from the neutral position shown to an angular position with respect thereto and at either side of the neutral position. As it is tilted from said neutral position the bushing 46 traverses the slot 44 associated with the casing so that the collar is moved longitudinally and thereby moves the gears longitudinally so that one or the other of them, depending upon the direction of movement of the part 40 is brought into engagement with the driving gear 14.

A detent 50 in member 40 preferably in the form of a ball is pressed downwardly by means of a spring 52 and it is adapted to register with a recess 54 in the upper side of the casing so that when the member 40 is in a certain position it is yieldingly held therein.

It will be observed that one end of the shaft 24 is guided in the member 34 while its other end associated with the outermost gear 22 is supported by said gear which is rotatable and slidable in the bore 32. This makes for economy in that the usual outer bearing for the shaft 24 is eliminated and thereby reduces the manufacturing cost.

The end of bore 32 is closed by a cap 9 which has a flange 11 fitting within the said bore 32 and is arranged for a tight fit at the end.

In assembling the parts and before the shaft 10 and 14 are assembled with the head the shaft 24, collar 30 and gears 22 are slipped forwardly into

the bore **32** and then the screw **42** of the operating member **40** is screwed into the collar the bushing **46** being around the bolt and in the slot **44**. In this way the parts are easily and quickly assembled and the gears and shaft together with the collar as a unit may be removed for replacement without any great amount of disassembling.

Side flanges **60** on the forward side of the head are provided which may have holes **62** therein for securing a wringer to the wringer head.

While I have described the invention in great detail and with respect to a preferred form thereof, it is not desired to be limited thereto since many changes and modifications may be made therein without departing from the spirit and scope of the invention. What it is desired to claim and secure by Letters Patent of the United States is:

1. A wringer head comprising in combination, a casing having a cylindrical outer side, engageable driving and driven gears in the casing, an oscillatable and reciprocable shiftable member in the casing for engaging and disengaging said gears, the said casing being provided with a slot in a wall thereof disposed angularly relative to the axis of reciprocation of the shiftable member, a manually engageable shifter member radially extending from the casing having curving parts at opposite sides thereof guided on the casing, and a connector between said shifter member extending through the slot in the casing, all adapted and arranged whereby as the shifter member is oscillated it and the shiftable member are reciprocated.

2. A wringer head comprising in combination, a casing having a bore and an outer part of the casing being curved concentric relative to the axis of said bore, gears reciprocable in said bore, a shiftable member oscillatable and reciprocable in the bore for reciprocating said gears, the said casing provided with a radial slot extending through the outer curved part thereof disposed angularly relative to the axis of said bore, a shifter having a manually engageable part extending radially outwardly relative to the curving outer part of the casing which is elongated to extend substantially in alignment with the axis of said bore, parts at opposite sides of the manually engageable part of the shifter engaging the curved outer part of the casing, a connector between the shifter and shiftable member extending through said slot, the outer curved part of the casing provided with a recess, and a spring-pressed detent associated with the shiftable member receivable in said recess.

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