

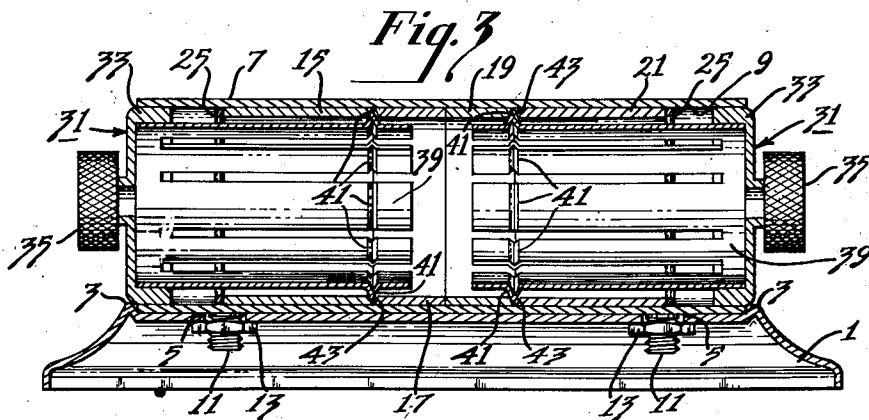
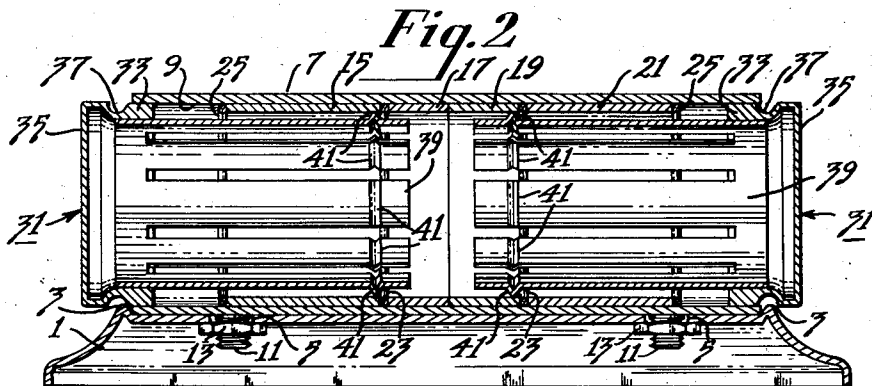
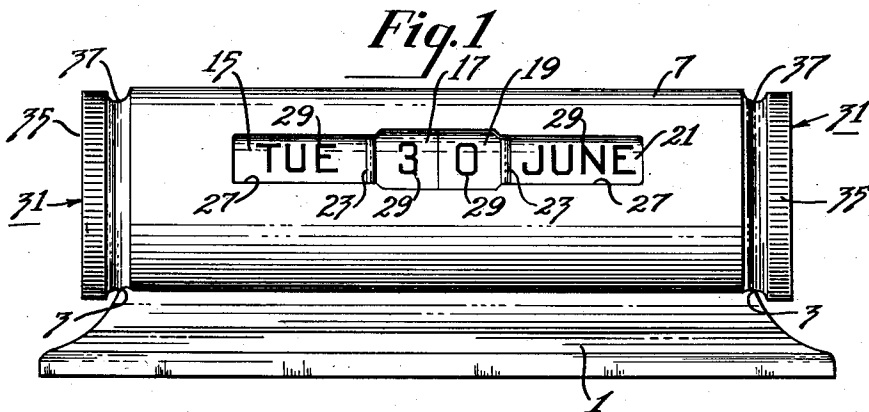
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DRUM TYPE ROTARY PERPETUAL CALENDAR

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DRUM TYPE, ROTARY, PERPETUAL
CALENDAR

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5 Claims. (Cl. 40-114)

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This invention relates to perpetual calendars, and more particularly to a rotary calendar suitable for use on a desk or the like.

Rotary calendars have been provided heretofore which embody a cylindrical casing having several rotatable, manually adjustable drums therein for indicating the days of the week, the months of the year, and the date of each day. In calendar constructions of this sort, the several drums are usually arranged in axially aligned, juxtaposed relation and means are provided external to the casing for rotating each of the drums individually and independently of the other drums whereby each drum may be positioned to provide proper calendar information. To this end, rotary calendars have been provided, heretofore, with a separate operating device for each drum. In many instances, these operating devices are so constructed and arranged that they render the entire structure fairly complicated. Due to the multiplicity of parts employed in such prior art calendars, these calendars have been rather costly. Furthermore, where such parts require more than a mere simple manipulation for adjusting the several drums, they have resulted in failure of the calendars to appeal to prospective users.

The primary object of my present invention is to provide an improved, rotary, perpetual, desk calendar which is free from the aforementioned and many other objectionable features present in prior art calendars of this type.

More particularly, it is an object of my present invention to provide an improved, rotary, perpetual, desk calendar which is extremely simple in construction and which can be manipulated with great ease to adjust the various indicating drums thereof to desired positions.

Another object of my present invention is to provide an improved calendar as aforesaid which is of durable construction and which can be manufactured at very low cost.

Still another object of my present invention is to provide an improved, rotary, desk calendar which can be made highly ornamental and which will present an attractive appearance to the eye.

A further object of my invention is to provide, in a rotary, desk calendar, a novel arrangement of control members for the rotary drums whereby the number of parts required is reduced to a minimum.

It is also an object of my present invention to provide an improved, rotary, desk calendar of the type set forth above which readily lends itself to inexpensive or economical production, par-

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ticularly in large quantities; which will not get out of order in ordinary use; and which, if necessary, can be dismantled very easily for repairs or replacement of such parts as may be necessary.

In accordance with my present invention, I provide only two drum operating members, one at each end of the casing or housing which houses the customary four drums, and arrange these two operating members so that each one cooperates with the two adjacent drums at its end of the housing. By simply pushing in on these members axially along the housing, they are brought into coacting relation with their respectively associated inner drums, while a slight pull on either of these members axially along the housing brings it into coacting relation with its associated outer drum. The mechanism is thus greatly simplified with accompanying decrease in cost and increase in ease of operation.

The novel features that I consider characteristic of my invention are set forth with particularity in the appended claims. The invention itself, however, both as to its organization and method of operation, as well as additional objects and advantages thereof, will be understood best from the following description of two embodiments thereof, when read in connection with the accompanying drawing, in which

Figure 1 is a front elevation of one form of rotary, desk calendar according to my present invention,

Figure 2 is a central, longitudinal section thereof, and

Figure 3 is a view similar to Figure 2 of another form of calendar in accordance with my present invention.

Referring more particularly to the drawing in which similar reference characters designate corresponding parts throughout, there is shown, in Figures 1 and 2, a base 1 formed with a pair of opposed, upwardly extending, end shoulders 3 and a pair of spaced openings 5. Between its shoulders 3, the base 1 supports a housing 7 of any suitably shaped, external appearance but having a cylindrical interior or bore 9. The housing 7, which is open at both of its ends, carries a pair of bolts 11 which are received in the openings 5, and a pair of nuts 13, which are threaded on the bolts 11, removably secure the housing 7 to the base 1.

Rotatably mounted within the bore 9 of the housing 7 are four cylindrical, axially aligned, juxtaposed drums 15, 17, 19 and 21, all preferably of the same diameter. The drums 17 and 19 may be arranged in contacting relation but they are

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separated slightly from the drums 15 and 21 by spacing rings 23. A pair of resilient, expansible rings 25 which are arranged within the bore 9 against the outer ends of the two outer drums 15 and 21 serve to lock the assembly of drums in place within the housing 7. However, the drums all have a rather loose fit within the bore 9 so that they can be rotated easily to bring into view through one or more suitable sight openings 27 in the housing 7 calendar designating indicia 29 thereon.

Each of the open ends of the housing 7 is provided with a closure member 31 having an inner, annular flange 33 which is mounted within the bore 9 both for rotation of the closure member on and movement thereof axially along the housing 7. Each closure member 31 is also formed with a suitable knob 35 which can be grasped by the fingers for manual manipulation to either rotate the closure member within or adjust it axially along the housing 7, and with an intermediate, annular, reduced portion 37 in which the adjacent end shoulder 3 of the base 1 is received. It will be seen, therefore, that the shoulders 3 act as stops for limiting axial movement of the closure members 31 along the housing 7 by engagement of either the flanges 33 or the knobs 35 therewith.

For rotating the drums 15, 17, 19 and 21, each of the closure member flanges 33 has secured thereto a longitudinally slotted, expansible driving cylinder 39 which extends into the two adjacent drums on a smaller diameter than the inner diameter of the several drums. The driving cylinders 39 are formed with outwardly extending V-shaped ribs or the like 41 which are on a diameter such that they frictionally engage the inner surface of one or the other of the pair of drums 15 and 17, or 19 and 21, with which either one of the closure members 31 happens to be associated. Thus, the left hand closure member 31, in its extreme left hand position as determined by engagement of its flange 33 with the associated stop shoulder 3 and as shown in Figure 2, has its rib extensions 41 in frictional driving engagement with the inner surface of the drum 15. Rotation of the left hand closure member 31 will then effect rotation of the drum 15 to the desired position. On the other hand, when the left hand closure member 31 is moved to its extreme right hand position, as determined by engagement of its knob 35 with the adjacent stop shoulder 3, its rib extensions 41 will have slipped past the ring 23 and into frictional driving engagement with the inner surface of the drum 17, whereby the latter drum can be rotated. The action of the right hand closure member 31 is similar with respect to the drums 19 and 21, this closure member being shown in its inner position, in Figure 2, in driving or coacting relation with its inner drum 19. It will thus be apparent that the two drums of each pair of drums 15 and 17, or 19 and 21 are actuated by only a single, common operating member 31 and that, as this member is brought into coacting relation with one drum of its pair, it is simultaneously brought out of coacting relation with the other drum of its pair. By utilizing a single operating member for each pair of drums, the number of parts is reduced to a minimum, the cost of the calendar is correspondingly reduced, and the manipulation required to rotate the drums is simplified.

The modification of my invention shown in Figure 3 is fairly similar to that described above. However, in Figure 3, the spacing rings 23 are omitted, and the adjacent edges of each pair of

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drums are made divergent in a direction radially inwardly of the drums whereby to provide spaces 43 in which the V-ribs 41 are received. When the operating members 31 are in their innermost positions, their ribs 41 will drivingly engage the adjacent, tapered edges of their respectively associated drums 17 and 19 for rotating these two drums. On the other hand, when the members 31 are withdrawn to their outermost positions, their respective ribs 41 will then drivingly engage the tapered edges of the outer drums 15 and 21 whereby the latter two drums may be rotated. If desired, the stop shoulders 3 may be omitted in this modification of my invention since the stop rings 25 will keep the drum assembly in place within the housing 7, and the notches or spaces 43 will limit the axial movement of the cylinders 39 and their closure members 31. Thus, the knobs 35 may be made smaller than in the form of calendar shown in Figures 1 and 2.

Although I have shown and described two forms of my invention, it will undoubtedly be apparent to those skilled in the art that many other forms thereof, as well as variations in those described above, are possible within the scope of my invention. For example, the base 1 and the housing 7 may be made in one integral piece and may be formed out of metal which may be cast or otherwise suitably formed, or out of any one of the now well known plastics, in which case these parts may be molded in a single unit. Many other changes will, no doubt, suggest themselves to those skilled in the art. I therefore desire that my invention as described herein and as shown in the accompanying drawings shall be considered as illustrative and not as limiting in any sense.

I claim as my invention:

1. A perpetual calendar comprising a housing open at one end and having a cylindrical bore, said housing being provided with sight openings, a pair of drums rotatably carried within said bore for rotation therein independently of each other, said drums having calendar designating indicia thereon visible through said openings, and a single drum operating member extending into said housing through said open end thereof for coaction with either one or the other of said pair of drums at a time, said member including a closure element for said open end adapted to be grasped by the hand for movement of said member at will axially along said housing in one direction to bring it into coacting relation with said one drum and to simultaneously withdraw it from coacting relation with said other drum, and being movable in the opposite direction to bring it into coacting relation with said other drum and to simultaneously withdraw it from coacting relation with said one drum, and said member being also rotatably carried by said housing whereby it is adapted, upon being manually rotated, to effect rotation of that one of said drums with which it has coacting relation at any time.

2. A perpetual calendar according to claim 1 wherein said drum operating member includes an expansible device having portions extending into said drums, said portions having outwardly extending parts thereon on a diameter such that said parts are in frictional engagement with one or the other of said drums depending upon the axial position of said operating member in said housing whereby to effect driving engagement between said member and the respective drums.

3. A perpetual calendar according to claim 1

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wherein said drum operating member includes an expansible device having portions extending into said drums, said portions having outwardly extending parts thereon on a diameter such that said parts are in frictional engagement with the inner surface of one or the other of said drums depending upon the axial position of said operating member in said housing whereby to effect driving engagement between said member and the respective drums.

4. A perpetual calendar according to claim 1 characterized in that said drums are disposed in juxtaposed relation within said housing, the adjacent edges of said drums being shaped to provide a space therebetween, and characterized further in that said drum operating member includes an expansible device having portions extending into said drums, said portions having outwardly extending parts thereon on a diameter such that said parts extend into said space for engagement with one or the other of said adjacent edges depending upon the axial position of said operating member in said housing whereby to effect driving engagement between said member and the respective drums.

5. A perpetual calendar according to claim 1 characterized by the addition of a base support-

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ing said housing, and means on said base co-operatively associated with said drum operating member for limiting axial movement of said drum operating member in either of said directions.

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