Oct. 5, 1971 J. P. HUSSAR 3,609,896

DESK APPOINTMENT CALENDAR

Filed March 12, 1970

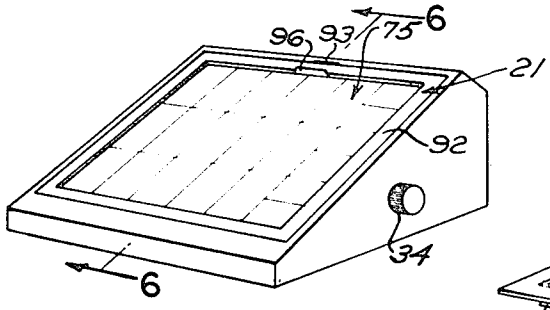


FIG. 1

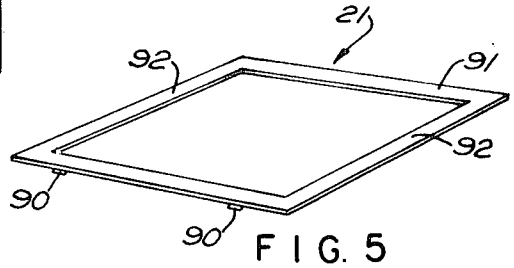


FIG. 5

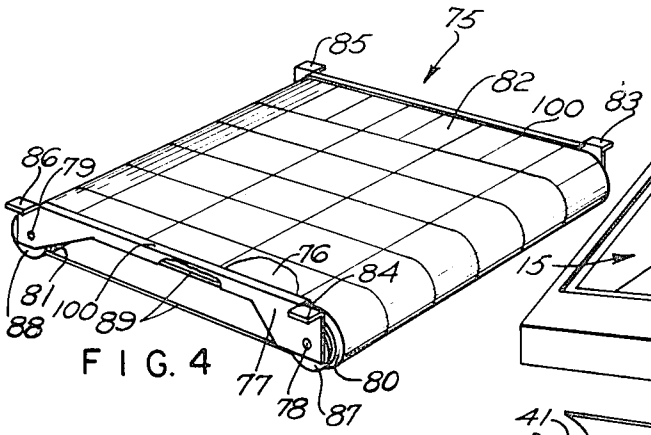


FIG. 4

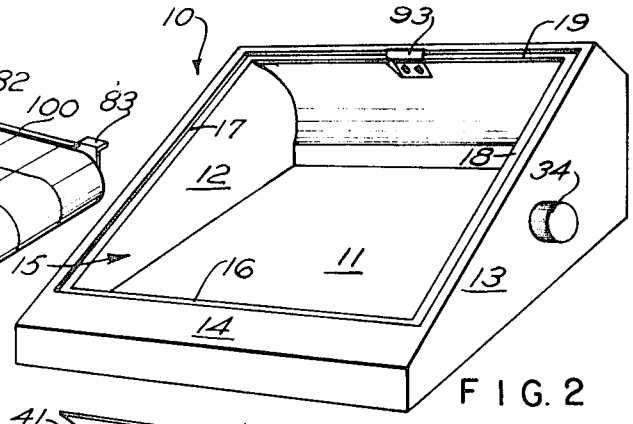


FIG. 2

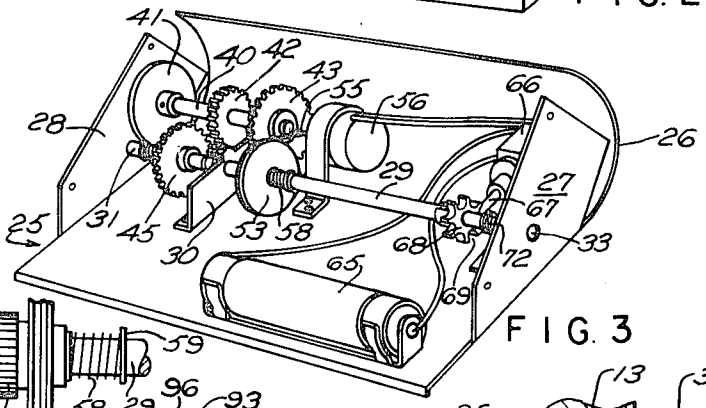


FIG. 3

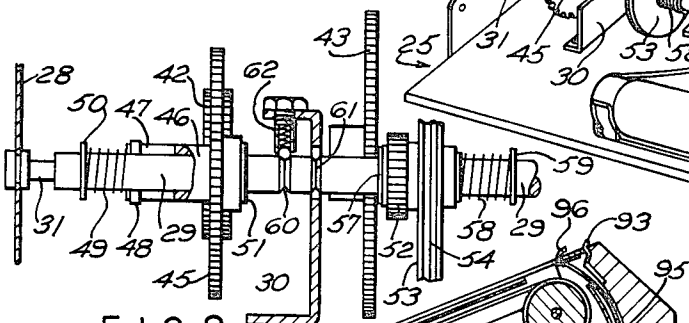


FIG. 8

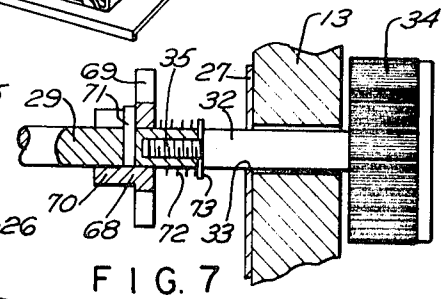


FIG. 7

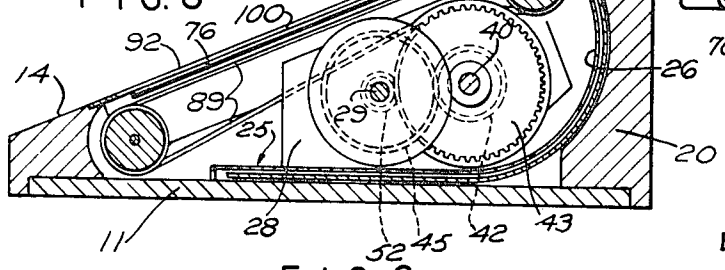


FIG. 6

INVENTOR.
JOSEPH P HUSSAR

BY

Barlow & Barlow
ATTORNEYS

United States Patent Office 3,609,896 Patented Oct. 5, 1971

3,609,896

DESK APPOINTMENT CALENDAR

Joseph P. Hussar, Weymouth, Mass., assignor to Robert W. Pratt, Greene, R.I.

Filed Mar. 12, 1970, Ser. No. 18,840
Int. Cl. G09d 3/10
U.S. Cl. 40—117 5 Claims

ABSTRACT OF THE DISCLOSURE

A calendar having a permanent base with a motor and manual mechanism mounted therein and a disposable unit removably positioned in the base and carrying a pair of reels and a part of the driving mechanism therefor with a web of paper which may be written upon extending from one reel to the other, both of which reels are rotated in one direction or the other by either the manual or motor means in the base to wind the web in one direction or the other.

BACKGROUND OF THE INVENTION

This application is an improvement upon Pat. 3,432,952 issued Mar. 18, 1969, which discloses a structure having a paper web to be written upon. The paper web in that patent is coiled upon one reel and withdrawn therefrom and coiled upon another reel. Also the drive is manual and operates either one reel or the other reel and drags the web from the companion reel. A shortcoming of prior desk calendar was found in that the tension applied to the web was such that it did not readily track upon the reel upon which it was desired to be wound and also excessive effort was required to operate it manually. This patent was manually operable only.

SUMMARY OF THE INVENTION

The present desk calendar has a pulley on each of the reels upon which the web is coiled with an elastic belt drive connecting one pulley to the other so that both reels are rotated at the same time. The elastic belt is driven by a pulley in the base in contact with this belt to tension it and drive it either manually or by an electric motor operable in either direction to wind the web upon one reel or the other as desired.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the calendar with the cover open for use;

FIG. 2 is a perspective view of the box-like base;

FIG. 3 is a perspective view of the driving mechanism which is insertable in the base of FIG. 2;

FIG. 4 is a perspective view of the removable insertable unit which may be removed after one year's use and replaced by a similar unit;

FIG. 5 is a perspective view of the frame;

FIG. 6 is a sectional view on substantially line 6—6 of FIG. 1 through the entire assembly;

FIG. 7 is a perspective view of the manual manipulating knob which is axially slideable and rotatably mounted in the base; and

FIG. 8 is an elevation of the drive and driven shafts and parts mounted thereon.

DESCRIPTION OF THE PREFERRED EMBODIMENT

With reference to FIG. 2 of the drawings, 10 designates generally the box-like base which may be formed as for example of a high grade hard wood having a bottom wall 11 and side walls 12 and 13 which are tapered as shown with a part of top wall 14 leaving an opening over the majority of the generally inclined upper surface and which opening may be designated generally 15. The edges of the

opening 15 are recessed as at 16, 17, 18 and 19 in the top wall 14. The purpose of this recess is to receive a generally rectangular frame 21 shown in perspective in FIG. 5 as will be more fully referred to hereinafter.

Permanently mounted within this box-like base there is the base main portion of the driving mechanism as shown in FIG. 3. This base driving mechanism is conveniently assembled on a shell like plate of metal 25 which is of a size and shape to fit upon the bottom wall 11 of the box-like base of FIG. 2. At the rear this sheet metal structure is curved upwardly as at 26 as seen in FIG. 3 and is spaced from the back wall 20 and the bottom wall 11 of the box-like base providing a channel for a flexible closure member 95 seen in its open position in FIG. 6.

The plate 25 has side walls 27 and 28 folded upwardly from its opposite edges. A drive shaft 29 having a reduced end portion 31 which finds a bearing in the wall 28 in which it is rotatably mounted and slidable axially. At the other end of shaft 29 a short shaft 32 extends through bearing opening 33 in walls 27 and wall 13 and has a handle 34 on its outer end while its inner end is threaded as at 35 into the end of shaft 29 securely so that by manipulation of the handle in either direction the shaft may be turned manually in either direction by the handle 34. Also by means of this handle the shaft 29 may be moved axially sliding it on the reduced end portion 31 mounted in the wall 28.

A driven shaft 40 is rotatably mounted in the side wall 28 and in the bracket 30 by means of suitable bearings. This shaft carries a grooved pulley 41 adjacent to the wall 28 and two gears 42 and 43 fixed on this shaft 40, one of these gears 42 being utilized for manually operating the shaft 40 while the other gear 43 is designed for motor operation of the driven shaft 40.

The manual operation of the shaft 40 is by means of a gear 45 which has a hub 46 (see FIG. 8) slotted as at 47 to receive a pin 48 extending diametrically through and projecting beyond the drive shaft 29. A spring 49 acting between hub 46 and a stop 50 permits some sliding movement of the gear 45 on the shaft 29, so that if the shaft is moved axially to the right as seen in the figures, the spring will be placed under some tension urging the gear 45 to the right until it meshes with the gear 42 on the driven shaft 40 and engages a stop 51 on shaft 29.

Gear 43 on the driven shaft may be motor operated by a gear 52 rotatably mounted on shaft 29 and fixed to a pulley 53 having a groove 54 therein to be driven by a helical spring belt 55 engaging this pulley 53 and also a pulley on an electric motor 56. The gear 52 and pulley 53 are freely mounted to rotate about the shaft 29 and are axially slidable thereon. There is a stop 57 fixed on the shaft 29 while a spring 58 operates between a stop 59 and the hub of the pulley tending to slide it to the left as seen in FIGS. 3 and 8. Thus, if the shaft is moved to the right, the stop 57 will move the gear 52 to the right, while if it is moved to the left, the spring will tend to cause the pulley 53 to move to the left along the shaft 29 under influence of the spring 58 until the gear 52 meshes with gear 43.

The position of the gears 42 and 43 on the driven shaft 40 are such with relation to the gears 45 and 52 on the shaft 29 that when the shaft is in one axial position, such for instance as that shown in FIG. 3, gear 52 will be in engagement with gear 43, while when the shaft is moved axially to the right as seen in FIG. 8, gear 52 will be moved out of engagement with gear 43 and gear 45 will be put into engagement with gear 42.

In order to retain the shaft 29 in either one of the two axial positions just referred to, there are notches or grooves 60 and 61 in the shaft 29 with a spring pressed ball or detent 62 which will snap in to one or the other of these grooves and retain the shaft 29 in the axial position to which it is shifted by handle 34.

The electric motor **56** is actuated by a battery **65** seen in FIG. 3 and a control switch **66** is interposed between the battery means and the motor. The control switch has a toggle **67** which may be moved either up or down depending upon which direction it is desired that the motor **56** operate. This toggle is controlled by a star gear **68** having a plurality of recesses **69**, any one of which will receive the toggle **67**. The star gear **68** is mounted on the shaft **29** as seen in FIG. 7, in a manner similar to the mounting of the gear **45** on the shaft; that is, it has a slotted hub **70** to receive a pin **71** which extends through the shaft, while there is a spring **72** acting against an abutment **73** secured on the shaft urging the gear to the left so that when one of its recesses **69** is so located that the star gear will slide to cause the toggle **67** to enter a recess **69**. By this arrangement when the shaft **29** is moved to the left, this star gear will be received into engagement with the toggle **67** so that rotation of the knob in one direction or the other will cause the toggle switch to be moved in that same direction as the knob is rotated. The arrangement is such that the knob will cause a movement of the web in the direction that the knob is rotated.

The insert designated generally **75** is shown in perspective by itself in FIG. 4 and comprises a platen generally designated **76**, for example of sheet metal stock, having shoulders **100** with downwardly extending flanges **77** on either side thereof which provide bearings **78** and **79** for the mounting of reels **80** and **81** to which a web **82** may be secured at one end to one reel and at the other end to the other reel so that when these reels are rotated the web will move from one reel to the other and be assembled thereon. This web has the desired printed matter thereon corresponding to the date and month leaving spaces for writing in appointments or the like as may be desired. At the ends of the flanges there are outwardly extending wings **83** and **84** at one end and **85** and **86** at the other end. Each reel **80** and **81** is equipped with a pulley **87** and **88** about which a round elastic belt **89** extends so that as this belt is moved in one direction or the other, both reels will be operated at the same time. When the insert is in the operating position in the base the shoulders **100** at the edges of the platen help to guide the tracking of the web **82**.

This unit **75** may be assembled in the base with the driving mechanism shown in FIG. 3 by simply positioning this unit in the base, the same being guided by its flanges so that its wings **83** to **86** will rest upon the recesses **17** and **18** about the general window opening in the base, there to be held in position by the frame **21** so that the belt **89** will engage the groove of the pulley **41** in such a way as to flex and tension the belt and provide a drive for the belt from the drive mechanism as heretofore described and shown more particularly in FIG. 6.

By reason of driving both reels, there will be a somewhat bulging action of the web **82** as it is transferred from one reel to the other. The resulting looseness of the web **82** is needed to allow the web to track as it moves from reel to reel. The bulging action of the web is not noticeable to the user of the device since the web is held down by the frame **21** which rests on the shoulders **100** of the platen **76**, the ballooning being thereby transferred to the space surrounding the reels which is provided to receive such ballooning and may be seen in FIG. 6. The frame designated generally **21** fits into the recesses **16**, **17**, **18** and **19** by reason of having hooks **90** at its lower edge to extend beneath the edge **16** of the opening **15** in the base while the upper edge of this frame along the portion **91** is retained in position by a spring clip **93** positioned along the top recess edge **19** of the base.

A closure for the calendar is provided by cover **95** made of a flexible material such as rubber-based paper or vinyl and having a stiffened leading edge of metal with a handle **96**. The cover is positioned so as to be guided within the space formed by the platen, the shoulders **100** at the sides of the platen, the frame **21**, and by the space

between the driving mechanism and the similarly curved inside face of the back **20** of the base **10**. When the handle is pushed or pulled to open or close the cover, the cover simply slides across the face of the web and in or out of the space provided behind and under the driving mechanism.

When it is desired to remove the unit **75** and replace it by another unit with another year thereon, it is merely necessary to lift out the frame **21** by retracting the catch **93** then picking out the unit by use of the wings **85** and **86** lifting it from the base, and then replacing it with another like unit.

I claim:

1. A desk calendar comprising a box-like base, a disposable calendar unit removably positioned in said base and comprising a pair of reels and a web connected to said reels and coilable on one reel or the other depending on the direction of rotation of said reels, driving means for said reels comprising an axially shiftable first drive shaft, manual means for rotating and axially shifting said first shaft, means for rotating said reels comprising a second drive shaft having gears fixed thereon, an electric motor, a first gear rotatably mounted on said first drive shaft but axially shiftable with said shaft, means to provide rotational movement to said gear from said electric motor, a second gear fixed to rotate with and move axially with said first drive shaft, said first and second gears being selectively engaged with one of the gears on the driven shaft depending on the axial position of the drive shaft, an electric switch and means on said drive shaft axially shiftable therewith to engage said switch when the motor driven gear is engageable with one of the gears on the driven shaft.

2. A desk calendar comprising a box-like base, rotatable means within said base comprising a pulley, a removable disposable calendar unit comprising a platen of sufficient stiffness to resist the pressure of being written upon and provided with rotatably mounted reels supported by said unit with their axes parallel, a web extending across the upper surface of said platen with one end attached to one reel and the other end attached to the other reel, each of said reels having a pulley at one end, a driving belt embracing said pulleys, said belt engaging the pulley in said base to tension the belt to provide a drive from the base to said unit when the removable unit is in operating position in the base.

3. A desk calendar as recited in claim **2** wherein said rotatable means within the base is connected to means outside said base that provide the inner rotatable means with rotational movement.

4. A desk calendar as recited in claim **2** further comprising an electric motor in said base, said electric motor having means to rotate said rotatable means.

5. A desk calendar as recited in claim **4** further comprising toggle switch means in circuit with said electric motor which produces forward or reverse rotational movement to said rotatable means.

References Cited

UNITED STATES PATENTS

621,017	3/1889	Bellet	40—93
801,781	10/1905	Glisson	40—95
2,498,476	2/1950	Alfonso	40—86
3,190,021	6/1965	Gustafson	40—86
3,432,952	3/1969	Pratt	40—117

ROBERT W. MICHELL, Primary Examiner

W. J. CONTRERAS, Assistant Examiner

U.S. Cl. X.R.

40—31, 95; 281—8