Oct. 5, 1937. F. G. HELLER 2,094,791

PERPETUAL CALENDAR

Filed Nov. 27, 1935

Fig. 1.

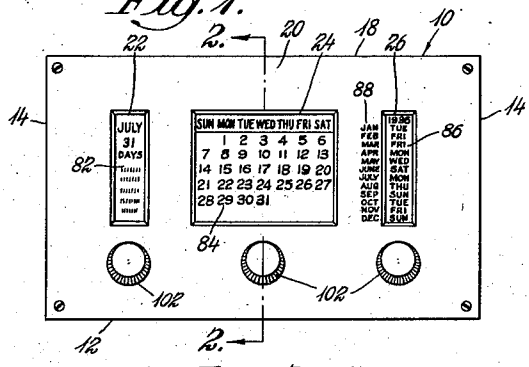


Fig. 2.

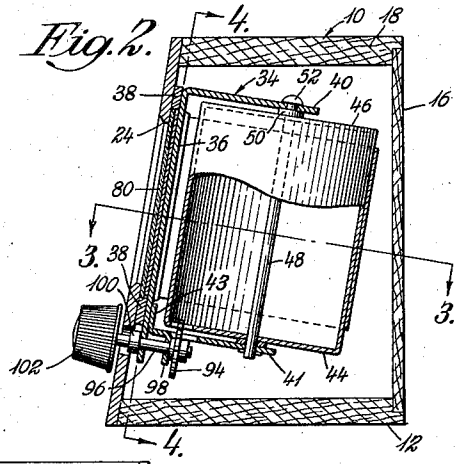


Fig. 3.

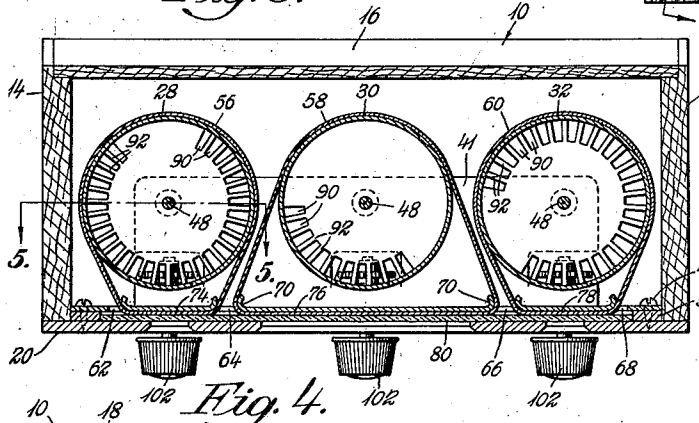


Fig. 5.

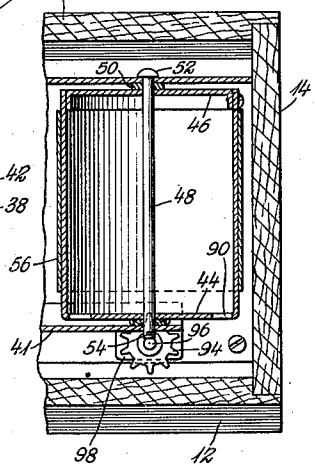


Fig. 4.

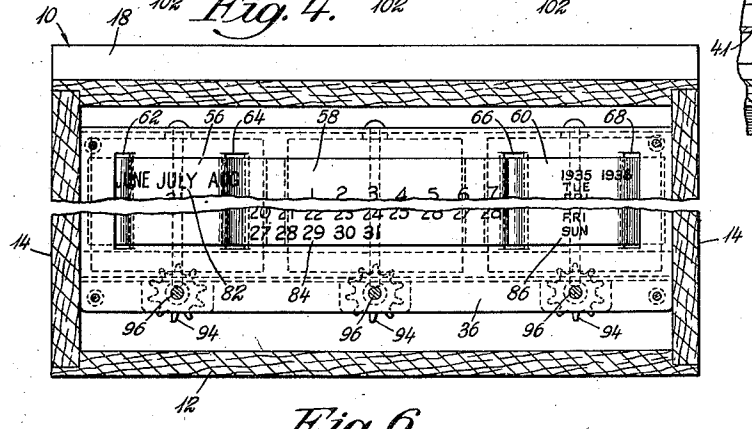
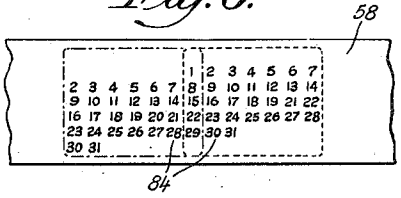


Fig. 6.



Frank G. Heller
INVENTOR

BY Victor J. Evans & Co.

HIS ATTORNEYS

Patented Oct. 5, 1937

2,094,791

UNITED STATES PATENT OFFICE

2,094,791

PERPETUAL CALENDAR

Frank G. Heller, Beardstown, Ill.

Application November 27, 1935, Serial No. 51,956

2 Claims. (Cl. 40—118)

My invention relates to recording devices and has among its objects and advantages the provision of an improved perpetual calendar.

In the accompanying drawing:

Figure 1 is a front elevation;

Figure 2 is a sectional view along the line 2—2 of Figure 1;

Figure 3 is a sectional view along the line 3—3 of Figure 2;

Figure 4 is a sectional view along the line 4—4 of Figure 2;

Figure 5 is a sectional view along the line 5—5 of Figure 3; and

Figure 6 is a fragmentary view of the date strip.

In the embodiment selected to illustrate my invention I make use of a cabinet 10 comprising a bottom 12, end walls 14, a rear wall 16, a top 18, and a front wall 20 arranged in angular relation with the rear wall 16. Three sight openings 22, 24 and 26 are provided in the front wall for exposing reading matter pertaining to years, months, weeks and days. The sight opening 22 exposes reading matter relating to any given month of the year, while the sight opening 24 exposes the days of the month. A sight opening 26 indicates the first day of each month over a period of time. The reading matter associated with each opening may be shifted to indicate successive periods of time.

Three drums 28, 30 and 32 are mounted inside the cabinet 10 in association with the sight openings 22, 24 and 26, respectively. In Fig. 2, I illustrate a channel-shaped member 34 for supporting the drums 28, 30 and 32. The bight 36 of the member 34 bears against a spacer 38 positioned against the inner face of the front wall 20. Referring to Fig. 3, the bight is extended beyond the ends of the flanges 40 and 41 of the member 34 and provided with openings for the reception of screws 42 anchored in the vertical spacers 38 and the front wall 20. The flange 40 is formed integrally with the bight 36 while the flange 41 includes a narrow flange 43 welded to the bight. Each drum 28, 30 and 32 includes a bottom 44 and a top 46 (see Fig. 5). The top and bottom of each drum are provided with aligned openings for the reception of a shaft 48 extending through aligned openings in the flanges 40 and 41 of the member 32. In Fig. 5, I mount spacers 50 upon each shaft 48 which spacers hold the tops and bottoms of the drum out of frictional relation with the flanges 40 and 41.

In the drawing, I illustrate each shaft 48 as comprising an unthreaded bolt having a head 52 bearing against the flange 40, and its opposite end provided with an opening for reception of a pin 54 positioned underneath the flange 41 to prevent endwise movement of the shafts. Each drum is rotatably mounted upon its respective shaft 48.

Endless bands 56, 58, and 60 are associated with the drums 28, 30 and 32, respectively. Referring to Fig. 3, the bight 36 is slit to provide openings 62, 64, 66, and 68 through which the webs 56, 58 and 60 are threaded. The material of the bight adjacent the slits is bent as at 70 to provide a gentle curvature for guiding the web. The arrangement of the openings 62, 64, and 66 is such as to provide straight reaches 74, 76 and 78 in the webs 56, 58 and 60, respectively. In referring to Fig. 3, it will be noted that the reaches 74, 76, and 78 extend across the sight openings 22, 24 and 26, respectively, and that the reaches lie adjacent a transparent sheet 80 positioned between the bight 36 and the front wall 20.

Upon the web 56 I print the months of the year and the number of days in each month, together with other information such as holidays as indicated at 82. Upon the web 58 I print vertical columns of numbers 84, the successive number in each column increasing by seven, the numbers in the various columns are arranged in lateral alignment and consecutively as 1, 2, 3, etc. Above the group of numbers visible to the sight opening 24 I provide the days of the week in proper sequence, each day being spaced to align with one of the vertical columns of numbers exposed through the sight opening 24. The days of the week may be printed on the transparent sheet 80 or upon a thin insert positioned thereagainst. On the web 60 I print the days in the week in vertical columns as indicated at 86. Upon the front wall 20 and adjacent one side of the sight opening 26 I print the months of the year as indicated at 88. Each month is positioned to align with one of the days indicated in the column 86, and the days indicated in the column 86 are selected to indicate the day upon which the first of any month falls. A plurality of columns 86 may be printed upon the web 60 for a series of years.

Means is provided for rotating the drums 28, 30 and 32 for changing the reading matter visible through the sight openings 22, 24 and 26. In Figures 2 and 3 the bottoms 44 of the drums are provided with a plurality of openings 90 arranged to provide spokes 92. These spokes are radially aligned and function as teeth for the gears 94. These gears are mounted upon shafts 96 extending through openings in the bight 36

and openings in lips 98 struck from the material of the flange 41. Each shaft is provided with a collar 100 abutting its respective lip 98 and co-operates with the hub of its gear 94 to prevent endwise movement of the shaft. Each shaft 96 carries a knob 102 to facilitate rotation of the drum associated therewith.

I provide a construction in which the reaches 74, 76 and 78 are of a flat nature closely positioned with respect to their respective sight openings. The bands may comprise a strip of material threaded through the openings 62, 64, 66 and 68 and wound about their respective drums and glued together at the proper amount of tension. The entire mechanism is mounted upon the front wall or panel 20 and these are associated with a cabinet of suitable design. A slight rotation of the knob 102 associated with the sight opening 24 is sufficient to shift the reach 76 for proper alignment with the days of the week associated with the opening. My gear construction for imparting rotary movement to the drums is exceedingly simple.

Without further elaboration, the foregoing will so fully explain my invention that others may by applying current knowledge readily adapt the same for use under various conditions of service.

I claim:

1. In a device of the type described, a supporting panel having a sight opening, a U-shaped support having its bight provided with spaced slots and arranged in slightly spaced relation with said panel, a cylindrical member rotatably mounted on the legs of the U-shaped support for rotation about an axis paralleling said panel, an indicia bearing web passing around the cylindrical member and threaded through said slots, the material between said slots constituting a backing for the web and being so arranged as to support the web in a straight reach across said sight opening, one end of said cylindrical member being provided with a gear, a pinion arranged in mesh with said gear, an actuating shaft fixedly connected with said pinion, and a pair of flanges for rotatably supporting the shaft, one of the flanges comprising an extension of said bight beyond one leg of the U-shaped support and the other flange comprising material struck from the said one leg.

2. In a device of the type described, a cabinet including a panel provided with a plurality of sight openings, a U-shaped support mounted inside the cabinet with its bight arranged in parallel relation with said panel and spaced therefrom, the bight of said U-shaped support being provided with a plurality of parallel slots, a plurality of cylindrical members rotatably mounted on the legs of said U-shaped support, indicia bearing webs passing around said cylindrical members and threaded through said slots, the material of the bight between said slots constituting backings for said webs, said cylindrical members having a gear at one end, a pinion arranged in mesh with each gear including a shaft fixedly connected therewith for rotating the pinion, flanges for rotatably supporting said shafts, one of said flanges comprising an extension of said bight, the remaining flanges constituting material struck from one leg of the U-shaped support.

FRANK G. HELLER.