Nov. 18, 1941. E. W. S. LANG 2,263,507

CALENDAR OR DATE INDICATOR

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FIG. 1

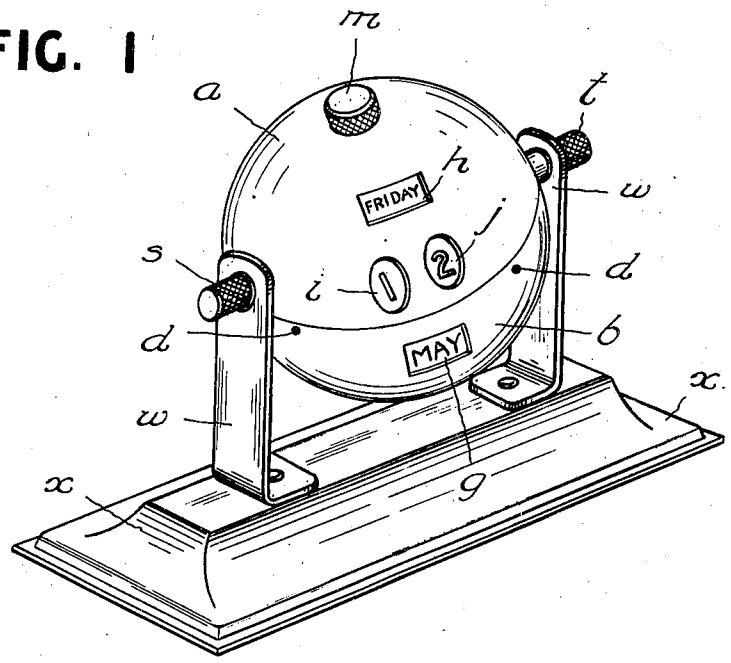
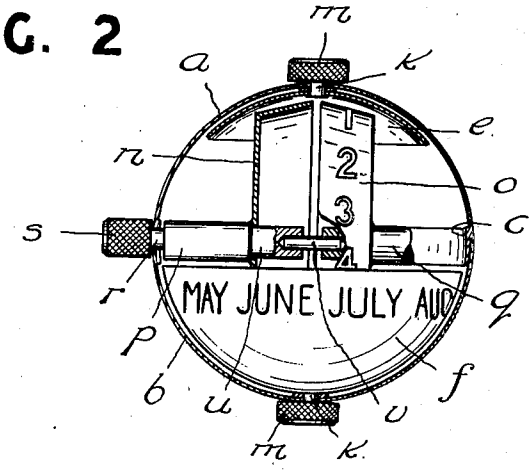


FIG. 2



INVENTOR
ERIC W. S. LANG
BY
Samuel Schwener Jr.
ATTORNEY

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CALENDAR OR DATE INDICATOR

Eric William Shaxson Lang, Church End, Finchley, England, assignor to George Abe Laughton, Birmingham, England

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7 Claims. (Cl. 40—111)

This invention has reference to date indicators adapted for daily adjustment by the manipulation of a rotatable device or devices.

A date indicator of the above mentioned kind according to the present invention comprises a spherical holder formed of two assembled hollow shells, window openings in the shells, a plurality of members with part-spherical or conical surfaces assembled within the holder each in working relation to an opening in the holder, and independently rotatable means whereby each member can be turned to display at will any marking on its surface through its opening in the holder.

The plurality of rotatable inner members for displaying date-indicating markings (names of months, days, and figures) through windows in the holder are preferably on separate axes arranged in pairs coincident with each other and with the axes of one pair arranged perpendicular to those of the other pair.

A preferred constructional embodiment of the date indicator comprises a hollow two-part, spherical, shell-like holder provided with means for mounting it on a stand or pillar support; two separated bowl-like members located within the holder with means for turning them passing through the holder preferably at diametrically opposite points thereof so that date indications on the exterior of the hollow members may be displayed through window openings in the two parts of the shell holder; and a pair of zones of a sphere, or truncated cones, also preferably hollow, mounted face to face on short, independent coaxial, spindles arranged at right angles to the axes of the bowl-like members so that the zones are partly within the bowls and display at will any of the indications on their peripheries through window openings in the holder arranged to be opposite the space between the peripheral edges of the bowl parts.

The independent spindles of the zonal or conical members pass out of the holder and are supported in recesses cut in the meeting edges or rims of the two-part spherical shells of the body. Their ends are provided with milled caps or other convenient means for manipulation.

The inner ends of the spindles may be connected for mutual support by an axial pin entering each spindle, but on which each is free to turn.

The spherical body completely encloses all the indicating mechanism except the operating terminals.

The appended drawing illustrates the invention:

Figure 1 is a perspective view of the date indicator with a simple mount.

Figure 2 is a sectional view of the two-part spherical casing with one of each of the internal parts shown in full.

The two shells of the holder casing are lettered *a* and *b*. One shell has a shouldered flange *c* and the other is recessed around the rim to take over the flange so that they may be screwed together by small screws *d* Figure 1. The bowl-like inner members are referred to by the letters *e* and *f*. The bowl *f* is larger than the bowl *e* so that the date indications placed upon it (the names of the months in this example) can be exhibited through an opening *g* near the equator of the sphere. The opening *h* through which the words marked on the bowl *e* appear is near the top of the sphere; also as these are the names of the days they are fewer in number than the markings on *f* so this bowl need not be so large.

The bowls *e* and *f* each have short axle pins *k* secured to them which may be integral with or secured to knobs or heads *m* by which the respective bowls may be manipulated.

The upper shell *a* of the holder is provided with two openings *i* and *j* placed side by side so that the figures displayed may be read together for double figure dates.

The remaining inner rotatable members *n* and *o* may be shaped as zones or slices cut from a sphere, or may be truncated conoidal if more convenient to manufacture. They are shown as hollow pressings. In each case a spindle, lettered *p* and *q* respectively, is secured to the members. Each spindle is grooved as at *r* so that it may be located in half round recesses in the meeting edges of the shells *a* and *b* and outside this is a knurled or other suitably formed manipulating part *s*, *t*. In Figure 2, the spindle *q* is broken off to show the joint between the shells *a* and *b* but this is finished exactly the same as shown in the left of the figure. An inwardly projecting hub part *u* is provided on each spindle and a well fitting axle pin *v* enters each hub to support the spindles, but each is free to turn on the pin *v*.

The spherical calendar is shown in Figure 1 as mounted on two brackets *w* on a stand *x* by means of the manipulating heads *s*, *t*, of the spindles *p*, *q* acting as trunnions. One of the brackets may be slotted, or may be made with a degree of spring for the insertion of the trunnions. In this case the division joint of the

shells is in a plane containing the trunnions. It may be mounted in any desired manner however so long as its indicating apertures are readily visible and its manipulating means accessible. For example a pillar may be secured to the surface of the lower shell and the joint may be diagonal.

I claim:

1. A date indicator comprising in combination a spherical holder formed of two hollow shells secured together at their rims, window openings therein, two pairs of part-spherical indicating members housed in the holder and provided with independently rotatable manipulating parts passing to the outside of the casing the axes of each pair coinciding and the axes of one pair being perpendicular to the axes of the other pair.

2. A date indicator comprising in combination a spherical holder formed of two hollow shells, two separated inner, bowl-like members located within the holder with means for turning them passing through to the outside of the holder so that any of the date indicating markings on the exterior of the bowl-like members may be displayed at will through window openings in the two shells of the holder, and a pair of part-spherical members mounted face to face on short independently rotatable spindles arranged at right angles to the axes of the bowl-like members so that the part-spherical members are partly housed within the bowl-like members and can be turned to display at will any of the indications on their peripheries through window openings in the holder communicating with the space between the separated bowl-like members.

3. A date indicator comprising a spherical body formed of two hollow shells secured together at their rims, window openings therein, bowl-like members located within the holder with means for turning the bowl-like members passing to the outside of the holder and inner members mounted on independently rotatable spindles, the spindles of said inner members being arranged to pass out of the holder where the joint between the hollow shells is made, each shell having gaps at opposite sides of its rim to engage a groove in each of the spindles, and the inner ends of these spindles being rotatably mounted and supported on a connecting pin.

4. A perpetual calendar as claimed in claim 3 in which the spindles also form mounting means whereby the spherical calendar is mounted on brackets on a stand.

5. A date indicating device comprising in combination a spherical holder formed of two opposed hollow shells assembled edge to edge, a plurality of members for carrying matter to be indicated arranged within the holder and being rotatable about axes certain of which are angularly displaced from the others, a plurality of window openings in the holder for displaying the matter carried by the said plurality of members, and independently operable means for individually rotating each of said members about its axis, whereby each of said members can be turned to display any markings on its surface through the co-operating opening in the holder, the said members having their surfaces shaped to bring such markings into juxtaposition with said openings.

6. A date indicator according to claim 2, in which each of the part-spherical members is formed as the zone of a sphere.

7. A date indicator according to claim 2, in which each of the part-spherical members is frustro-conical in configuration.

ERIC WILLIAM SHAXSON LANG.