Dec. 10, 1940. T. F. TUCKER 2,224,451

TIME INTERVAL INDICATING DEVICE

Filed March 15, 1938

FIG. 1.

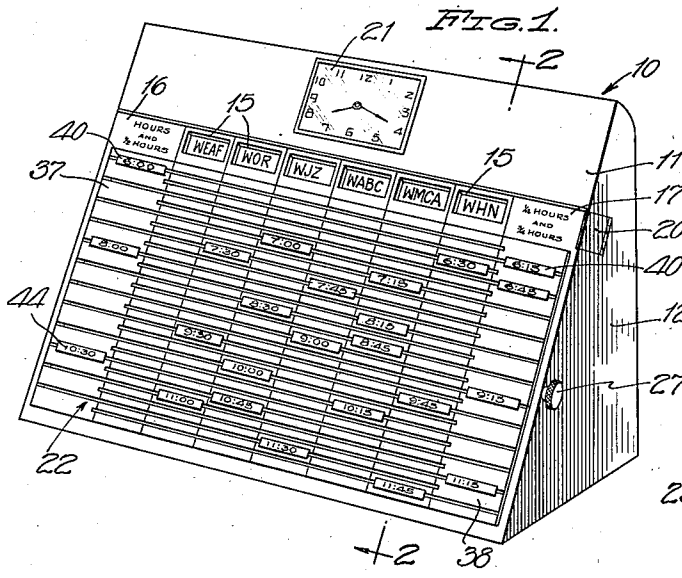


FIG. 2.

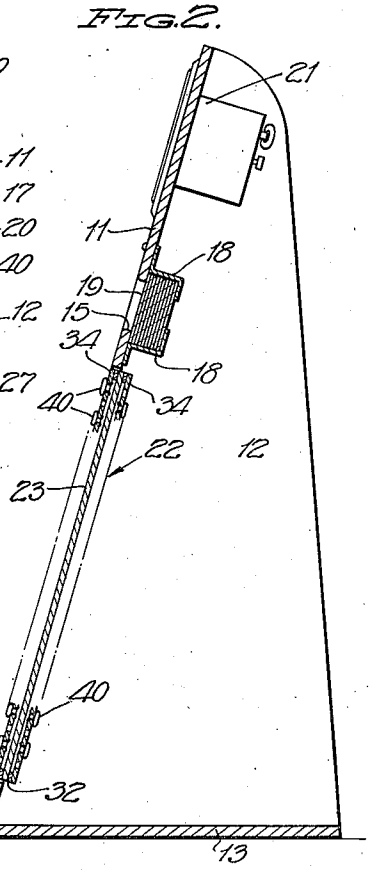


FIG. 3.

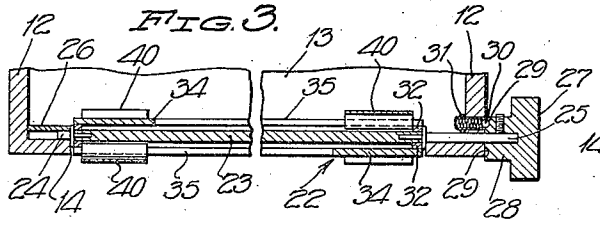


FIG. 4.

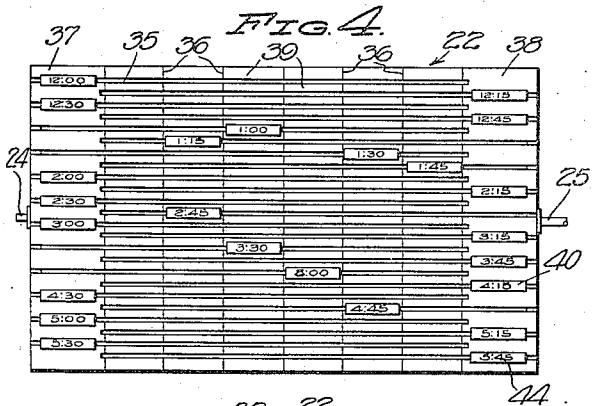


FIG. 5.

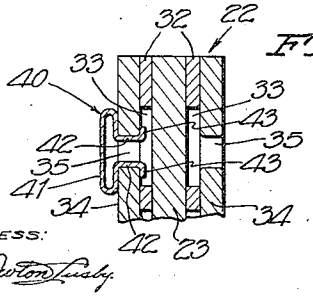
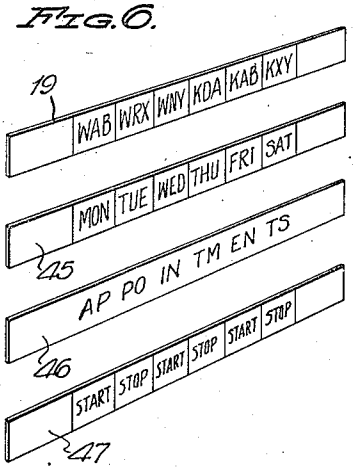


FIG. 6.



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WITNESS:

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TIME INTERVAL INDICATING DEVICE

Thomas F. Tucker, Jamaica, N. Y.

Application March 15, 1938, Serial No. 195,998

1 Claim. (Cl. 116—135)

This invention relates to a time interval indicator device for home or office use to remind the user thereof of certain happenings which may occur during predetermined time intervals of a day and in which the user is interested.

One of the main features of the invention resides in a time interval indicator device which has many uses such as an appointment reminder or a time cooking reminder, but which is especially adaptable for use as a radio program reminder to indicate those programs during the day which a user may wish to hear.

Another feature of the invention is to provide a time interval indicator device which is capable of being set for predetermined time intervals of fifteen minutes each over a period of twelve hours, the time indicator members being so arranged as to indicate at a glance the settings over a period of six hours, there being a novel means of bringing the preset time indicator members for the other six hours into display position when the time arrives.

A further object of the invention is the provision of a time interval indicator device having the above mentioned features, which is simple, compact, and inexpensive of construction, and which is attractive in appearance so as not to detract from the furnishings of the home or office in which the device may be used.

With these and other objects in view, the invention resides in the certain novel construction, combination and arrangement of parts, the essential features of which are hereinafter fully described in the specification, are pointed out in the appended claim, and are illustrated in the accompanying drawing, in which:

Figure 1 is a perspective view of the time interval indicator device showing certain of the time indicator members in neutral position and certain others in predetermined set position.

Figure 2 is an enlarged vertical sectional view on the line 2—2 of Figure 1.

Figure 3 is a fragmentary horizontal sectional view through the pivotal axis of the reversible time indicator panel.

Figure 4 is a front elevational view of the time indicator panel per se looking at the reverse side of that shown in Figure 1.

Figure 5 is an enlarged detail vertical sectional view through the reversible panel to illustrate the construction and mounting of one of the time indicator slide members.

Figure 6 is a collective perspective view of a plurality of different column heading strips which may be used to suit the purpose for which the time indicator device is adapted.

Referring to the drawing by reference characters, the numeral 10 designates my time interval indicator device in its entirety, and which includes a rearwardly inclined panel wall 11 which is supported by triangular shaped end walls 12—12 and a flat bottom wall 13. If desired, the rearwardly inclined panel wall 11 may be supported by any well known form of easel, or when the device is intended for use as a radio program reminder, the wall 11 may be the panel of a radio receiving set or may be set therein.

The panel wall 11 is provided with a rectangular shaped opening 14 therein and directly above the top of the opening 14, the panel wall is provided with a horizontal row of closely spaced window openings 15, the end window openings terminating well inward of the sides of the wall 11 to provide spaces 16 and 17 having printed therein "hours and ½ hours," and "¼ hours and ¾ hours," respectively. Mounted on the rear side of the panel wall 11 above and below the plane of the window openings 15 are Z bars 18—18 which are reversely arranged and coact to provide a heading strip holder for slidably receiving a plurality of interchangeable strips such as shown in Figure 6 of the drawing and which will be specifically described hereinafter.

For the sake of illustration, assume that the time interval indicator device 10 is to be used as a radio program reminder, therefore a heading strip 19 containing the local or nearby radio station letters is positioned in the strip holder at the front of the pack of strips. The strip 19 as shown in Figure 1 of the drawing includes the identifying letters of radio stations, "WEAF," "WOR," "WJZ," "WABC," "WMAC," and WHN," reading from left to right and which radio station indicating letters respectively register with the six window openings 15 to be viewed therethrough to head the six columns on the time interval indicator panel presently to be described.

The right end wall 12 is provided with a spring actuated door 20 in alinement with the heading strip holder Z bars 18—18 which when opened, enables the heading strips to be slid out for interchanging. The space between Z bars 18—18 permits the fingers of the hand of an operator to reach behind the panel wall 11 and impart sliding movement to the heading strips to slide them through the open door.

If desired, a clock 21 may be mounted in the top of the panel wall 11 for the convenience of the user of the time interval indicator device.

Mounted in the opening 14 is a reversible time indicating panel 22 which includes a flat rectangular shaped body 23 having axially disposed trunnions 24 and 25 extending from opposite ends thereof midway between the top and bottom edges of the body. The trunnion 24 is mounted in a bearing 26 at the left of the opening 14, while the trunnion 25 which is longer than the trunnion 24 is journaled in the right end wall 12 and carries a manipulating knob 27 on the outer end thereof. The inner side of the knob 27 is provided with a hub 28, the face thereof having diametrically opposed semi-circular shaped recesses 29 therein. A ball catch 30 urged outwardly by a spring 31 is mounted in the right end wall 12 and which alternately seats in the recesses 29 to secure the reversible panel 22 in its respective display positions. The panel 22 is turned about its horizontal axis by an operator grasping the knob 27 and turning the same, and which manual turning force overcomes the tension of the spring 31 to cause the ball catch 30 to move out of one of the recesses and snap into the other recess 29 as the latter is brought into alinement with the ball catch. The spring tension on the ball catch is of such degree as to prevent accidental turning of the panel 22 when moved to either of its two display positions.

Fixedly attached to opposite sides of the flat body 23 are identical spacer members 32—32, each of which is provided with twenty-four equi-distantly spaced horizontal slots 33.

Fixedly secured to the outer sides of the spacer members 32 are track boards 34—34 of identical construction. Each track board 34 is provided with twenty-four equi-distantly spaced horizontal slots 35 which are of less width than the slots 33 but which centrally register therewith as best seen in Figure 5 of the drawing. The outer faces of the track boards are divided by seven equi-distantly spaced vertical lines 36 into two end neutral columns 37 and 38 adapted to register respectively with the headings 16 and 17 and six columns 39 adapted to respectively register with the six window openings 15 containing the six radio station identifying indicia on the strip 19. The uppermost slot 35 on either side of the panel 22 when facing outwardly has one of its ends extending to the left edge of the track board while the other end of the said slot 35 terminates at the inner side of the column 38. The next lower adjacent slot 35 has one of its ends extending to the right side of the track board and its other end terminating at the inner side of the left end column 37. The same alternate arrangement continues throughout to the lowermost slot 35 and the portions of the slots 35 which extend through the columns 37 and 38 may be termed track extensions for a purpose to be hereinafter explained.

Slidable in each slot 35 is a time interval indicator member 40 constructed of a single piece of springy metal, Celluloid, or other equivalent material. The member 40 includes an elongated head 41, spaced opposed shank portions 42, and outwardly extending flanges 43 on the free ends of the shank portions. The shank portions are resilient and may be moved toward each other to facilitate the insertion of the same through the slot 35, and when released, the shanks expanded into engagement with the walls of the slots while the flanges 43 engage the inner side of the track board as clearly illustrated in Figure 5. The frictional engagement of the shank portions 42 with the walls of the slot 35 acts to hold the slidable indicator member against accidental sliding movement. There are twenty-four time interval indicator members 40 on each side of the reversible panel 22, each containing an interval of time 44 on the outer side of the head 41. On the side of the reversible panel 22 displayed in Figure 1, the uppermost indicator member 40 contains "6:00" denoting six o'clock, while the lowermost member 40 contains "11:45" denoting eleven forty-five. The twenty-two intervening members 40 contain time indicia of fifteen minute intervals between "6:00" and "11:45." By reason of the alternate termination of the slots 35 adjacent opposite ends of the track board, only the hour and half hour indicating members 40 may be moved to their neutral position under the column 16 headed "hours and ½ hours," and those members 40 denoting quarter hours and three quarter hours may be moved to a neutral position under the column 17 headed "¼ hours and ¾ hours." By isolating alternate slide indicator members 40 in two groups, it is possible to more readily select them for movement from a neutral position into indicating position into any one of the columns 39.

The reverse side of the panel 22 from that shown in Figure 1 is illustrated in Figure 4 and the uppermost slide indicator member 40 bears the time interval "12:00" denoting twelve o'clock, while the lowermost member 40 bears the time indicia "5:45" denoting five forty-five. Thus the members 40 on the opposite sides of the reversible panel 22 combined, cover consecutively fifteen minute periods over a twelve hour period of time. The arrangement of the time indicia of the members 40 disposed on opposite sides of the reversible panel 22 are inversely arranged relative to each other.

The device may be used to indicate A. M. or P. M. time intervals or a combination of A. M. and P. M. when in use as a radio program reminder as illustrated in Figure 1 of the drawing, the device 10 may be set to cover radio programs to be broadcast from six o'clock to eleven forty-five, it being understood that the usual broadcast program is based on fifteen minutes of time or multiples thereof. Prior to the selective setting of the device to indicate time intervals, the members 40 are moved to their neutral stations in the columns 16 and 17. The user refers to the newspaper listings for the daily broadcast to ascertain which programs are of interest to him and notes the time of the program. He then sets the time indicating members 40 in their proper radio station columns. For instance, in Figure 1, the device is set to remind the user to tune in on radio station "WHN" at 6:30; station "WJZ" at 7:00; station "WMCA" at 7:15; station "WOR" at 7:30, etc. By pre-setting the time indicator members 40 on the opposite sides of the reversible panel, the user may be reminded of those radio programs which he may wish to listen to over a period of twelve hours. After the six hour period displayed on each side of the panel 22 has passed, it is only necessary for the user to turn the knob 27 to reverse the panel and bring the opposite side of the panel into view.

In Figure 6, the reverse side of the panel heading strip 19 has been shown to illustrate that different heading indicia may be printed on opposite sides of the heading strips. Also in this figure, I have illustrated a day of the week strip

45, having the days of the week printed thereon from Monday to Saturday to respectively register with the respective window openings 15 when the device is to be used for appointments scattered at different time intervals over the period of a week. I also show a strip 46 containing the word "appointments," the letters of which are so spaced as to register with the window openings 15. With the heading strip 46 in display position, the device may be used as a daily appointment reminder. Also shown in Figure 6 is a heading strip 47 containing three sets of the words "Start—Stop" to register with the respective six window openings 15. With this strip in display position, the device may be used in the kitchen to indicate when food to be cooked has been placed on the stove and when it should be removed to avoid over or undercooking.

While I have shown and described what I consider to be the preferred embodiment of the construction and uses of the invention, I wish it to be understood that such modifications as come within the scope of the appended claim may be resorted to if desired.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent of the United States, is:

In a device of the class described, a reversible panel comprising a flat central panel section, a pair of flat outer panel sections having one or more horizontal slots therein, flat spacer members interposed between the opposed sides of said central panel section and said outer panel sections, said spacer members having horizontal slots alined with and being of a greater width than the adjacent slots in said outer panel sections to provide horizontal recesses in said reversible panel, indicator members slidable in the horizontal slots of said outer panel sections, each indicator member including an outer head, a pair of shank portions extending inwardly from said head through one of the slots in an outer panel section and disposed in frictional engagement with the opposed walls thereof, and flanges extending outwardly from the free ends of said shanks and being disposed in the slot of one of said spacer members and in engagement with the inner side of said outer panel section.

THOMAS F. TUCKER.