

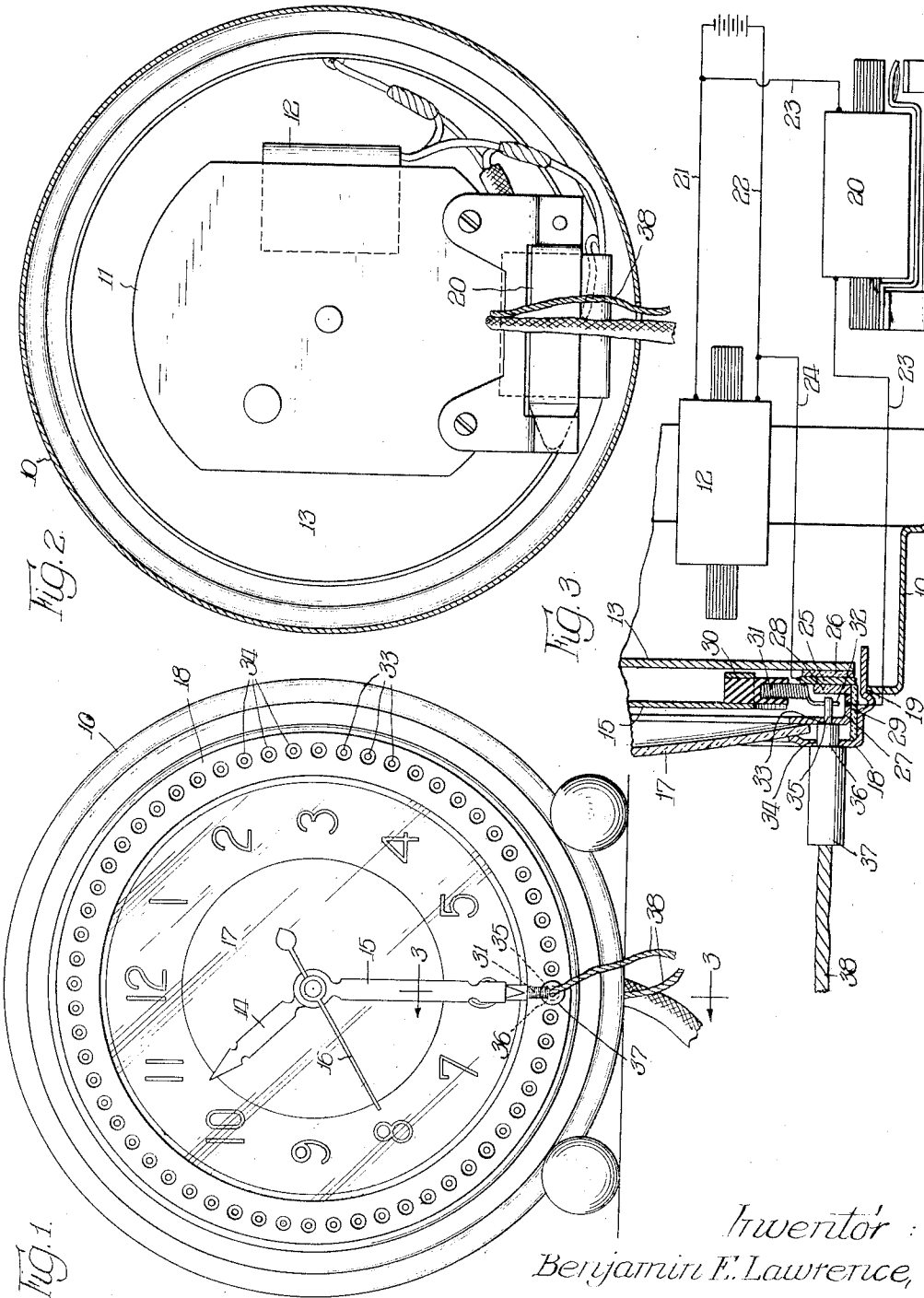
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ALARM CLOCK

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ALARM CLOCK

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3 Claims. (Cl. 58—19)

This invention relates to alarm clocks and has reference more particularly to a clock designed for kitchen use by housewives and cooks to facilitate the proper cooking of articles ordinarily requiring a fixed time period for proper cooking at a given temperature, such, for example, as hard and soft boiled eggs.

Timing devices in the nature of alarm clocks for giving a signal at the end of a predetermined time period mounted on cooking stoves and ranges have heretofore been used, but such devices are permanently built into or attached to the stove or range by the manufacturer as an accessory, and to get the benefit thereof the housewife or cook must buy a new stove or range, or else depend upon the use of a common alarm clock, the alarm setting devices of which are incapable of accurate adjustments to short periods.

An object of this invention is to provide an alarm clock for the use of cooks that will be entirely independent of the stove or range, and can be purchased for a trifling sum. Another object is to provide such an alarm clock which can be accurately set for a cooking period of one or more minutes, and that will sound an audible alarm at the end of the cooking period.

Still another object is to provide an alarm device of the character mentioned that can readily be applied to known and standard makes of electric clocks, which are increasingly coming into popular use.

Still other objects and attendant advantages of the invention will be apparent to persons familiar with the art from the following detailed description, taken in connection with the accompanying drawing wherein I have illustrated the invention as embodied in a known and standard style of electric clock, and in which:

Fig. 1 is a front elevation of the clock equipped with my alarm device.

Fig. 2 is a rear elevation with the back of the clock case removed.

Fig. 3 is an enlarged vertical transverse section taken on the line 3—3 of Fig. 1.

Referring to the drawing, 10 designates the clock case, within which is suitably mounted the usual clock work diagrammatically indicated at 11, and an electric motor for operating the same diagrammatically indicated by 12. 13 designates the usual dial plate, 14 the hour-hand, 15 the minute-hand, and 16 the second-hand. 17 is the usual glass dial cover, and 18 designates an annulus that encircles the clock dial and may be mounted in and soldered or otherwise secured to a front opening of the clock case 10, as indi-

cated at 19 in Fig. 3. The inner edge portion of the annulus 18 overlies the peripheral portion of the dial glass 17, as shown in Fig. 3.

At 20 is diagrammatically indicated an electric alarm, such as a buzzer. The circuit of the clock motor 12 and the buzzer 20 is diagrammatically indicated in Fig. 3, wherein the lines of the main motor circuit are indicated at 21 and 22, and the lines of the shunt buzzer circuit are indicated at 23 and 24 connected respectively to the main circuit lines 21 and 22. Circuit lead 24 is soldered to a ring 25 attached to the face of the dial plate 13, but insulated therefrom by a washer 26. Circuit lead 23 is soldered to a second metal ring 27 disposed in front of and spaced from the ring 25 and insulated therefrom by a washer 28. The ring 27 and washer 28 are encircled by an insulating washer 29 that is supported by the inwardly extending rim of the annulus 18.

Attached to the rear side of the minute-hand 15 is an insulated socket member 30, within which is fitted a terminal member in the form of a coil 31 of fine flexible wire that terminates in a depending extension 32 lying between the rings 25 and 27. The coil 31 always has sliding contact with ring 25.

The outer metal ring 27 is formed with a ring of closely spaced holes 33 preferably spaced one minute apart as shown in Fig. 1, and the annulus 18 is also formed with a similar ring of closely spaced holes 34 that are somewhat larger than, and in register with, the holes 33 of the ring 27. 35 designates a pin of a diameter to snugly fit the holes 33, said pin having an insulating wrapping 36 of a diameter to snugly fit the holes 34, and a handle wrapping 37 encircling the wrapping 36. Preferably to the rear end of this pin is connected a cord 38, the other end of which is tied to the clock frame merely to prevent accidental loss of the pin.

The operation of the alarm is readily apparent from the foregoing description of its structural features but may be briefly outlined as follows.

Let it be assumed, for example, that the cook desires to hard boil some eggs for five minutes. Before dropping them in the hot water, she notes the position of the minute-hand of the clock, and plugs the pin 35 into the registering holes 34, 33, five minutes ahead, and then proceeds to forget all about the eggs. When the five minutes are up, the terminal extension member 32 wipes across the inserted pin 35, which closes the circuit through the alarm signal 20, and the buzzer sounds. Manifestly, the device can be set to give

a signal at any number of minutes in advance up to fifty-nine minutes. The device may also be used to signal the termination of a longer cooking period than fifty-nine minutes. For example, if
 5 a cooking period of an hour and a half is required, the pin may be inserted in the hole next behind the minute-hand, and when the alarm sounds it may be withdrawn and inserted in a hole thirty minutes beyond the minute-hand, the
 10 second alarm indicating the end of the cooking period.

It will be apparent that the circuit make and break devices herein shown and described can be readily applied to any known or standard make
 15 of electric clock; while the buzzer, bell, or other alarm device can be mounted anywhere on or in the clock frame or casing or on a wall of the kitchen and simply wired in as diagrammatically illustrated. Hence the use of the device does not
 20 require the special designing and building of a new style of electric clock.

Changes in the details of the structure and arrangement of the parts may be resorted to within the purview and scope of the claims.

25 I claim:

1. The combination with a clock, and an electric signal member, of an insulated metal ring attached to the clock dial plate and forming part
 30 of a circuit through said signal member, an annulus encircling the clock dial and having formed therein a ring of closely spaced holes, a circuit terminal member carried by and insulated from a hand of the clock in sliding contact with said
 35 ring and having a flexible extension, and a pin insertible into any of said holes across the path of said extension cooperating with said terminal member and ring to close a circuit through said signal member.

2. The combination with a clock, and an electric signal member, of an insulated metal ring attached to the clock dial plate and forming part
 5 of a circuit through said signal member, a second insulated metal ring supported in front of and spaced from said first-named ring and having
 10 formed therein a ring of closely spaced holes, said second ring also forming part of a circuit through said signal member, a circuit terminal member carried by and insulated from a hand of the
 15 clock in sliding contact with said first-named ring and having a flexible extension, and a pin insertible into any of said holes across the path of said extension cooperating with said terminal member and rings to close the circuit through said
 20 signal member.

3. The combination with a clock, and an electric signal member, of an insulated metal ring attached to the clock dial plate and forming part
 25 of a circuit through said signal member, a second insulated metal ring supported in front of and spaced from said first-named ring and having formed therein a ring of closely spaced holes, said second ring also forming part of a circuit
 30 through said signal member, an annulus encircling the clock dial and having formed therein a ring of closely spaced holes in register with the holes of said second ring, a circuit terminal member carried by and insulated from a hand of the clock in sliding contact with said first-named
 35 ring and having a flexible extension, and a pin insertible into any registering holes of said annulus and second ring across the path of said extension cooperating with said terminal member and rings to close the circuit through said signal member; said holes being spaced around the dial at intervals of one minute.

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