

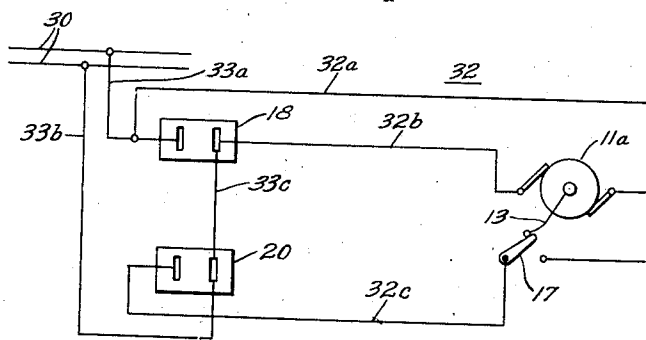
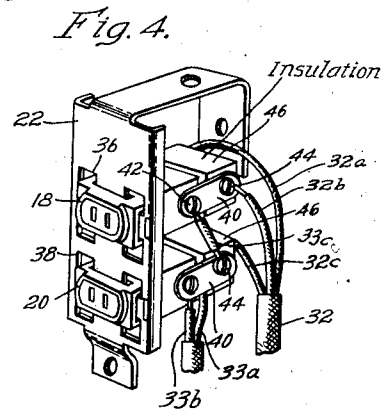
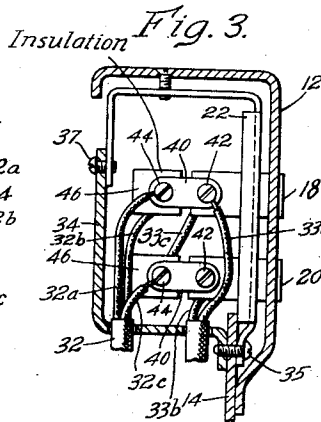
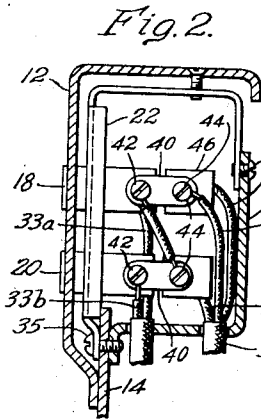
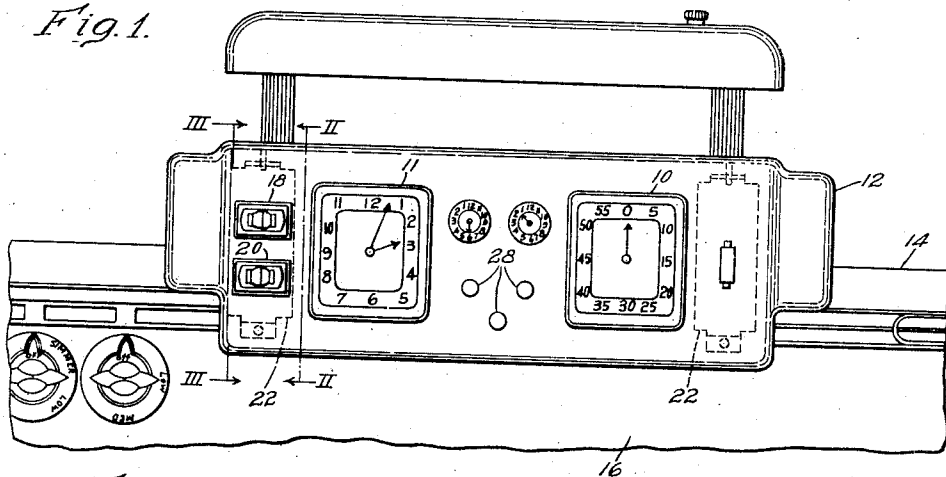
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2,224,737

TIMER CONNECTION BLOCK

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2,224,737

TIMER CONNECTION BLOCK

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1 Claim. (Cl. 161—1)

My invention relates to wiring devices for electric ranges, and more particularly to the connection of a range timer to a supply circuit and to a plurality of appliance receptacles.

It has been customary in those ranges now known in the art to connect the electric timer to a separate individual receptacle located somewhere on the back of a range. The use of such an additional and separate receptacle substantially increases the cost and inconvenience of wiring the range. It is, therefore, an object of my invention to provide means for connecting the timer to a power supply without the use of a separate additional receptacle.

Additional receptacles have been required on ranges inasmuch as single binding posts cannot be used for double duty connections for the timer cable since such connections would be insecure, inconvenient, bulky or otherwise unsafe and unsatisfactory, so that underwriter's approval probably would not be granted. It is, therefore, a further object of my invention to provide means for connecting two circuits to receptacles placed on a range without requiring the binding posts thereof to be used for double duty connections.

A further object of my invention is to provide a plurality of receptacles located on the range and having additional means integral therewith for connecting the timer to a power supply.

A further object of my invention is to provide an efficient, rugged and inexpensive means for connecting a range timer and receptacle to a power supply.

Other objects of my invention will either be pointed out specifically in the course of the following description of a device embodying my invention, or will be apparent from such description.

In the accompanying drawing,

Figure 1 is a front elevational view of a portion of a range and of a timer clock embodying my invention;

Fig. 2 is a sectional view taken on the line II—II of Fig. 1;

Fig. 3 is a partial sectional view taken along the line III—III of Fig. 1;

Fig. 4 is a perspective view of the receptacles and supporting brackets employed in the structure shown in Fig. 1; and

Fig. 5 is a schematic wiring diagram of the power supply receptacles and the timer embodying my invention.

Like reference characters indicate like parts in the several figures.

Referring to the accompanying figures, I show

a spring wound timer 10, an electric clock 11, and housing 12 for said devices, rigidly attached to a back-splasher 14 of a range 16. I also show a plurality of receptacles 18 and 20 rigidly attached to the back-splasher 14 by means of a bracket 22 and operatively associated with the clock 11.

The housing 12, as shown in Fig. 1, encloses the timer 10 and an electric clock 11, and has mounted thereon a plurality of knobs 28 for manually operating in a familiar way an electrical power switch 17 located within the housing 12. The power switch 17 may be closed by the clock 11 by means of a lever 13, operatively associated with the clock, dependent upon the setting thereof, pursuant to a familiar practice as shown diagrammatically in Fig. 5. The housing 12 may be rigidly mounted upon the range 16 in any manner desired. However, it is preferred that the timer 10 and clock 11 be attached to the housing 12 and that such housing 12 be rigidly attached to the receptacle supporting bracket 22 in any suitable manner. The clock motor 11a is operatively associated with a supply circuit 30 by means of a suitable electric cable 32, including conductors 32a, 32b and 32c in a manner hereinafter described.

The bracket 22 is rigidly attached to the back-splasher 14 at one end and to an angular bracket 34 at the other end by means of suitable self-tapping screws or nuts 35 and 37. The bracket 34 is rigidly attached to the back-splasher 14 and is located substantially in the central portion thereof in such manner that it will readily support and shield the housing 12. The bracket 22 has a plurality of apertures 36 and 38 located in the front portion thereof.

The receptacles 18 and 20 are inserted through the apertures 36 and 38 in such manner that the front portions thereof will extend through cooperating apertures in the front wall of the clock housing 12. The receptacles 18 and 20 are rigidly attached to the front portion of the bracket 22 in any suitable manner as by a tongue-and-groove connection. A plurality of metallic lugs 40 are rigidly attached on each side to the rear portions of each of the receptacles 18 and 20 and terminal screws 42 constituting binding posts are inserted at intermediate points thereof. Set screws 44 may be located at the free ends of the lugs 40 to constitute further binding posts. It is, therefore, apparent that each of the lugs 40 through set screws 44 and terminal screws 42, permit at least two electrical wires, one of which may be a part of cable 32, to be connected to the

same terminal of the receptacles without having two wires attached thereto by any single screw, the disadvantages of which have been previously set forth.

5 Spacer blocks 46 may be located substantially at the rear of the receptacles 18 and 20 between the lugs 40 so as to add strength to the assembly and rigidly support the lugs 40. The spacer blocks 46 may be composed of a ceramic material
10 or of any other solid insulating material desired.

With the receptacles 18 and 20 rigidly attached to the supporting bracket 22 and having lugs 40 and spacer blocks 46 operatively associated therewith, it is apparent that each of such receptacle
15 blocks may be operatively associated with at least two separate load devices. Referring to Fig. 5, it is obvious that receptacle 18 will always be alive since it is connected directly to the supply circuit 30 by means of conductors 33a, 33b and 33c.
20 The clock motor 11a being connected to receptacle 18 by means of set screws 44, lugs 40 and conductors 32a and 32b, therefore, is likewise directly connected to the supply circuit 30. However, the receptacle 20 is alive only when the
25 switch 17 is closed, inasmuch as receptacle 20 is connected to the supply circuit 30 by conductors 33b, 32c, switch 17 and conductors 32a and 33a. In such a manner, the usual receptacle outer apertures will be free to receive a plug connected
30 to any desired appliance.

By having the receptacles arranged on a range in the manner hereinabove described, it is possible to connect the supply circuit 30 and the clock 11 to such receptacles 18 and 20 in a safe
35 and rigid manner without having the power supply lines and the clock line connected thereto with the same terminal or set screw. With such an arrangement as hereinabove described, it is further possible to have one of the receptacles, such
40 as 18, permanently connected to the supply circuit 30, and the second receptacle 20 connected to the supply circuit 30 and to the power switch 17, which is operatively associated with the electric clock 11.

45 It is, therefore, obvious that with the receptacles 18 and 20 operatively associated with the supply circuit 30 and the clock 11, one of such receptacles, such as 18, may be operatively associated by means of an appliance cord, not shown,
50 to a separate additional appliance, such as a toaster, roaster, percolator, etc.; which in turn would be operating as long as the appliance was operatively associated with the receptacle 18, and

that the receptacle 20, due to its operative association with the power switch 17, will be able to control the times of operation of an additional appliance operatively associated with such receptacle 20. This is all made possible due to the
5 ability to connect both the supply circuit and the timer cable 32 to the receptacles 18 and 20 without having to connect any two wires to the same terminal, a thing which is dangerous and unsatisfactory, as pointed out above. 10

It is, therefore, obvious that due to the structure hereinabove described, namely, the combination of the spacer block located between conducting lugs operatively associated with the terminals of the receptacles, such receptacles may
15 be operatively associated with both a range clock and a power switch, and the supply circuit. With such an arrangement made possible on the ranges, it will be seen that the separate additional receptacle used in the prior art for connecting the
20 timer to the supply circuit may be eliminated and the operating efficiency of the range greatly increased and the cost thereof considerably decreased.

Various modifications may be made in the device embodying my invention without departing
25 from the spirit and scope thereof, and I desire, therefore, that only such limitations shall be placed thereon as are imposed by the prior art and the appended claim. 30

I claim as my invention:

A housing for electric apparatus having mounted thereon an electric clock, a power switch and a receptacle block comprising two receptacles
35 each having a socket on the outer face, a pair of lugs on each side of said block, each lug having two terminals and extending away from the inner face of each receptacle, two of said terminals on one side having an interconnection, in combination with a supply circuit having its conductors respectively connected to the two lugs on
40 one receptacle on opposite sides of said block, one of said conductors being connected through said interconnection to one of these two lugs, means for connecting other and oppositely disposed terminals on said last-mentioned lugs across the
45 terminals of said clock, means for connecting one terminal on one lug of the other receptacle to one terminal of said power switch, means for connecting one of said conductors to the other
50 terminal of said power switch, and means for operating said switch by said clock.

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