April 16, 1929. G. H. NASH ET AL 1,709,089

WIRELESS RECEIVING SET

Filed Dec. 21, 1923

Fig. 1.

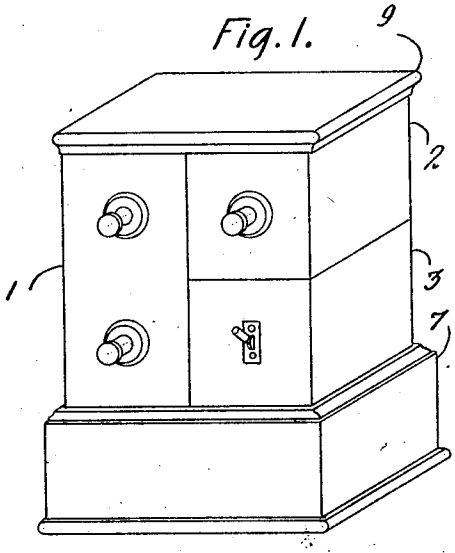



Fig. 2.

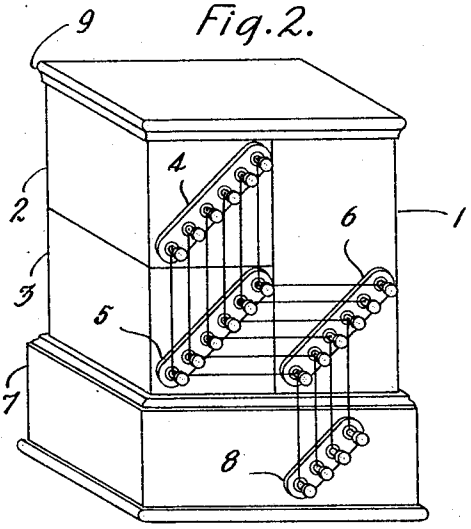
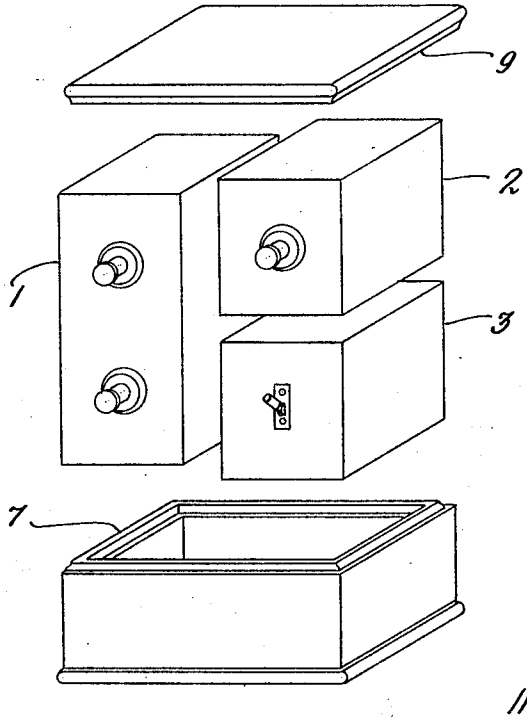



Fig. 3.




Inventors:
George H. Nash
Bertram B. Grace
by E. W. Adams Att'y.

Patented Apr. 16, 1929. 1,709,089

# UNITED STATES PATENT OFFICE.

GEORGE H. NASH, OF SIDCUP, AND BERTRAM B. GRACE, OF GRAVESEND, ENGLAND, ASSIGNORS TO WESTERN ELECTRIC COMPANY, INCORPORATED, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

## WIRELESS RECEIVING SET.

Application filed December 21, 1923, Serial No. 681,942, and in Great Britain March 23, 1923.

This invention relates to wireless receiving sets of the unit type, and has for its object a simple and economical structure adapted for the convenient mounting of additional units.

Heretofore, wireless receiving sets built in unit form, so that unit might be added to unit, have been so constructed as to be assembled together only very loosely, as by means of terminals mounted either on the operating faces of the units or on adjacent sides thereof. The usual practice has been to mount the connecting terminals on the operating panel which carries the switching and tuning controls, this construction tending to mar the appearance of the set and also rendering it liable to circuit interruptions or disturbances.

In accordance with one of its features, the invention provides a compact wireless receiving set made up of independent units. All the switching and tuning controls necessary to such a set are mounted on the vertical faces of the various units so that when the units are placed side by side their front faces present a neat, compact and uniform panel on which all the switching and tuning controls appear.

According to another feature of the invention, a common base portion is provided for supporting the various units comprising the receiving set, this base preferably being of such size that all the battery requirements for the receiving set may be housed therein. A removable cover is adapted to fit over the assembled units in such a manner as to give them the appearance of one compact set.

Another feature of the invention relates to the novel means whereby the necessary electrical connections are made in a neat, uniform and tidy manner. This is accomplished by mounting a terminal strip supporting a plurality of terminals diagonally across the back of each unit in such a manner that all connections to other units consist of parallel wires running either horizontally or vertically.

Other features and advantages of the invention will appear from the consideration of the following description and the accompanying drawings, in which:

Fig. 1 is a perspective view of a compact receiving set comprising three units showing the various switching and tuning controls.

Fig. 2 is a rear view of the set shown in Fig. 1, showing the terminals and the circuit connections between the various units.

Fig. 3 is a perspective view illustrating the manner of assembling the several units by means of a common base and cover.

Referring to the drawing, a number of individual wireless receiving units 1, 2 and 3 are provided which are adapted to be used separately or in cooperation with other units. When assembled together, these units may be electrically connected together by means of terminal strips 4, 5 and 6, each of which supports a plurality of electrical terminals, and are mounted diagonally across the backs of the units in such a manner that the connecting wires may, if desired, be run horizontally between the units 1 and 3, while the connecting wires between the units 2 and 3 run vertically. All of the necessary switching and tuning controls are mounted on the opposite or front face of the various units so that when the units are placed side by side, as shown in the drawing, they present a neat, compact and uniform panel with all the switching and tuning controls appearing on the front, and all of the terminal strips appearing on the back thereof.

A removable base 7, provided in accordance with the invention, is best shown in Fig. 3. This base consists of four sides and a bottom for supporting the various combinations of unit receiving sets described above. This base is of such size that all the battery requirements for the units 1, 2 and 3 may be used therein and connected up to a series of terminals on a terminal strip 8, which is mounted diagonally on the back of the base 7 in such a manner that the connecting wires may be of a neat and uniform character and not subject to cross connections. The removable top 9 is designed to fit over the tops of the assembled units in such a manner as to give them the appearance of one compact set.

Certain changes in the details of the construction herein shown and described may obviously be made without departing from the scope and spirit of the invention as defined in the following claims.

What is claimed is:

1. A wireless receiving set comprising a base member, a plurality of receiving units mounted thereon with their adjacent faces

touching, the several faces of the assembled set being disposed each in a single plane, switching mechanisms mounted on the faces of the units, which comprise the front of the assembled set, connecting terminals mounted on the faces of the units which comprise the back of the assembled set, and a removable cover mounted over said units, said base and cover cooperating with said units to hold them in assembled relation as a unitary structure.

2. A wireless receiving set comprising a plurality of receiving units assembled together with their adjacent faces touching, a terminal strip comprising a plurality of terminals mounted diagonally across one face of each of said units, and electrical conductors connected in parallel lines between the terminals of adjacent units.

3. A wireless receiving set comprising a hollow base adapted for the housing of electric batteries, a plurality of receiving units mounted thereon, switching and tuning mechanisms mounted on the faces of said units which comprise the front of the assembled set, electric terminals disposed diagonally across the faces which comprise the back of the assembled set, and a removable cover mounted over said units, said base and cover cooperating with said units to hold them in assembled relation as a unitary structure.

4. A wireless receiving set comprising a hollow base member adapted for the housing of electric batteries, a plurality of receiving units mounted side by side thereon with their adjacent faces touching, the various faces of the assembled set being disposed each in a single plane, switching and tuning mechanisms mounted on the faces of the units which comprise the front of the assembled set, terminal strips comprising a plurality of electrical terminals mounted diagonally across the faces of the units which comprise the back of the assembled set, electrical conductors disposed in parallel lines between the terminals of adjacent units, and a removable cover mounted over said units, said base and cover cooperating with said units to hold them in assembled relation as a unitary structure.

In witness whereof, we hereunto subscribe our names this seventh day of December A. D., 1923.

GEORGE H. NASH.
BERTRAM B. GRACE.