

No. 843,890.

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H. W. HAFF.
CONNECTION FOR ACOUSTICONS.
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Fig. 1.

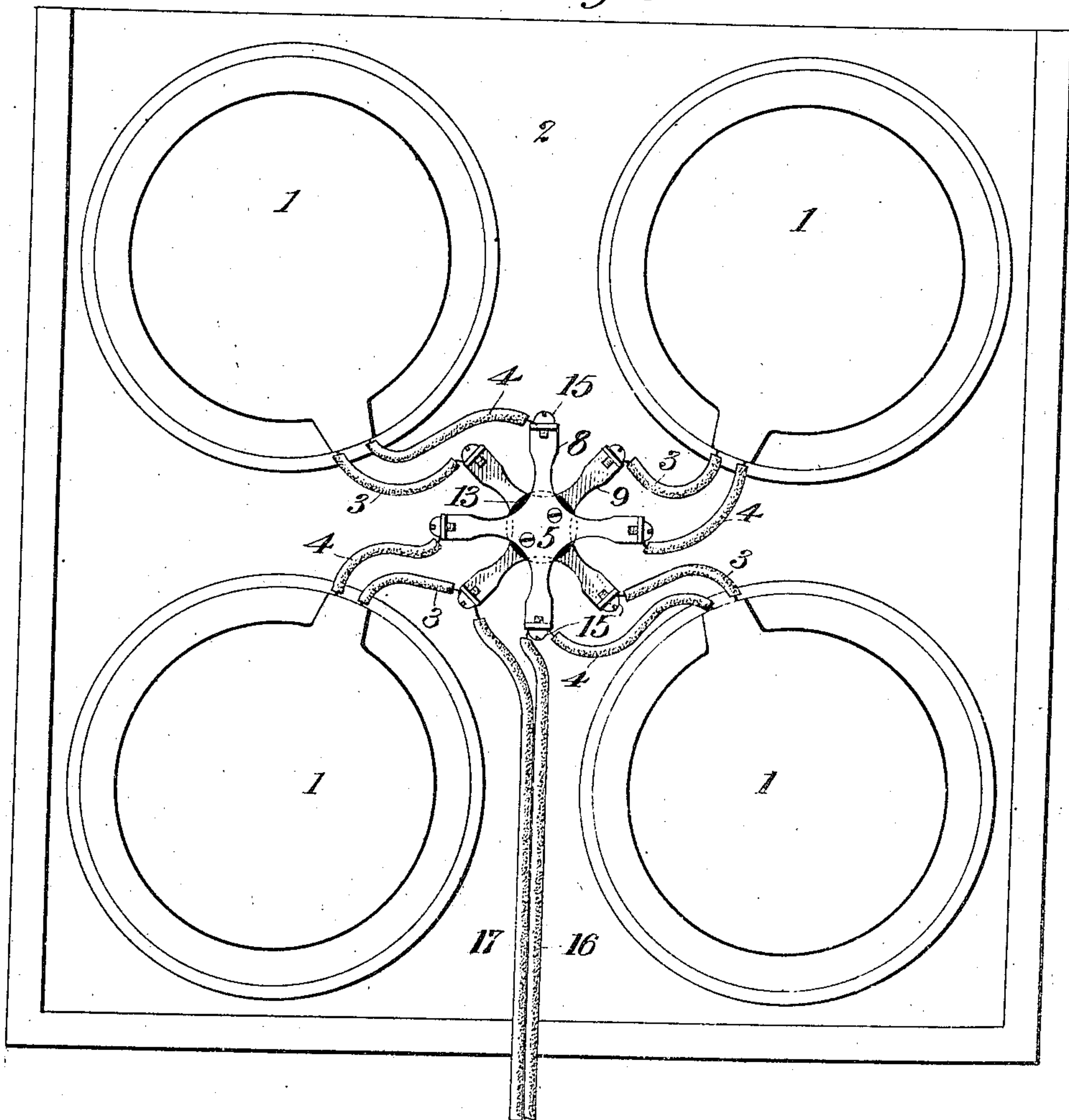
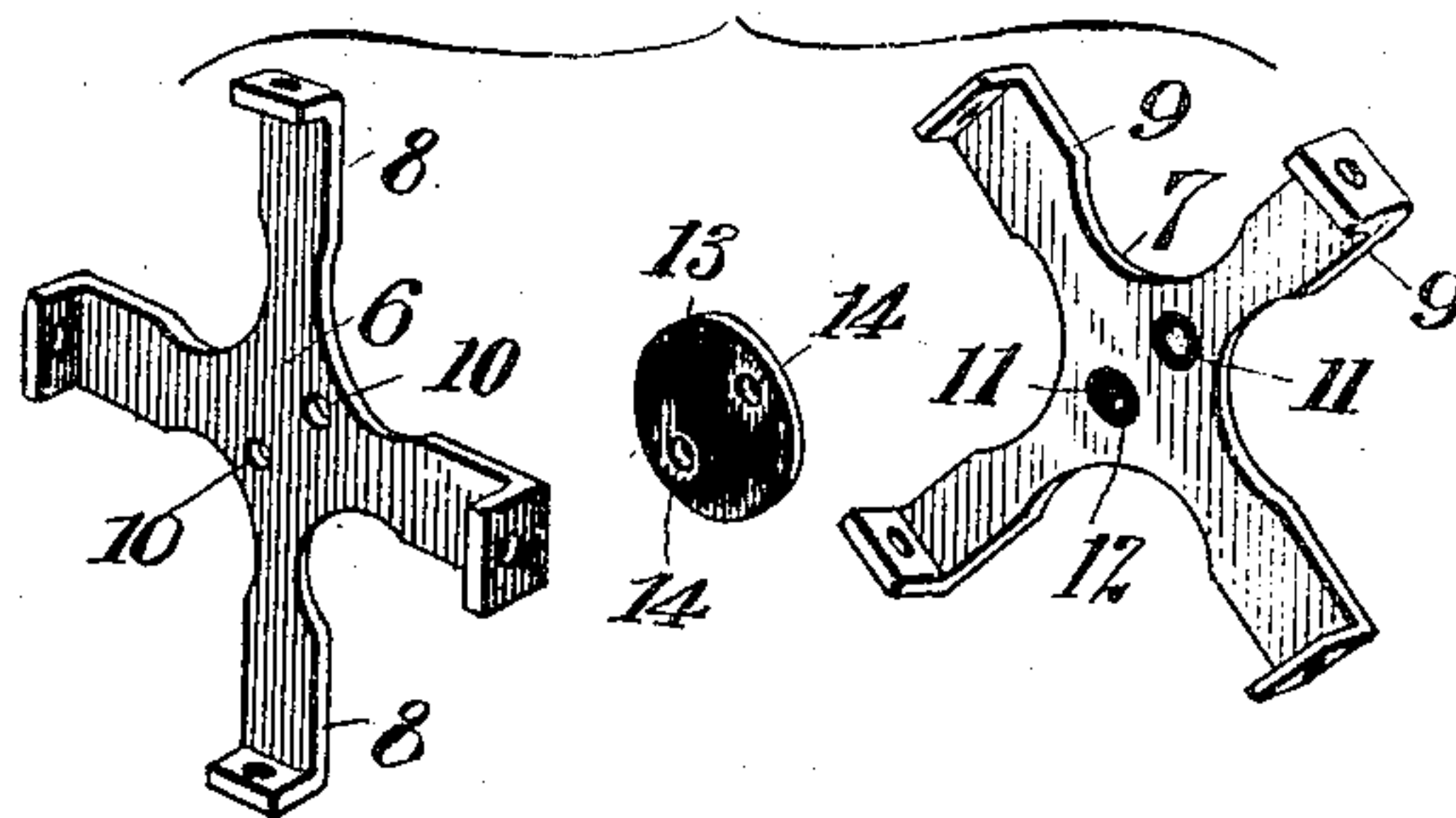


Fig. 2.



Witnesses

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CONNECTION FOR ACOUSTICONS.

No. 843,890.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HOWELL W. HAFF, a citizen of the United States, residing at Babylon, in the county of Suffolk and State of New York, have invented certain new and useful Improvements in Connection for Acousticons, of which the following is a full, clear, and exact description.

My invention relates to an arrangement for connecting the various receivers of an acousticon to the battery wires or terminals.

The principal object of the invention is to provide a connection which is neat in appearance, easy to assemble, insured against grounds and short circuits, and which can be disassociated when desired without trouble.

A further object of the invention is to make a connection employing cheap metallic parts stamped of sheet brass or metal and which cooperate to produce a highly efficient coupling.

With these and other objects in view my invention consists in the construction, combination, in the location, and in the arrangement of parts, as hereinafter set forth and shown, and finally particularly pointed out in the appended claims.

In the drawings, Figure 1 is a back or inside view of an acousticon having a connection embodying the principles of my invention applied thereto. Fig. 2 is a perspective view showing the various parts of the coupling in disassociated relation.

In the use of the acousticon and all similar apparatus where a plurality of telephone-receivers are grouped together in a multiple circuit, so as to receive and multiply the sound to the greatest possible extent, it is of prime importance to have the electrical connections perfect in order to preserve the low-resistance character of the circuit ordinarily employed. It is not less important to have the various instruments separately removable for the purpose of adjustment or in order to substitute a new instrument. It is also desirable to have the connections neat in appearance and not liable to become grounded or short-circuited by wear or careless manipulation.

In carrying out my invention I make use of fixtures specially constructed to accomplish the above purposes and which are as-

sembled within the acousticon-box in a neat and attractive way.

Referring to the drawings, in which like parts are designated by the same reference-sign wherever they occur, 1 indicates the various receivers of an acousticon set, each of which is secured opposite a suitable opening in the box 2 and which has a pair of terminal wires 3 4. It is obvious that as many receivers 1 may be provided as are necessary in any particular instrument. In any case the arrangement shown is preferable, where the various receivers are grouped in the box around a common central point 5.

At the point 5 I secure the metallic fixtures embodying the principles of my invention and which serve as a connecting means for the various receiver and battery terminals. For this purpose I employ in practice two sheet-metal plates 6 and 7, each of which has arms, respectively designated as 8 and 9, thereon. Each of the plates is perforated at its central portion with holes 10 11, which are adapted to lie in alinement with one another, the holes 10 of the plate 6 being, however, smaller than the holes 11 of the plate 7. 12 denote small perforated washers contained within the holes 11 and which have central openings adapted to register exactly with the holes 10 of the plate 6. 13 indicates a disk of hard rubber or insulating material having holes 14 also corresponding to the holes 10 of the member 6.

In assembling the device for use it is merely necessary to place the plates 6 and 7 together, with the disk 13 intermediate their opposed faces, and insert screws through the alined holes, so as to hold the members in the position shown in Fig. 1, with their respective arms alternating one another. The various receiver-terminals 4 are now connected to the arms 9 of the lower plate, while the terminals 5 are secured to the arms 8. I have shown screws 15 for making the connection; but it is obvious that the wires may be soldered to the arms, if desired. The battery or line wires are indicated at 16 and 17 and are respectively connected to the arms 8 and 9.

By the above arrangement it will be evident that I secure a connection which is efficient and permanent under ordinary cir-

cumstances, but which permits the removal of the various receivers when desired.

What I claim is—

1. An electric connection comprising a pair of plates having rigidly-projecting arms integral therewith, said plates being insulated from one another.
2. An electric connection for receivers in an acousticon comprising a pair of metallic plates having arms integral therewith, an insulating-disk between said plates, means for holding the plates in such relation, and means for connecting the receivers to said arms.
3. An electric connection for receivers in an acousticon, comprising a pair of metallic plates having arms, an insulating-disk between said plates, screws passed through openings in said plates for securing them in such relation, and means for connecting the various terminals of the receivers to said arms, whereby the receivers are arranged in a multiple circuit.
4. An electric connection for receivers in an acousticon, comprising a pair of metallic plates each having a pair of openings and having radial arms, an insulating-disk between said plates also having openings, perforated washers in the openings of one of said plates and having openings adapted to lie in

alinement with the openings of said disk and the other plate, screws passed through the aligned openings for securing the plates in spaced relation with their arms alternating within the acousticon, and means for connecting the terminals of the various receivers to said arms, whereby the receivers are arranged in a multiple circuit.

5. A connection for grouping electrical instruments in a multiple circuit, comprising a plurality of superposed plates in insulated relation from one another, and having arms in alternating or staggered relation, and means for connecting the terminals of the various instruments to the arms of the respective plates.

6. In combination, a plurality of electric translating devices grouped around a central point, a plurality of plates superposed at such point and insulated from one another, radial arms on the respective plates in alternating or staggered relation with one another, and means for connecting said arms to the various translating devices.

In witness whereof I subscribe my signature in the presence of two witnesses.

HOWELL W. HIAFF.

Witnesses:

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