Aug. 24, 1926. 1,597,611

B. MAZANEK

AMPLIFIER

Filed March 23, 1925

Fig. 1.

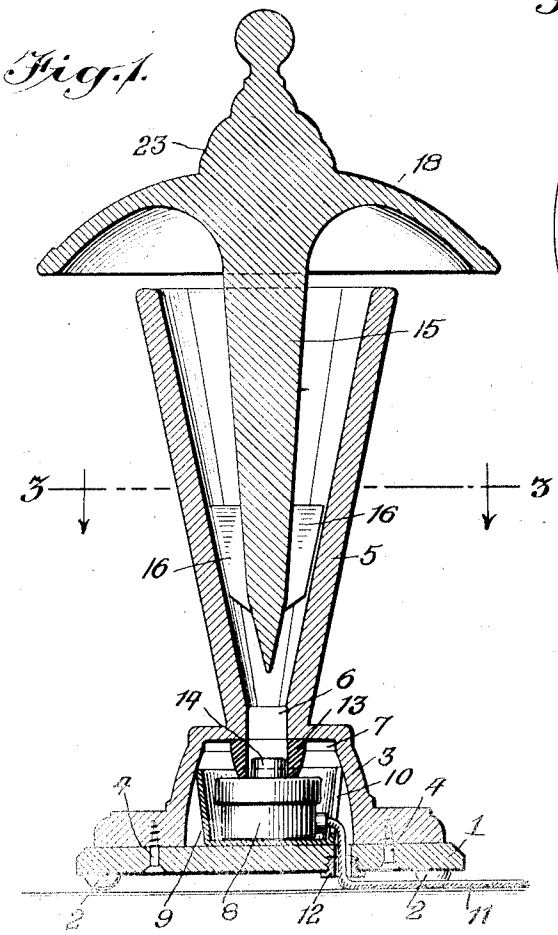


Fig. 2.

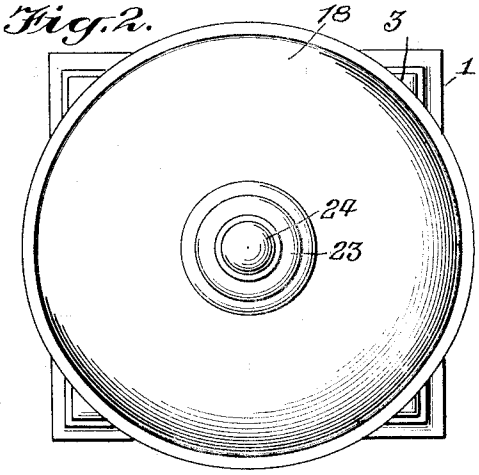
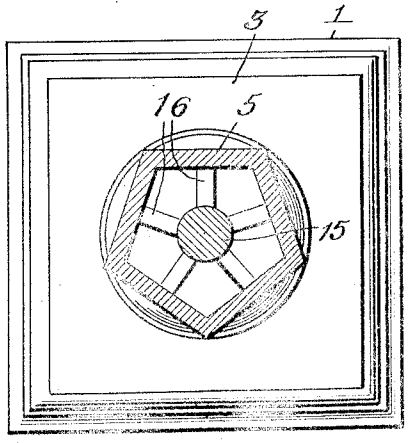


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

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AMPLIFIER.

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This invention relates to amplifiers, and more specifically to loud speakers for radio receiving sets, an object of the invention being to provide an amplifier which will receive and accommodate any standard type of loud speaker unit and which will function to evenly distribute and amplify the sound in all directions.

A further object is to provide an amplifier vertically positioned with an internal conical deflector and an upper conical mushroom-like dome positioned above the top of the amplifier proper whereby the sound waves will be deflected downwardly in all directions.

A further object is to provide an amplifier of the character set forth which will be ornamental and attractive in appearance, which will evenly distribute the volume of sound in all directions, which can be manufactured and sold at a reasonably low price, and which will most efficiently perform the functions for which it is intended.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, which will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings—

Figure 1 is a view in vertical longitudinal section, illustrating my improved amplifier;

Figure 2 is a top plan view;

Figure 3 is a view in transverse section on the line 3—3 of Figure 1.

My improved amplifier is constructed almost entirely of wood or analogous material so as to render the same non-metallic and avoid metallic sounds in amplification.

In constructing the amplifier I provide a base board 1 which may be supported on suitable knobs or feet 2, preferably of rubber or analogous material. On this base board 1 I provide a base receptacle 3 which is secured to the board 1 by screws 4 or other suitable means.

This receptacle 3 supports and may be fixed to or integral with a tapering vertically disposed horn 5. The lower smaller end of this horn 5 has an entrance opening 6 which communicates with the interior of a chamber 7 in member 3. In this chamber 7 I locate any standard type of loud speaker unit 8 supported within a cast metal cup 9, the latter having a slot 10 in one wall for the accommodation of lead wires 11.

This wire or wires 11 extend through a nipple 12 of insulation screwed into an opening in base 1. A ring 13, preferably of rubber or other analogous material, is secured to the top of chamber 7 and receives the outlet 14 of the loud speaker 8.

The horn 5 may be of any desired shape in cross section. It is of wood or other analogous material and may have any desired taper and length in accordance with the results desired and the design to be made.

In this horn 5 I locate a conical deflector 15, which is preferably of wood or other analogous material, and which is held centrally in the horn by means of a plurality of radial webs 16 which are fixed to the deflector and which are secured to the inner face of the horn in any approved manner.

The deflector 15 extends above the upper end of the horn and is enlarged or flared at its upper end, as shown at 17, so as to direct the sound waves against the under surface of a concavo-convex deflector 18. The conical side of this deflector 18 is downward or lowermost and the deflector 18 is of a diameter appreciably greater than the diameter of the upper end of the horn, so that the sound is directed outwardly and downwardly around all sides or surfaces of the horn.

This deflector 18 is also preferably composed of wood or other analogous material, and is secured to the deflector 15 or made integral therewith, and may have an ornamental enlargement 23 on its top, if desired.

By reason of a construction such as above described, I provide an extremely ornamental type of amplifier having a mushroom effect in appearance and functioning to direct and amplify the sound waves as they pass from the horn, and direct these sound waves uniformly downwardly and outwardly in all directions.

Various slight changes and alterations might be made in the general form of the parts described without departing from my invention, and hence I do not limit myself to the precise details set forth but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of the appended claims.

I claim:

1. An amplifier comprising a base board, a chambered base secured on the base board, a receptacle in said chambered base adapted to receive a loud speaker unit in said receptacle, a vertically positioned horn having

its lower end communicating with said chambered base, a ring secured in the chambered base, and receiving the outlet end of the loud speaker unit, and a conical deflector in the horn.

2. An amplifier, comprising a base board, a chambered base secured on the base board, a receptacle in said chambered base adapted to receive a loud speaker unit in said receptacle, a vertically positioned horn having its lower end communicating with said chambered base, a ring secured in the chambered base and receiving the outlet ends of the loud speaker unit, a conical deflector located centrally in the horn and projecting above the horn, and a dome-like deflector fixed to the upper end of the conical deflector and of a diameter greater than the outlet diameter of the horn.

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