

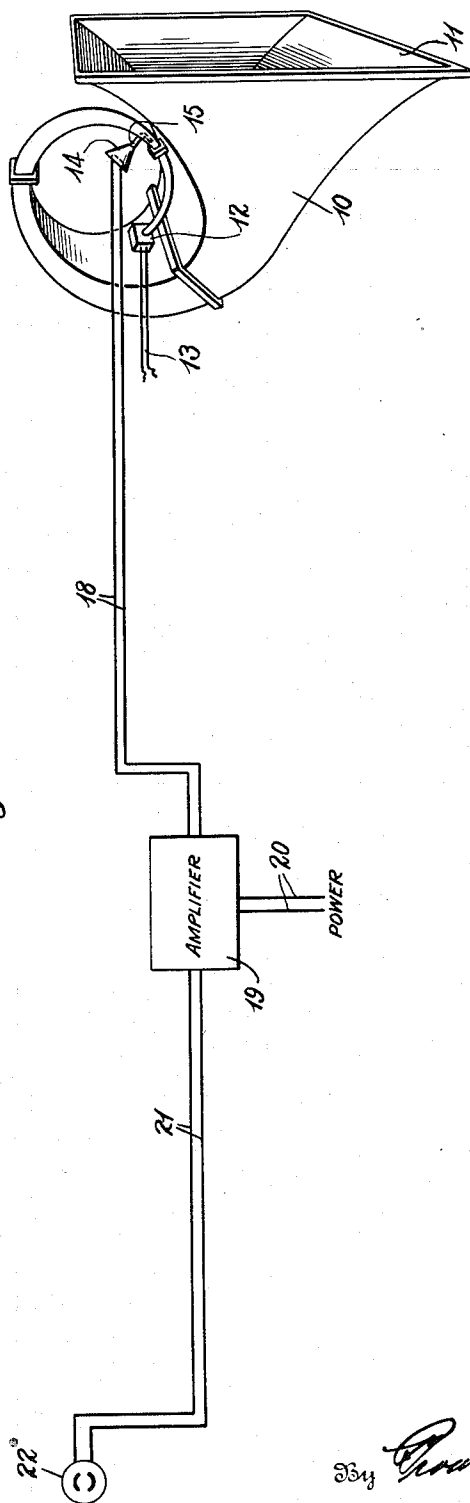
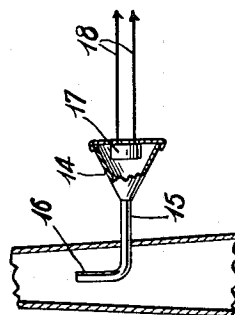
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LOUD SPEAKER INDICATOR

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LOUD SPEAKER INDICATOR

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1 Claim. (Cl. 177—311)

The invention relates to indicators for loud speakers and has as an object the provision of means to indicate the going out of action of the loud speaker.

5 In the operation of loud speakers in sound moving picture theatres, it is common to use a plurality of loud speakers to reproduce the sound and some one of the speakers frequently goes out of action with impairment of results. It is then
10 exceedingly difficult for the operator to tell which speaker is out of action without stopping the show to make an investigation.

By provision of the apparatus of the present invention it is possible to immediately tell when
15 any speaker has ceased functioning.

An illustrative embodiment of the invention is shown in the accompanying drawing wherein:

Fig. 1 is a view showing a horn type of loud speaker in perspective and diagrammatically
20 showing the apparatus of the invention applied to the said horn; and

Fig. 2 is a detail section of a portion of the horn showing the application of a portion of the apparatus thereto.

25 As shown a horn type of loud speaker is indicated at 10 comprising the bell 11, a reproducer head 12 to which current is led by means of wires 13 from the sound film actuating mechanism, not shown.

30 At 14 is shown a sound box provided with a tube 15 projecting through an opening in the wall of the horn and desirably turned at an angle as at 16 so as to face the direction from which the sound vibrations emanate. Shown as enclosed
35 within the sound box 14, there is diagrammatically indicated a microphone 17 connected to a pair of wires 18, which wires in Fig. 1 are shown as leading to an amplifier 19 of any usual type serving to amplify the electrical current either
40 by increasing its voltage or amperage.

The amplifier is shown as supplied by power from any suitable source, not shown, by means of

wires 20. From the amplifier 19 there is shown a pair of wires 21 leading to a signal device 22. It is at present preferred to utilize a voltage step-up amplifying device and to utilize as a signal
60 a neon lamp at 22, which lamp will be caused to flicker continuously while the loud speaker is in action by variation of the current flowing through the microphone caused by the sound vibrations affecting the electrical resistance of the
65 microphone.

It is to be understood that each of the loud speakers being used in common will be supplied with the apparatus of the invention. The loud speakers are ordinarily behind or adjacent the picture screen. The amplifier and the signal
70 would desirably be placed in the projecting room and the signals should be placed within the view of the operator at all times.

Obviously other forms of signal than the neon lamp may be utilized which may be operated by
75 amplifiers provided with increased amperage of current as distinguished from increased voltage.

Minor changes may be made in the physical embodiment of the invention within the scope of the appended claim without departing from the
80 spirit thereof.

We claim:

A loud speaker indicator comprising, in combination: a loud speaker; a microphone chamber; a conduit leading from said chamber through
85 a wall of said speaker and having an open end exposed in the path of sound vibrations in said speaker whereby to cause vibrations of pressure in said chamber; a microphone in said chamber to have its electrical resistance varied by such
90 pressure vibrations; a luminous cathode discharge lamp remote from said speaker; means to cause constant glow of said lamp and connections to cause flickering of said lamp by said variations of resistance of the microphone.

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