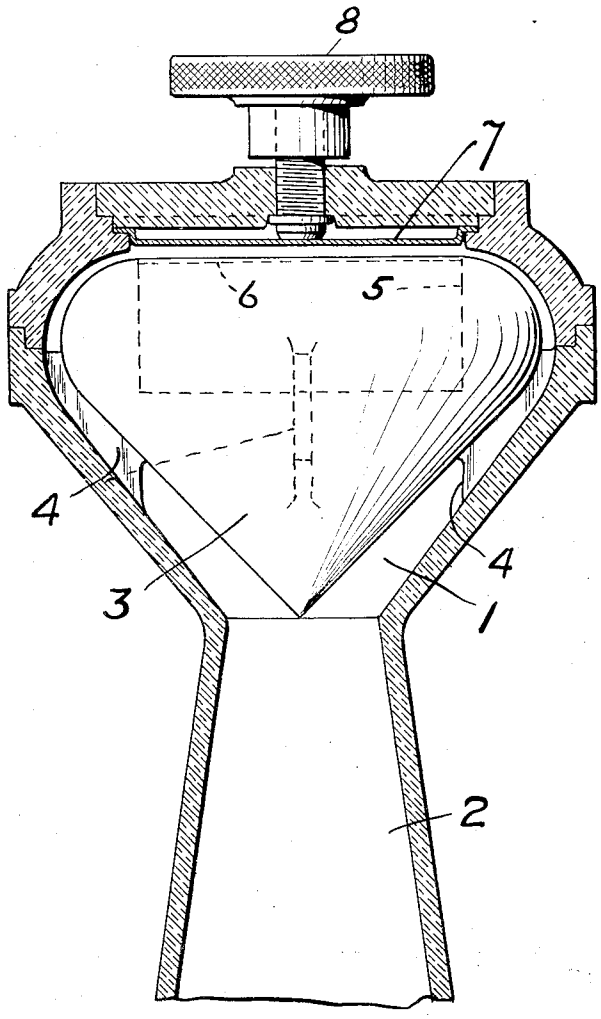
May 7, 1929. W. H. GRAFF 1,711,939

LOUD SPEAKER

Filed April 6, 1925



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UNITED STATES PATENT OFFICE.

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LOUD-SPEAKER.

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The principal objects of the present invention are to avoid distortion in the reproduction; to improve the reproduction; to provide for varying the degree of loudness of the reproduction; and, in general, to provide for clear, true and accurate reproduction.

The invention will be claimed at the end hereof but will be first described in connection with the accompanying drawing forming part hereof and in which the single figure is a view principally in central section but showing parts in elevation and parts broken away.

In the drawing there is illustrated a shell of generally heart-shape as at 1, and of generally horn shape as at 2. The large end of the horn is not shown because it is too well understood to require illustration and because there is not room on the sheet. 3 is a heart shaped body arranged in the heart shaped portion 1 of the shell and spaced from the wall thereof to provide a sound channel of gradually increasing cross-section or expanding form from the generally flat confronting portions of the shell and body to the throat of the horn and thence of course in the horn. This sound channel leads off laterally from the generally flat confronting portions of the shell and body. 4 are ribs which are a means for supporting the body in the shell in the manner described. 5 is a telephone unit mounted in the body 3 and having a diaphragm 6 entirely uncovered and exposed to the confronting wall of the shell. 7 is an adjustable wall section mounted in the shell and confronting the diaphragm 6. This adjustable wall 7 may be made to approach and to recede from the diaphragm by means of the adjusting screw 8 shown to extend through the wall of the shell and to have its point seated upon the adjustable wall section 7. The degree of loudness of the reproduction can be changed by manipulating the screw 8 in order to set the wall section 7 nearer to or further from the diaphragm 6 of the telephone unit. The sound channel extends laterally from the diaphragm and thence of gradually continually expanding form between the body 3 and shell and outward through the horn.

The heart shaped body 3 may be solid or hollow and may consist of metal, wood or composition.

In the drawing there happens to be shown a structure fitted with four ribs 4, disposed 90 circular degrees apart, so that in the sectional view two of the ribs 4 appear in full lines at opposite sides. The third rib being back of the heart shaped body appears in dotted lines, and the fourth rib disappears in the sectional view in which it is assumed to be removed along with the half of the shell that is cut away.

It will be obvious to those skilled in the art to which the invention relates that modifications may be made in details of construction and arrangement without departing from the spirit of the invention which is not limited as to those matters or otherwise than as the prior art and the appended claims may require.

I claim:

1. A loud speaker including a shell of generally heart shape and having a throat, and a flat wall, a heart shaped body arranged in the heart shaped portion of the shell and spaced from the wall thereof to provide a sound channel leading off laterally and of gradually increasing cross-section from the confronting generally flat portions of the shell and body to the throat, and a telephone unit mounted in the body and having a diaphragm entirely uncovered and exposed to the confronting generally flat wall of the shell.

2. A loud speaker including a shell of generally heart and horn shape, a heart shaped body arranged in the heart shaped portion of the shell and spaced from the wall thereof to provide a sound channel leading off laterally and of gradually increasing cross-section from the confronting generally flat portions of the shell and body to the throat of the horn, a telephone unit mounted in the body and having a diaphragm entirely uncovered and exposed to the confronting generally flat wall of the shell, and an adjustable wall section mounted in the shell and confronting the diaphragm.

WM. H. GRAFF.