

R. L. POE.
SOUND REPRODUCING INSTRUMENT.
APPLICATION FILED JAN. 16, 1917.

1,363,482.

Patented Dec. 28, 1920.

2 SHEETS—SHEET 1.

Fig. 1.

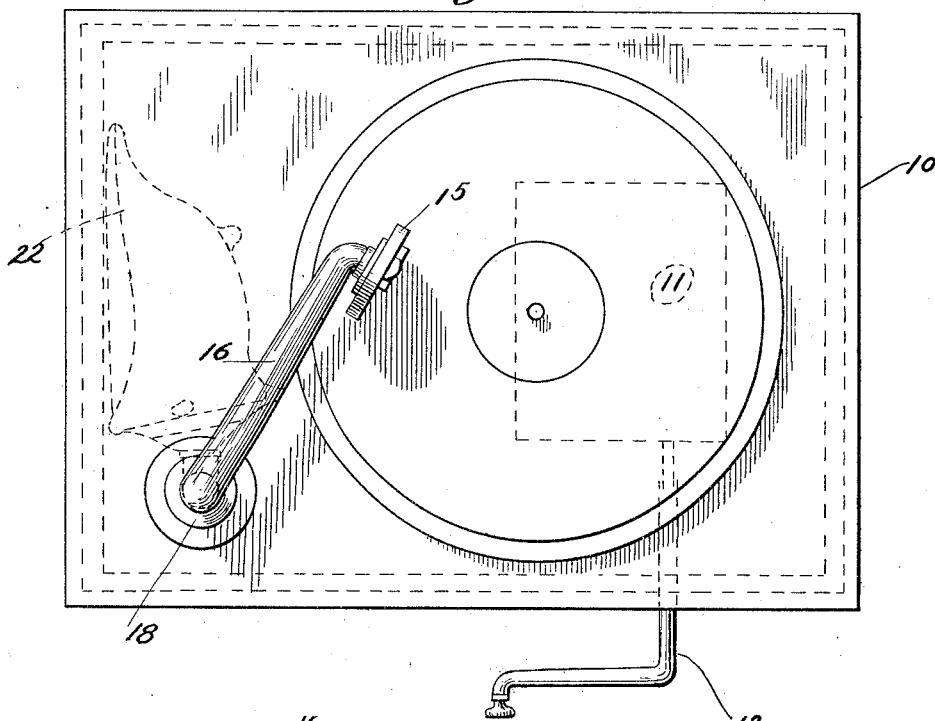
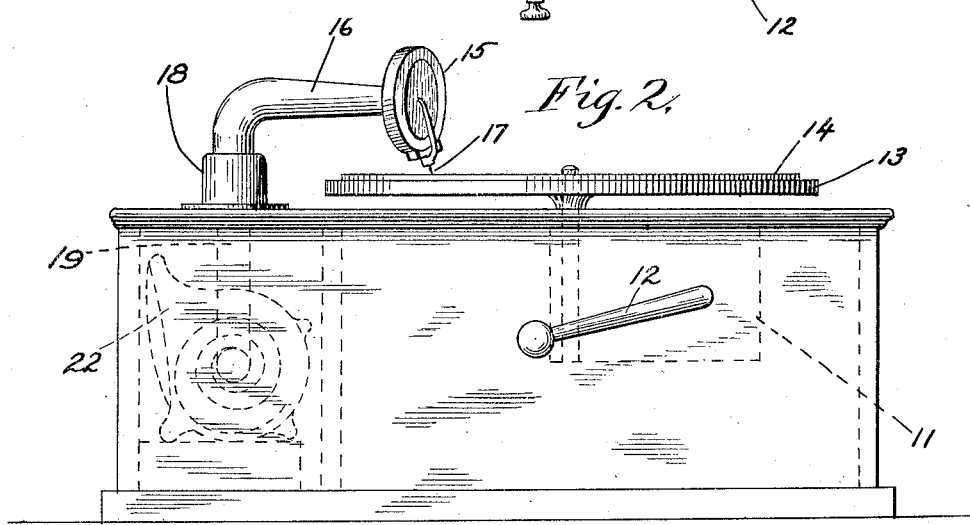


Fig. 2.



Witness:
C. Durnap

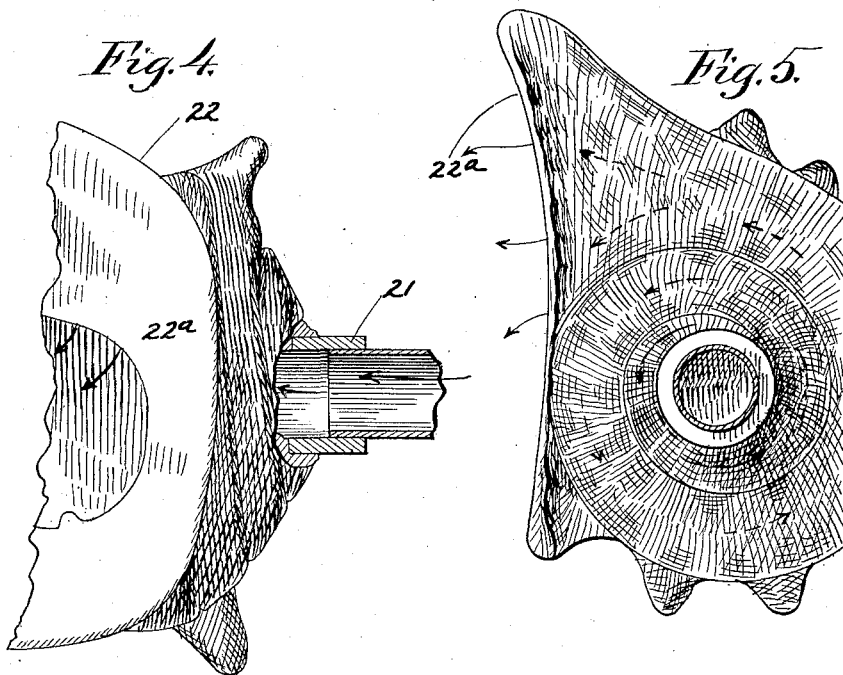
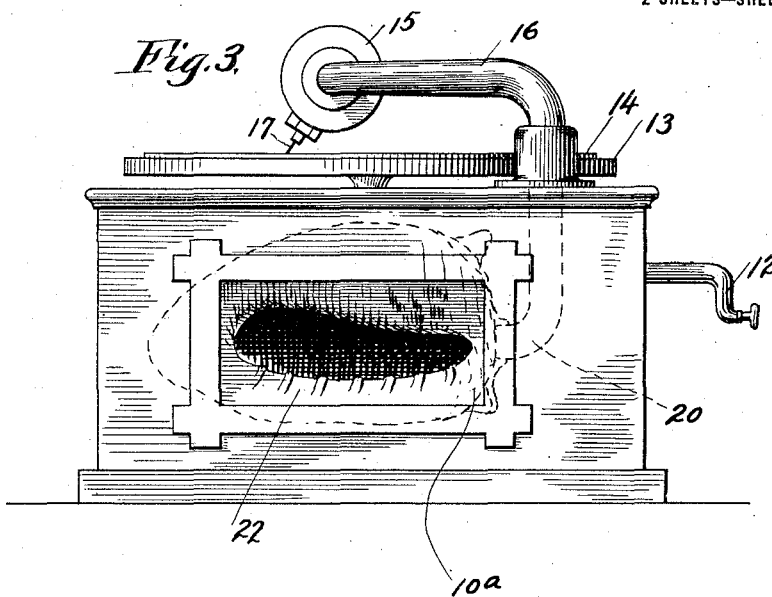
Inventor:
Robert L. Poe
Sheridan, Scott & Sheridan, Attys.

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Witness:

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Inventor:

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UNITED STATES PATENT OFFICE.

ROBERT L. POE, OF CHICAGO, ILLINOIS, ASSIGNOR TO SHELOPHONE TALKING MACHINE CO., OF CHICAGO, ILLINOIS, A CORPORATION OF DELAWARE.

SOUND-REPRODUCING INSTRUMENT.

1,363,482.

Specification of Letters Patent. Patented Dec. 28, 1920.

Application filed January 16, 1917. Serial No. 142,663.

To all whom it may concern:

Be it known that I, ROBERT L. POE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sound-Reproducing Instruments, of which the following is a specification.

My invention relates to improvements in sound-reproducing instruments, and has for its object to provide in combination with such instruments means to clarify and improve, and also amplify, the sound thereof.

The main object of my invention is to apply a shell, such as a coiled or convolute sea shell of the conch or similar types. I have found such a convolute sea shell to be most advantageous when combined with a sound-reproducing machine, since the natural sea shells are seamless in construction, and very highly polished on their interior surface, the effect being, when joined to the tone arm of a talking machine, for example, to increase and clarify greatly the transmitted sound. I more fully describe and explain my invention in the following specification, and have shown it in the accompanying drawings, in which—

Figure 1 is a plan view of a disk type of talking machine embodying my invention.

Fig. 2 is a side elevation of the same.

Fig. 3 is a front elevation of the same.

Fig. 4 is a detail of the application of the shell to the continuation of the tone arm; and

Fig. 5 is a side elevation of the construction shown in Fig. 4.

Like numerals refer to like elements throughout the drawings.

In the embodiment of my invention shown in the drawings, 10 represents generally a talking machine box containing the usual motor mechanism indicated in dotted lines in Figs. 1 and 2 by numeral 11, the usual form of winding handle 12 being shown. A rotatable disk 13 is provided above the machine, upon which is carried the record 14. A reproducer 15, carried by the tone-arm 16, carries a needle, or the like, 17 resting upon the record and adapted to be vibrated thereby, as is well known. The tone-arm 16 is pivotally mounted in a sleeve 18, from which leads downwardly a non-rotating continuation of the tone-arm 16 constituting a sound

duct 19. The sound duct terminates in an angularly disposed elbow 20, see Fig. 3, which fits in a sleeve 21 which is embedded in, or carried by, a shell 22, the shell shown in the drawings being a type of convolute or spiral sea shell, the innermost whorl or convolution being in communication with the sleeve 21. The final whorl or convolution terminates in the enlarged mouth or opening 22^a, which communicates with the atmosphere through the aperture or opening 10^a in one side of the box 10.

When a record is being played upon this type of machine, the sound will be conducted through the tone-arm 16, sound duct 19, through elbow 20, and into the innermost whorl of the shell 22, from whence it will travel about the convolutions thereof until it emanates through the enlarged opening 22^a to the atmosphere.

While I have illustrated my invention as embodied in a disk type of machine, it will be obvious that it is applicable to any of the well known types of sound-reproducing machines as well as musical instruments. Also, it is to be understood that while I have shown and described a sea shell, any form of shell, artificial or otherwise, of a similar nature is within the contemplation of my invention, and I do not wish to be restricted to the form shown or described except as defined in the appended claims.

What I claim is:

1. In combination with a sound reproducing means, a conduit for sound waves from said means, and a convolute sea shell having an inlet aperture in communication with said conduit, and an outlet for the sound waves to permit emission of sound waves transmitted to said inlet aperture.

2. In combination with a sound reproducing means, a conduit for sound waves from said means, and a convolute sea shell having an aperture leading from the inner whorl thereof, said conduit being in communication with said aperture and thereby said inner whorl, said shell having an outlet for sound waves transmitted to said aperture.

3. The combination in a sound reproducing instrument, of a convolute sea shell connected to the reproducing element of said instrument and pierced at its small end to provide an inlet for the sound waves ema-

nating from said element, the naturally occurring opening at the large end of said shell forming an outlet for said sound waves, said shell serving to amplify the sound and
5 to improve the tone quality thereof during its passage therethrough.

4. The combination in a sound reproduc-

ing instrument of a convolute sea shell interposed in the sound passage of said instrument in such wise that the sound waves may
10 pass therethrough.

In testimony whereof, I have subscribed my name.

ROBERT L. POE.