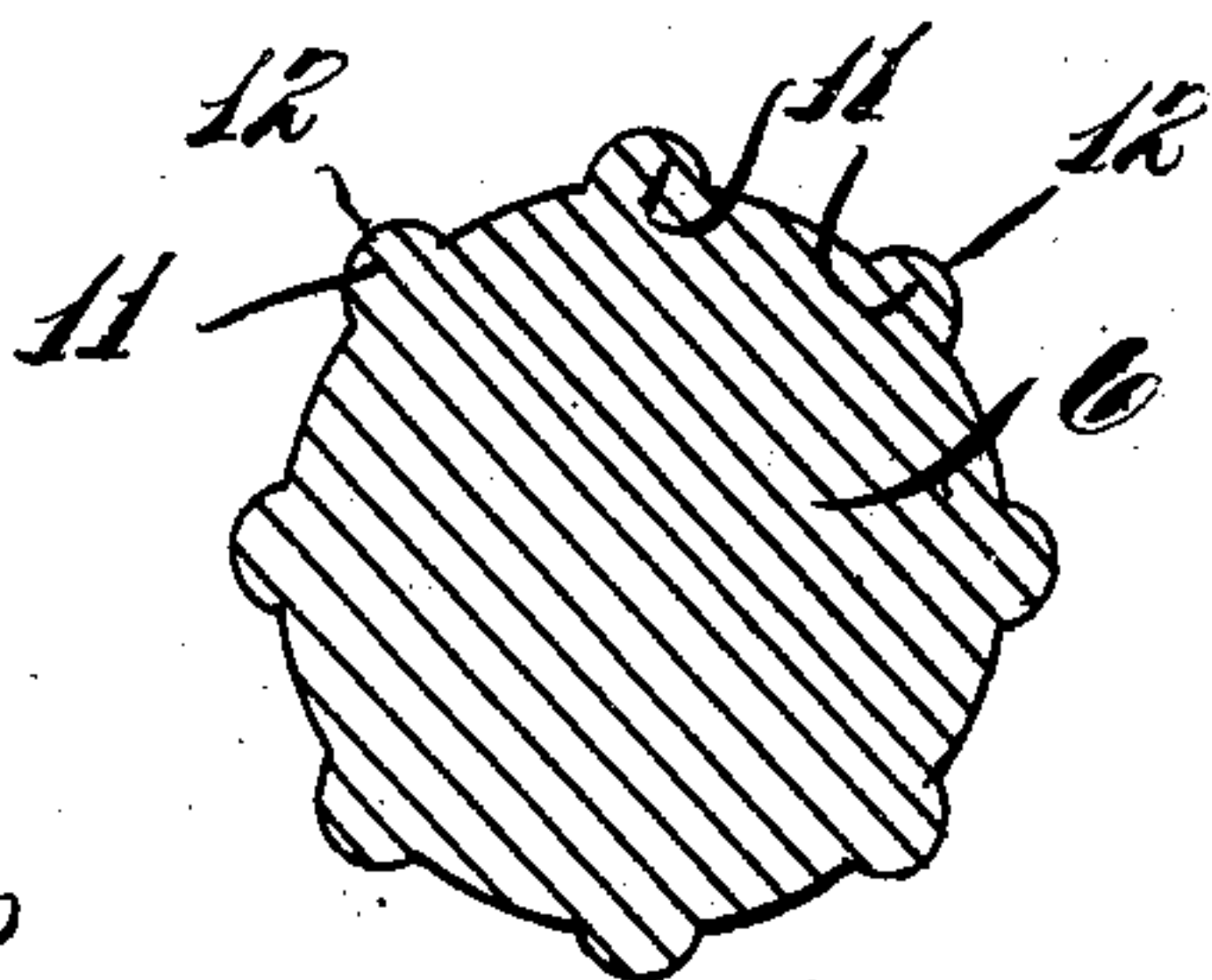
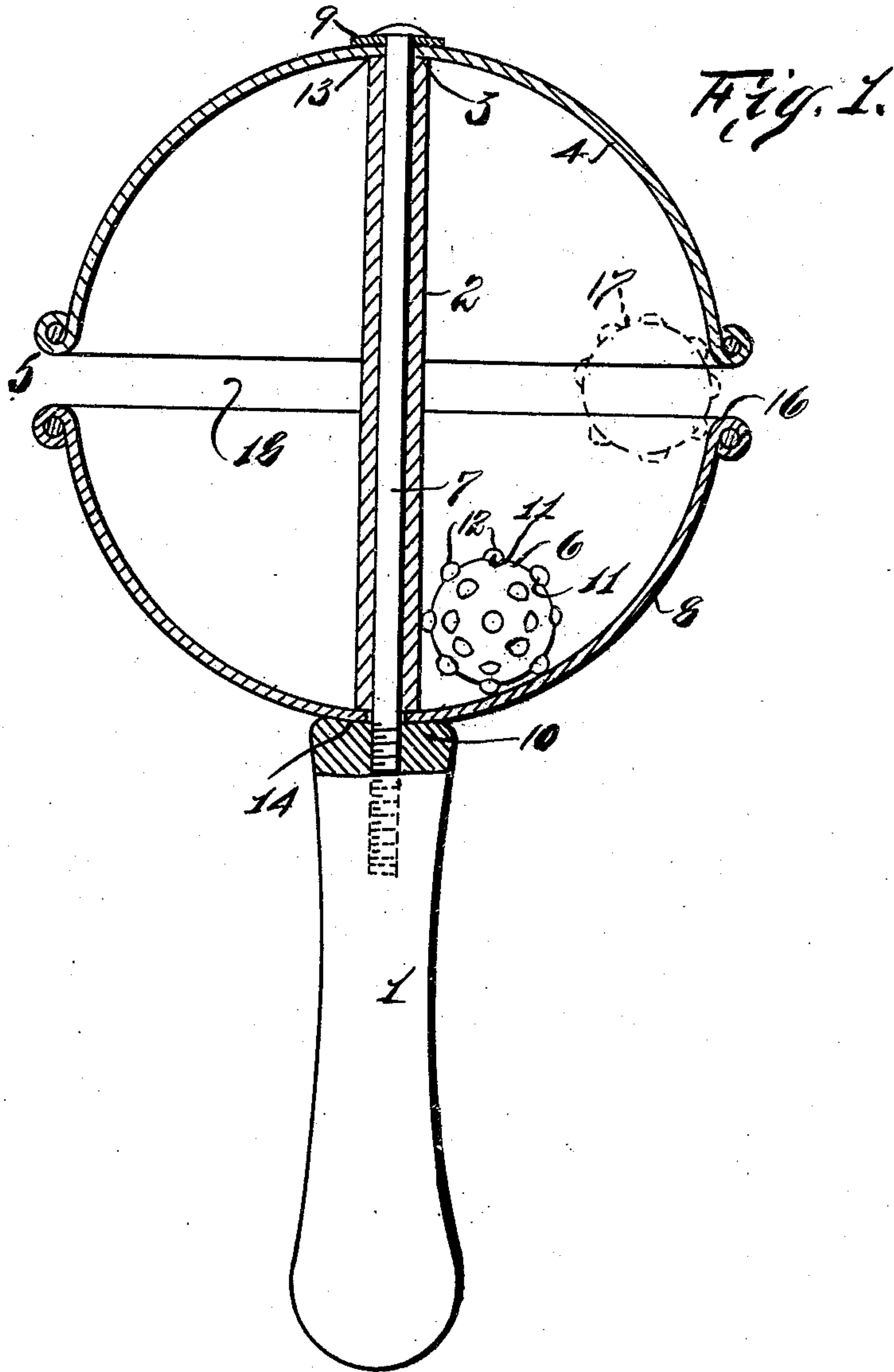


P. SEILER.
SOUND PRODUCING DEVICE.
APPLICATION FILED OCT. 22, 1909.

979,038.

Patented Dec. 20, 1910.



Witnesses:
C. A. Jarvis
O. O. Hamburger

Inventor:
Philipp Seiler,
Fig. 2. by *Wm. Block*
attorney.

UNITED STATES PATENT OFFICE.

PHILIPP SEILER, OF GUTTENBERG, NEW JERSEY, ASSIGNOR TO STRAUSS MANUFACTURING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

SOUND-PRODUCING DEVICE.

979,038.

Specification of Letters Patent.

Patented Dec. 20, 1910.

Application filed October 22, 1909. Serial No. 523,945.

To all whom it may concern:

Be it known that I, PHILIPP SEILER, a citizen of the United States, residing at Guttenberg, Hudson county, in the State of New Jersey, have invented certain new and useful Improvements in Sound-Producing Devices, of which the following is a clear, full, and exact description.

This invention relates to sound producing devices, the object being to provide a device of this character that may be cheaply manufactured and adapted to give forth loud sounds.

The novelty of my invention not only resides in the particular arrangement of the parts which go to form the container or resonant element, but also in the element which produces the sounds.

A further feature of my invention is that, owing to the peculiar construction of the sound producing medium, the tones given forth vary with the speed at which the device is gyrated, the said tones ranging from a dull clatter to the louder tones of a bell.

While I preferably construct my device from metal such as steel, brass, bell-metal, &c., it may also be constructed from wood, fiber or the like.

I will now proceed to describe my invention and finally point out the novel features thereof in the claims, reference being had to the accompanying drawing, forming part hereof, wherein:

Figure 1 is a sectional view, partly in elevation, of my improved device; and Fig. 2 is an enlarged sectional plan view of my improved sound producing medium.

Referring to the drawing, the numeral 1 indicates a handle of any suitable material, preferably wood, having (in this instance) a support 2, which at its upper end 3 supports one hemi-spherical member 4 of a resonant retainer 5 for a loose preferably solid sound producing medium or thresher 6. To secure the member 4 to the support 2, I have, in this instance, screwed into the handle 1 a rod 7, which passes through the tubular support 2, which, at its lower end, contacts with the other hemi-spherical member 8 of the retainer 5. After having passed a washer 9 over the upper end of the rod 7 I up-set said upper end of the rod 7 whereby the container member 4 is secured to the

upper end 3 of the support 2 and the container member 8 is firmly pressed against the upper end 10 of the handle 1.

To cause the thresher 6 to strike the members 4 and 8 of the container 5 or only one of them, said action being governed by the speed at which the device is gyrated or otherwise manipulated, I form upon the peripheral surface of the thresher 6, which, in this instance, is a solid ball or sphere, a plurality of projections 11, which may be disposed thereupon in any desirable manner, preferably in staggered relationship. I have herein illustrated the said projections 11, as being integral with the sphere or sound producer 6, but they may be otherwise applied thereon.

The purpose of the projections 11 is to cause the thresher 6 to jump or thresh instead of roll upon the inner surface of the members 4 and 8, when the device is gyrated. The jumping of the thresher 6 causes the projections 11 thereupon to strike the container member, within which it may be operating, whereby the sound waves given forth by the said container member will be for the greater part sharp and short-lived. As the projections 11 will strike the container members in rapid succession, should the device be rapidly gyrated, a rapid succession of indistinct sounds will be produced. While the more infrequent beats will, to a certain degree, commingle, the more rapid beats will produce a sound much louder than the infrequent commingling beats, whereby a clattering or roaring sound will be produced. This result could not be obtained should a sphere, having a smooth surface, be used. It will be further noted that the projections 11 are hemi-spherical; therefore the element 6 will not slide, as the centrifugal force produced by gyration will always carry the element 6 off the points 12 of the projections 11 as soon as the said projections have contacted with their coöperating container member.

Owing to the fact that the container members 4 and 8 are securely bound at the points 13 and 14 respectively, it must follow that a dull sound will be produced adjacent these points should the device be slowly gyrated.

As the speed of gyration of the device is increased, and the thresher 6 climbs up the

wall of its cooperating container element, (toward the edge 16 for instance of the container 8) louder sounds will be produced.

Should the device be gyrated to a degree
5 sufficient to cause the threshers 6 to assume a position indicated by the dotted lines 17, a sound like a bell will be given forth.

As can be seen, the elements 4 and 8 are
10 parted as at 18 in order that they may freely vibrate.

From the above description it will be seen that I am able to produce sounds of different degree by varying the speed of gyration of the device.

15 The device may be used by taking the handle in one hand and then gyrating the device with the container 5 uppermost or at any desired angle by causing said handle to move in a circle whose axis is parallel to the
20 axis of said handle.

The thickness of the material of the container 5 has been greatly exaggerated in the drawing.

25 The projections 11, on the threshers 6, do not extend sufficiently beyond the surface of the threshers to prevent centrifugal force from overcoming gravity, which would tend, if the said projections were high

enough, to cause the sphere to slide upon the inner surface of the container members. 30

Having now described my invention what I claim and desire to secure by Letters Patent is:

1. A sound producing device, comprising, in combination, a substantially spherical
35 resonant chamber, a handle for said chamber, and a thresher loosely contained in said chamber, said thresher consisting of a solid body having a plurality of projections formed on its surface, said projections being
40 spaced and staggered to permit said body to move in said chamber with a plurality of striking movements.

2. A sound producing device, comprising, in combination, a resonant chamber, a han-
45 dle for said chamber, and a spherical body inclosed in said chamber and provided with a plurality of knobular projections, whereby said body may move in said chamber with successive striking and gliding movements. 50

Signed at New York city, N. Y., on this 18th day of October 1909.

PHILIPP SEILER.

Witnesses:

EDWARD A. JARVIS,
ESTELLE O. HAMBURGER.