

No. 877,327.

PATENTED JAN. 21, 1908.

C. F. GRAHAM.
SOUND PRODUCING MECHANISM.
APPLICATION FILED SEPT. 25, 1905.

Fig. 1.

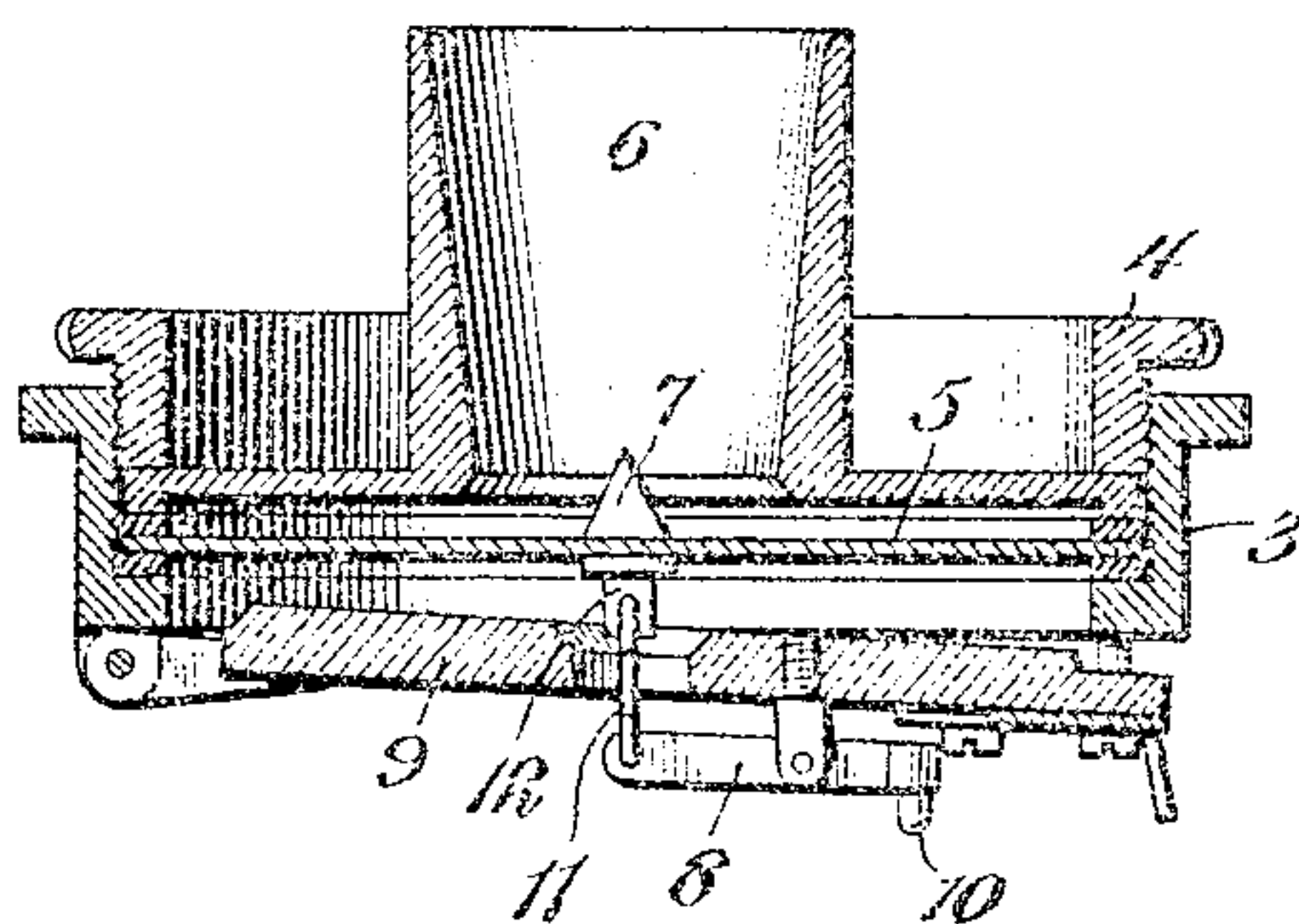
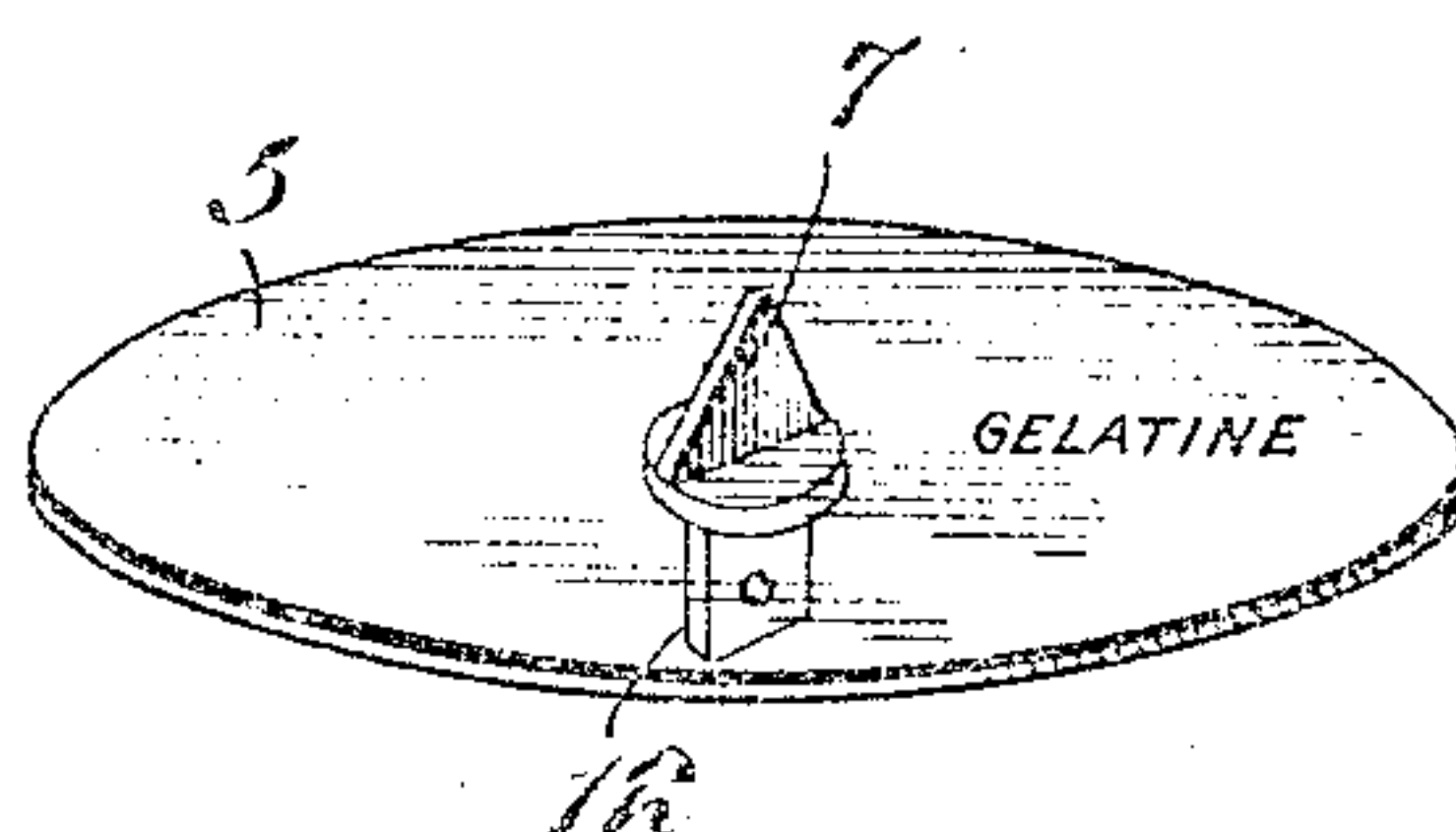


Fig. 2.



Witnesses

Howard D. Art.

B. J. Foster

C. F. Graham, Inventor,

By

E. J. Figgers

Attorney

UNITED STATES PATENT OFFICE.

CHARLES F. GRAHAM, OF NEAR SELLERSBURG, INDIANA.

SOUND-PRODUCING MECHANISM.

No. 877,327.

Specification of Letters Patent.

Patented Jan. 21, 1908.

Application filed September 25, 1905. Serial No. 279,954.

To all whom it may concern:

5 B it known that I, CHARLES F. GRAHAM, a citizen of the United States, residing at near Sellersburg, in the county of Clark and State of Indiana, have invented a new and useful Sound-Producing Mechanism, of which the following is a specification.

10 The present invention relates more particularly to diaphragms for sound-producing machines and by the term "sound-producing" machines, it is intended to include all of those types wherein diaphragms are employed for recording sounds or reproducing sounds already recorded. The principal
15 object is to provide a simple device that will accurately produce and record sounds with clearness and without harsh or mechanical resonance, will permit the ready attachment thereto of the actuating or recording means
20 without the necessity of any additional adhesive, and may be readily manufactured in any desirable shape.

25 The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a sectional view through a reproducer, showing the improved diaphragm in place. Fig. 2 is a perspective view of said diaphragm.

30 Similar reference numerals designate corresponding parts in all the figures of the drawings.

35 In the embodiment illustrated, a reproducer box is employed, comprising threaded telescoped sections 3 and 4, that clamp between them a diaphragm 5, and a sound-conducting nipple 6, to which the usual tube may be attached. The diaphragm is preferably in the form of a disk that is made of
40 gelatin or other similar mucilaginous material. The side that is disposed toward the nipple 6 has a centrally arranged triangular flat-sided projection 7, also formed of gelatin and attached thereto by the adhesive
45 qualities of the material.

50 Carried by the boxing is the usual reproducing device, which, in the present embodiment comprises a lever 8 pivoted between its ends on a swinging support 9, one end of said lever having a stylus 10, the other being connected by a link 11 to a post 12. The post

12 is fastened to the central portion of the face of the diaphragm disk opposite to that carrying the projection 7, and the holding means employed is merely the adhesive properties of the gelatin. In other words, all that is necessary to attach the post is to
55 moisten the gelatin and apply said post. The gelatin soon drying, securely holds said post in place.

60 Experience has demonstrated that by means of this diaphragm, tones are produced that are as loud as the diaphragms ordinarily employed and that harsh and mechanical sounds are eliminated. The tones, moreover, are melodious and natural as well
65 as clear and distinct. Furthermore, it is very easy to attach the parts to the diaphragm, as there is no necessity to employ extraneous adhesives.

70 From the foregoing it is thought that the construction, operation, and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing
75 from the spirit or sacrificing any of the advantages of the invention.

80 Having thus described my invention what I claim as new and desire to secure by Letters Patent, is:

1. In sound-producing mechanism, a diaphragm comprising a gelatiniform plate, and a centrally disposed gelatiniform projection having a surface engagement with one face of the plate, and secured thereto by the adhesive properties of the material comprising the plate and projection.

2. In sound-producing mechanism, a diaphragm comprising a disk composed of gelatin, a centrally disposed triangular projection carried by one face of the disk, and a reproducing device having a connection with
85 the other face of the disk.

3. In sound-producing mechanism, a diaphragm comprising a gelatiniform plate, and a reproducing device having a surface connected with the diaphragm by the adhesive
90 properties of the same.

4. In sound-producing mechanism, a dia-

phragm comprising a disk composed of gelatin, a centrally disposed triangular projection carried by one face of the disk, and a reproducing device including a post having a
5 surface connection with the diaphragm by the adhesive properties of the gelatin composing the same.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHARLES F. GRAHAM.

Witnesses:

EDWARD G. HENRY,
JOHN K. GRAHAM.