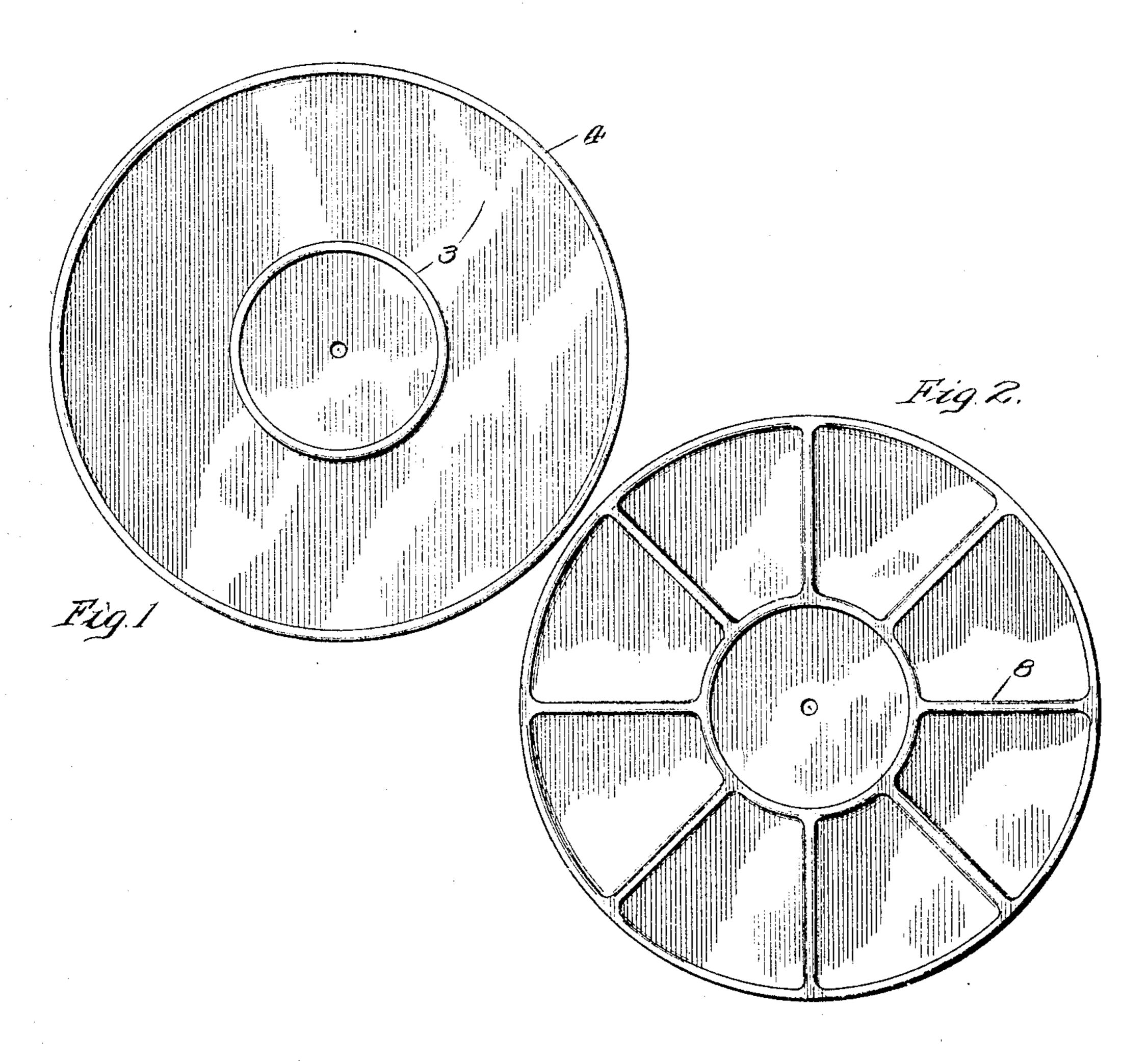
No. 888,089.

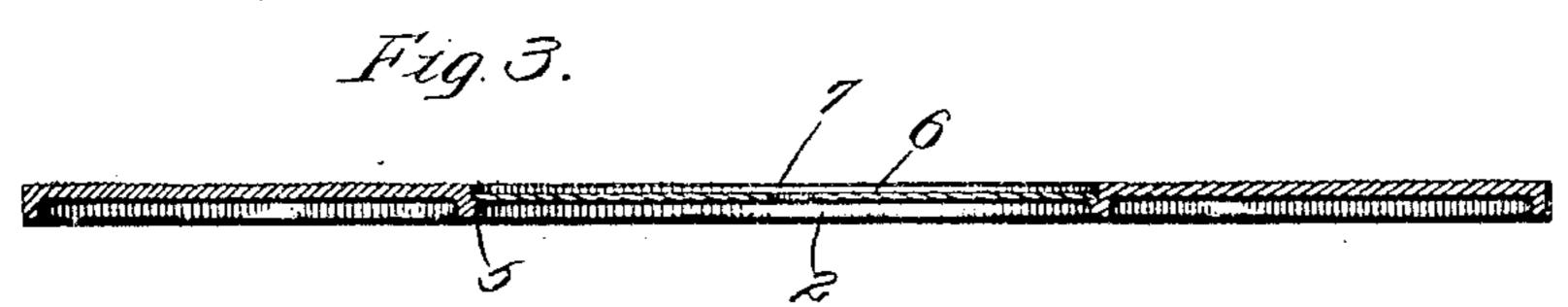
PATENTED MAY 19, 1908.

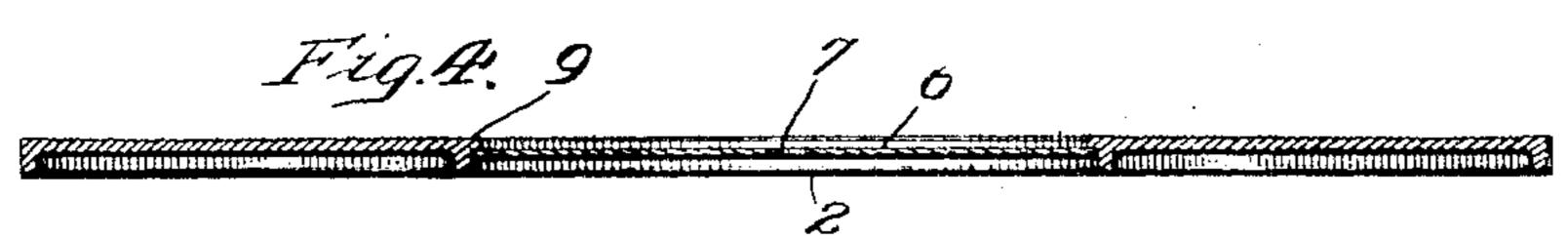
## E. R. JOHNSON.

## RECORD FOR TALKING MACHINES.

APPLICATION FILED AUG. 30, 1904. RENEWED OCT. 12, 1907.







WITNESSES: F. Haitman! Edw. W. Vailly. Eldridge ReJohnson.

BY

STORNEY.

## UNILL STATES PATENT OFFICE.

ELDRIDGE R. JOHNSON, OF MERION, PENNSYLVANIA, ASSIGNOR TO VICTOR TALKING MACHINE COMPANY, A CORPORATION OF NEW JERSEY.

## RECORD FOR TALKING-MACHINES.

No. 888,089.

Specification of Letters Patent.

Patented May 19, 1908.

Application filed August 30, 1904, Serial No. 222,687. Renewed October 12, 1907. Serial No. 397,168.

To all whom it may concern:

Be it known that I, Eldridge R. Johnson, a citizen of the United States, and a resident of Merion, county of Montgomery, State of 5 Pennsylvania, have invented certain new and useful Improvements in Records for Talking-Machines, of which the following is a full, clear, and complete disclosure of dif-

ferent forms thereof. Heretofore in the manufacture of flat disk records for talking machines it has been the practice to stamp out the record disks from a suitable material by means of a die containing a matrix upon the surface of which has 15 been engraved or otherwise placed the record grooves, which grooves in connection with the sound box are adapted to reproduce the sounds impressed upon the original record. The record disks formed by so impressing the 20 matrices have usually been of some hard, durable material which softens under the influence of heat, but which is hard and firm under normal conditions of temperature. The material usually employed for making these 25 records has been in the form of flat sheets and have been of uniform thickness throughout the entire extent of the disk with the possible exception of the central portion where the label has been impressed or countersunk into 30 the material during the pressing or forming of the record. This material, in many instances has been a substance called "duranoid" which consists of shellac and certain other coloring pigments and strengthening 35 ingredients. Other similar materials which have been used are hard rubber and celluloid. It will be realized that these compositions are expensive when used in large quantities, especially in view of the fact that talking ma-40 chine records now employed in this art have

been steadily increasing in size. One object, therefore, of my invention is to produce a record which may have all the advantages of a flat disk record of uniform 45 thickness but which will at the same time be much lighter and, therefore, less expensive in original cost and also will be easier to handle and less expensive in transportation either

by mail, freight or express.

A further object of my invention is to provide a record disk which will be easily and accurately centered upon the talking machine turntable without the employment of unnecessary material at the center of the record!

where the radius is too small for the efficient 55

recording of the sound waves.

A further object of my invention is the production of a record which will have strengthening means of such form as to give a stiff and firm backing for the reproducing surface in 60 connection with the central opening without the necessity of employing the amount of material required in a disk record having a smooth under surface.

Briefly, my invention comprises a disk rec- 65 ord having the center which is free from the grooves containing the sound waves cut away or omitted forming an annular plate or surface in the opening of which a card, label or centering plate may be carried for the pur- 70 pose of fixing the record upon the turntable in the usual manner.

For a full, clear and exact description of these forms of my invention reference may be had to the following specification and to 75 the accompanying drawing forming a part

thereof in which

Figure 1 is a reverse plan view of a talking machine record having concentric strengthening ribs on its under surface and having 80 the center of said record provided with a centering plate made in accordance with my invention; Fig. 2, a similar view of a record having both concentric and radial strengthening ribs; and Figs. 3 and 4 are transverse 85 sectional views of the records shown in Figs. 1 and 2, and indicating two ways of attaching the designating label which also serves in these instances as centering means.

Referring to the drawings, the numeral 1 90 indicates a flat, annular piece of duranoid or other material used in the manufacture of records having a central opening 2 therein and being provided upon the edge of said opening and upon the outer edge by strengthening 95 flanges 3 and 4. The inner edge or surface of the annular plate is provided with a lower flange 5 upon which a disk 6 of metal, pasteboard or similar stiff material is adapted to rest, said disk being held in position within 100 the said opening upon said flange in any suitable manner such as by cementing or being impressed therein during the forming of the record. The center of the disk 6 is provided with an opening 7 which is adapted to receive 105 the central stud or shaft of the turntable spindle in the usual manner.

In Fig. 2, I have shown in addition, to

the concentric strengthening ribs, radial strengthening ribs 7 which give the required stiffness to the record out to its extreme edge. Different forms and arrangements of these strengthening ribs have been described and claimed in a separate application filed herewith Ser. No. 222,685, dated August 30, 1904.

In Fig. 4, I have shown a construction similar to that shown in Fig. 3 except that 10 the centering disk or label rests upon a flange 9 which is at the upper portion of the opening 3, the centering disk or label 6 being forced against the same from the under side of the record and being retained thereon in the 15 manner above referred to.

Having thus described these forms of my invention, what I claim and desire to protect

by Letters Patent, is:--

1. In a record for talking machines, the combination of a thin annular record portion, having an internal and an external flange, and radial ribs extending between said flanges; of a centering disk, engaging the inner flange of said annular portion and permanently secured thereto.

2. In a record for talking machines, the combination of a thin annular record portion, having an internal and an external

flange and radial ribs extending between said flanges, with a printed label engaging the 30 inner flange of said annular portion and per-

manently secured thereto.

3. In a record for talking machines, a combination of a thin annular record portion having an internal and external flange, shoulders or seats on the inner edges of said flange, and strengthening ribs extending between said flanges; with a centering disk, permanently secured to said shoulders or seat.

4. A record for talking machines comprising a substantially flat disk having a central opening therein occupying the space not taken up by the record grooves, a flange upon the inner surface of said opening and a plate of thin durable material retained in position 45 upon said flange having a hole therein for centering the record upon the turntable, said plate also being adapted to receive printed matter in the form of a label or otherwise.

In witness whereof, I have hereunto set my 50

hand this 29th day of August, 1904.

ELDRIDGE R. JOHNSON.

Witnesses:

WILLIAM F. BRENNAN, EDW. W. VAILL, Jr.