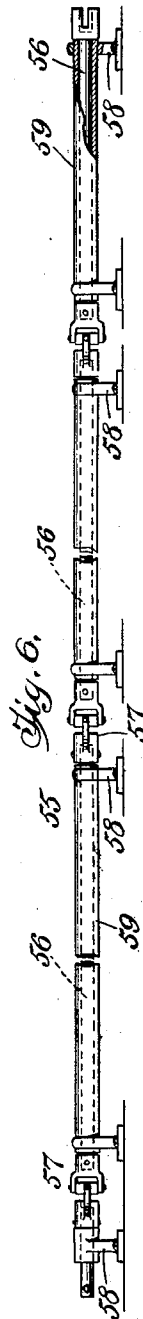


1,020,362.

3 SHEETS—SHEET 1.



WITNESSES
L. G. Foster Hancock
J. H. Ammen

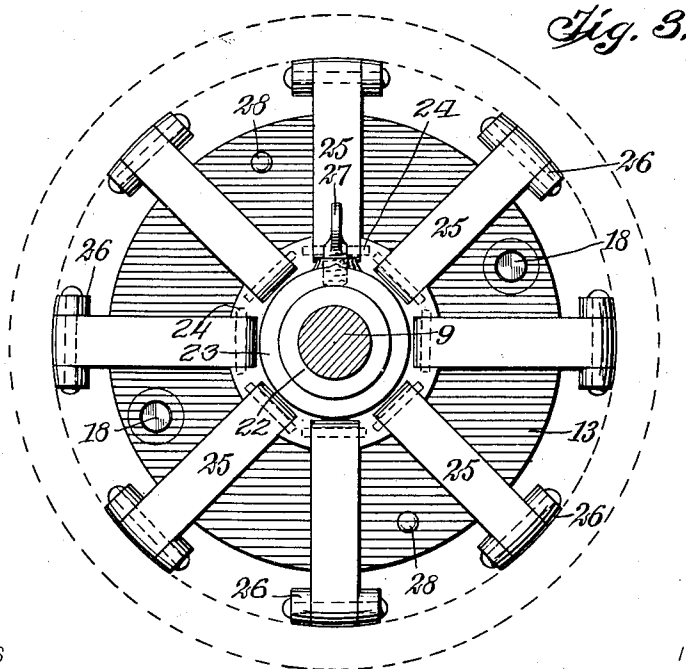
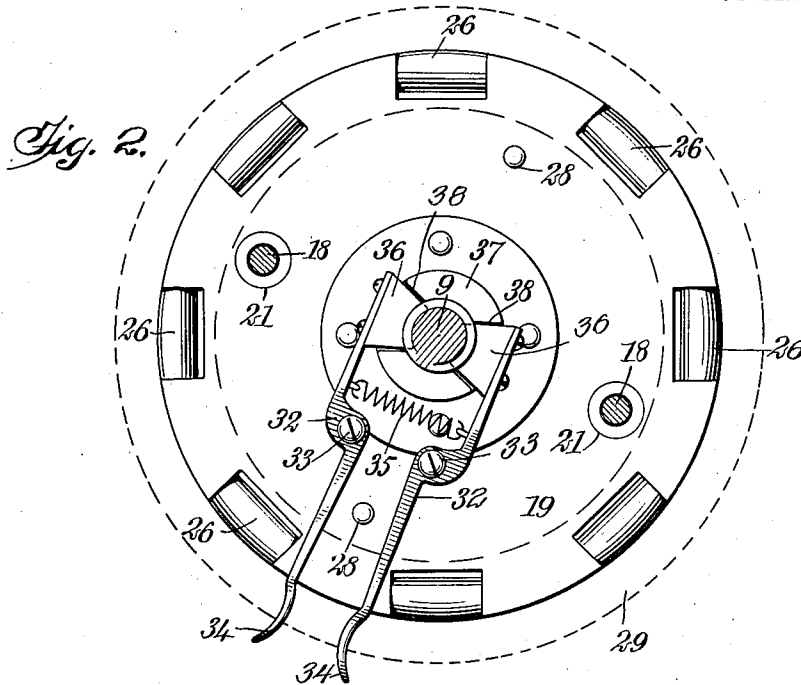
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 PHONOGRAPH ATTACHMENT FOR KINETOSCOPES.
 APPLICATION FILED APR. 6, 1910.

1,020,362.

Patented Mar. 12, 1912.

3 SHEETS—SHEET 2.



WITNESSES

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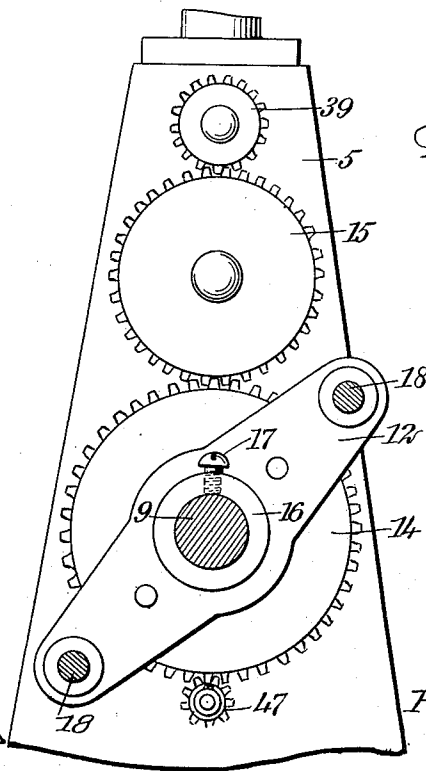
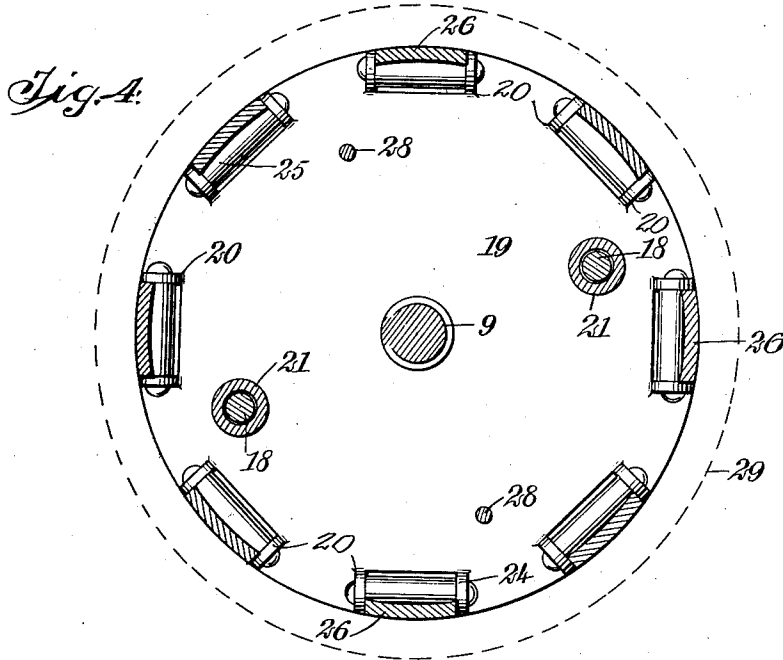
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P. J. MUKAUTZ.
 PHONOGRAPH ATTACHMENT FOR KINETOSCOPES.
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

PETER JOHN MUKAUTZ, OF KANSAS CITY, MISSOURI.

PHONOGRAPH ATTACHMENT FOR KINETOSCOPES.

1,020,362.

Specification of Letters Patent. Patented Mar. 12, 1912.

Application filed April 6, 1910. Serial No. 553,717.

To all whom it may concern:

Be it known that I, PETER J. MUKAUTZ, a citizen of the United States, and a resident of Kansas City, in the county of Jackson and State of Missouri, have invented a new and Improved Phonograph Attachment for Kinetoscopes, of which the following is a full, clear, and exact description.

The invention relates to record holders for phonographs used in connection with kinetoscopes, the phonograph supplying the lines for the actors in the pictures projected by the kinetoscope.

The invention consists in the construction and combination of parts, to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the machine, certain parts of which are shown in section and broken away; Fig. 2 is a cross section on the line 2—2 of Fig. 1 and upon an enlarged scale; this view illustrates especially the construction of a clutch by means of which the record holder is thrown in or out of operation; Fig. 3 is a section on the line 3—3 of Fig. 1 and further illustrating the construction of the record holder; this view is also upon an enlarged scale; Fig. 4 is a cross section on the line 4—4 of Fig. 1 and further illustrating the construction of the holder; this view is upon an enlarged scale; Fig. 5 is a cross section on the line 5—5 of Fig. 1; this view is upon an enlarged scale; and Fig. 6 is a side elevation illustrating a shaft connection which I employ where the phonograph is located at a distance from the kinetoscope; this view is upon a reduced scale, and certain parts are broken away and shown in section.

Referring more particularly to the parts, 1 represents the frame of the machine, which is of elongated form, presenting a base 2 which rests upon a support such as a table, and an upwardly extending side plate 3. At one end, an end wall 4 is provided, adjacent to which there is placed a web or frame plate 5, disposed in a vertical position as indicated. At the opposite end of the frame, a bearing block 6 is mounted upon a pivot pin 7, and this bearing block is normally

held in an erect position by means of a suitable spring 8, as shown.

Rotatably mounted between the bearing 6 and the web 5, there is provided a shaft 9 held in a horizontal position as indicated. The extremity of the shaft adjacent to the bearing 6 is formed into a conical point 10 which is received in a conical bore 11 formed in the face of the bearing as shown. Adjacent to the web 5, a cross head 12 is attached to the shaft 9; a similar cross head 13 is provided near the middle portion of the shaft. The cross head 12 is rigidly attached to a main gear wheel 14, and this gear wheel meshes with a driving gear wheel 15 which is mounted on the frame plate 5 as shown. The cross head 12 is held against the frame plate 5 by a collar 16 which is held on the shaft 9 by a suitable set screw 17 as indicated most clearly in Fig. 5. The cross head 12 has oppositely projecting arms which are provided with longitudinally extending dog-bars 18. Upon these bars near the cross-head 12, as shown in Fig. 1, there is mounted a head 19, the construction of which is most clearly shown in Fig. 4; it consists of a circular plate having oppositely disposed ears 20 arranged in pairs around the periphery thereof. A sliding cross head 13 is provided, and between the head 13 and the head 19, tubular sleeves 21 are provided, which surround the dog-bars 18. Brace-bars 28 connect the heads 19 and 13 as shown.

The head 13 is of substantially circular form, and on its outer side is formed with a sleeve 22 carrying a loose collar 23 provided with laterally projecting ears 24 to which radial links 25 are pivotally attached, as shown, giving this part of the machine the form of a "spider". The links 25 operate as arms of the spider, as will be readily understood. The outer extremities of the links or arms 25 attach pivotally to longitudinally extending clamping bars 26, the opposite extremities whereof are pivotally attached between the ears 20, as indicated in Fig. 4.

The collar 23 is adjustable on the sleeve 22, and is adapted to be secured thereto at any desired point by means of a set screw 27. With this construction, it will be evident that if the collar 23 is forced toward the frame plate 5, it will operate to force the clamping bars 26 outwardly in such a way

as to enable them to clamp upon the inner side of a cylindrical record 29, indicated in dotted outline. Substantially the half portion of the shaft 9 which is disposed near the plate 5, is provided with screw threads 30, as shown in Fig. 1, and near the head 19 and on the outer side thereof, I provide a clutch 31, the construction of which is very clearly shown in Fig. 2. This clutch consists of two levers 32, which are disposed oppositely and pivoted at 33, the outer ends of the levers being formed into extensions 34 to receive the pressure of one's fingers. The inner ends of the levers are drawn together by a spring 35, and are provided with shoes 36 which have threaded faces and which engage with the threads of the shaft. Adjacent to the point where the shoes 36 are applied to the shaft, the head is provided with a collar 37 which is formed on the opposite sides with notches or recesses 38, as indicated, through which the shoes are applied.

With the driving gear 15 referred to above, a pinion 39 meshes on the upper side, and the shaft of this pinion is connected by bevel gears 40 with a vertical shaft 41, and this vertical shaft is driven through bevel gears 42 by a horizontal shaft 43 which extends out from the kinetoscope 44, the said kinetoscope being preferably mounted upon a horizontal plate 45 disposed at one end of the frame 1, as indicated. The shaft 43 is extended as shown, so as to enable the application of a crank 46 by means of which the phonograph and the kinetoscope may be simultaneously driven.

On the under side of the main gear wheel 14 a pinion 47 meshes, and this pinion is connected, through gearing 48, with a governor 49, of common construction, the said governor being provided with counterweights 50 which are adapted to fly outwardly so as to prevent racing of the machine. The weights 50 exert a certain amount of drag on the governor shaft and consequently on the speed of the record. The farther the weights are away radially from the governor shaft, the more drag will be exerted and the governor shaft will be slowed in proportion.

The mouth-piece 51 of the horn is mounted in a fixed position and carries a stylus 52, which is adapted to touch the face of the record in the manner indicated. When the device begins to operate, the record and record holder will occupy substantially the position in which they are shown in Fig. 1, the body of the record being disposed at the right of the stylus. When the clutch 31 is closed, however, and the machine started, the rotation of the main gear wheel 14 will drive the cross head 12 and the dog-bars 18 thereof will drive the head 19. As the rotation

takes place, the shoes 36 which are in engagement with the threads of the fixed shaft 9, operate to advance the record holder toward the left. In this way the entire record may be fed or made to pass under the stylus. The operation continues until the left-hand end of the record lies near the bearing 6 as indicated by the dotted lines at 53, at which time the dog-bars 18 will be nearly withdrawn from the sleeves 21. When it is desired to remove the record, this is accomplished by swinging the bearing block 6 toward the left by means of the thumb piece 54 which it carries. The thumb screw 27 is then unscrewed so as to enable the clamping bars 26 to be moved radially inward at one end. In this way the clamping bars 26 are withdrawn from the cylinder record, and the record may then be removed by a longitudinal movement.

Attention is called to the shaft connection extending between the kinetoscope and the phonograph. It will be understood, from this arrangement, that the kinetoscope and phonograph will move in unison, so that if the record is attached in the proper position with respect to the pictures which appear upon the screen, this correspondence will be maintained in such a way that when the actors are represented as moving about, the phonograph will repeat the words which the actors are supposed to have used.

It may happen that it is not convenient, in practice, to place the kinetoscope and phonograph attachment near together. Under these circumstances, I employ a connection of some kind between them, such as I have illustrated in Fig. 6. The arrangement illustrated consists of a shaft 55 which is formed in sections 56, the same being connected together by universal couplings 57, as illustrated. Near the ends of the shaft sections, suitable bearings 58 are provided, and the shaft sections are preferably inclosed in tubular sleeves or casings 59. With this arrangement, the kinetoscope and phonograph attachment may be at any distance apart desired, while a constant angular or synchronous relation will be maintained between them. Where it is not convenient to use the shaft shown in Fig. 6, I may synchronize the kinetoscope by other suitable means.

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

1. In a phonograph, in combination, a fixed shaft having screw threads formed thereupon, a head rotatably mounted on said shaft, a second head rotatably mounted on said shaft and carrying a sliding collar, links pivotally attached to said sliding collar and extending radially therefrom, clamping bars connecting said links with said first head, means for adjusting said

sliding collar, a clutch attached to said first head and engaging said screw threads, and a cross head affording means for driving said first head and having bars adapted to engage the same as it progresses longitudinally of said shaft.

2. In a phonograph, in combination, a fixed shaft having screw threads formed thereupon, a head rotatably mounted on said shaft, a cross head opposite said head and rotatably mounted on said shaft, a collapsible spider connected with said cross head and having radially projecting arms, clamping bars connecting said arms with the first named head, tubular members connecting said cross head with said first head, a driving cross head having bars extending longitudinally of said shaft and disposed within said tubular members, means for

driving said last cross head, and a clutch carried by said first head and adapted to engage said threads.

3. In a phonograph and in combination, a shaft, a head on the shaft, a movable cross head on the shaft, a collapsible spider connected with the cross head and having radially projecting arms, clamping bars connecting the arms with the first named head, a driving cross head, and a connection between the said driving cross head and the first-named head.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PETER JOHN MUKAUTZ.

Witnesses:

GORDON PERRY TORRANCE,
THOMAS A. BRAY.