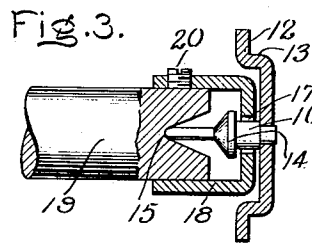
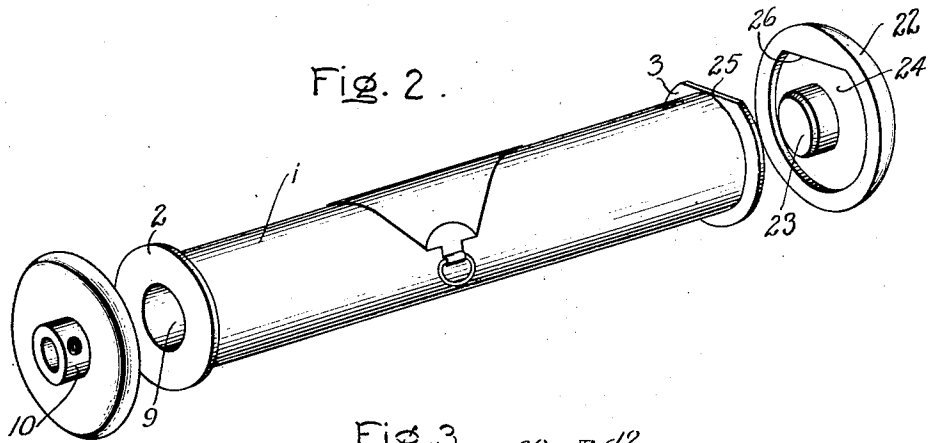
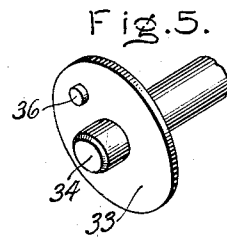
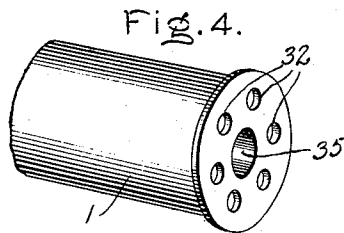
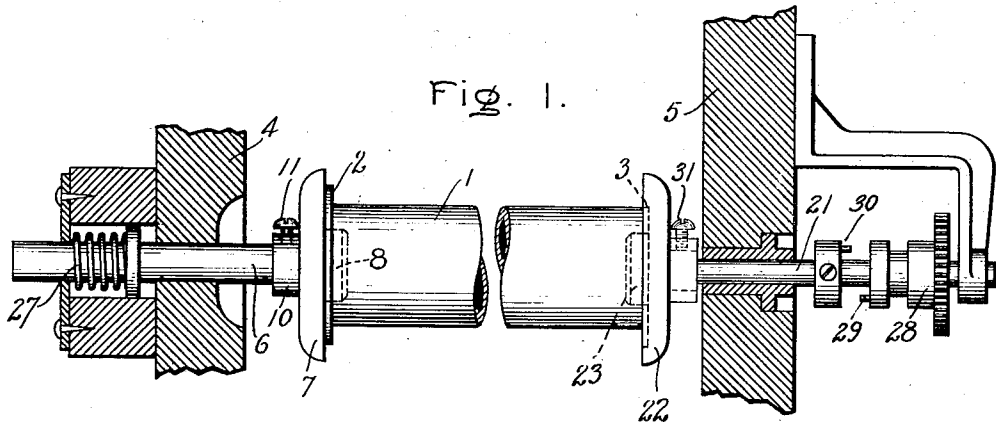


C. D. HASKINS.
ATTACHMENT FOR SELF PLAYING MUSICAL INSTRUMENTS.
APPLICATION FILED OCT. 28, 1904.

961,295.

Patented June 14, 1910.



WITNESSES:
George W. Thornton
Edward Williams, Jr.

INVENTOR:
Caryl D. Haskins,
by *Alexander S. Hunt* Att'y.

UNITED STATES PATENT OFFICE.

CARYL D. HASKINS, OF SCHENECTADY, NEW YORK, ASSIGNOR TO GENERAL MUSIC SUPPLY COMPANY, A CORPORATION.

ATTACHMENT FOR SELF-PLAYING MUSICAL INSTRUMENTS.

961,295.

Specification of Letters Patent. Patented June 14, 1910.

Application filed October 28, 1904. Serial No. 230,301.

To all whom it may concern:

Be it known that I, CARYL D. HASKINS, a citizen of the United States, residing at Schenectady, in the county of Schenectady, State of New York, have invented certain new and useful Improvements in Attachments for Self-Playing Musical Instruments, of which the following is a specification.

The invention herein described relates more especially to that type of self playing or similar musical instruments in which a roll of perforated paper is employed commonly called the note sheet or music roll.

One of the objects of my invention is to adapt to instruments of the kind mentioned, a music roll of light, cheap and simple construction, such for example as I have described and claimed in my application Serial No. 230,302, filed Oct. 28, 1904. Such a music roll, which I have also described in detail hereinafter, consists of a hollow flanged spool carrying the note sheet. A music roll of this character, as I have described in said application, may be used in existing instrument players by providing extension heads, each fitting into one end of the music roll, and each provided with a gudgeon or trunnion for engaging a roll-carrying journal or bearing in the musical instrument player. According to my present invention, I mount the extension heads themselves on the roll carrying journals of the self playing instrument or player, and thereby greatly simplify the means for placing a music roll, of the character described, in operative position.

The novel features which characterize my invention are pointed out with particularity in the appended claims. The invention itself however, will be better understood by reference to the following description taken in connection with the accompanying drawings in which;

Figure 1 is an elevation, partly in section, of so much of an apparatus as is necessary to illustrate my invention; Fig. 2, a perspective view of a portion of Fig. 1; and Figs. 3, 4 and 5, views of certain modified details.

In the drawings, the music roll is indicated generally at 1, and consists of a hollow or tubular member, upon which the perforated note sheet is wound, provided with flanges 2 and 3. The instrument wherein this roll is adapted to be mounted may of course be of any one of a large variety of

types. Merely by way of illustration, the walls 4 and 5, in section, represent portions of such an instrument. Journals for carrying the music rolls are mounted in these walls. Thus at the left of Fig. 1, the usual spring-pressed centering shaft 6 extends out from the wall 4 and has attached thereto a flange 7 provided with a cylindrical plug or shank, shown in dotted lines at 8, for engaging the open end of the roll 1 at 9. If the shaft 6 normally turns, this flange 7 may be permanently or detachably fastened to the shaft. For a detachable connection I may have a sleeve 10 which fits over the shaft 6 and carries a set screw 11, by which the parts may be secured together. The set screw, instead of screwing firmly against the shaft 6, may if desired be entirely omitted, or its inner end may engage loosely the walls of a circular groove in the shaft 6, so as to form a swiveling connection.

A modified swiveling connection is shown in Fig. 3. In this figure the flange for receiving the music roll is shown at 12, and has a cylindrical portion 13 over which the music roll is pushed until it brings up against the flange 12. A pin 14 is riveted to the flange member 12, in a line with the axis of the flange, and engages the apex of the conical recess 15 usually formed in the centering bearing of the player or other similar instrument. This pin has a part 16 which passes loosely through an axially drilled hole 17 in a sleeve or cap 18. This cap passes closely over the end of the roll-centering shaft 19 (the same in construction as the shaft 6 in Fig. 1), and is fastened thereto by a set screw 20. The flange 12 is thus swiveled to the shaft 19, and turns upon the bearing afforded by the pin 14. In order to provide a driving connection for the other end of the music roll, I may mount on the outer end of the driving journal or shaft 21 at the right of Fig. 1, a recessed flange 22 having, if desired, a centering plug or boss 23 adapted to enter the corresponding end of the music roll. The recess in the flange is indicated at 24 and is of irregular outline so as to receive the similarly shaped irregular flange of the music roll spool. As an illustration of one of the forms of music roll flange which I may employ, I have represented a nearly circular flange 3 having a flattened edge, as at 25, adapted to form a turning engagement with the corresponding

straight portion 26 in the periphery of the recess 24 in the driving flange 22.

In order to insert a music roll in the machine or instrument, one end is placed as shown in Fig. 1, so that the opening therein engages the boss 8 on the flange 7, and pressure is then exerted to push in the shaft 6 against the action of the usual spring 27. The opposite end of the roll is then inserted in the recess 24 in the other flange 22 and, the spring 27 then urging the flange 7 toward the companion flange 22, the music roll is held firmly in position. When the shaft 21 is rotated by the driving mechanism of the player, which may happen when the sliding clutch member 28 is moved so that the pin 29 carried thereby engages the pin 30 fixed to the shaft, the music roll is positively rotated. At other times it may rotate in response to the unwinding of the roll or note sheet therefrom.

The flange 22 may be permanently attached to the shaft 21 or may be detachably secured thereto as by a set screw 31. Also, instead of recesses of the form shown, it is evident that various other forms of recesses for engaging correspondingly shaped flanges on the music roll may be employed. Moreover the projection or boss 23 may if desired be omitted since the walls of the recess 24 may serve as an adequate support for the flange 3.

Various other engaging means between the hollow, flanged music roll and the driving member of the musical instrument player may be used without departing from my invention. Thus as shown in Figs. 4 and 5, the driving flange of the music roll spool,

may have a circularly arranged series of holes punched or drilled therein as at 32. The driving member or flange 33 of the machine, corresponding to the member 22 in Fig. 1, may then have a boss or cylindrical projection 34, as before, to engage the central opening 35 in the spool, and also a driving pin 36 to engage one of the holes 32. With this particular driving connection the spool flanges of different rolls need not be of uniform size but may be made large or small according to the depth to which the music or note sheet is wound on the spool.

What I claim as my invention and desire to secure by Letters Patent is:—

1. A music roll coupling for attachment to a recessed shaft, comprising a shaft-engaging portion recessed to engage the end of the shaft, means for securing said portion on the shaft, and a centering portion for entering the hollow end of a music roll, said centering portion being provided with a pin for bearing against the recessed end of said shaft.

2. A music roll coupling for attachment to a recessed shaft, comprising a centering portion for entering the hollow end of a music roll, a pin carried by said portion adapted to engage the recessed end of the shaft, and means for supporting the coupling on said shaft when the music roll is removed.

In witness whereof I have hereunto set my hand this 26th day of October, 1904.

CARYL D. HASKINS.

Witnesses:

EDWARD WILLIAMS, Jr.,
ALEXANDER D. LUNT.