W. R. CRIPPEN.

RECEIVING SPOOL FOR NOTE SHEETS.

APPLICATION FILED DEC. 18, 1908.

942,548. Patented Dec. 7, 1909.

Fig. 1.

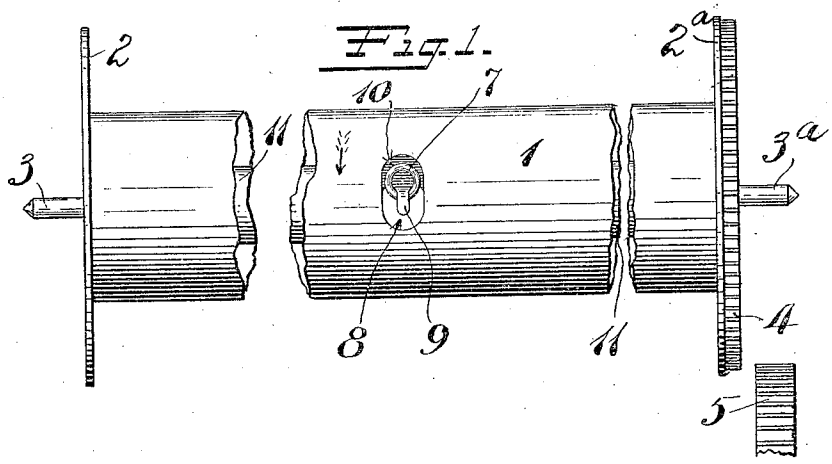
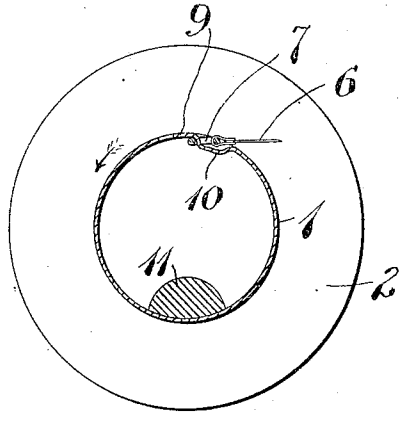



Fig. 2.




Witnesses:

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# UNITED STATES PATENT OFFICE.

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## RECEIVING-SPOOL FOR NOTE-SHEETS.

942,548. Specification of Letters Patent. Patented Dec. 7, 1909.

Application filed December 18, 1908. Serial No. 468,110.

*To all whom it may concern:*

Be it known that I, WALTER R. CRIPPEN, a citizen of the United States, residing at Cambridge, Middlesex county, Massachusetts, have invented certain new and useful Improvements in Receiving-Spools for Note-Sheets, of which the following is a full, clear, and exact description.

My invention relates to improvements in winding rolls or spools, particularly useful in connection with music playing instruments of the type adapted to employ perforated note sheets, which are wound from one roll to another.

In such instruments the rolls are suitably connected to a motor, so that, when desired, the note sheet may be wound in either direction.

The object of my invention is to provide a receiving roll of superior construction; a further object is to provide therein a simple and efficient means for permitting the note sheet to be connected thereto; and a still further object is to provide means whereby the connecting device may be automatically positioned (when the receiving roll is empty) so as to permit the quick attachment of the note sheet, without the necessity of turning the roll by hand to position the connector.

In the drawings—Figure 1 is a plan view of a receiving spool or roll, with the body partly broken away and showing a note sheet holding ring in place; Fig. 2 is a cross section through the center of the roll showing also a portion of a note sheet attached and in section.

1 is a hollow, cylindrical body constituting the body of the receiving roll proper. 2—2ª are flanges at the end thereof. 3—3ª are pivot ends. Ordinarily, receiving rolls of the character referred to are provided with a toothed wheel, such as 4, at one end, which may be detachably engaged by a driving pinion. A portion of the driving pinion is conveniently shown at 5. Ordinarily, suitable shifting mechanism is provided to cause the driving pinion to mesh with the gear 4 whenever desired. When in mesh with the gear 4 it drives the same in a direction to wind the note sheet upon the cylindrical body 1, as indicated by the arrow. (Figs. 1 and 2). A portion of a note sheet is indicated at 6. (Fig. 2). 7 is the usual ring thereon. At a suitable point in the body 1, for example, in the center, a perforation is formed as at 8. As shown, this perforation is of horse-shoe outline, thereby forming at once a hook or tongue 9. This hook or tongue acts as a connector or anchorage for the ring 7 and need not stand above the surface of the body 1, since the opening 8 affords a clearance space whereby the ring 7 may be slipped under the anchor tongue 9.

As a further development of my invention, that portion of the body 1, at the sides and to the rear of the base of the tongue 9, may be slightly depressed or recessed, as indicated at 10, to provide a receiving pocket for the ring 7 to permit it to lie substantially flush with the surface of the body 1.

11 represents a counterweight within the receiving spool opposite to, or in such a position relatively to, the retaining tongue 9 that it will, by gravity, cause said spool to turn (when empty) so as to present the tongue 9 ready for instant use, thereby saving the operator the necessity of manually turning the spool to such a position that the note sheet ring may be engaged with the retaining tongue.

The spool is preferably made of metal and in order to secure lightness, aluminum may be selected. The size of the counterweight 11 is, of course, immaterial, all that is required being an overbalance on that side of the spool which is intended to normally assume the lower position to properly present the retaining tongue 9 for instant use. Indeed the equilibrium of the spool might be so upset by the cutting out of the metal to form the opening 8, that the desired result would be accomplished without a special counterweight, as such. This would be particularly true if the pivot ends of the spool were delicately poised.

What I claim is,

1. A receiving spool for note sheets and the like, comprising a hollow, cylindrical body, an opening in the wall of said body, a tongue projecting into said opening, a portion of the body adjacent to the tongue being depressed to form a recess for the purpose described.

2. A receiving spool for note sheets and

the like, comprising a cylindrical body, a retaining tongue, said spool being counterbalanced at a point away from said tongue.

3. A receiving spool for note sheets and the like, comprising a hollow, cylindrical body, a perforation in the external wall thereof, a tongue projecting into said perforation, and a counterweight carried by said body at a point away from said tongue.

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Witnesses:
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