

P. L. SYLVESTER.
 HEAD FOR MUSIC ROLL SPOOLS.
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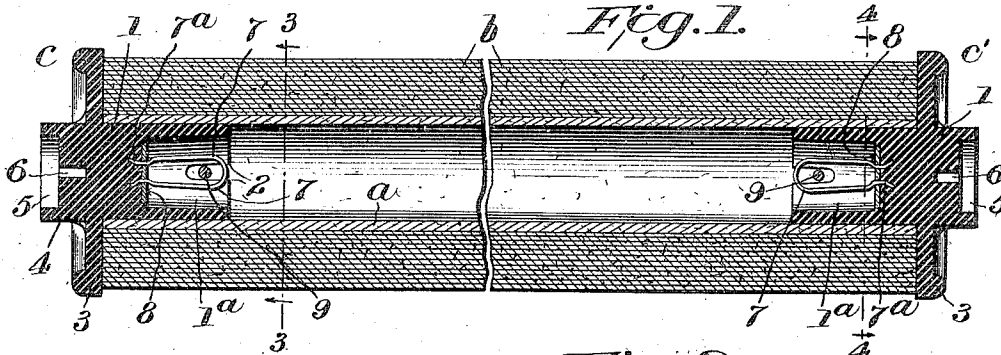


Fig. 2.

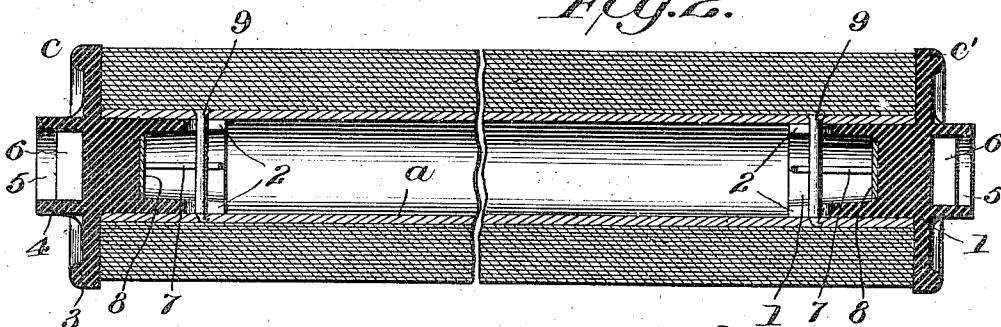
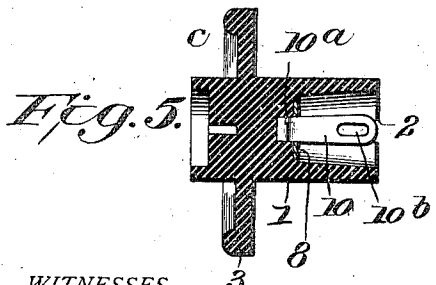
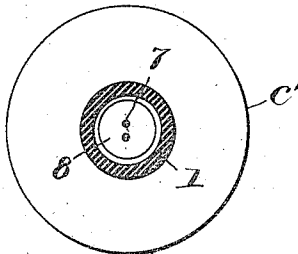
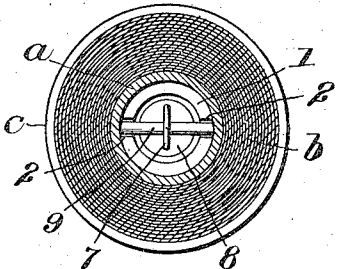
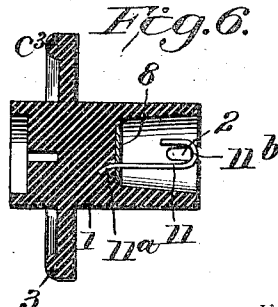


Fig. 3.

Fig. 4.



WITNESSES
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UNITED STATES PATENT OFFICE.

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HEAD FOR MUSIC-ROLL SPOOLS.

1,049,281.

Specification of Letters Patent.

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Application filed March 2, 1912. Serial No. 681,225.

To all whom it may concern:

Be it known that I, PHILIP L. SYLVESTER, a citizen of the United States, residing at Scranton, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Heads for Music-Roll Spools, of which the following is a specification.

Spools for perforated paper music rolls are usually made with paper or wooden cores, and wooden heads, provision being made for permitting one or both of the heads to move lengthwise of the spool to allow for expansion of the paper roll in moist atmospheres. The adjustable wooden heads, fitting into the cores, being hygroscopic, sometimes swell in damp weather and bind within the cores, preventing the adjustment of the heads to suit the expansion of the paper in the music roll.

One purpose of my invention is to provide an adjustable music spool head of molded composition which is non-hygroscopic and which, therefore, will not expand and bind within the core of the spool when the atmosphere is moist, and another purpose is to provide, in a molded head of this character, means whereby the head can be readily and securely attached to the tube which forms the core of the spool and whereby the head is adjustable to the desired extent lengthwise of the spool.

In the accompanying drawing, Figure 1 is a central longitudinal section through a music roll and spool; Fig. 2 is a similar view taken in a plane at right angles to the section shown in Fig. 1; Fig. 3 is a section on the line 3—3 of Fig. 1; Fig. 4 is a section on the line 4—4 of Fig. 1; Fig. 5 is a central longitudinal section through a spool head having a modified form of retaining device; and, Fig. 6 is a similar view showing another form of retaining device.

Referring to Figs. 1 to 4, inclusive, of the drawing, *a* indicates the core or body of the spool, which may be of paper, and *b* indicates the perforated music sheet attached to and wound upon the core. The spool heads *c* and *c'* are alike, in all respects, each being composed of molded composition which is impervious to moisture and therefore not liable to expand and bind within the tube *a* in a moist atmosphere. Each spool head comprises a cylindrical body 1, adapted to fit into one end of the core *a*,

the inner portion of said body being hollow, as shown at 1^a, and the walls of said hollow portion having diametrically opposite slots 2 extending longitudinally therein from the inner end of the body. Each spool head is also formed with a flange 3 and an outwardly projecting part 4 having an annular recess 5 and a slot 6 to receive one of the spindles which support the roll in a musical instrument. Within the hollow portion 1^a of the spool head is arranged a metal retaining device 7 consisting of a looped wire having its ends 7^a extended through perforations in a metal disk 8 and thence spread or bent outwardly as shown. In molding the spool head the ends 7^a of the loop as well as the disk 8 become embedded in the composition and the loop is thereby firmly held in position. It will be noted that the bend in the wire 7 extends across the plane of the slots 2 near the open ends of said slots. Each head is secured to the paper tube by a cross-pin 9 driven diametrically through the tube and through the slots 2 and through the loop formed by the wire 7. After the pin is in place, its pointed end is bent over or clenched so as to hold the pin securely in the paper tube. The head thus becomes permanently secured to the tube, as it passes through the loop 7 and the latter is permanently secured to the head. It will be evident that the head may move lengthwise of the roll for a limited distance, the engagement of the bend in the loop with the pin preventing the removal of the head. It will also be evident that the heads cannot rotate within the paper tube as the sides of the slot 2 engages the pin and form a positive driving connection for the tube and the music roll thereon. As the heads are made of molded composition which will not absorb moisture there is no danger of the heads swelling and binding within the tubes and therefore when the atmosphere is moist and the paper roll expands, owing to its hygroscopic nature, the heads will move freely within the tube when pressed outward by the expansion of the paper roll.

Instead of a wire loop, as shown in Figs. 1 to 4, inclusive, a flat metal strip 10, Fig. 5, may be used, this strip having a slot 10^b which is in line with the slots 2 in the spool head. When this strip is used its end 10^a is extended through a suitable slit in the disk 8 and bent out of the plane of the body of

the strip so as to interlock with the molded material in which it is embedded.

In Fig. 6, another modification is shown, the retaining device here consisting of a hook 11, the bent portion 11^b of which extends across the plane of the slots 2 near the open ends of the latter. The end 11^a of this hook extends through the disk 8 and is bent out of line with the body and embedded in the composition.

It will be seen that the heads are permanently secured to the paper tube and cannot fall out, which is desirable, since the material of which the heads are composed is somewhat brittle and liable to breakage if dropped upon a floor, and it will also be seen that as the retaining devices are made of metal and firmly embedded in the composition, the heads will not break or pull out in the ordinary handling of the rolls.

I make no claim to the exclusive right to make spool ends of the composition above referred to, which is known in the trade as Electrore, and under various other trade names, nor do I make claim to the exclusive right to make spool ends of any other material having similar weather proof properties, as the same is not my invention.

What I claim is:—

1. A head for music roll spools composed of molded composition, said head comprising a cylindrical body having a longitudinal slot extending through its peripheral wall and adapted to receive a cross-pin, and a metal retaining device partly embedded in the composition and extending across the plane of the slot near the inner end of the latter and forming a stop at the inner end of the slot for said cross-pin.

2. An adjustable head for music roll spools composed of molded composition, said head comprising a cylindrical body, hollow at its inner end, the walls of said end portion having diametrically opposite slots extending longitudinally of the body adapted to receive a cross-pin, and a metal retaining device partly embedded in the composition and extending across the plane of the slots near the inner ends of the latter and forming a stop at the inner ends of the slots for said cross-pin.

3. An adjustable head for music roll spools composed of molded composition, said head comprising a cylindrical body, hollow at its inner end, the walls of said end portion having diametrically opposite slots extending longitudinally of the body adapt-

ed to receive a cross-pin and a metal retaining device partly embedded in the composition at the outer end of said hollow portion and extending across the plane of the slots near the inner end of the latter and forming a stop at the inner ends of the slots for said cross-pin.

4. An adjustable head for music roll spools composed of molded composition, said head comprising a cylindrical body, hollow at its inner end, the walls of said end portion having diametrically opposite slots extending longitudinally of the body, and a metal retaining device within said hollow portion, said device having an eye in the plane of said slots and being partly embedded in the composition.

5. An adjustable head for music roll spools composed of molded composition, said head comprising a cylindrical body, hollow at its inner end, the walls of said end portion having diametrically opposite slots extending longitudinally of the body, and a metal loop having its ends embedded in the composition at the outer end of said hollow portion, the eye in said loop registering with said slots.

6. An adjustable head for music roll spools composed of molded composition, said head comprising a cylindrical body, hollow at its inner end, the walls of said end portion having diametrically opposite slots extending longitudinally of the body, a metal disk at the outer end of said hollow portion, and a metal retaining device extending through said disk and partly embedded in the composition, said retaining device having a part extending across the plane of the slots near the inner ends of the latter.

7. An adjustable head for music roll spools composed of molded composition, said head comprising a cylindrical body, hollow at its inner end, the walls of said end portion having diametrically opposite slots extending longitudinally of the body, a metal disk at the outer end of said hollow portion, and a metal loop having its ends extending through said disk and embedded in the composition, the eye in said loop registering with said slots.

In testimony whereof I affix my signature, in presence of two witnesses.

PHILIP L. SYLVESTER.

Witnesses:

J. L. CONNERS,

G. G. SYLVESTER.