R. FORREST.

SOUND RECORDING AND REPRODUCING INSTRUMENT.

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1,001,748.

Patented Aug. 29, 1911.

Fig. 1.

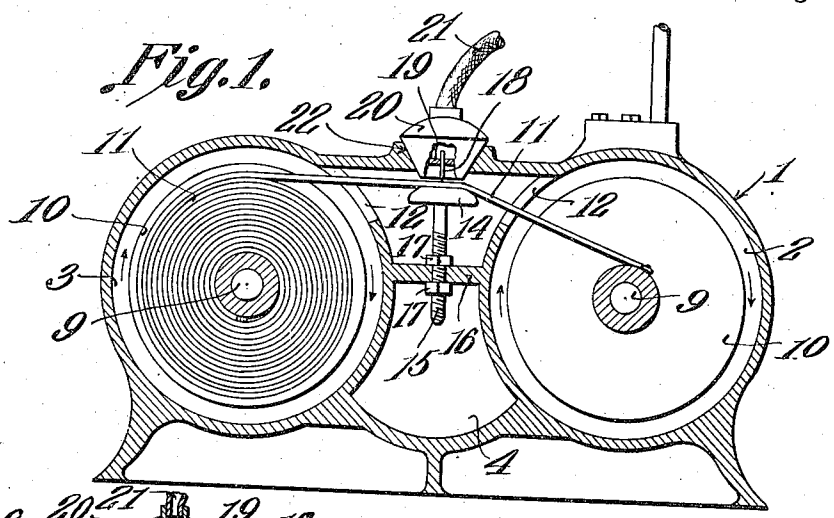

Fig. 2.

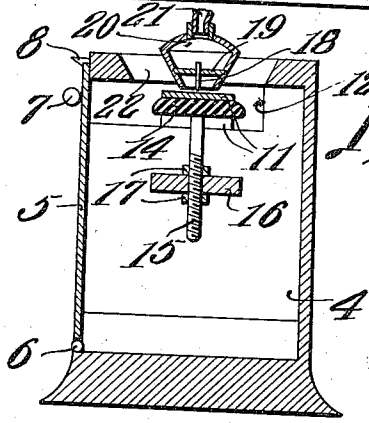

Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

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SOUND RECORDING AND REPRODUCING INSTRUMENT.

1,001,748. Specification of Letters Patent. Patented Aug. 29, 1911.

Application filed December 3, 1910. Serial No. 595,531.

To all whom it may concern:

Be it known that I, ROLLAND FORREST, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Sound Recording and Reproducing Instrument, of which the following is a specification.

This invention relates to sound recording and reproducing instruments.

The objects of the invention are to improve and simplify the construction of such devices as well as to increase their efficiency in operation and to reduce the expense attending their manufacture and use.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawing forming part of this specification, Figure 1 is a vertical section through an apparatus constructed in accordance with the invention. Fig. 2 is a vertical section taken at a right angle to Fig. 1, on a line through the intermediate chamber. Fig. 3 is a side elevation showing the door by means of which the ribbon reels are introduced into and removed from the reel chamber.

Like reference numerals indicate corresponding parts in the different figures of the drawing.

The device of the present invention is constructed preferably with a casing 1 which is divided into a front reel chamber 2, a rear reel chamber 3 and an intermediate chamber 4. As shown in Fig. 2, each of the chambers 2, 3 and 4 is open at one end, and said open end is closed by means of a door 5 which is hinged at its lower end as indicated at 6, and is provided at its upper end with a handle 7, said door being locked in closed position in any suitable manner, such as by means of the spring catch or catches 8. Mounted in each of the reel chambers 2 and 3 is a stud shaft 9 which is adapted to receive a reel 10. A ribbon record, constructed in any suitable manner, and indicated by the numeral 11 extends from the front reel to the rear reel and is adapted to be wound back and forth first onto one reel and then onto the other reel. The ribbon 11 extends through the intermediate chamber 4 and through cut-away portions 12—12 formed in the circular walls of the front and rear reel chambers 2 and 3. The front and rear reels are adapted to be set in motion in any suitable manner such as by means of clock work or other well known automatic mechanism, not necessary herein to be specifically illustrated and described.

The ribbon 11 on its passage through the intermediate chamber 4 extends over and is guided by a support 14 which is formed preferably of hard rubber and is adjustably supported by means of a standard 15 which extends through a horizontal partition 16 mounted in the intermediate chamber 4 and is provided above and below said partition 16 with lock nuts or other suitable devices 17 by means of which the support 14 may be vertically adjusted. The ribbon 11, above the support 14, is engaged by a needle 18 which may be adapted either for recording or reproducing, said needle being connected with a diaphragm 19 in a sound chamber 20 which communicates through a pipe 21 with the horn 22.

The ribbon 11 is provided in any suitable and well known manner with sound records extending in opposite directions. The needle 18, as shown in Fig. 2, is laterally adjustable, together with the sound chamber 20, in a slot 22 which extends from side to side of the upper end of the intermediate chamber 4. After the record ribbon has been run to one end, the needle 18 is adjusted laterally in the slot 22 and the movement of the ribbon is reversed. The introduction and removal of the reels 10 containing the ribbon 11, and the adjustment of the support 14 are effected by opening the door 5.

The instrument of the present invention is strong, simple, durable and inexpensive in construction as well as efficient in operation.

What is claimed as new is:—

A sound recorder and reproducer comprising a casing having front and rear reel chambers, and an intermediate chamber, said reel chambers being circular in cross section and said intermediate chamber being provided with a horizontal partition and having a transverse slot at its upper end formed with beveled side walls, a door closing the ends of said chambers, a pair of reels, one of said reels being mounted in the front

reel chamber, and the other of said reels being mounted in the rear reel chamber, a ribbon record extending from one of said reels to the other, through said intermediate chamber, there being openings in the walls of said reel chambers to permit the passage of said ribbon, a standard adjustably mounted in the horizontal partition of said intermediate chamber, a hard rubber support carried by the upper end of said standard, and a needle provided with downwardly tapering supporting means adjustable in said transverse slot at the upper end of said intermediate chamber.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ROLLAND FORREST.

Witnesses:
WALTER FORREST,
JOHN HEALY.