Oct. 22, 1957 K. DANIEL 2,810,574

MAGAZINE FOR SOUND RECORD BANDS

Filed Aug. 9, 1954 2 Sheets-Sheet 1

Fig. 1

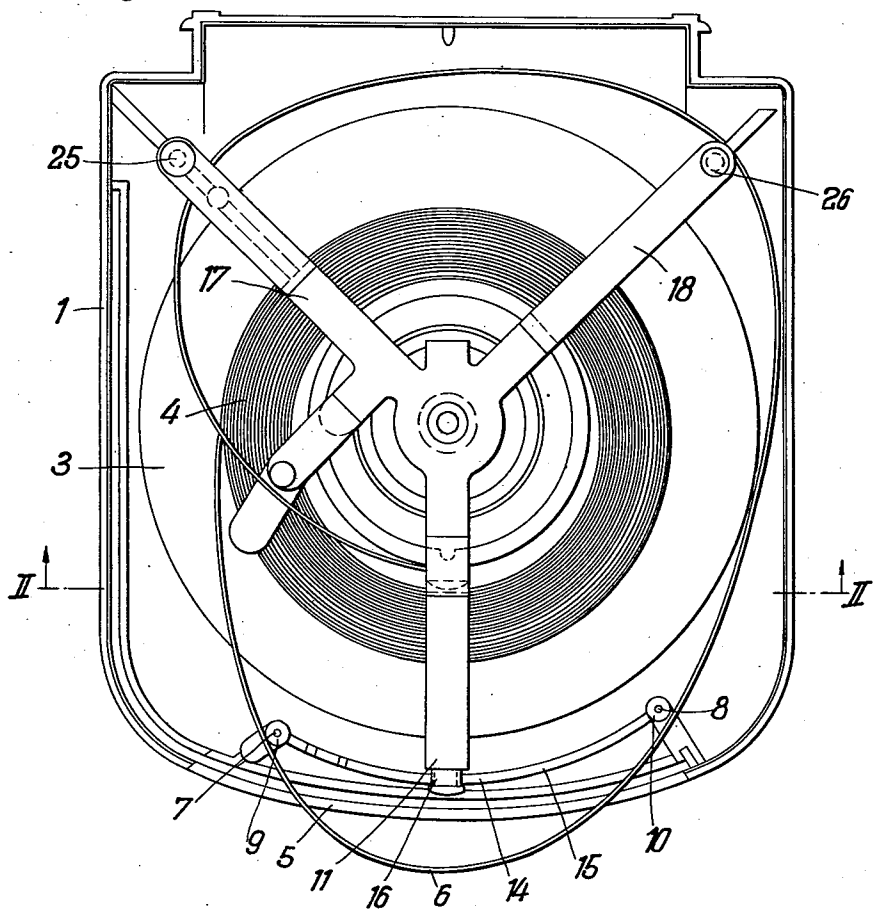
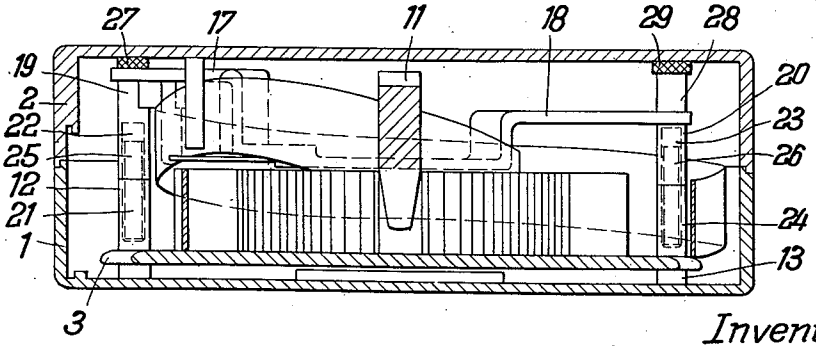


Fig. 2



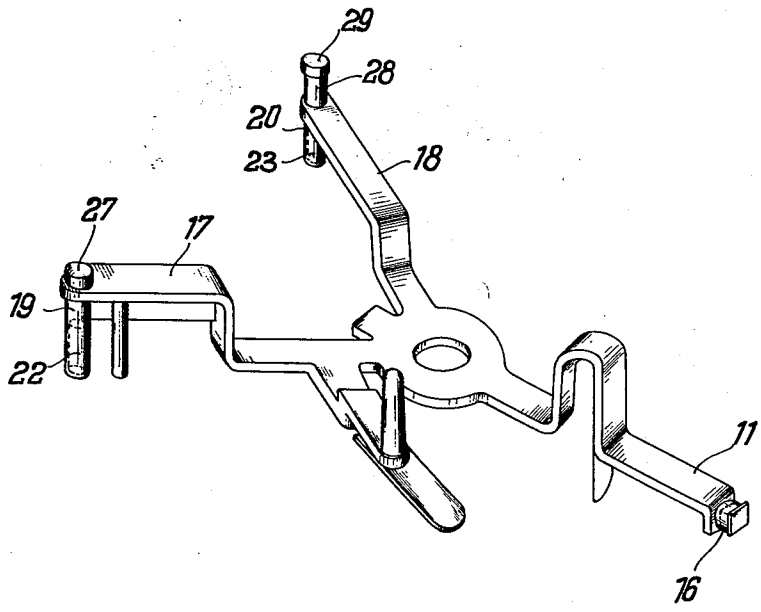
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Filed Aug. 9, 1954 2 Sheets-Sheet 2

Fig. 3



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United States Patent Office

2,810,574

Patented Oct. 22, 1957

2,810,574

MAGAZINE FOR SOUND RECORD BANDS

Karl Daniel, Porz, near Cologne, Germany

Application August 9, 1954, Serial No. 448,583

Claims priority, application Germany August 18, 1953

2 Claims. (Cl. 271—2.17)

The invention relates to a magazine for a sound record in the form of an endless band wound into a roll and resting on a plate rotatable in the interior of the magazine which is closed on all sides and has only an aperture for the running in and out of the band, the position and the running of the band within the magazine being determined by a bridge constructed like a spider and arranged above the roll of the sound record band.

When the sound record band is being played, the vibrations caused by the running of the band are transmitted to the magazine and produce very disturbing extraneous noises.

To deaden these noises the magazines were hitherto so constructed that the spider-like bridge was carried by the bottom part of the magazine. As the bottom of the magazine rests on the table of the reproducing apparatus, the vibrations transmitted thereto are deadened considerably and no longer produce a disturbing noise. In practice, however, the noise cannot be eliminated to a sufficient extent because some of the vibrations, for example those within the magazine walls, are transmitted to the cover which does not in any way deaden the vibrations but in fact acts as a kind of sounding-board.

The object of the invention is to produce a magazine which ensures practically a complete deadening or elimination of the disturbing noises.

As the vibrations causing the noises are transmitted primarily to the magazine by the spider-like bridge serving as support and guide for the band, the invention, to attain this object, provides elastic members (cushioning) at the points of connection between the bridge and the bottom part of the magazine carrying the bridge, the arm of the bridge mounted in the front wall of the magazine being preferably provided with a ring of elastic material at its bearing point.

For magazines with bridge arms supported on pins in the bottom part of the magazine the bridge arms are, according to the invention, provided with pins on their ends, which pins rest on the pins in the bottom part of the magazine and the pins on the ends of the bridge arms and also those in the bottom part of the magazine have a bore extending in their longitudinal direction, into which bores plugs of elastic material longer than the length of the bore in any of the pins are fitted and secure the bridge against lateral displacement.

By this means practically complete damping of the noise is attained. In order to prevent also the self-supporting magazine cover from transmitting any vibrations which may lead to noises and to be able in addition to remove the pins on the ends of the bridge arms from the pins on the bottom part of the magazine, the pins arranged on the ends of the bridge arms are, according to the invention, extended in upward direction to about the height of the top part of the magazine and provided on their upper ends with a piece of felt or the like which rests against the top part of the magazine. By this means any vibrations of the upper part of the magazine which might possibly arise are additionally damped.

A magazine according to the invention is illustrated by way of example in the accompanying drawings, in which:

Fig. 1 shows the magazine in top plan view with its cover removed;

Fig. 2 is a section thru the magazine taken on line II—II of Fig. 1, and

Fig. 3 is a perspective view of the spider-shaped bridge.

The magazine comprises a bottom part **1** and a top part **2**. A winding plate **3** is contained therein and carries an endless band wound into a roll **4**. The bottom part of the magazine is provided with an aperture **5** in one of its side walls for the passage of the band loop **6**. Posts **7** and **8**, enclosed in felt rolls **9** and **10** respectively and located one on each side of the aperture **5**, serve for guiding the band as it passes thru the magazine aperture. Within the magazine, the band in running is guided by a spider-shaped bridge **11**. This bridge is carried by posts **12** and **13** rigidly connected with the bottom part of the magazine and is mounted at **14** in a magazine wall **15** covering the greater part of the magazine aperture. The bridge arm at this bearing point is surrounded by a ring **16** of elastic material which strongly damps the vibrations transmitted chiefly to the front magazine wall.

The rearwardly extending arms **17** and **18** of the spider-shaped bridge are provided at their ends with pins **19** and **20** respectively which rest on the pins **12** and **13** rigidly mounted in the bottom part of the magazine. Both the pins **12, 13** and also the pins **19, 20** each have a bore, **21, 22, 23, 24**, extending in longitudinal direction. Plugs **25** and **26** of a length exceeding the length of the bore in a pin, are fitted in coupling engagement one in each pair of coordinated bores **21, 22** and **23, 24**. These plugs are of about the same diameter as that of the bores in which they fit. The pins resting one upon the other are thus prevented from lateral displacment but are nevertheless not rigidly connected. The vibrations of the bridge are consequently not transmitted directly to the walls of the magazine but are damped by the interposed plugs of elastic material.

The arm **17** of the bridge extending close to the top part **2** of the magazine carries on its end provided with a pin **19** on the side remote from the pin a felt disk **27** which bears against the top part **2** of the magazine and prevents the spider-shaped bridge from lifting off the pin **12** during the feeding or running of the band. The arm **18** of the bridge carries on its upper side a pin **28** which, by means of a felt disk **29** mounted on its upper end, bears against the top part **2** of the magazine and prevents the pin **20** from lifting off the pin **13** in the bottom part **1** of the magazine. In addition the two felt disks **27** and **29** serve for deadening noises by damping the vibrations of the magazine cover.

It is evident that the invention is not restricted to the embodiment illustrated and described by way of example. Numerous modifications can be introduced without departing from the scope of the invention.

I claim:

1. A magazine for endless sound record bands comprising a closed case having a top part and a bottom part with an aperture in the side for a loop of the band, a plate for carrying a rolled up sound record band rotatably supported on the bottom part of the case, upstanding pins on the botom part of the case, a spider-shaped bridge above the said rolled up sound band, depending pins on the arms of the spider, the pins on the arms and in the bottom part of the case having each a longitudinal bore and plugs of elastic material of a length exceeding that of the bores in said pins and fitted therein to secure the bridge against lateral displacement.

2. A magazine for endless sound record bands com-

prising a closed case having a top part and a bottom part with an aperture in the side for a loop of the band, a plate for carrying the rolled up sound record band rotatably supported on the bottom part of the case, upstanding pins on the botom part of the case, a spider-shaped bridge above the said rolled band, a depending pin on the end of each of the arms of the bridge opposite each one of the upstanding pins, each of said pins having a longitudinal bore, and plugs of elastic material longer than the bore in one of said pins, one plug in each of the upstanding pins engaging in the bore of the opposite depending pin to prevent lateral displacement of said bridge, the pins on the bridge arms having upward extensions and each supporting a sound-dampening member bearing against the top part of the case.

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