March 8, 1960 S. LOEWE ET AL 2,927,688

REEL CLIP

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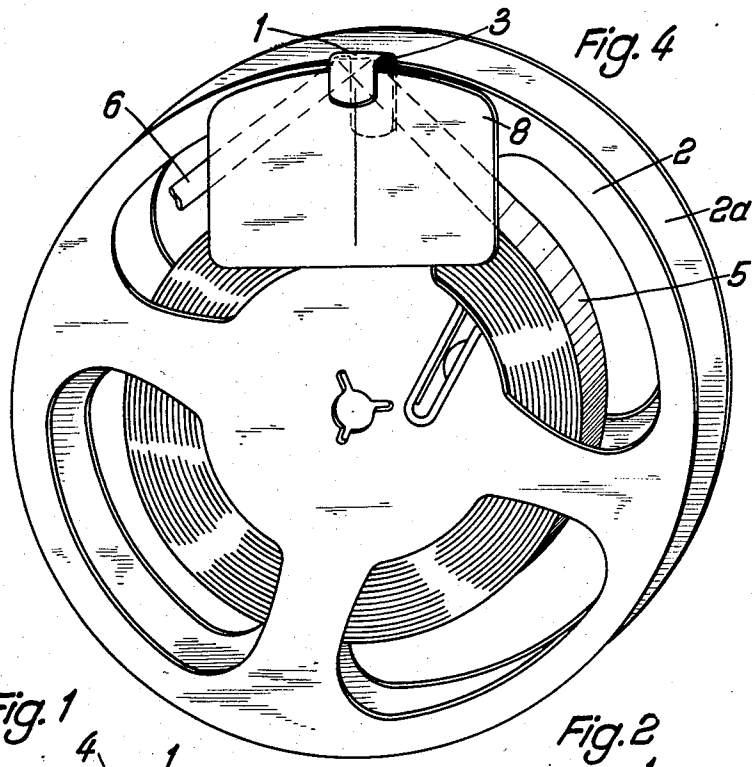


Fig. 4

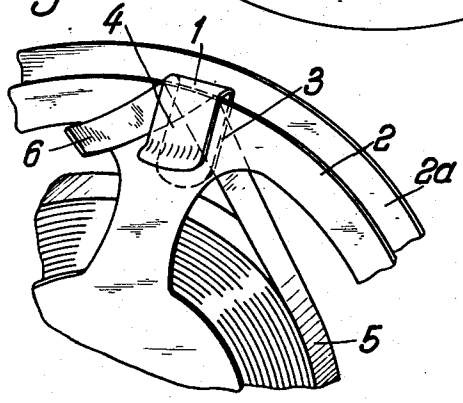


Fig. 1

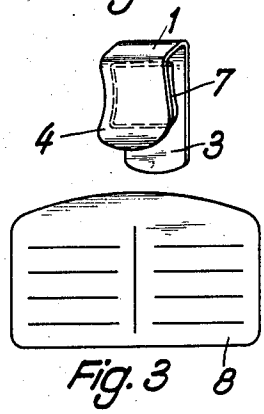


Fig. 2

Fig. 3

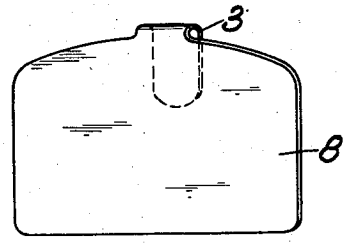


Fig. 5

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REEL CLIP

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1 Claim. (Cl. 206—53)

With reels on which tapes, wires, or also films are wound, it it often necessary or desirable to fix the free end of the wound-up tape, wire or film so that the tape is not accidentally wound off or unrolled from the tape roll, in particular when still in an unused condition. This is especially important in connection with magnetic tapes which are particularly thin and light and are continually inclined to unroll automatically from the reel.

A solution to this problem is already known in which clamps are used which contain three pieces arranged like a fork, the middle one of which is fitted in the space between the two reel flanges towards the tape roll whilst the two outer parts clasp the reel flanges from outside. Here, the middle piece is of such length that, even with a small diameter of the tape roll to be fastened, it still reaches the surface of this when affixed and can thus hold the end of the tape. The disadvantage of such a clamp is that it must be fitted at a slant with larger roll diameters in order to make allowance for the smaller distance in this case present between the outer edge of the flange and the surface of the roll. This slanting arrangement which, in certain cases, can or will require a tangential direction of the clamp, has a disadvantageous effect on the clamping force exerted at the edge of the flange.

The present invention refers to an improved solution for the problem in question by means of which it is possible to hold tightly and reliably the end of the tape, wire or film respectively, independent of the roll diameter. In accordance with the invention, the clamping device consists of a flat clamp spring which can be placed on the edge of a reel flange similar to a tab. This is so formed that it can be put on any position desired on the edge of the reel flange like a paper clip, this position being the spot where the free end of the tape or wire is brought out from the reel roll to the end of the flange and bent outward around the latter.

The described method has the further advantage that, in particular, the side of the clamp spring lying on the outer surface of the reel flange can be connected to a plate suitable for inscription or can itself be made in the form of such a plate. This then makes it possible to register in the usual manner details as to the contents of the tape, e.g. in connection with magnetic tapes with invisible sound writing. The inscription plate is best made from a washable material or one with good erasive qualities.

The drawing shows the principle of the invention by means of some examples, representing:

Fig. 1 a part of a reel flange with simple clamping device fitted on for clamping the end of a wound-up tape.

Fig. 2 the clamping device alone.

Figs. 3 and 5 an inscription plate which can be used together with the clamping device.

Fig. 4 a complete arrangement of the device.

According to Fig. 1, the clamping device for the end of a tape wound on a reel consists of a clamp spring 1 which can be fitted on one of the two reel flanges 2 and 2*a* and is formed by the legs 3 and 4. The end of a wound-up magnetic tape 5 is placed from inside around the reel flange 2 on the spot on which the clamping device 1 is fitted. The clamping device 1 then clamps this end of the tape tightly to this reel flange 2 so that the free end 6 of the tape lies, as shown, on the outer surface of this reel flange.

Fig. 2 shows the clamping device alone made in the form of a flat clamp spring with legs 3 and 4. This example also shows a clamping piece 7, provided on the inner surface of the leg 4 which, for example, serves to hold an inscription plate 8 shown in Fig. 3 which can be pushed in from below. In order to provide a better hold of the inserted inscription plate, either the inner side of the leg 4 or of the clamping piece 7 is provided with a rough surface, i.e. either ribbed or covered with rubber, felt or similar. The same means for increasing the surface friction can also be provided on those places of the clamping device 1 which are in contact with the flange surfaces.

Figure 4 differs from the previously described examples in that here the clamping device 1 is joined together with the inscription plate 8 in such a way that this plate forms the leg of the clamping device lying on the outer flange surface.

What we claim is:

In combination with a reel with at least one side flange for non-perforated magnetic tape, a flat U-shaped clip forming two parallel legs, the distance of which corresponds to the thickness of the reel flange, said clip being adapted to be shifted over the edge of said flange, the latter serving as support for the free end of said tape which is bent over said flange edge at a point of its periphery where said clip is shifted over, and forms a 90° twist between said flange edge and the tape turn roll, the said clip clamping the twisted tape to the flange, a clamping piece being fastened to one of said legs holding by friction an inscription plate shifted between said leg and said clamping piece.

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