Sept. 6, 1949. C. L. BOSSMEYER 2,481,285

METHOD OF PACKING FLEXIBLE RECORDING BELTS

Filed Sept. 20, 1944

Fig. 1.

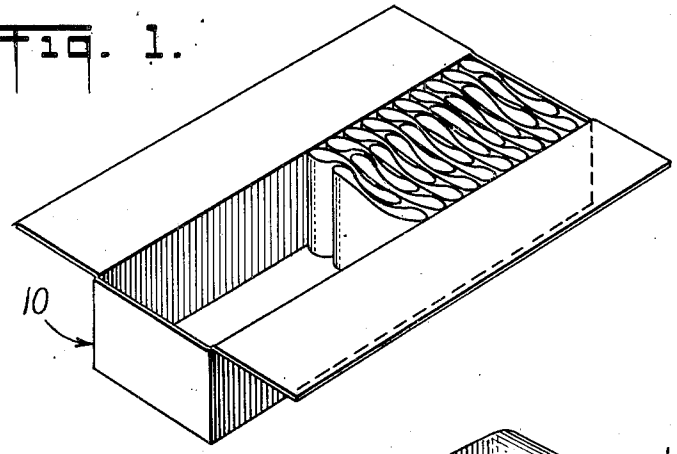


Fig. 2.

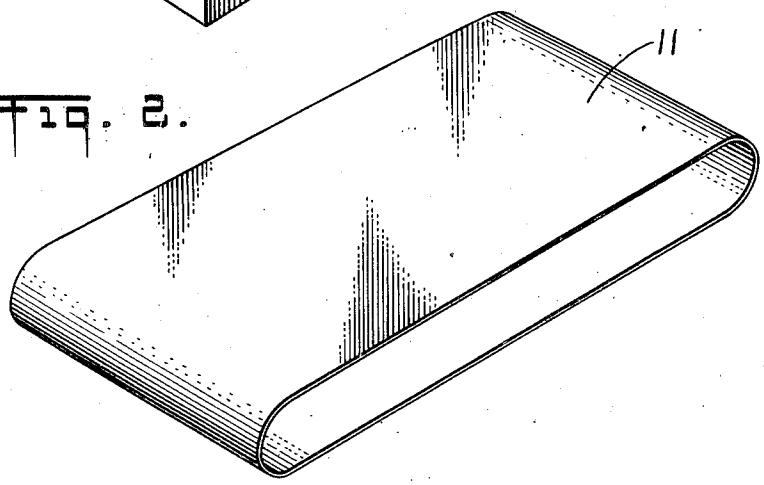
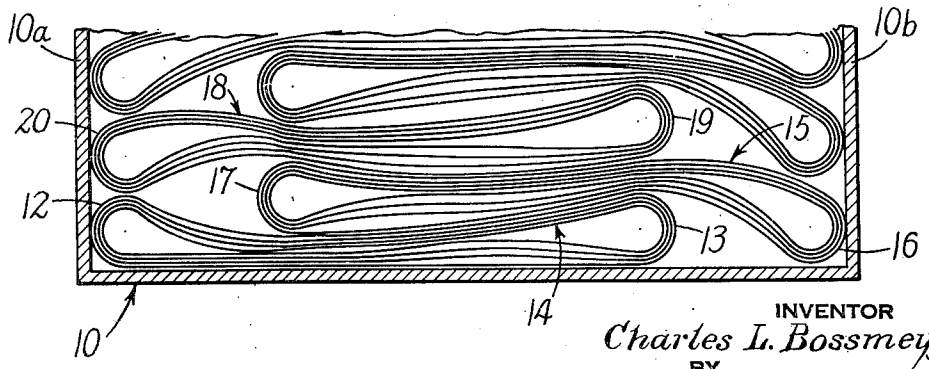


Fig. 3.



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METHOD OF PACKING FLEXIBLE RECORDING BELTS

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2 Claims. (Cl. 226—14)

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This invention relates to a method of packing flexible phonograph recording belts.

One of the objects of this invention is to provide a method of packing recording belts which is simple, thoroughly practical, and efficient in use. Another object is to provide a method of the above character through the use of which recording belts may be quickly and easily packed. Another object is to provide a method of the above character which protects the belts against damage during shipment. A further object is to provide a new and improved method in packing flexible recording belts. Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly consists, in the features of construction, combinations of elements, arrangements of parts, and in the several steps and relation and order of each of the same to one or more of the others, all as will be illustratively described herein and the scope of the application which will be indicated in the following claims.

In the accompanying drawing in which is shown one of the various possible embodiments of this invention,

Figure 1 is a perspective view of a carton partially packed with flexible recording belts;

Figure 2 is a perspective view of a flexible recording belt; and

Figure 3 is a top plan view on an enlarged scale of a portion of Figure 1 diagrammatically showing a series of groups of belts packed in a carton.

Similar reference characters refer to similar parts throughout the several views of the drawing.

This invention relates to the packing of flexible recording belts for phonographs, such as the flexible recording belt shown and described in Patent No. 2,318,828 for a phonograph, which was issued to Yerkovich on May 11, 1943. As conducive to a clearer understanding of certain features of this invention, it might here be pointed out that this type of recording belt is made of film material and in use a recording is made on its surface by a stylus. The recording belts are of the endless type and the film material is thin so that if the belt is rested on a flat surface, it assumes a flattened state. When it is in this condition if pressure is applied to the belt, sharp folds result which may interfere with the use of the belt in recording as a sharp fold may cause the stylus to jump, thus resulting in inaccurate recording. These belts are necessarily made of a material which may be readily cut by the recording stylus, and accordingly in handling these belts, it is also important that they be protected from scratches. Thus, it is another object of this invention to provide a method of packing recording belts which will prevent their being scratched or having sharp folds formed in their surfaces during shipment.

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The recording belts are preferably packed for shipment in a carton, generally indicated at 10. This carton includes a bottom, two end walls and side walls, and its depth is slightly greater than the width of the recording belt 11 (Figure 2). Before being placed in the carton 10, the belts are nested so that they are telescoped with respect to each other. Preferably the belts are nested in groups or units of approximately twenty to a group or unit. When the belts are nested and in a flattened state, the belts coact to support each other so that the loops of a group of belts such as loops 12 and 13 (Figure 3) of belts 14 have sufficient strength to resist the creasing effect of the pressures applied to the loops during shipment.

Referring to Figure 3, group 14 is vertically positioned in carton 10 adjacent one of the end walls with one of its looped ends in contact with side wall 10*a*. The loop at the other end of group 14 is spaced a substantial distance from the opposite side wall 10*b*. This last-mentioned distance is sufficient to receive the looped end portion of another group of nested belts, such as end portion 16 of the group of nested belts, generally indicated at 15. It will be noted that when group 15 is placed in the carton, it is in staggered relationship with respect to group 14 so that its loop 17 is positioned in the central portion of group 14. When the next group of nested belts, generally indicated at 18, is placed in the carton, the looped end portion 19 thereof is positioned in the central portion of group 15 and the loop portion 20 of group 18 is positioned adjacent side wall 10*a*.

This method of packing is continued until the carton is filled, each group of belts being in staggered relationship with respect to the groups adjacent it, as shown in Figure 1. When the carton is filled, it will be noted that the groups of belts therein are in interlocked relationship with respect to each other so they cannot move transversely of the carton, each group acting through its loops to hold the groups next to it in position. Furthermore, the belts, because of their flexible character and the manner in which they are nested and packed, act as cushions with respect to each other so they absorb shocks transmitted from the carton to them during

shipment. Furthermore, the loops of each group of belts are positioned to shield them from pressure as each loop in effect is positioned in a pocket.

Thus, when the belts are packed in the manner described hereinabove, they are protected against being sharply creased with resultant damage to their recording surface. Also the belts are protected from scratches because they are nested in groups and the groups are packed in interlocked relationship with respect to each other which prevents movement of the belts with respect to each other, during handling and shipment. Furthermore, a maximum of belts may be packed within a given space which results in reducing the amount of space occupied in a carton by a given number of belts. Thus an efficient and practical method of packing recording belts has been disclosed.

As the art herein described might be varied in various parts, all without departing from the scope of the invention, it is to be understood that all matter hereinbefore set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

I claim:

1. A method of packing endless flexible phonograph recording belts including the steps of: forming groups of belts into individual nests of belts each nest having looped end portions with intermediate side portions extending between the looped end portions, providing a belt container of width greater than the end-to-end length of one belt nest and less than the end-to-end length of two belt nests, and placing belt nests in the container in generally parallel partially overlapping disposition with the looped end portions of each nest offset with respect to the looped end portions of the next nest and with one end portion of alternate nests positioned adjacent one side wall of the container and the opposite end portion of the intervening nests positioned adjacent the other side wall of the container, whereby each nest is disposed with one of its looped end portions against a side wall of the container and its other looped end portion positioned in the central portion of the next nest.

2. A method of packing endless flexible phonograph recording belts including the steps of: forming a plurality of nested belt units of about twenty belts per unit each having looped end portions with intermediate side portions extending between the looped end portions, providing a belt container of width greater than the end-to-end length of a belt unit by an amount at least sufficient to receive a looped end portion, and placing belt units in the container in generally parallel partially overlapping disposition with the looped end portions of each unit offset with respect to the looped end portions of the next unit and with one end portion of alternate units positioned adjacent one side wall of the container and the opposite end portion of the intervening units positioned adjacent the other side wall of the container.

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