

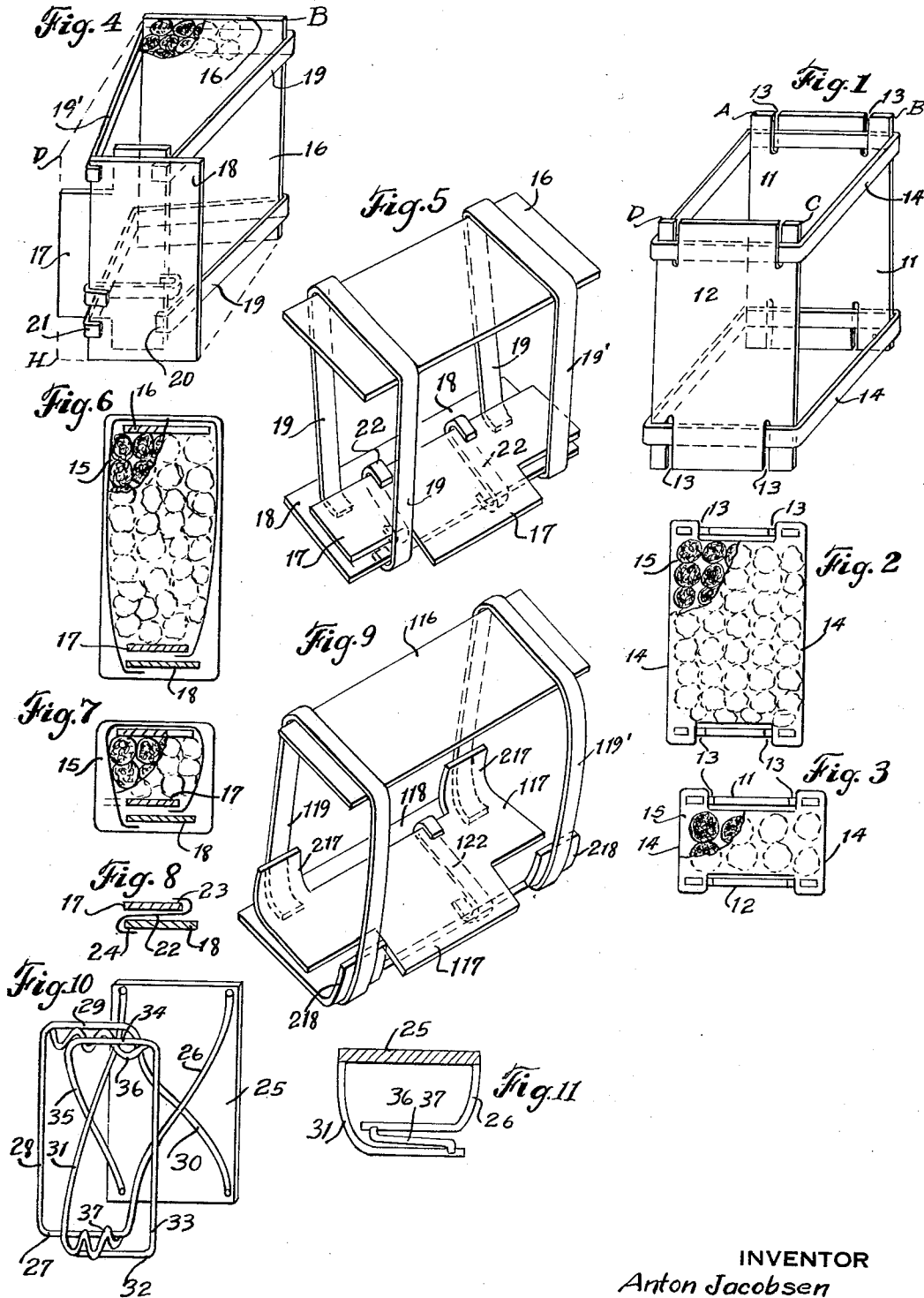
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FRAME FOR CIGARETTE PACKAGES

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FRAME FOR CIGARETTE PACKAGES

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This invention has for its object to provide a new and improved frame for cigarette packages.

In the customary cigarette packages, in which ten or twenty cigarettes are wrapped up in a rather soft paper into a small rectangular block the smoker as a rule, in order to get one cigarette, tears off the wrappings only a little bit at one corner, and shakes the package to cause the cigarette below the hole to slip out. But when the package has been carried for some time within the pocket of the smoker and has been pressed there, very often with a half-emptied package, the cigarettes stick within the package at a place remote from the hole made, and will not come out. Furthermore, the partly emptied package loses its good shape, it gets ruffled and often cigarettes are broken in it.

The object of the present invention is to overcome these difficulties by providing such cigarette-packages, that will always keep in good shape, and will secure a well controlled forwarding of all cigarettes toward the emptying-hole and a smooth discharge of the cigarettes through that hole.

In order to obtain this result I have devised a new and improved construction of cigarette packages which contain an inner frame adapted to maintain the good shape of the package, even if the package is more or less emptied; furthermore, this frame is provided with resilient means which forward the cigarettes from the more remote parts of the package step by step towards the delivery hole so that all of them can be taken out easily. In the preferred embodiment of my invention the shape-keeping and cigarette forwarding device consists in rectangular plates arranged within the package at the two opposite smaller sides of the same, and held by rubber bands or metallic-springs tending to bring the more remote plate or plates towards that plate which is at the corner near the delivery hole.

In the drawing I have shown some examples of such a shape-keeping and cigarette-forwarding frame according to my invention.

Thus in the said drawing:

Figure 1 is a perspective view of a most simple frame, consisting simply of two lateral plates and two rubber-bands pulling them towards each other, but showing no cigarettes within that package.

Figures 2 and 3 are top-views of the same frame, showing it filled with cigarettes in the original shape of the full package and in a partly emptied package.

Figures 4 and 5 are two perspective views of a

somewhat modified form of a cigarette-filled frame according to the invention in which three wall-forming lateral plates or sides are united and pulled towards each other by several rubber bands.

Figures 6 and 7 are again top views of the completely filled and of the partly emptied cigarette-holding frame, respectively.

Figure 8 is a horizontal cross-section through the one side wall of the frame which consists of two combined plates.

Figure 9 is a slightly modified construction of the frame shown in the Figs. 4 to 8.

Figures 10 and 11 are a perspective view and a top-view respectively of another modification of the shape-keeping and cigarettes forwarding frame according to my invention.

Referring more particularly to the drawing, in the first embodiment, according to the Figures 1 to 3, there are provided two rectangular plates 11 and 12, preferably consisting of card-board, which plates each have at their narrower sides near the corners four small slots 13. An endless rubber band 14 is passed through the slots 13, and round the upper corners A, B, C, D at the upper edges of the two plates 11, 12, and another endless rubber-band 14 is passed through the slots and round the corners at the lower edges of the same plates. In manufacturing the packages the two plates are braced apart and the cigarettes are placed between them, as shown in Figure 2. Then the tension of the two rubber-bands 14 will keep the package in the right shape, and if a number of cigarettes are taken out through the hole 15, the two plates 11 and 12 are step by step pulled nearer together, but always the cigarettes remaining between them will continue to form a neat square block, as shown in Figure 3.

In the second embodiment, shown in Figures 4 to 8, one side of the package-shaping frame consists as before in a rectangular plate 16, and the other side consists of two plates 17, 18, which are of the same length, but more narrow, and arranged to partly overlap one another. At the corners D and H of the package the outwardly projecting corners of the one plate 18 are cut away. Near the top of the package, and likewise near its bottom a rubber ribbon is fastened to the other side of the one narrower plate 18 at 20, then it passes as indicated at 19 at the sides of the cigarettes along the one greater longitudinal side of the package, and it is further passed around the broader plate 16 at its outer side, and then passed as at 19' along the other larger side of the package, and finally the ends of these ribbons 19, 19' are

fastened at 21 to the outer side of the other or outer side of the other narrower plate 17. The two narrower plates 17, 18 are furthermore connected with each other by the means of two other rubber ribbons 22, the ends of which are slung round one edge of each one of the two plates and fixed at their other sides at 23, 24, respectively, as has been clearly shown in Figure 8. The rubber ribbons 22 are chosen so as to have only a limited tension or pulling force in order that they, when being stretched and tensioned, will brace the two fastening ends 20, 21 of the members 19, 19' a distance from one another corresponding to the breadth of the broader plate 16; however, the rubber ribbons 22 will always tend to pull the two fastening points 20, 21 as near together, as the number of cigarettes remaining between these fastening ends of the members 19, 19' will permit. The tension of the stretched members 19, 19', however will continuously pull the composite lateral walls or plates 17, 18 towards the wall consisting of the single plate 16, as may be seen by comparing the views in Figure 6 and Figure 7. Thus gradually all the cigarettes are successively brought towards the delivery hole 15 at the one corner of the package close to the broader plate 16. The portion of each rubber ribbon 19, 19' which runs along the outer side of the frame across the plate 16 is preferably pasted or otherwise fixed to the latter. In this embodiment of the invention the three plates 16, 17 and 18 may well be made out of cardboard or veneer, or any other suitable material.

The variation of the package-shaping frame according to my invention, which is shown in Figure 9, resembles that of the above described embodiment in the general features in so far as one broader wall or plate 116 at the one end of the package and the two narrower plates 117 and 118 are united by the rubber bands 119, 119', and that the two narrower plates 117 and 118 are united by a rubber band 122. An improvement of the construction, however, consists in the arrangement of the flaps 217, 218 on the longitudinal edges of the narrower plates 117 and 118, respectively, as the rubber bands 119, 119' are passed over the outer sides of these flaps and pressing them against the larger longitudinal sides of the package, thus improving the shape-keeping action of the frame.

The Figures 10 and 11 show an embodiment of the invention, which, if desired may be made of metal. Thus in the construction, as it is shown, a rectangular metal plate carries at each longitudinal side a resilient wire frame. The wire of the one frame begins at the top of the plate, forms a twice slightly bent lateral part 26, then it turns into a plane which runs parallel to the plate 25, and in this plane it forms the three sides 27, 28 and 29 of a rectangular, not completed frame, and it crosses the first lateral part in another likewise twice slightly bent lateral part 30, and returns to the plate 25, where it is fastened to the lower end of the latter. In an analogous manner, the wire 31 extends forwardly with a double bent at the other longitudinal side of the plate 25, in a vertical plane parallel and close to the frame 27, 28 and 29 forming another, not complete frame having the three sides 32, 33 and 34, whereupon it returns to the metal plate 25 in a double turn 35, which crosses the first part 31, the end of the part 35 being

likewise fastened to the plate 25 at its lower end.

The two upper horizontal stretching members 29 and 34 of the two vertical wire frames, and likewise 30, and the two lower horizontal stretching members 27 and 32 of these wire frames are connected by a spring-wire connection 36 and 37, respectively.

The two vertical wire-frames formed in this way are working in exactly the same manner as the smaller plates 17, 18 in the previous illustration; however, if desired, the construction may embrace much smaller boards in which case the said not completed rectangular wire frames 27, 28, 29 and 32, 33, 34 serve only as back support for guiding the additional boards.

There may still be other variations of the shape-keeping and cigarette-forwarding frame forming the subject matter of this invention, and it is obvious that changes may be made in the form, construction and arrangement of the several parts, as shown, within the scope of the appended claims without departing from the spirit of the invention, and I do not therefore wish to limit myself to the construction and arrangement shown and described herein.

What I claim as new, and desire to secure by Letters Patent of the United States, is:

1. A shape-keeping and cigarette-delivery frame for cigarette packages, comprising in combination, a broad stiffening wall at the one side of the package and extending parallel to the cigarettes, another stiffening wall at the opposite side of the package and consisting of two narrower plates partly overlapping each other, rubber bands connecting the said two narrower plates in such a manner as to create a tendency to change the combined width of the latter, and rubber bands connecting the two walls in a direction crosswise to the length of the cigarettes, so as to pull the two walls nearer together, at the same time fencing the cigarettes laterally.

2. A shape-keeping and cigarette-delivering frame for cigarette packages, and the like, comprising in combination, a stiffening wall at the one side of the package, extending parallel to the cigarettes, another stiffening wall at the opposite side of the package, and lateral flaps upon one wall extending partly over the adjoining longitudinal sides of the package, and rubber bands connecting the two walls in a direction crosswise to the length of the cigarettes, so as to pull the two walls nearer together, while fencing the cigarettes laterally.

3. A shape-keeping and cigarette-delivering frame for cigarette packages, and the like, comprising in combination, a stiffening wall extending over the one smaller longitudinal side of the package, another stiffening wall at the opposite longitudinal side of the package, and consisting of two somewhat narrower plates partly overlapping each other, lateral flaps upon the narrower plates and extending partly over the adjoining larger longitudinal sides of the package, rubber bands connecting the two narrower plates in such a manner as to create a tendency to change the combined width of the said two narrower plates, and other rubber bands extending from the narrower plates over the lateral flaps and across the larger longitudinal sides of the package to the first mentioned larger stiffening wall.

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