

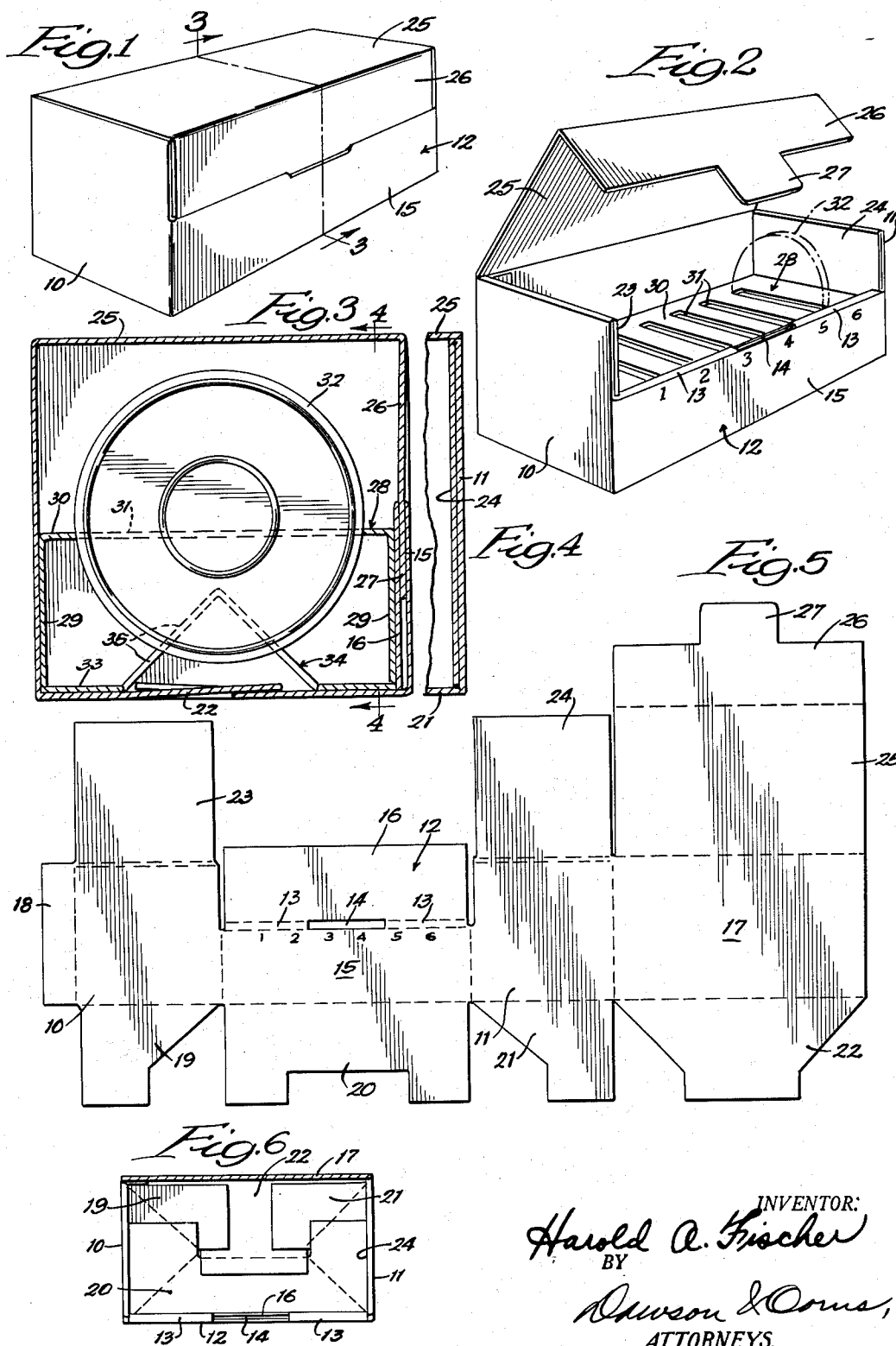
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H. A. FISCHER

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SHIPPING CASE AND STORAGE CHEST

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SHIPPING CASE AND STORAGE CHEST

Harold A. Fischer, Park Ridge, Ill., assignor to Compeco Corporation, Chicago, Ill., a corporation of Illinois

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This invention relates to a shipping case and storage chest. The invention is particularly useful in the storage of film reels and cans and similar products.

It is now the practice to ship reels in ordinary shipping cases and for storage the reels are placed in metal cases having recesses for receiving the reels on end. The metal structure is expensive and a shipping case is required in addition to the storage chest. A metal storage chest is wholly unsuitable as a shipping case and is not used for that purpose, and the shipping case has been wholly unsatisfactory as a storage chest and invariably has been discarded. It has been believed to be impracticable to provide a single chest serving both for shipment and for storage thereafter.

By "a storage chest" is meant a chest which the film operator employs for receiving the reels after use and for storing them until the reels are again to be used.

An object of the present invention is to provide a structure which is effective in rigidly supporting reels for shipment so as to prevent injury thereto while at the same time providing a storage chest for housing the reels after the shipment is completed. A further object is to provide such a chest formed from inexpensive material such as cardboard, paper board, and other fiber board materials while providing special means for strengthening the case to withstand the blows and rough usage received in shipment and at the same time providing a tight and single housing for the reels as they are being used from time to time. A still further object is to provide a means or method for shipping and housing containers whereby the containers, such as reels, cans, etc., are held in a cushioned support for shipment while at the same time providing means for sealing the container tightly about the reels, etc. during the periods in which the reels are not being used. Other specific objects and advantages will appear as the specification proceeds.

The invention is shown, in an illustrative embodiment, by the accompanying drawing, in which—

Figure 1 is a perspective view of a case or chest embodying my invention; Fig. 2, a view similar to Fig. 1 but showing the cover of the chest in raised position; Fig. 3, a transverse sectional view, the section being taken as indicated at line 3—3 of Fig. 1; Fig. 4, a transverse sectional view, the section being taken as indicated at line 4—4 of Fig. 3; Fig. 5, a plan view of the blank which has been die-cut preparatory for folding the structure into the complete container; and Fig. 6, a top plan view with the cover cut away from the rear wall of the case or chest.

Referring more particularly to Fig. 5, which shows the blank which is die-cut preparatory to the forming of the chest or case, 10 and 11 indicate the portions which will form the ends of the case. 12 indicates a side wall or front wall of the box which is adapted to be folded over along a median line 13 and which is provided centrally with a slot 14 for purposes which will be hereinafter set out. When folded over, the forward wall of the struc-

ture 12 is indicated by the numeral 15, and the rear wall is indicated by the numeral 16.

The other side wall or rear wall is indicated by the numeral 17 in Fig. 5. To the end wall 10 is attached a securing strap 18 which may be folded over for locking the side and end walls together, being secured by staples, adhesive, or other means.

The bottom wall of the chest may be formed by any suitable means. Conventional means are shown in Fig. 5, the end 10 being provided with a bottom flap 19, the front 12 being provided with a bottom flap 20, the end 11 being provided with a bottom flap 21, and the side wall or back wall 17 being provided with a bottom flap 22. The flaps 19, 20, and 21 and 22 may be folded over in interlocking relation, as illustrated in Fig. 3, to form a bottom closure. It will be understood, however, that any suitable flap structure may be employed, and, if desired, adhesive or staples may be used for securing such flaps together in a well-known manner.

Secured to the upper end of end 10 and forming an extension thereof, is a reinforcing inner end wall 23, which may be folded over to form a reinforcing inner end wall. Similarly, an inner end wall 24 is formed integrally with the end 11 and may be folded over to provide a reinforcing inner wall lying adjacent wall 11, as shown more clearly in Fig. 4.

In Fig. 5, the cover is indicated by the numeral 25 and there is a cover extension or front flap 26 which is adapted to extend down to meet the top edge of the folded front wall 12. The flap 26 is provided with an integral, depending tongue 27 adapted to engage the slot 14 to lock the cover in closed position.

When the blank as shown in Fig. 5 has been folded upon itself to provide end, front and rear walls, a bottom wall and a cover therefor, the front wall 12 being folded along median line 13 and the reinforcing inner end walls 23 and 24 being folded inside the case, a structure is produced such as is shown in Figs. 1, 2, 3, 4 and 6. In this structure, it will be noted that the end walls 11 and 24 and 10 and 23 provide a sturdy, braced side wall upon which the top or cover 25 of the chest rests. To secure the inner front wall 16 tightly in position and to provide a frictional engagement with the tongue 27 when the same is inserted through slot 14, I provide an inner reel support 28 which is in the shape of an inverted U having front and rear legs 29 and a top wall or platform 30 provided with spaced slots 31 for receiving reels 32. Such a brace structure 28 presses forwardly against the folded wall 16 and causes it to tightly grasp the tongue 27 when it is inserted through slot 14.

In the bottom of the chest I place a fibrous board 33 having its central portion arched as indicated at 34 and with the arched portions cut away to provide slots 35 receiving the reels 32. The slots 35 in the arches 34 are vertically aligned with the slots 31 so that each reel extends first through the upper slot 31 of the platform 30 and then through the aligned slot 35 in the arch support 34 therebelow.

The bottom wall is formed in a well-known manner by the interlocking of the flaps 19, 20, 21 and 22, and it will be understood that instead of such flaps, any suitable overlapping of plain flaps may be used which are secured together by staples, adhesive or other means.

In the operation of the structure, the reels or cans 32 may be inserted into the open case through the slots 31 of the platform 30 and the corresponding slots 35 in the arch portion 34 of member 33. The cover 25 may then be drawn downwardly and latched firmly in position by pressing the tongue 27 within the slot 14, where it is tightly and frictionally held between the walls 16 and 15. In this structure, the top 25 thus rests upon the double end walls 10 and 23 and 11 and 24, while the

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bottom edge of the closure flap 26 rests upon the top double edge 13 of the front wall 12. An extremely sturdy structure is thus provided for shipping the reels and during shipment the reels are supported firmly and in cushioned relation within the case by the members 28 and 33. After the case has been received by the purchaser, it is still highly serviceable as a chest for keeping the reels as they are to be used from time to time. The cover 25 may be raised to expose all of the reels, and after selected reels have been used and replaced, the chest may be sealed by pressing the cover down and the tongue 27 again into latching position within the slot 14.

I have found that a case of highly resilient and sturdy structure can be produced by using cardboard, corrugated board, paper board, fiber board, and various other types of fibrous board material. The finished container may be coated with a metal paint or lacquer or other suitable material to give it the desired finish. It is found that not only is it now unnecessary to employ two separate cases, one for shipping and one for storing, but also better results are obtained in the shipping of the reels or cans because of the cushioning and resilient support for the reels, while later in the utilization of the case as a storage chest, it is found that rattling or vibrating of the cans or reels, which tends to remove their finish, etc., is avoided because of the tight gripping of the reels by the fibrous material and the resilient support of them in the suspended positions illustrated in Figs. 2 and 3.

As shown more clearly in Figs. 2 and 3, the slots 31 extend transversely of the platform 30 and almost across the platform. When the reels 32 are received within such slots, the reels themselves form a reinforcing frame which buttresses the platform member, and the downward pressure of the reels, when inserted within the slots, aids in urging the forward leg 29 of the support 28 tightly against the inner wall 16 to maintain the inner wall 16 in friction-tight relationship with the tongue 27 of the closure flap 26.

While in the foregoing specification I have set forth a specific structure in considerable detail for the purpose of illustrating an embodiment of the invention, it will be understood that such details of structure may be varied widely by those skilled in the art without departing from the spirit of my invention.

I claim:

1. In a chest of the character set forth, a board of

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fibrous material folded upon itself to provide bottom, end, top, front sidewalls and rear sidewalls, the end walls being double walls and the front wall being folded upon itself along a median line to provide a double wall of reduced height, the front wall being provided with at least one slot along its top edge, said top wall normally resting upon the top of the double end walls and being provided with a closure flap normally resting, in closed position, upon the top edge of the folded front wall, said closure flap being provided with a latch tongue adapted to extend through the slot in said front wall, a pair of spaced members extending between the front and rear walls and provided with aligned slots, and reels received within the slots of said spaced members.

2. In a chest of the character set forth, a board of fibrous material folded upon itself to provide bottom, end, top, front side walls and rear sidewalls, the end walls being double walls and the front wall being folded upon itself along a median line to provide a double wall of reduced height, the front wall being provided with at least one slot along its top edge, said top wall normally resting upon the top of the double end walls and being provided with a closure flap normally resting, in closed position, upon the top edge of the folded front wall, said closure flap being provided with a latch tongue adapted to extend through the slot in said front wall, and support means extending between the front and rear walls and being provided with slots adapted to receive reels therein, said support means comprising an inverted U-shaped member extending from the front to the rear wall of the chest, said U-shaped member providing a platform spaced above the bottom wall of said chest and a V-shaped support member mounted below said platform, said platform and V-shaped member having aligned slots adapted to receive film reels therein.

3. The structure of claim 2 in which said U-shaped member presses against the inner folded wall of said front wall for frictionally pressing the same against said latch tongue.

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