

Nov. 8, 1949

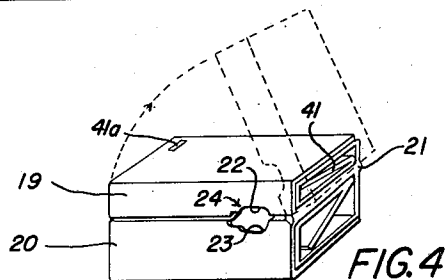
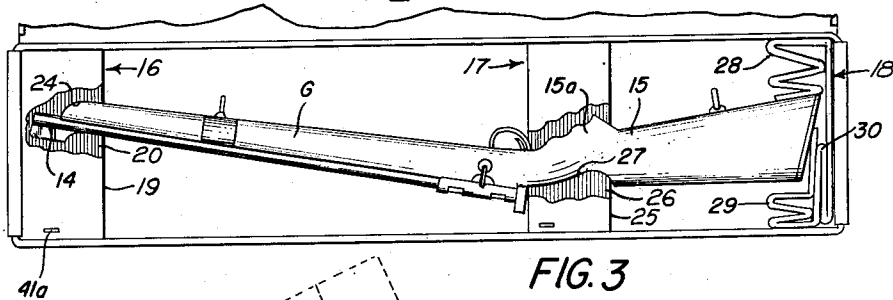
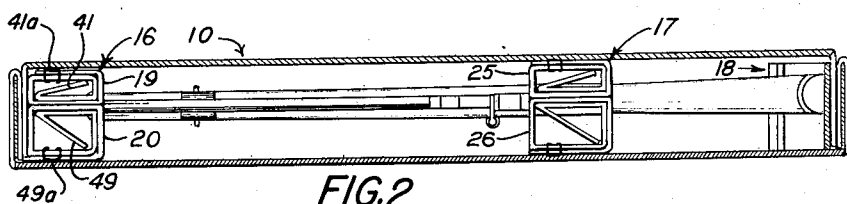
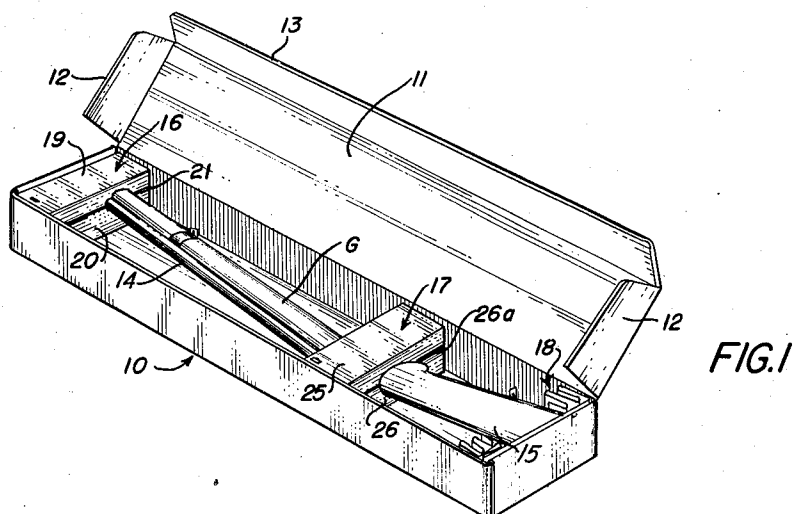
K. S. DAWSON

2,487,528

DIE-CUT INSERT FOR GUN PACKING CASES

Filed July 15, 1948

2 Sheets-Sheet 1



INVENTOR:
KENWOOD S. DAWSON

BY

H. G. Manning

ATTY.

Nov. 8, 1949

K. S. DAWSON

2,487,528

DIE-CUT INSERT FOR GUN PACKING CASES

Filed July 15, 1948

2 Sheets-Sheet 2

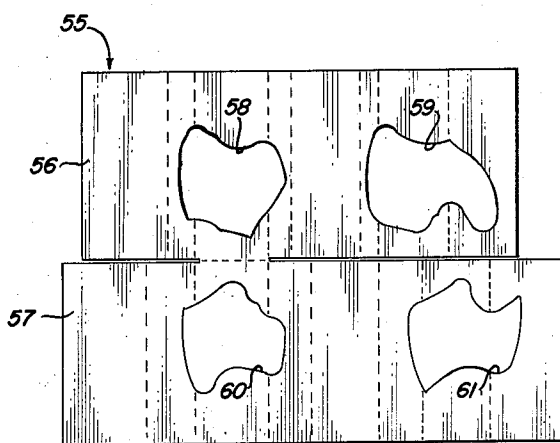


FIG. 6

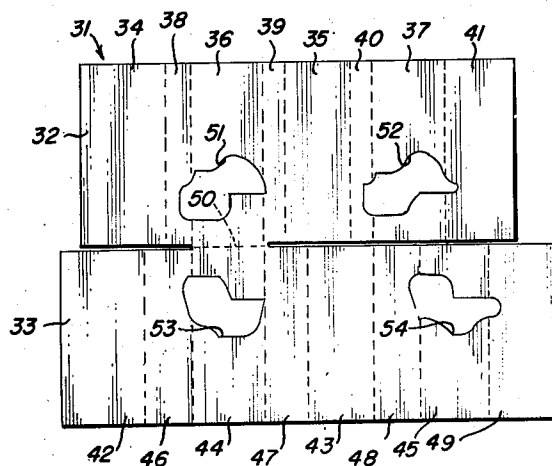


FIG. 5

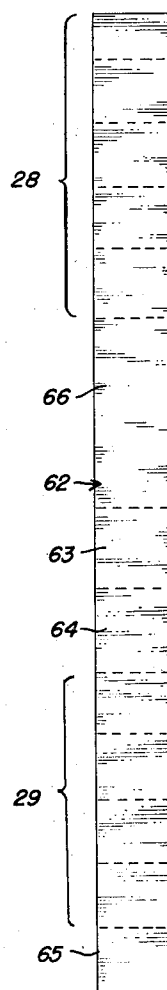


FIG. 7

INVENTOR:
KENWOOD S. DAWSON

BY *H. J. Manning*

ATTY.

UNITED STATES PATENT OFFICE

2,487,528

DIE-CUT INSERT FOR GUN PACKING CASES

Kenwood S. Dawson, Southbury, Conn., assignor
to Waterbury Corrugated Container Co., Water-
bury, Conn., a corporation of Connecticut

Application July 15, 1948, Serial No. 38,861

10 Claims. (Cl. 206-46)

1

This invention relates to receptacles, and more particularly to the cushion members of a packing case for supporting a fragile article in said case.

One object of this invention is to provide a device of the above nature which includes a three-dimensional cushion member, which is so folded from a single piece of fiber board as to provide a cavity for holding and confining the fragile article to be packed therein.

Another object is to provide a device of the above nature in which the cavity of the cushion member is formed in complementary upper and lower sections or blocks, whereby the article may be easily inserted in the cavity and the blocks compressed and held firmly about the article by the walls of the packing case.

Another object is to provide a device of the above nature which includes a plurality of cushion members for protecting and securely holding a completely-assembled gun during shipment in such a manner as to prevent movement of said gun in any direction by its inertia or momentum, and thus avoid injury thereto caused by outside forces or the motion of said box.

A further object is to provide a gun packing case of the above nature which includes improved cushion members for preventing breakage of the grip of the gun stock adjacent to its point of attachment to the gun barrel.

A further object is to provide a device of the above nature which will be simple in construction, inexpensive to manufacture, easy to assemble and manipulate, compact, ornamental in appearance, and very efficient and durable in use.

With these and other objects in view, there has been illustrated on the accompanying drawing one form in which the invention may conveniently be embodied in practice.

In the drawings,

Fig. 1 is a perspective view showing the improved packing case and a gun packed therein, as it would appear with the cover open.

Fig. 2 is a longitudinal sectional view of the same, with the cover closed.

Fig. 3 is a fragmentary plan view of the same.

Fig. 4 is a perspective view of the muzzle-supporting cushion element.

Fig. 5 is a plan view of the flat blank from which the muzzle-supporting cushion element is folded.

Fig. 6 is a plan view of the flat blank from which the stock-supporting cushion element is folded.

Fig. 7 is a plan view of the flat blank from

2

which the supporting element for the shoulder end of the stock is formed.

Referring now to the drawings in which like reference numerals denote corresponding parts throughout the several views, the numeral 10 indicates an elongated rectangular box having a swingable cover 11 which is provided with a pair of end flaps 12, 12 and a front flap 13.

A gun G which has the usual barrel 14 and a stock 15 provided with a hand grip 15a, is adapted to be supported within the box 10 by means of a barrel-supporting cushion member 16, a hand grip supporting cushion member 17, and a rear cushion member 18 which is adapted to embrace the shoulder end of the stock 15.

The barrel-supporting cushion member 16 comprises a rectangular upper block 19 and a rectangular lower block 20, which are joined by a flexible section 21 (Fig. 4).

Opposed recesses 22, 23 are formed in the facing surfaces of the upper and lower blocks 19, 20, respectively, thereby forming a cavity 24, which is adapted to closely embrace and fit around the muzzle end of the barrel 14.

The hand grip supporting cushion member 17 comprises an upper block 25 and a lower block 26 which together provide a cavity 27 adapted to closely embrace the hand grip 15a of the gun G. The blocks 25, 26 are joined by a flexible section 26a.

It will thus be seen that the cushion member 17 is in all respects the same as the cushion member 16 with the exception that the cavity 27 is differently shaped in order to fit the hand grip 15a.

The rear cushion member 18 is provided with accordion-folded abutments 28, 29 adapted to embrace the opposite edges of the shoulder end of the stock 15. The cushion member 18 also includes folds forming an end pad 30 which serves to brace the gun and prevent it from moving longitudinally in the box 10.

It will be understood that the cushion members 16, 17, 18 are of such dimensions as to fit within the box 10 so as to be held in firmly compressed condition when the cover 11 is closed.

Referring now to Fig. 5, the numeral 31 indicates a flat blank of sheet material from which the barrel-engaging cushion member 16 is formed. Any sufficiently stiff sheet material may be used for the blank 31, preferably being corrugated fiber board.

The blank 31 comprises a pair of rectangular sections which are adapted to be folded to form the upper block 19 and the lower block 20, and which will be hereinafter referred to as the upper

3

block section 32, and the lower block section 33. The upper block section 32 includes outer and inner top wall portions 34, 35 and outer and inner bottom wall portions 36, 37, alternated with side wall portions 38, 39, 40.

The upper block section 32 is also provided at one end with a diagonal wall portion 41 which will serve to reinforce the upper block 19 as shown in Fig. 4. If desired, after the section 32 has been folded, a staple 41a may be engaged through the top wall portions 34, 35 to hold the upper block 19 in the assembled condition shown in Figs. 2 and 4.

The lower block section 33 comprises outer and inner bottom wall portions 42, 43, and outer and inner top wall portions 44, 45, alternated with side wall portions 46, 47, 48. The lower block section 33 of the blank 31 is also provided at one end with a diagonal wall portion 49 which is adapted to reinforce the lower block 20 in its assembled condition. After the section 33 has been folded, a staple 49a may be engaged through the bottom wall portions 42, 43 to prevent unfolding of the block 20.

It will be observed from Fig. 5 that the upper and lower block sections 32, 33 are connected only at the adjacent ends of the outer bottom wall portion 36 of the upper block section 32 and the outer top wall portion 44 of the lower block section 33. A score line 50 is provided at this location between the sections 36, 44, thereby forming the flexible zone 21, so that the respective blocks 19, 20 will be hinged together as illustrated in Fig. 4.

The recess 22 in the upper block 19 will be formed by means of apertures 51, 52 cut in the upper block bottom wall portions 36, 37 of the blank 31, and the recess 23 will be formed by apertures 53, 54 cut in the lower block top wall portions 44, 45. It will thus be seen that the sides of the cavity 24 will be formed by the superimposed edges of the four apertures 51, 52, 53, 54, and the muzzle end of the barrel 14 will be held very firmly in position.

The hand grip engaging cushion member 17 is similarly formed from a blank 55 of flat material which comprises an upper block section 56 and a lower block section 57. The upper block section 56 is provided with apertures 58, 59, and the lower block section 57 is provided with apertures 60, 61, said apertures being adapted to form the cavity 27 for supporting the hand grip 15a. The blank 55 is otherwise the same as the blank 31 and need not be further described.

The cushion member 18 for embracing the shoulder end of the stock 15 is formed from a blank 62 consisting of an elongated strip of material having the same width as the interior height of the box 10.

The abutment 28 is folded from a plurality of sections at one end of the blank 62, and the abutment 29 is formed from a plurality of sections adjacent the other end of said blank. The blank 62 is also provided with a plurality of sections 63, 64, 65 which are adapted to form the end pad 30, and a connecting section 66, which is adapted to abut the end wall of the box 10.

Operation

In operation, in order to form the muzzle-supporting cushion 16, the upper section 32 of the blank 31 will be formed by first folding the diagonal wall portion 41 to the left, as seen in Fig. 5, and then folding the successively adjacent portions toward the left until they are disposed

4

over the outer bottom wall portion 36, after which the outer top wall portion 34 will be folded over the inner top wall portion 35, and then secured by the staple 41a, if desired. The portions of the lower block section 33 will be folded in the same manner, thereby completing the filler member 16.

To form the handgrip supporting cushion 17, the blank 55 will be folded in the same way as the muzzle-supporting cushion 16, after which the assembled lower blocks 20, 26 of the cushions 16, 17 will be placed in the box 10, the gun G inserted in the cavities 27, 22 and the upper blocks 19, 25 swung downwardly to embrace the muzzle 14 and the stock 15, respectively.

The blank 62 will be folded to form the cushion member 18 (as shown in Fig. 3), which will then be slid downwardly between the shoulder end of the stock 15 and the walls of the box 10 in such a manner as to embrace said shoulder end. The lid 11 will then be closed, the flaps 12, 13 being inserted between the respective cushion members and the side and end walls of the box 10. The gun G will then be supported within the box 10 in a condition suitable for shipment, and effectively cushioned against injury during subsequent handling.

One advantage of the present invention is that it will enable guns to be shipped in fully assembled condition without danger of breakage. This advantage will be apparent from the fact that it has been customary to ship guns with their stocks removed from the barrels in order to avoid breakage of the stocks adjacent the hand grip.

Another advantage is that the packing case is quite strong, and not only holds the gun securely, but supports it in such a position that if the box becomes pierced accidentally during shipment, there will be little likelihood of injury to the gun.

While there has been disclosed in this specification one form in which the invention may be embodied, it is to be understood that this form is shown for the purpose of illustration only, and that the invention is not to be limited to the specific disclosure, but may be modified and embodied in various other forms without departing from its spirit. In short, the invention includes all the modifications and embodiments coming within the scope of the following claims.

Having thus fully described the invention, what is claimed as new and for which it is desired to secure Letters Patent is:

1. In a packing case, a box, and a cushion member therein having complementary upper and lower blocks disposed entirely between the walls of said box, said blocks being formed of sheet material progressively folded to provide four sides in each block including complementary facing flat sides in face-to-face contact, said facing sides being recessed to form a cavity conforming to the shape of an article to be packed in said case, the top and bottom of said cushion member being compressed by the walls of said box whereby said article will be locked and cushioned securely in said cavity.

2. The invention as defined in claim 1, wherein each of said blocks is hollow, said cavity comprising apertures cut in side walls and in the facing sides of said blocks.

3. The invention as defined in claim 1, wherein said cushion member comprises a single integral piece of sheet material, said blocks being swingably joined by a flexible section of said

5

sheet material integral with one end of each of said facing sides.

4. In a flat blank for a cushion member for a packing box, two sections adapted to be folded to form upper and lower blocks respectively, each of said sections comprising a series of top and bottom flat wall portions alternated with side wall portions, a bottom wall portion of the upper block section and a top wall portion of the lower block section being integrally and directly joined in end-to-end relation, said sections being otherwise cut apart from each other, said blank having apertures in a top wall portion of the lower block section and in a bottom wall portion of the upper block section, whereby the cushion member will be provided with an article-embracing and locking cavity when assembled.

5. The invention as defined in claim 4, wherein said upper block section has a plurality of apertured bottom wall portions, and said lower block section has a plurality of apertured top wall portions, the respective bottom wall portions and top wall portions and the apertures therein being superposed in the assembled condition of the cushion member to thereby strengthen the sides of said cavity.

6. The invention as defined in claim 4, wherein one end of each of said sections has a wall portion adapted to form a diagonal in one of said blocks, whereby said blocks will be reinforced against collapsing.

7. In a packing case for a gun, an elongated box, a cushion member having a cavity adapted to confine the muzzle of the gun, and a cushion member having a cavity adapted to confine the hand grip of the gun, said cushion members each comprising complementary upper and lower blocks slidably disposed between the walls of said box and having recesses forming said cavities, the blocks of each cushion member being integrally connected at one end for swinging movement into face-to-face contact and adapted to be held

6

in closed compressed relation about the gun by the walls of said box.

8. In a packing case for a gun having a stock, an elongated box, a cushion member having a cavity adapted to confine the muzzle of the gun, a cushion member having a cavity adapted to confine the hand grip of the gun, and a cushion member adapted to embrace the shoulder end of said stock, said muzzle confining and hand grip confining cushion members each comprising complementary upper and lower blocks slidably disposed between the walls of said box and having recesses forming said cavities, the blocks of each cushion member being integrally connected at one end for swinging movement into face-to-face contact and adapted to be held in closed compressed relation about the gun by the walls of said box.

9. The invention as defined in claim 8, in which said cavities have an irregular shape to conform to the irregular portions of the gun, whereby said cushion members will hold said gun against displacement in said box.

10. The invention as defined in claim 8, in which said cushion members are formed of stiff sheet material.

KENWOOD S. DAWSON.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
439,562	Richards	Oct. 28, 1890
1,136,099	Carter	Apr. 20, 1915
1,504,292	Wickes	Aug. 12, 1924
2,176,274	Parnin	Oct. 17, 1939
2,299,355	Stolpman	Oct. 20, 1942
2,314,491	Greenberg	Mar. 23, 1943
2,393,734	Beardsell	Jan. 29, 1946
2,448,679	Meinhardt	Sept. 7, 1948