April 7, 1936. H. L. MYERS 2,036,822

BOX

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Fig. 1.

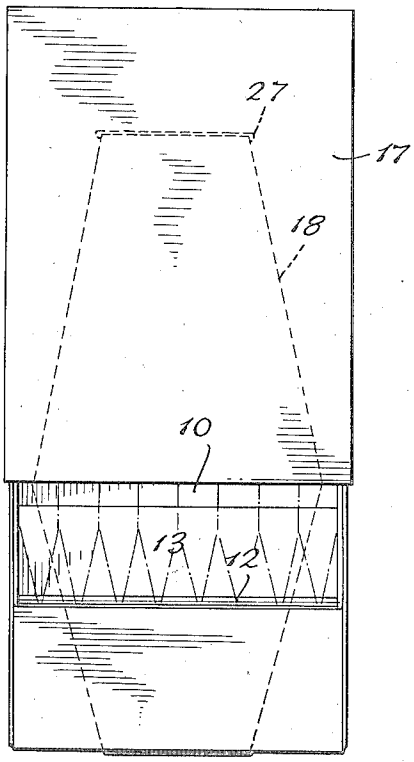


Fig. 2.

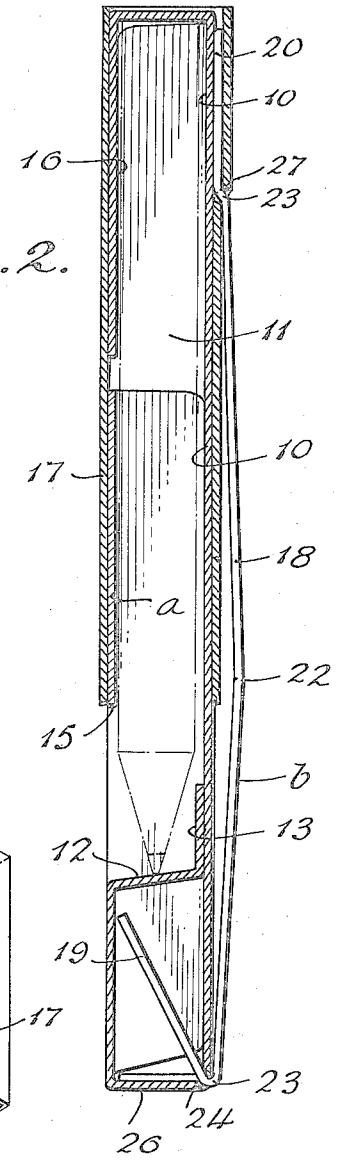


Fig. 3.

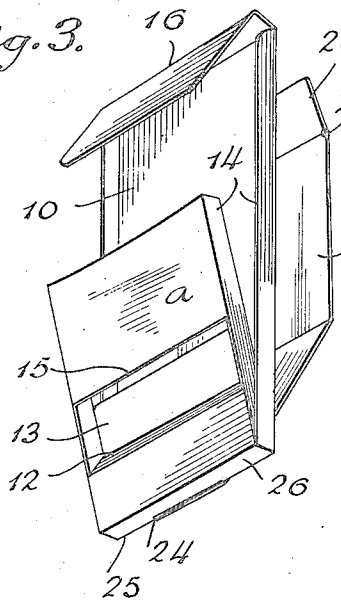
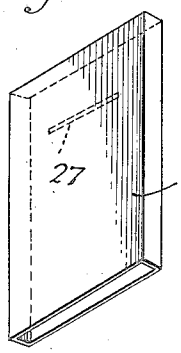


Fig. 4.



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Fig. 5.

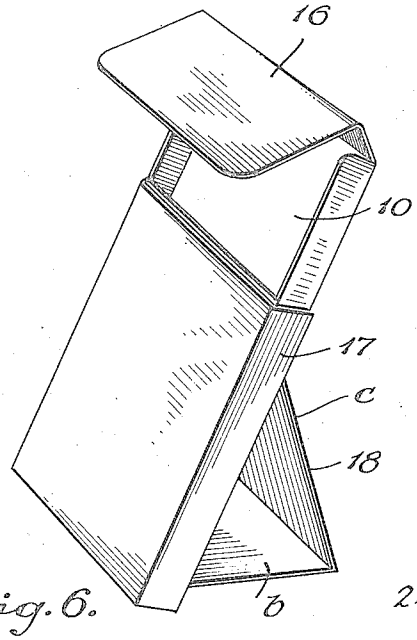
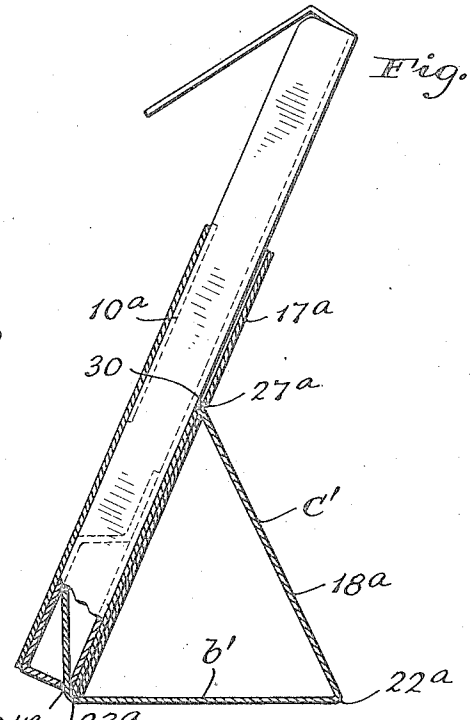
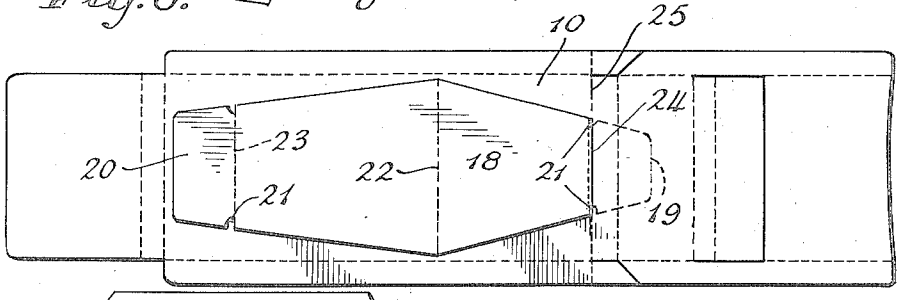


Fig. 6.

Fig. 7.





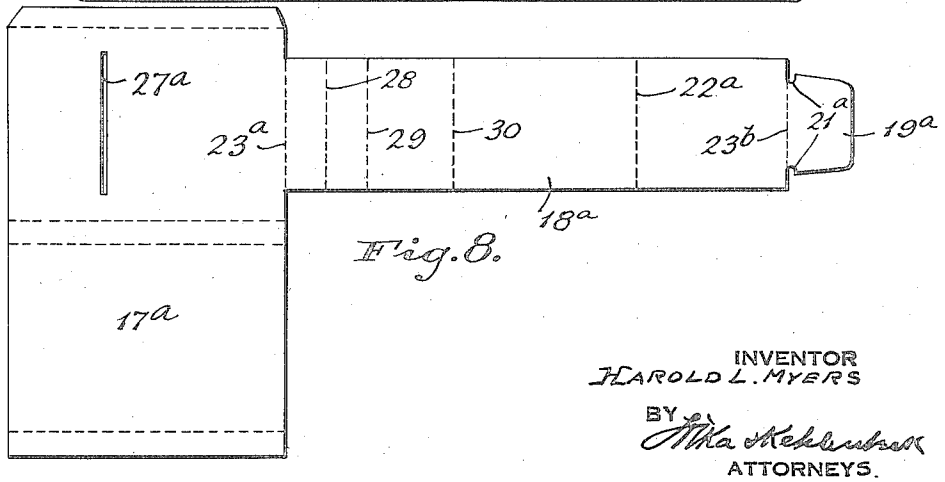


Fig. 8.

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Patented Apr. 7, 1936

2,036,822

UNITED STATES PATENT OFFICE

2,036,822

BOX

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Application January 20, 1934, Serial No. 707,435

6 Claims. (Cl. 206—44)

The invention relates to boxes and more particularly to paper boxes of the so-called "slide type" comprising an inner body section adapted to contain articles of merchandise and an outer sleeve section slidable relatively to said body section to one position in which the box constitutes a normal container, that is a container in closed condition and to another position to open the container and to permit ready removal of the merchandise or to display the same. The object of the invention is to provide boxes of the indicated class with foldable supporting members combined with the sections in a novel manner and automatically adjustable from an inoperative position to a supporting position and vice versa by the movements of said sections relatively to each other. Other objects will appear from the description hereinafter and the features of novelty will be pointed out in the claims.

In the accompanying drawings, which illustrate examples of the invention without defining its limits, Fig. 1 is a face view of the box, in its normal condition, with one form of the novel supporting member combined therewith; Fig. 2 is a longitudinal section of Fig. 1 on a larger scale; Fig. 3 is a perspective view of the inner body section of the box and attached supporting member; Fig. 4 is a perspective view of the co-operating outer sleeve section of said box; Fig. 5 is a perspective view of the box of Fig. 1 with the supporting member in a supporting position; Fig. 6 is a flat face view of the inner body section of the box of Fig. 1 with the supporting member attached thereto; Fig. 7 is a sectional view of the box in display position with another form of supporting member combined therewith, and Fig. 8 is a flat face view of the inner body section of the box of Fig. 7 and the supporting member thereof.

In the drawings the box is shown in a form designed to contain pencils, crayons or the like, for which it is especially adapted, it being understood however that this is not to be construed as a limitation and that the box may be constructed for the purpose of containing articles of merchandise other than those mentioned above.

In the form illustrated, the box comprises an inner body section 10 constructed of a single sheet of paper or other material, scored and folded to provide a tray-like container for the pencils, crayons or the like 11. As illustrated in Figs. 2 and 3, the body section may include a false bottom 12 fixed in place by means of an integral flap 13 adapted to engage the bottom of the body section 10 to which it may be secured by pasting or otherwise, if desired; it will be understood that the side members 14 of the body section 10 may be likewise fastened together by pasting to complete the body section 10, although in some forms this may be unnecessary. In the illustrated example the false bottom 12 and the flap 13 comprise material cut from a portion of the body section 10 to provide a display opening 15 in the latter. The body section 10 in its illustrated form further includes a hinged and foldable cover flap 16 as shown in Figs. 2 and 3. In addition the completed box includes an outer sleeve section 17 slidably mounted on the body section 10 so that said sections 10 and 17 are capable of being moved relatively to each other in lengthwise directions. As shown in the drawings the outer sleeve section 17 is of rectangular tubular form to slidably fit upon the inner body section 10 of corresponding rectangular shape, and is of a length substantially less than that of the body section 10.

When the box is designed for the purpose of containing crayons, pencils or the like 11, the latter are contained in the body section 10 with the points of said pencils, crayons or the like resting upon the false bottom 12 as illustrated in Figs. 1 and 2. In the normal condition of the box in which it constitutes a package, the outer sleeve section 17 occupies a raised position on the inner body section 10, for instance at one end thereof in overlying relation to the closing flap 16, or with said flap extending into said outer sleeve section 17, as illustrated in Fig. 2; in this position the upper end of the box is closed by said flap 16 while the lower or pointed end portions of the crayons, pencils or the like 11 are visible through the display opening 15, this arrangement exemplifying the position of the box in its normal condition in which it constitutes a package for storing or shipping the contents, or for containing the latter when not in use. When it is desired to remove one or more of the pencils, crayons, or the like 11, the outer sleeve section 17 is shifted downwardly on or toward the other end of the inner body section 10 in Fig. 2 so as to release the closing flap 16 and permit the same to be adjusted to an open position in which the upper portions of the pencils, crayons or the like 11, project above the portion *a* of the inner body section 10 so as to be easily accessible for removal as desired.

To permit the box to be supported in an inclined position for display purposes, or in order to maintain the contents in a position of ready accessibility for use, the box is provided with a supporting member which, by the relative movements of the inner body section 10 and outer sleeve section 17, is automatically adjusted to a supporting position to act in the nature of an easel and to an inoperative position in which it lies in an extended flat condition in close rela-

tion to or in substantial surface engagement with the rear or bottom face of the box.

In the form shown in Figs. 1 to 6 inclusive, the supporting member 18 is constructed as an element independent of the sections 10 and 17 and preferably converges from an intermediate point towards its opposite free ends as shown in Fig. 6; at said free ends the supporting member is provided with outwardly tapering tongues 19 and 20 forming integral extensions of the member 18 and notched at their bases as indicated at 21. In the illustrated example the distance between the bases of the tongues 19 and 20 is less than the length of said body section 10. The member 18 at an intermediate point preferably coinciding with its widest portion, is transversely scored as indicated at 22, and in addition is provided at the base of the tongues 19 and 20 in registry with the notches 21 with additional scorings 23. To enable the supporting member 18 to be properly and operatively combined with the box, the inner body section 10 is provided with a transverse slot 24 preferably located in registry with one folding edge 25 of the one end wall 26 of the inner body section 10, as shown in Figs. 2 and 3. The outer sleeve section 17 is provided at an intermediate point with a corresponding transverse slot 27 as shown in Figs. 1 and 2. The length of the slots 24 and 27 corresponds approximately to the distance between each pair of opposite notches 21 and accordingly is less than the widest portions of the tongues 19 and 20 at the base of said tongues and adjacent to said notches 21. To combine the supporting member 18 with the box sections the tongue 19 is inserted into the slot 24 of the body section 10 and is forced through said slot 24 until the widest portion of said tongue 19 has passed inwardly beyond said slot 24, the flexibility and inherent characteristics of the paper or other material of which the tongue 19 is made permitting this operation; as soon as said widest portion of said tongue 19 has passed inwardly beyond said slot 24, the material of which the tongue 19 is constructed will snap back to its original form so that the slot 24 registers with the notches 21 and the tongue 19 projects laterally beyond the ends of said slot 24 and is accordingly locked against withdrawal therefrom. The opposite end of the supporting member 18 is correspondingly connected with the outer sleeve section 17 by forcing the tongue 20 inwardly through the slot 27 thereof until the widest portion of said tongue 20 has passed inwardly beyond said slot 27; in this instance also as soon as this occurs, the material of which the tongue 20 is composed will snap back to its initial condition and thereby lock the tongue 20 against withdrawal from the slot 27 which at this stage lies in registry with the other pair of notches 21.

When the parts of the box occupy the positions shown in Figs. 1 and 2 in which said box constitutes a package or container, the supporting member 18 will occupy an extended flattened position in substantial surface engagement with the outer sleeve member 17 and in connection therewith and with the inner body member 10 as illustrated in Fig. 2. If the outer sleeve member 17 is moved downwardly on the inner body member 10 from the position shown in Fig. 2 to a lower position thereon, or in other words in a direction toward the end of the body 10 to which the supporting member 18 is connected, the latter will be flexed outwardly on the score lines 22 and 23 until the portion *b* thereof occupies a position in angular relation to the body member 10 as shown in Fig. 5 with the portion *c* extending therefrom in an upwardly inclined direction toward the outer sleeve member 17 as shown in Fig. 5. In this adjustment of the parts the member 18 functions as an easel and serves to support the box in an inclined position in which the upper end portion of the inner body member 10 lies above the upper edge of the outer sleeve member 17 and the closing flap 16 is free to be adjusted to a position in which the pencils, crayons or the like 11, or the equivalent contents of the box are exposed either for purposes of display or in position to be readily removed for use as required. With this construction the supporting member may be easily applied to and removed from the box so that said supporting member may be used or not used at will. For example, it may be desired to lay the box in full open position flat on a supporting surface; this cannot be done with the supporting member attached, but is easily possible when the supporting member is removed. Moreover, the structure with the separate supporting member is easy and inexpensive to manufacture with a minimum of waste of material in cutting the blanks.

In the form shown in Figs. 7 and 8 the box itself may be constructed in the same way as shown and described with respect to the box illustrated in Figs. 1 to 6 inclusive. The inner body section 10^a being likewise provided with a slot 24^a corresponding to the slot 24 and the outer sleeve section 17^a having a slot 27^a formed therein at an intermediate point. In the form now being described the supporting member 18^a constitutes an integral extension of the outer sleeve section 17^a and accordingly has its one end in permanent connection with the latter. The supporting member 18^a as shown in Fig. 8 is of elongated rectangular form of even dimensions throughout and at its free end is provided with an integral tongue 19^a of outwardly tapering form and formed at its base with notches 21^a as illustrated in said Fig. 8. A score line 23^a is provided in registry with the line of connection between the outer sleeve section 17^a and the supporting member 18^a and an additional scoring line 22^a corresponding to the score line 22 of the form first described is provided at an intermediate point on said supporting member 18^a as illustrated in Fig. 8. The supporting member 18^a further includes a score line 23^b at the base of the tongue 19^a extending between and in registry with the notches 21^a thereof. To facilitate the folding of the supporting member 18^a in the manner to be described hereinafter, additional score lines 28, 29 and 30 are provided in spaced parallel relations as also shown in Fig. 8.

In the completed condition of the box now being described, the supporting member 18, at its one end, is in permanent hinged connection with the outer sleeve member 17^a and is folded upon the score line 23^a so as to extend inwardly of said member 17^a, as shown in Fig. 7; said member 18 projects outwardly through the slot 27^a of the member 17^a and is connected with the inner body member 10^a by forcing the tongue 19^a through the slot 24^a so as to lock said tongue 19^a against withdrawal from said slot 24^a in the manner previously described with respect to the form of the invention shown in Figs. 1 to 6. During the adjustment of the

supporting member 18a through the slot 27a the score lines 28 and 29 permits said member 18a to flex and accommodate itself readily to the changes in position necessitated by such adjustment; otherwise, the score lines 28 and 29 have no purpose and if the material of which the supporting member 18a is constructed is sufficiently flexible to permit the adjustment without breakage or injury, said score lines may be omitted.

In the normal position of the parts of the box corresponding to that illustrated in Figs. 1 and 2, the supporting member 18a will occupy a position identical with that of the supporting member 18 in Fig. 2. As the outer sleeve member 17a is moved downwardly on the inner body member 10a the supporting member 18a will be flexed on the score lines 23a, 22a and 30, to bring the portion *b'* of said member 18a and the portion *c'* thereof into the horizontal and inclined positions respectively, illustrated in Fig. 7. In this adjustment of the parts the supporting member 18a functions as an easel to maintain the box in an inclined position in the same manner and for the same purposes as set forth with respect to the form of box first described.

In all of its forms the novel supporting member serves to efficiently maintain the box in the inclined position referred to and is automatically adjusted to and from its supporting position and vice versa, by the movements of the inner body sections and outer sleeve sections relatively to each other. The supporting members 18 and 18a are simple in construction and easy to attach to the box sections and require no particular skill in this respect; the form of said supporting member illustrated in Figs. 1 to 6 inclusive, because of its independent character is furthermore adapted for combination with existing types of boxes by simply providing the latter with the necessary slots for the accommodation of the tongues whereby connection with the box sections is effected.

Various changes in the specific forms shown and described may be made within the scope of the claims without departing from the spirit of the invention.

I claim:

1. In a box of the kind described including an inner body section adapted to contain articles of merchandise, and an outer sleeve section, said sections being movable relatively to each other in a lengthwise direction, that improvement which comprises providing each of said sections with a slot, a foldable supporting member independent of said sections, and tongues forming integral extensions of said supporting member at its opposite ends for removable insertion into said slots whereby said supporting member is disconnectably attached to said sections, said supporting member being automatically adjustable to a supporting position and to an inoperative position by the movements of said sections relatively to each other.

2. In a box of the kind described including an inner body section adapted to contain articles of merchandise, and an outer sleeve section, said sections being movable relatively to each other in a lengthwise direction, that improvement which comprises providing both of said sections with transverse slots, a foldable supporting member independent of said sections, and notched tongues at opposite ends of said member adapted to be inserted into said slots and locked against withdrawal therefrom whereby said supporting member is attached to said sections, said supporting member being automatically adjustable to a supporting position and to an inoperative position by the movements of said sections relatively to each other.

3. In a box of the kind described including an inner body section adapted to contain articles of merchandise, and an outer sleeve section, said sections being movable relatively to each other in a lengthwise direction, that improvement which comprises providing both of said sections with transverse slots, a foldable supporting member having its one end in permanent hinged connection with the outer sleeve section and extending inwardly thereof and outwardly through the slot of said outer section, and a notched tongue at the free end of said member adapted to be inserted into the slot of said body section and locked against withdrawal therefrom whereby said free end is attached to said inner section, said supporting member being automatically adjustable to a supporting position and to an inoperative position by the movements of said sections relatively to each other.

4. A box comprising an inner body section and an outer sleeve section movable longitudinally relatively to each other, said sleeve section being of a length less than said body section, and a separate supporting member of greater length than said sleeve section independent of said sections, said supporting section being foldable transversely intermediate its ends and disconnectably connected at each end to one of said sections and being foldable to and from a supporting position by the longitudinal movements of said sleeve section relatively to said body section.

5. A box comprising an inner body section and an outer sleeve section movable longitudinally relatively to each other, said sleeve section being of a length less than said body section, said body section having a slot at one end and said sleeve section having a slot intermediate its ends, and a separate supporting member of greater length than said sleeve section independent of said sections, said supporting section being foldable transversely intermediate its ends and having a tongue at each end disconnectably inserted into one of said slots and being foldable to and from a supporting position by the longitudinal movements of said sleeve section relatively to said body section.

6. A box comprising an inner body section and an outer sleeve section movable longitudinally relatively to each other, said sleeve section being of a length less than said body section, said body section having a slot at one end and said sleeve section having a slot intermediate its ends, and a supporting member independent of said sections foldable transversely intermediate its ends and having a tongue at each end separably inserted into one of said slots, the distance between the bases of said tongues being substantially less than the length of said body section, whereby said supporting member may lie in flattened condition in surface engagement with the box or may be extended outwardly into angular supporting relation to the box upon relative movement of the sections in opposite directions, respectively.

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