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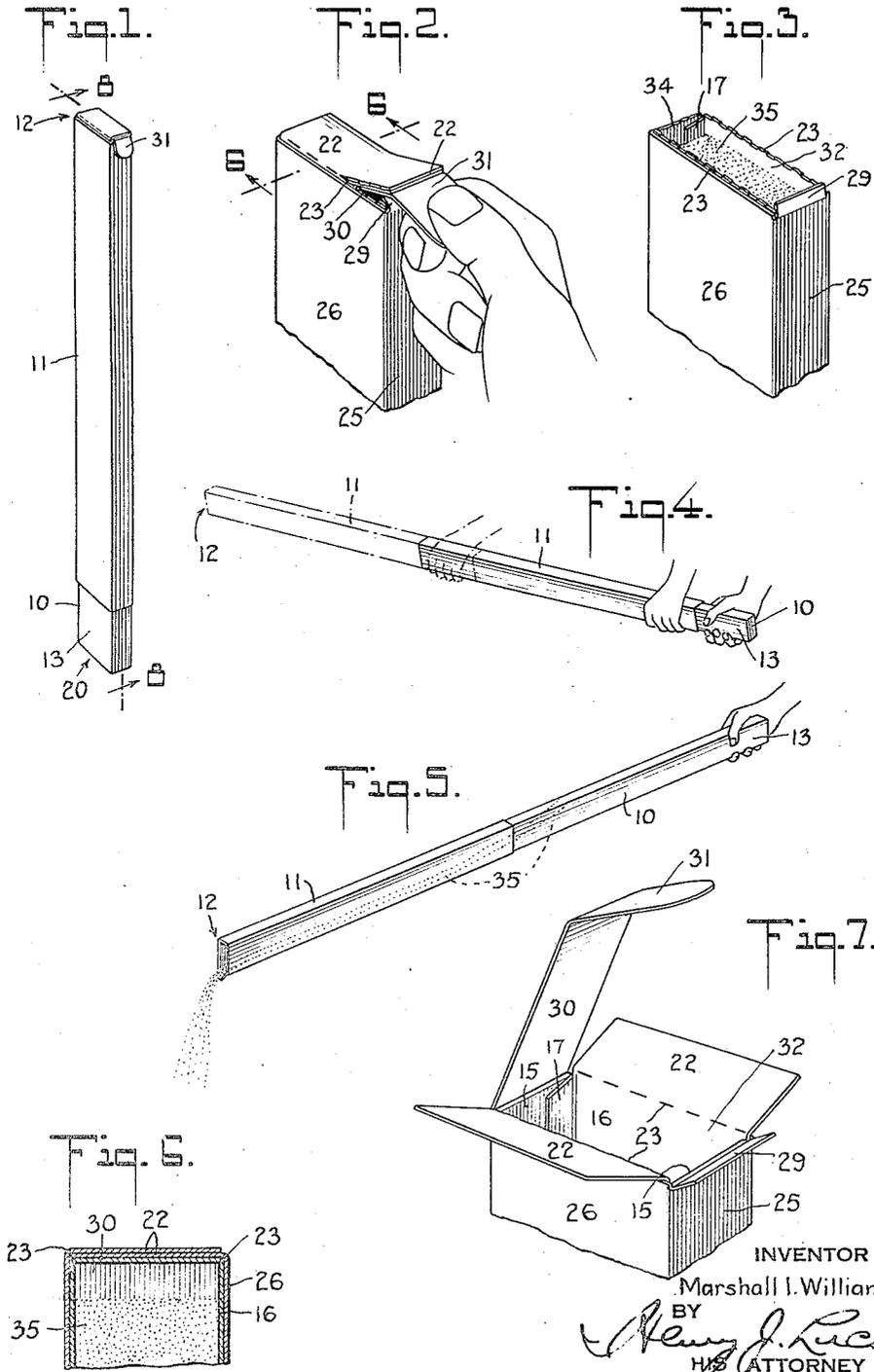
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EXTENSIBLE DISPENSING CONTAINER

Filed Nov. 18, 1942

2 Sheets-Sheet 1



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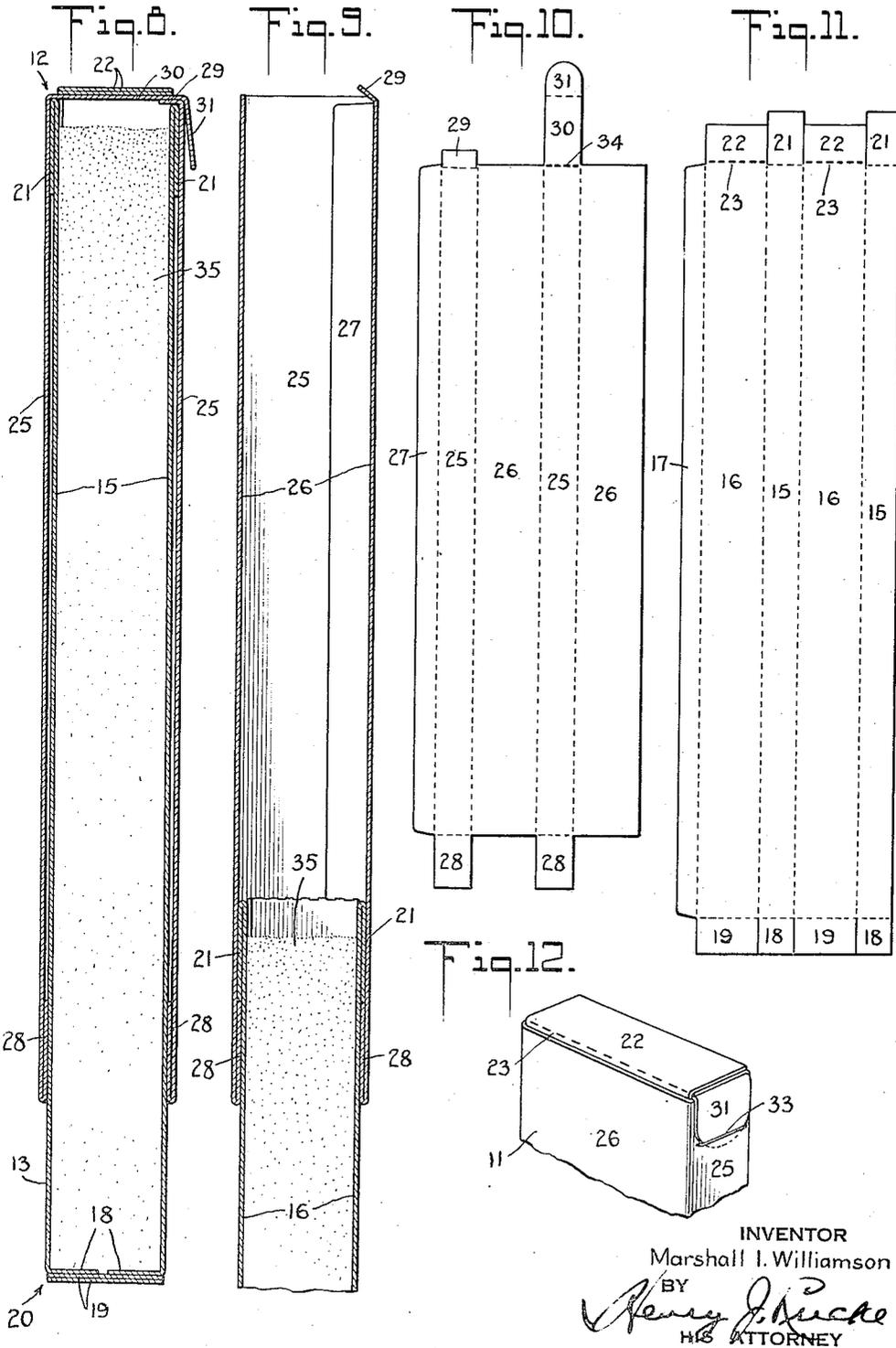
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EXTENSIBLE DISPENSING CONTAINER

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8 Claims. (Cl. 229—19)

This invention relates to containers for conjoint packaging and dispensing purposes, especially as constructed from foldable sheet material such as paperboard, commonly used in the folding paper box industry.

The use of incendiary bombs in modern warfare has rendered advisable the keeping on hand by householders, shopkeepers, air-raid wardens, and others, quantities of sand or similar extinguishing material ready for instant application to any incendiary bombs which may fall nearby. Because of the intense heat generated by incendiary bombs and the spitting of burning magnesium metal from certain types thereof, it is most expedient that they be handled "at arm's length," so to speak, which ordinarily requires long-handled implements, such as shovels, for proper and careful application of the extinguishing material at comparatively long range. Again, the very nature of the extinguishing material—granules or powder—renders its storage in bulk, as in buckets or heaps on the floor, together with shovels, untidy and generally undesirable.

Accordingly, it is an object of this invention to provide a container in which sand, or certain prepared fire-extinguishing materials, may be packaged for direct sale to the user in a form convenient for storage and ready for instant application without the use of long-handled implements, which may not be immediately available.

It is an object to provide a container for the above purpose which shall be closed tight up to the time of use, and which shall be very simple to open and to make ready for use.

Outstanding in the accomplishment of the above objects is the provision of an elongated box made up of telescopic sections and having a dispensing end and a closure therefor, which closure serves to positively lock the individual telescopic box sections in retracted, telescoped position, and yet may be readily torn open to free the telescoped box sections for telescopic extension and to provide a dispensing opening for discharge of contents.

Another feature resides in the fact that the opposite end portion of the telescopic box is arranged to be grasped as a handle with one hand, while the box is extended with the other, and to be held for the purpose of manipulating the extended box during the application of its contents to a burning incendiary bomb or other conflagration.

While the invention was developed primarily for the above specified purpose, its structural and functional features render it very advantageous

for other purposes. For instance, the invention may be employed in suitable forms for the packaging of fertilizers, rodent-exterminating powders, cleansing powders, and other substances the dispensing of which may be disagreeable or dangerous to the person; or again, the invention may be employed for packaging substances in general, which are to be deposited in a remote or inaccessible place.

Further objects and features of the invention will be apparent from the following detail description and the accompanying drawings illustrating preferred specific embodiments.

In the drawings:

Fig. 1 represents a perspective view of one preferred form of the invention as constructed from coordinated, properly cut and scored blanks of paperboard, and as fully packed and sealed tight, ready for immediate use, the view being on a reduced scale;

Fig. 2, a somewhat enlarged fragmentary perspective view corresponding to the upper portion of Fig. 1 but illustrating the container in the process of being opened or unsealed;

Fig. 3, a view corresponding to that of Fig. 2 but illustrating the container as completely unsealed and open for the pouring of contents therefrom;

Fig. 4, a perspective view drawn to a scale somewhat reduced over that of Fig. 1 and illustrating, partly in dotted lines, how the container is seized and extended for use after the opening operation;

Fig. 5, a view similar to that of Fig. 4 but illustrating how the opened and extended container is manipulated by the handle portion thereof during use;

Fig. 6, a fragmentary vertical section taken on the line 6—6, Fig. 2, and drawn to an enlarged scale;

Fig. 7, a fragmentary perspective view of that end of the container which is illustrated in Figs. 2, 3 and 6, but here showing the various closure flaps as they appear prior to filling and sealing the container;

Fig. 8, a vertical section taken on the line 8—8, Fig. 1, and drawn to an enlarged scale;

Fig. 9, a view corresponding to that of Fig. 8, but illustrating the container as opened and fully extended, the inner section being partly broken away for convenience of illustration;

Fig. 10, a plan view, drawn to a scale reduced over that of Figs. 8 and 9, showing the inside face of the cut and scored blank employed to form the outer telescopic section of the container;

Fig. 11, a view similar to that of Fig. 10, but illustrating the cut and scored blank employed to form the inner telescopic section of the container; and

Fig. 12, a fragmentary, perspective view of the closed, dispensing end portion of the container, illustrating how the tab provided for initiating the tearing-off of the closure may be tucked out of the way prior to use of the container

The preferred embodiment of the invention here illustrated comprises two individual carton or box sections, telescopically interengaged to provide the single, extensible container or box shown fully retracted and sealed in Fig. 1 and unsealed and extended in Fig. 5.

Both the inner box section 10, see Fig. 11, and the outer box section 11, see Fig. 10, are of elongated formation, so that, together, when extended relative to each other, they provide a length between dispensing opening and handle portion of several feet, see Fig. 5. This length is, of course, predetermined as desired by the structural dimensions of the component box sections, and may be greater or less as required in any given instance. The usual length for the indicated purpose, is approximately four (4) feet, which, when added to the length of the user's arm, gives an adequate long-range "reach" during use.

The sealed end 12 of the container becomes the dispensing or discharge end thereof when the same is extended for use, as shown in Fig. 5, while the protruding opposite end portion 13 of the inner box section 10 becomes the handle of the container.

It is preferred that the individual telescopic box sections be of folding-box formation, that is, formed from suitably cut and scored blanks of foldable sheet material, customarily paperboard.

In the illustrated embodiment, the inner box section 10 is formed by folding and gluing the blank of Fig. 11, while the outer box section 11 is formed by folding and gluing the blank of Fig. 10.

The blank of Fig. 11 comprises the two mutually corresponding wall panels 15, the two mutually corresponding wall panels 16, the lateral glue lap 17, the pairs of conventional end glue flaps 18 and 19 for providing the conventional glued end 20, Fig. 8, the pair of limit-stop tabs 21 for contributing to the limiting of the extent of telescopic extension of the two box sections relative to each other, and the pair of dispensing-opening closure flaps 22.

The inner box section 10 is formed from the blank of Fig. 11 by folding the blank on its indicated score lines, and by gluing the glue lap 17 to the inner face of the outlying wall panel 15, at the free-edge margin thereof. The box section is then in collapsed tubular condition, and may be set-up by interfolding and sealing the pairs of closure glue flaps 18 and 19 in the usual overlapping relationship. The limit-stop tabs 21 are folded outwardly and downwardly against the outer faces of the respective wall panels 15 from which they extend.

The blank of Fig. 10 comprises the two mutually corresponding wall panels 25, which correspond to the wall panels 15 of the blank of Fig. 11, the two mutually corresponding wall panels 26, which correspond to the wall panels 16 of the blank of Fig. 11, the lateral glue lap 27, the pair of limit-stop tabs 28, which correspond in configuration to the limit-stop tabs 21 of the blank of Fig. 11, the closure-supporting flap 29, and the closure tongue panel 30 with its seizure-tab member 31, for

grasping in order to tear or rip off the closure thereby opening the sealed discharge or dispensing end 12 of the container and releasing the box sections for telescopic extension.

The outer box section 11 is formed from the blank of Fig. 10 by folding the blank on its indicated score lines and by gluing the glue lap 27 to the inner face of the outlying wall panel 26 at the free-edge margin thereof. When this box section is set-up into tubular formation from its collapsed condition, the limit-stop tabs 28 are folded inwardly against the inner faces of the respective wall panels 25 from which they extend, and are thus directed upwardly within the box section.

The wall panels 16 are preferably wider than the wall panels 15, whereby the resulting box section 10 has an oblong formation, imparting enhanced resistance to bending, and providing increased positive action of the limit-stops; the end closure flaps 22 are preferably divided from the respective wall panels 16, from which they extend, by means of respective lines of perforations 23, so they can be easily torn free during the unsealing and opening of the container for telescopic extension and dispensing of contents.

The container is assembled from the two individual box sections 10 and 11, preferably by gently forcing the open upper end of the inner section 10 into the lower open end of the outer section 11, and passing such inner section upwardly within such outer section until the closure flaps 22 thereof protrude from the open upper end of the outer section and assume the positions, relative to the closure elements of the outer section, clearly shown in Fig. 7. The carton is then ready to be filled with suitable contents and sealed.

The closing and sealing operation is accomplished by swinging closure-supporting flap 29 of the outer box section inwardly, by swinging the closure tongue panel 30 down thereover to cover the dispensing opening 32 of the carton, and by applying glue to the closure flaps 22 of the inner section and swinging them down so that one lies over and adheres to the other and both lie over the closure tongue panel 30, as illustrated in Figs. 1, 6 and 8. The seizure tab 31 may hang free, as illustrated, so it may be readily grasped for opening the carton, or, as illustrated in Fig. 12, may be tucked into a slit 33, suitably provided through the adjacent wall panel 25 of the outer box section 11. As thus closed and sealed, the inner box section 10 is securely locked within the outer box section 11.

In unsealing and opening the dispensing end 12 of the carton when it is desired to apply the contents to a flaming incendiary bomb or other conflagration, or to dispense the contents for other purposes, the seizure-tab 31 is grasped and pulled upwardly and backwardly, as illustrated by Fig. 2. Because of the placement of closure tongue panel 30 underneath the sealed closure flaps 22, the result of so pulling the tab 31 is to rip off the sealed closure flaps 22 along their lines of perforations 23, and to rip off the closure tongue panel 30, together with the seizure-tab thereof, along the line of perforations 34, see Fig. 10. Thus the discharge or dispensing opening 32 is entirely open and free for the discharge of contents, see Figs. 3 and 5, and the individual box sections are released for telescopic extension relative to each other.

For elongating the carton of Fig. 1 to prepare it for actual long-range discharge of contents, the handle portion 13 thereof is firmly grasped in one hand, while the other hand is used to ex-

tend the outer box section 11 relative to the inner box section 10, see Fig. 4. Since the inner box section is dimensioned to fit and slide snugly within the outer box section, the pair of outfolded limit-stop tabs 21 thereof will contact the pair of infolded limit-stop tabs 28 of the outer box section in substantially edge-to-edge abutment before the two sections are pulled completely apart, thus providing a positive maximum limit to the extent of elongation of the carton.

It should be noted that the fire-extinguishing material 35, which ordinarily has considerable weight, is all initially packed into the inner box section 10. After the carton has been extended, or even during the extension thereof, such material 35 runs as a stream along the length of the extended carton into and through the outer box section 11 and out of the discharge or dispensing opening 32, see Fig. 5, but during this entire time the user can keep the greater part of the total weight of the material contents of the carton at or adjacent the handle portion 13, which, of course, is the part of the box directly supported by the user. Consequently, no serious force couple is established between the held end of the carton and the opposite and remote discharge or dispensing end thereof. Sheet paperboard material is, thus, adequately strong for use as the structural material of the carton, and no undue strain is placed on the hand or arm of the user.

As before stated, the invention is not restricted in its use to the packaging and dispensing of fire-extinguishing materials, but may be employed wherever its peculiar structural and functional characteristics render its use advantageous.

Whereas the invention is here illustrated and described with respect to a certain preferred specific form thereof, it should be understood that various changes may be made in such specific form and various other specific forms may be constructed from time to time by those skilled in the art without departing from the spirit and generic purview of the invention as set forth herein and in the claims which here follow.

I claim:

1. In a container, elongated box sections slidably interengaged in retracted telescopic relationship; closure means formed of tearable sheet material, said closure means closing one end of said container and interlocking said box sections in said retracted telescopic relationship; means providing for the quick ripping of said closure means from said container to open the latter and to free said box sections for telescopic extension; means for limiting the extent of telescopic extension; and handle means provided by the inner of said box sections at that end of said container which is opposite the said one end thereof; said inner box section being closed at said opposite end, and said handle means providing a grip for extending said box or carton and holding the same during discharge of contents through said opened end thereof.

2. In a container, the combination of a plurality of elongated individual box sections arranged in retracted telescopic relationship; limit-stop means for limiting the outward telescopic extension of said box sections; closure means formed of tearable sheet material, said closure means extending from mutually corresponding ends of the respective box sections and secured in interengaged relationship for closing the said container at one of the ends thereof, and for normally maintaining the said box sections interlocked in said retracted telescopic formation;

means providing for the ripping of said interengaged closure means free from their respective box sections, simultaneously, so as to quickly open the said container at its said one end and release the said box sections for telescopic extension; and closure means closing that end of the inner of said box sections which is opposite the said one end of the said container, the said inner box section being longer than the outer box section and having its said opposite end, together with a portion of its body which lies immediately adjacent thereto, protruding from the remainder of said box or carton and providing a handle grip for the extension and use of said container.

3. In a container formed of sheet paperboard and closed at opposite ends, the combination of two elongated individual box sections arranged together as inner end outer in retracted telescopic relationship and each having at least two opposite lateral wall panels; a pair of tabs extending from the upper ends of the said opposite lateral wall panels of the inner box section and folded outwardly against the outer faces of the respective wall panels from which they extend, and a corresponding pair of tabs extending from the lower ends of the said opposite lateral wall panels of the outer box section and folded inwardly against the inner faces of the respective wall panels from which they extend, said inner and outer box sections being closely interfitted for longitudinal, sliding, relative movement, and said pairs of tabs being adapted to interengage in substantially edge-to-edge abutment as limit-stop tabs for limiting the outward telescopic extension of said container; a closure tongue element extending from the upper end of a lateral wall of said outer box section; a pair of closure flaps extending, respectively, from the upper ends of mutually opposite wall panels of said inner box section which flank the said lateral wall of said outer box section from which said tongue element extends, said closure flaps being folded over said tongue element and being secured together thereabove for closing the upper end of said container and for locking said inner box section in fully retracted position within said outer box section; and a seizure-tab member extending freely at the tip end of said tongue element for enabling said top closure to be quickly ripped from the body portion of said container; said inner box section being of greater length than said outer box section and protruding from said outer box section at the lower end thereof to form a handle grip for the extension and use of said container.

4. In a container formed of sheet paperboard and closed at opposite ends, the combination of two individual box sections arranged together as inner and outer in retracted telescopic relationship, said box sections being adapted to slide relative to each other in the telescopic extension of said container; a closure tongue element extending from the upper end of a lateral wall panel of the outer box section; a pair of closure flaps extending, respectively, from the upper ends of mutually opposite lateral wall panels of the inner box section which flank the said lateral wall of said outer box section from which said tongue element extends, said closure flaps being folded over said tongue element, and being secured thereabove for closing the upper end of said container and for locking said inner box section in fully retracted position within said outer box section; and a seizure-tab member extending freely at the tip end of said tongue element for enabling

said top closure to be quickly ripped from the body portion of said container.

5. Container structure as recited in claim 4, wherein the closure flaps of said pair of closure flaps are weakened along the lengths of their respective lines of fold, so the top closure may be easily torn free from the body portion of the container.

6. Container structure as recited in claim 4 wherein limit-stop means are provided for limiting the extent of telescopic extension of said box sections relative to each other.

7. Container structure as recited in claim 4, wherein limit-stop means are provided for limiting the extent of telescopic extension of said box sections relative to each other; and wherein the inner box section is of greater length than the outer box section and protrudes from the lower end of the outer box section forming a handle-grip for the extension and use of said container. 20

8. A container comprising a plurality of box sections arranged in mutual telescopic relationship, said sections being provided with open ends which are brought into close proximity when the sections are in mutually retracted position; and closure means for the container comprising mutually secured elements of tearable sheet material, certain of said elements being connected to a telescopically inward section and certain of the remainder of said elements being connected to the telescopically outward section, one of said closure elements being provided with a tab for removing said closure means by tearing action to thereby free the open end of said container and to afford extension of the sections telescopically relative to one another to thereby distend the container.

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