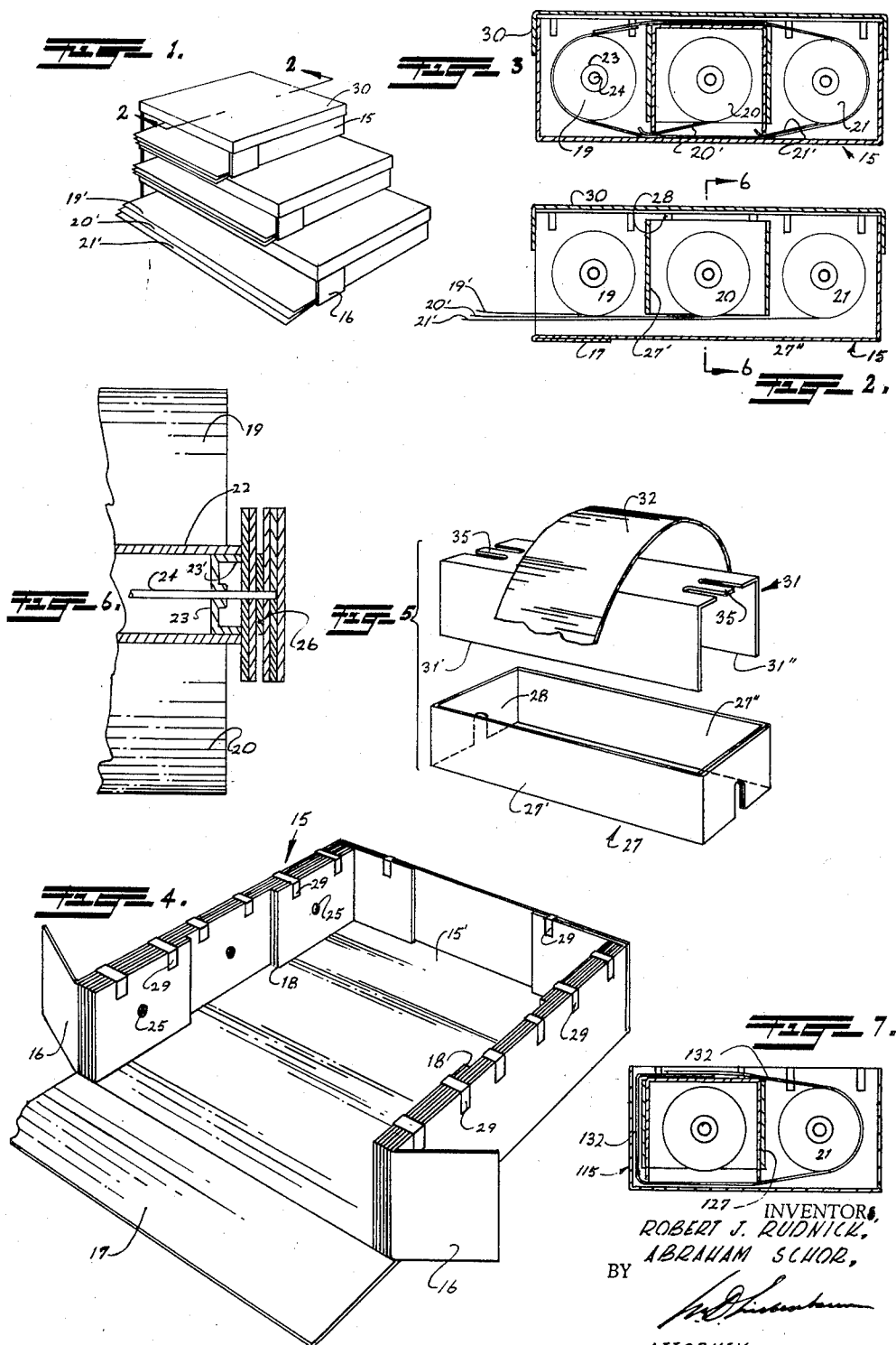


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DISPENSING PROTECTIVE PACKAGES FOR A
PLURALITY OF ROLLS OF WEB MATERIAL
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DISPENSING PROTECTIVE PACKAGES FOR A PLURALITY OF ROLLS OF WEB MATERIAL

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The present invention relates to a package comprising a plurality of rolls of paper, fabric, plastic or webs of any other material. In particular, we are concerned with a package where each roll is of appreciable weight and rather heavy, as for instance paper used by markers in cutting rooms in the needle trades and web material used in industry generally as distinguished from small packaged rolls for use in the household.

The principal object of this invention is to provide a novel and improved shipping and dispensing package for a plurality of heavy rolls of web material which are to be withdrawn simultaneously as superimposed plies of any required length; said rolls being mounted for rotation within the outer carton which serves as their stand or frame on which they are respectively journaled. As an example, this invention is especially adaptable for marking paper which acts as its own carbon so that markings made on the upper ply are automatically reproduced on the other plies.

Another object thereof is to provide a novel and improved shipping carton for a plurality of rolls of web material which can be conveniently dispensed therefrom; such carton offering means to the ply portions issuing from the rolls, in superimposed relation and to guide them into such relation.

A further object thereof is to provide a novel and improved carton construction having reinforcement means so that a number of such multi-roll holding and dispensing packages can be placed one on top of the other without affecting the free and easy turning of every roll in every carton when in use, and whereby none of the rolls will become dislodged from its bearings when a number of such packages are piled one on top of the other during shipment or while in use; such reinforcement means having the additional function of holding and guiding the plies in superimposed relation as material is being simultaneously unwound from all the rolls by pulling the free ends thereof simultaneously.

Another object is to provide a novel and improved package construction of the character described, which holds the rolls from "unraveling" and prevents a loosening of its convolutions during shipment and no matter how sensitive the material of the webs may be, they cannot be damaged when the package is bumped, knocked or even dropped during shipment or use.

Still a further object thereof is to provide a package of the kind set forth, of novel and improved construction, which is simple in structure, reasonably cheap to make and efficient in carrying out the purposes for which it is designed.

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Other objects and advantages will become apparent as this disclosure proceeds.

For the practice of this invention, one form it may assume is for carrying three rolls, which is the practical embodiment for use by markers in the needle trades. These rolls in such instance are preferably of the special paper mentioned, or the middle roll is of carbon paper and the other rolls of usual marking paper.

The package consists of a sturdy carton whose cover is removable and whose front wall is either openable or an opening therethrough provided for the superimposed plies to come through by being pulled on simultaneously. One paper roll is near the front, one along the rear of the carton and one in the middle. Of course all rolls are parallel and dowel sticks serve to provide axes on which they revolve respectively; suitable bearing supports being provided in the side walls of the carton for the dowel ends. There is a reinforcing partition between the first and second rolls and another between the second and third rolls. These partitions extend across the side walls of the carton and are there secured. Such partitions may be offered by a rectangular tube whose ends are recessed into the side walls. In any event, the bottom edge of each partition aforesaid, is spaced a bit from the floor of the carton so that they permit the plies of the second and third rolls to pass and to hold such plies close to the box floor. Said partitions extend upward to the rim of the box. The box, its cover, the plies for building up the side walls of the box and the partitions may be of sturdy corrugated or other form of paperboard or fiber board or of any other suitable materials.

To ready the package for shipment, a length of strong paper is laid centrally and lengthwise of the box and extending out of the box in forward and rearward directions. This paper is to serve as a tie encircling and securely holding the first and third rolls. An inverted channel of stiff paper board material is fitted over the middle roll; such channel extending from side wall to side wall of the box in contact relation with the partitions and bearing and pressing against the plies on the box floor so as to hold them securely against the box floor. The paper tie mentioned, is now tightened and secured. The box is fitted with its cover which is then secured thereon in any suitable manner. The package is now in condition to be shipped and stored.

For use, the package is set on the marking table and its top removed. The paper tie is then removed as well as the channel member. The connected ends of the paper plies from off the rolls are pulled out of the box through the opening in front and the top is replaced to cover the box. The article is now in condition for use.

In the accompanying drawings forming part of this specification, similar characters of reference indicate corresponding parts in all the views.

Fig. 1 is a perspective view showing a number of the packages taught herein, stacked one on top of the other. Such would be the practical arrangement for a marker using three different widths of marking paper in his work. The packages are here shown in use condition, each ready for the dispensing of three plies in superposed relation, respectively.

Fig. 2 is an enlarged section taken at lines 2—2 in Fig. 1 of one of said packages.

Fig. 3 is like Fig. 2 except that the package is shown

in condition as it is shipped from the manufacturer thereof.

Fig. 4 is an enlarged perspective view of the empty box member minus its cover.

Fig. 5 is an exploded perspective view showing a rectangular tube which becomes two partitions in the box shown in Fig. 4, the channel member associated therewith for holding the plies against movement and for making the box strong for shipment and also the paper tie to encircle the rolls and hold them during shipment and storage before use.

Fig. 6 is a fragmentary enlarged section taken at lines 6—6 in Fig. 2, showing the manner in which the end of a roll is mounted.

Fig. 7 is a section like Fig. 3, but of a modified embodiment, namely a package for holding two rolls. The box here, is shown minus its cover

In the drawings showing a preferred embodiment of this invention, the numeral 15 designates generally an upright open-top rectangular box member whose front is openable by swinging away the side flaps 16 and by bending under or merely swinging to horizontal, the front wall 17, as shown in the Figs. 3 and 4 respectively. The side walls on their inner surfaces, are built up with additional plies as shown in Fig. 4 so that in each side wall there is formed a channel 18 in its mid third therealong. The tightly wound paper rolls 19, 20, 21 are each securely mounted on its core tube 22 which has metal end caps 23 through whose center holes there extends a dowel 24. The end of each dowel sets through holes as 25 through the additional side wall plies, between which plies at each of the three sections of the box in each side wall there is interposed a metal plate 26 having a hole in registry with 25 respectively to serve as a bearing for the ends of the dowel shaft 24 which extends to the inner surfaces of the outer ply of the side walls of the box member 15. The metal caps 23 have an outward rim flange 23' which contact the side walls of the box and corresponding ends of the rolls are coplanar, thereby effecting congruity of the paper plies 19', 20', 21'. A rectangular tube 27 of somewhat less height than the box 15, is set with its ends fitted into the channels 18, thereby forming two cross-wise partitions 27', 27'' between successive rolls; the bottom edges of such partitions being above the floor 15' of the box structure to hold and guide the plies 20', 21' respectively. Additional plies 28 are given the end walls of the tube 27, for contact with the end caps of the middle roll's core tube. The assembly of the box member and its multi-ply structure is effected in any suitable manner as for instance by the adhesive tapes 29. A peripherally-flanged cover 30 fits telescopically over the box structure.

For protection during shipment and storage before use, a reinforcement is provided by the inverted channel 31 which may be fitted either within or as shown about the upright tubular member 27, with its ends in good frictional fit with the side walls of the box 15 and its longitudinal free edges 31' and 31'' in pressing contact with the plies 20', 21' respectively. The paper band 32, placed in the box before the rolls of paper are mounted, is now tightly wound about the rolls and so secured by pasting its free end with adhesive strip or in any other manner secured. Such tie band and the channel member 31 will hold the rolls from loosening up their tightly wound convolutions. Before applying the tie band, the free ends of the three rolls are preferably attached together in any suitable fashion for further security.

It is to be specially noted that besides acting as reinforcements to make the package sturdy, the partitioning members serve as a guide for the plies and the channel member pressing down on two of the plies, holds them from shifting and aids maintaining the rolls tightly wound. Until the package is to be used, the top cover 30 is secured for instance by adhesive strips to the box member 15. The height of the flange of the top cover

is less than the height of the box member, so that when the front wall is opened, there is space for the plies 19', 20', 21' to come through.

It is evident that to condition the package for use as in Figs. 1 and 2, the tie band 32 is removed as well as the channel member 31 which may be provided with upwardly bendable lifting tabs 35. The front wall of the box 15 is opened and the plies pulled through, all together. The front wall panel 17 is bent under and the flaps 16 are bent around to be engaged by the cover 30.

If desired, this package construction may be used for only two rolls as shown in Fig. 7. Here the box 115 is shorter than in Fig. 4, but the channels 18, 18' are maintained for the tube member 27. For shipment, the band 132 encircles the channel 31 and the roll 21. In all other respects, this package of Fig. 7 is like that of Fig. 3.

If desired, the package as taught herein may be used or made for use with the rolls positioned one above the other or in other spaced parallel arrangement. In any event, the box is provided with a suitably positioned opening for the withdrawal of the plies therefrom.

This invention is capable of numerous forms and various applications without departing from the essential features herein disclosed. It is therefore intended and desired that the embodiments shown herein be deemed illustrative and not restrictive and that the patent shall cover all patentable novelty herein set forth; reference being had to the following claims rather than to the specific description herein to indicate the scope of this invention.

We claim:

1. In a package of the character described, an openable box having walls including two parallel side walls, first and second rolls of web material positioned in spaced parallel relation within the box; the axes of said rolls being perpendicular to said side walls, means on each of said rolls and on the side walls of the box, supporting said rolls so that they can be revolved to unwind, a first partition secured to the box between said rolls, a second partition secured to the box so that the first roll is between both of said partitions; a portion of each web being unwound; such portions being superimposed and lying along one of the walls of the box other than the side walls; said partitions being spaced from such other wall; the unwound portion of the first roll being through the space between the first partition and said other wall and the unwound portion of the second roll being through the spaces between both partitions and said other wall, a channel within the box inclosing the space between the partitions and surrounding the first roll; the longitudinal free edges of said channel pressing said unwound roll portions against said other wall; said channel being releasably engaged and removable from the box when web material is to be withdrawn; one of the walls of the box other than the side walls, being of a construction to permit exit of the webs out of the box so that they emerge close to each other.

2. The package as defined in claim 1, wherein the channel member is positioned between the partitions and in contact with them and the sides of the box.

3. The package as defined in claim 1, wherein the side walls of the box are of multiply paper board material; each of the side walls having a channel inside the box; the partitions being the longitudinal walls of an elongated rectangular tube; the end walls of such tube being fitted within said channels respectively.

4. The package as defined in claim 1, wherein the side walls of the box are of multi-ply paper board material and including tubular cores, one through each of the rolls and concentric therewith respectively, outer-flanged caps mounted one on each end of each of the tubular cores; each cap having a central hole therethrough, dowels, one through each of the tubular cores and extending through the holes in the caps associated with the rolls respectively; the inner plies of the side walls having

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holes holding the ends of the dowels and plates each having a hole through which a dowel end extends; one such plate being between said plies at each end region of a dowel and said dowels being through the holes in said plates respectively; the flange of each cap bearing against the inside surface of the side wall adjacent thereto respectively and the rolls being tight on their respective core tubes.

5. The package as defined in claim 1, including a third roll similar to the other two rolls, similarly mounted and in parallel spaced relation with them whereby each partition is between two rolls and a removable band tied

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about the three rolls, holding the first and third rolls tightly against rotation.

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