

1 "Dispenser Carton"

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3 This invention relates to a packaging arrangement for
4 sheet paper, which provides a combination of storage-
5 transport carton and a dispenser for use by an end
6 user.

7

8 For many uses, such as photocopiers and laser printers,
9 paper is supplied in a convenient sheet size, typically
10 DIN A4, to end users who require relatively small
11 quantities of paper. Conventionally, the paper is
12 wrapped in reams of 500 sheets and packed five reams to
13 a carton. It is also conventional to hold the carton
14 shut with plastic strapping.

15

16 This arrangement has a number of disadvantages. The
17 weight of a full carton is rather more than is
18 recommended by health and safety authorities for
19 carrying in one hand. However, users do typically carry
20 a carton in one hand by means of the plastic strapping,
21 which is not intended for this purpose and may injure
22 the hand. Also, for many office machines only a
23 relatively few sheets of paper are required at a time.
24 Once a ream has been removed from the carton and its

1 wrapping opened, it is virtually impossible to reclose
2 the wrapping and reinsert the ream in the carton.
3 Opened reams are therefore left lying about and are
4 likely to suffer from accidental damage. This is
5 particularly acute where a selection of weights and
6 colours of paper is required, as in desktop publishing.

7
8 An object of the present invention is to provide an
9 improved arrangement for handling and storing sheet
10 paper.

11
12 Accordingly, the present invention provides a packaging
13 arrangement for sheet paper, comprising a carton
14 holding at least one stack of sheet paper, the carton
15 being openable in such a manner that selected numbers
16 of sheets can be removed from and replaced in the
17 stack.

18
19 In a particularly preferred form of the invention, the
20 carton contains a plurality of trays each holding a
21 stack of sheet paper, the trays being removably housed
22 in the carton, and in which the trays on removal from
23 the carton are useable without further manipulation as
24 dispensers of paper sheets.

25
26 Preferably, the carton is provided with a carrying
27 handle. In a preferred form of the invention, the
28 carton contains a plurality of trays, one above the
29 other, and the carrying handle is on the top of the
30 carton.

31
32 Preferably, the carton is provided with a tear strip or
33 other means allowing a portion of the carton to be
34 removed leaving at least one tray exposed for removal
35 from the carton. The tear strip may be operable to

1 remove a top portion, leaving the upper tray exposed
2 for removal by lifting upwardly. Alternatively, the
3 tear strip may be operable to remove a front portion,
4 leaving the trays exposed for removal by sliding
5 forwardly.

6

7 The carton is preferably formed by folding and gluing a
8 one-piece blank of a material which includes a moisture
9 barrier, such as a polythene laminate.

10

11 Preferably also, each tray is an open-topped tray
12 defined by a base, side walls, a rear wall, and a front
13 wall, the front wall being cut away to form paper-
14 retaining edge portions. One of the edge portions may
15 suitably be marked with a scale or other indicia for
16 measuring quantities of sheets within the tray.

17

18 It is particularly preferred that the carton contains,
19 in the case of paper of 80-100g/m² substance, about
20 2,000 sheets split equally between two trays.

21

22 Embodiments of the present invention will now be
23 described, by way of example only, with reference to
24 the drawings, in which:

25

26 Fig. 1 is a perspective view of a dispenser carton
27 forming one embodiment of the invention;

28 Fig. 2 is a perspective view of the dispenser
29 carton of Fig. 1 after opening;

30 Fig. 3 is a perspective view of a dispenser tray
31 removed from the carton;

32 Fig. 4 illustrates a blank suitable for forming
33 the carton of Fig. 1;

34 Fig. 5 is a perspective view showing the underside
35 of the carton;

1 Fig. 6 illustrates a blank suitable for forming
2 the tray of Fig. 3;

3 Fig. 7 is a perspective view of a partially
4 erected carton used in a second embodiment of the
5 invention;

6 Fig. 8 shows the carton of Fig. 7 erected and
7 filled;

8 Fig. 9 shows the carton opened for use; and

9 Fig. 10 shows the same carton, but with different
10 contents, opened for use.

11

12 Referring to Fig. 1, a carton 10 is formed of any
13 suitable material such as conventional carton board
14 having twin walls spaced apart by a corrugated inner
15 member. The carton 10 is formed by folding up and
16 gluing a one-piece blank as is well known per se.
17 Preferably, the carton board is laminated with a
18 polythene film or the like (not shown) and is glued up
19 with continuous glue seams, whereby the contents are
20 substantially protected against picking up moisture.
21 The carton 10 is provided with a top carrying handle 12
22 which is suitably a moulded plastics strip having
23 enlarged ends seating behind slots 14 in the top of the
24 carton 10. Such handles are known in the packaging art
25 in cartons for other uses.

26

27 The carton 10 is also provided with a tear strip which
28 can be operated by ends defined by slits 16 in one side
29 of the carton to separate and remove the top of the
30 carton, to achieve the condition shown in Fig. 2.

31

32 The carton 10 as supplied to the end user contains
33 approximately 2,000 sheets of A4 paper contained in two
34 removable trays 18. Each of the trays 18 is formed by
35 folding up a blank of board, conveniently of the same

1 material as the carton 10. The trays 18 may be removed
2 and the carton 10 disposed of, the trays then being
3 used as dispensers.

4
5 As seen in Fig. 3, each tray 18 has a base 20, side
6 walls 22 and 24, a rear wall 26 and a front wall 28,
7 the top being open. The front wall 28 is cut away as
8 indicated at 30 to provide ready access for removing a
9 selected number of sheets while providing paper-
10 retaining edge portions 32 to maintain the paper in an
11 orderly state. One of the edge portions 32 is marked
12 with a scale 34 which allows the user to judge an
13 approximate number of sheets for removal.

14
15 Fig. 4 shows a suitable form of blank 40 for forming
16 the carton 10. This example erects to provide an
17 overlapping glued top 42 (Fig. 1) and a bottom 44 (Fig.
18 6) of interlocking tab formation. However, other forms
19 of erection and closure well known in the carton art
20 may equally be used.

21
22 Fig. 6 shows an example of blank 60 suitable for
23 forming the trays 18. In this example, the tray is
24 erected by folding and locked by location of tabs 62 in
25 slots 64. The blank shown erects to a form in which
26 both end walls are cut away but, as shown in Fig. 3, a
27 form in which only one end wall is cut away is equally
28 useful.

29
30 Referring now to Figs. 7 to 10, in a second embodiment
31 a carton 100 is formed of any suitable material such as
32 conventional carton board. The carton 100 is glued up
33 from a one-piece blank to provide side walls 102a, b,
34 c, d and a bottom 104 which may suitably be formed by
35 interlocking flaps.

1 The top of the carton 100 is formed by an inner side
2 flap 106 which is pre-slitted at 108, end flaps 110 and
3 112, and an outer side flap 114. The end flap 110 is
4 of a length to extend to the slit 108, and has a
5 plastic carrying handle 116 of known type secured to
6 its inner face and passing through slots 118. The
7 handle 116, in use, extends through a cut-out 120 in
8 the outer side flap 114.

9
10 The carton is provided with tear strip tapes 122, 124
11 of fibrous material glued to its inner surface and
12 operable by punched flaps 126, 128, the tear tapes 122,
13 124 being aligned at a forward edge of the slit 108.
14 The tapes 122, 124 may suitably be "Clear Cut" tape by
15 David S Smith.

16
17 In use, the carton is erected as seen in Fig. 7 and
18 paper in trays is loaded into it from above.
19 Typically, the carton will contain about 2,000 sheets
20 of paper held in two, three or six open-topped trays.
21 The flaps 106-112 are then glued and closed, to form
22 the package seen in Fig. 8 which can be readily carried
23 by the exposed portion of the handle 116.

24
25 When it is wished to use the paper, the tear tapes 122,
26 124 are operated to detach and remove a front portion
27 of the carton 100, exposing the paper trays and
28 allowing them to be removed from and replaced in the
29 carton by lateral sliding movement, as seen in Figs. 9
30 and 10.

31
32 Fig. 9 shows a package using three trays 130, which are
33 similar to the trays 18 of Figs. 1-6, and have a cut-
34 away 132 in the leading edge.

35

1 Fig. 10 shows a package using six trays 134. Since
2 these are relatively shallow, no cut-away is used.
3
4 Different numbers and dispositions of trays could be
5 used, for example three high or two side-by-side. The
6 invention could also be implemented without the use of
7 separate trays. For example, a single stack of sheets
8 could be contained within a carton provided with a tear
9 strip operable to remove the top and to form a cut-away
10 portion in an end wall.

1 CLAIMS

2

3 1. A packaging arrangement for sheet paper, comprising
4 a carton holding at least one stack of sheet paper, the
5 carton being openable in such a manner that selected
6 numbers of sheets can be removed from and replaced in
7 the stack.

8

9 2. A packaging arrangement according to claim 1, in
10 which the carton contains a plurality of trays each
11 holding a stack of sheet paper, the trays being
12 removably housed in the carton, and in which the trays
13 on removal from the carton are useable without further
14 manipulation as dispensers of paper sheets.

15

16 3. A packaging arrangement according to claim 2, in
17 which the carton is provided with a carrying handle.

18

19 4. A packaging arrangement according to claim 3, in
20 which the carton contains a plurality of trays, one
21 above the other, and the carrying handle is on the top
22 of the carton.

23

24 5. A packaging arrangement according to any of claims
25 2 to 4, in which the carton is provided with means
26 allowing a portion of the carton to be removed leaving
27 at least one tray exposed for removal from the carton.

28

29 6. A packaging arrangement according to claim 5, in
30 which said means comprises a tear strip.

31

32 7. A packaging arrangement according to claim 5 or
33 claim 6, in which said means is operable to remove a
34 top portion of the carton to leave the upper tray
35 exposed for removal by lifting upwardly.



- 1 8. A packaging arrangement according to claim 5 or
2 claim 6, in which said means is operable to remove a
3 front portion of the carton to leave the trays exposed
4 for removal by sliding forwardly.
5
- 6 9. A packaging arrangement according to any preceding
7 claim, in which the carton is formed by folding and
8 gluing a one-piece blank of a material which includes a
9 moisture barrier.
10
- 11 10. A packaging arrangement according to claim 10, in
12 which the moisture barrier is a polyethylene laminate.
13
- 14 11. A packaging arrangement according to claim 2, in
15 which each tray is an open-topped tray defined by a
16 base, side walls, a rear wall, and a front wall, the
17 front wall being cut away to form paper-retaining edge
18 portions.
19
- 20 12. A packaging arrangement according to claim 11, in
21 which one of said edge portions is marked with indicia
22 for measuring quantities of sheets within the tray.
23
- 24 13. A packaging arrangement according to claim 4, in
25 which the carton contains 2,000 sheets of paper of 80 -
26 100 g/m₂ substance, split equally between two trays.
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