

A DOCUMENT STORAGE FILE

The present invention relates to files and in particular but not exclusively to blanks therefor.

5 There are many different types of document storage currently available on the market such as loose-leaf files, box files and cardboard blanks that can be formed into archive boxes. However, when purchasing such items, especially in bulk, the correct number of each type to be
10 ordered is not always known. Furthermore, when paper is stored in a loose-leaf folder and is then to be archived, it is often thought desirable to transfer the papers to, for example, an archive file or box, the paper perhaps being removed from its loose-leaf file before placing
15 into an archive file.

The inventor has now realised that it would be desirable to provide a blank which may achieve several functions.

 According to one aspect of the invention there is
20 provided a cardboard blank capable of being folded into both a box file and a loose-leaf folder, the blank having a plurality of portions distinguished one from another by means defining fold lines therebetween, there being a first cover portion, a second cover portion and a spine
25 portion therebetween, characterised in that there is a first flap portion extending along that edge of the first portion more remote from the spine portion, second and third flap portions extending along opposing sides of the first and/or the second cover portions, whereby the flap
30 portions can be folded to form a box shape or be folded flat against the first and/or second portions to form a loose-leaf folder shape, and a binding portion defined in said spine portion, said binding portion being foldable to form a double thickness ridge to which papers can be
35 secured.

 Preferably end flaps extend from the ends of the spine portion so that they can be folded to overlay and

thus reinforce the spine portion.

Further aspects concern a box file and folder constructed from such a blank.

It is also to be pointed out that a paper transfer
5 device can be used for transferring paper from or to such
a binder when having at least two elongate elements for
locating in holes in file paper, the device comprising
two elongate tubular, open-ended, portions held spaced
10 apart in substantially parallel relation by a support
member, so that the portions can be inserted into the
holes in the paper with the elongate elements of the
binder extending into the tubular portions.

For a better understanding of the present invention
and as to how the same may be carried into effect,
15 reference will now be made by way of example to the
accompanying figures in which:

Figure 1 shows a cardboard blank embodying the
present invention;

Figure 2 shows the cardboard blank of Figure 1 being
20 folded into a loose-leaf folder;

Figure 3 shows the cardboard blank of Figure 1
folded into a loose-leaf folder;

Figure 4 shows the blank of Figure 1 folded into a
box file;

25 Figure 5a shows a plan view of bar for binding paper
in the file;

Figure 5b shows an end view of the bar of Figure 5a;

Figure 6a shows a plan view of a second bar for
binding paper into the file; and

30 Figure 6b shows part of the bar of Figure 6a with a
movable clip in a different position; and

Figure 7 shows a device for transferring paper.

Figure 1 shows a cardboard blank 10 which is
foldable along the dashed lines to make the loose-leaf
35 folder 12 of Figure 3 or the box file 14 of Figure 4.
The dashed lines represent score lines on the blank 10 or

other physically defined fold lines.

The blank 10 has a front cover area 16 and a back cover area 18 linked together by a spine area 20 having a binding area 22. The ends of the top and bottom sides 24 and 26 of the spine and binding areas have flaps 28 and 30. The flap 30 has a circular hole 32 which corresponds to a circular hole 34 at one end of the spine area 20. The binding area 22 has a series of pairs of holes 35 along its length as indicated in Figure 1. Where necessary, there are corresponding holes 37 located in the flaps 28 and 30.

The front cover 16 is surrounded, on its other three free sides, by a lid flap 36 and two side flaps 38 and 40 which are shaped as shown in Figure 1. The lid flap 36 has a semi-circular hole 42 whilst the side flaps 38 and 40 each have a circular hole 44. A slot 46 is provided between each of the two side flap areas 38 and 40 and the front cover and adjacent the two holes 44.

The back cover area 18 is surrounded on its three free sides by a flap 47 which has portions 48 and 50 which are at opposite sides of the back cover area 18 and each portion is provided with a circular hole, similar to holes 44, and a small flap 54 adjacent thereto. The back cover area has a slit 56 extending along part of it with a semi-circular cut-out portion 57 for receiving the lid flap 36.

The steps necessary to fold the blank 10 into the file of Figure 3 will now be described with the aid of Figure 2. Firstly, the two flaps 28 and 30 adjacent the spine and binding areas 20 and 22 are folded inwards along fold lines 58 and 60 respectively so that hole 32 matches up with hole 34. The binding area 22 is then folded along fold lines 62, 64 and 66 to form a ridge 68 as shown in Figure 2. The resulting ridge 68 is held together by staples 70 along its length. Eyelets 72 are pushed into the series of pairs of holes 35 which match up when the ridge 68 is formed. The three flaps 36, 38

and 40 surrounding the front cover area 16 are folded inwards along fold lines 71, 73 and 75 so as to lie flat against the front cover area 16 with the lid flap 36 being folded last so as to lie on the other two flaps 38 and 40. The lid flap 36 is stapled to each of the other two flaps 38 and 40. The staples should advantageously not extend through the front cover 16 for safety reasons. The flap 47 surrounding the back cover 18 is then folded so as to lie in the plane of the back cover 18. This is achieved by first folding in portions 48 and 50 along fold lines 76 and 78 and then folding in the remaining flap portion 74 along line 80. The folded portions are then stapled together, again taking care to ensure that the staples do not penetrate the back cover. The file is then folded along lines fold 79 and 81 so as to form the characteristic loose-leaf file shape. A plastics tie 82 (Figure 2) is then inserted through two holes along the ridge 68 of the file to retain punched paper. The tie may be inserted through any one or more of the holes along the ridge 68 depending on the pattern of holes in the punched paper. A plastic bar 84 such as that illustrated in Figures 5a and b or Figures 6a and b can be used to retain the ends of the plastics tie. The two bars will be described in more detail hereinafter.

To fold the blank into the box file 14 of Figure 4, the following steps are carried out. The binding and spine areas 20 and 22 are folded as before to form ridge 68. The continuous flap 47 surrounding the back cover area 18 is folded so as to form three sides of a box. To achieve this, folds are made along fold lines 76, 78 and 80 and also along fold line 94 in each corner to provide a tuck. The tucks are then stapled to one of the adjoining walls to make the three sides of a box. The flaps 36, 38 and 40 are then folded so as to lie roughly perpendicular to the front cover 16. The two flaps 38 and 40 are further creased along lines 96 and 98. The back cover 18 is then moved so as to lie above the front

cover 16 by folding along lines 79 and 81. The flaps 38 and 40 are placed inside the resulting box form with the folded areas of flaps 38 and 40 arranged to rest against the inside of the back cover 18. Holes 44 and 52 are arranged so as to correspond to one another so that the box-file can be pulled from shelves. Flaps 38 and 40 are provided with cut-away portions 101 so as to accommodate the binding ridge 68 when the blank is folded into a box file. Flaps 54 are folded so as to be inserted in slots 46. The lid flap 36 is folded along line 100 so that part of the flap rests on the outside of the back cover 18 and whilst its tongue is inserted into slit 56. The box file of Figure 4 is thus produced.

The two semi-circular holes 42 and 57 on the lid flap 36 and the back cover 18 are provided so that the flap 36 can easily be inserted into and taken out of the slot 57.

The double-thickness ridge 68 gives strength to the arrangement so that a relatively large amount of paper can be held without tearing. If the holes were formed in the back cover, as is possible, with large loads of paper the back cover would tend to tear in the area around the holes. Thus the double-thickness ridge gives strength to the binding area and relatively thin cardboard can be used. In addition, the four layers at each end of the ridge give further strength to the arrangement. The two flaps 54, when inserted into slots 46, prevent the file from gaping when a large amount of paper is contained in it and also give further rigidity to the arrangement.

It is also possible to convert the box file to the loose-leaf file and vice versa. Both methods involve removing the relevant staples and refolding the blank into the desired type of file. However, since both types of file utilize the same binding ridge 68 there is no need to remove the paper during conversion between one type of file and another.

The plastics bar 84, as shown in Figures 5a and b,

is suitable for retaining paper which has two holes punched along its side, a small distance apart, and comprises a length of plastics having two parallel guides 86 receiving two sliding clips 88. Respective stops 90
5 are provided at each end of each guide 86 so as to prevent the sliding clips 86 from falling out. The ends of the plastics tie are passed through holes 92 in the bar and are retained in place by the sliding clips 88 which hold the tie between the clips and the bar.

10 An alternative plastics bar 184 for computer print-out is shown in Figure 6a and b. The bar again has two parallel guides 186 for receiving two sliding clips 188. In this embodiment, the clips 188 are movable between the position shown in Figure 6 in which the end of the clip
15 188 is flush with the plastics bar 184 and the position shown in figure 6b where the clips 188 protrude from the end of the plastic bar. The clip is prevented from leaving the guides by stops on the clips interacting with respective stops on the bar 184. When the movable clips
20 184 are in the extended position, a hole 190 in the plastics is visible, through which the plastics tie can be inserted. The clips 188 are then pushed into the flush position, thus retaining the plastics tie in recesses between the clips 184 and bar 184.

25 When the blank is in the form of a loose leaf file, a document retained in the file can be successfully photocopied, without removing it from the file, using the following procedure. The binding string is loosened so that, when the file is open, the two open pages are
30 substantially flat and with no overlap. The page or pages can then be successfully copied.

The blank may be made of any suitable material, corrugated-cored cardboard being particularly suitable. A plastics coated material may also be used. The fold
35 lines are physical scores in this embodiment for ease of folding, but these lines may be defined physically by indentations or by other means of deformation making

folding well defined, or merely by printed lines.

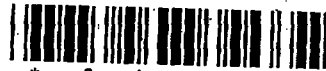
Figure 7 shows a file such as is described with reference to Figure 2 and containing a stack 200 of paper sheets engaged by the end portions of a plastic binding string or rod 202. It is to be understood, however, that
5 the file represented could equally be of another kind, such as a lever-arch file, having at least two elements locating a stack of paper.

When it is required to move all or a section of the stack 200 to another file, e.g. the archive box file, a
10 transfer device 204 is used. This device comprises a flat support plate 206 having two holes in which are secured respective tubes 208 each open at both ends 210 and 212 and having a slanted free end 212 giving a tip for ease of insertion into the stack. The rods 202 are
15 threaded into the ends 212 and the device pushed downwardly to engage through the paper stack. The rods 202 will normally protrude through the ends 210. All or part of the stack can be lifted by the fingers with the device still engaging the paper to keep it in alignment.

20 The thus captive stack can be moved with the device to another file where again the rods 202 of that file are engaged in, and normally through, the tubes 208. The stack can then be released so as to be held by the rods 202 and the device removed. Figure 7 can be regarded as
25 showing this insertion into an archive box file.

The device has particular, but not exclusive, application to removing papers from a lever-arch file and inserting them into the archive box file as previously described.

30 Another application is to the daily management of a file, of the kind shown in Figures 2 and 3, when the device can be used to remove and collate paper for the file for the purpose of removing or adding paper to the file.



CLAIMS

1. A cardboard blank (10) capable of being folded into both a box file (14) and a loose-leaf folder (12), the blank having a plurality of portions distinguished one from another by means defining fold lines therebetween, there being a first cover portion (16), a second cover portion (18) and a spine portion (20) therebetween, characterised in that there is a first flap portion (36) extending along that edge of the first portion more remote from the spine portion, second and third flap portions (38, 40, 48, 50) extending along opposing sides of the first and/or the second cover portions, whereby the flap portions can be folded to form a box shape or be folded flat against the first and/or second portions to form a loose-leaf folder shape, and a binding portion (22) defined in said spine portion, said binding portion being foldable to form a double thickness ridge to which papers can be secured.
2. A blank as claimed in Claim 1, wherein said first cover portion (16) has flap portions (36, 38, 40) on each of its three free sides.
3. A blank as claimed in Claim 2, wherein the first flap portion (36) forms a lid flap and is interengageable with a slot (56) in said second cover portion (18).
4. A blank as claimed in any one of Claims 1 to 3, wherein said second cover portion (18) is surrounded on its three free sides by a continuous flap portion (47).
5. A blank as claimed in Claim 4, wherein said continuous flap portion (47) is foldable to form said box shape by virtue of diagonally extending fold lines (94).
6. A blank as claimed in claim 5, wherein each of the two parts (48, 50) of the continuous flap portion (47) which extend along opposite sides of the second cover portion (18) has a protruding flap (54) at the end region



closest to the spine portion (22) and there are slots (46) to receive the protruding flaps (54) at edge regions of the first cover portion (16).

5 7. A blank as claimed in any one of the preceding claims, wherein said spine portion (20) has two end flaps (28, 30) on its two free ends, which end flaps can be folded onto the spine (20) portion for reinforcement.

8. A blank as claimed in any one of the preceding claims, wherein said spine portion (20) has a hole (34)
10 at one end region thereof.

9. A blank as claimed in Claim 8, when appended to claim 7, wherein one of said ends flaps (30) has a hole (32) arranged so that, when the end flap (30) is folded onto the spine portion (20), the hole (32) in the end
15 flap (30) substantially lines up with the hole (34) in said spine portion (20).

10. A blank as claimed in any one of the preceding claims, wherein when the blank is in the form of a loose-leaf folder, the binding portion includes means (82)
20 for securing papers to the double-thickness ridge, said means being arranged so that, in use, the papers can be loosened so that when the loose-leaf folder is open, the two open pages are substantially flat.

11. A blank substantially as hereinbefore described with
25 reference to the accompanying drawings.

12. A loose-leaf folder (12) comprising a first cover portion (16), a second cover portion (18) and a spine portion (20) therebetween, characterised in that there is a first flap portion (36) extending along that edge of
30 the first cover portion more remote from the spine portion (20) and second and third flap portions (38, 40, 48, 50) extending along opposing sides of the first and/or second cover portions, those flap portions being folded flat against the first and/or second portions, and
35 there being a binding portion defined in the spine portion and being a folded double-thickness strip to which papers can be secured.



13. A loose-leaf folder substantially as hereinbefore described with reference to Figures 2 and 3 of the accompanying drawings.

14. A box file (14) comprising a first cover portion (16), second cover portion (18) and a spine portion (20) therebetween, characterised in that there is a first flap portion (36) extending along that edge of the first cover portion more remote from the spine portion (20) and second and third flap portions (38, 40, 48, 50) extending along opposing sides of the first and/or second cover portions, those flap portions having been folded to form a box shape with the cover portions, and there being a binding portion defined in the spine portion and being a folded double-thickness strip to which papers can be secured.

15. A box file substantially as hereinbefore described with reference to Figure 4 of the accompanying drawings.

16. A blank, folder or file according to any one of claims 1 to 15 in combination with a paper transfer device for transferring paper from or to a binder of the kind having at least two elongate elements (202) for locating in holes in file paper, the device comprising two elongate tubular, open-ended, portions (208) held spaced apart in substantially parallel relation by a support member (206), so that the portions (208) can be inserted into the holes in the paper with the elongate elements (202) of the binder extending into the tubular portions.

17. A method of engaging a punched paper stack located in a folder or file according to any one of claims 12 to 15 and having at least two elongate elements (202) for locating the paper stack, the method comprising inserting two elongate tubular, open-ended, portions (208) held in spaced apart substantially parallel relation into two holes in the paper stack so that the associated elongate elements (202) extend into the portions, and lifting at least a section of the paper stack with the portions (208) to remove that section, which remains engaged by



said portions.

18. A method of inserting a stack of paper into a folder or file according to any one of claims 12 to 15 and having at least two elongate elements (202) for locating the stack, the method comprising inserting two elongate tubular, open-ended, portions (208) held in spaced apart substantially parallel relationship into two holes in the stack, lifting the stack with the portions engaged through it over the two elongate elements (202) of the binder, and lowering the stack to pass the elements (202) into the tubular portions, and removing the tubular portions to leave the stack engaged by the elements (202) of the binder.
19. A method comprising the method of claim 17 to remove papers from a file followed by the method of claim 18 to add those papers to a further file, at least one of the said files being a folder or file according to any one of claims 12 to 15.
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