

CREATING A 4-FLAP ENCLOSURE

These are instructions to make a simple custom-fitted enclosure. This box can be used for smaller books, and is especially good for books that will be shelved upright. This box is designed for fragile books and those with loose covers or pages.

Supplies needed

- “archival” quality 20 pt. card stock purchased from reputable suppliers
- ½” or 1” wide 3M #415 double-sided tape
- a means of cutting the board, such as a utility knife and a cutting mat
- a yardstick or ruler
- a straight edge
- an L-square
- a bone folder
- cotton ribbon (cloth tying tape)
- a pencil

Directions

1) Measure book to be placed in the box. Measure in several places and choose the largest measurement. Round *up* to the nearest 1/8”, and enter the measurements below. (see Figure 2)

Book Height (BH) = _____”

Book Width (BW) = _____”

Book Thickness (BT) = _____”

2) Cut two pieces of board for the phase box (labeled as “Piece A” & “Piece B” as illustrated in Figure 3.) Do the following calculations and place the numbers in the spaces below. Cut the two pieces to these dimensions.

Piece A

$W = BW =$ _____”

$H = (BH \times 3) + (BT \times 2) =$ _____”

Piece B

$H = BH =$ _____”

$W = (BW \times 3) + (BT \times 2) =$ _____”

Figure 1

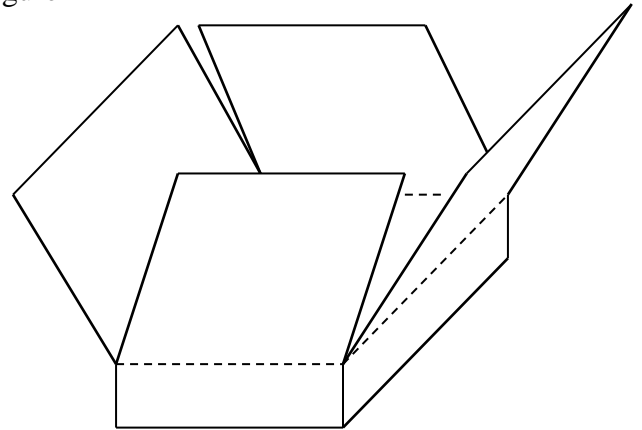


Figure 2

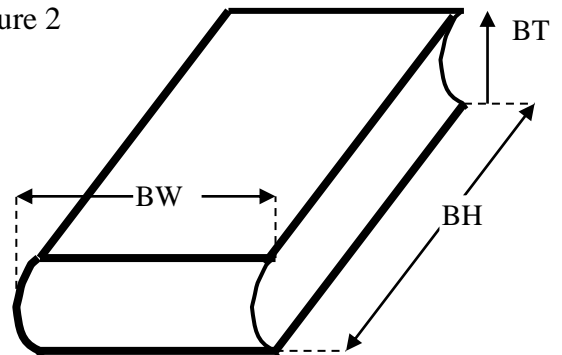
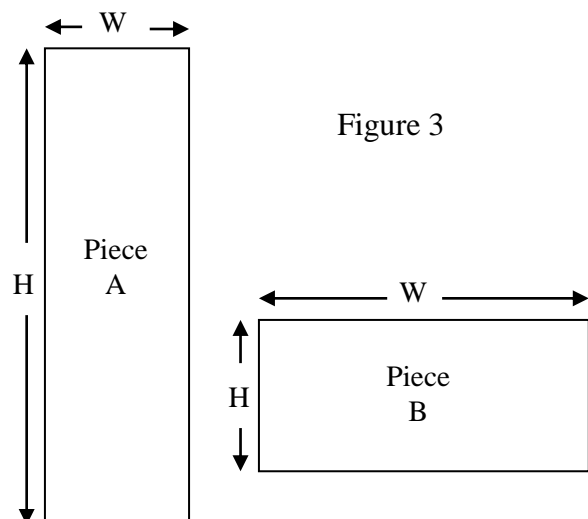


Figure 3



3) Place Piece B on top of Piece A, as shown in Figure 4. To find the correct position of the pieces, do the following calculations:

$$X = BW + BT = \underline{\hspace{2cm}} \text{”}$$

$$Y = BH + BT = \underline{\hspace{2cm}} \text{”}$$

4) Use an L-square to measure these two distances in the bottom right corner of the overlapped pieces. Make sure the boards are straight against the L-square. Place a weight in the middle, where the two boards cross.

5) Place four small, light pencil marks on Piece B and four on Piece A, at the areas where they cross. (These are represented by the small dark lines in Figure 4.)

6) Remove weight and Piece B.

7) Cut a piece of cotton ribbon to the following length. Fold it in half, creasing the halfway point so you can find it later, and lay aside.

$$\text{Ribbon} = (BW \times 2) + (BT \times 2) + 18 = \underline{\hspace{2cm}} \text{”}$$

8) Place several pieces of double-sided tape in the “square” created by the small pencil marks on Piece A. (See dotted areas in Figure 5.)

9) Remove release paper from tape. Position the cotton ribbon in the middle of the taped area, with the center crease at the left edge of the board. The cotton ribbon is shown by the shaded line in Figure 5.

10) Re-position Piece B on top, using the small pencil marks to place it correctly. Rub the taped area to get good adhesion between the two pieces.

11) Use your bone folder to make a crease at the places indicated by heavy black lines in Figure 6. Use the other board as a guide to keep the creases straight.

12) Fold the four flaps at the creases, as in Figure 7. Use the flat side of the bone folder to press along the folded edge to give a better fold.

13) Unfold the flaps and place the book in the center of the box.

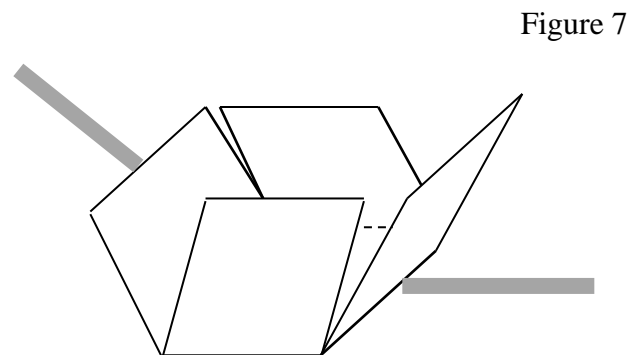
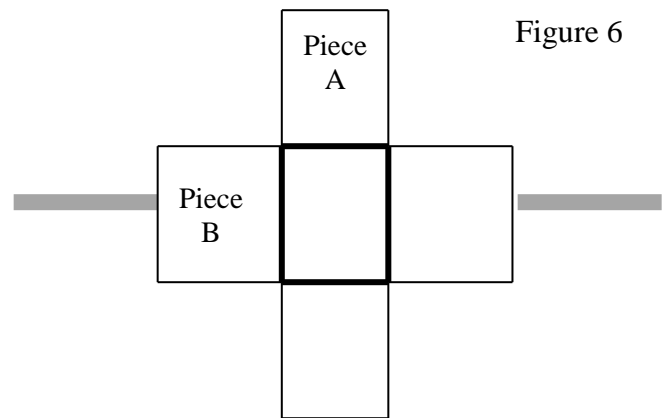
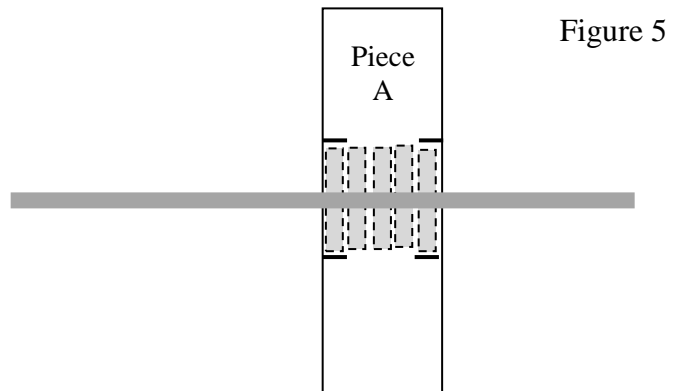
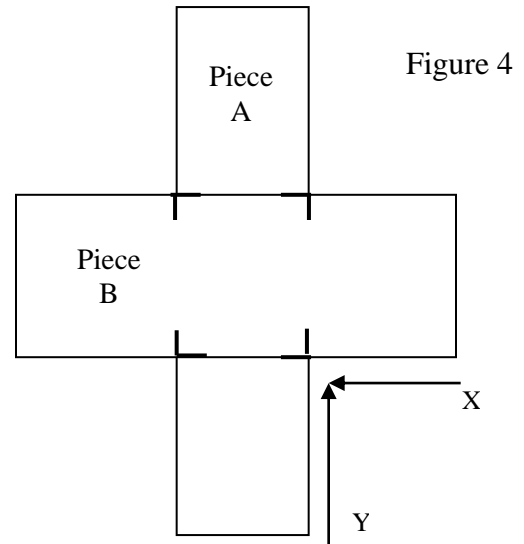


Figure 8

14) Fold the flaps to fit the book. Start with the bottom flap. Fold it up until it is perpendicular and straight against the book. Use a pencil to lightly mark both sides of the inside of the flap, just above where the book is. (See dotted lines in Figure 8.)

15) Remove the book. Use a straight edge and a bone folder to make a crease at your marks. Fold the flap at the crease.

16) Replace the book in the center of the box. Fold the bottom flap into place over the book, then repeat steps 13 and 14 with the top flap. This time, mark the top flap just above where the bottom flap lies against the book.

17) Repeat with the right flap, then the left. Each time, fold in the flaps that are already fitted to the book before marking the next flap.

18) When all the sides are finished, replace the book in the box and fold over all four flaps. Start with the bottom, then the top, then the right, then the left.

19) Stand box on its spine, holding both ends of the cotton ribbon. (See Figure 9.)

20) Tie the ribbon in a bow on the fore edge of the box. (See Figure 10.) Cut off the excess ribbon at an angle, to reduce future fraying.

21) Using a pencil, archival pen, or printed label, label the spine of the box with information about its contents.

Notes

a) You can use PVA glue instead of double-stick tape to adhere the two boards together. PVA is less expensive and stronger, but also messier. If you use PVA, weight the entire overlapped area until it is completely dry to avoid warping. As the glue may seep out from between the boards, place waxed paper under the boards to prevent the box from sticking to the work surface as it dries.

b) If the board is too small, make sure to make the x and y measurements in the lower right corner (in step 4). That way, you will insure that the bottom flap, which will be against the book, is the same size as the book. It is less important that the other flaps be exactly the same size.

c) If the book is very heavy, you can use 40-point. instead of 20-point board. This will provide a stronger enclosure for the book, but can be somewhat difficult to fold.

d) You can number each flap of the box to help users replace them in the proper order after they are finished with the book. Using a pencil or an archival pen, label the bottom flap “1,” the top flap “2,” the right flap “3,” and the left flap “4.” To make it even plainer, you can label the bottom flap with the phrase “This flap next to book” or something similar.

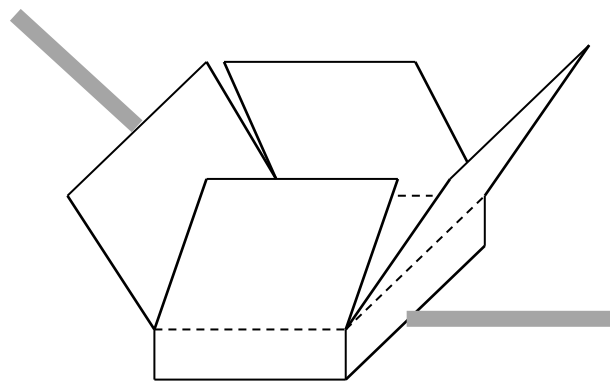


Figure 9

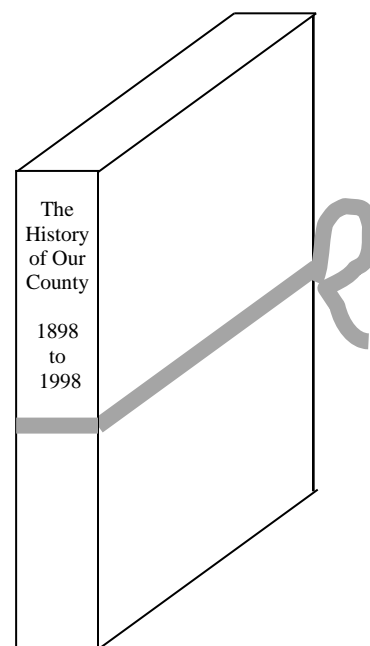
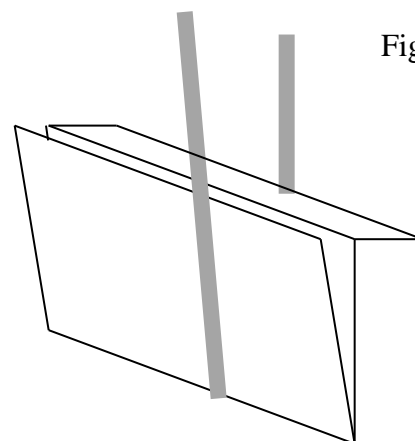


Figure 10

For further information

The conservation staff of the Local Records Preservation Program is available to provide additional guidance and support. Contact them at: P.O Box 1747, Jefferson City, MO 65102, (573) 751-9047, or local.records@sos.mo.gov.

The Local Records staff has compiled a list of preservation-related vendors, particularly those that provide supplies and services to Missouri citizens and government officials. It is available from the Local Records office or at https://www.sos.mo.gov/CMSImages/LocalRecords/Vendors_Information.pdf.

Published by the Local Records Preservation Program, Missouri State Archives, Office of the Secretary of State. The full set of Conservation Notes on this and other topics is available at <https://www.sos.mo.gov/archives/localrecs/conservation>.

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