Book stands for exhibitions

The guide will show you how to make a 3D book stand using simple boxboard.
It involves working out a number of measurements, marking these out onto the boxboard, and then cutting and folding in order to construct.

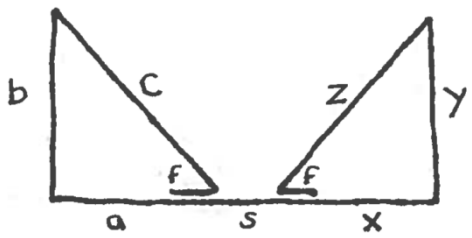
It may take a couple of attempts, but once you have the hang of it, it will become an invaluable, cheap, quick and safe way to display your books.

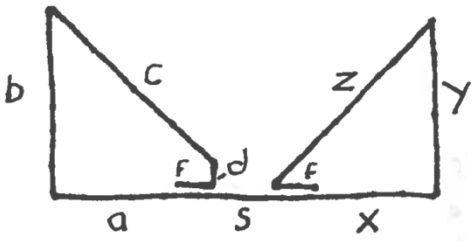
Rare books and their bespoke stands on display at the Royal College of Physicians, 2013

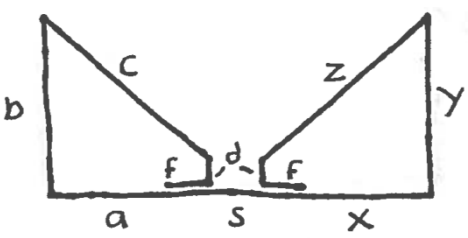
Instructions

Hold your book open on the page to be displayed, ensuring the spine is not straining – ideally between 90-120°.

Look at the profile of the book and decide which type of stand is required in order to fully support your book:







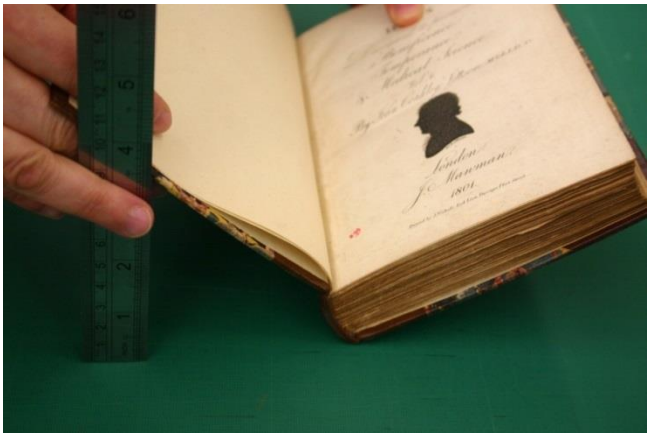
Note: if the spine does not lie flat on the surface, a ‘step’ or ‘drop’ (**d**) will be required to provide support

Whilst a colleague holds the book in the desired

display position, and with the spine resting on a flat surface:

- Measure the drop from the top edge of the book to the surface on both the left and right sides. Deduct 1cm from both figures. These figures become **b** and **y** respectively.

- Measure the width of space occupied by the spine. This figure becomes **s.**



- If there is a drop between where the cover board meets the spine and the surface, measure this drop. This figure becomes **d.**

Close the book and measure the width of the book's board, deducting 1cm. This figure becomes both **c** and **z**.

You calculate **a** and **x** using the following equations:

$\mathbf{c^2 - b^2 = a^2}$ then use square root: $\sqrt{\ }\ \mathbf{a^2 = a}$
$\mathbf{z^2 - y^2 = x^2}$ then use square root: $\sqrt{\ }\ \mathbf{x^2 = x}$

Note: If you do have a drop, you need to deduct this figure (**d**) from either **b** (if it is on the left side) or **y** (if it is on the right side) before you do the above equations. Once you've worked out the values of **a** and **x**, you should return to the original figures for **b** and **y**. Finally, **f** indicates two flaps used for securing the stand when it is folded up – 3cm will suffice.

You should now have all the figures to work out the length of boxboard required to make your stand:

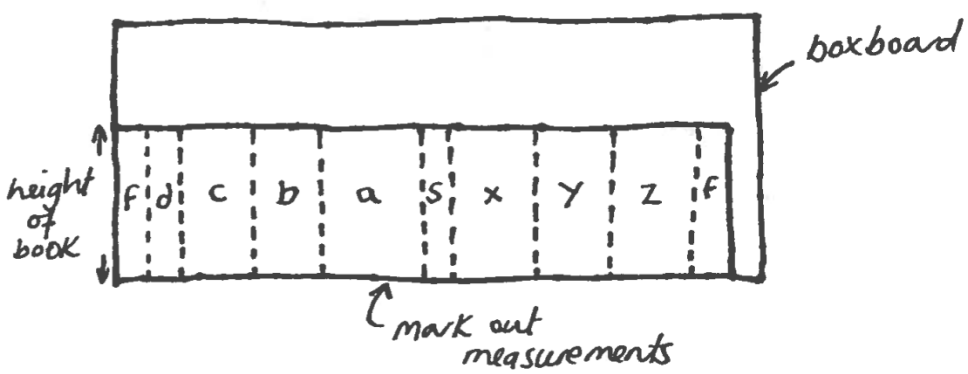
f (+d*) + c + b + a + s + x + y + z (+d*) + f

* Only if a drop is required.

Mark this length on the boxboard.

Mark the height of the book (minus 1cm) on the boxboard.

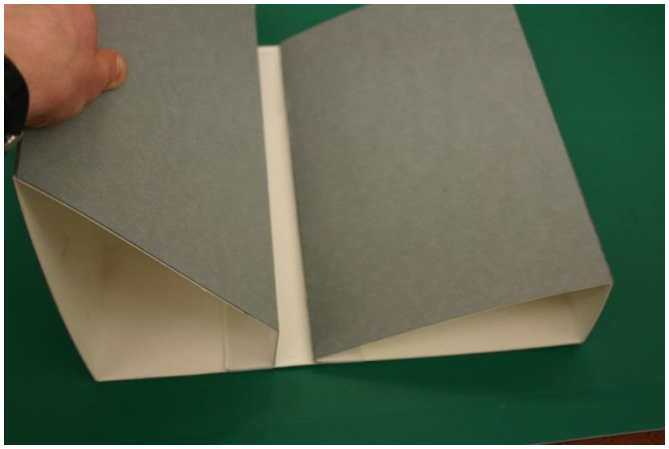
Cut the stand out and mark the various measurements along the bottom and top edge (on the white side). Connect these measurements up with straight lines. This is where you will fold the board (**note:** do not fold along the lines either side of **s**).



Use whale bone to score deeply along each required fold

Use a Stanley knife to make a light score along each fold on the grey side.

Fold and use strong tape to secure the flaps to the base.



Resources

- Folding boxboard (1000 micron) – this is optimum for relative ease of folding and level of support (thinner boxboard won't keep its shape with heavier books, while thicker is extremely tough to fold without creasing)

  From Conservation by Design, sold in packs of 12 sheets (each measuring 1040x1473mm) at £62.40 (£5.20 per sheet)

- Metal cutting ruler (100cm) – these often have a handle to help apply even pressure

  From craft suppliers (£29.99 on Amazon)

- Cutting mat (several sizes available, but A1 will give plenty of coverage)

  From stationers/craft suppliers (£28.99 from Euroffice)

- Pointed 'bone' folder

  From craft suppliers/Ebay (approximately £4)

- Good quality 'Stanley' type knife

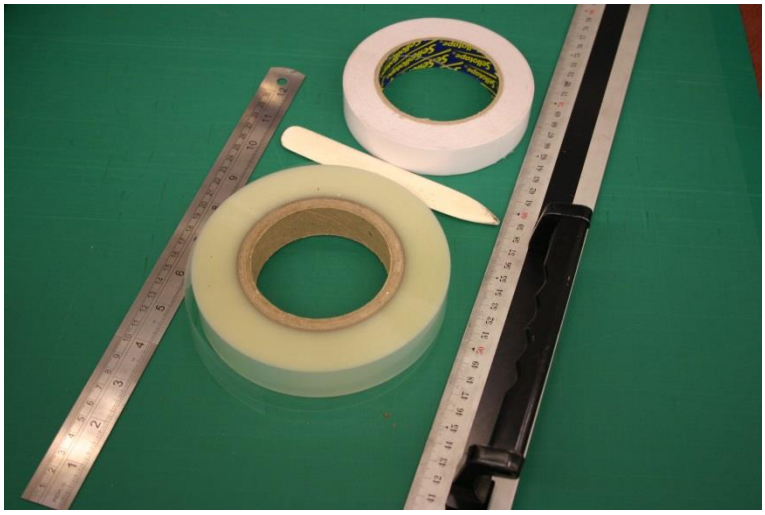
- Strong double sided tape

- Polypropylene strips/book strips (35 micron, 25mm width) – this material is preferable to melinex tape which is stiffer and can catch rough edges of pages

  From Preservation Equipment Limited, sold in 100m rolls at £6.95

Selected suppliers

www.conservation-by-design.co.uk
www.euroffice.co.uk
www.preservationequipment.com



Peter Basham and Laura Sleath, 2013