Trick Box T-Plans

Homemade Puzzles

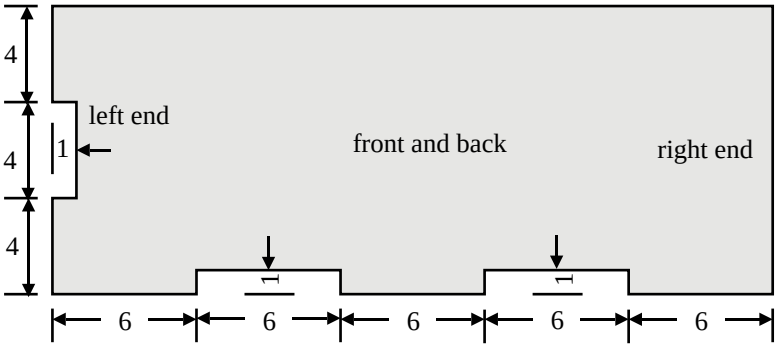
This is more of a "Trick Box" rather than a proper puzzle box, but it's just as hard to open, even though there's only **ONE** move to open the box!
Looking like a small crate with a drawer inside, the trick is to open the drawer.
If you know the move, then it's dead easy to open, but if you don't, you could be on for quite a while...

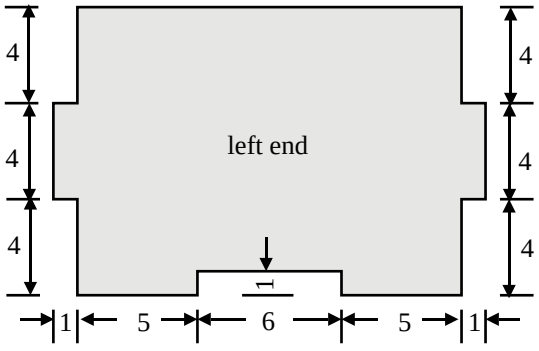
Very easy to make-you could make this in a single day.
The size of this box is 4" by 2-3/4" by 1-1/4", if made from 1/8" wood, but the plans are T-Plans, which allow you to make this box at any size.

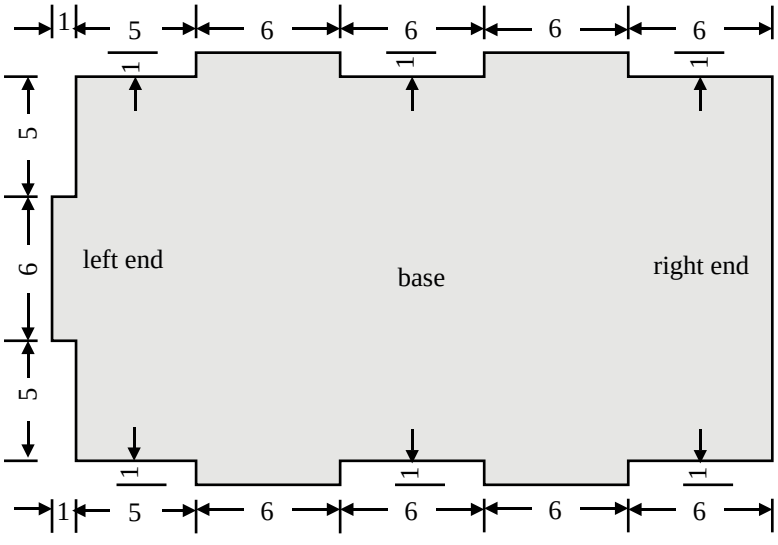
All measurements are in multiples of "T", which represents the thickness of the wood.

The Drawer:
Cut these pieces:
one at 30 by 18: base.
two at 30 by 12: front and back.
two at 18 by 12: ends.

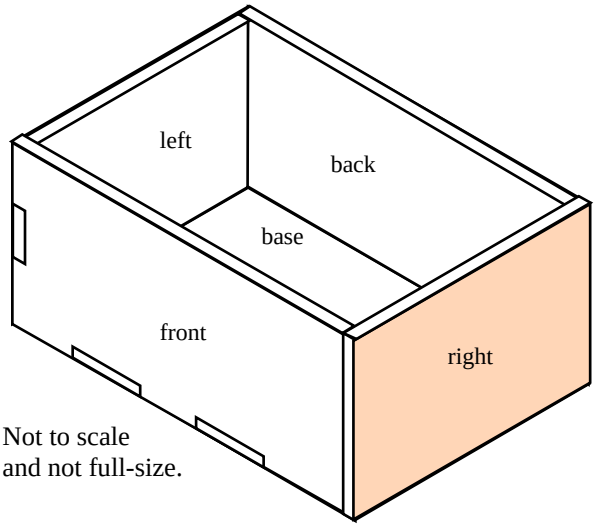
Cut the Drawer Panels to these shapes:







Glue the five panels together to form the drawer.
The right end doesn't have any finger joints:
it's glued directly onto the ends of the panels.



Not to scale
and not full-size.

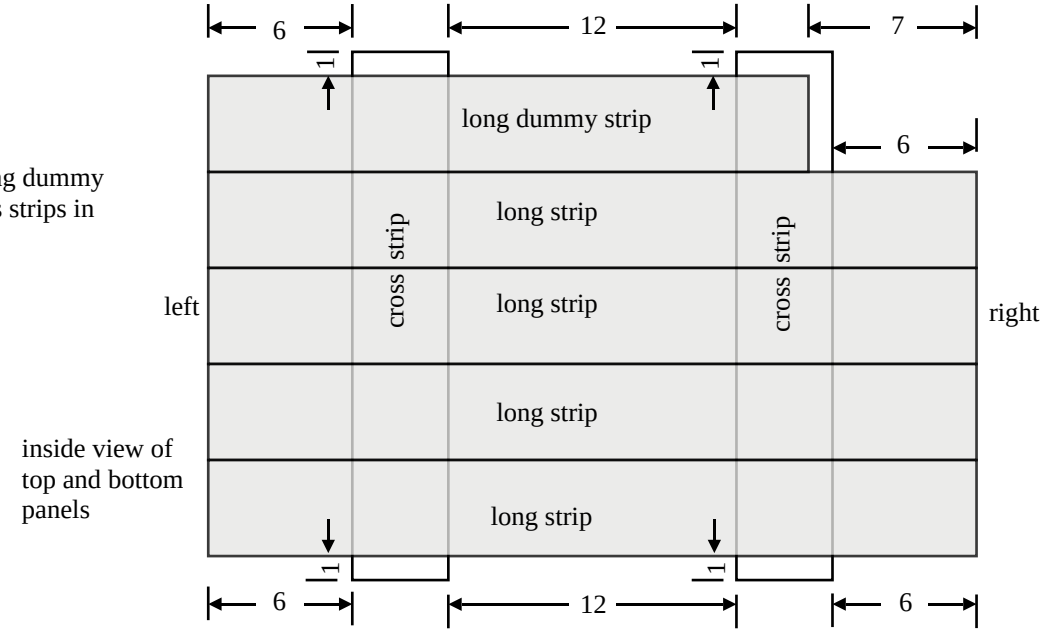
What is a T-Plan? See Page 4.

The Box
Construction with strips

The Box made with strips:
Cut these pieces:
fourteen at 32 by 4: long strips.
two at 25 by 4: long dummy strips.

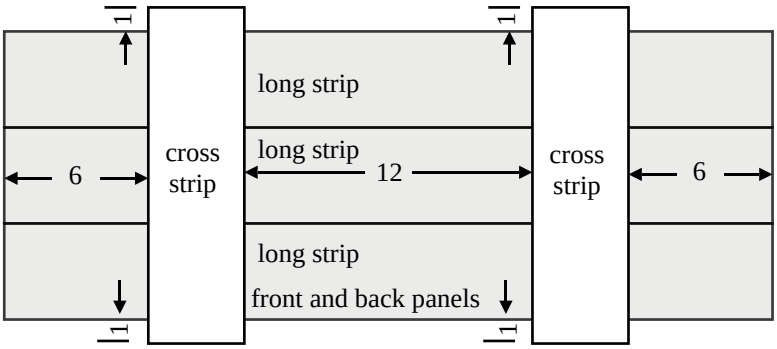
Common pieces:
two at 7 by 4: short dummy strips.
four at 22 by 4: longer cross strips.
four at 14 by 4: shorter cross strips.
one at at 18 by 12: dummy end.

Glue four long strips and one long dummy strip onto two of the longer cross strips in the positions shown.
Repeat for the bottom panel.



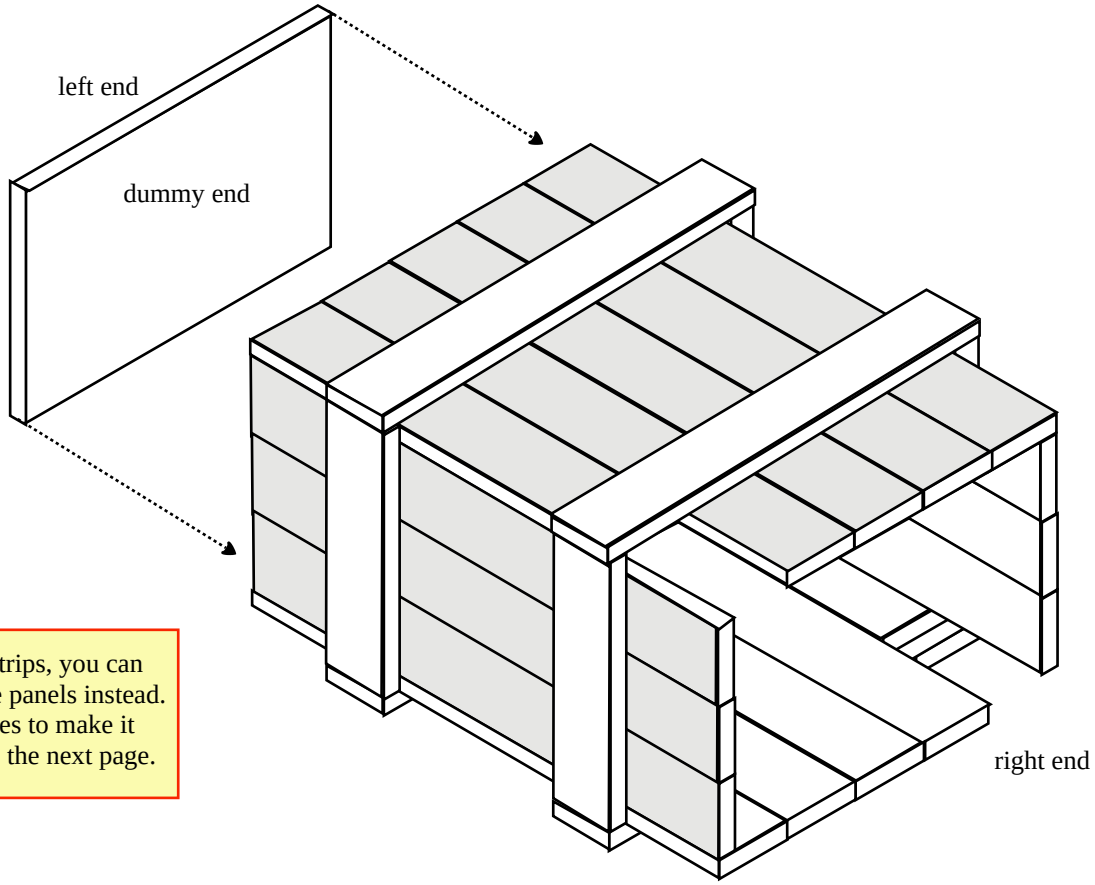
inside view of top and bottom panels

Glue three long strips onto the shorter cross strips in the positions shown.



outside view of front and back panels.

Glue the four panels together as shown.
The top and bottom panels should overlap the front and back panels.
Note the two gaps at the right end.
Glue the dummy end just inside the left end of the box.
It should be flush with the ends of the panels.
The dummy end is needed to prevent the drawer from being pushed out from the left end.



To save cutting all these strips, you can make the box from simple panels instead. These will have drawn lines to make it look like a little crate. See the next page.

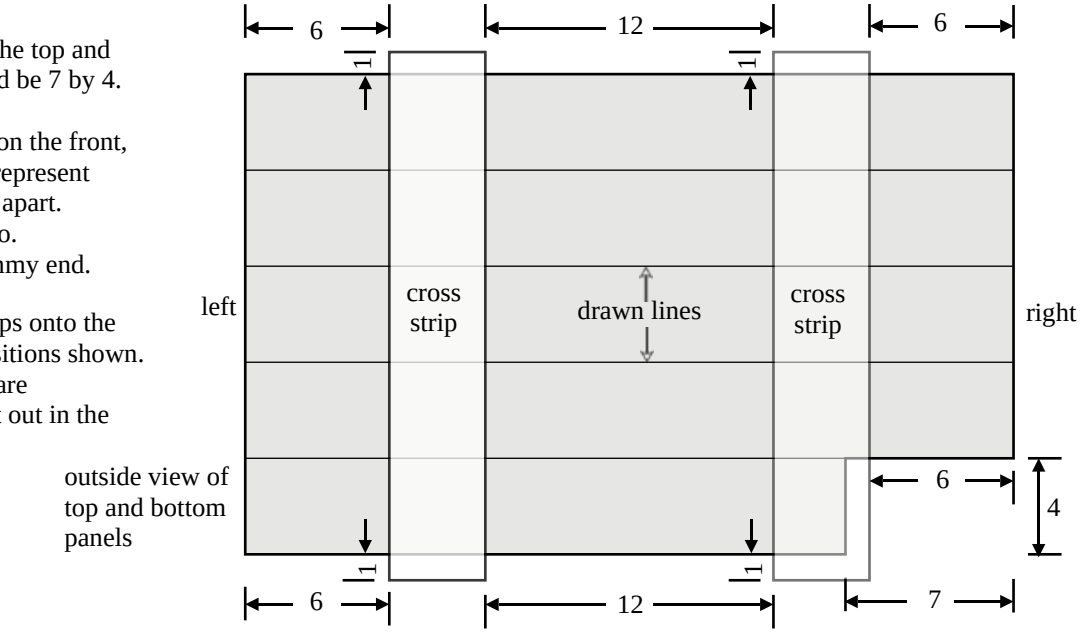
The Box
Construction with panels

The Box made with panels:
Cut these pieces:
two at 32 by 20: top and bottom.
two at 32 by 12: front and back.

Cut a piece from one corner of the top and bottom panels. This piece should be 7 by 4.

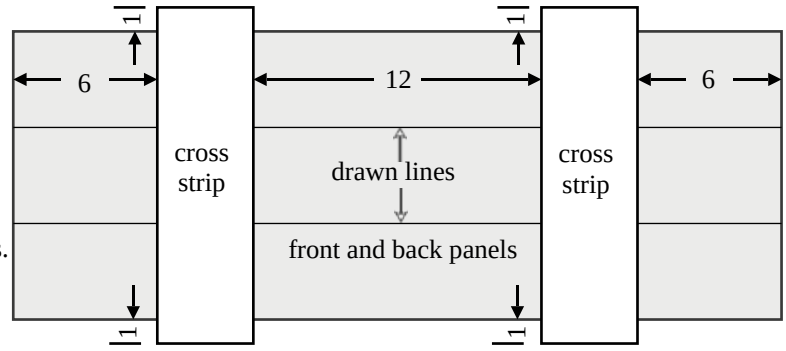
With a sharp pencil, draw lines on the front, back, top and bottom panels to represent strips. These lines should be 4T apart.
Don't forget to mark the ends too.
Don't draw any lines on the dummy end.

Glue two of the longer cross strips onto the top and bottom panels in the positions shown.
In this diagram, the cross strips are semi-transparent to show the cut out in the panel.
Repeat for the bottom panel.



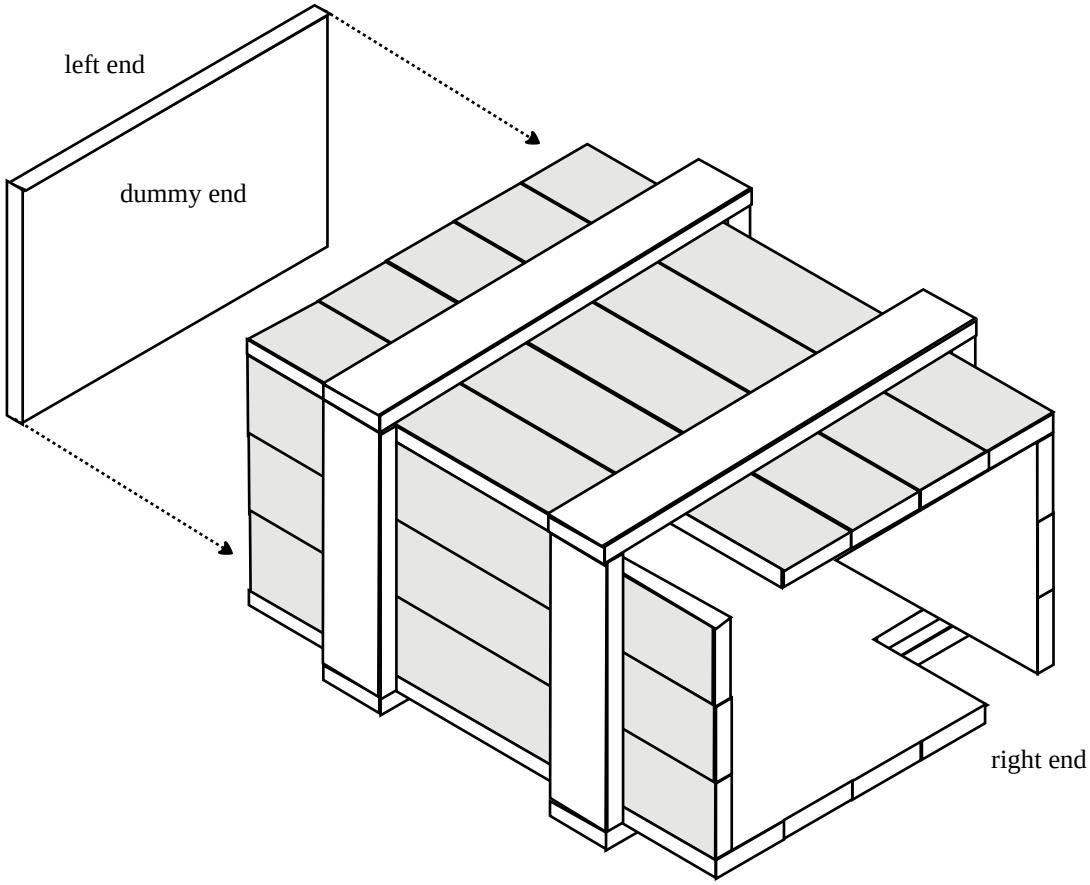
outside view of top and bottom panels

Glue the shorter cross strips onto the front and back panels in the positions shown.



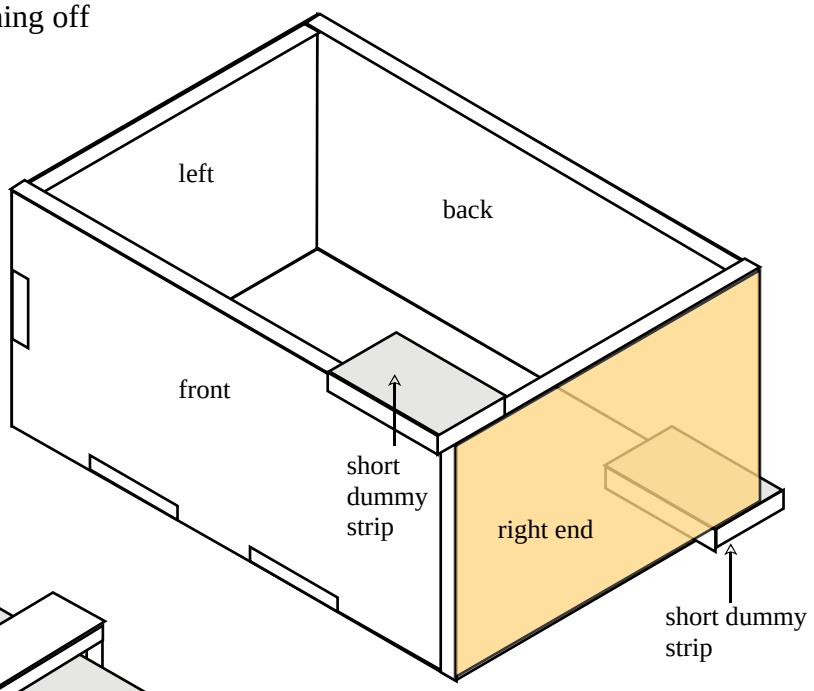
outside view of front and back panels.

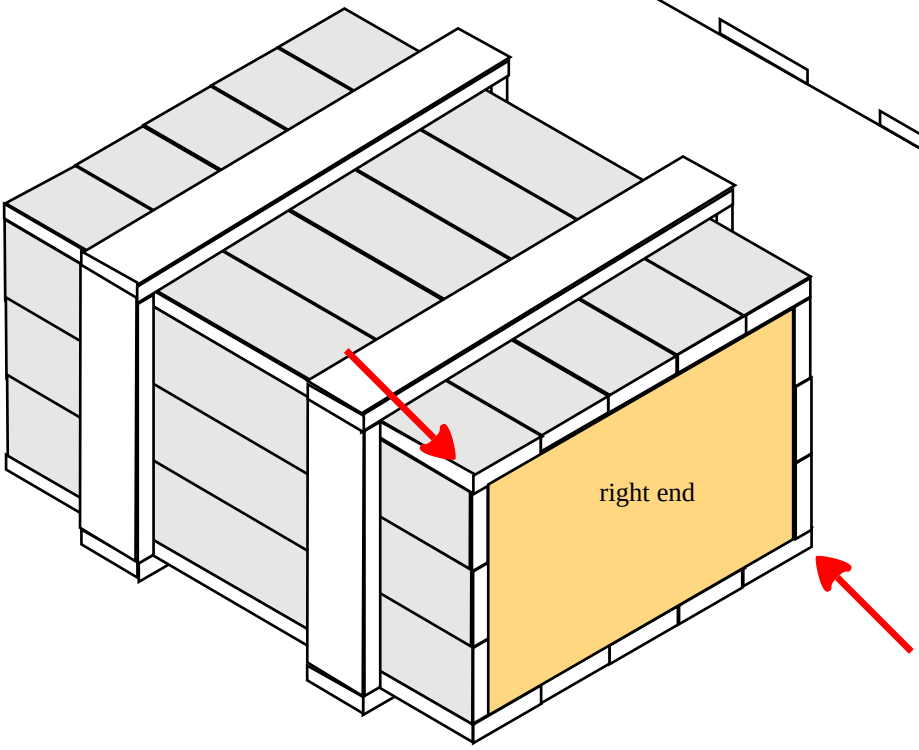
Glue the four panels together as shown.
The top and bottom panels should overlap the front and back panels.
Note the two gaps at the right end.
Glue the dummy end just inside the left end of the box.
It should be flush with the ends of the panels.
The dummy end is needed to prevent the drawer from being pushed out from the left end.



Finishing off

Glue the two short dummy strips onto the drawer in the positions shown.
They should be flush with the right end, and overlap the front and back panels by 1T.
The right end is shown semi-transparent to show the bottom short dummy strip.



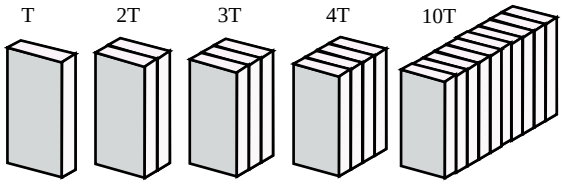


Push the drawer into the box.
The short dummy strips should just fit under the longer cross sliders, hiding the inner ends.
To open the drawer, grip the top and bottom corners of the box shown by the red arrows, and pull.

Enjoy your puzzle box!

Make some T gauges

Cut twenty pieces of your wood, of thickness **T**, at about 1" (25 mm) by 1/2" (12 mm).
Glue ten together, then four, then three, then two.
These five gauges will give you any size from T to 20T.
Measure and mark the wood with these T-gauges, **NOT WITH A RULER.**



What is a T-Plan?

The T-Plan doesn't use normal measurements-inches or mm-it uses only one measurement, and that is the THICKNESS of the wood that you're using. It doesn't matter whether it's 1/8", 1/4", 4 mm, 6 mm, -it's still just ONE unit, which we call "**T**". Since the moving parts inside the puzzle box move a distance which equals that thickness, it makes sense to measure the sizes of those pieces in the same units.
I make my boxes from 1/8" plywood, so I design the pieces around that size (which I still call "**T**"). So a part might be 2-1/2" long by 1-1/2" high. If you were making that box from 1/4" wood, those sizes would be 5" by 3". If you're using 1/2" thick wood, those sizes would be 10" by 6"! If you're using mm, it gets even more complicated.
So you see, there would have to be a different set of plans for EVERY POSSIBLE THICKNESS of wood available!
But if you call the wood thickness "**T**", you can use the SAME PLANS for every possible thickness- the numbers used for the dimensions and movements are exactly the same for the thickness of ALL woods.

I've taken every care in making these plans.
However, if you find something wrong, please let me know, so that I can put it right.

Get more plans and solutions at Homemade Puzzles.
Web address: **www.homemadepuzzles.co.uk**
E-mail: **bruce@homemadepuzzles.co.uk**