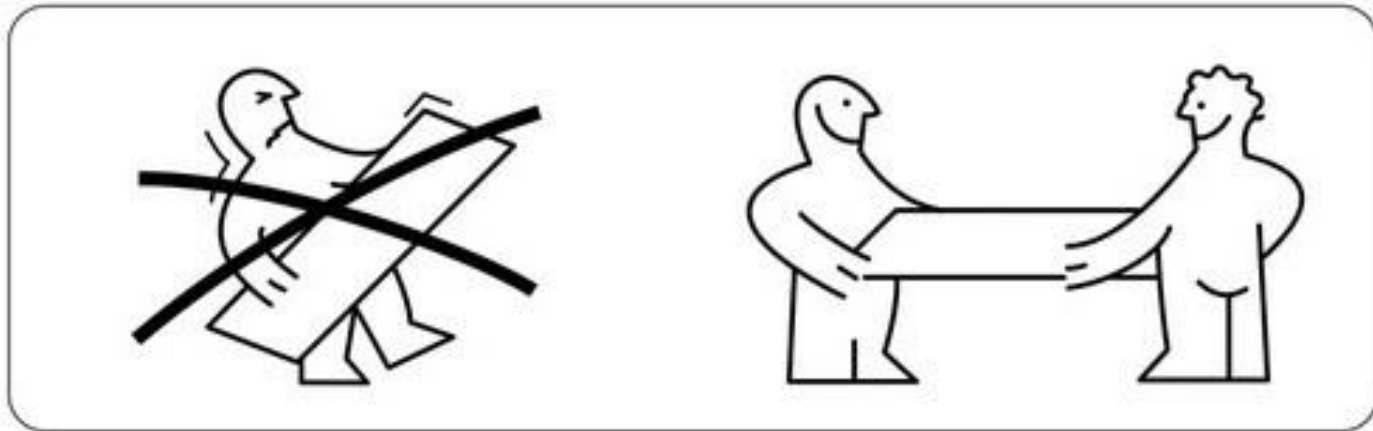
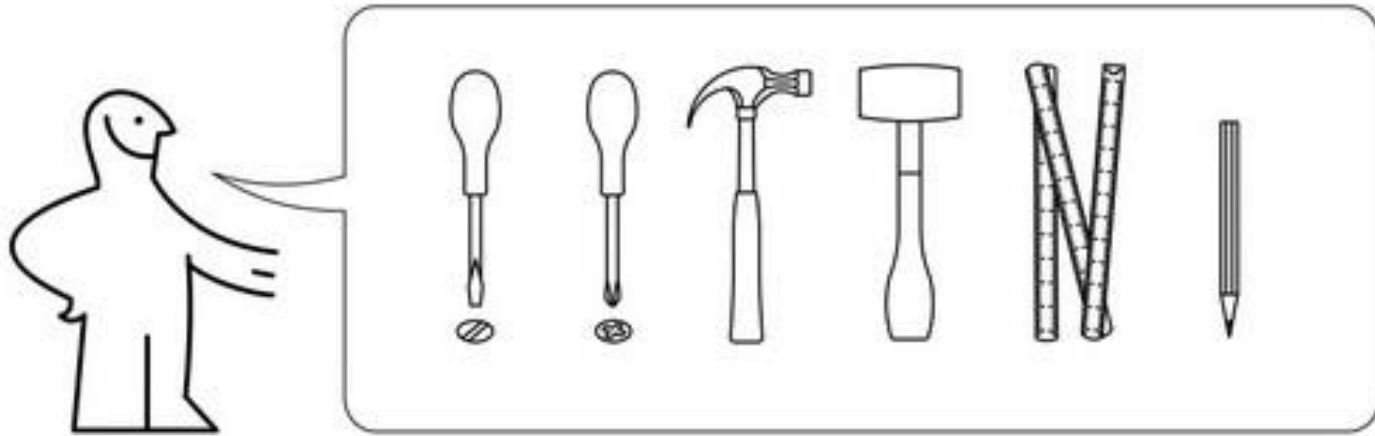


Think in silence



If you saw this on furniture, what would it mean?

Do It Now



:

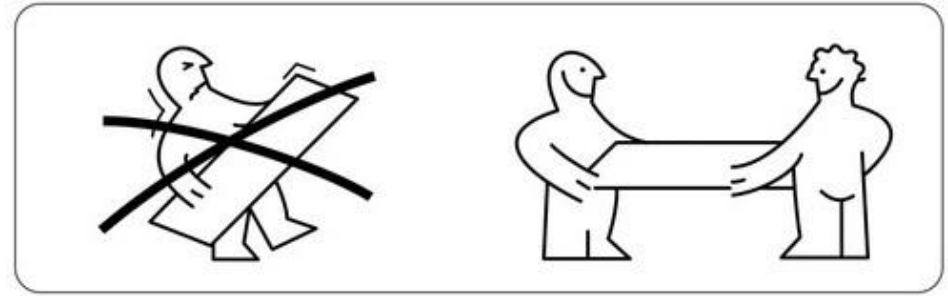
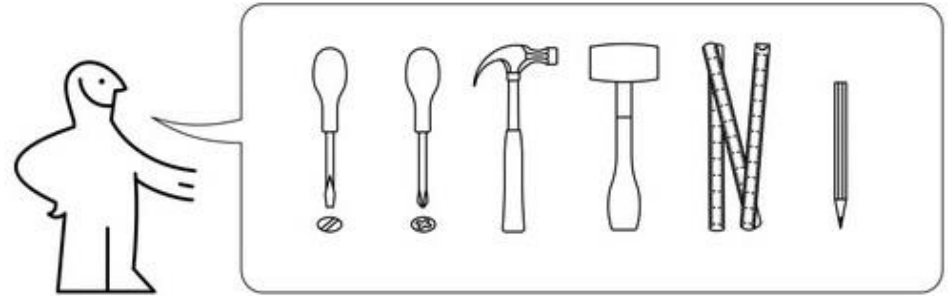
start

time limit : 5

stop

Activity: Write down what you think this image means.

Stretch it: Give two examples of places where you would see diagrams like this.

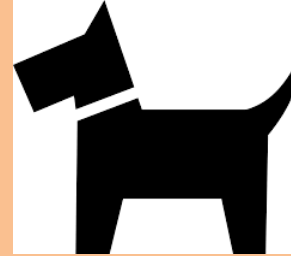


Complete in **Silence** Please

Flat pack furniture and knock down fittings

Pictogram

a pictorial symbol for a word or phrase.



Ideogram

A character or shape symbolizing the idea of a thing without indicating the sounds used to say it.



Big Question: How can we assemble products without any specialist knowledge?

Date 19
March 2020

To secure an understanding by desining the terms pictogram and ideogram.

To further develop an understanding by identify and describing a range of knock down fittings.

To achieve excellence by implementing effecting knock down fitting to create a flat pack product.



Key Word: *Flat pack, knock down fittings, ideogram, pictogram*

Flat pack furniture

- Flat pack furniture, is a form of furniture that requires customer assembly.
- Several furniture components are packaged in a carton which also contains assembly instructions and necessary hardware needed for the buyer to follow in order to build the furniture item correctly.
- Popular stores that sell flat pack furniture are, Ikea and lots of other furniture shops.
- It is appealing to consumers because it is very easy to assemble and comes with the full instructions needed to assemble the piece of furniture bought.

Question

What particular aspect of flat pack furniture manufacture has made knock-down fittings popular and cost effective?

Answers

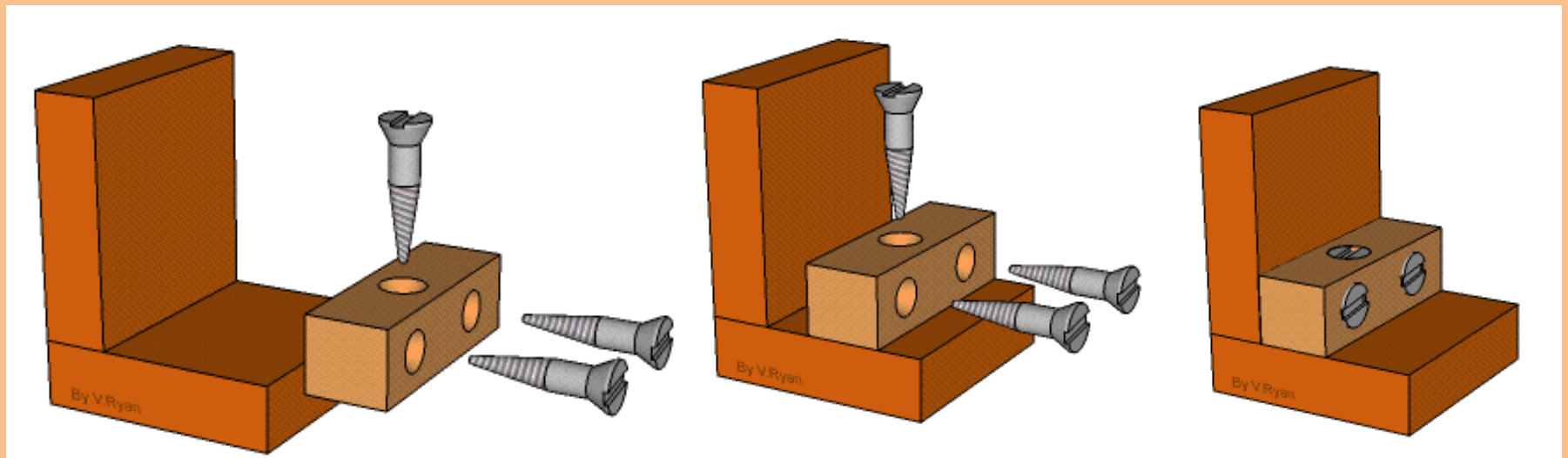
- Mostly made from cheap wood: laminated chipboard for kitchens and solid Pine for living rooms and bedrooms.
- All joining components including screws, hinges and handles are mass produced.
- The manufacturer does not have to assemble them
- Easy to transport and store as they are flat pack and not bulky.

Knock down fittings

- Knock down fittings are fittings commonly used in flat pack furniture.
- It consists of being put together easily, that is why they are included with flat pack furniture.
- In Knock down fittings, screws are used to put the two blocks together and it is usually very stable.
- The Knock down joints are commonly used to put together, cabinets, desks and other furniture's that are flat pack.
- These are good for consumers as they only need basic tools like screwdrivers to assemble and most people can build them without and failure.

PLASTIC CORNER BLOCK (FIXIT BLOCKS):

The corner block is pressed against the two pieces of material (normally wood based). Screws are used to fix the block into position. This type of joint is used to fit modern cabinets such as those found in a kitchen. It is a relatively strong joint although it has the advantage that it can be dismantled using a screwdriver.

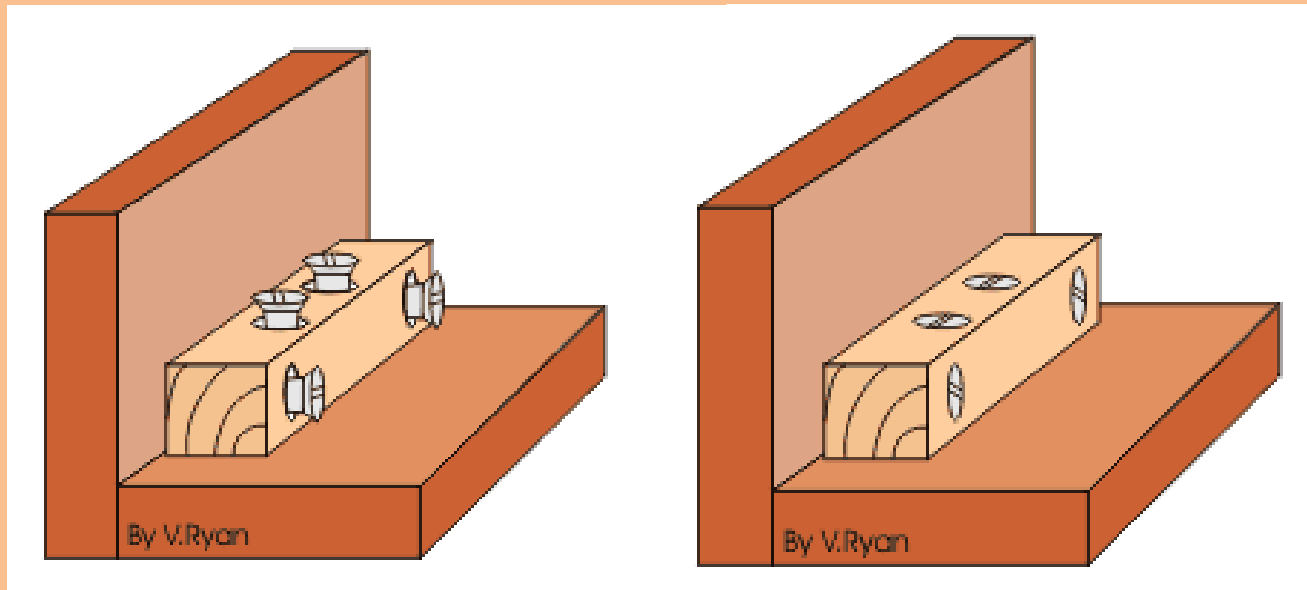


NATURAL WOOD FITTING (SQUARE SECTION BATTEN):

Further development

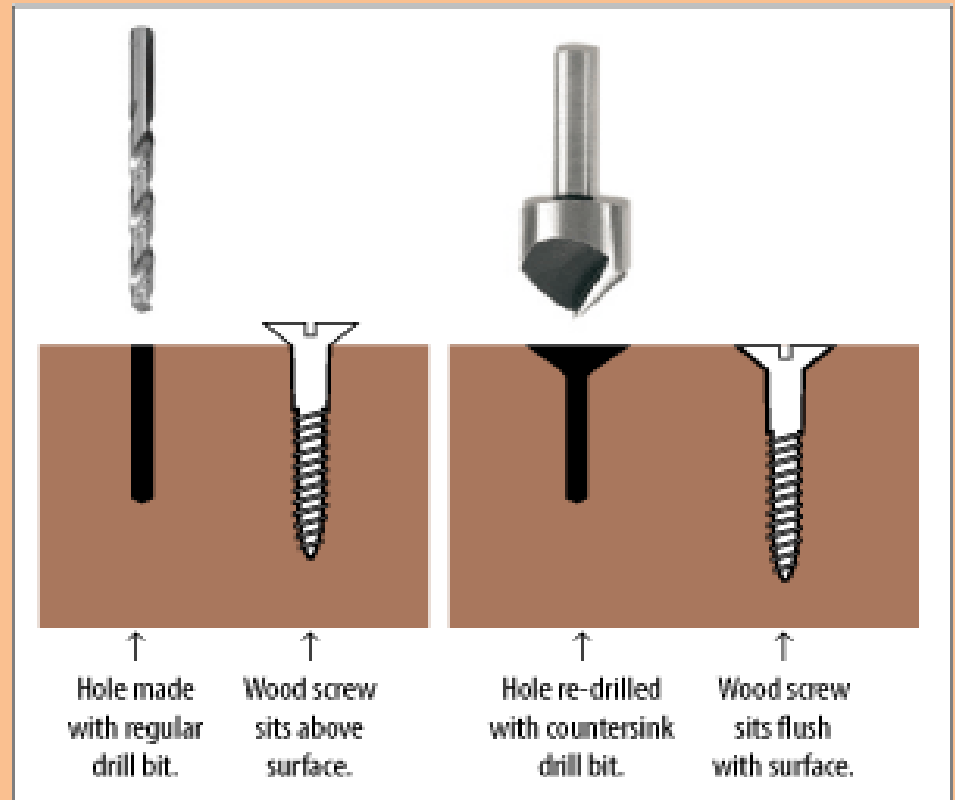
Identify
different types of
knock down fittings and
how they are used.

A piece of material such as pine is drilled and screws are passed through these holes to secure a corner joint. This gives a cheap and effective knock-down joint. The screws are normally countersunk into the knock-down fitting.



Countersunk

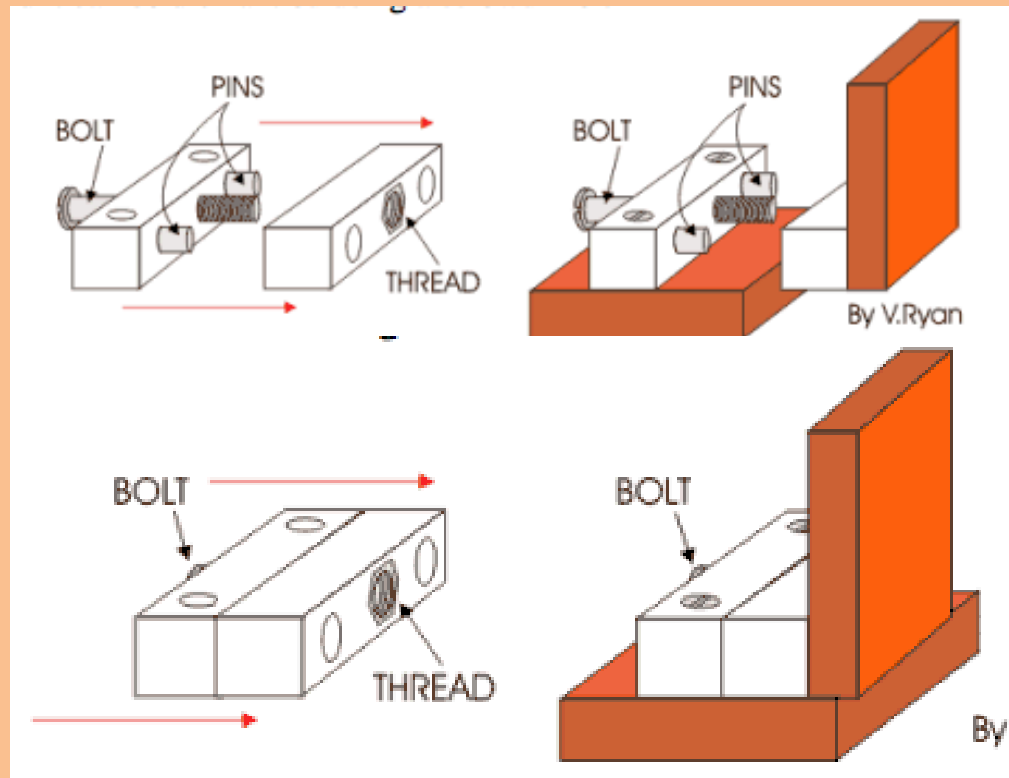
Enlarge the rim of a drilled hole so that a screw or bolt can be inserted flush with the surface.



TWO BLOCK FITTING (LOK-JOINTS):

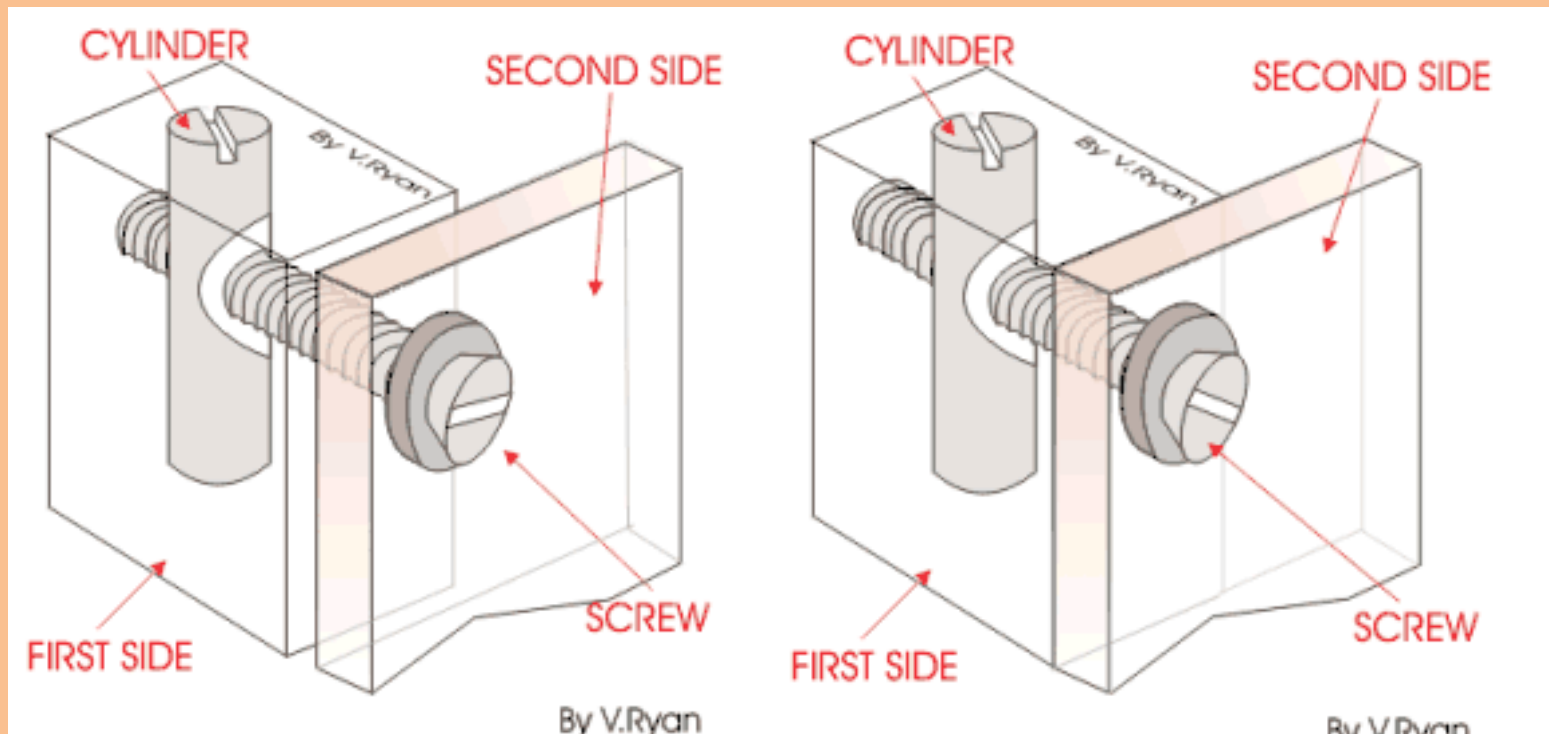
A bolt passes through the first fitting into the thread of the second. As the bolt is tightened it draws the two fittings together. The pins help keep the fitting straight. This gives a very strong joint and it can be dismantled using a screwdriver.

Further development
Identify different types of knock down fittings and how they are used.



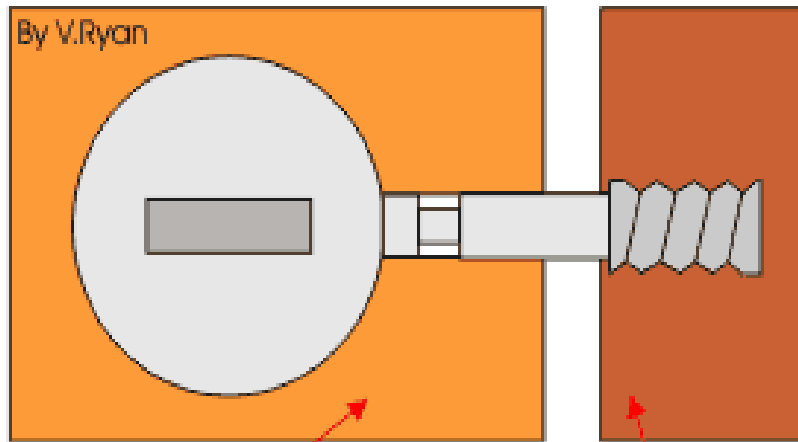
SCAN FITTINGS:

The cylinder is inserted into the first side of a cabinet in a pre-drilled hole. The screw is then pushed through the hole in the second side until it meets the cylinder. It can then be tightened with a screw driver until both sides of the cabinet pull together.



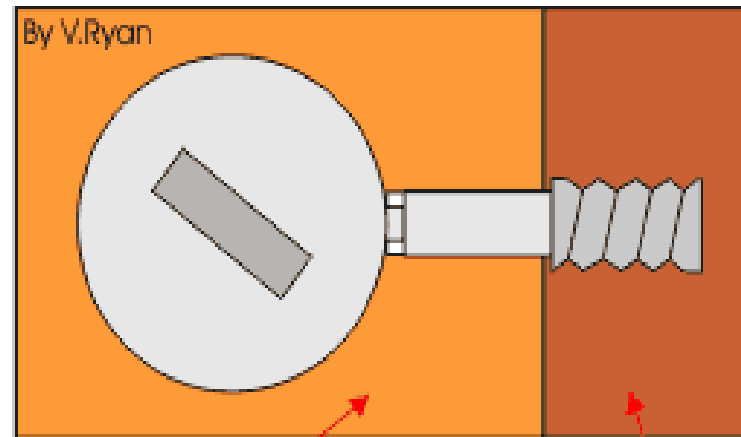
CAM LOCKS:

The disk fits into a recess in the first side of the cabinet. It rotates by inserting a screwdriver into the slot in its side. The shaft is screwed into the second side of the cabinet. The collar of the shaft is passed through the hole in the second slot in the disk. When the disk rotates the shaft is locked in position. This keeps both sides of the cabinet locked together.



FIRST SIDE

SECOND SIDE



FIRST SIDE

SECOND SIDE

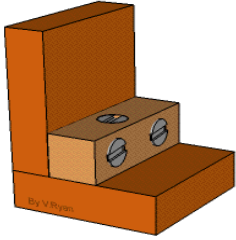
Practice Question

Design a new set of desks and chair that can be used in schools during exam.

Your design must have a constructed version and a flat pack version.

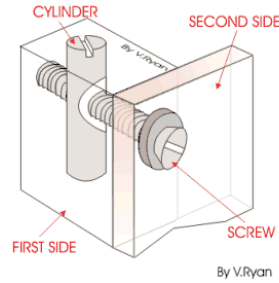
Label your diagram with effective knock down fitting and any preparation that needs to be done to the wood.

Name the Knock Down fitting and its function



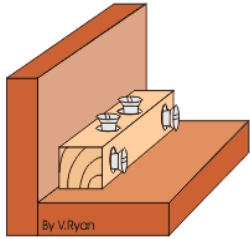
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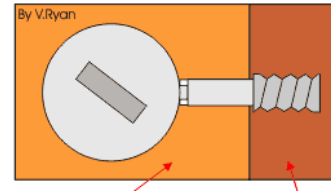
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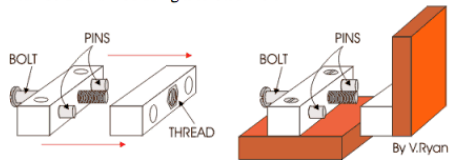
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