

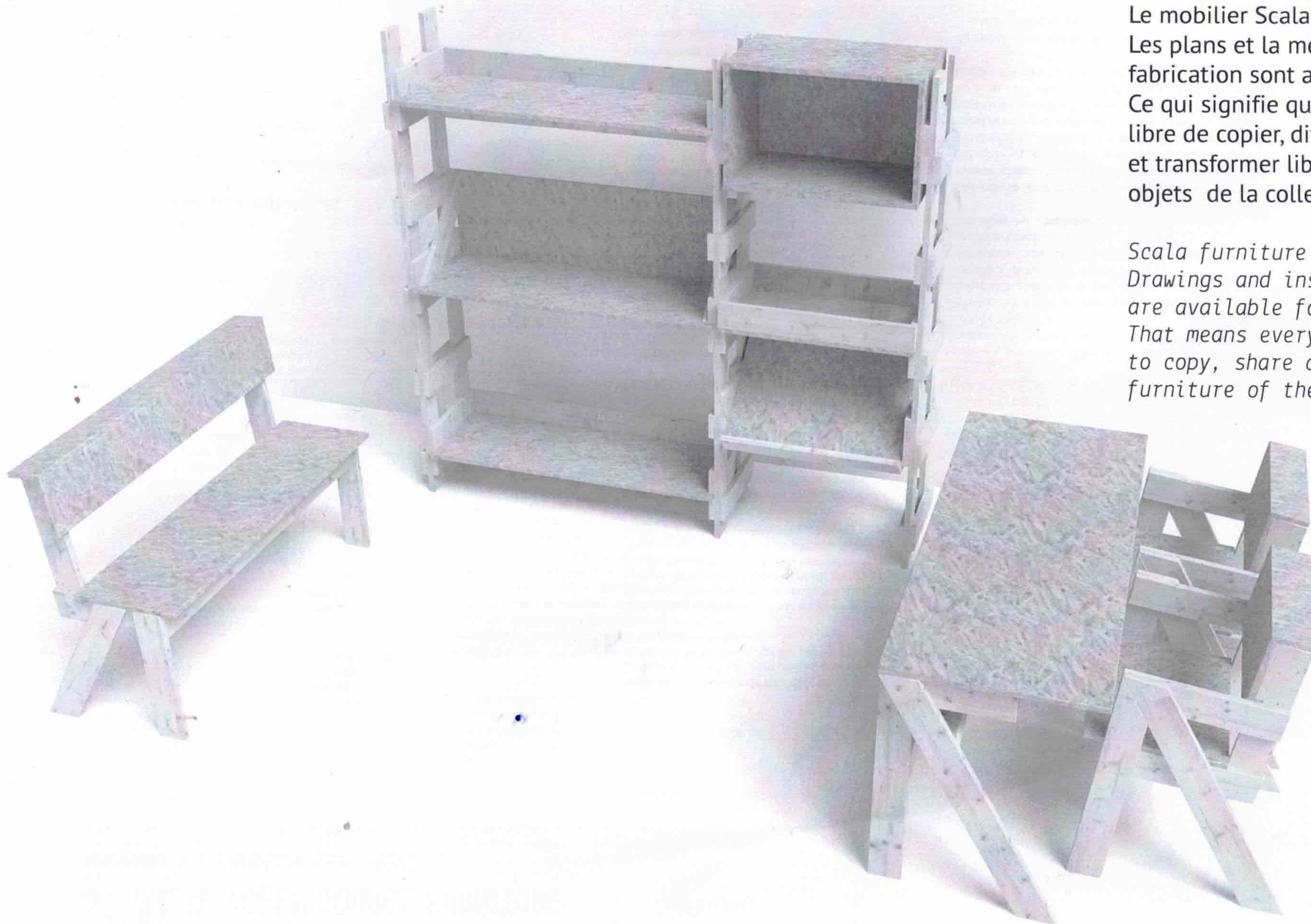
# SCALA /OPEN SOURCE FURNITURE

designed for Constant VZW - 02/2012



Le mobilier Scala est libre !  
Les plans et la méthode de  
fabrication sont accessibles à tous.  
Ce qui signifie que chacun est  
libre de copier, diffuser  
et transformer librement les  
objets de la collection.

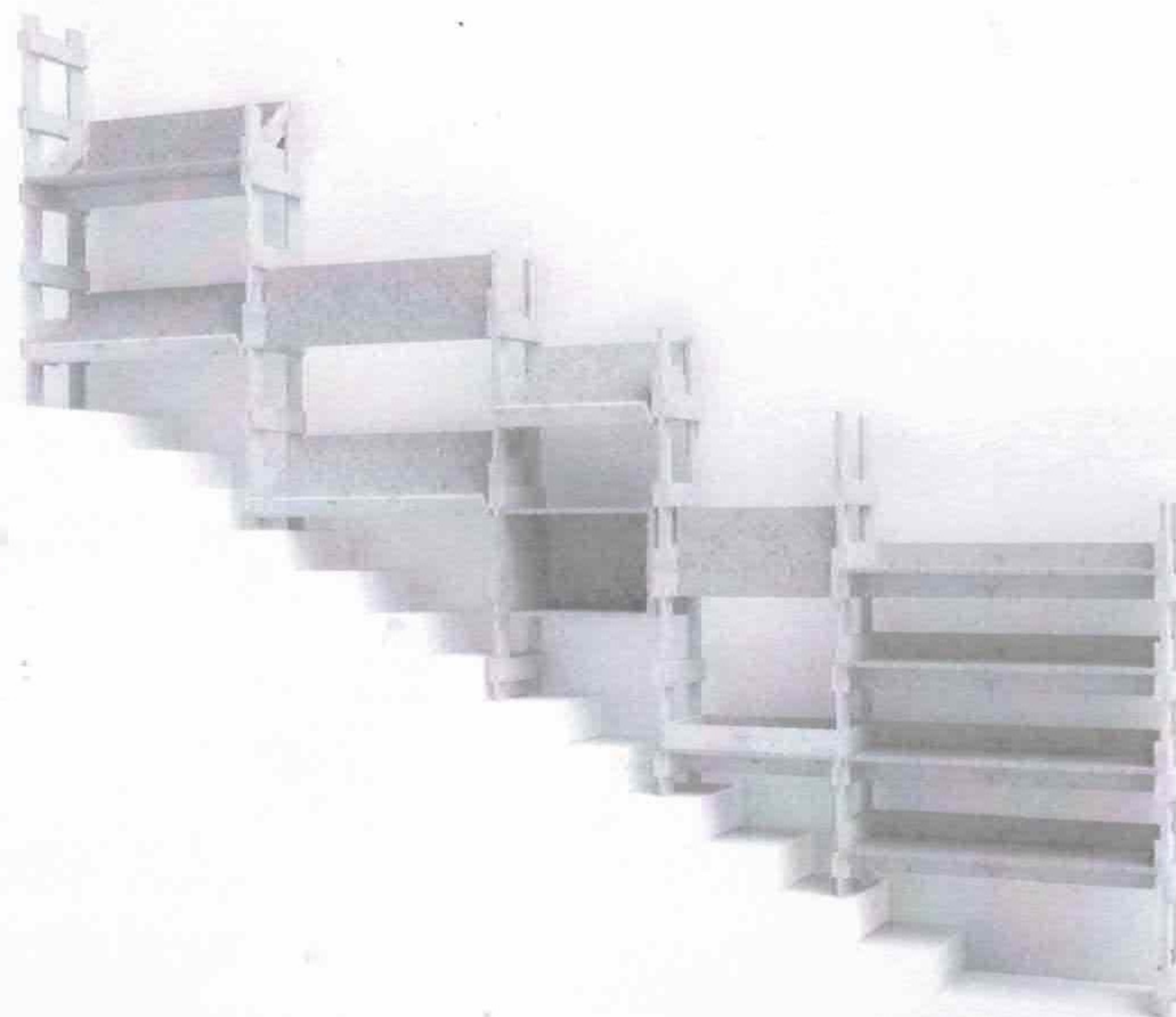
*Scala furniture is free !  
Drawings and instructions  
are available for all.  
That means everyone is free  
to copy, share and modify each  
furniture of the family.*



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## Le Projet Project



Scala est une famille de mobilier dessiné pour Constant vzw à l'occasion de sa participation au festival Artefacts, organisé par le Stuk Museum de Louvain en Belgique.

Ce mobilier a été conçu pour recevoir le résultat physique des recherches et analyses issues du Festival VJ13 organisé par Constant en décembre 2011 (Verbindingen/Jonctions 13) ayant pour thème "Prototypes for - pour - voor transmission".  
<http://www.vj13.constantvzw.org/site>

Artefacts donne une suite à VJ13 et devient le lieu de présentation des vidéos, enregistrements sonores, livres, supports numériques multiples à un public plus large.

Parmi les possibilités d'installation à l'intérieur du musée, l'escalier principal pour accéder aux différents niveaux s'est révélé porteur de sens avec l'idée d'une circulation-transmission d'informations.

### Contraintes de départ

LIEU → escalier (complexité et sécurité)  
DÉLAI → 1 mois (conception, fabrication, installation)  
MATÉRIAUX → stock de section de bois et de panneaux OSB standards fournis par le musée, réutilisés et réutilisable pour de prochaines expositions  
INSTALLATION, SCÉNOGRAPHIE → diversité des supports, disposition non prédéfinie  
OPEN SOURCE → plans accessible

Il en résulte un système modulaire adapté aux marches du musée. Il permet une installation relativement souple et flexible avec différents supports de présentation venant s'emboîter dans des éléments verticaux. Ces contraintes, mais surtout celles du lieu et des matériaux de base, m'ont fait aboutir à un design finalement assez proche d'Enzo Mari et Gerrit Rietveld, tout deux ayant ouvert la voie du design libre et du do it yourself.

Les modèles 3D sont téléchargeables à cette adresse  
[www.mathieu-g.be](http://www.mathieu-g.be)

Scala is a furniture family designed for Constant vzw in the frame of the Artefacts festival organized by the Stuk Museum of Leuven in Belgium.

This furniture has been designed to receive the results of physical research and analyzes from the VJ13 Festival organized by Constant in December 2011 (Verbindingen / 13 joints) with the theme "Prototypes for - voor - for transmission."  
<http://www.vj13.constantvzw.org/site>

Artefacts extends VJ13 and becomes a place of presentation for videos, sound recordings, books, multiple digital media to a larger public. Among the installation possibilities inside the museum, the main staircase accessing the different levels appeared meaningful with the idea of informations circulation / transmission.

### Initial constraints

PLACE → staircase (complexity and security)  
DEADLINES → 1 month (design, manufacture, installation)  
MATERIALS → stock of wood section and OSB panels standards provided by the museum, reused and reusable for future exhibitions  
INSTALLATION, SCENOGRAPHY → diversity of media, non-predetermined setup.  
OPEN SOURCE → available plans

The result is a modular system suitable for the museum steps. It makes the installation light and flexible with different material presentations fitting into vertical elements. At the end, these constraints and especially those from the museum stairs and materials, made me go to a design close to Enzo Mari and Gerrit Rietveld, both having opened the way of free design and do it yourself.

3D models are downloadable at  
[www.mathieu-g.be](http://www.mathieu-g.be)

## Scala

### Licence Art Libre *Free Art License*

<http://artlibre.org/licence/lal>

Scala is copyright © 2012 - Mathieu Gabiot

### Auteur principal *Principal author*

Mathieu Gabiot  
Industrial Designer  
Brussels  
[www.mathieu-g.be](http://www.mathieu-g.be)  
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Avec le développement du numérique, l'invention d'internet et des logiciels libres, les modalités de création ont évolué : les productions de l'esprit s'offrent naturellement à la circulation, à l'échange et aux transformations. Elles se prêtent favorablement à la réalisation d'oeuvres communes que chacun peut augmenter pour l'avantage de tous.

*The Free Art License grants the right to use a work, and acknowledges the right holder's and the user's rights and responsibility.*

*The invention and development of digital technologies, Internet and Free Software have changed creation methods: creations of the human mind can obviously be distributed, exchanged, and transformed. They allow to produce common works to which everyone can contribute to the benefit of all.*

C'est la raison essentielle de la Licence Art Libre : promouvoir et protéger ces productions de l'esprit selon les principes du copyleft : liberté d'usage, de copie, de diffusion, de transformation et interdiction d'appropriation exclusive.

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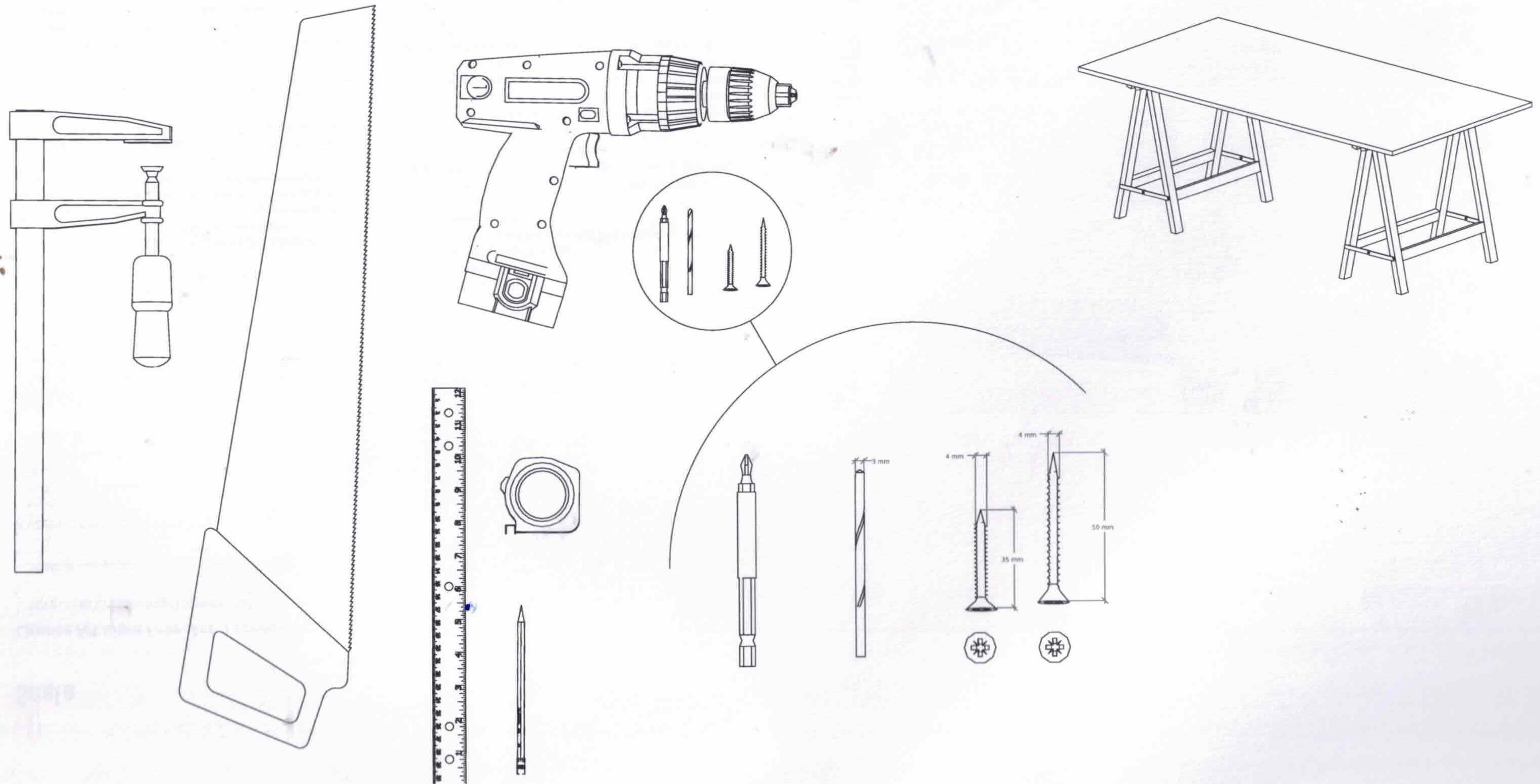


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Equipement de base requis  
*Basic tools required*

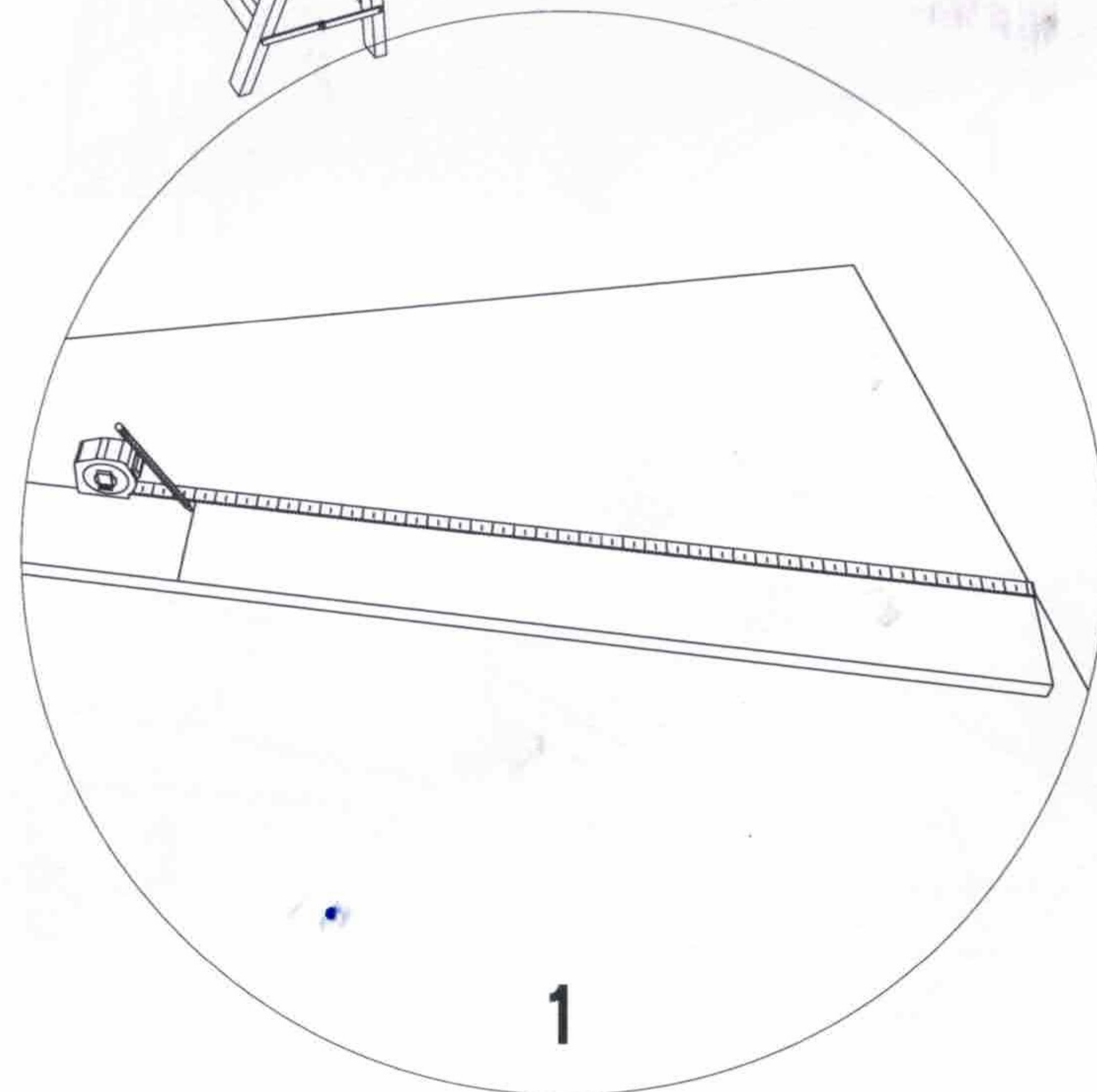
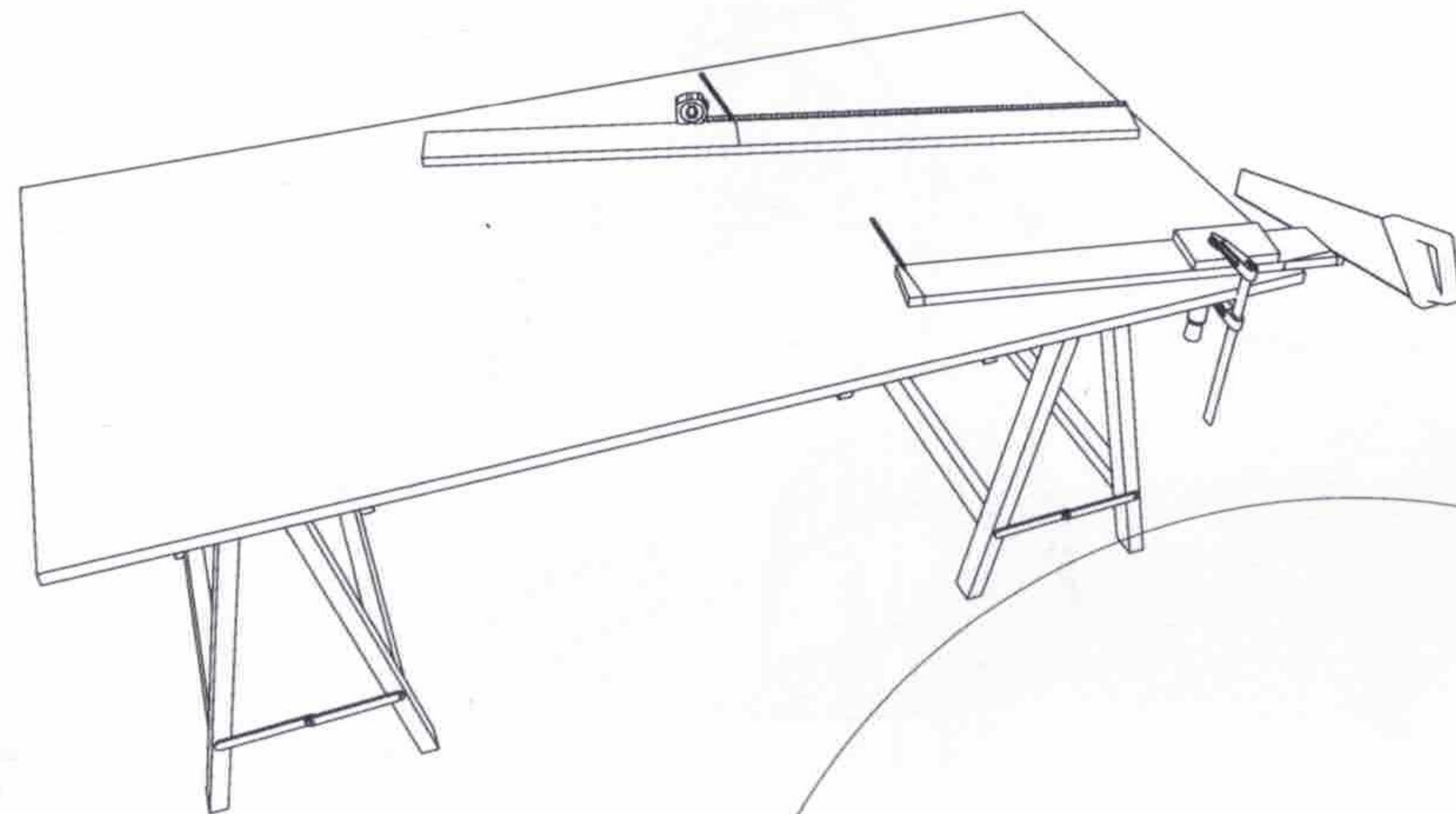
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exemple de découpe  
*Cutting example*

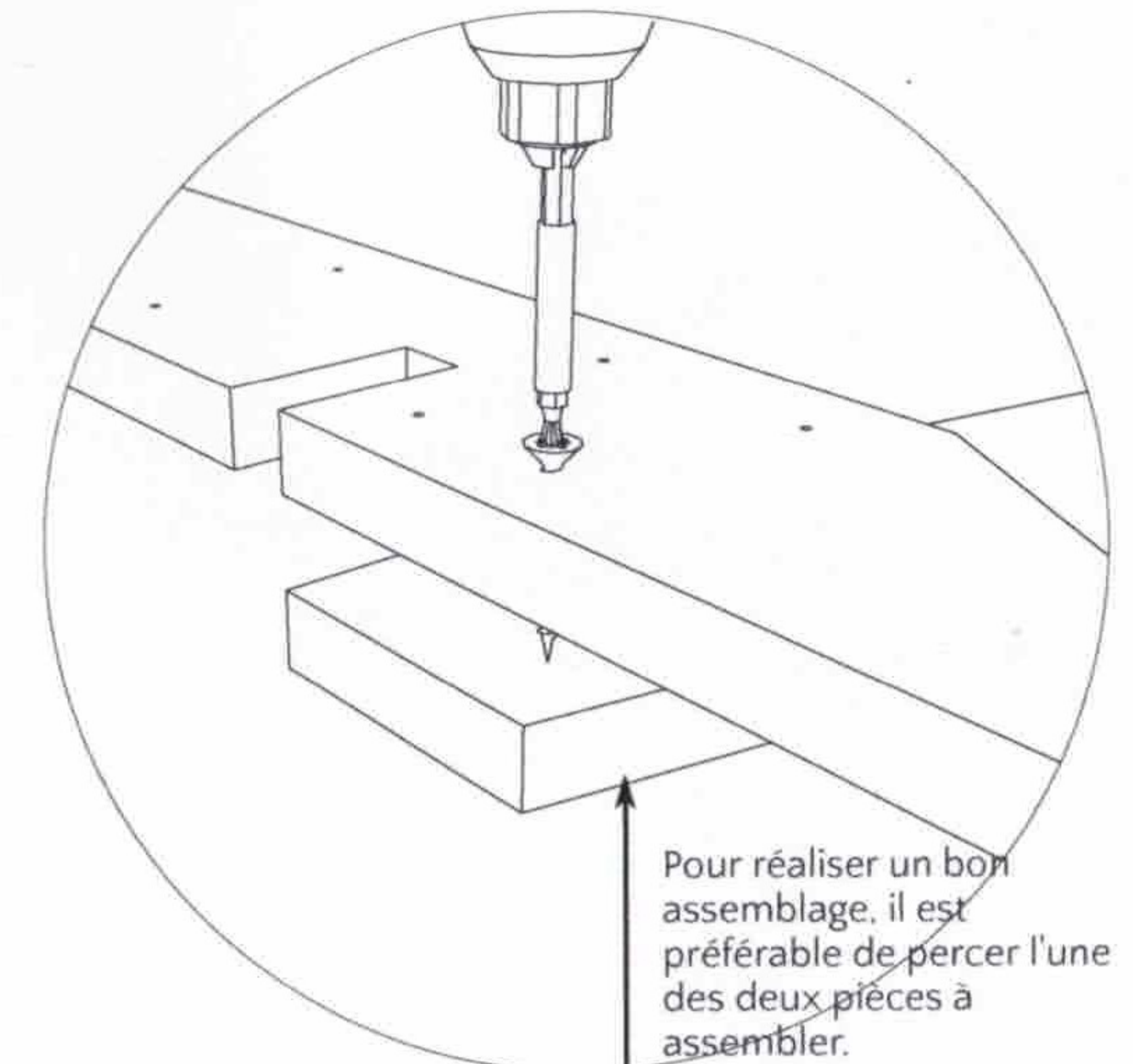
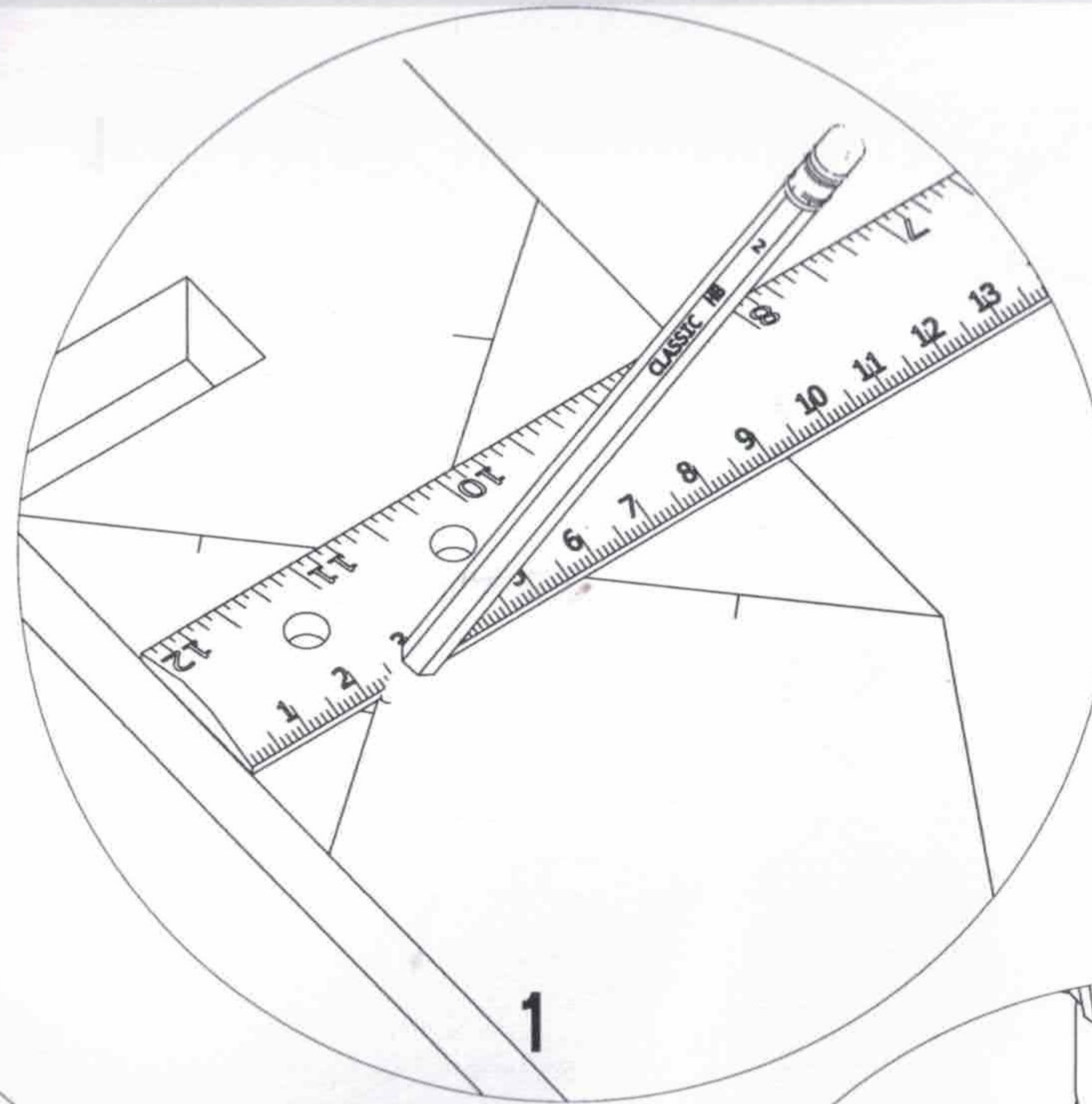
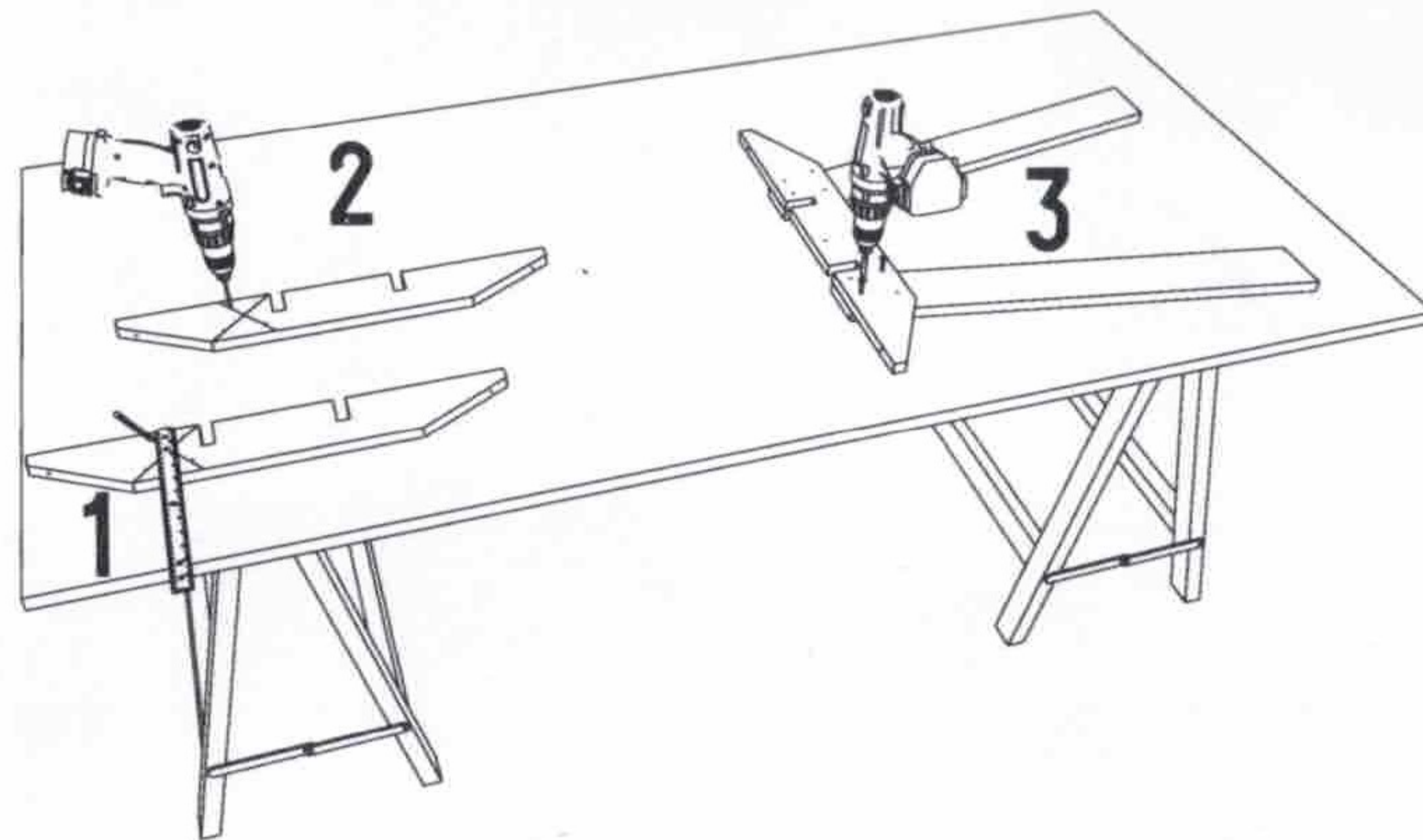


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exemple d'assemblage  
Assembly example

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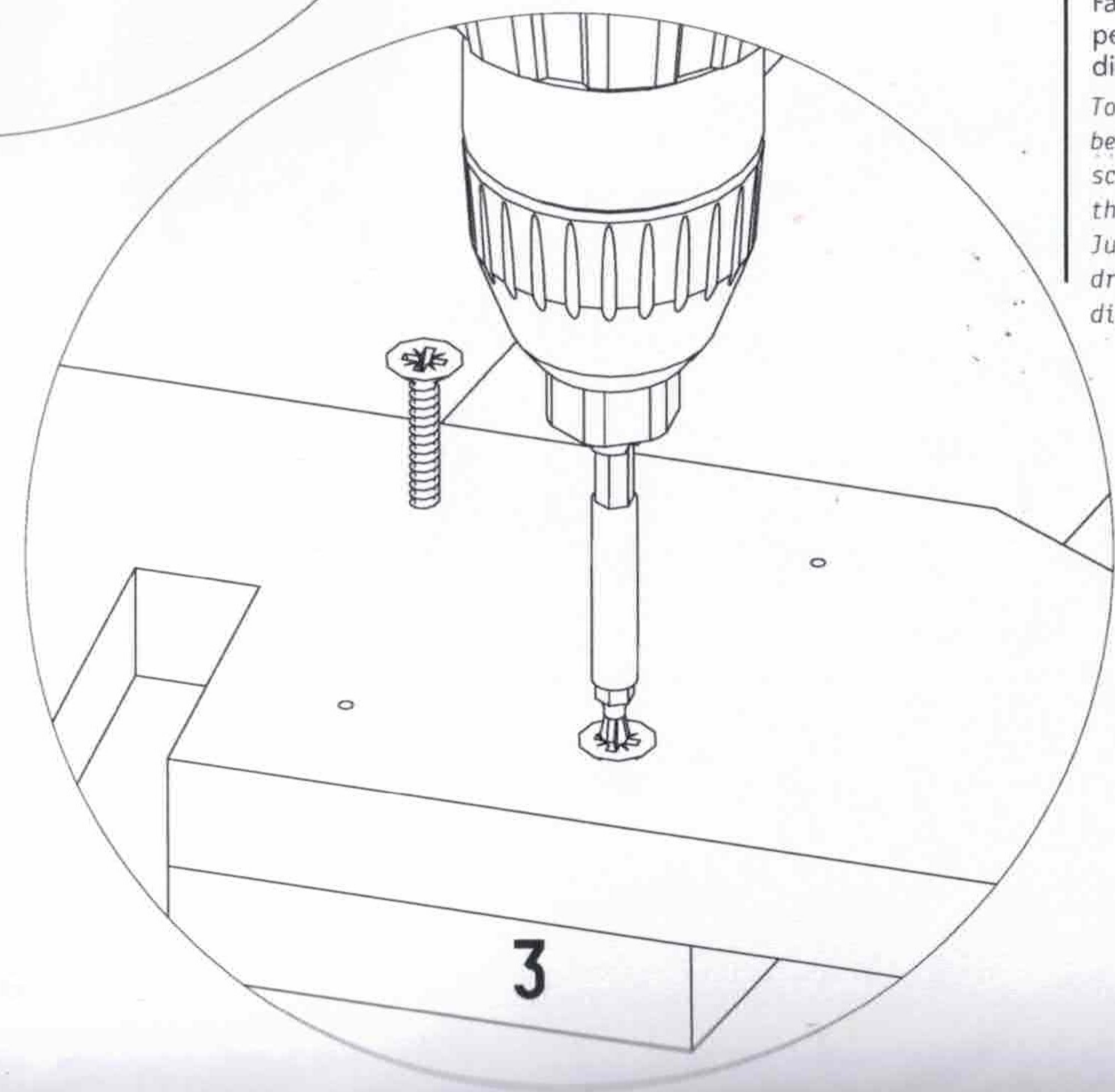
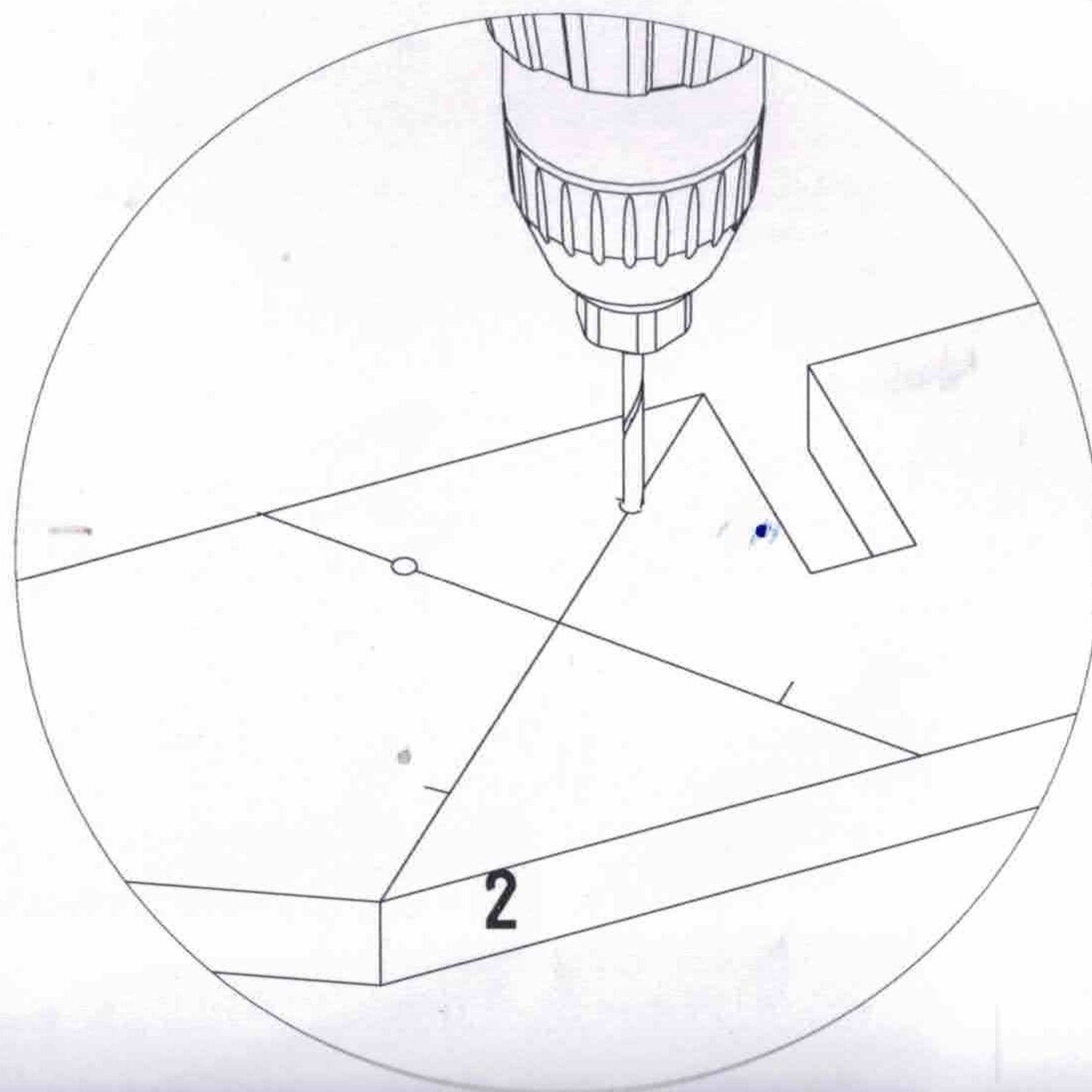


Pour réaliser un bon assemblage, il est préférable de percer l'une des deux pièces à assembler.

Faire un test sans perçage permet de voir la différence.

To make a good assembly between two parts with screws, drill only one of the both.

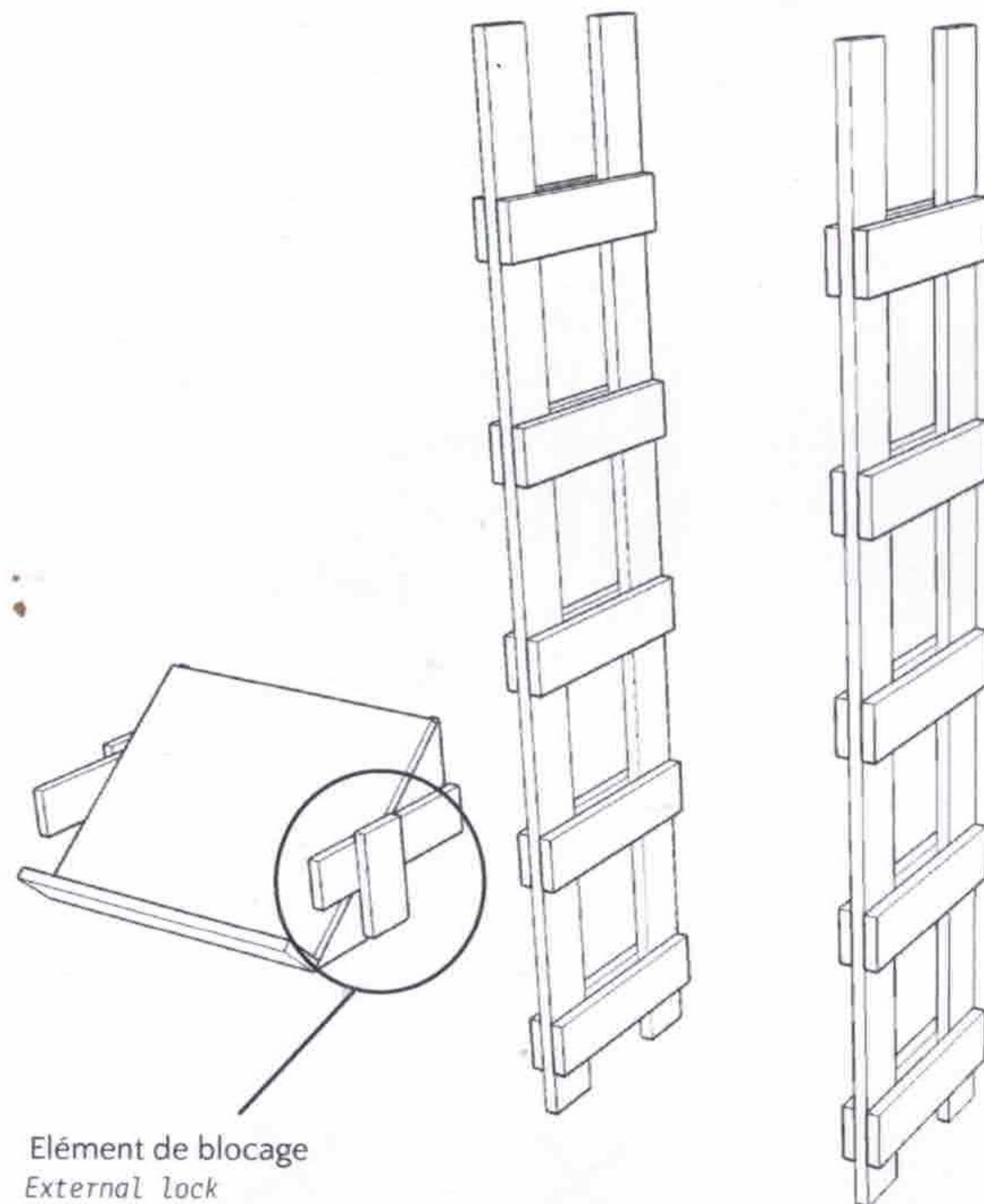
Just make a test before drilling to see the difference.



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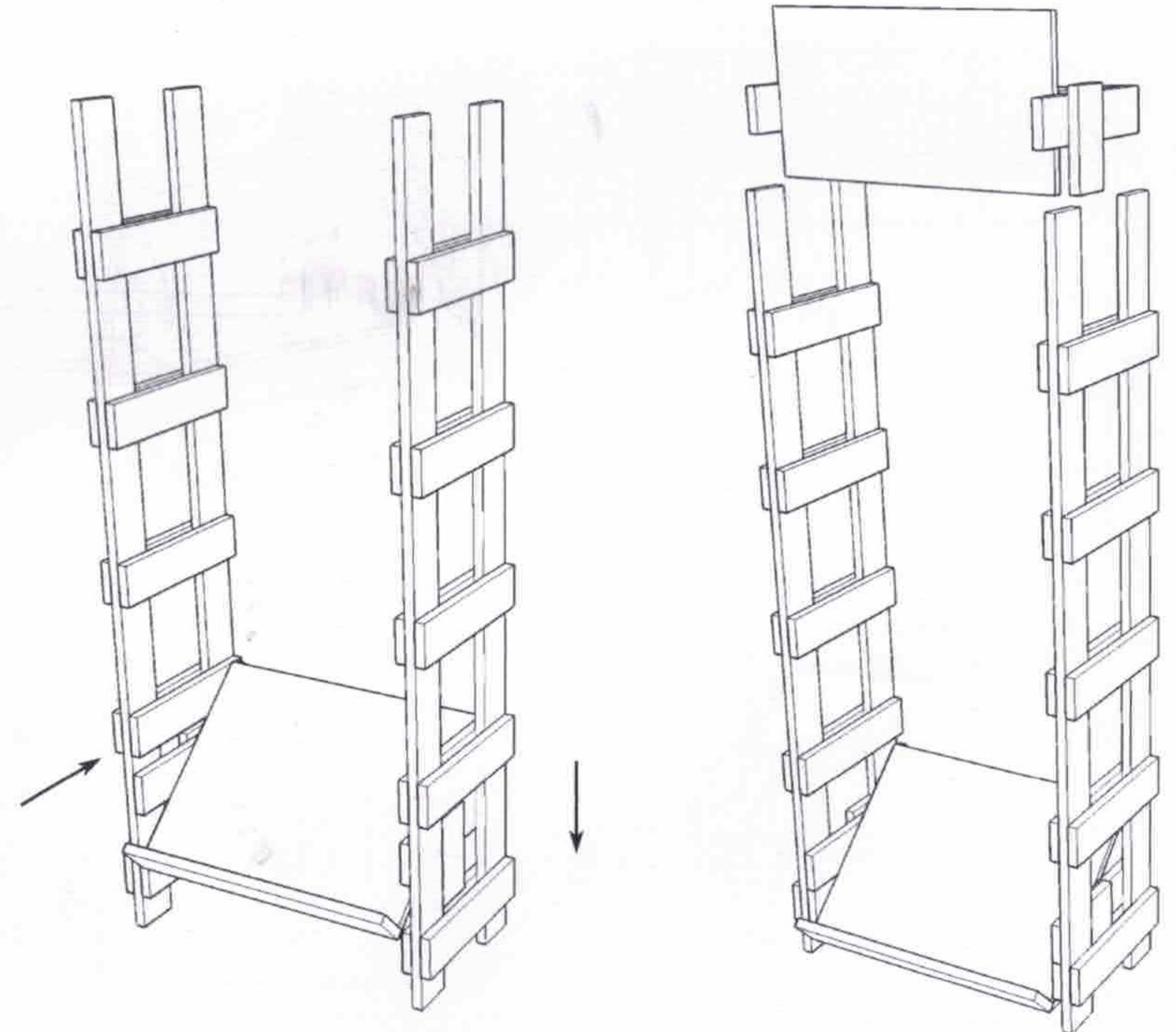
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Principe de montage  
Assembly method



Eléments de base pour démarrer le montage de l'étagère Scala, donné ici à titre d'exemple. Il est tout à fait possible choisir un autre module et de partir d'un autre niveau.

Basic elements for mounting the Scala shelf, given here as an example. It is also possible to start with another module or level.



Chaque module dispose de petits éléments externes qui servent de système de blocage. Ces éléments sont utiles pour structurer l'étagère. Il faut au minimum deux modules par étagère, qu'il convient de disposer de manière générale en haut et en bas de celle-ci. Il est plus simple de commencer par le bas. Les éléments externes ne sont donc pas nécessaires pour les modules intermédiaires. Ils peuvent toujours être ajoutés par la suite, si la stabilité de l'étagère faisait défaut. (voir dans les étapes suivantes)

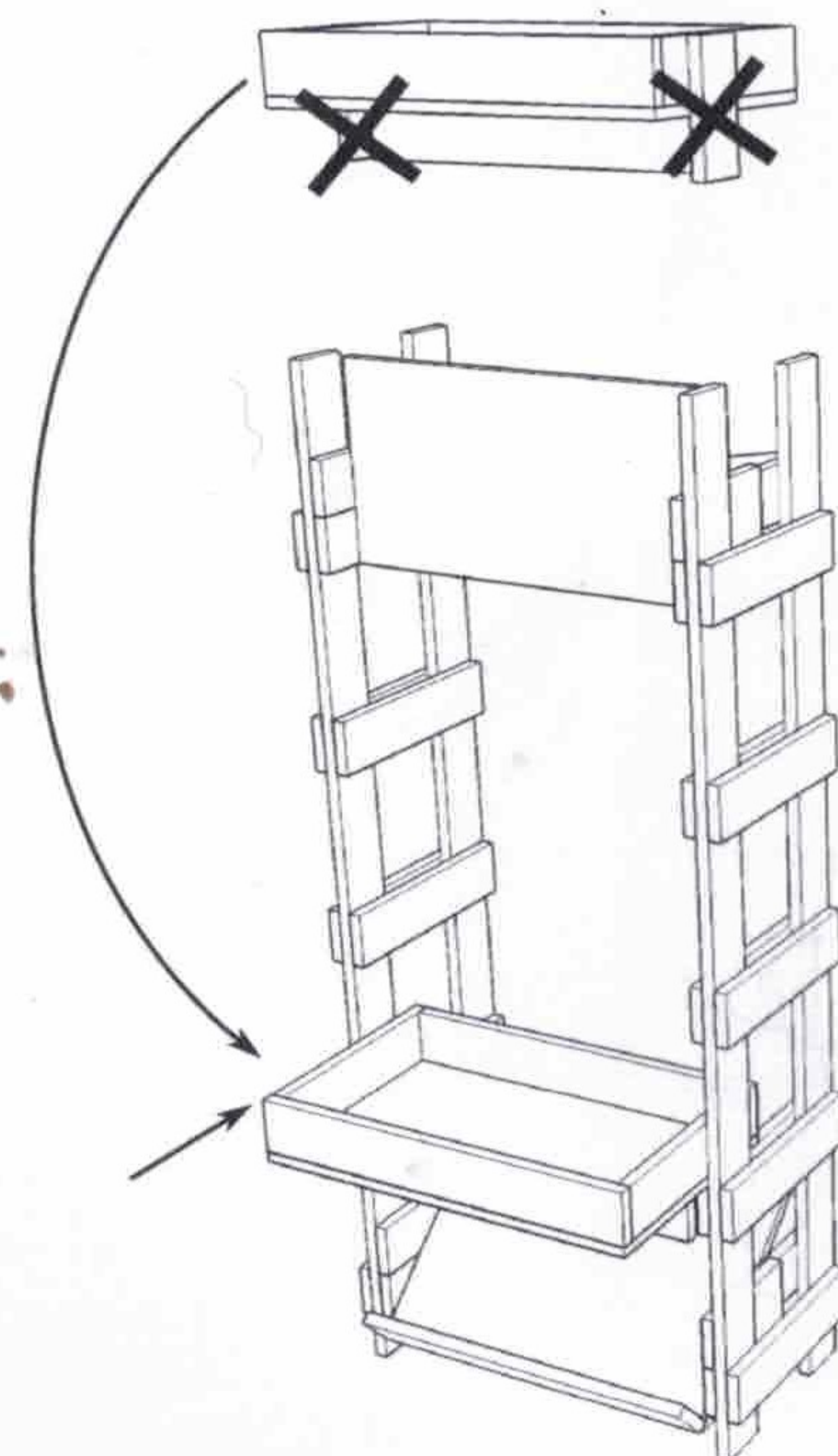
Each module has small elements used as external locking system. These elements help for structuring the shelf. It takes at least two modules per shelf which need to be disposed generally at the top and the bottom of it. It's easier to start at the bottom. External locks are not required for intermediate modules. They can always be added later, if the stability of the shelf was lacking. (see following steps)

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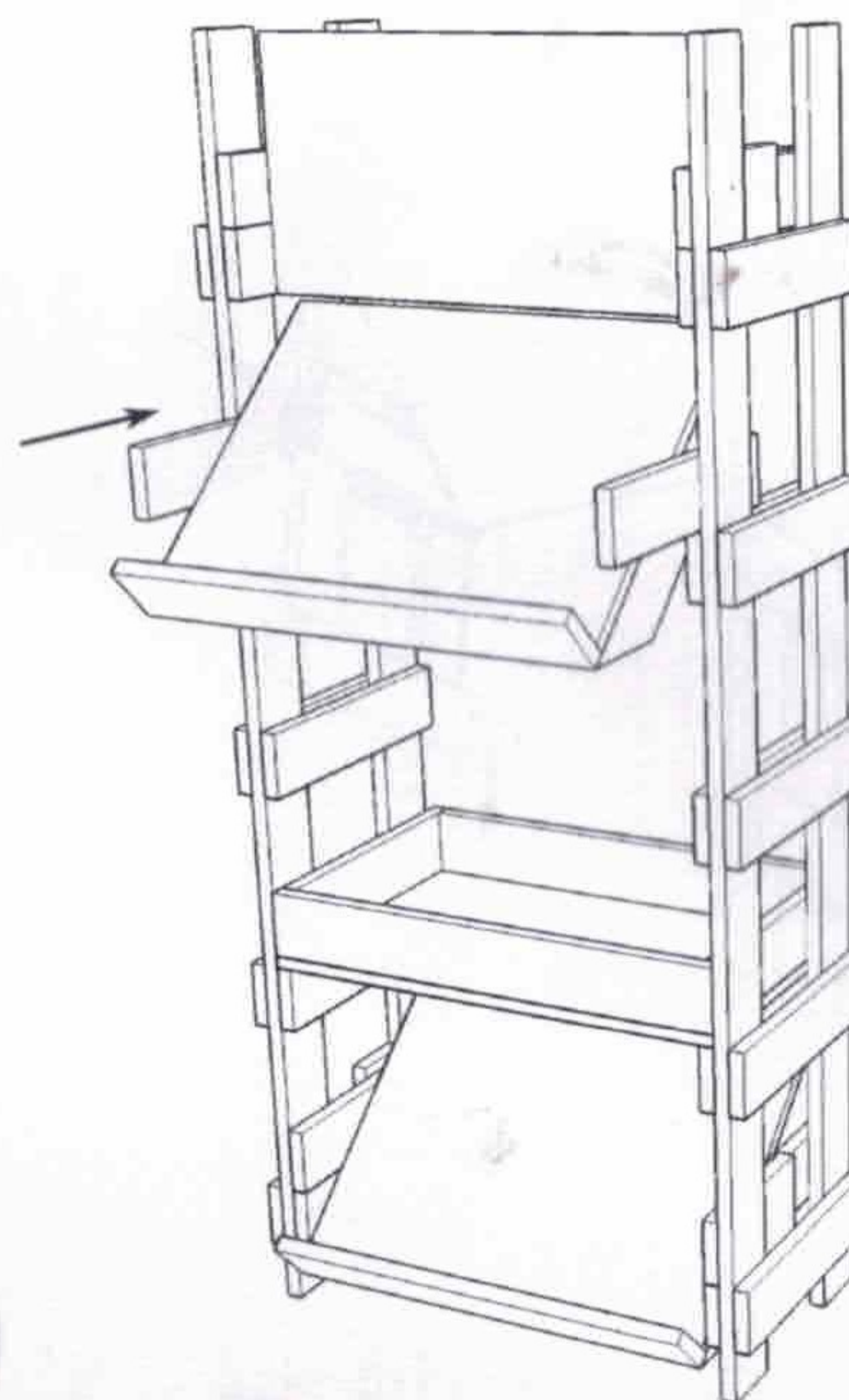
Principe de montage  
Assembly method

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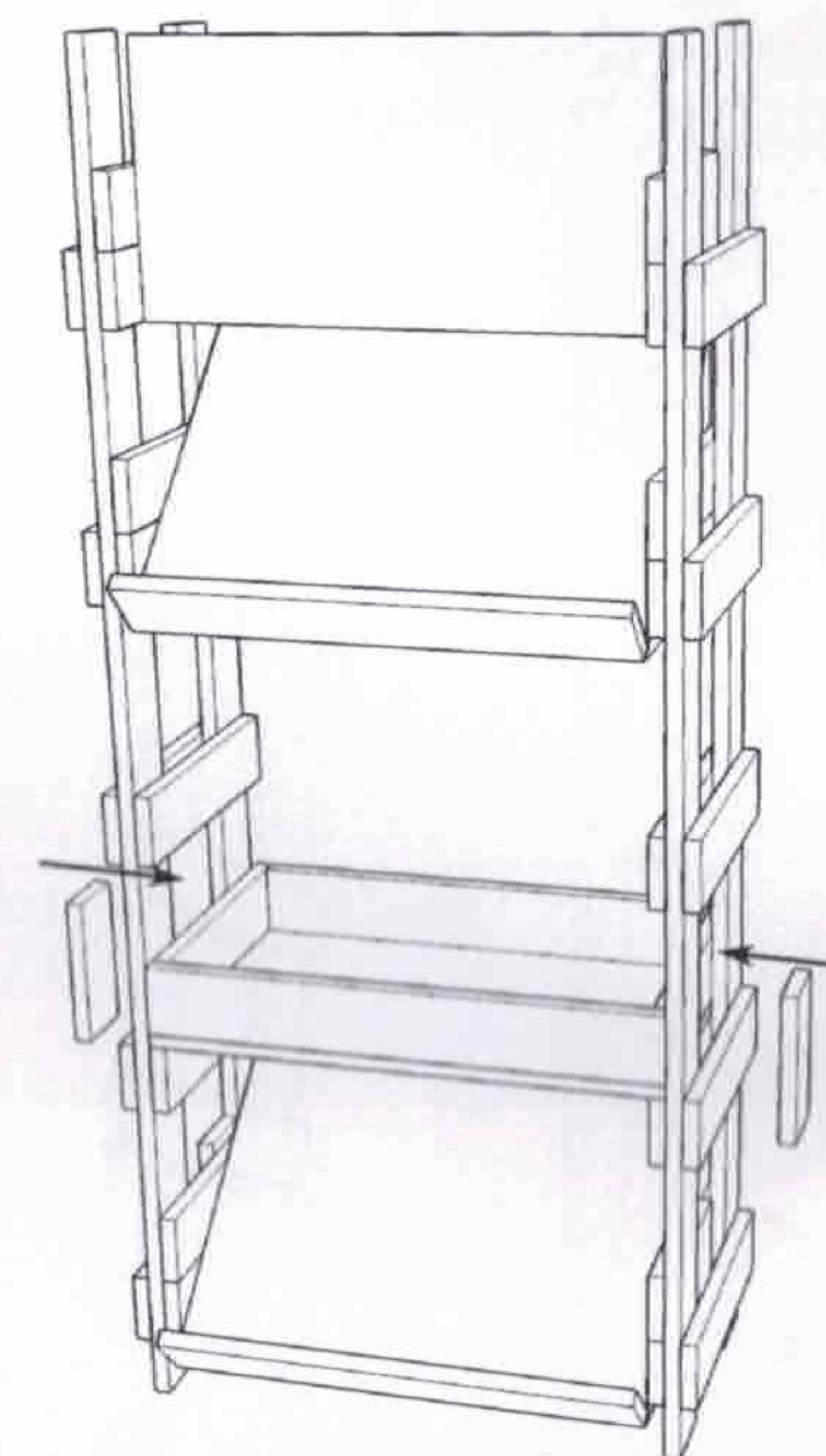
Deux modules étant déjà installé, il n'est pas utile de placer les éléments externes de blocage sur les modules intermédiaires. Il devient alors très simple de placer ces modules en les glissant simplement à la hauteur souhaitée.

Two modules are already installed, it is not useful to place the external locks on the intermediate modules. It becomes very easy to place them just by sliding to the desired height.



Dans le cas d'une étagère simple avec seulement deux modules 1, il est conseillé d'ajouter les petits éléments de blocage, une fois les modules en place pour rigidifier l'ensemble.

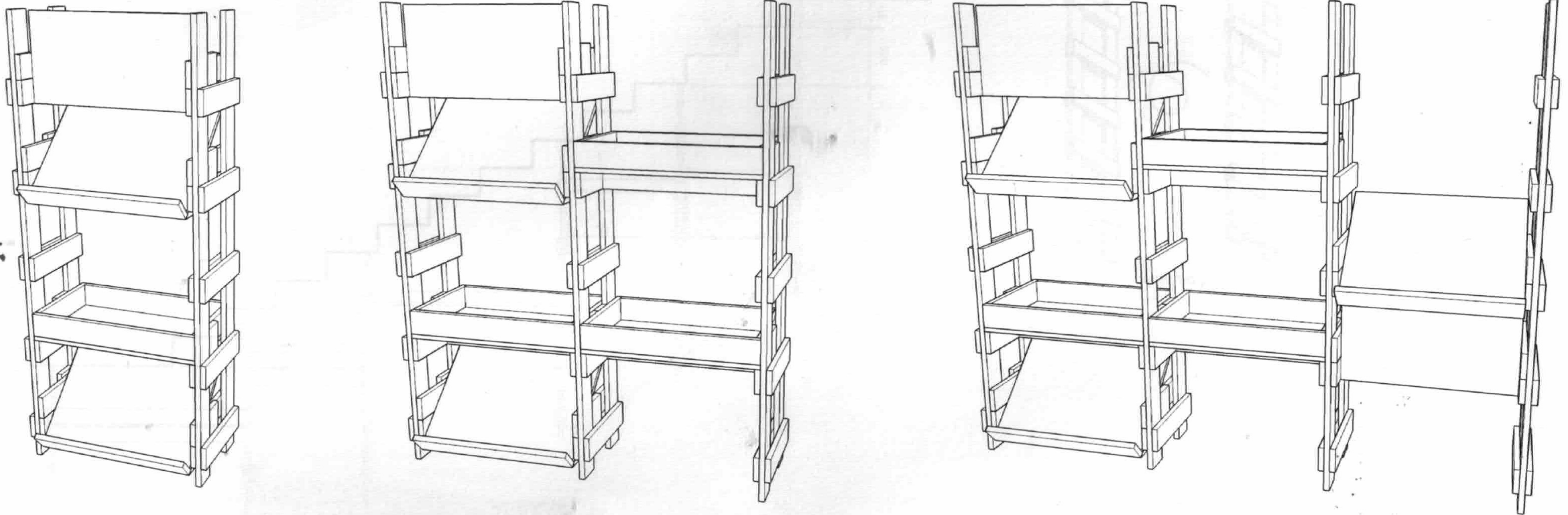
In the case of a simple shelf with only two modules 1, it is recommended to add external locks, once the modules are in place to rigidify the assembly.



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Principe de montage  
*Assembly method*



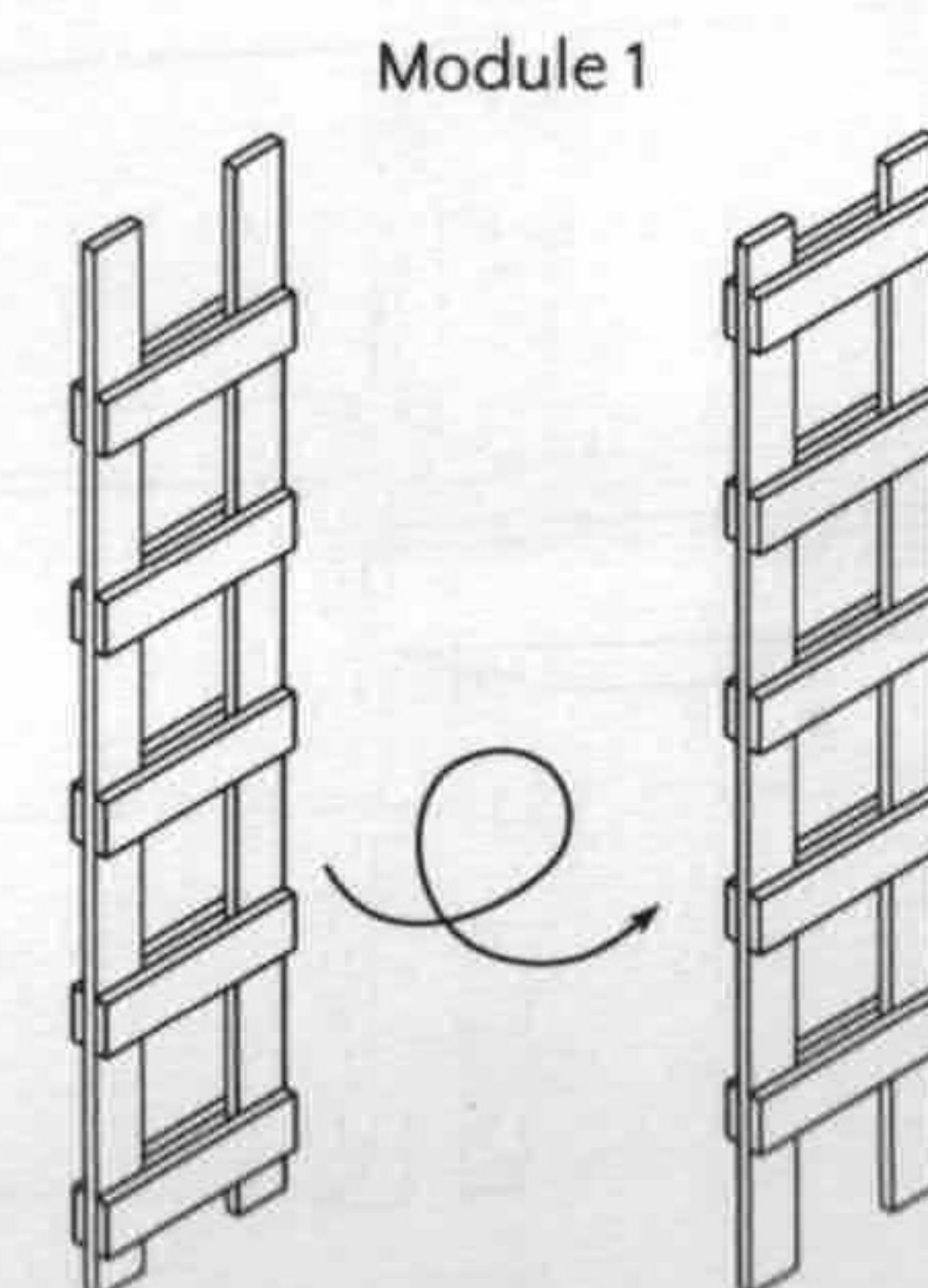
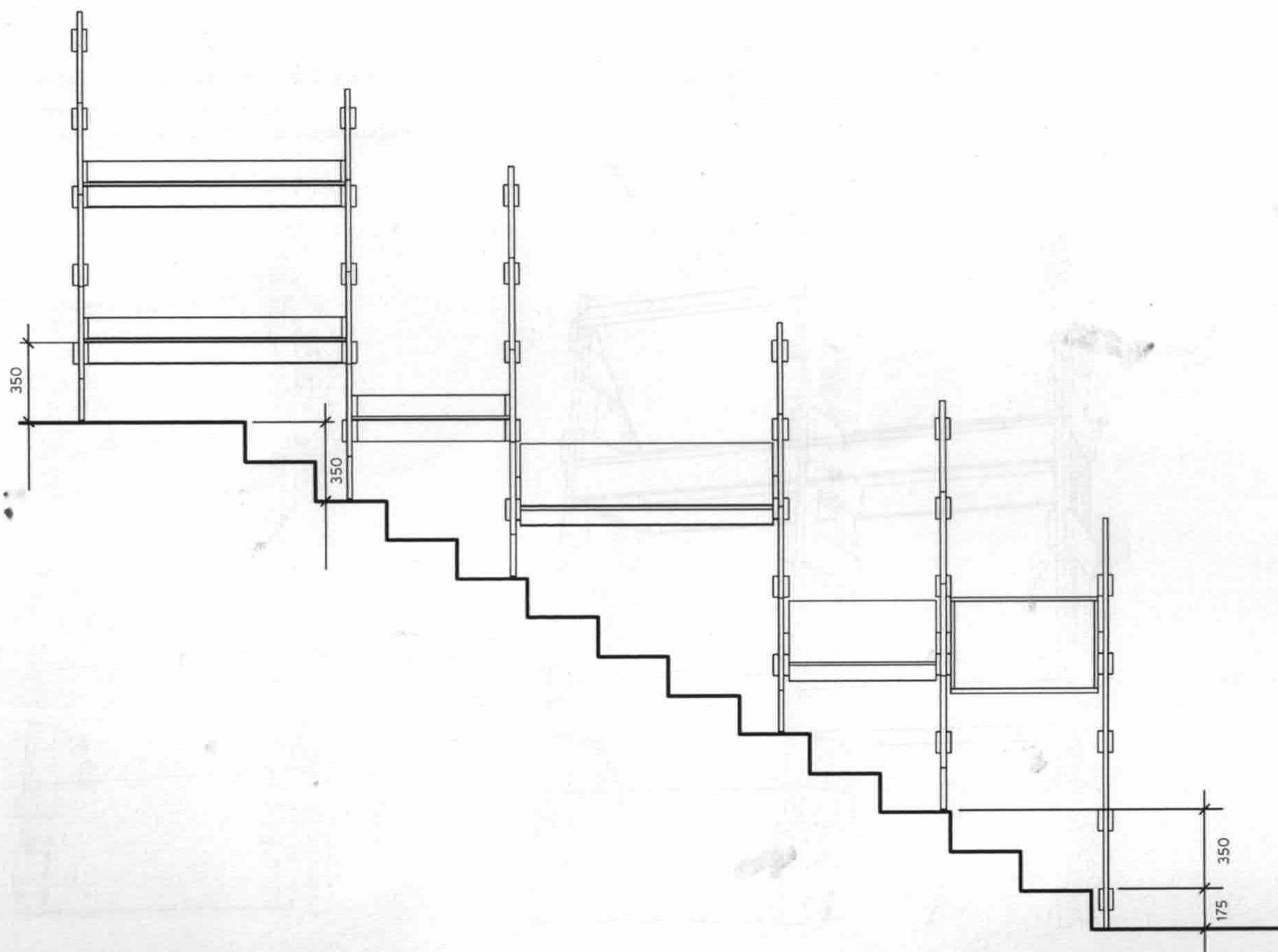
A vous de jouer ! Il est possible d'agrandir à  
volonté votre étagère Scala.

*You can expand at will your shelf Scala !*

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Adaptation  
to be adapted



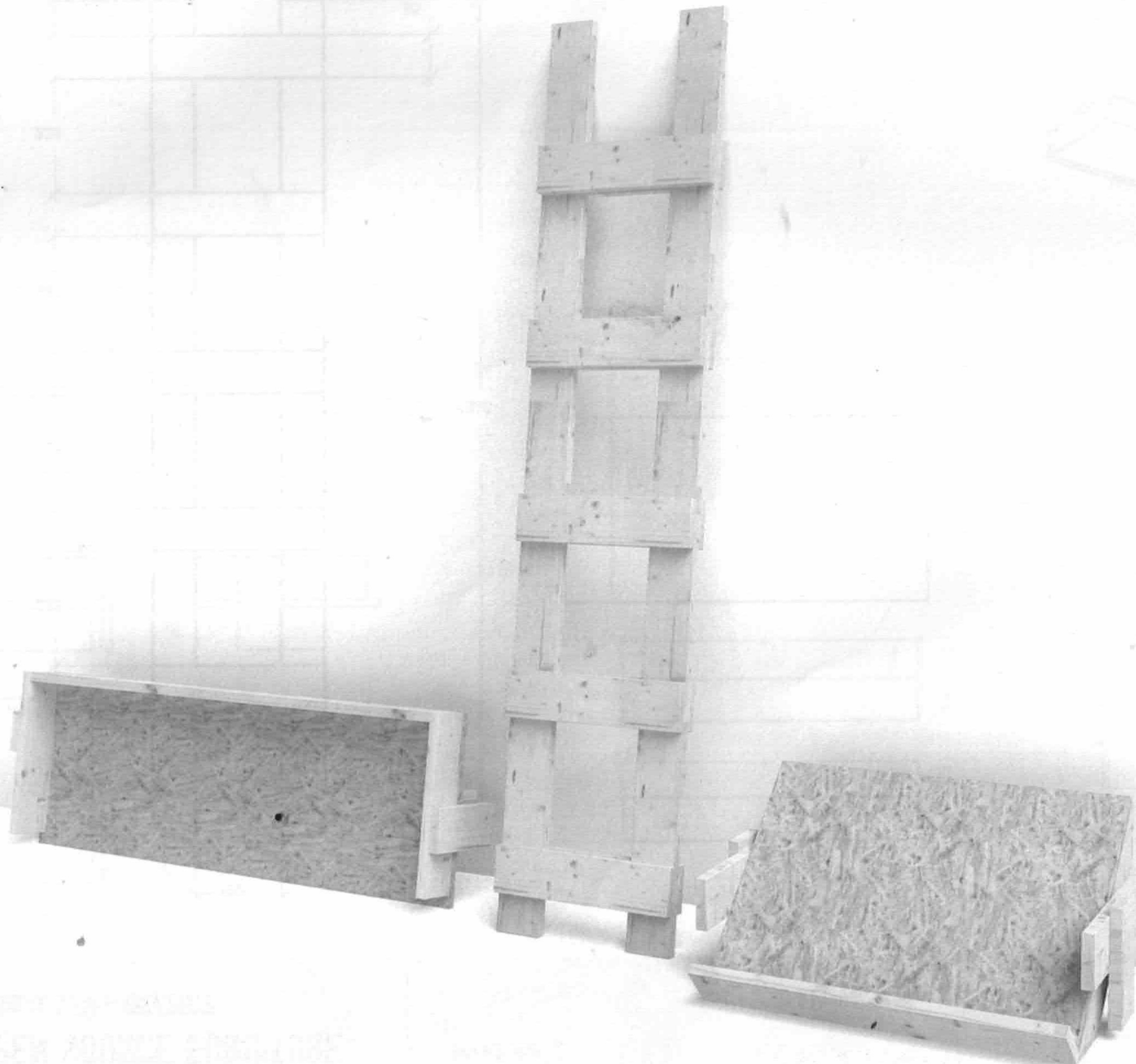
Scala est adapté aux marches du musée Stuk de Louvain. Si vous souhaitez adapter à votre escalier voici les mesures à prendre en considération. Dans le cas d'un nombre de marches impair, il est possible de retourner le module 1 pour compenser la différence.

Scala is adapted to Stuk museum stairs. If you want to fit your own stairs, here are the measures to be taken into consideration. In case of an odd number of steps, it's possible to return the module 1 to compensate difference.

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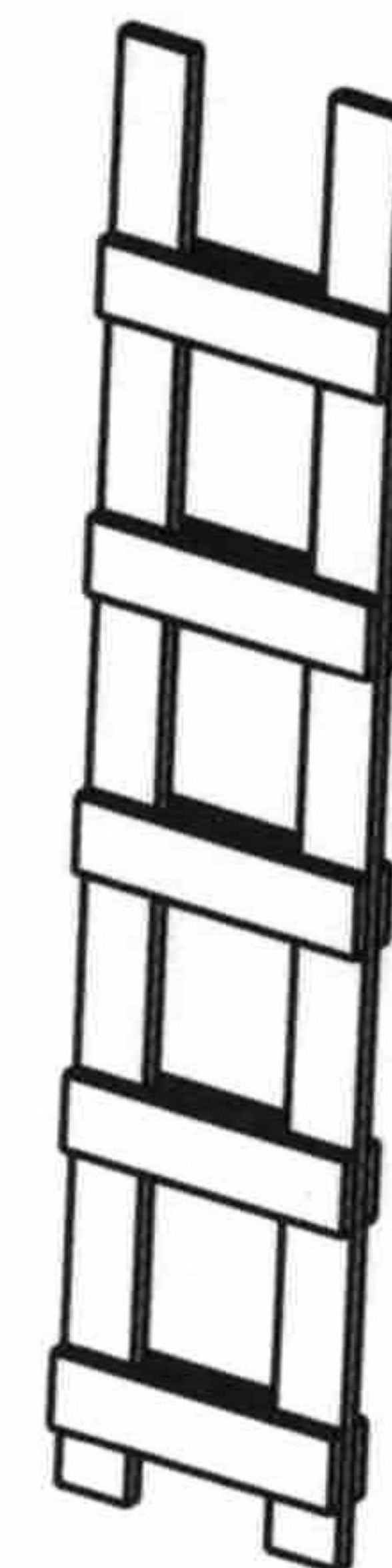
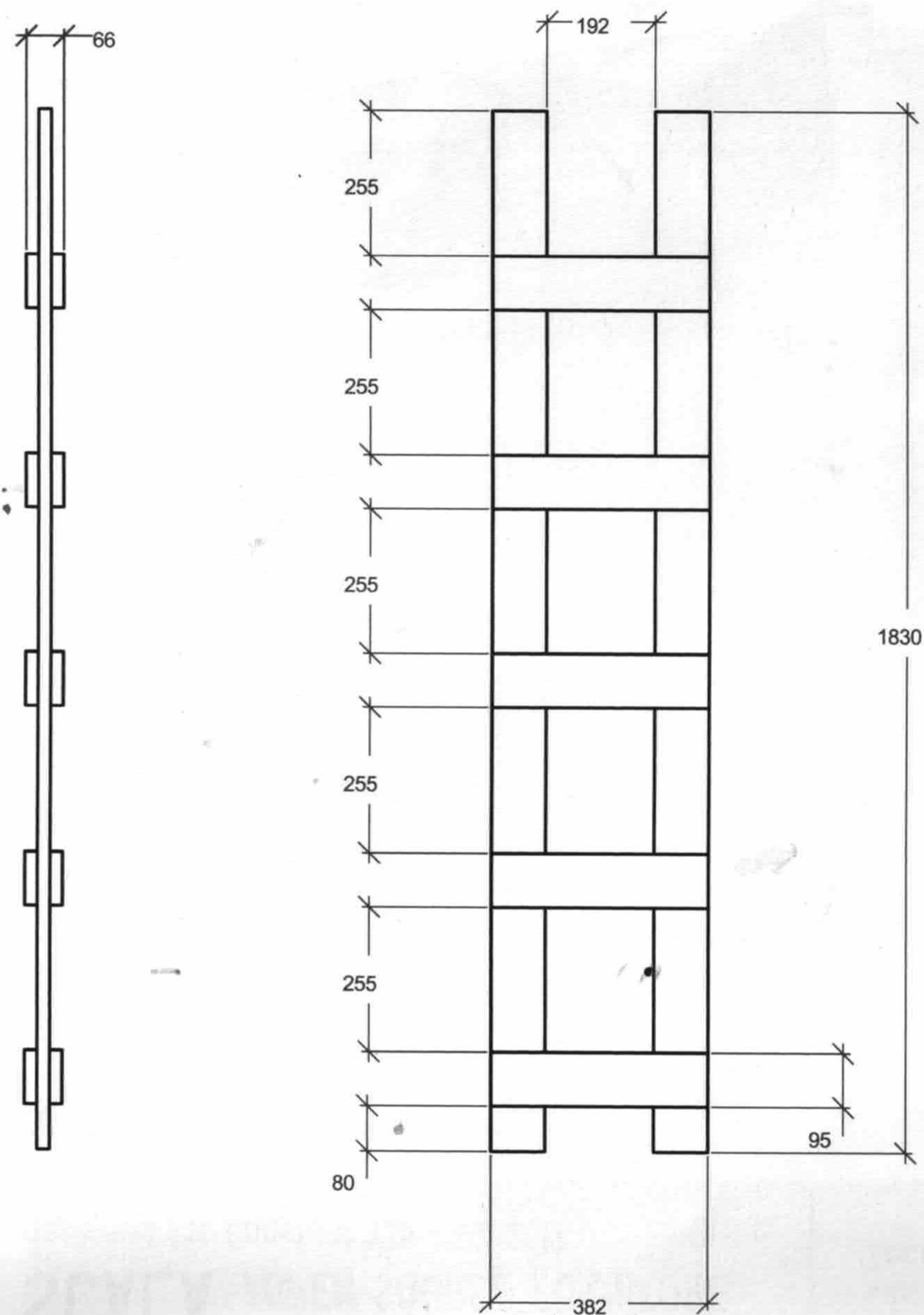
Les plans  
Technical drawings



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## Module 1

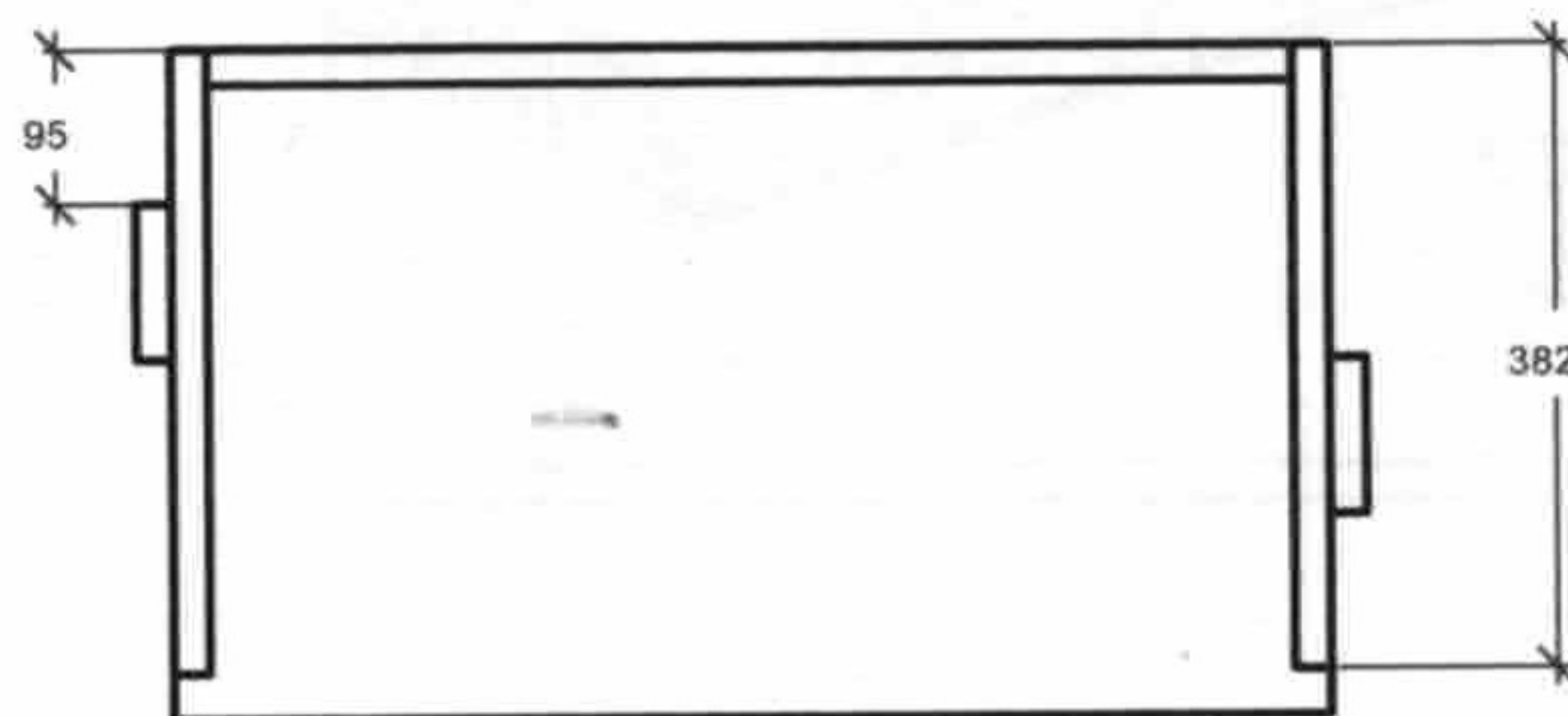
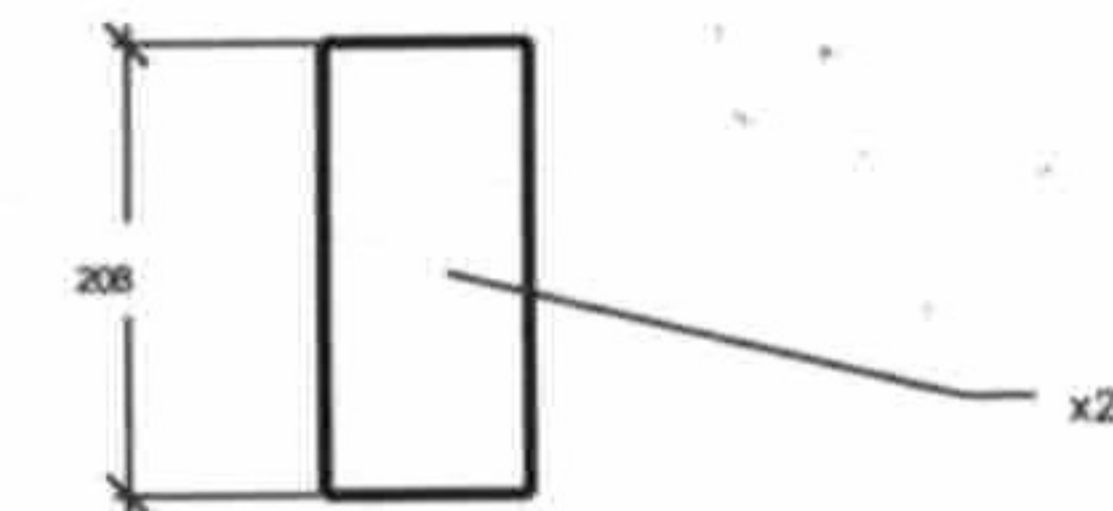
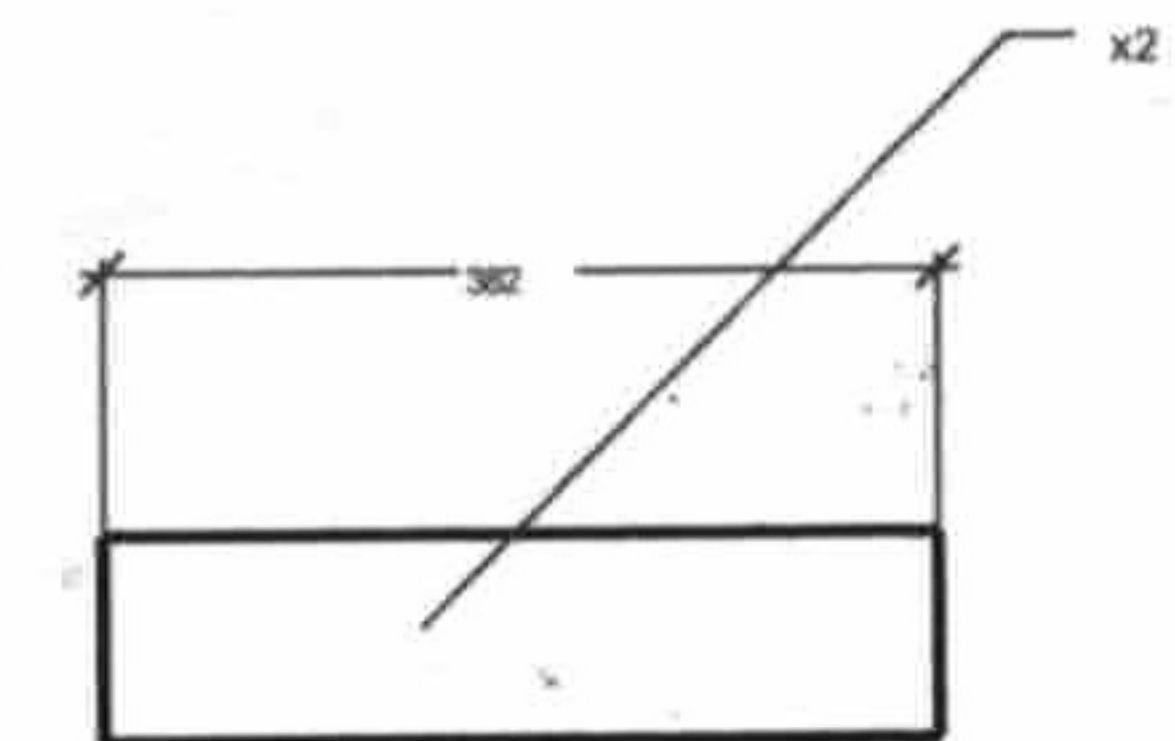
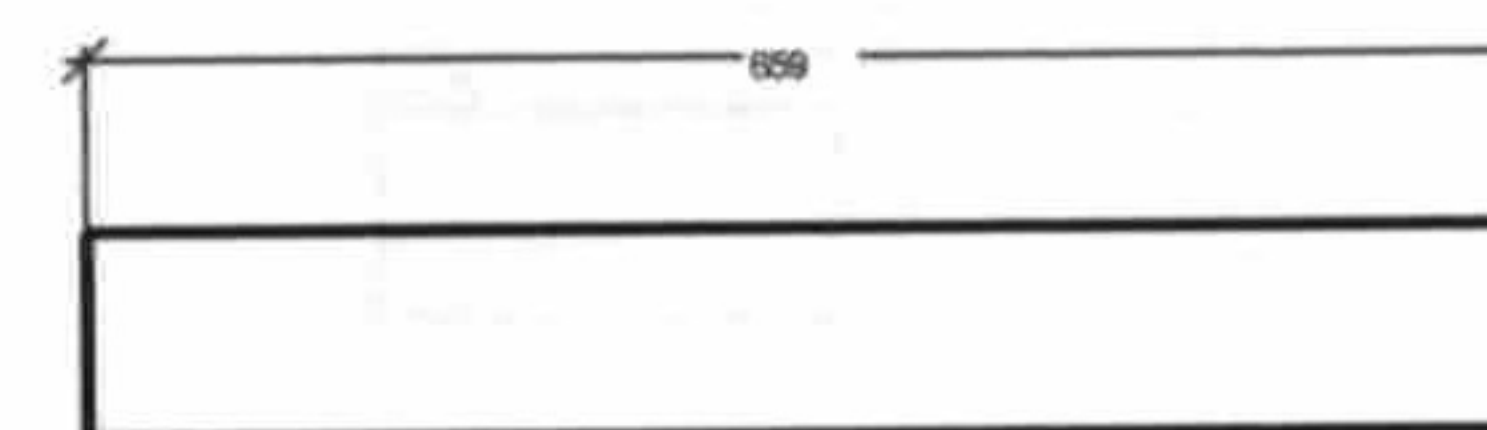
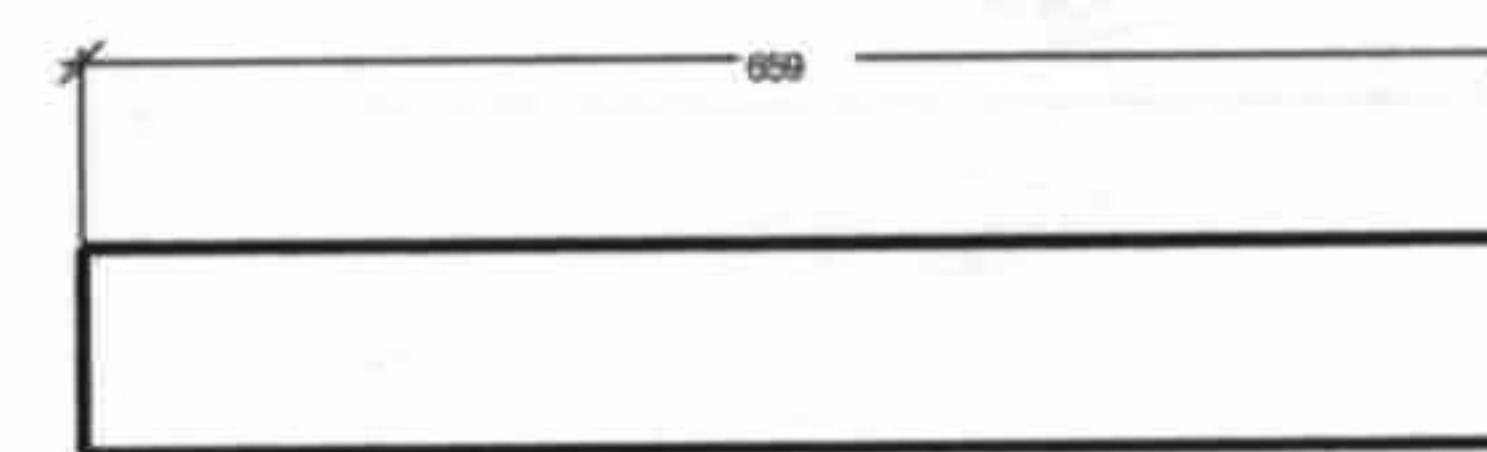
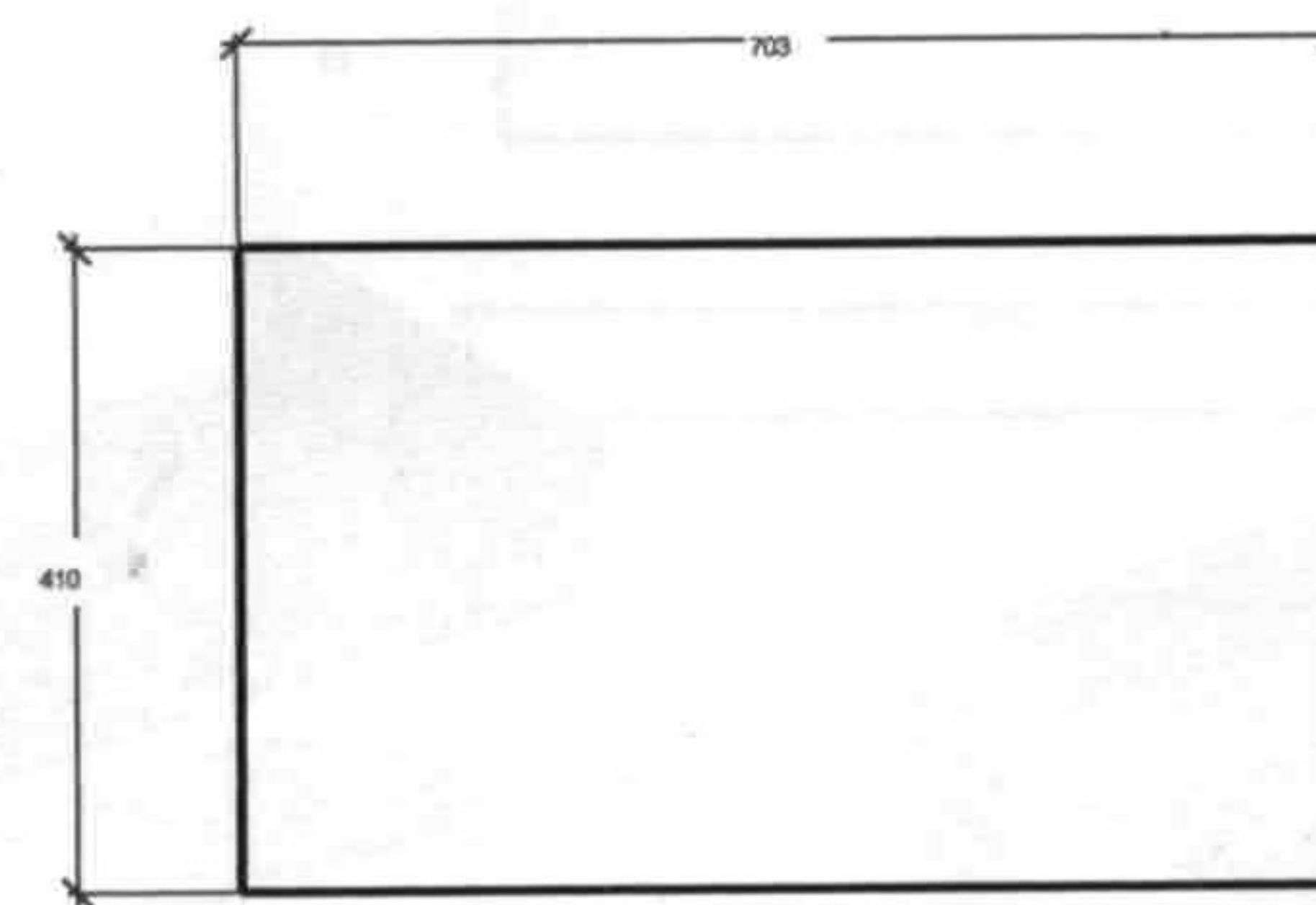
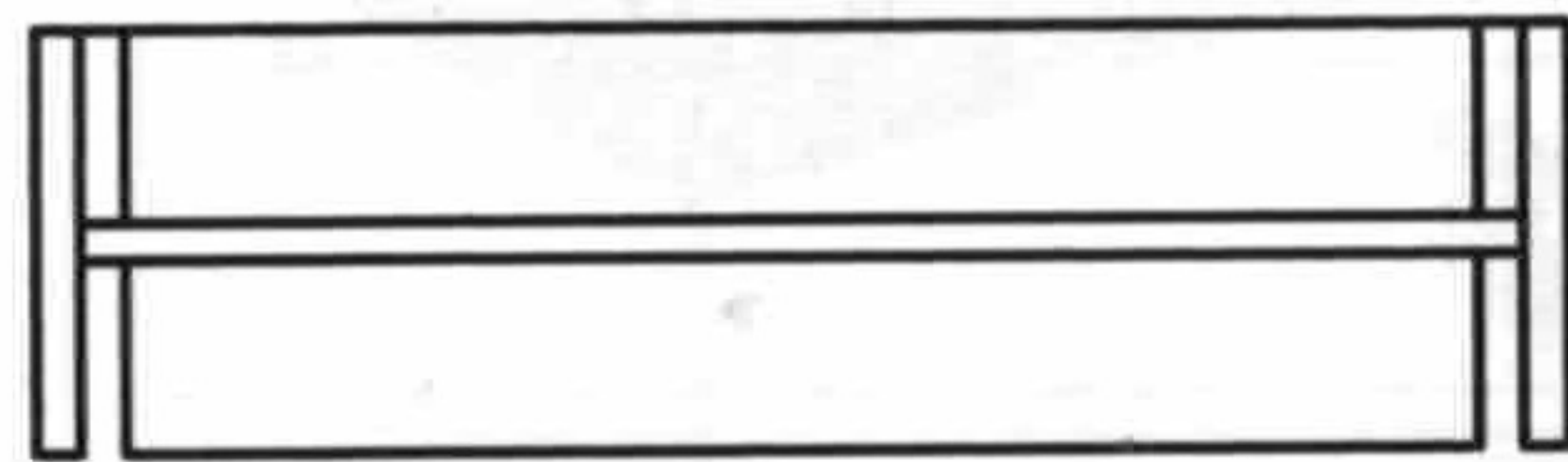
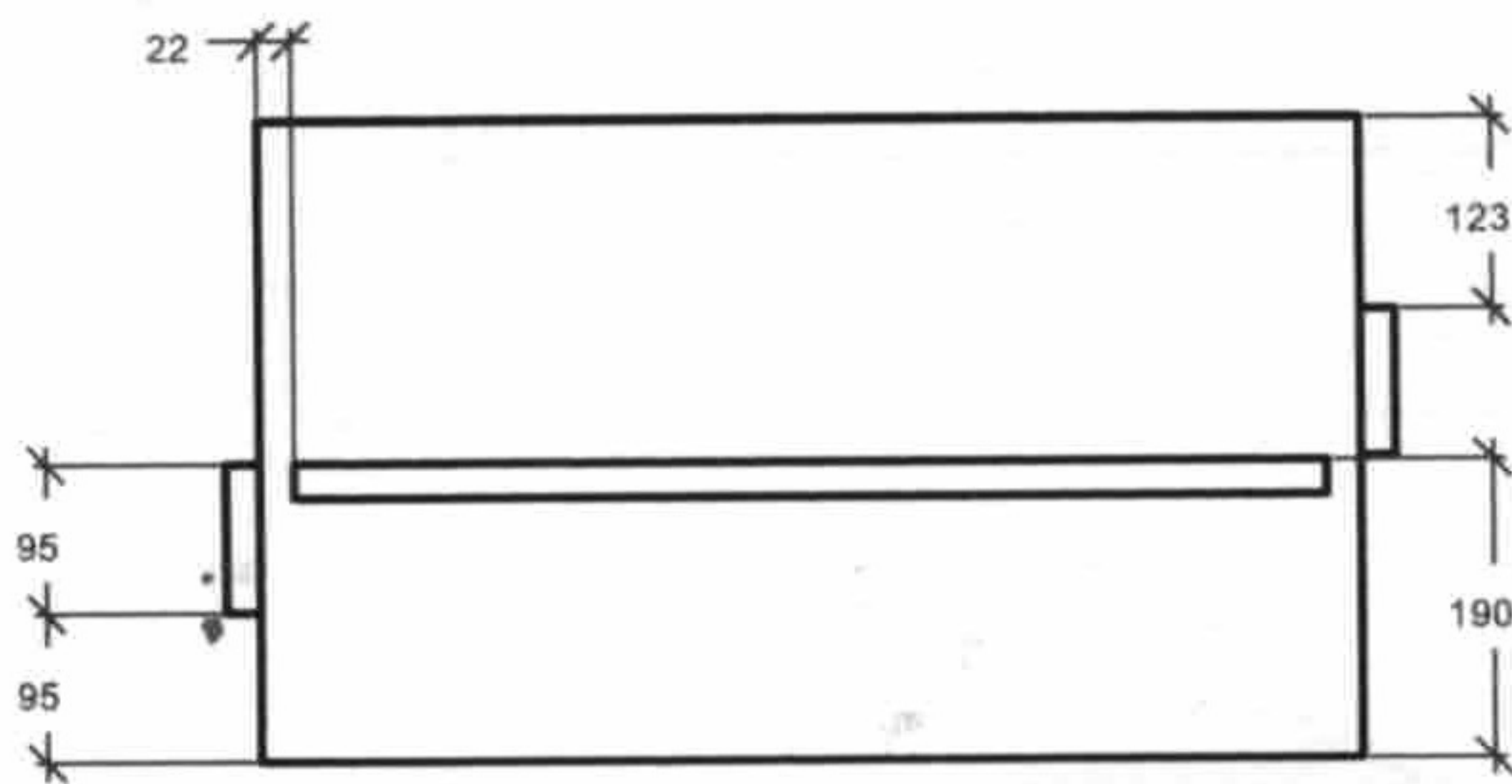
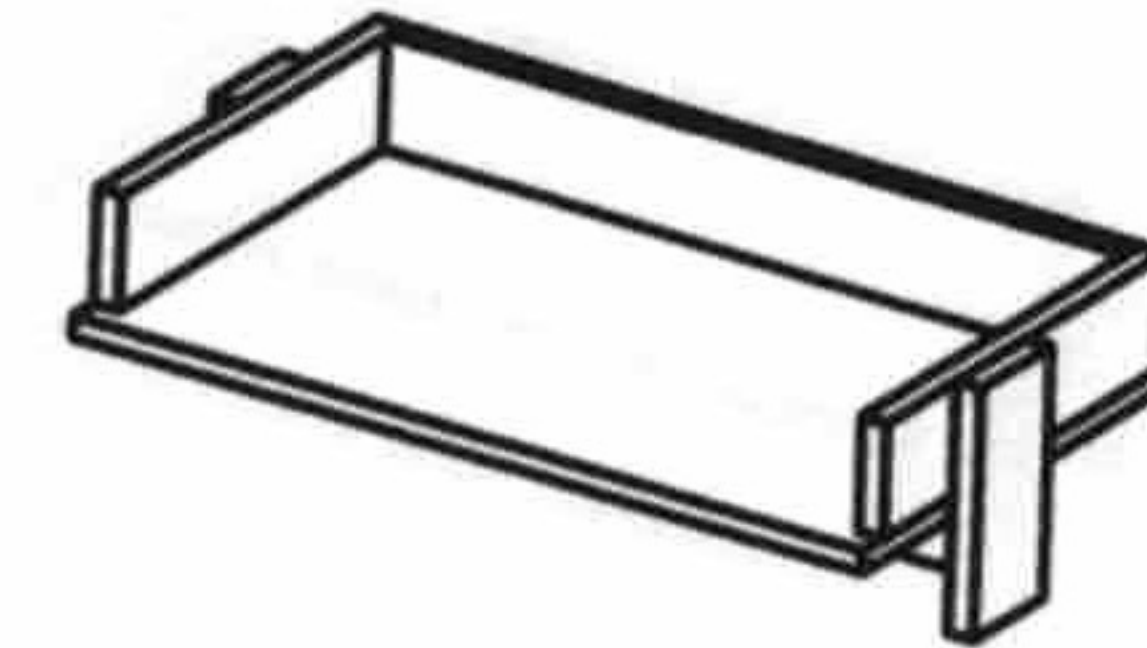


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Module 2

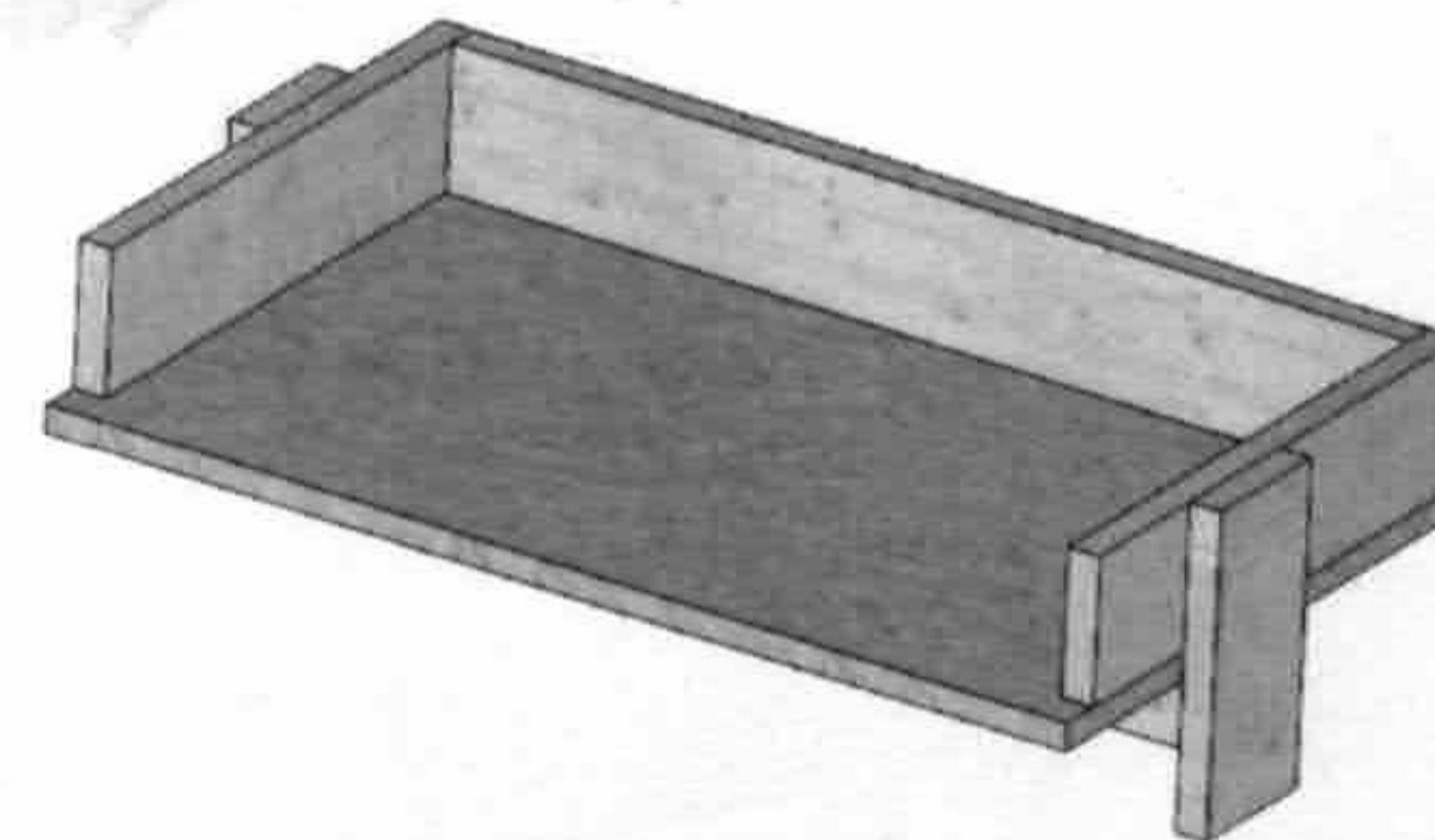
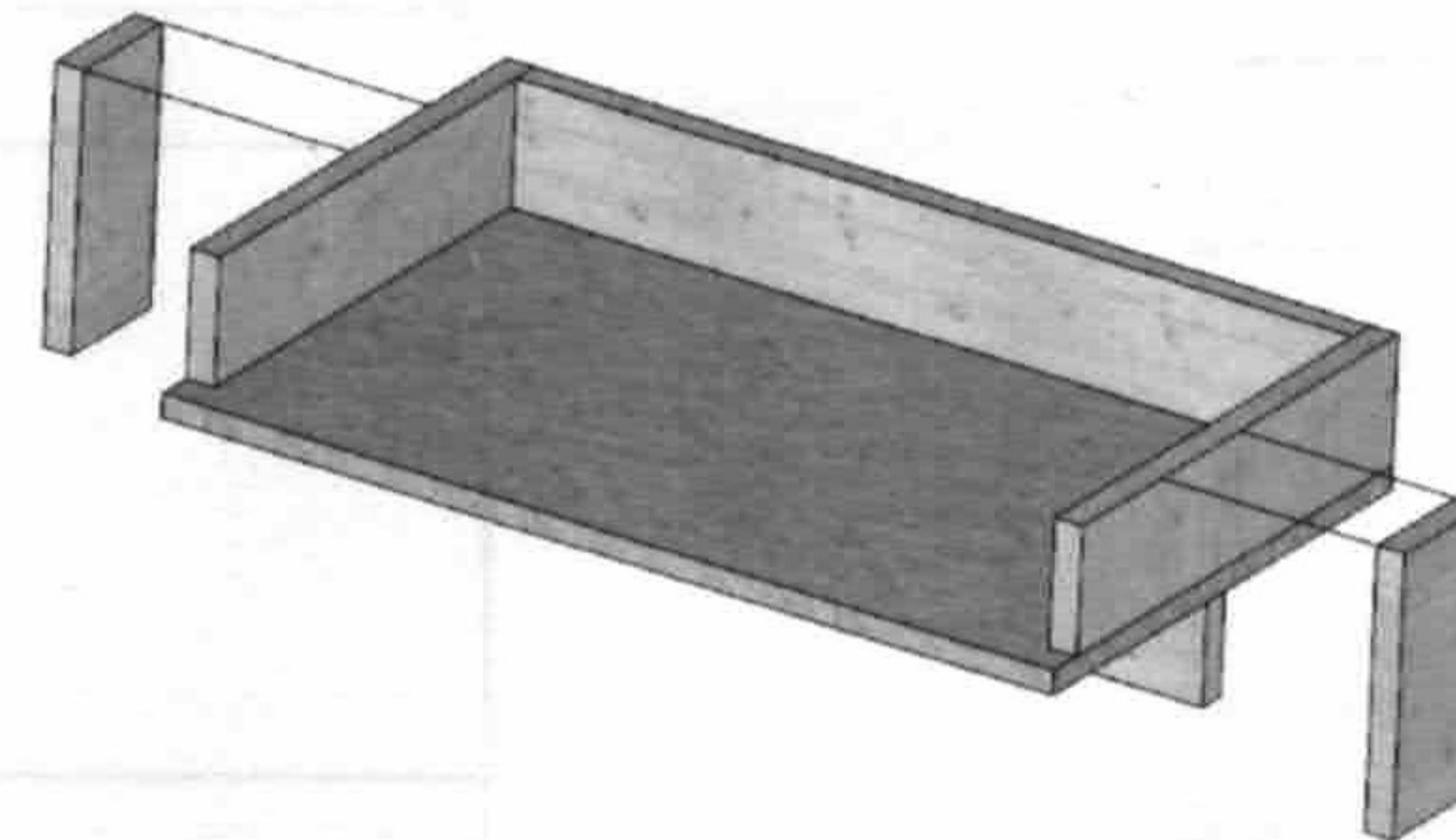
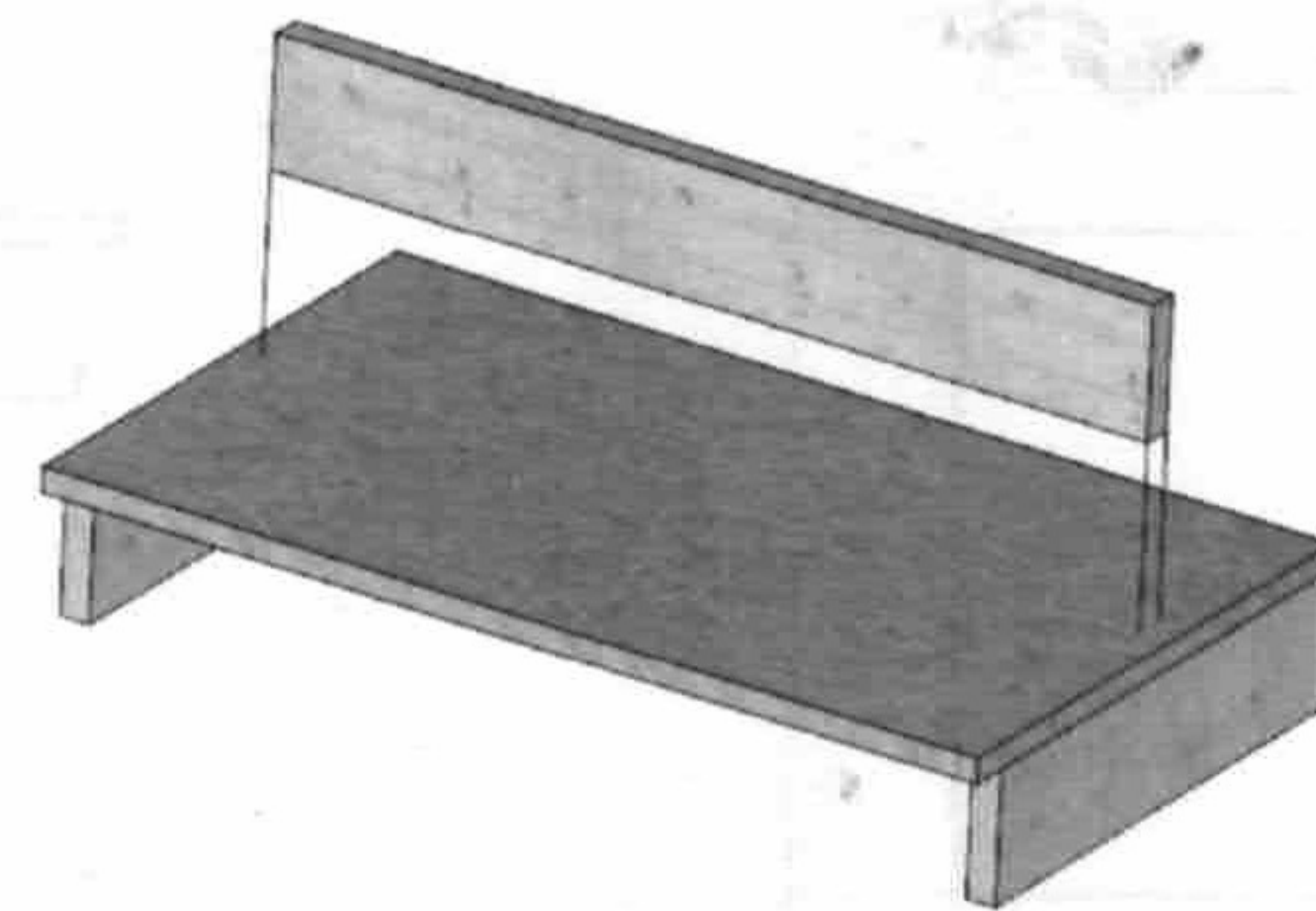
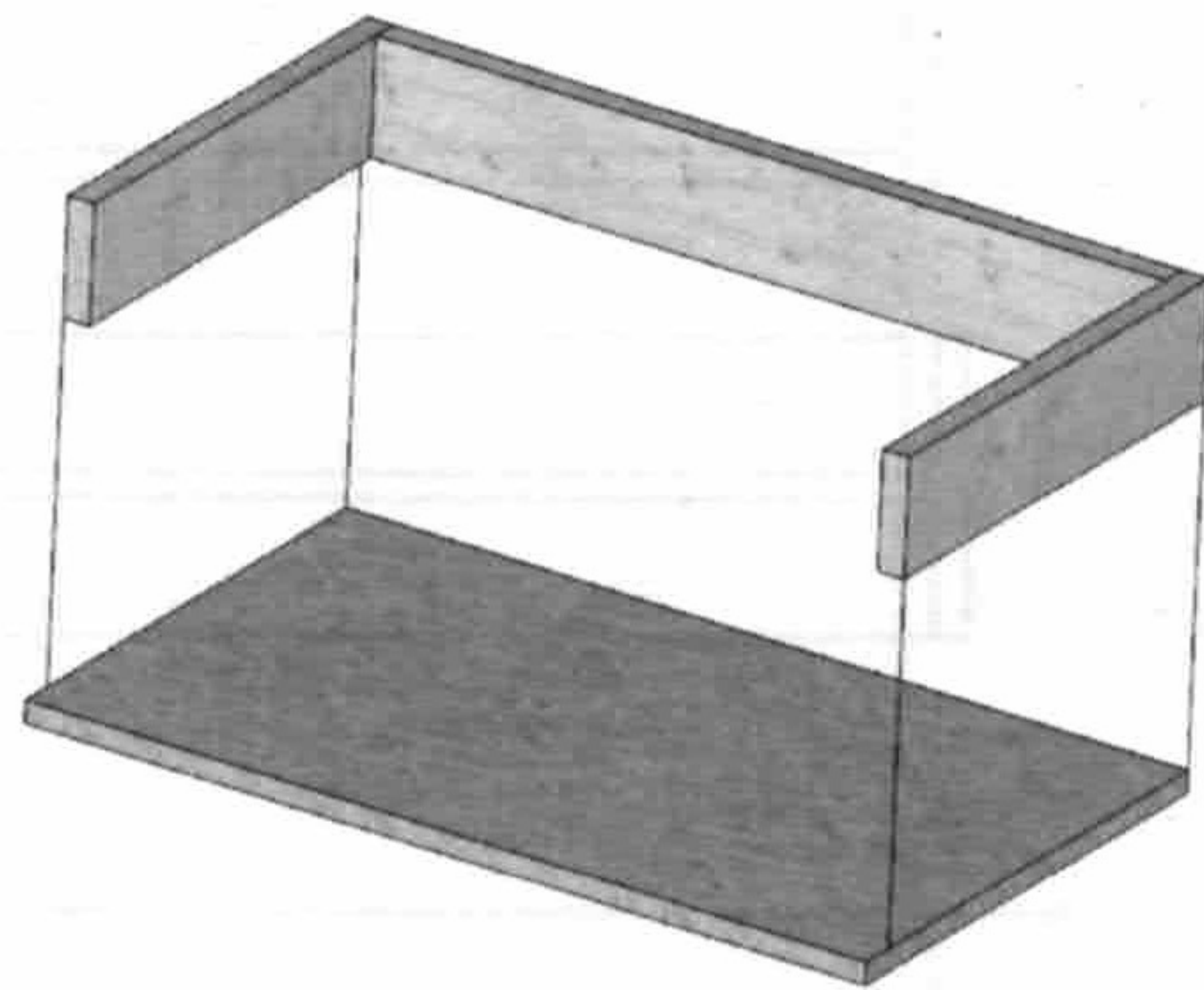
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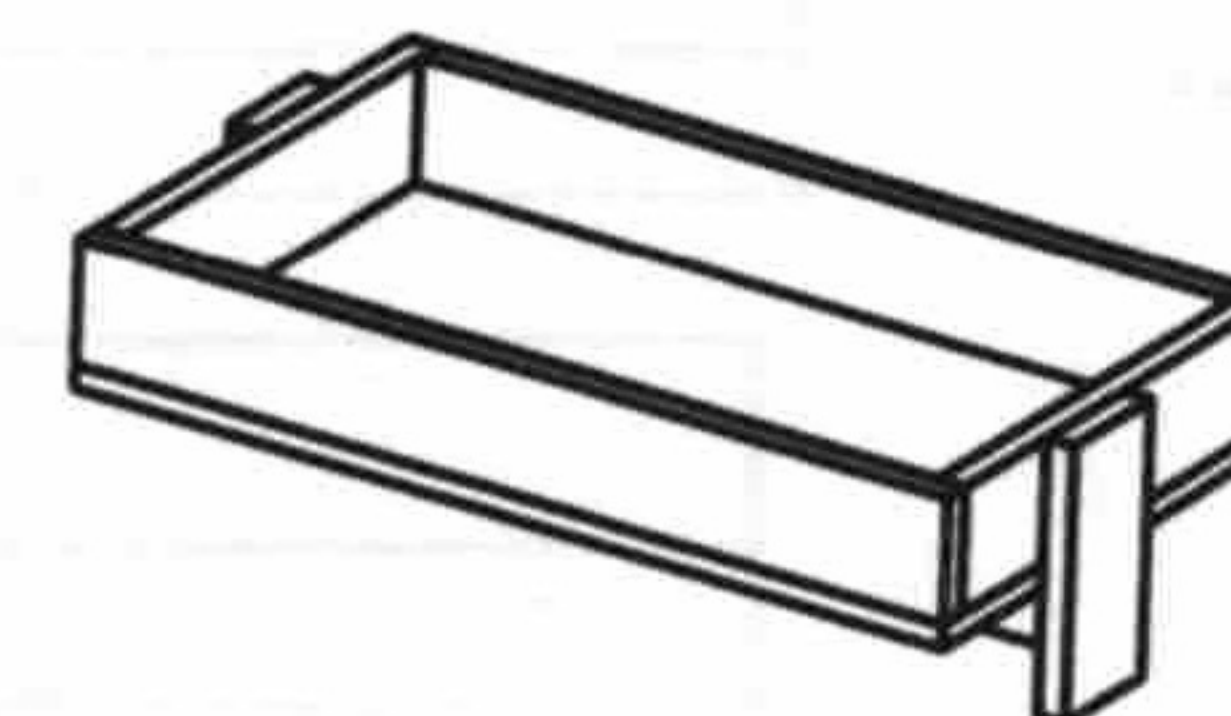
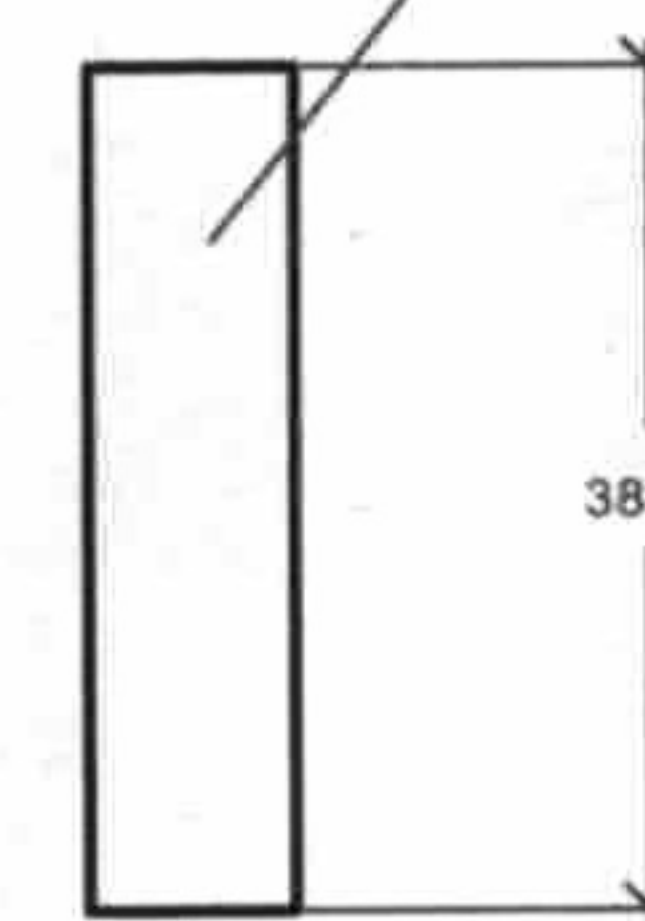
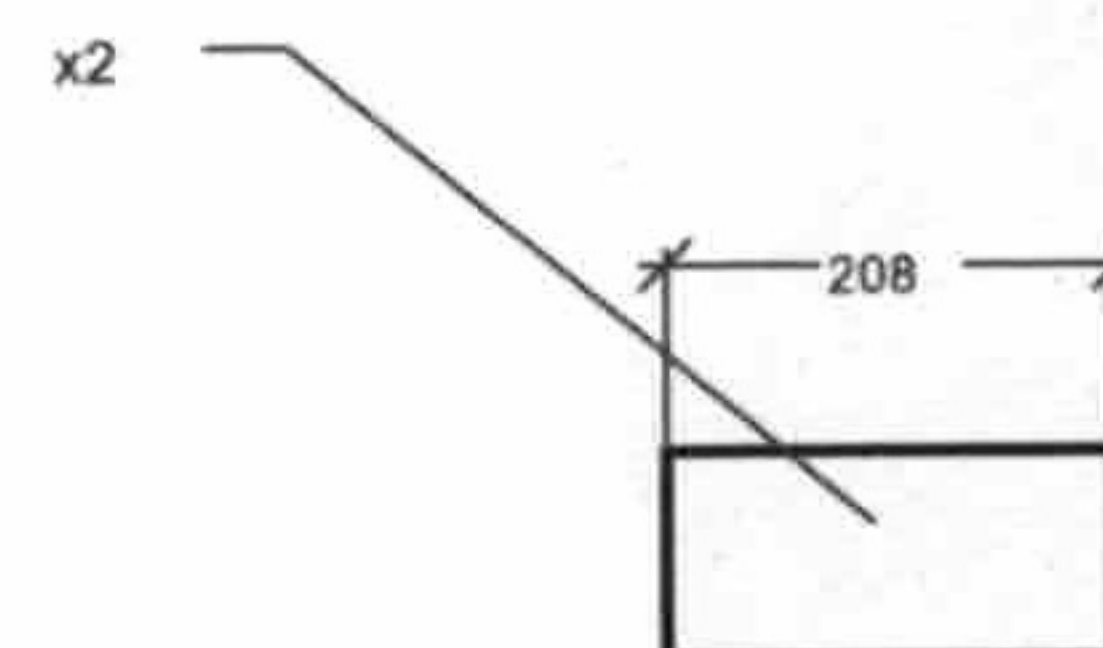
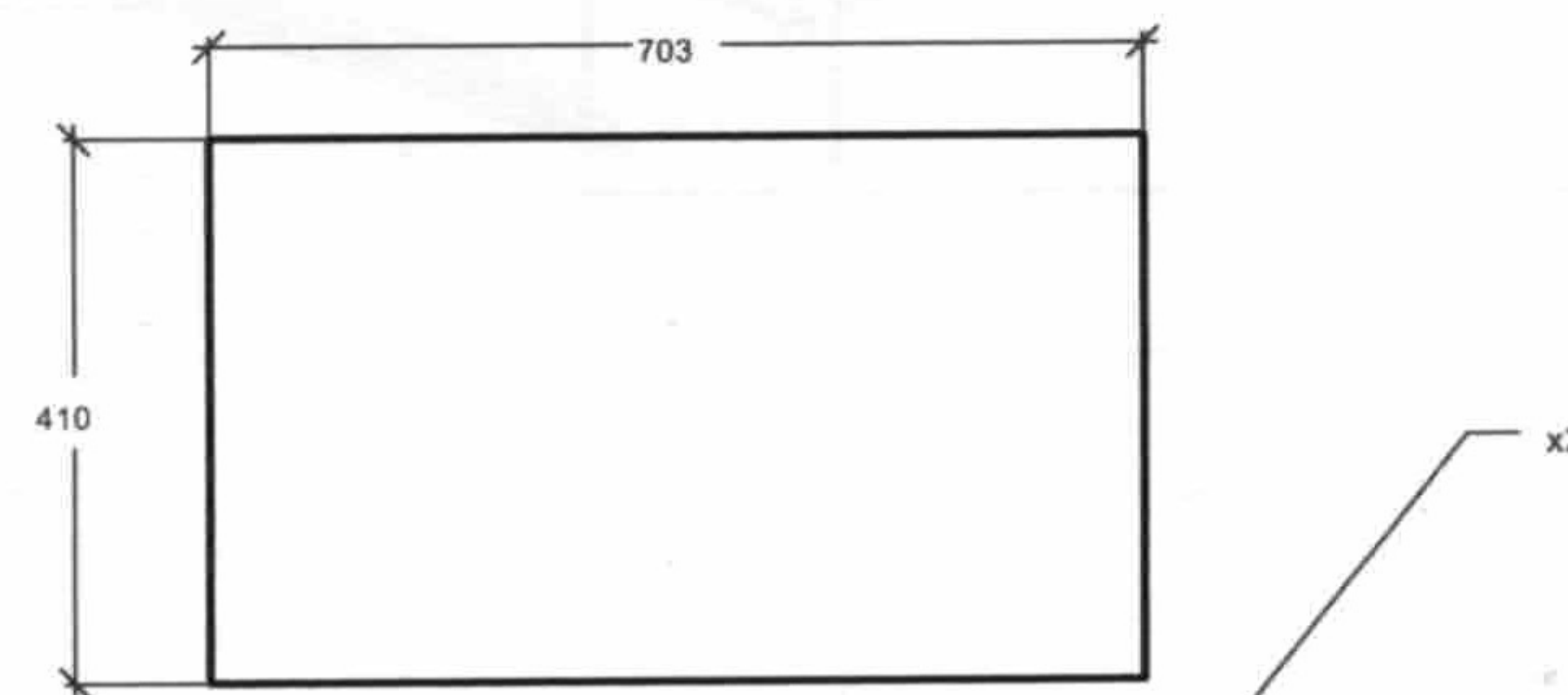
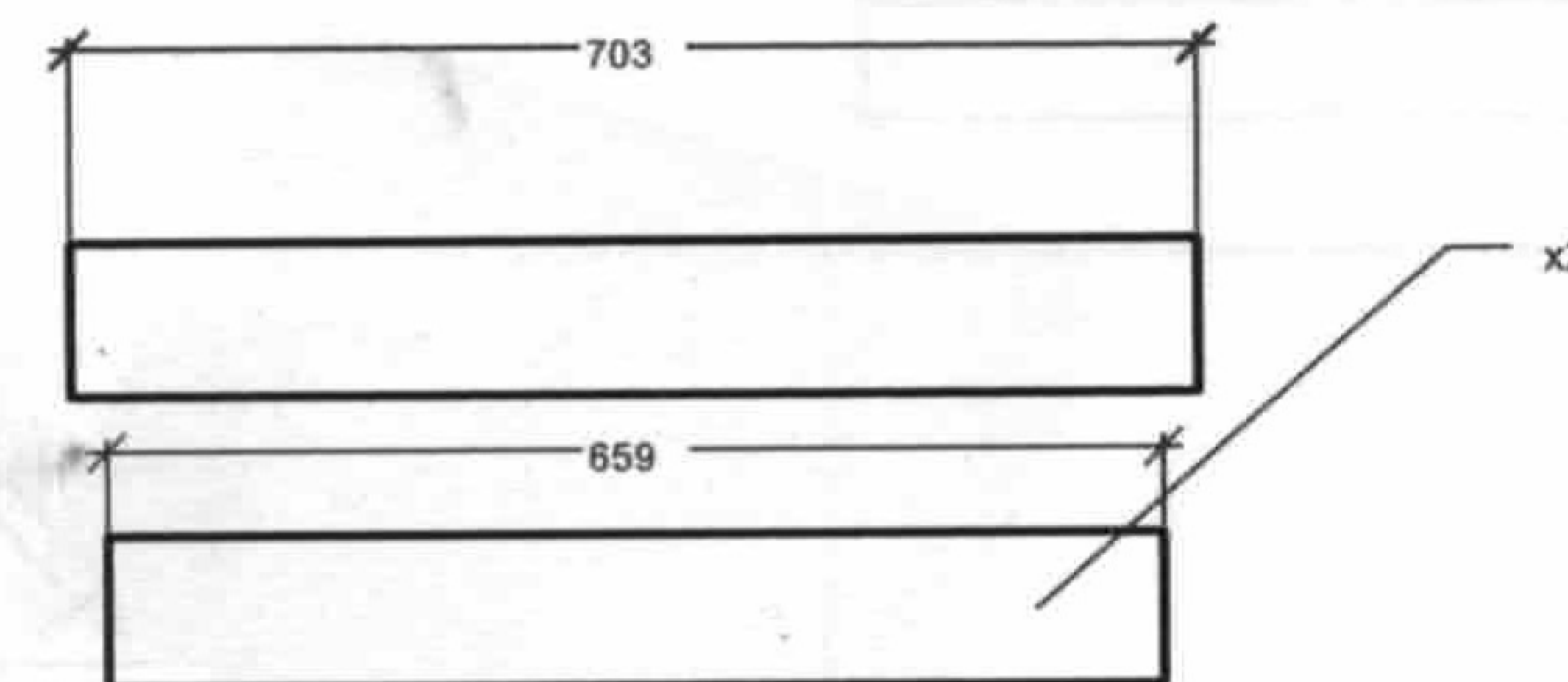
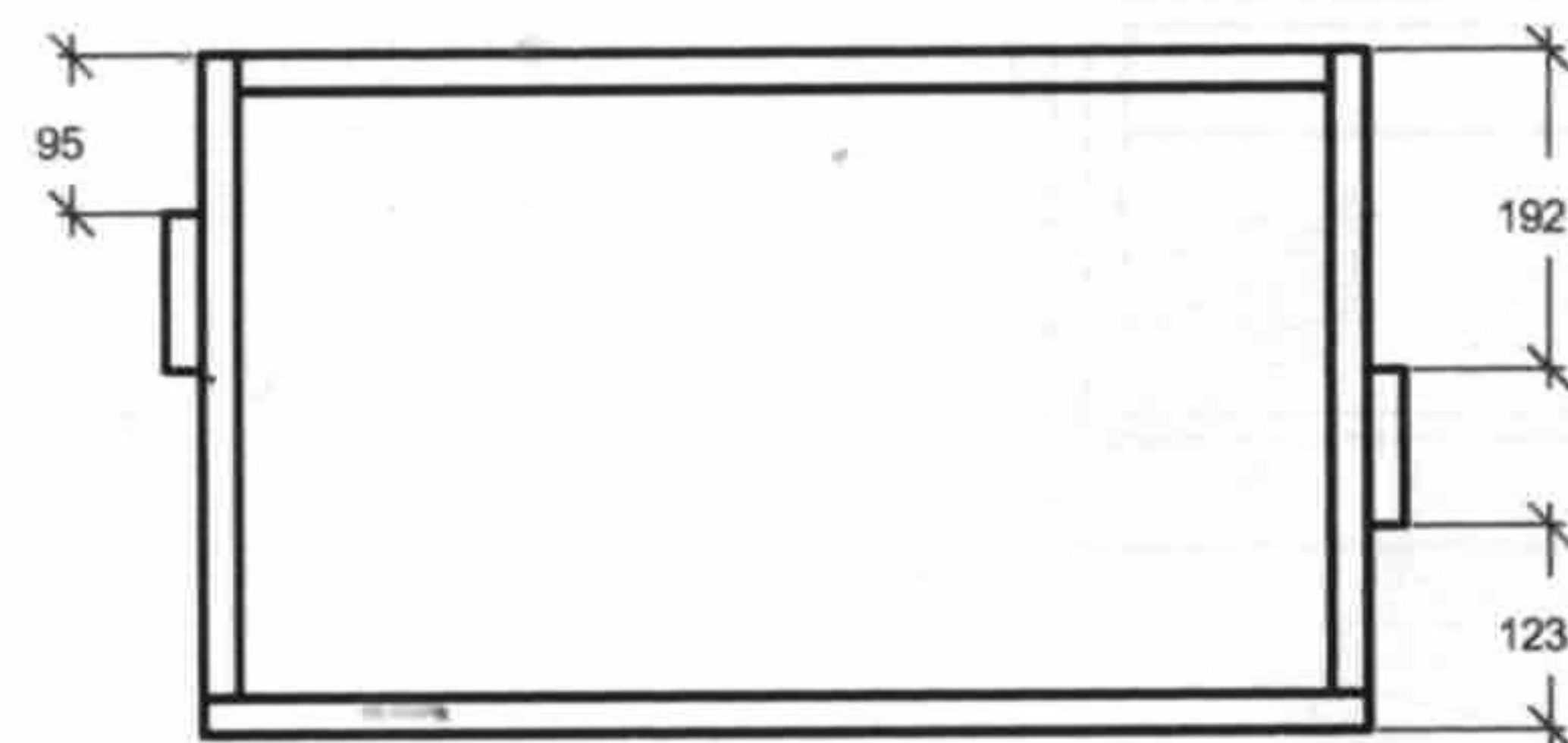
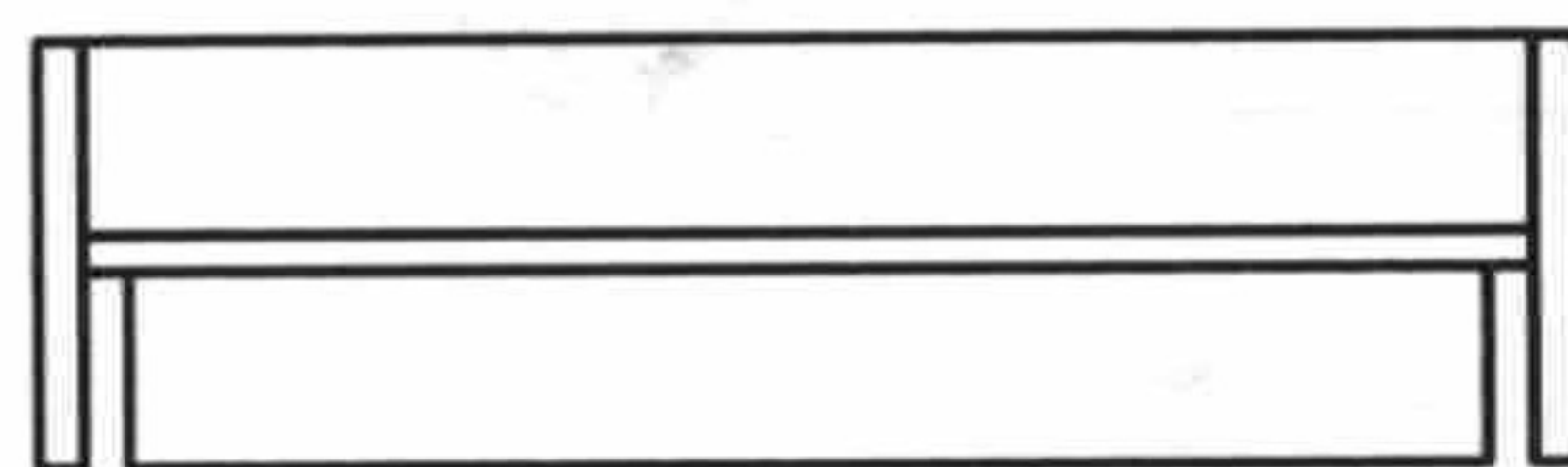
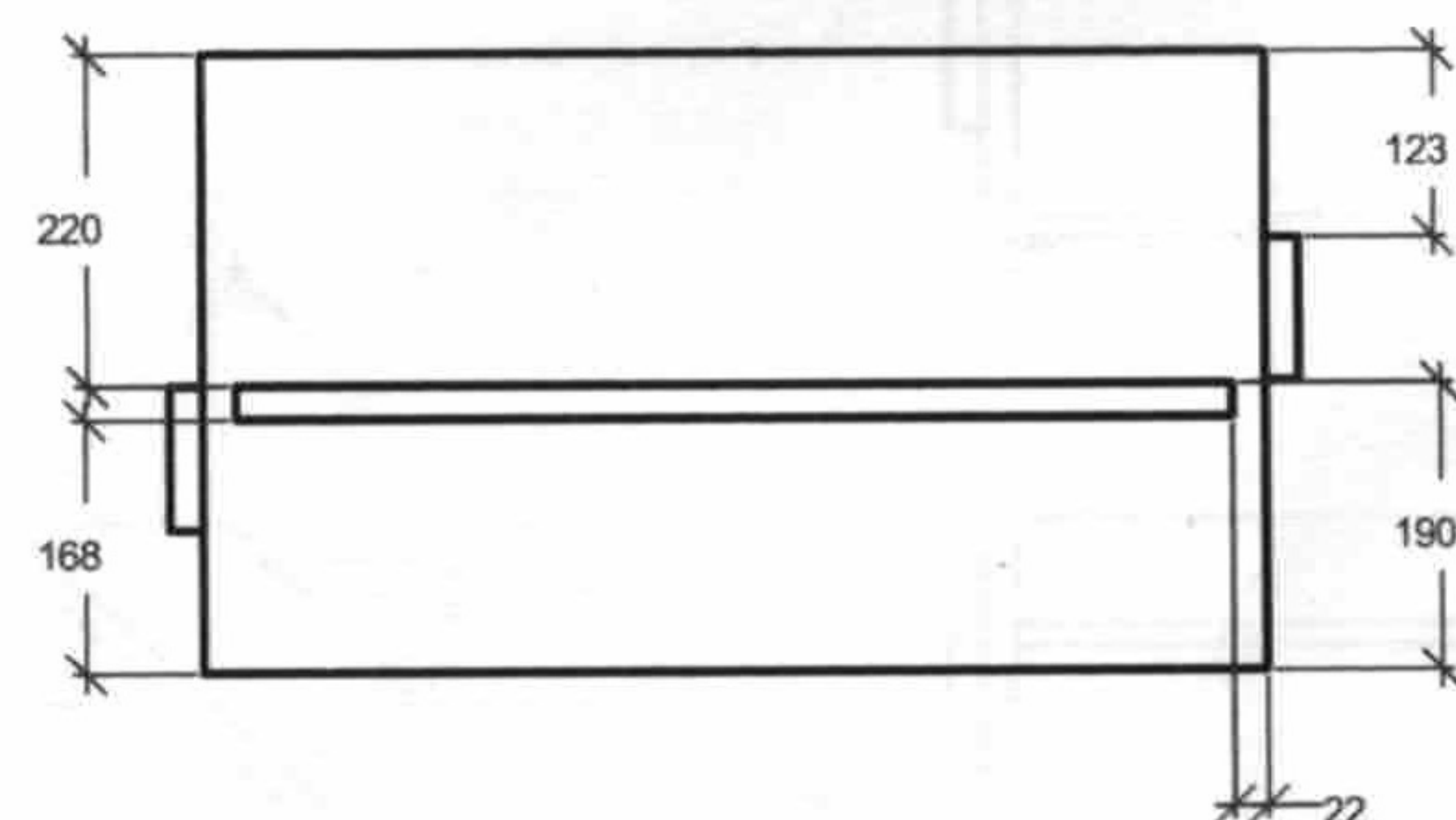
## Module 2 - Montage *Assembly*



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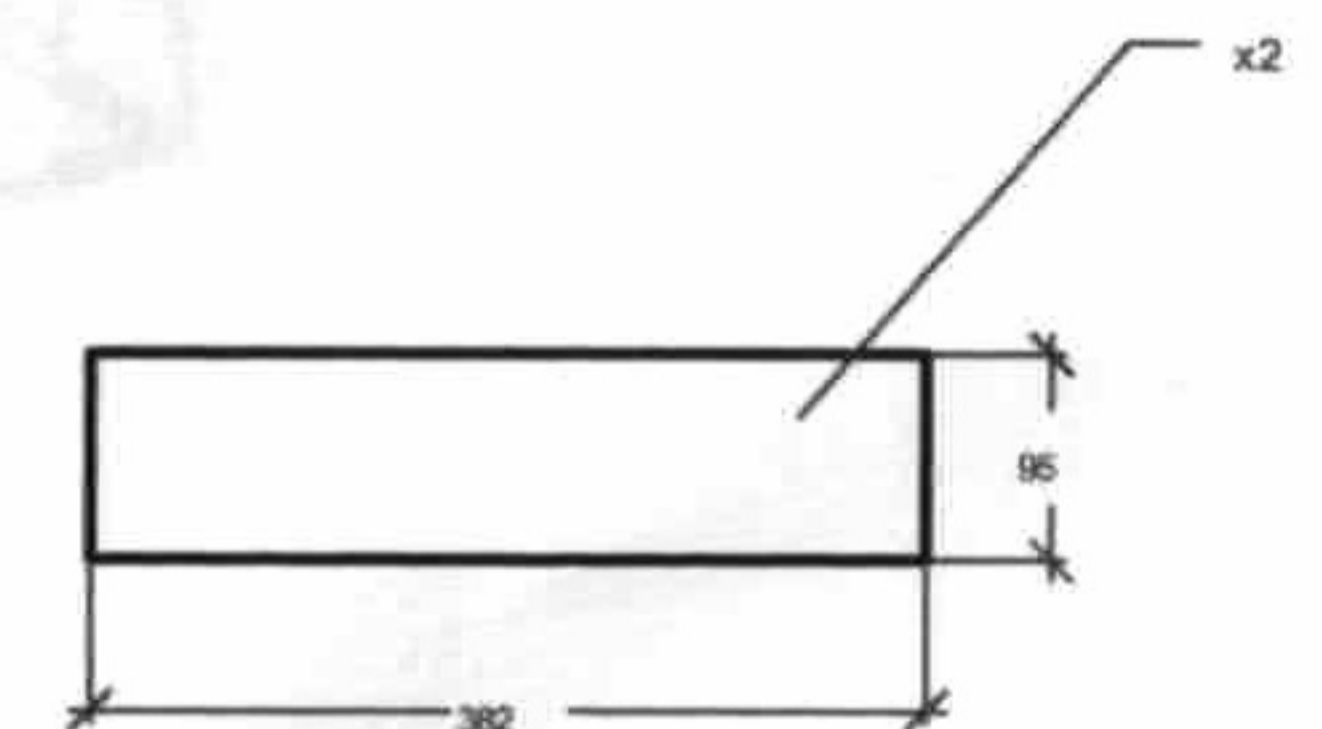
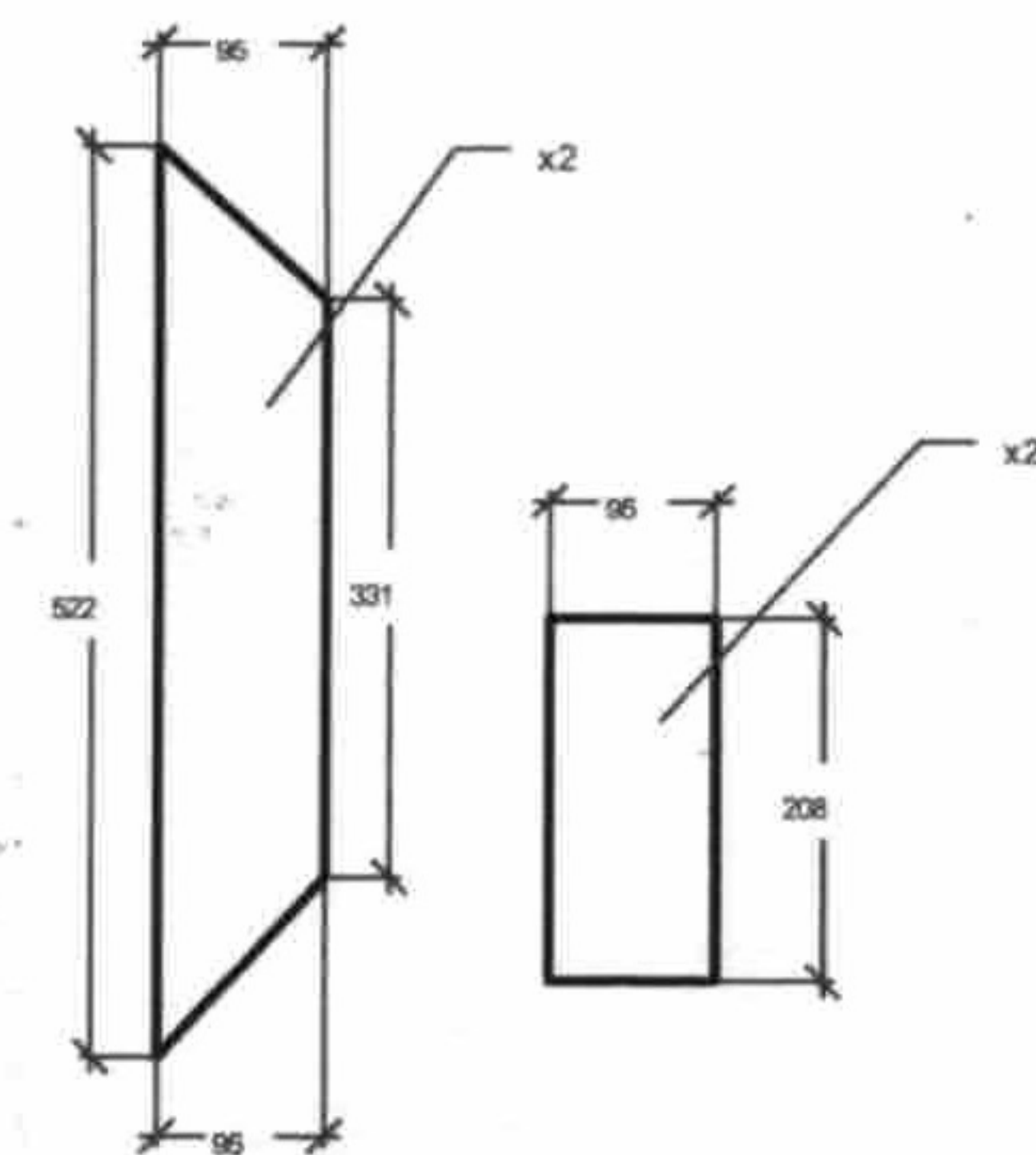
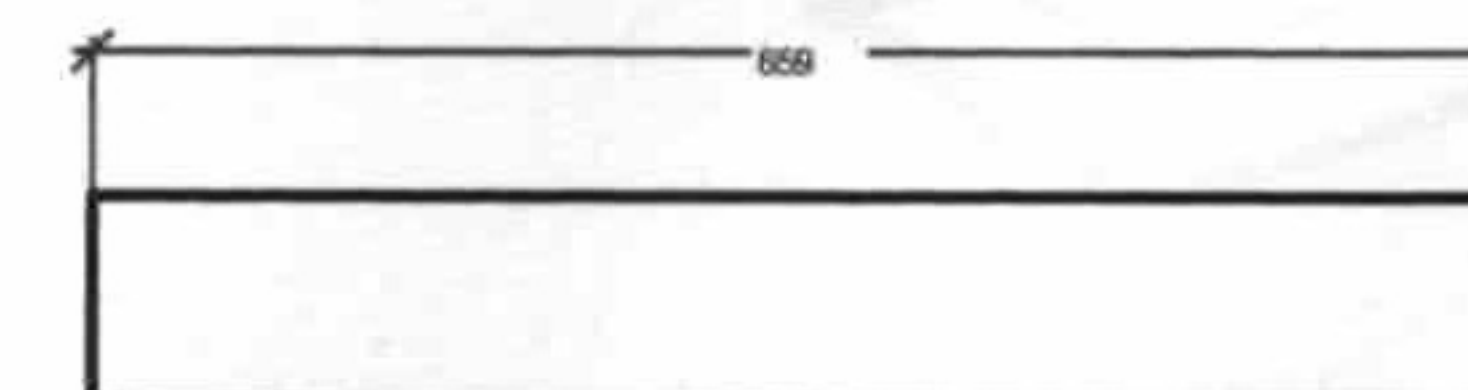
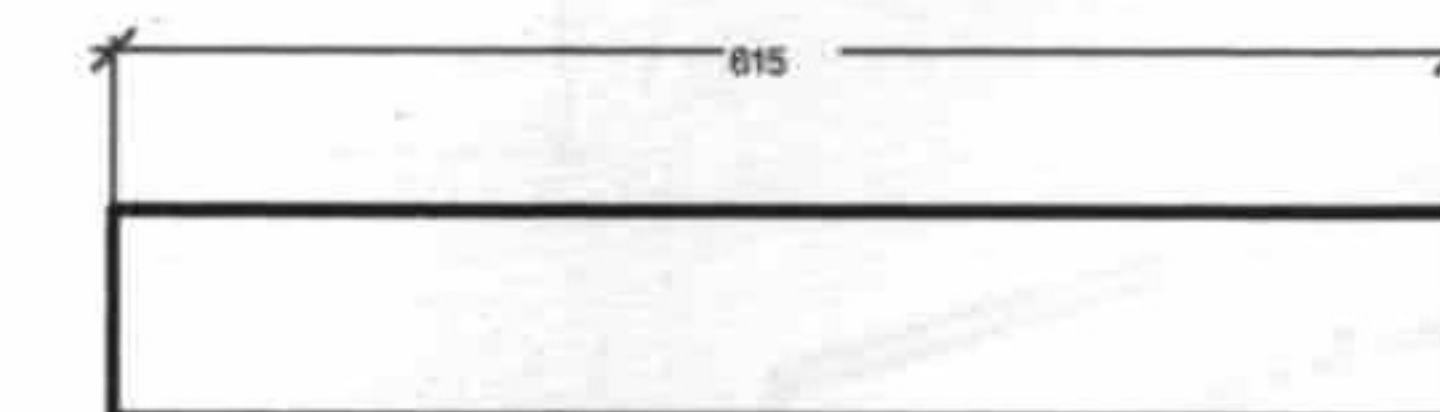
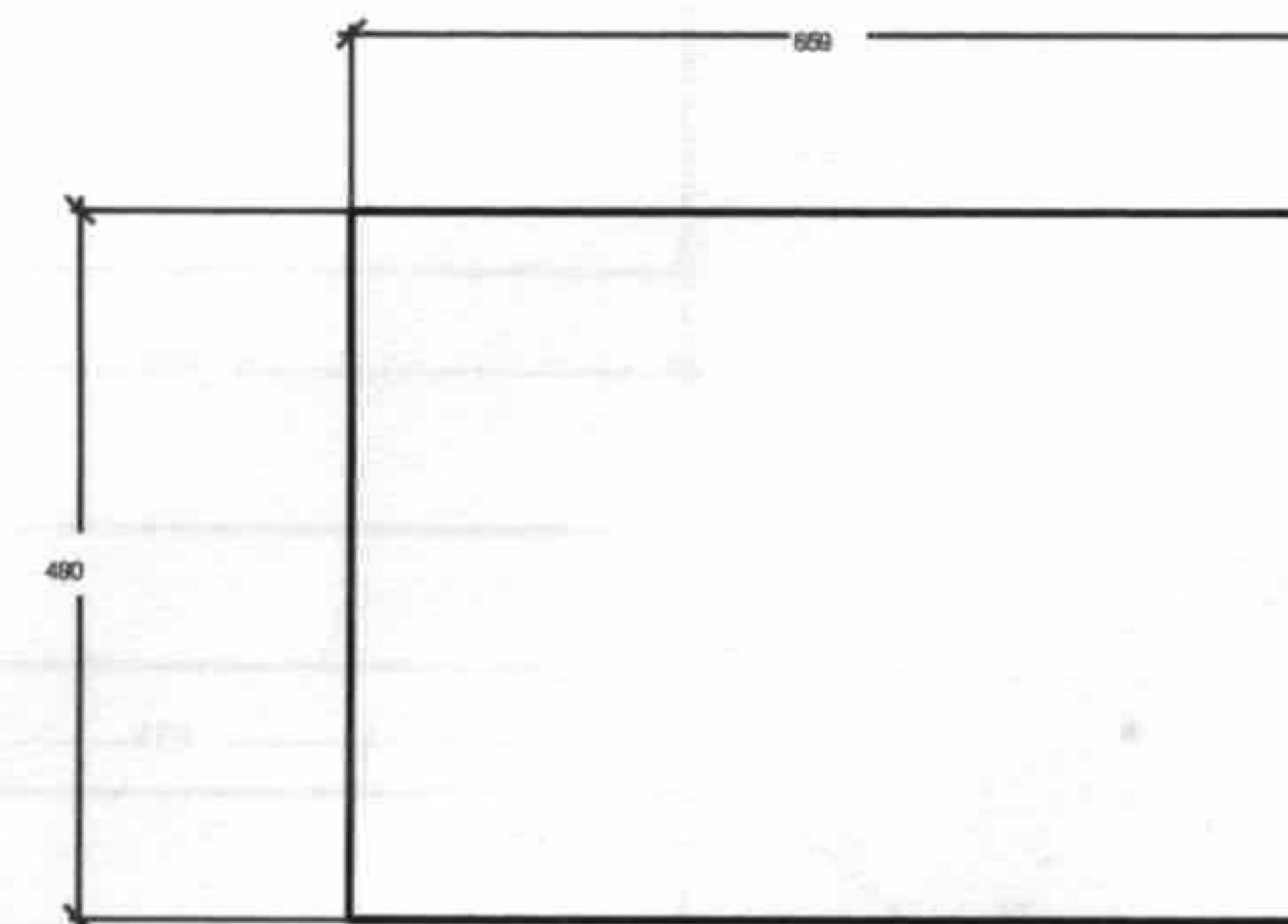
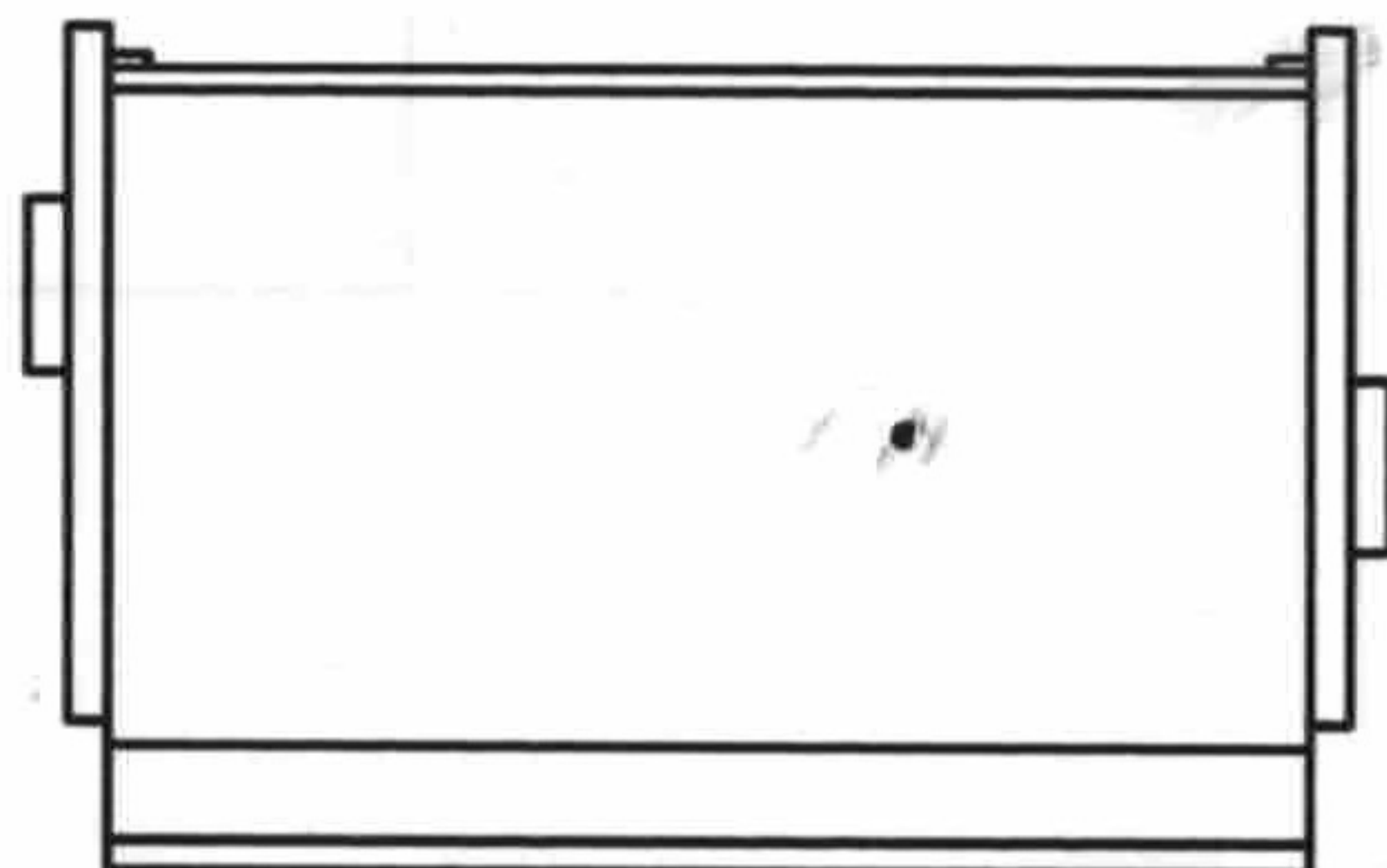
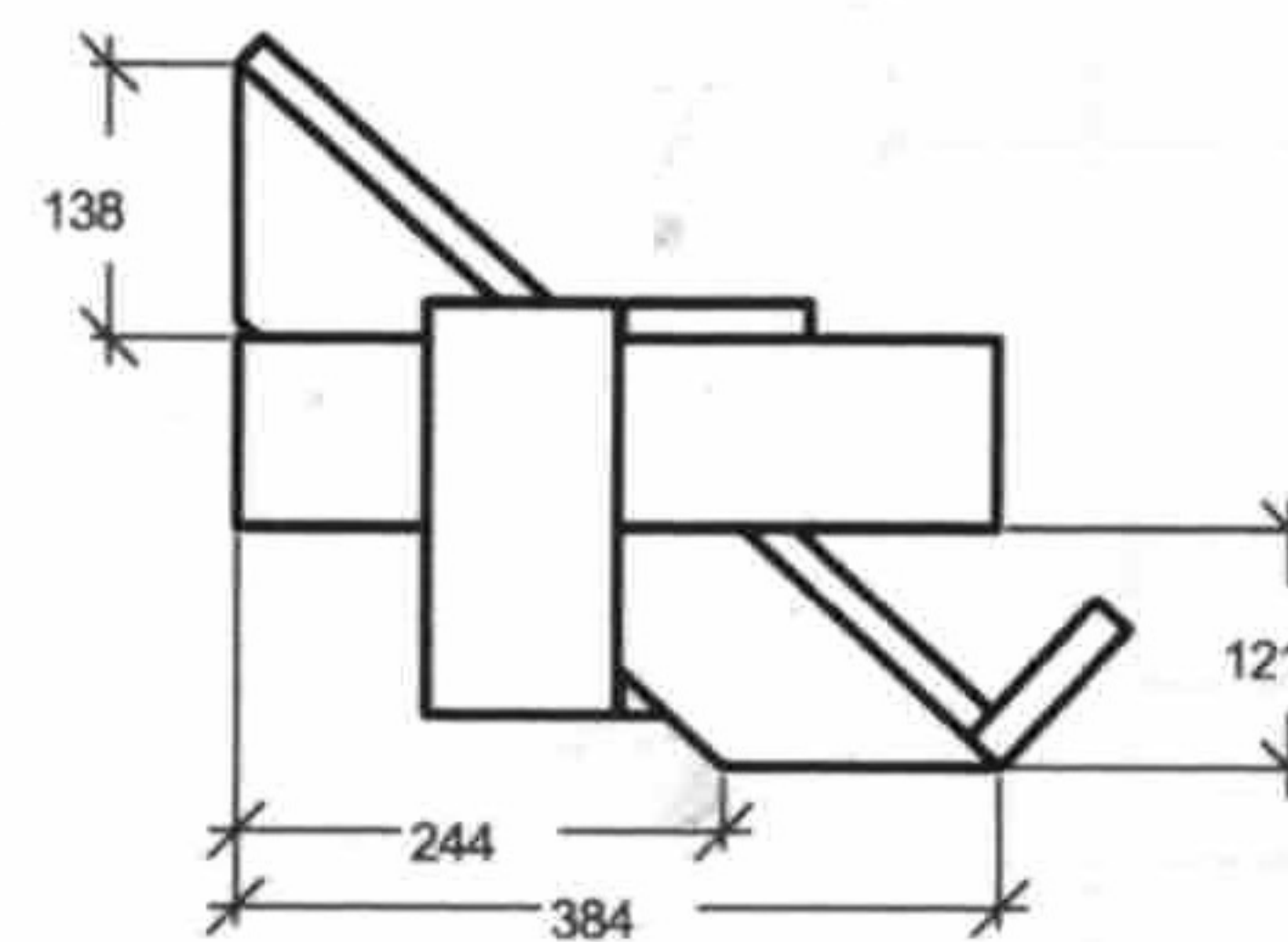
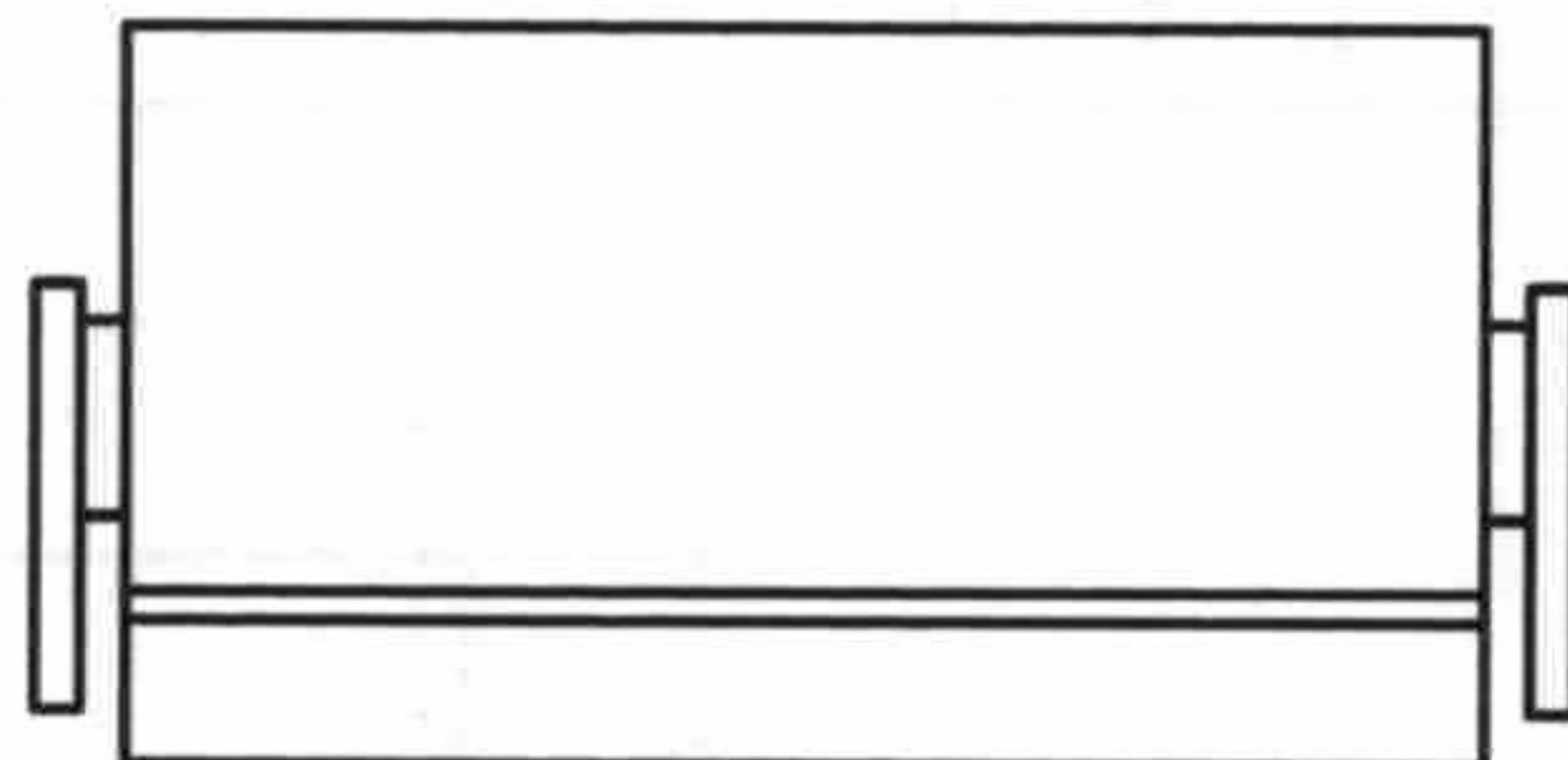
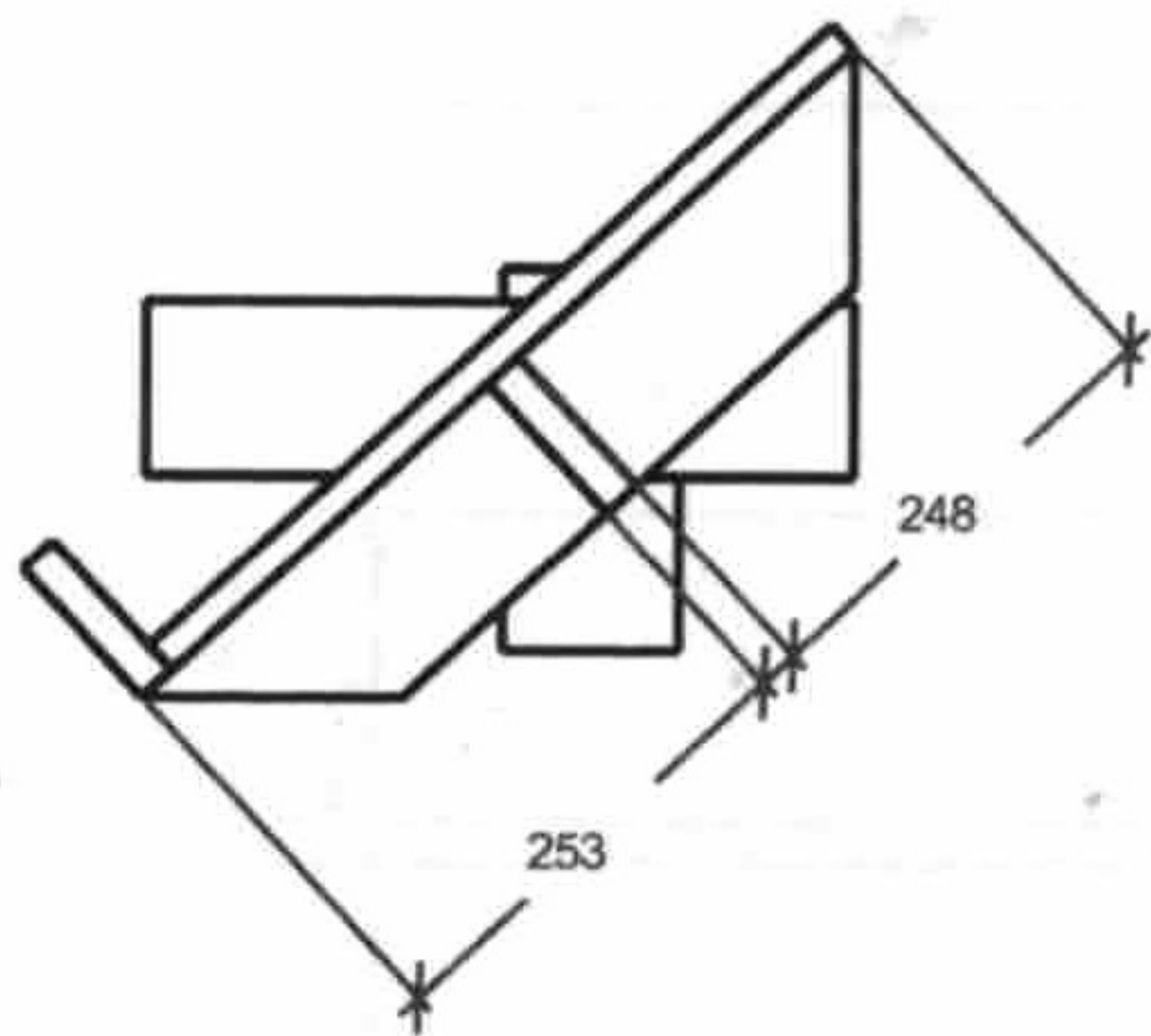
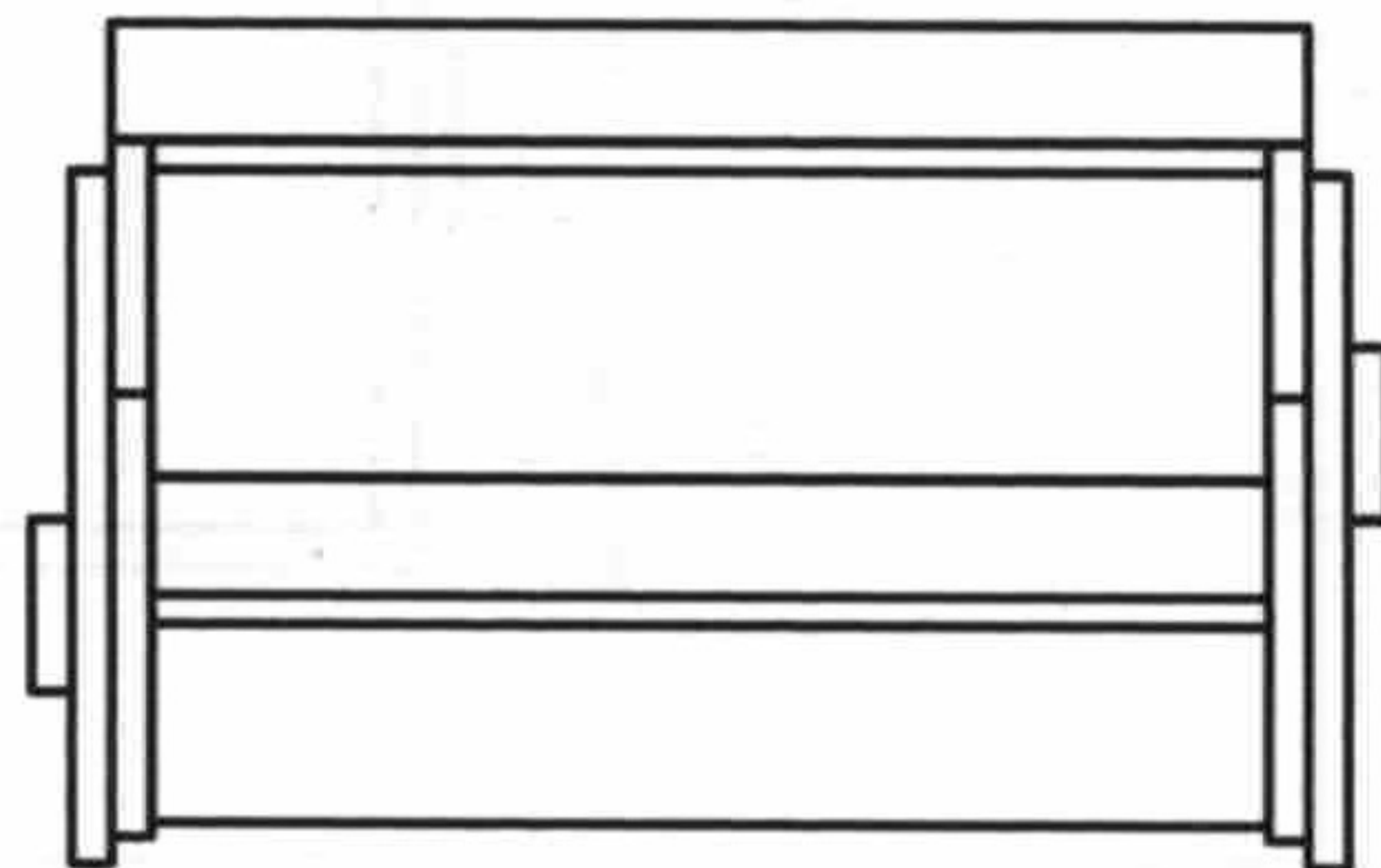
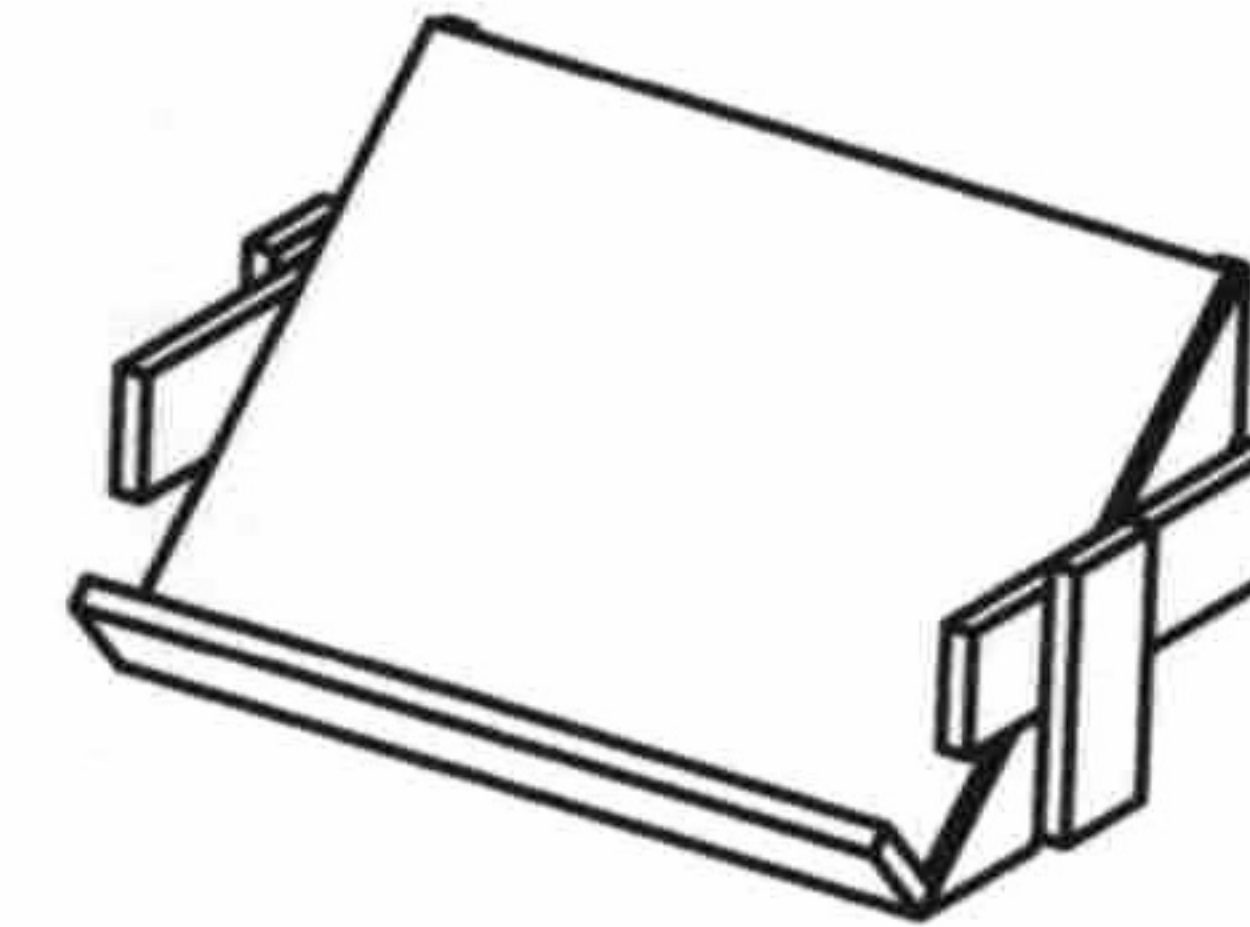
Module 2b



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## Module 3

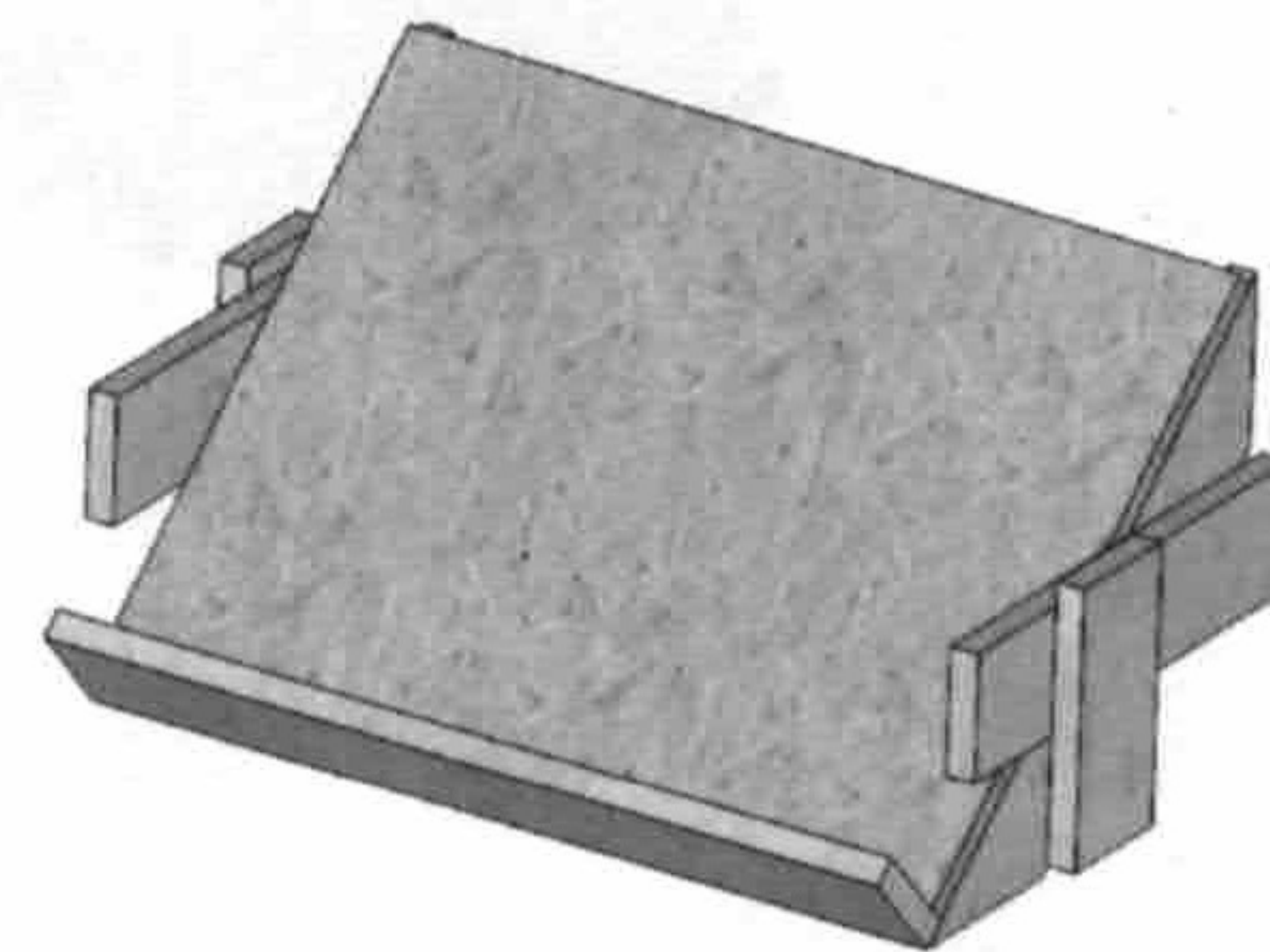
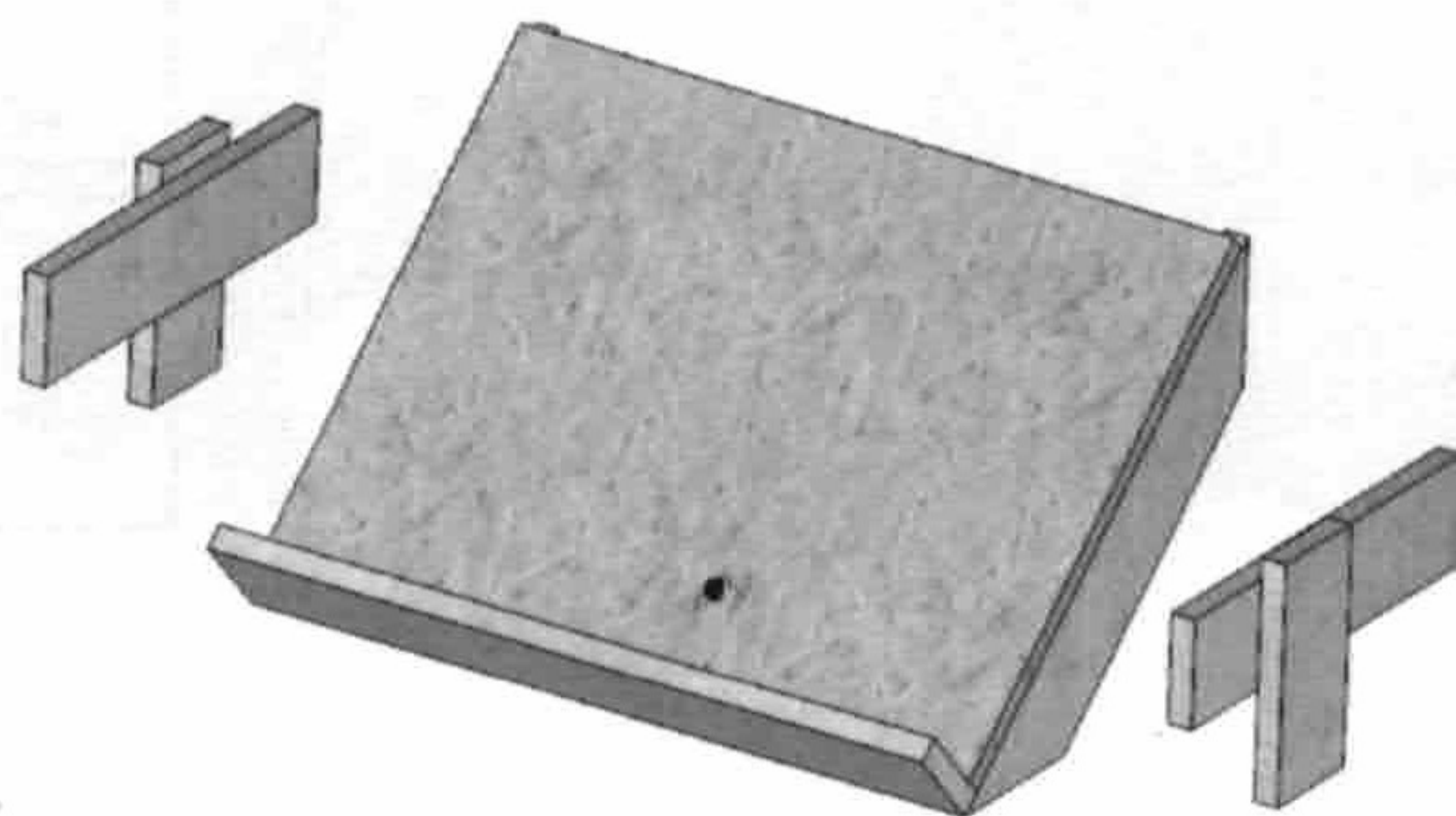
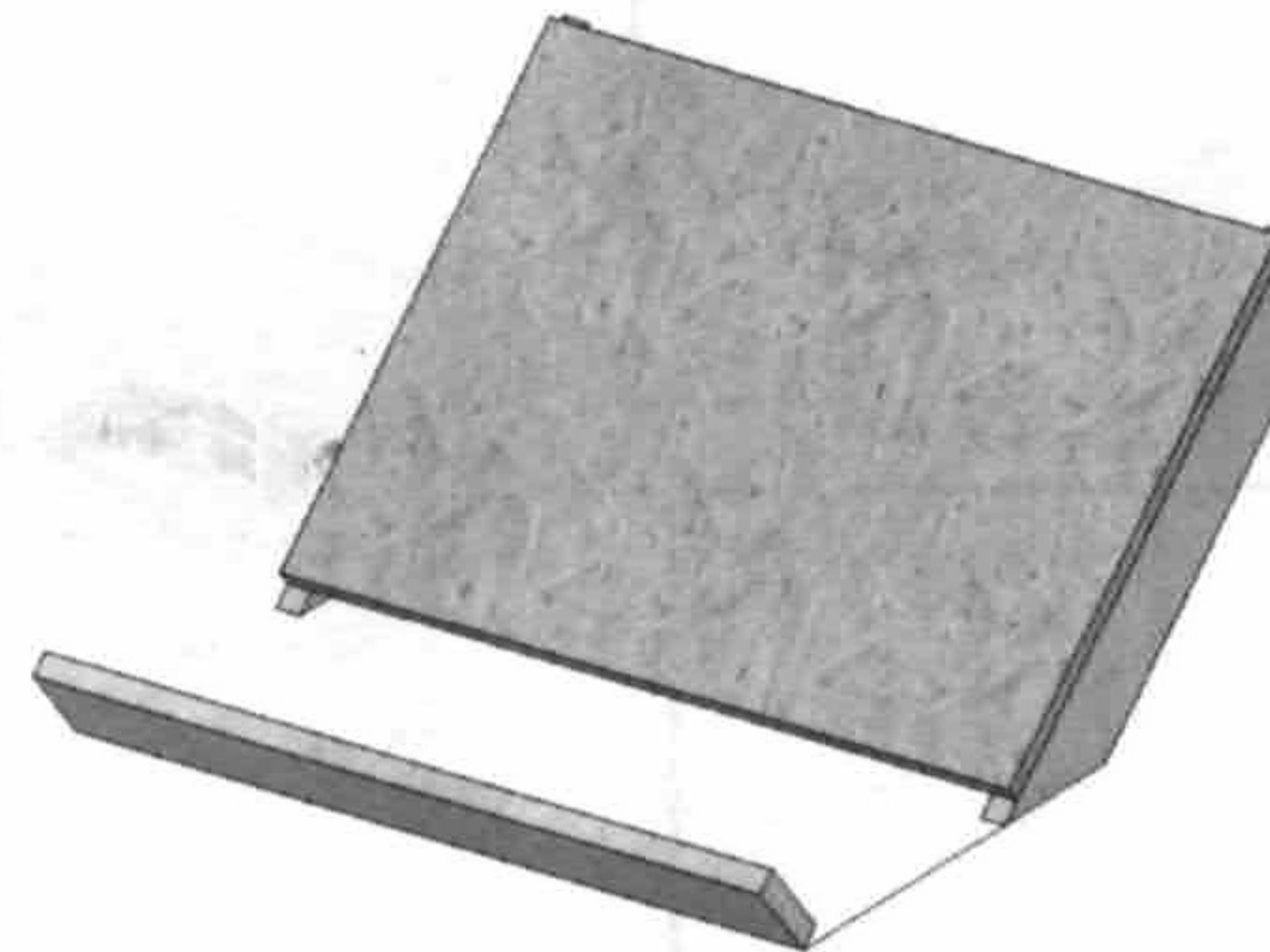
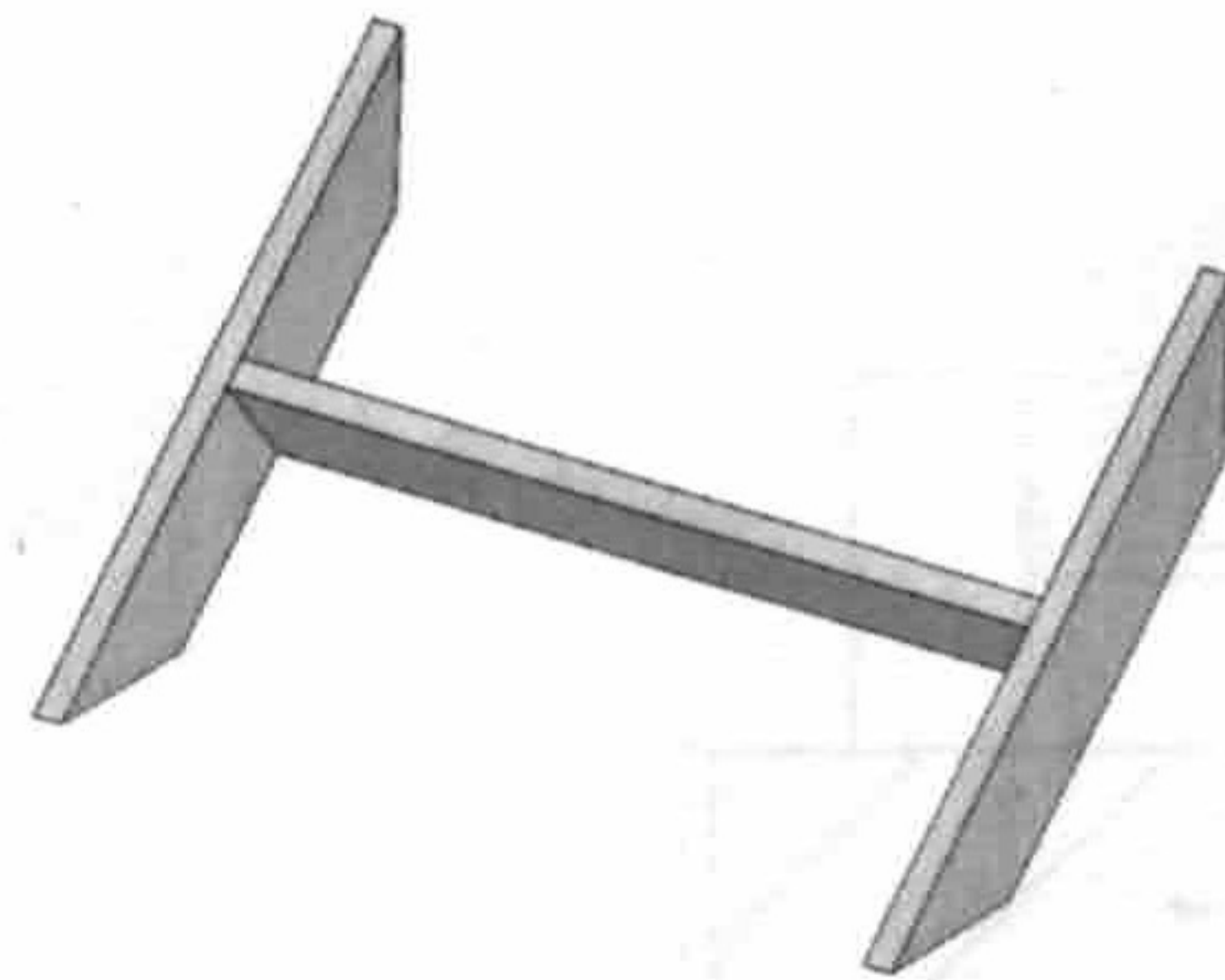


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Module 3 - montage  
Assembly

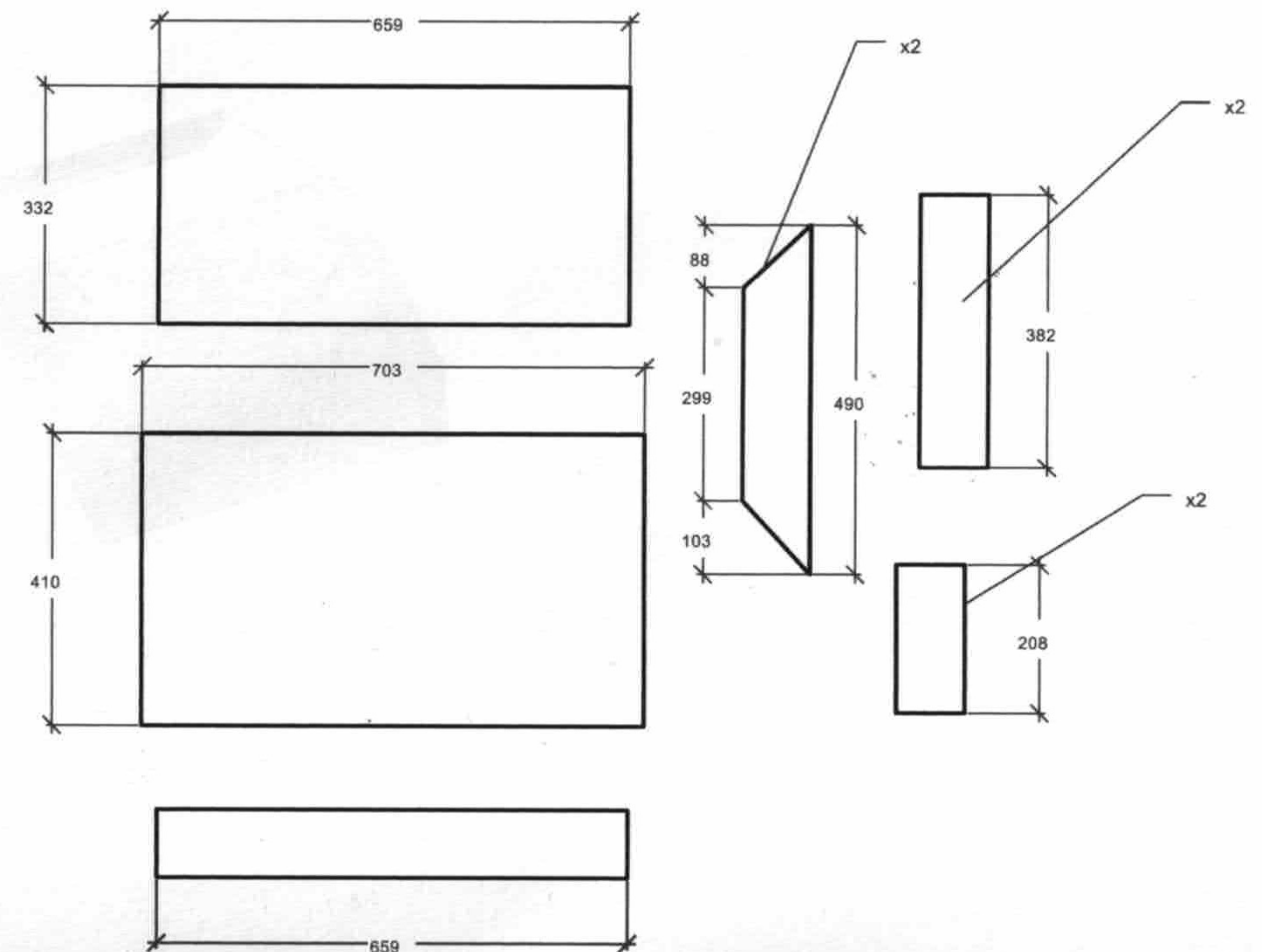
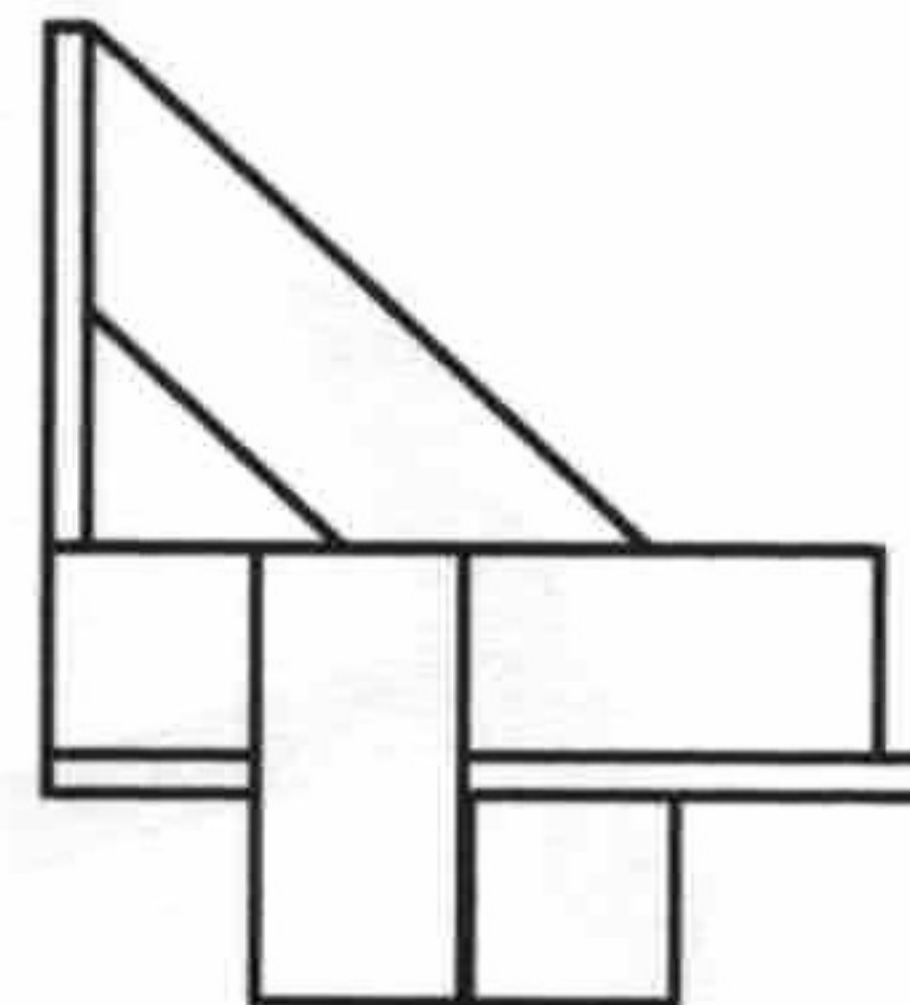
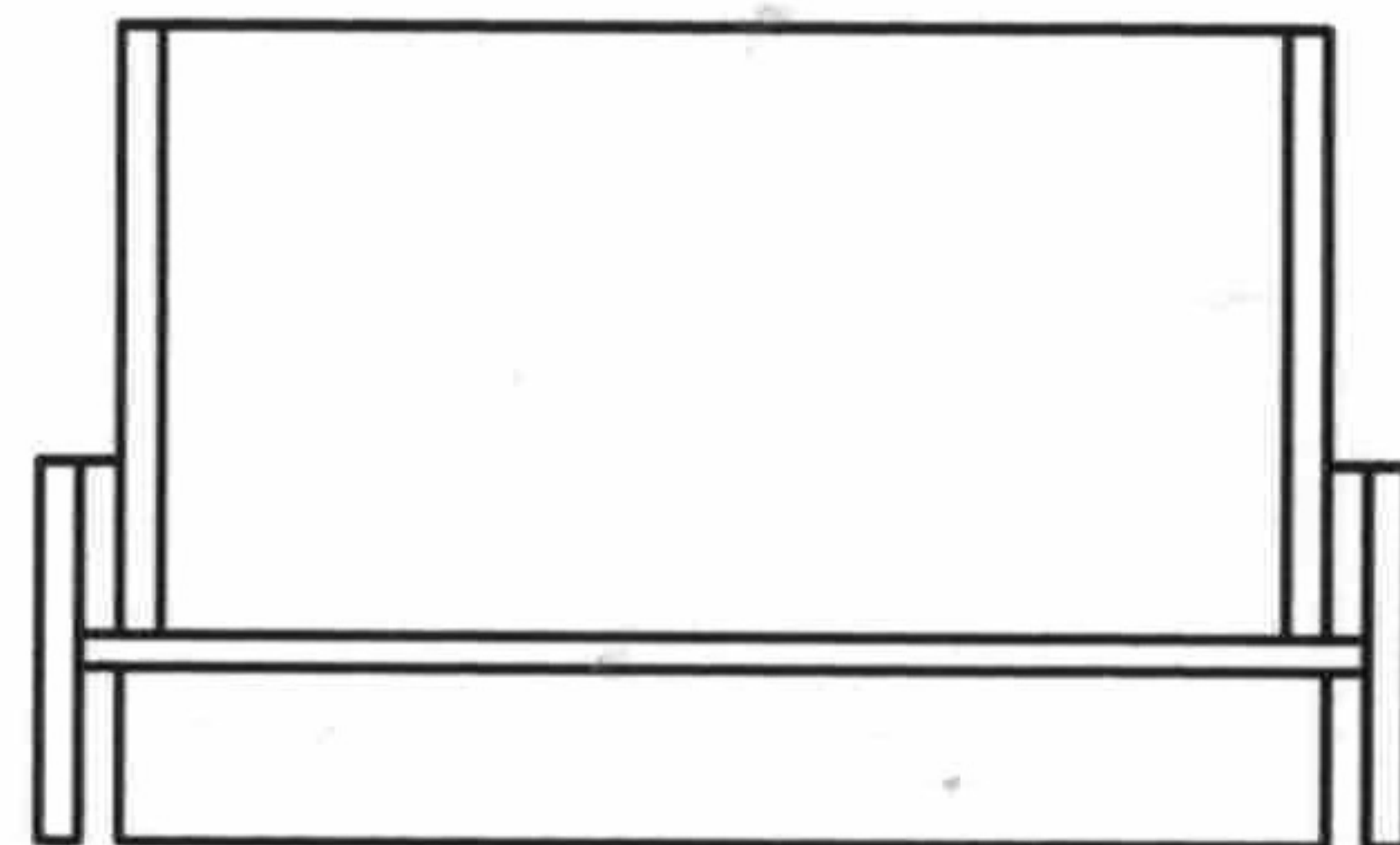
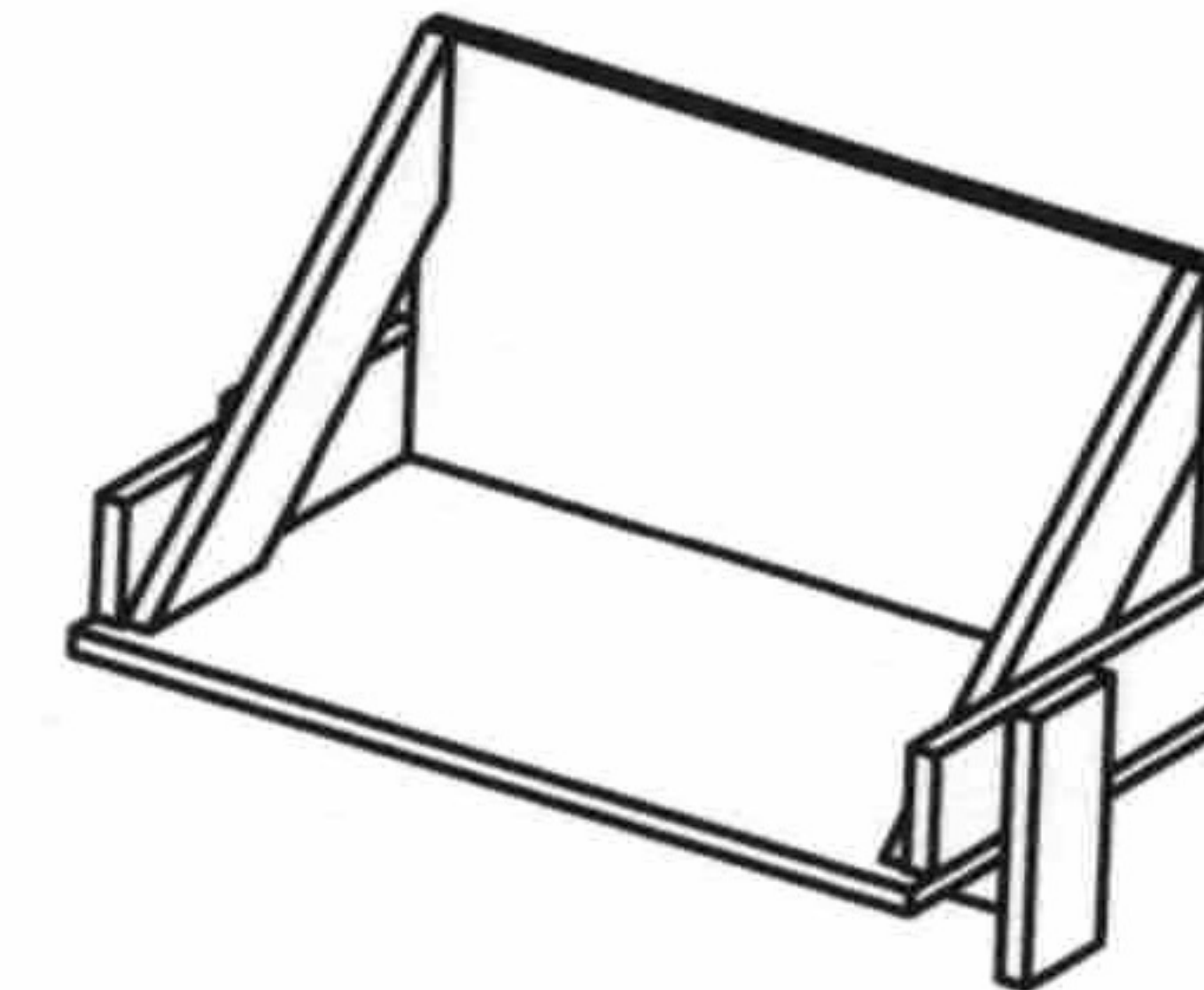
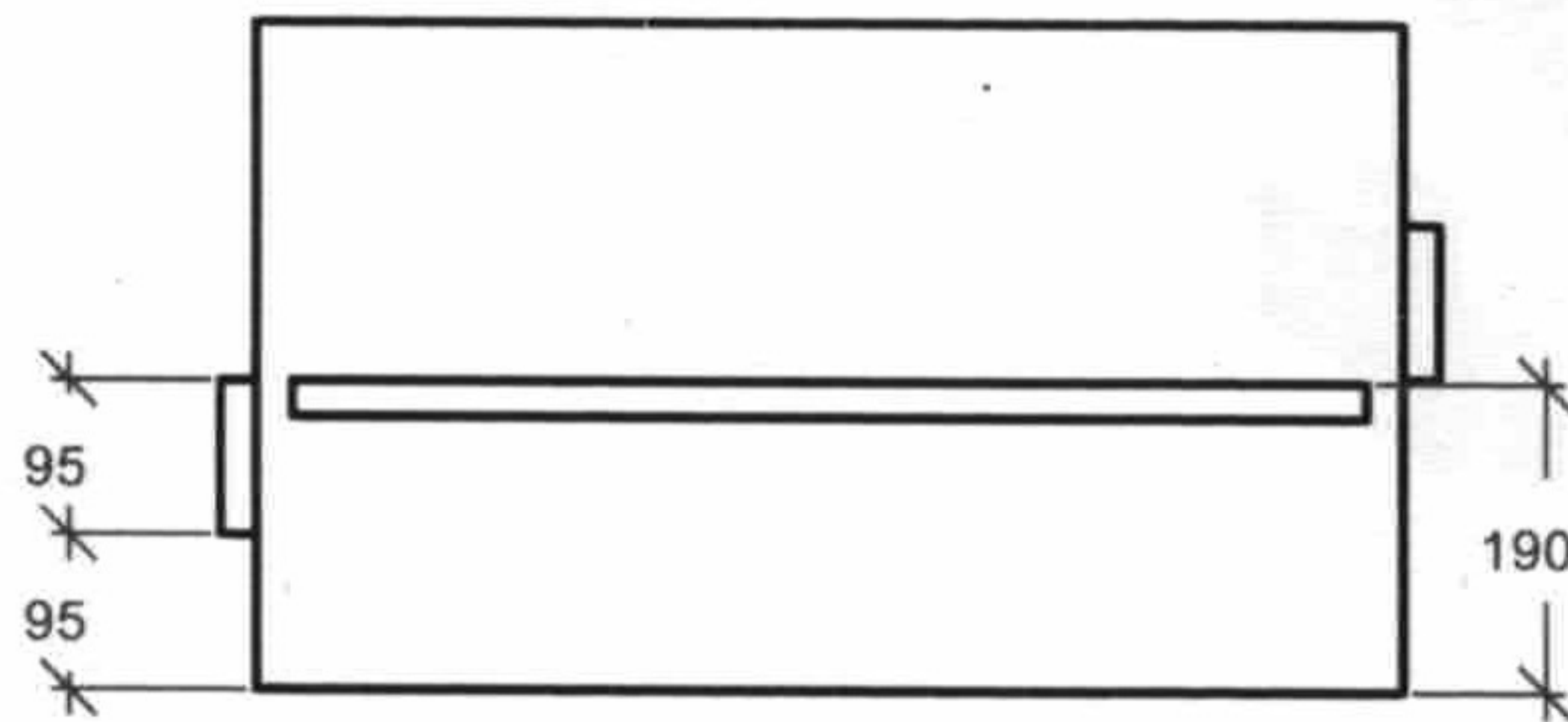
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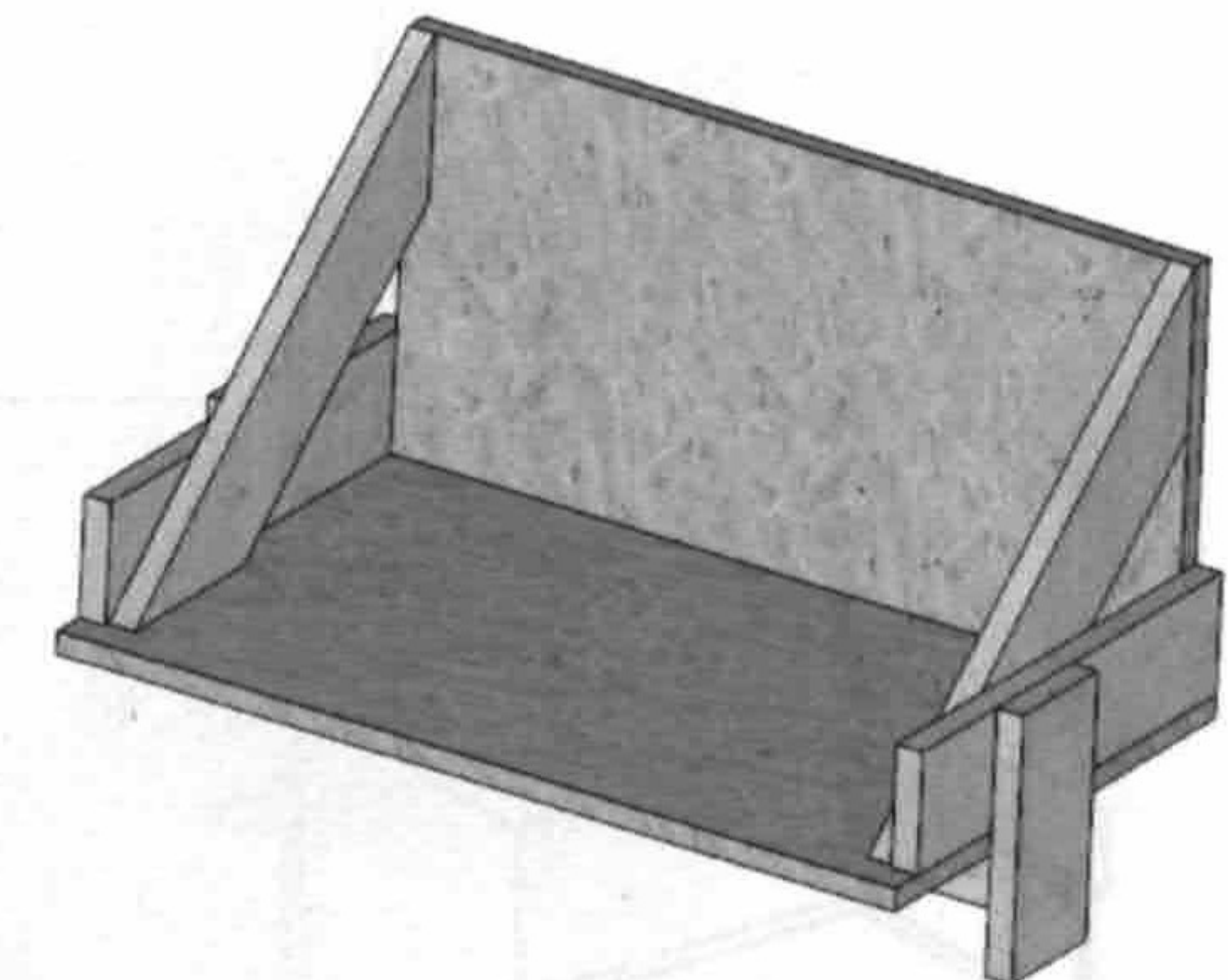
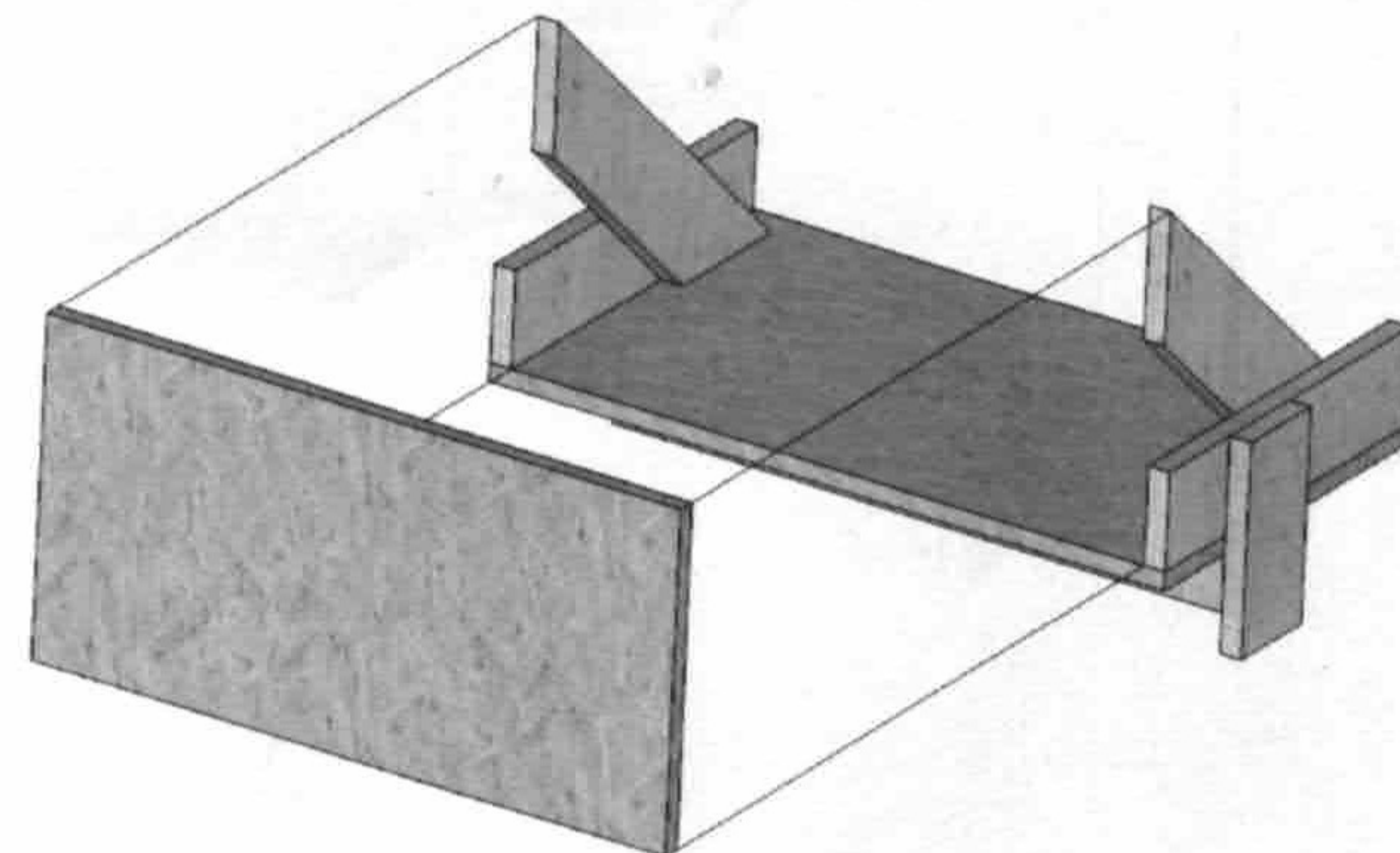
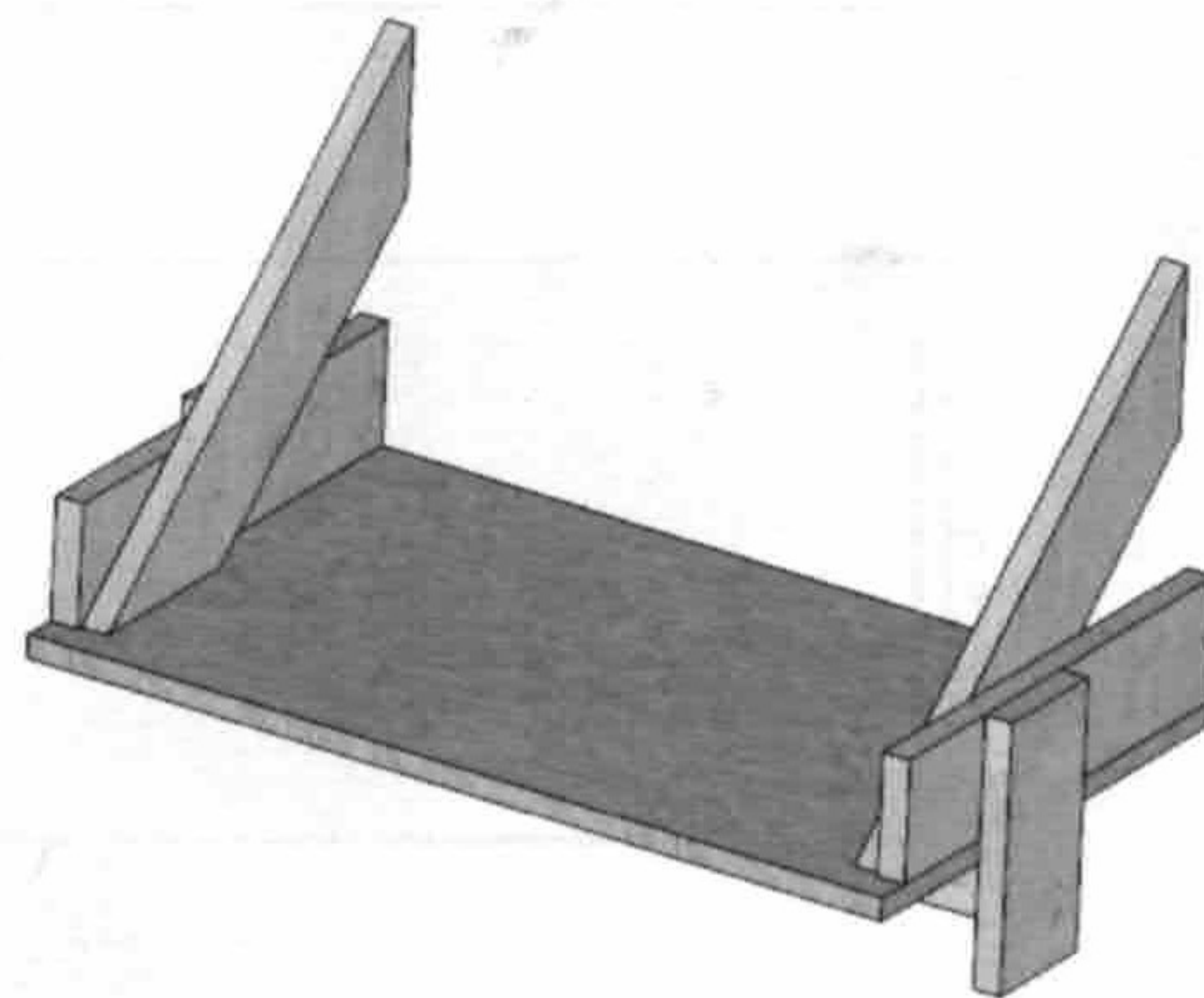
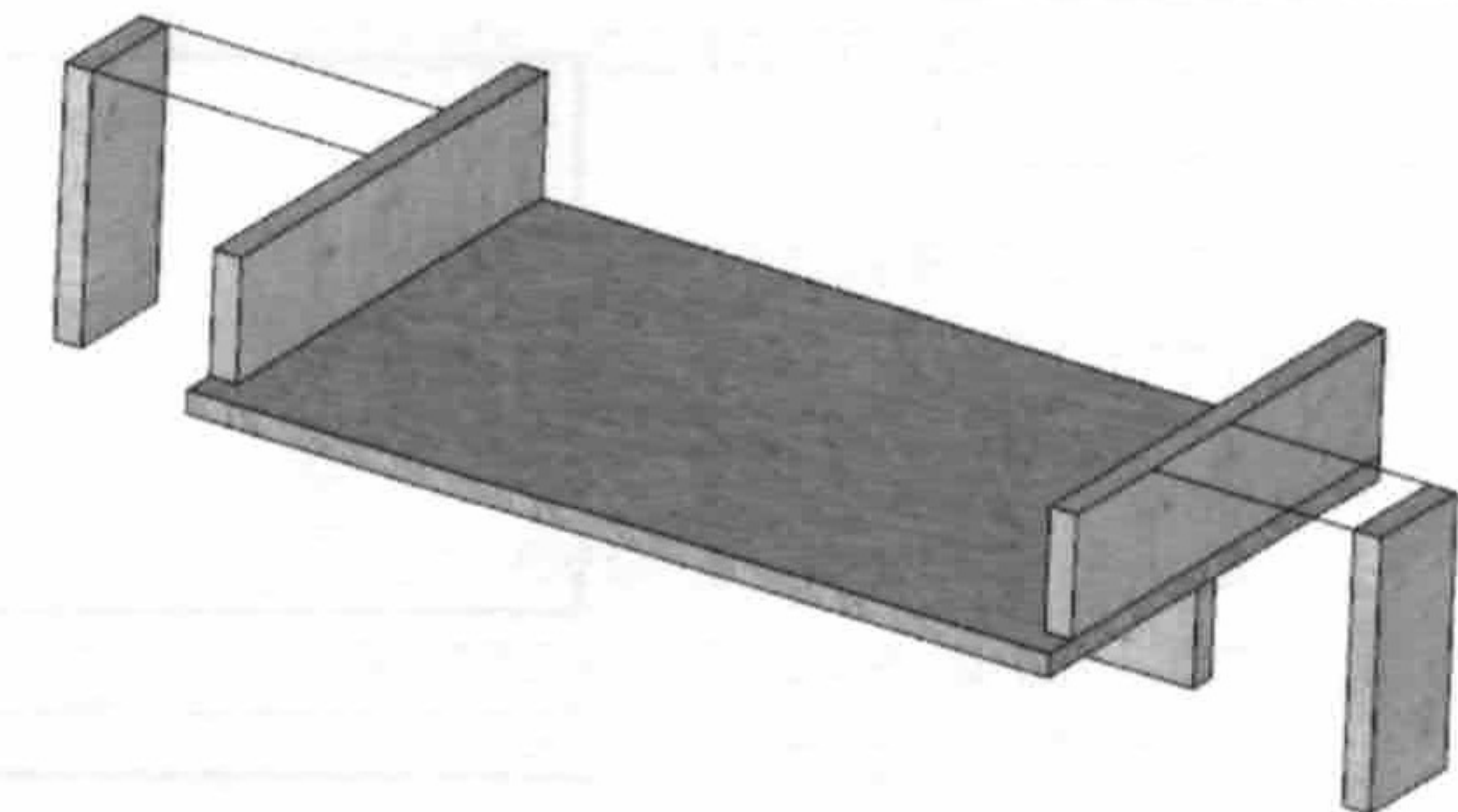
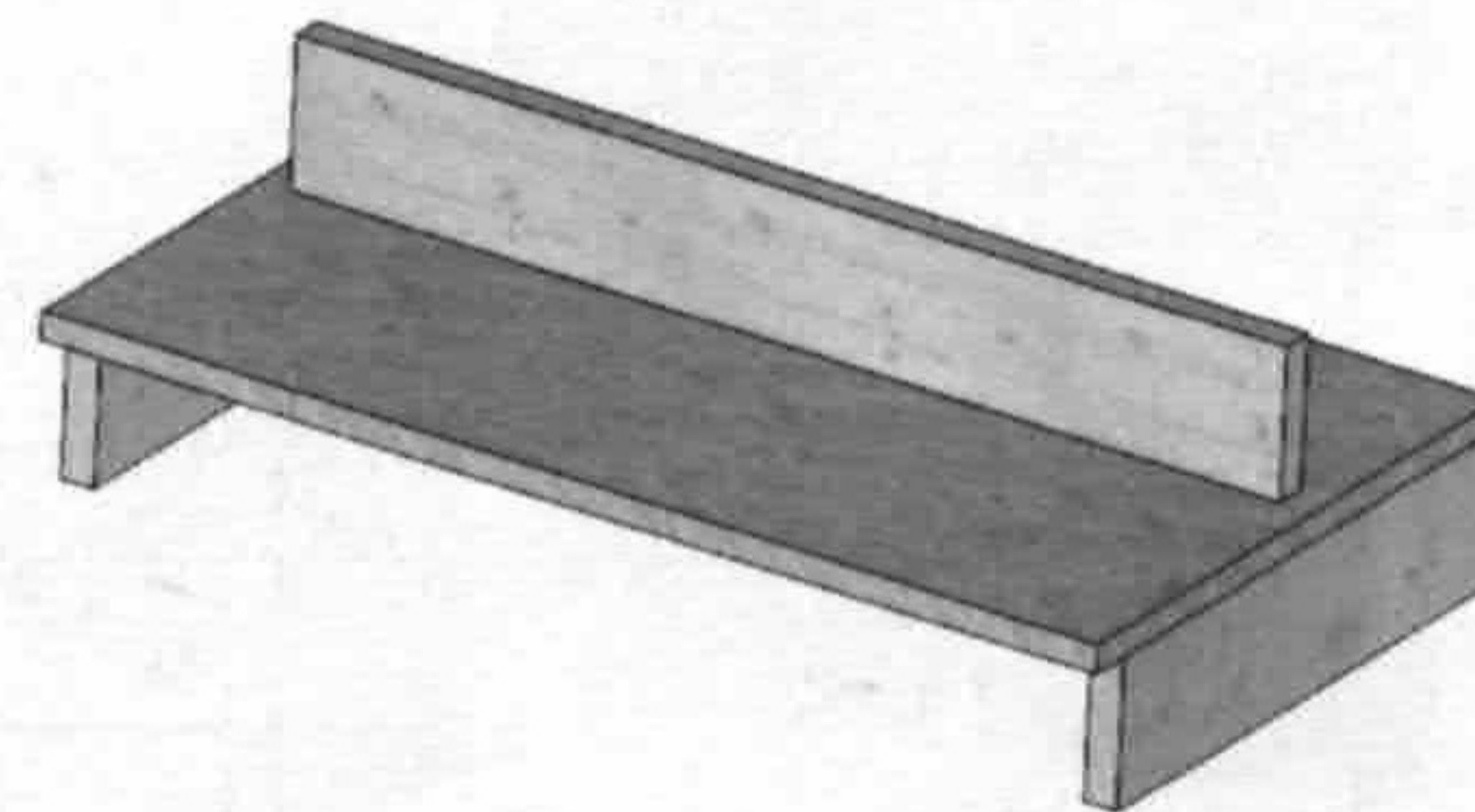
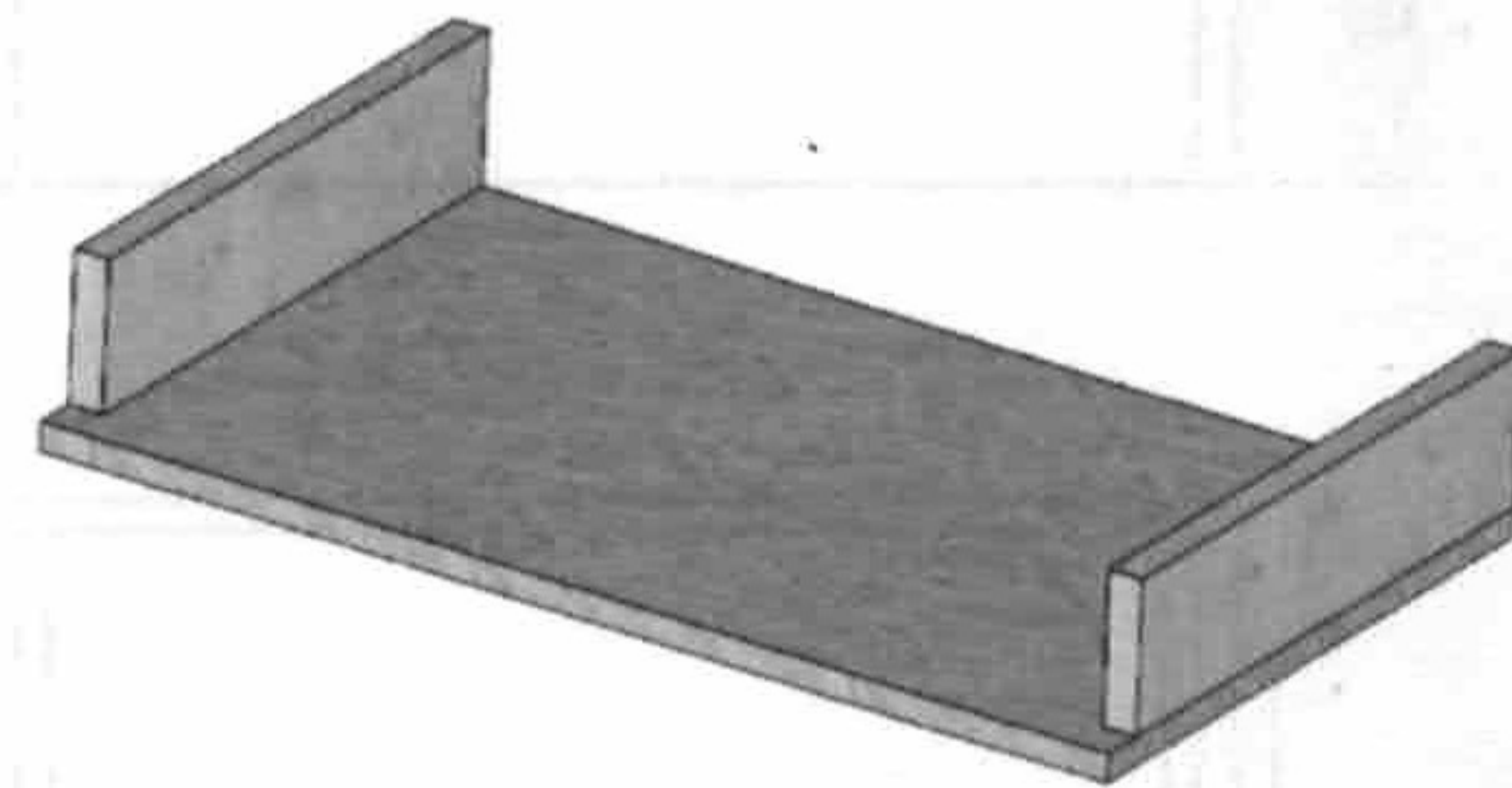


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Module 1

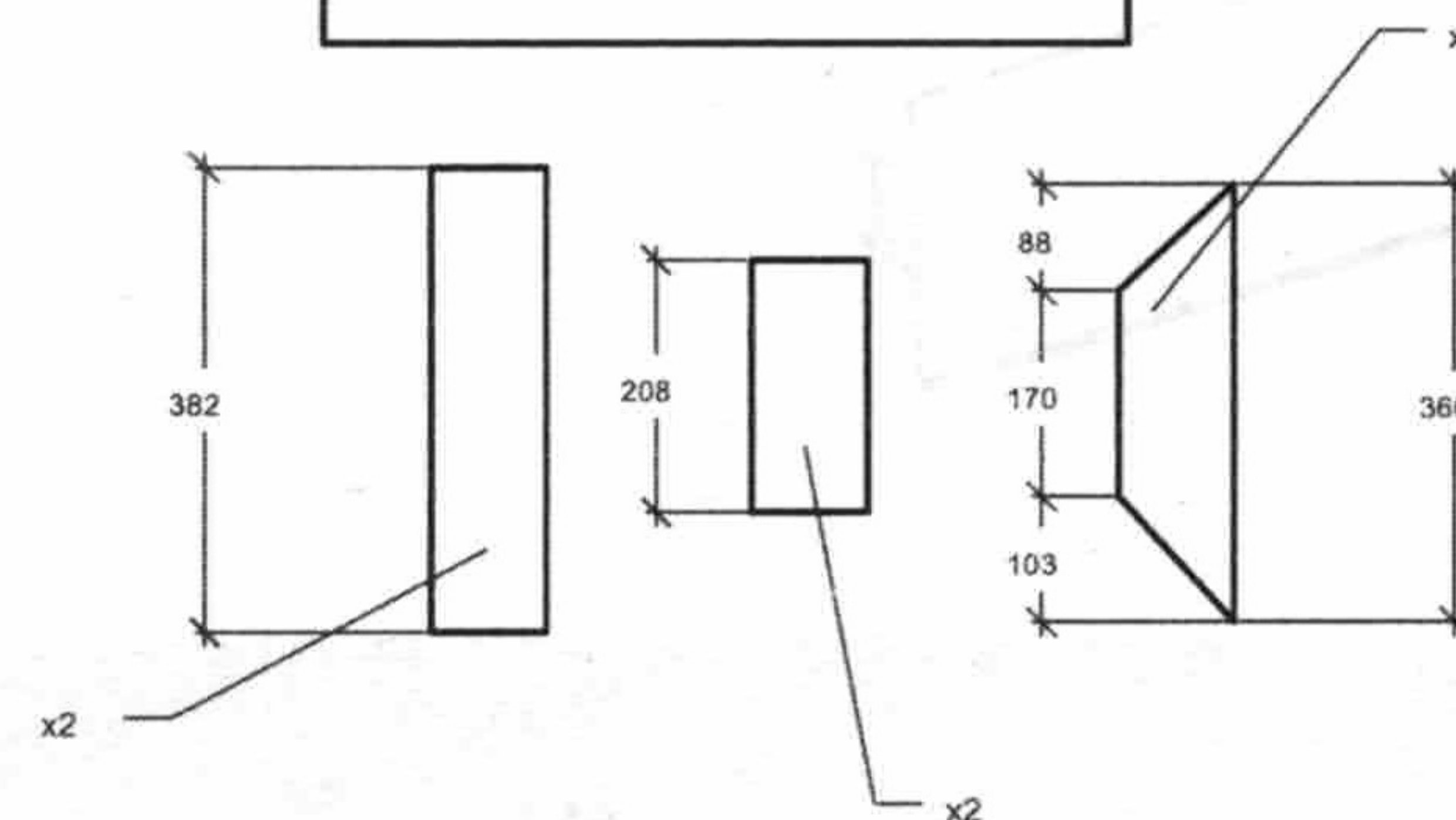
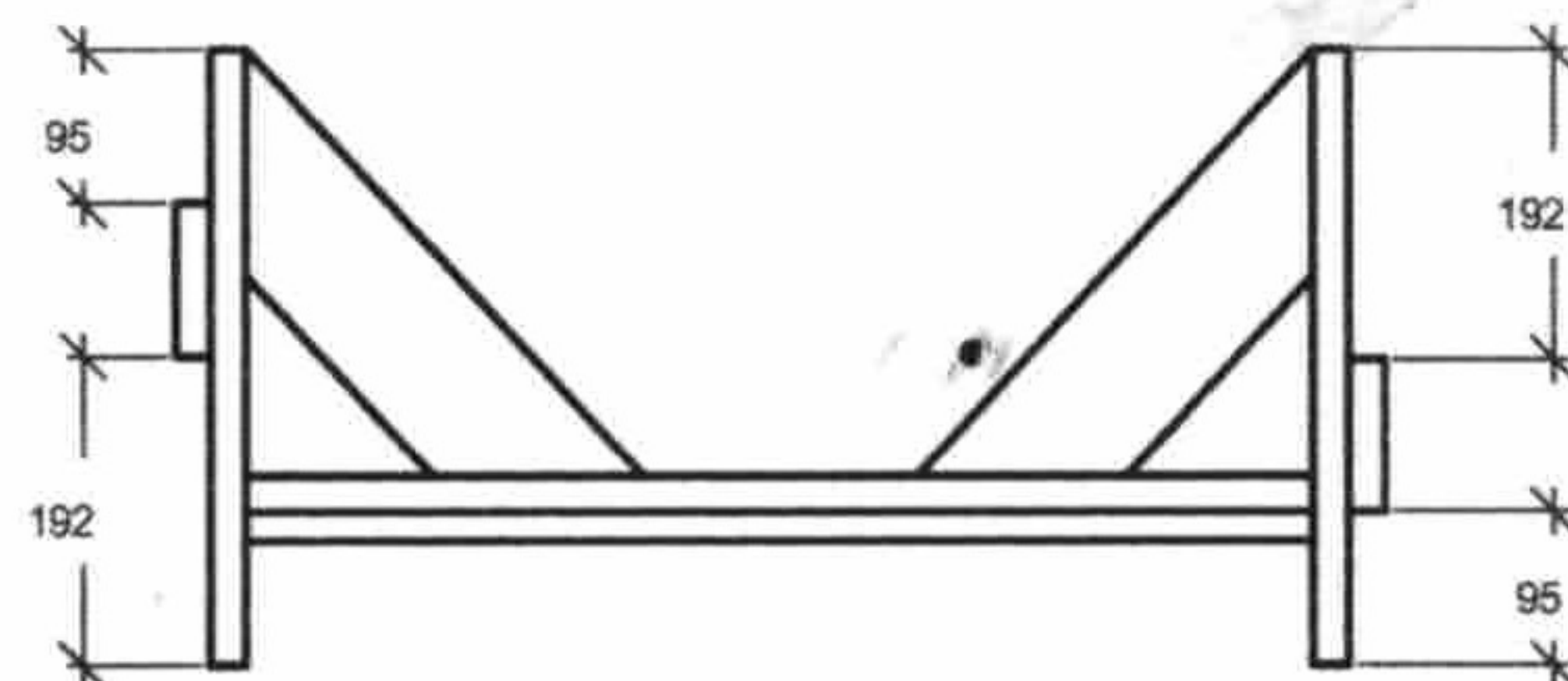
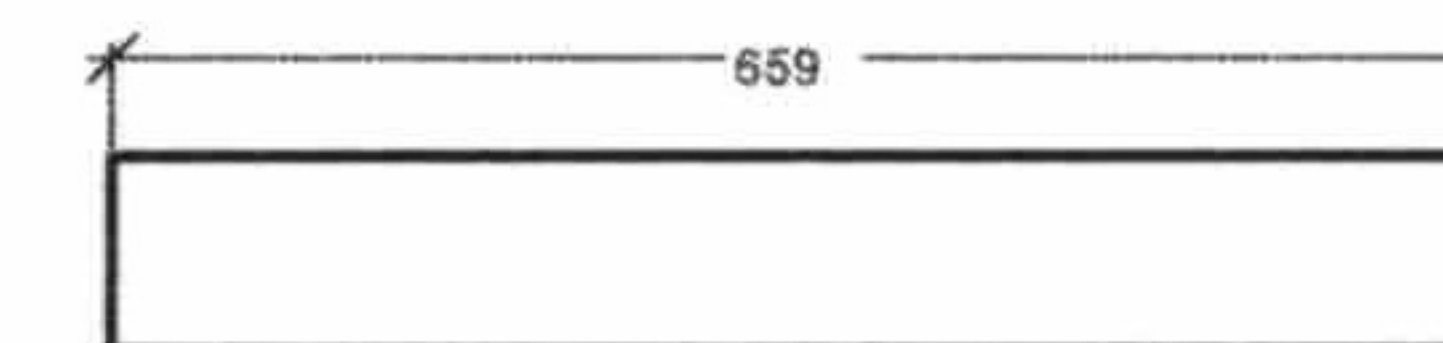
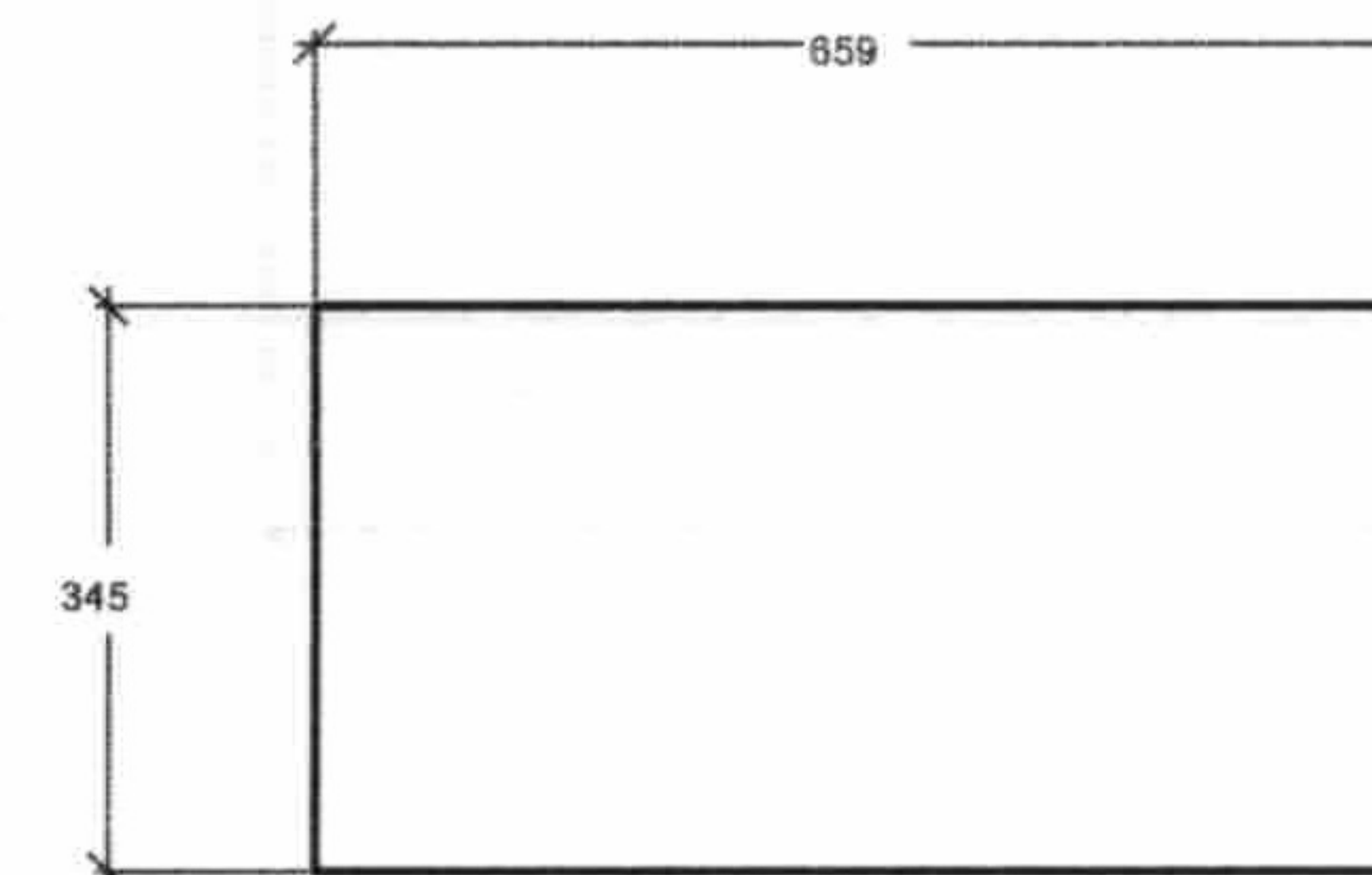
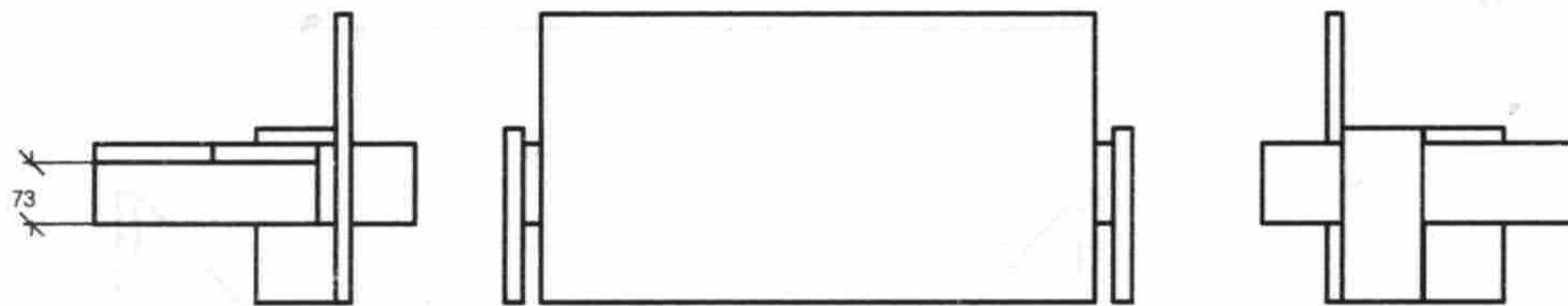
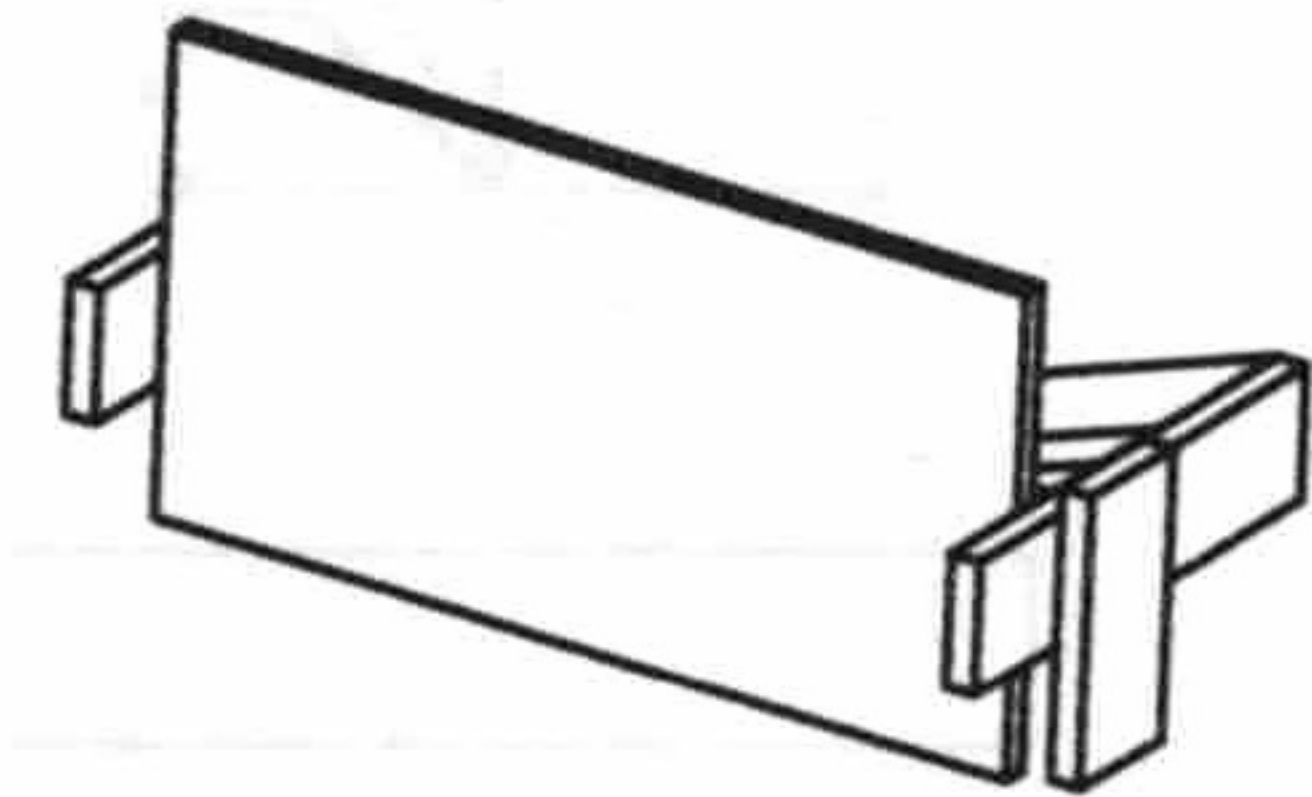
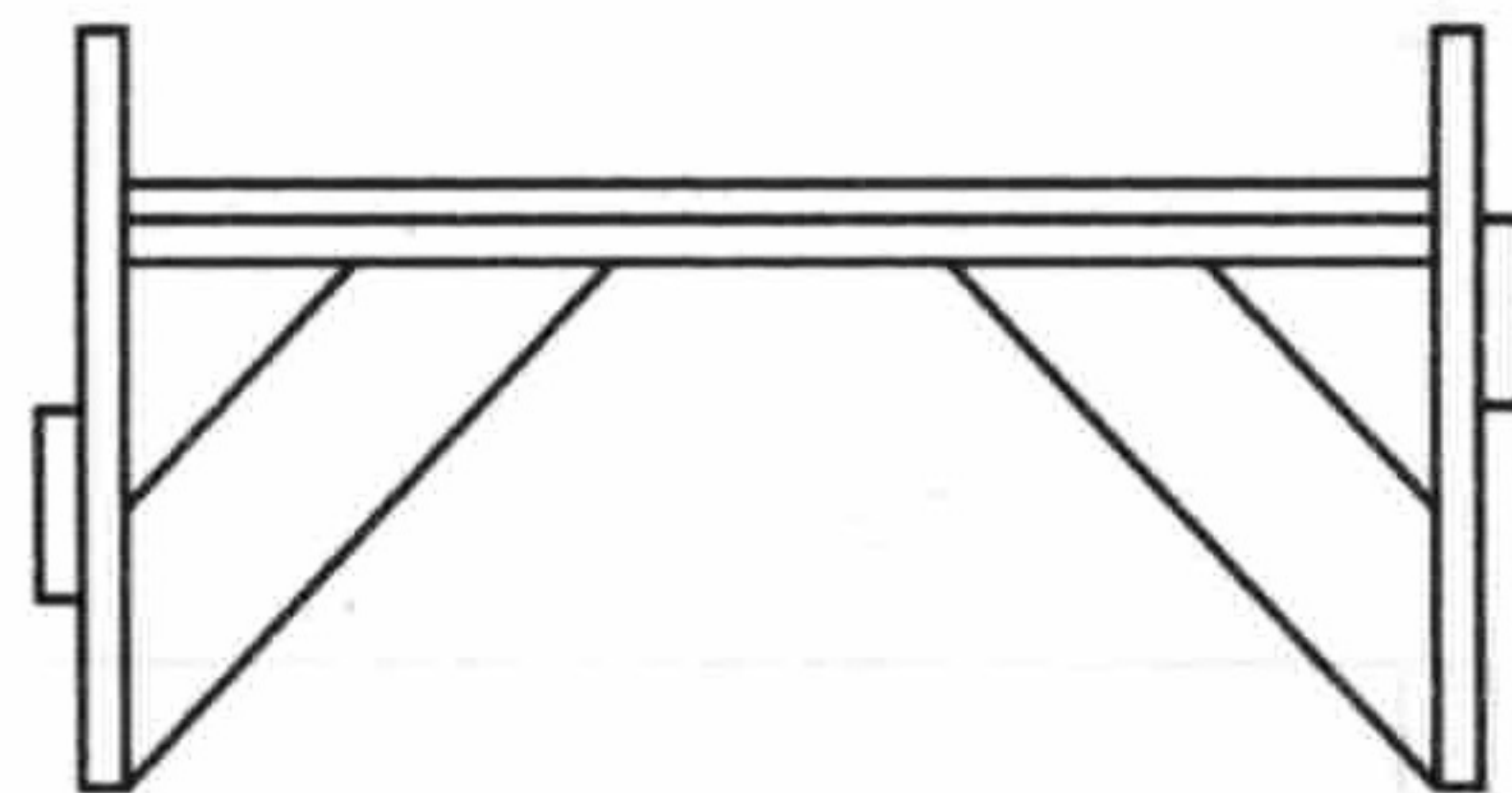




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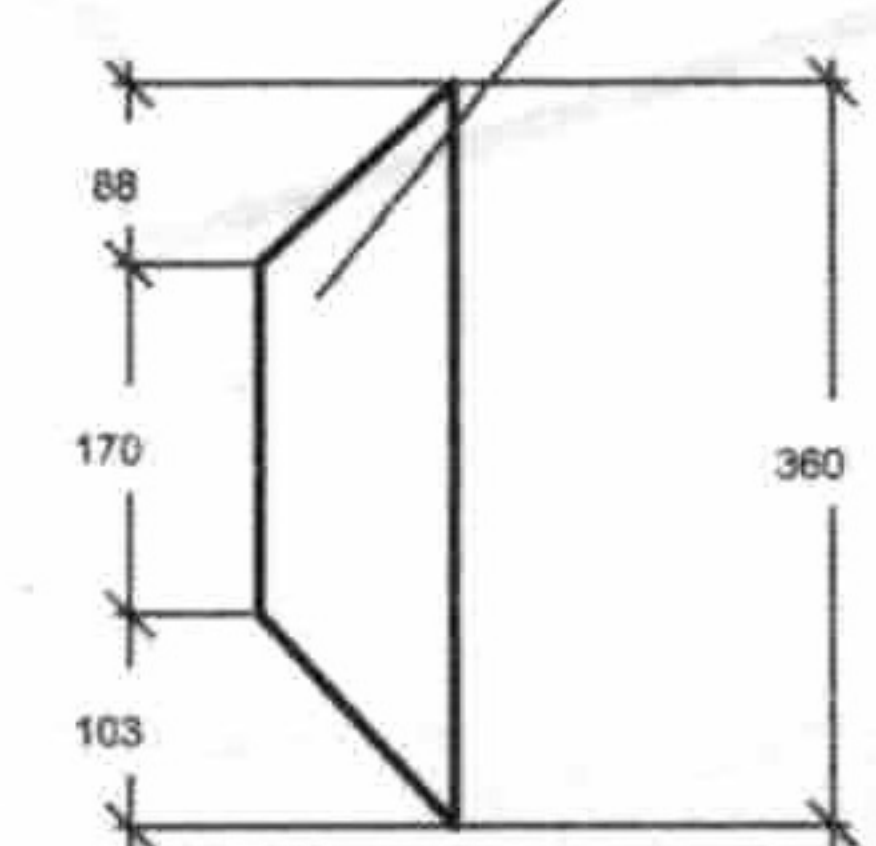
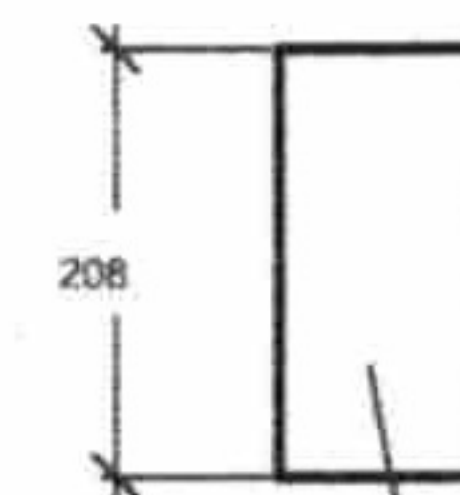
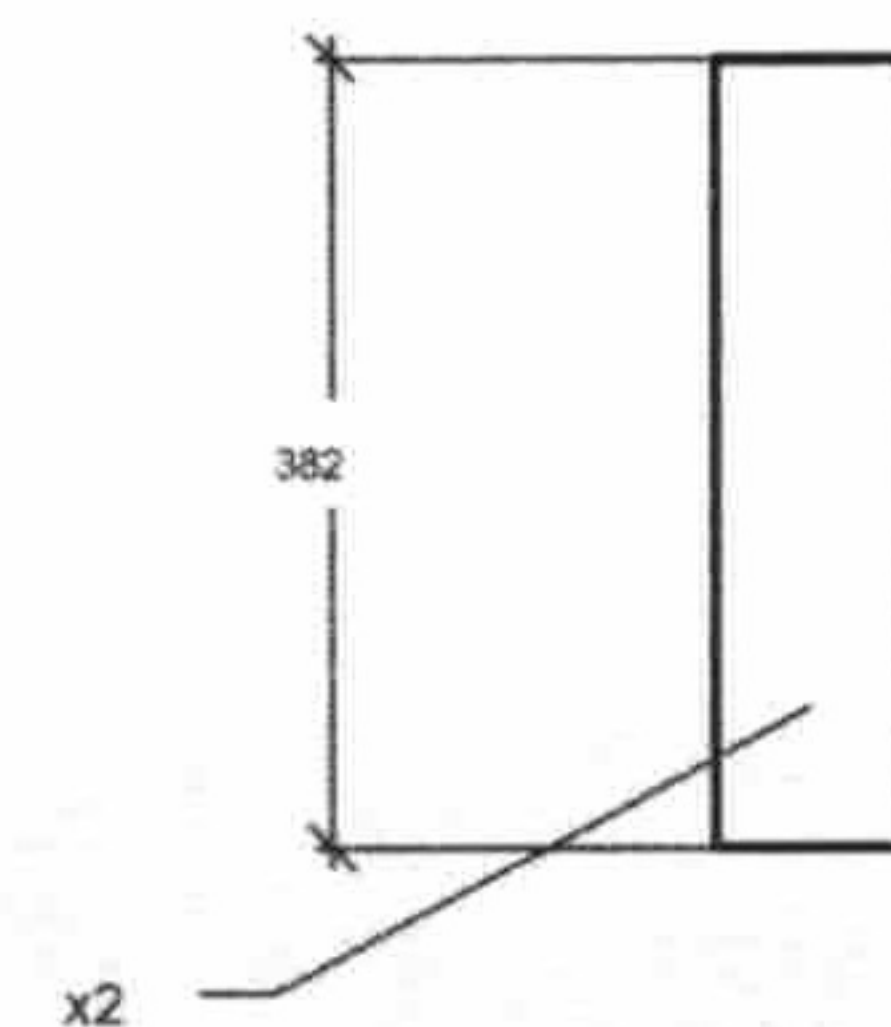
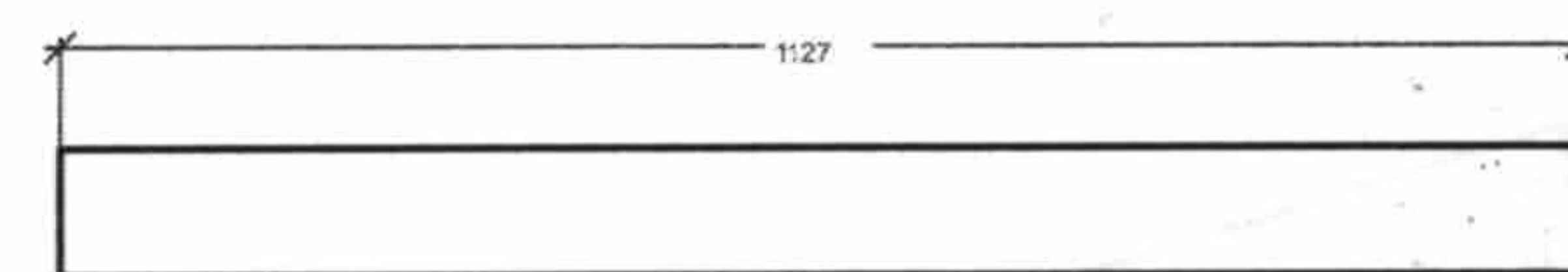
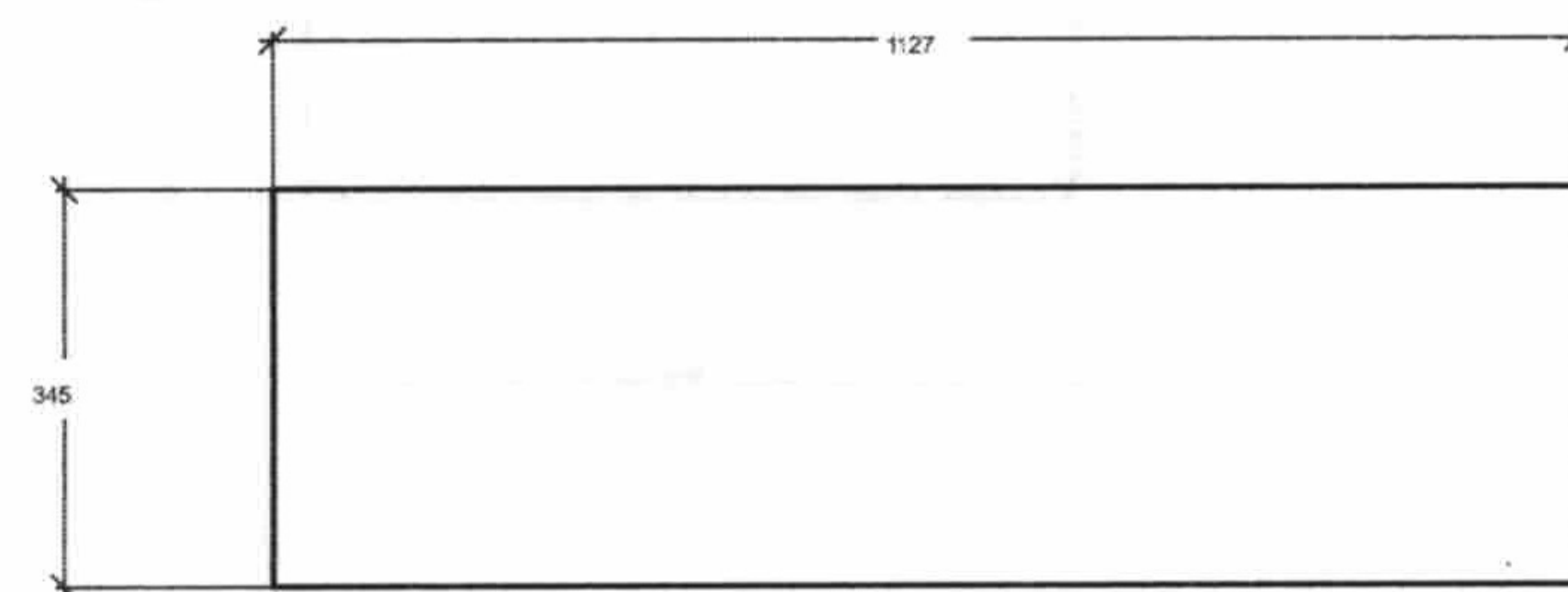
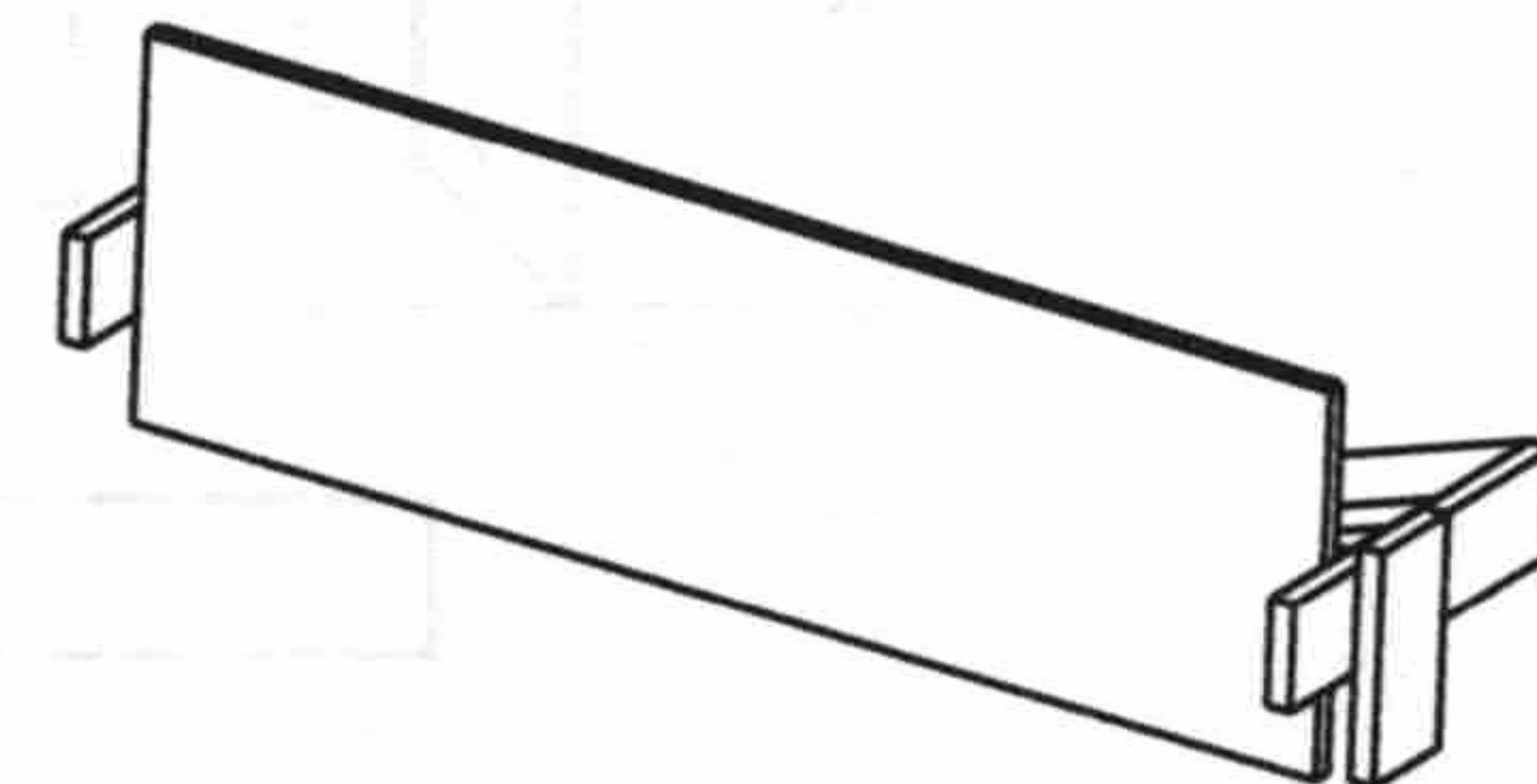
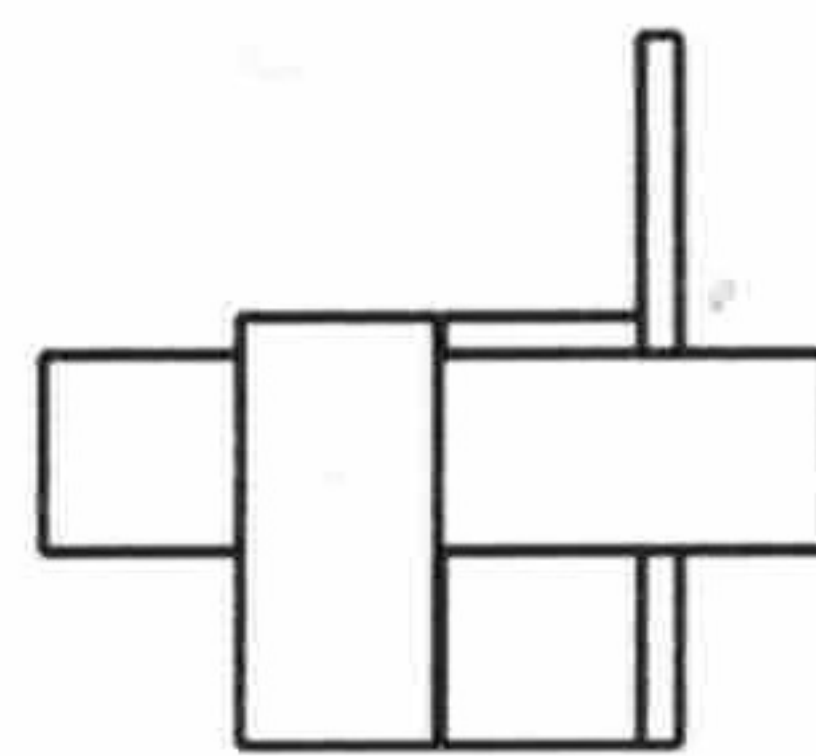
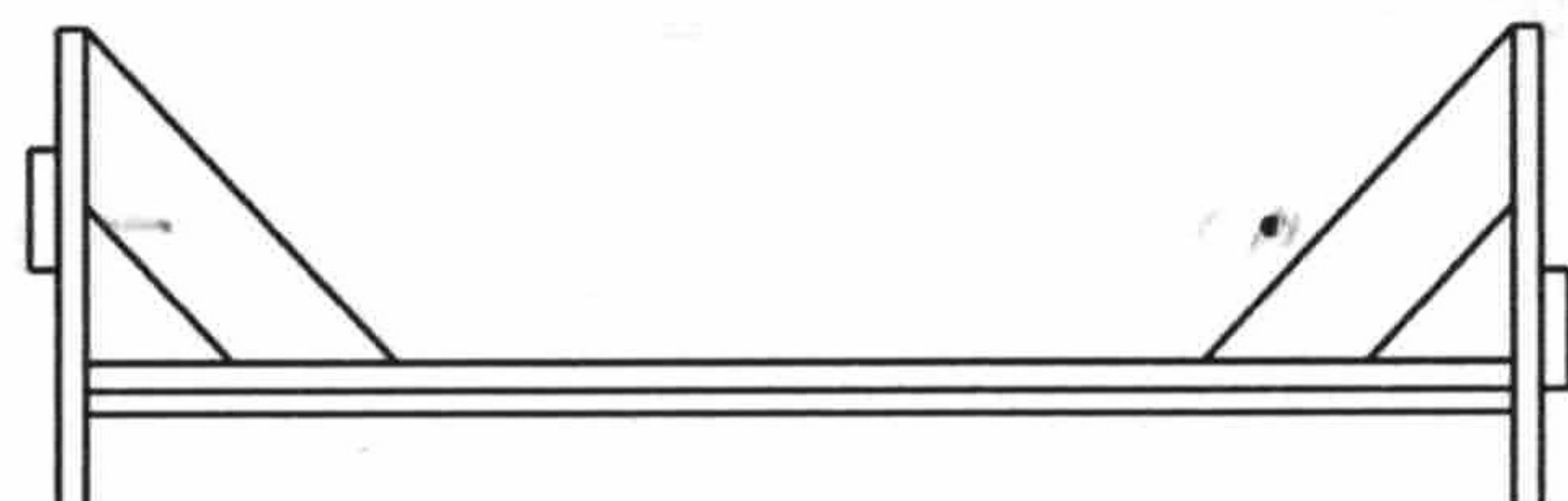
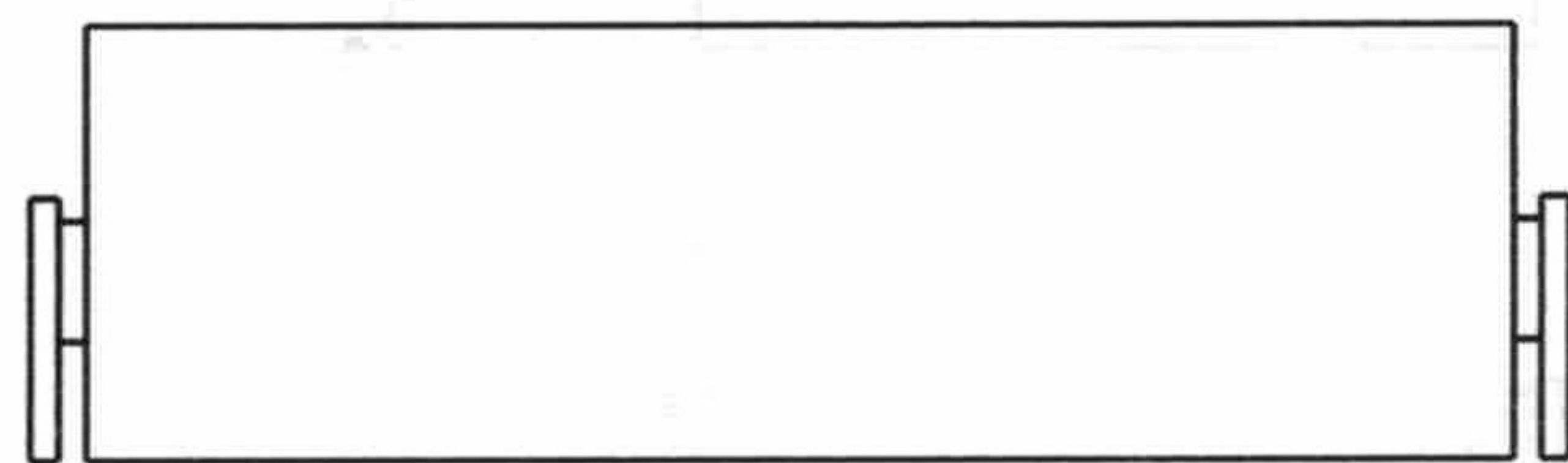
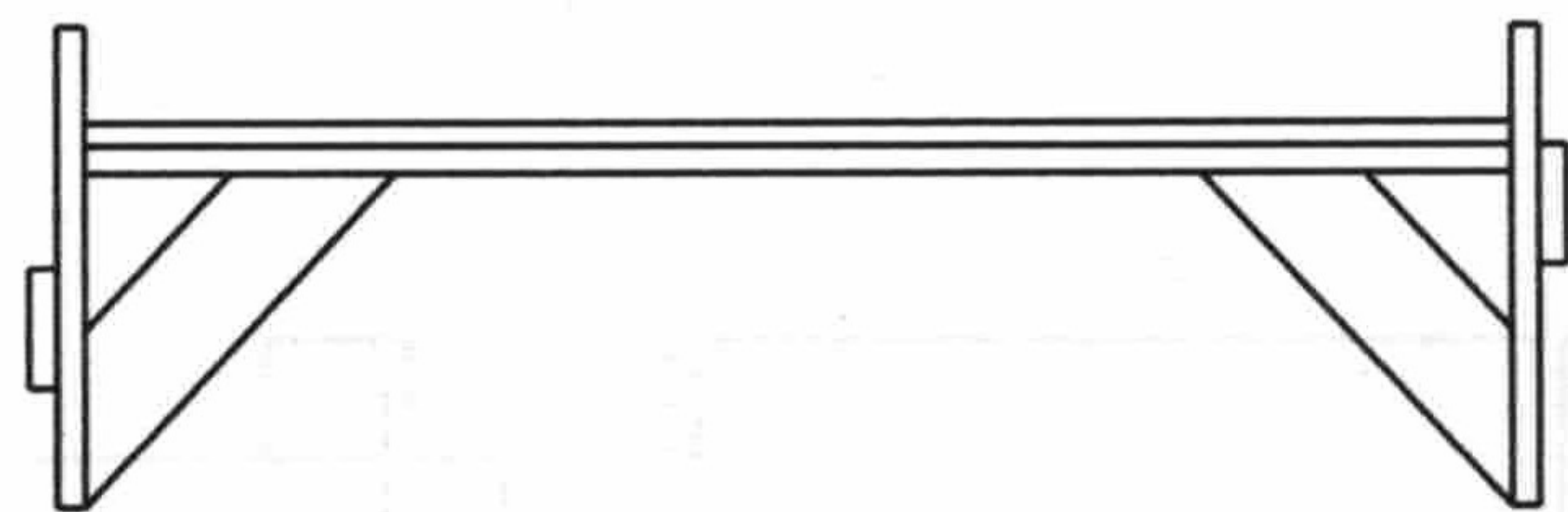
Module 5



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Module 5a



x2

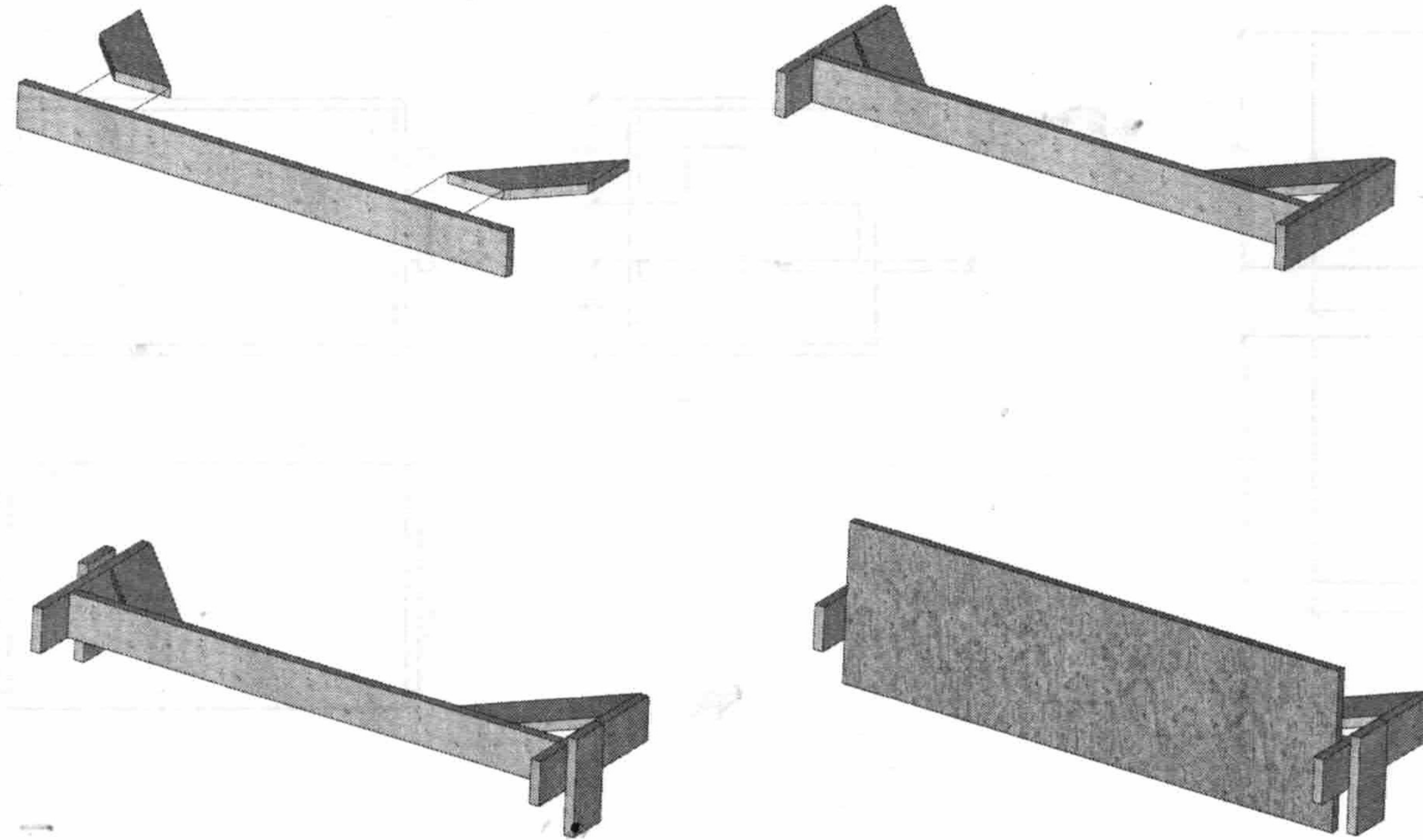
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x2

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Module 5a - Montage  
Assembly



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Module 6

