

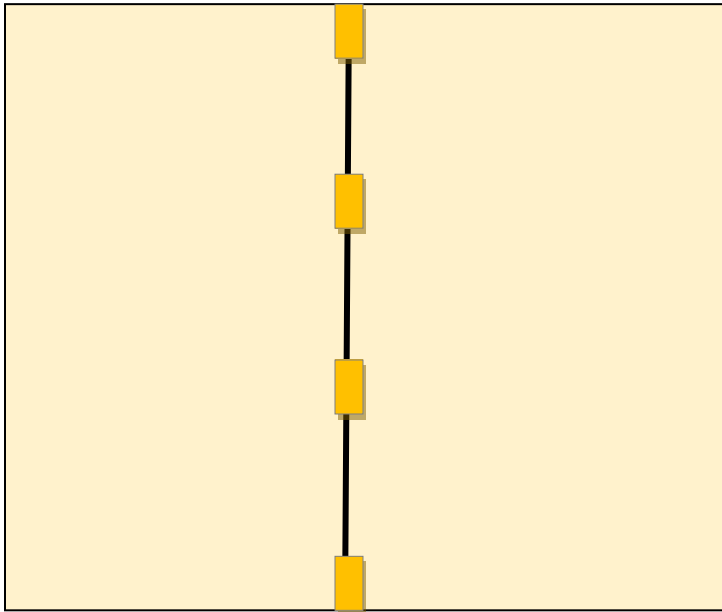
SECURING FLATS

Joining and securing flats

Flats need to be joined and supported to create the illusion of walls. This is done in several ways.

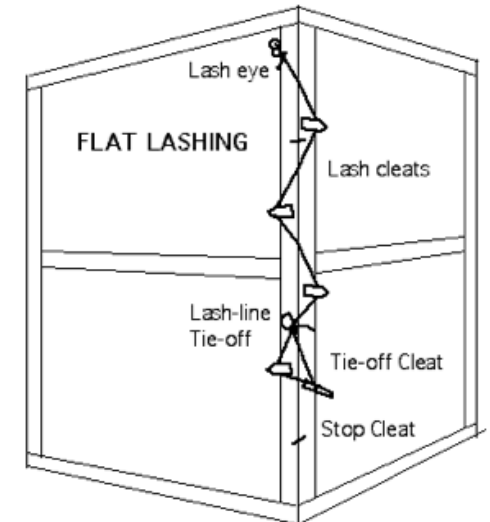
Fixed with plates - generally flats are fixed in straight and right angles.

On the front or face of the flat, thin plates (usually metal or plastic) are screwed as depicted in the diagram below.



Tape (normally light-coloured gaffer tape) is placed over the plates and used to hide the seam. Muslin strips and glue can also be used. This is then covered with paint or a covering.

Fixed by lashing - not commonly used today, lashing flats were common for multiple box sets that required different assembly strategies. This allowed sets to be quickly put up and taken down, yet still be secure in use.



Fixed by hinges - commonly used today to replace lashing flats. There are several different types of hinges, but most used are loose pin hinges. This allows flats to be separated if needed, or for storage.

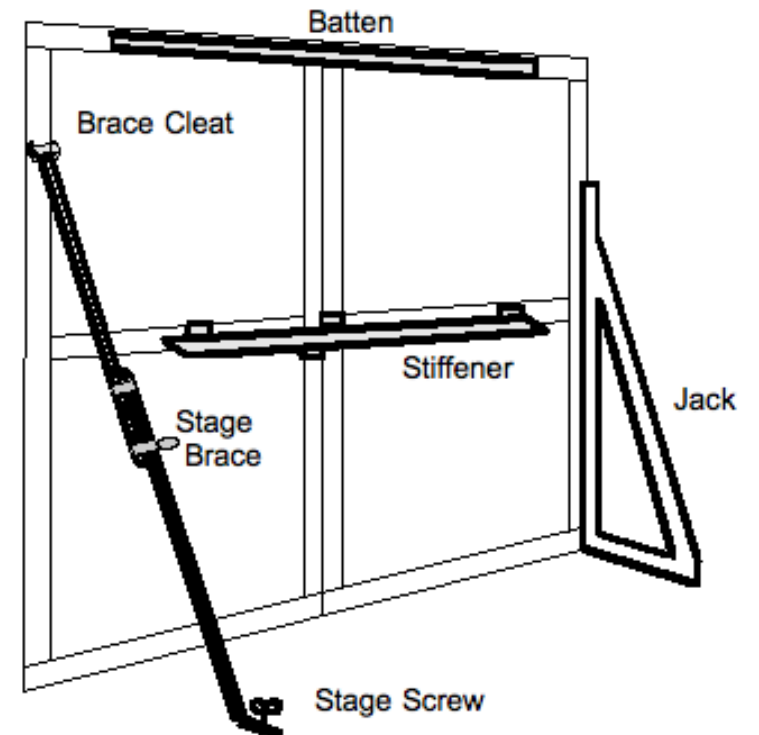


Stiffening flats

Where flats are joined together, they will need to be stiffened to ensure there is no movement between the flats. A set using flats, could have doors opening and closing, and the odd bump which could cause the set to move, or even fall over. The first stage of ensuring this does occur and flat movement is minimised is to stiffen the set.

The most common method of stiffening is attaching two or three **stiffeners** usually light gauge steel angle across the two flats being joined.

They are securely screwed to each of the joined flats.



Bracing and supporting flats

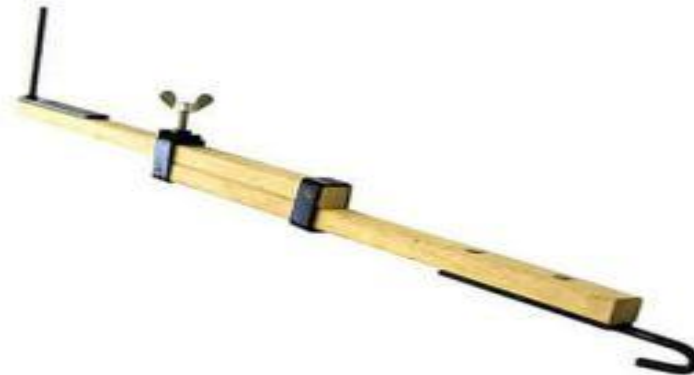
Flats also need to be braced and supported to reduce their movement on stage. This is generally done in one of two ways.

Stage brace - the stage brace is an adjustable brace with a hook on one end and a foot iron on the other, used to brace flats. This is the 'classic' method of supporting flats. It is very fast and when not in use, the brace closes for easy storage.

It hooks into a brace cleat on the flat and can be screwed into the stage floor or attached to a stage weight.



Stage-weight



Stage brace

Stage jack - the **stage jack** is a triangular brace attached to a flat used for rigid support.

These are not quite as quick as the stage braces but are much more rigid. The jacks are often attached to flats with hinges, allowing them to fold into the flat for storage. The jacks can be attached to the stage floor by screwing into the stage floor using brackets or placing a stage weight along the outer side of the jack.

Jacks are made in a similar way to the flat frameworks.

