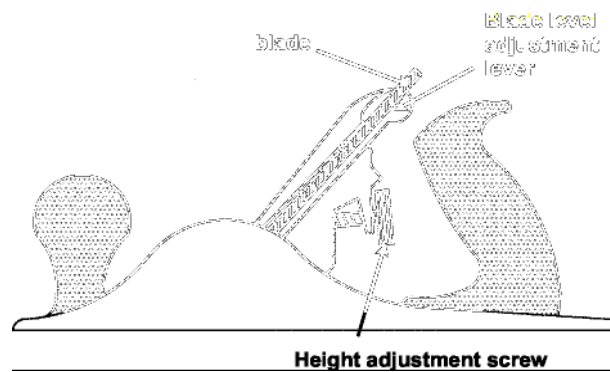


# Design & Manufacture

## Homework 14

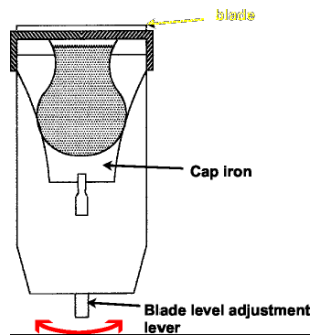
Planes are used for removing waste wood and smoothing the surface before applying a finish. A correctly planed surface is smoother than can be obtained by using glass paper. There are many different planes designed to cope with different situations. The most common planes are the 'Jack Plane' and 'Smoothing Plane'. They look alike but the smoothing plane is smaller.

The Jack Plane and Smoothing Plane

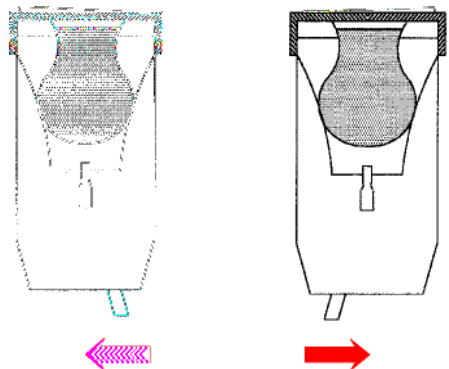


### Checking and adjusting the plane

The plane should be checked each time that it is taken from the store. The blade cutting edge should be parallel to the base of the plane and be showing no more than 0.5mm. Shavings should be tissue thin for a smooth finish.



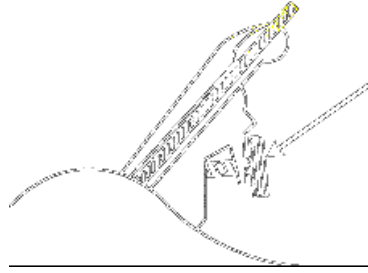
If the blade is not parallel to the base and one corner is further out than the other is, it can be adjusted by moving the level adjustment lever to correct it.



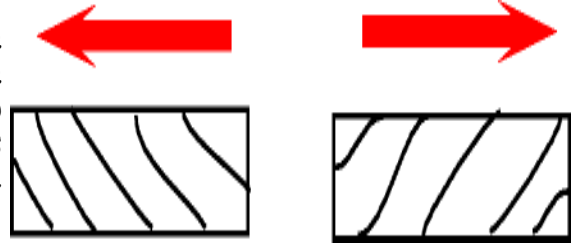
Direction of movement to make the blade level

If the blade is not showing or it is out too far then the height adjustment screw needs to be turned. It is turned clockwise to make the blade move out and anticlockwise to make the blade move in.

Height adjustment screw



If the wood is not planed in the correct direction the surface will end up very rough. To check the direction, the side of the piece of wood should be looked at, not the top surface being planed. Look at the direction the grain is approaching the top surface and then plane in the same direction.



## Questions

1. Name the two most common planes to found in a workshop?

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2. Why does a plane need to be checked when it taken from store to be used?

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3. Which adjusting device would you use if the blade was out too far?

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4. Which adjusting device would you use if the blade was not parallel to the base?

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5. What is the recommended maximum amount of the blade that should be showing?

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