# STANLEY® HOW TO...

An easy to follow guide to help you get the best from Stanley Tools.

# How can we help you?

## *The full range of How to... sheets from* STANLEY

**No. 1 How to choose a quality Hammer**
**No. 2 How to choose the right type Hammer**
**No. 3 How to use Nails**
**No. 4 How to take care of your Hammer**
**No. 5 How to choose a Chisel**
**No. 6 How to sharpen a Chisel**
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**No. 8 How to screw two pieces of wood together**
**No. 9 How to choose a Hinge**
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**No.12 How to choose a Stanley Knife**
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**No.26 How to maintain your Plane blades**
**No.27 How to adjust your Plane correctly**
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**No.35 How to use a Hammer – Part 2**
**No.36 How to choose and use Plumbers Tools**

To send for further FREE copies of the Stanley How to... sheets, send a large envelope with sufficient stamps to cover postage together with the number of sheets you require to: –
Stanley Tools, Dept.66, Woodside, Sheffield S3 9PD

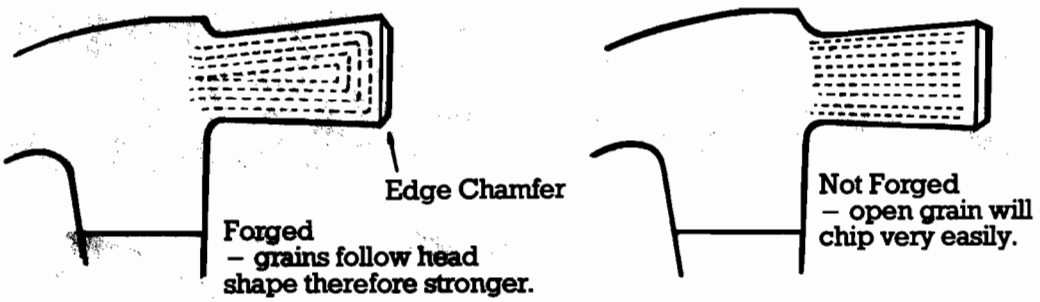
STANLEY

No.1

# HAMMERS

## 1 How to choose a quality hammer

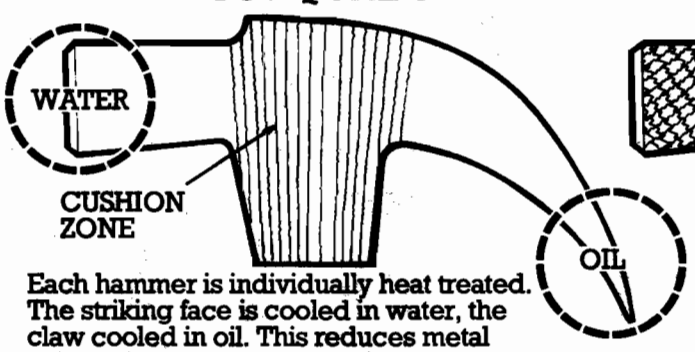
### ALL STANLEY HAMMERS ARE FORGED




Always choose a forged head, they are stronger and safer -all Stanley hammers have forged heads.

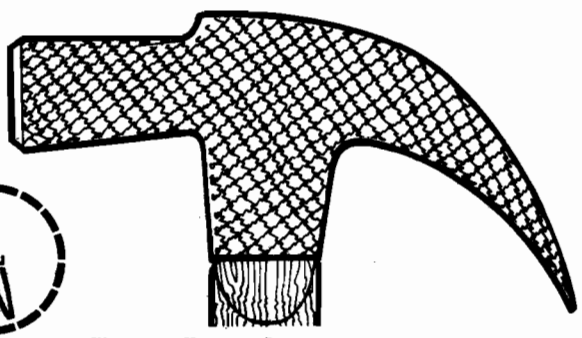
### HEAT TREATED

TOP QUALITY




Each hammer is individually heat treated. The striking face is cooled in water, the claw cooled in oil. This reduces metal fatique, increases safety and lasts longer.

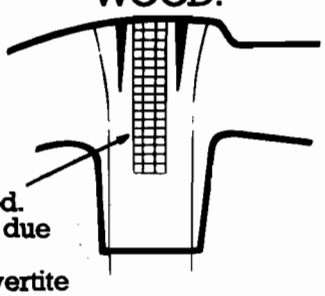
HANDYMAN



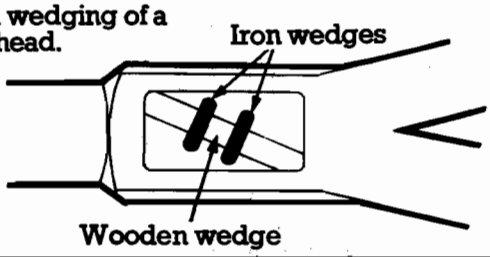
Single all over heat treatment.

### SECURE HANDLE/HEAD FIT

WOOD:



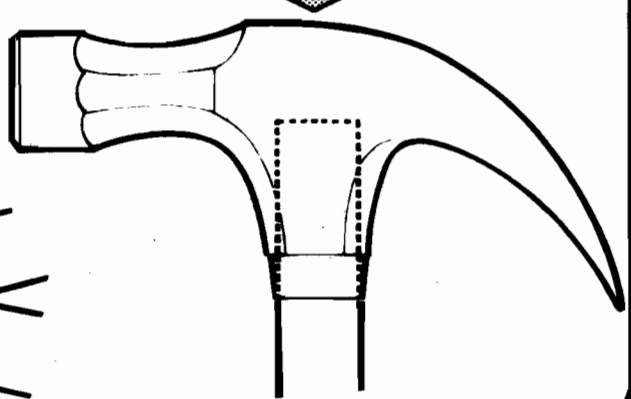
Eye full of wood.
No loose head due to oiled shaft –
The Stanley Evertite process.
The ideal wedging of a hammer head.




METAL:

A pressure of 5 tons is required to push the head on to the tubular shaft.

**5 TONS**



MANY FEATURES YOU CANNOT SEE,
BUT THEY ARE ALL IN A STANLEY HAMMER

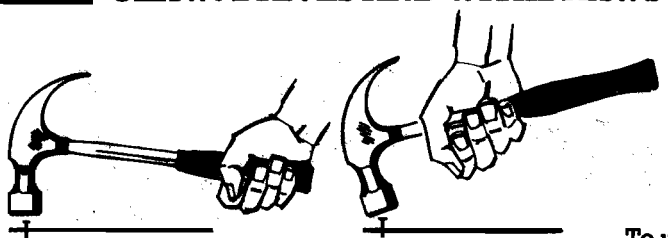
STANLEY

No.2

# HAMMERS

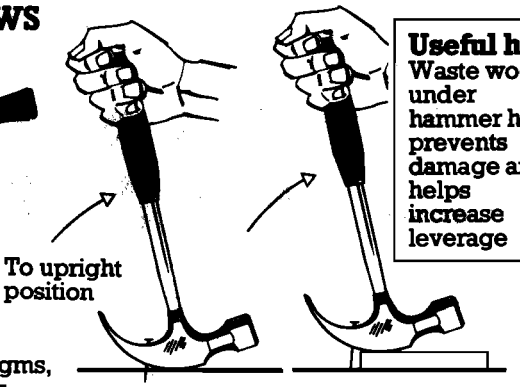
## 2 How to choose the right type Hammer

### CLAW: DRIVES AND WITHDRAWS



FAIR BLOW – Nail struck squarely. Hand at bottom of shaft.

FOUL BLOW



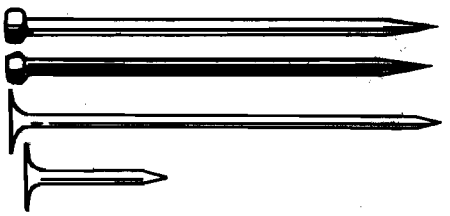
To upright position

Pack and pull to upright position

**Useful hint**
Waste wood under hammer head prevents damage and helps increase leverage

Available: 13 ozs/365 gms, 16 ozs/450 gms, 20 ozs/570 gms, 24 ozs/680 gms. Select weight most convenient to work with. The heavier the hammer the less blows it takes to drive the nail. The bigger the nail the heavier the hammer should be.
Most popular weight is 16 ozs/450 gms. But for women and young people the 13 ozs/365 gms is suitable for most simple work around the home.

### COMMON TYPES OF NAILS



ROUND head – heavy construction work

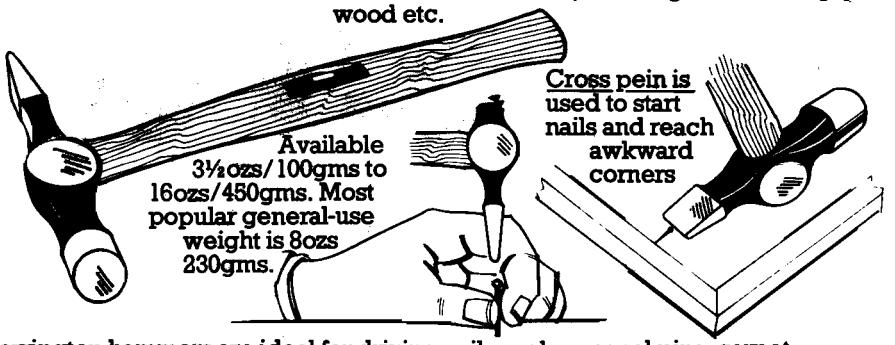
OVAL – gives neat finish, particularly if punched below the surface.

FRENCH WIRE – where appearance is not important

CLOUT – for fixing roofing felt

### WARRINGTON

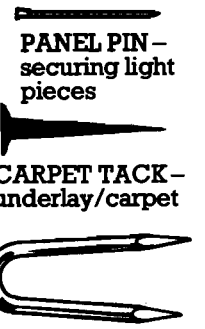
Light joinery work i.e. picture frames, fixing wallboards to battens, securing hardboard/ply wood etc.



Available 3½ozs/100gms to 16ozs/450gms. Most popular general-use weight is 8ozs 230gms.

Cross pein is used to start nails and reach awkward corners

Warrington hammers are ideal for driving nails such as panel pins, carpet tacks and staples.



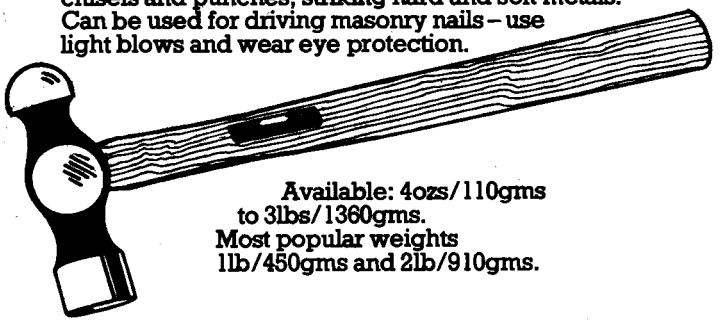
PANEL PIN – securing light pieces

CARPET TACK – underlay/carpet

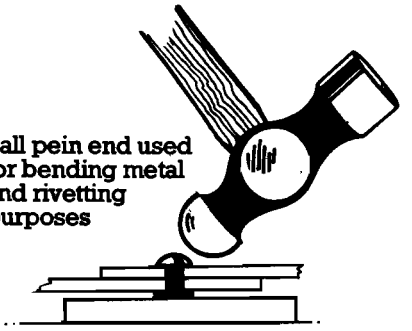
STAPLE – fastening wire fencing

### BALL PEIN – ENGINEERS HAMMER

Used for metalwork operations, e.g. driving cold chisels and punches, striking hard and soft metals. Can be used for driving masonry nails – use light blows and wear eye protection.



Available: 4ozs/110gms to 3lbs/1360gms.
Most popular weights 1lb/450gms and 2lb/910gms.



Ball pein end used for bending metal and rivetting purposes

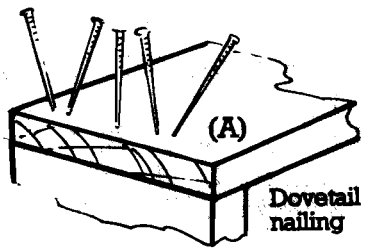
STANLEY

No.3

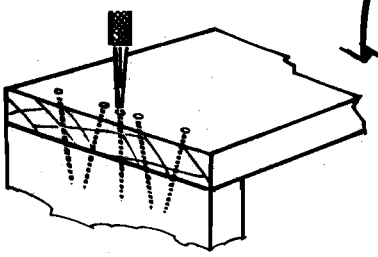
# HAMMERS

## 3 How to use nails

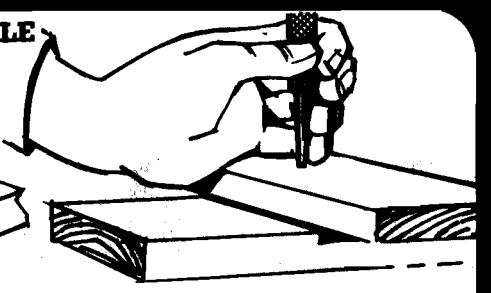
### ON CORNERS TO GAIN MOST STRENGTH ANGLE THE NAILS



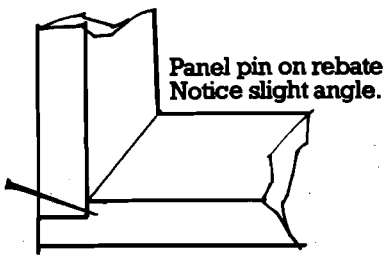

The first centre nail is driven in straight. When nailing into end grain the nails used should be 3 times as long as the thickness of the piece being attached (A).

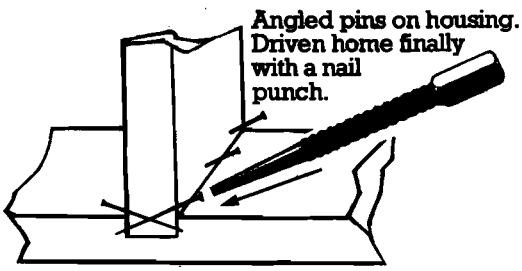


Drive home and for a neat finish when using panel pins and oval nails – punch below surface with correct size of nail punch or nail set.

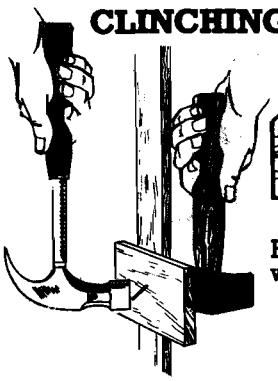


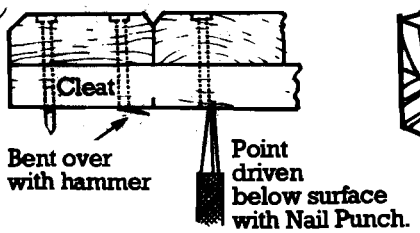
To prevent the punch from slipping off the head of the nail, rest the little finger on the work and press nail punch firmly against it. Set nails approx. 2mm below surface.

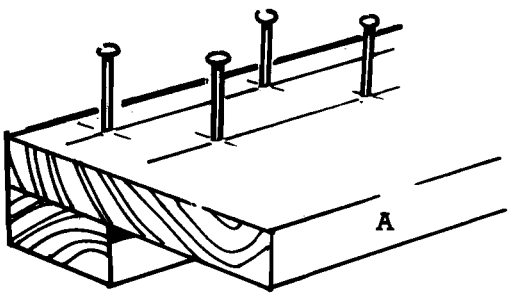



### CLINCHING A NAIL





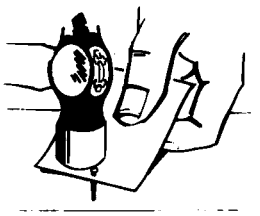




When using long nails drive through wood. Place a heavy hammer on the nail head and bend the point over to lie parallel with the grain. If possible place work on a firm surface and drive nail flush with the wood surface or use nail punch and drive below.

When nails are close together, stagger them to prevent splitting. When nailing across the grain, the length of nail should be 2½ times as long as the thickness of the piece being attached (A).

## Useful hints

1. Fill holes with plastic wood, putty or sawdust mixed with glue.
2. Dipping a nail in paraffin will help it enter hardwood more easily.
3. Slightly blunting a nail will help to prevent the wood splitting.
4. To avoid splitting near an edge, bore a hole slightly smaller than the nail, then drive nail home. If the twist drill is not small enough, cut the head off a smaller panel pin and use this as the drill point in the hand drill.
5. Small nails can be held by piercing them through a piece of light card.



STANLEY

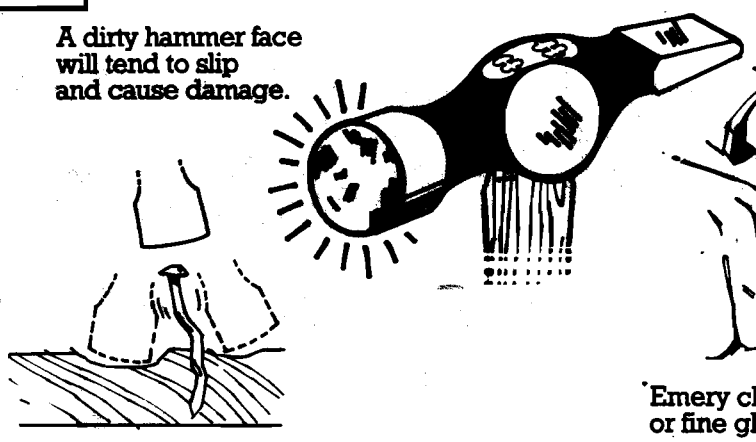
No.4

# HAMMERS

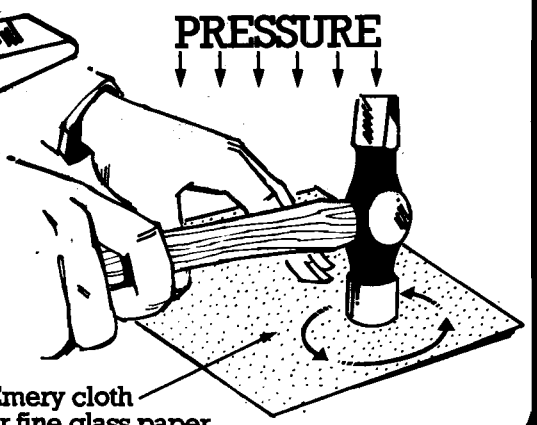
## 4 How to take care of your hammer

KEEP CLEAN AS BELOW

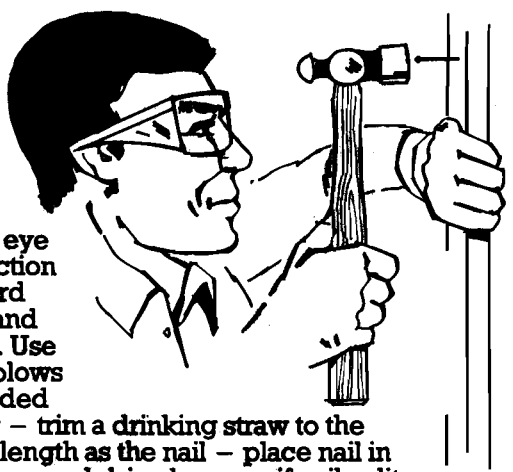
A dirty hammer face will tend to slip and cause damage.



PRESSURE

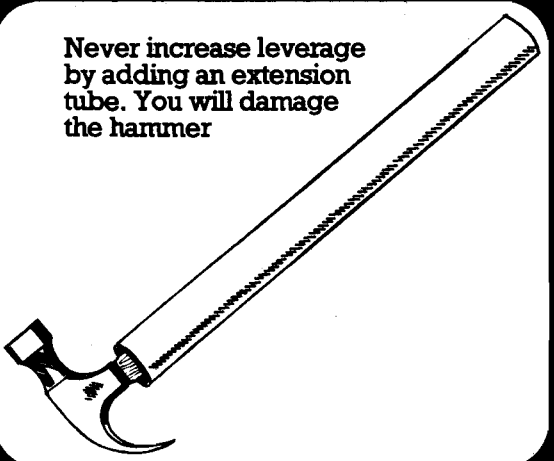


Emery cloth or fine glass paper

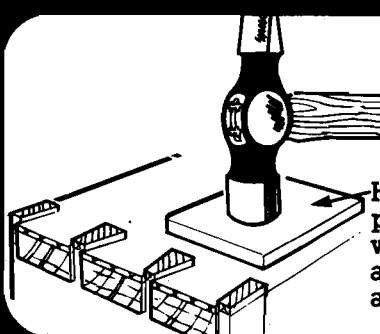


Wear eye protection for hard nails and metal. Use light blows for added safety – trim a drinking straw to the same length as the nail – place nail in the straw and drive home – if nail splits the straw helps to prevent the pieces from flying around.

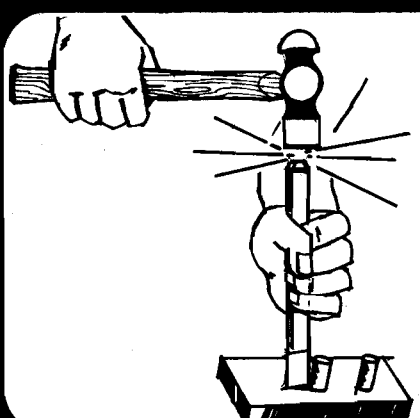
Never increase leverage by adding an extension tube. You will damage the hammer



Never use a hammer with a loose head. Re-shaft if necessary.

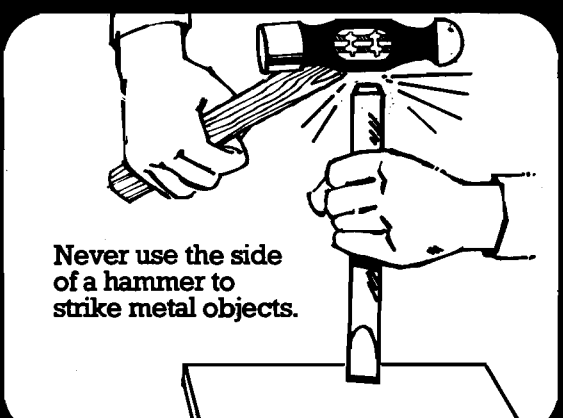


Hardboard for protection when assembling articles.



Never strike cold chisels or hard objects with a nail hammer.

Use a Ball pein.



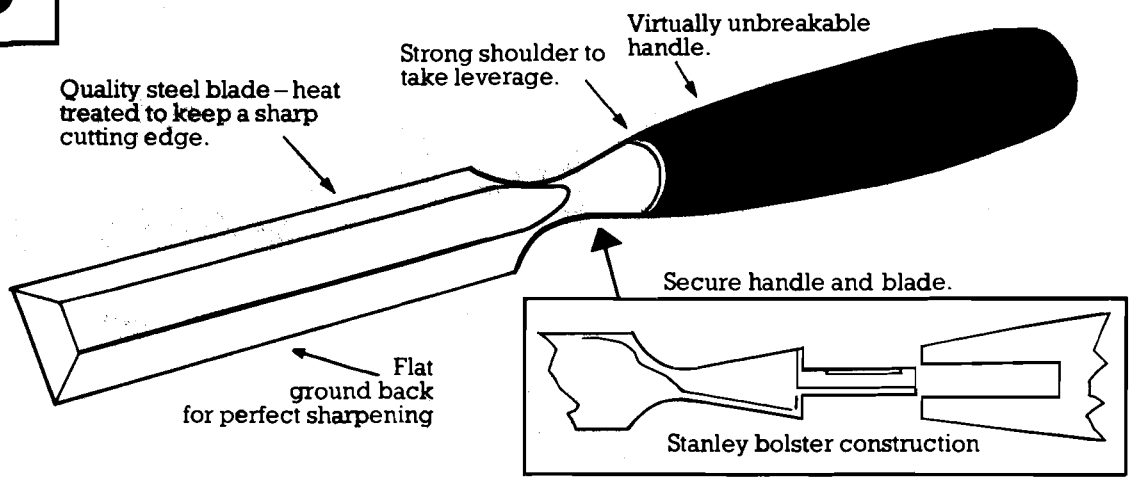
Never use the side of a hammer to strike metal objects.

STANLEY

No.5

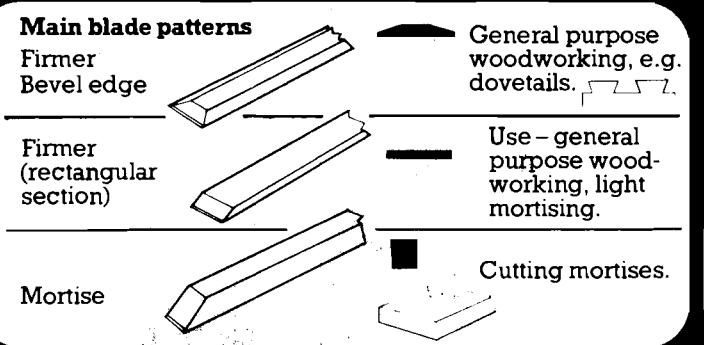
# CHISELS

## 5 How to choose a Chisel




For general D.I.Y. use around the house you need a minimum of 3 chisels – ¼"/6mm, ½"/12mm, 1"/25mm. Later you can add the ¾"/18mm and other sizes. The firmer bevel edge chisel is the most versatile pattern.

**Main blade patterns**




**Useful hints**

1. Always use a sharp chisel – it's safer.
2. Use an old chisel for removing putty.
3. Always put the blade guard on when not in use.
4. Can use a hammer on any Stanley plastic handled chisel.
5. Hold work firmly – it is easier and safer.
6. Use a scrap of waste wood to prevent damage by cramps.

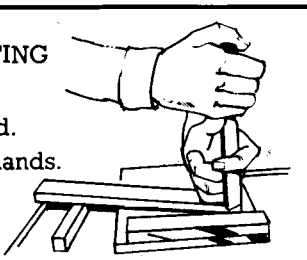
### How to hold a chisel for horizontal cutting

**FOR SAFETY**
Keep all parts of the body behind cutting edge.

Note position of elbow and position of hands.

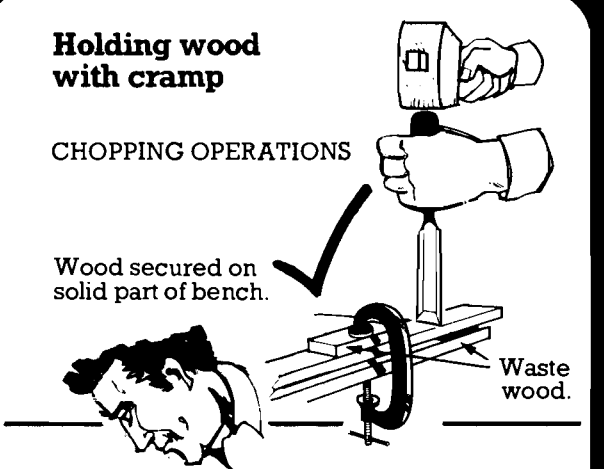
VERTICAL CUTTING

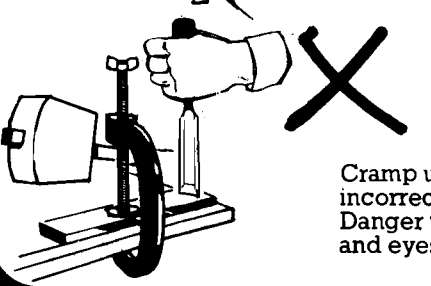
Timber supported.
Note position of hands.



### Holding wood with cramp

CHOPPING OPERATIONS



Cramp used incorrectly! Danger to face and eyes.

STANLEY

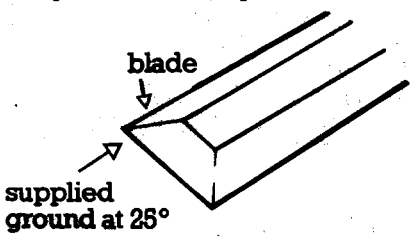
No.6

# CHISELS

## 6 How to sharpen a Chisel

1

To get the best from your chisel you should sharpen the cutting edge. This will make it cut efficiently and accurately and above all safely.



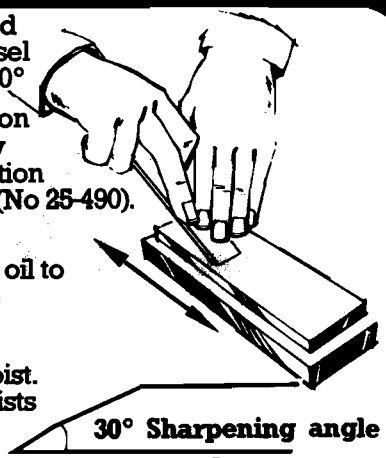


Before use the blade must be sharpened.

2 Hold chisel at 30°

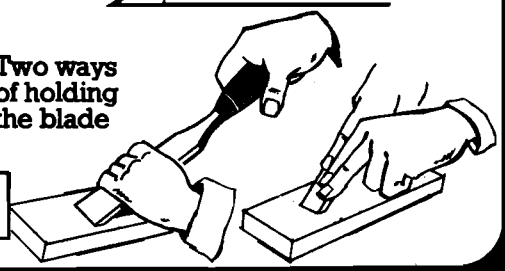
Sharpen on a Stanley combination oilstone (No 25-490).

Use light machine oil to keep the surface of the stone moist. Keep wrists rigid.



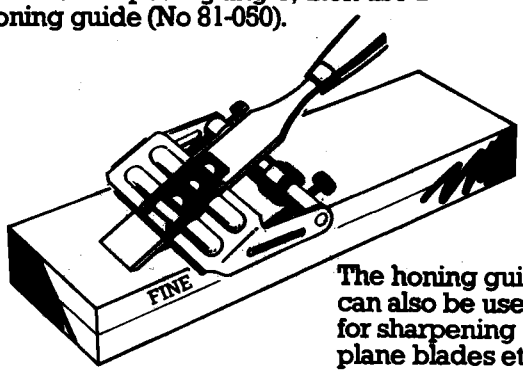

Two ways of holding the blade

OR



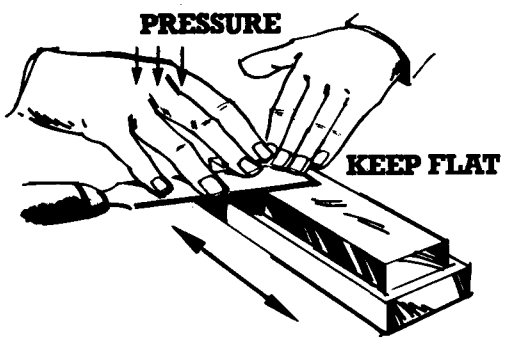
3

If you have a problem keeping to the precise sharpening angle, then use a honing guide (No 81-050).




The honing guide can also be used for sharpening plane blades etc.

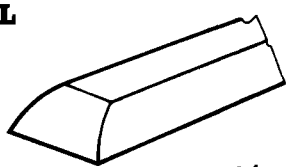
4 **After sharpening remove burr on the oilstone.**



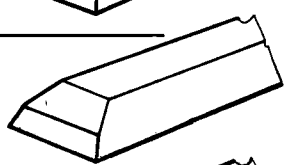

Wipe blade clean with rag.
Be careful, the blade is now sharp.

**When to Regrind a CHISEL**

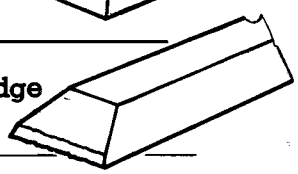
1. When the Bevel has been rounded by careless sharpening.



2. When the Bevel has been worn down by much sharpening.



3. When the Cutting Edge is nicked.



See How to... sheet No.26 which includes re-grinding blades.

## EQUIPMENT REQUIRED:

1. Oilstone (Stanley No 25-490)
2. Light machine oil.
3. Honing guide (Stanley No.81-050)
4. Rag.

STANLEY

No.7

# SCREWDRIVERS

## 7 How to choose a Screwdriver

**WHICH HANDLE?**

MOULDED PLASTIC – Ideal for woodscrews and high torque applications.

EXTRUDED PLASTIC – Ideal for restricted areas and where hands may be greasy.

MOULDED – A general economical alternative handle shape.

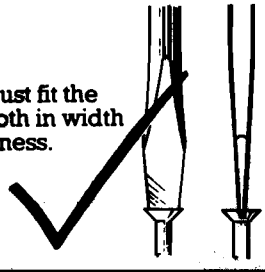
WOOD – Traditional cabinet makers pattern – ideal for wood screws. This pattern should never be struck with a hammer or mallet.

All the above handles are virtually unbreakable

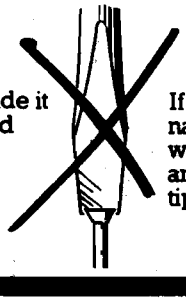
**WHAT LENGTH BLADE TO CHOOSE?**

Use the longest screwdriver convenient for the work. More power can be applied to a long screwdriver than a short one, usually because the longer screwdriver has a larger handle.

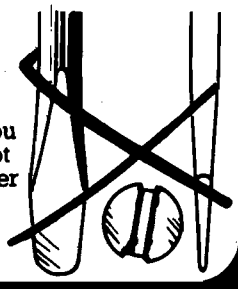
The tip must fit the screws both in width and thickness.



If the tip is too wide it will scar the wood around the head.



If the blade is too narrow and thin you will destroy the slot and the screwdriver tip.



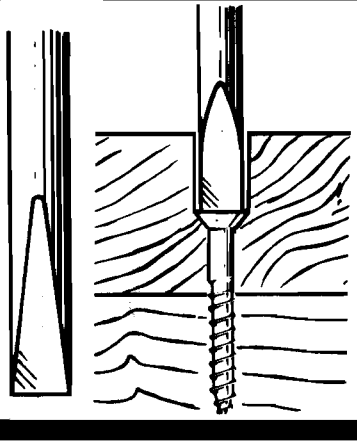
**WHICH PATTERN OR TIP TO USE?**

**FLARED**
Use a flared tip for all normal and heavy duty work.

**PARALLEL**

Use for lighter work and where the screw is hidden below the surface e.g. counterbored screws (as illustrated) and contact screws in plugs, switches and electrical accessories.*

* N.B. Disconnect power source.



**CROSS POINT**

PHILLIPS SUPADRIV POZIDRIV

Use a Phillips screwdriver on a Phillips screw. Use a Stanley Pozidriv/Supadriv screwdriver on the others. Each pattern comes in 4 main sizes, these are referred to as point sizes.

| Screw Gauge | 3 - 4 | 5 - 10 | 12 - 14 | 16 + |
|---|---|---|---|---|
| Driver Point | 1 | 2 | 3 | 4 |

For every day use a No.2pt. covers most work For small electrical work there are special 0pt. & 1pt. electronic patterns available.

Supadriv and Pozidriv are regd. trade marks of GKN Fasteners.

**USEFUL HINTS**

1. Where possible use two hands to drive a screw.
2. Use the correct length and tip size for the work.
3. Never use a screwdriver near a live wire.
4. Use an old screwdriver for prying, punching, chiselling scoring, scraping or opening tins of paint.
5. Never expose a screwdriver to excessive heat.
6. Never use a screwdriver for stirring paint.
8. A little candle grease/soap on the thread will allow the screws to be turned easily.
9. If using brass screws – first insert a steel one of the same size – remove and replace with brass – this will prevent damage to the softer brass screw.
10. In oak, use brass screws (see point 9) steel ones will rust.
11. Use screw cups on thin materials – this will help prevent splitting.

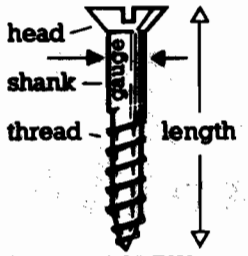
STANLEY

No.8

# SCREWDRIVERS

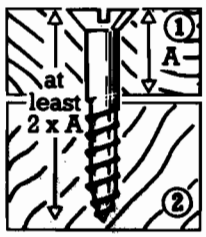
## 8 How to screw two pieces of wood together

### Parts of a screw

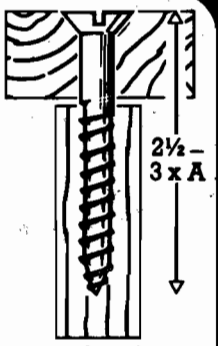



SIZE OF SCREW – length and gauge no. which is the diameter of the shank.

Screw the thinner piece of wood (1) to the thicker piece (2). Select a screw length to penetrate (2) to at least as much as the thickness of (1). For a very strong job use a larger screw. Choose a thickness of screw (known as the gauge) to be appropriate for the job. The most common gauge sizes for normal use around the house are 6,8,10 & 12. If in doubt use an 8 or 10 gauge.

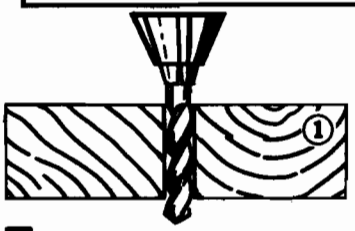



cross grain

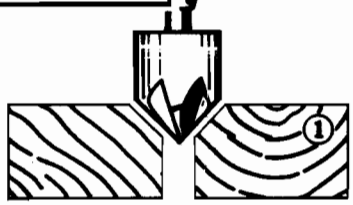



end grain

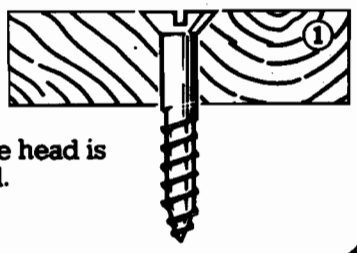
### PREPARING THE WORK




1 Drill shank hole in (1). This hole should be slightly larger than the shank of the screw.



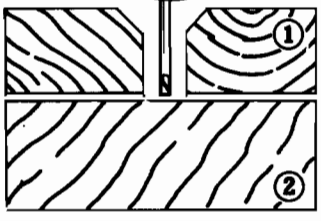

2 Countersink this hole so that the head is flush with the surface of the wood.



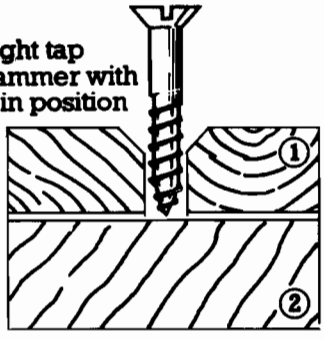

3 Mark the position of screw on (2), this can be done in one of three ways.

Use a bradawl

OR

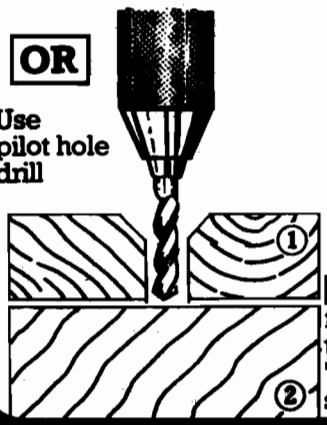


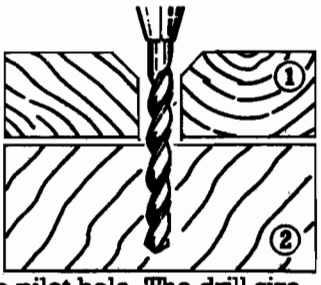

Very light tap with hammer with screw in position




OR

Use pilot hole drill




4 Drill the pilot hole. The drill size for the pilot hole must be smaller than the threaded portion of screw. The depth should be appropriate for screw length.

5 Insert screw and fix. A little candlegrease or soap will help you do this.

**Tools you require**

Screwdriver
Hand drill
Twist drills
Countersink
Bradawl

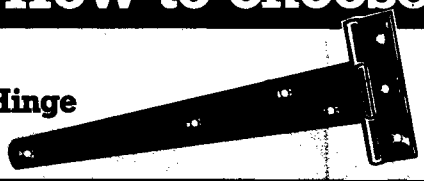
STANLEY

No.9

# HINGES

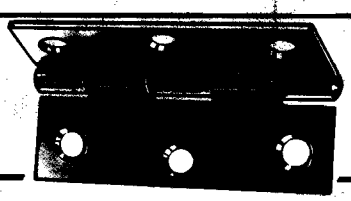
## 9 How to choose a Hinge

**'T' Hinge**



Usually painted black. Ideal for outdoor use on garden gates, garage doors etc.

**Butt**

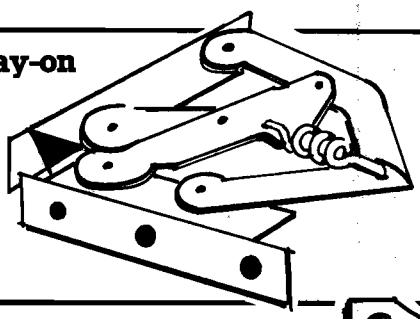


Choose steel for jobs which are to be painted, brass for fine cabinet work where appearance is important. Most 'brass' hinges nowadays are plated brass. Solid brass are very expensive and needs skill to fit correctly.

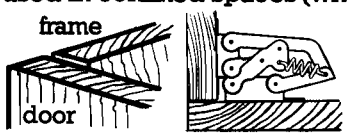
**Piano**

This is a long and narrow hinge, bought in lengths and cut to suit the job. Easy to use and produces a neat finish. Ideal for use on chipboard because it covers the raw edge and has a large number of screw fixing positions. Brass plated finish or plastic.

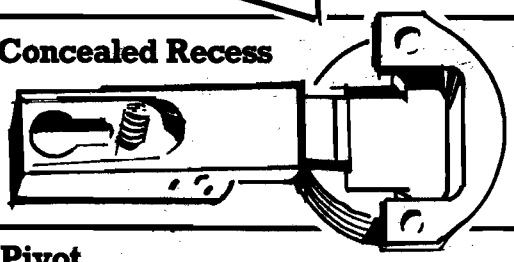
**Lay-on**



This concealed hinge is easy to fit and can be used in confined spaces (where a door opens near to a wall). Ideal for kitchen cabinets where the door covers the frame. Choose one with a built-in spring since this does away with the needs for a separate catch.

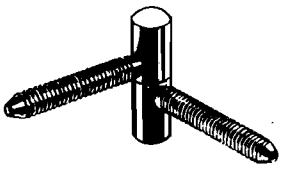


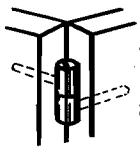

**Concealed Recess**



Ideal for kitchen doors. Requires a special drill to form the recess into which the circular part fits. Needs care and skill to fit, but produces a very neat fitment.

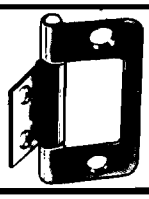
**Pivot**





Ideal for use on chipboard type furniture, wardrobes etc. Simple to fit by drilling a hole to accept the threaded stud.

**Flush**



Neat in appearance. Easy to fit since no recessing is required, but only suitable for lightweight applications.

### Sizes of Hinge

'T', Butt and Flush hinges are available in a range of sizes measured by the length of the hinge. Be generous in choosing the size to ensure adequate strength for the application.

### USEFUL HINTS

1. Rising butt hinges are ideal for internal house doors to allow clearance over carpets.
2. Use brass screws for brass hinges, steel screws for steel hinges and black lacquered painted screws for 'T' hinges.
3. To give extra strength on a 'T' hinge use a nut and bolt in place of one of the screws on the hang flap.
4. For extra strength, consider using three hinges instead of the conventional two hinges.
5. If hinge and screws are to be painted, remember, if they ever need to be removed, it is easier to remove paint from a slotted screw compared to a cross head screw.

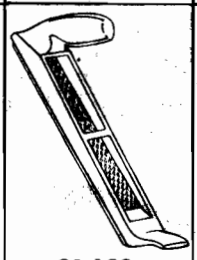
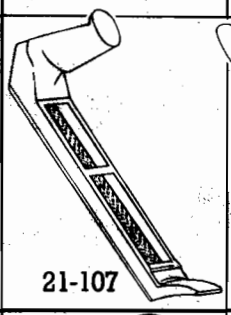
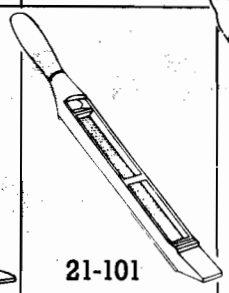
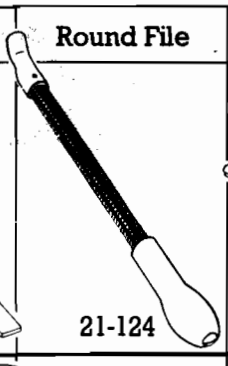
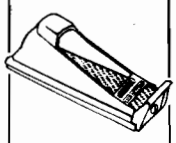
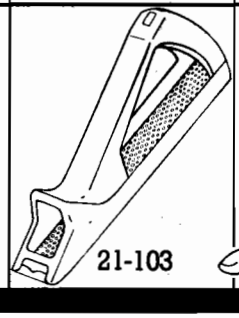
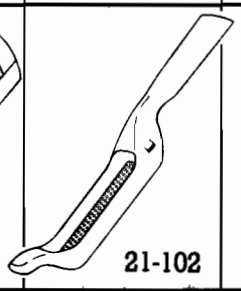
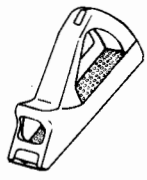
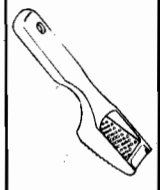
STANLEY

No.10

# SURFORM

## 10 How to choose a Surform

### Which to choose?

| | Planer file | Standard Plane | File | Round File | Block Plane | Shaver Tool |
|---|---|---|---|---|---|---|
| Metal Body |  21-122 |  21-107 |  21-101 |  21-124 |  21-111 | |
| Plastic Body | |  21-103 |  21-102 | |  21-104 |  21-115 |

### Metal or Plastic Body?

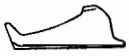
The metal body is more rigid and is slightly heavier – an advantage in use – and has the feel of strength but is more expensive. A plastic body is adequate and is cheaper.
Both ranges use the same blades (See "How to... No.11 – How to get the best from your Surform).

### Suggested Surform Kit

Planer file – two position handle.

Plastic file – 5½" blade is slightly curved when fixed giving good cutting properites.

Metal Block Plane – Very useful one handed tool.



Shaver Tool – One of the most useful and versatile in the range.

### Remember

A Surform is not a conventional type plane and will not produce such a smooth, fine surface.
But it will tackle jobs and a variety of materials such as hard plastics and the softer metals for which a plane is unsuitable.

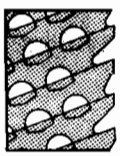
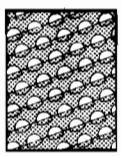
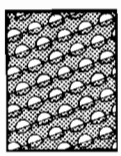
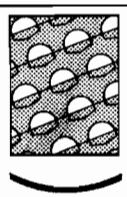
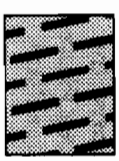
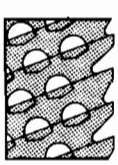
STANLEY

No. 11

# SURFORM

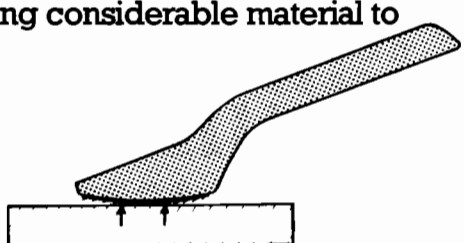
## 11 How to get the best from your Surform

To get the best from your Surform you need to choose the correct blade for the material or job you intend doing.

| Blade | | Fits | Uses |
|---|---|---|---|
| Standard Cut 21-505 |  | Plane Planerfile File (long) | Suitable for most common materials around the home. Most woods, plywood, blockboard, chipboard. |
| Fine Cut 21-506 |  | Plane Planerfile File (long) | Use this on harder materials, some very hardwoods, aluminium, brass, fibreglass, sculpting in soft stone, car body fillers. |
| Fine Cut 21-520 |  | Block Plane File (Short) | As above. |
| Half round 21-507 |  | Plane Planerfile File (long) | As for standard cut blade, but can be used for all types of shaping. Particularly useful for wood sculpting. |
| Round 21-558 |  | Round file | Used for cutting curves, cleaning up the inside edge of a hole. Ideal for sculpting in wood. |
| Metal & Plastic Blade 21-508 |  | Plane Planerfile File (long) | A different tooth formation from the Surform teeth making it ideal for hard plastics, metals. |
| Shaver blade 21-515 |  | Shaver tool | Very handy for many jobs. It's small size belies its effective uses. Its curved blade means that few teeth only are in contact with the work allowing considerable material to be removed. |

**Replacing Blunt Blades**

Most Blades wear out eventually. Replacing a blunt blade makes cutting so much easier. A single screw fixing the blade means that it can be changed in a few seconds.



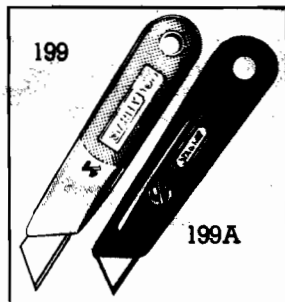
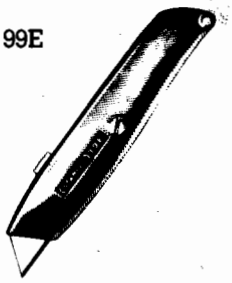
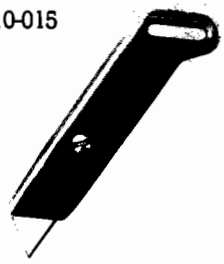
STANLEY

No.12

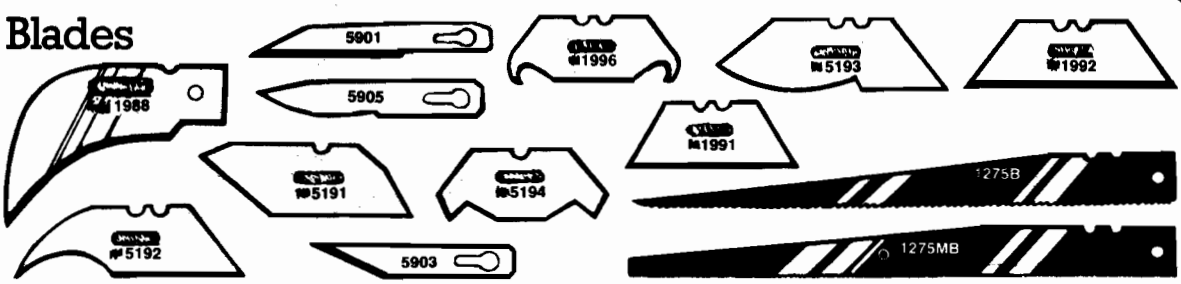
# KNIVES

## 12 How to choose a Stanley Knife

The choice of a Stanley Knife and blades is largely a matter of personal preferance. Below are some guide lines.

| | 199 | 99E | 10-015 | 5900 |
|---|---|---|---|---|
| |   |  |  |  |
| Uses: | General purpose around the home; in the workshop; in the garden; in the office; for a wide range of materials. | Retractable blade for safety. Ideal for carrying in the pocket. | Lightweight body. | Ideal for craftwork and hobbyists. |
| | Complete with 5 blades. | Complete with 5 blades. | Complete with 3 blades. | Complete with 5 blades. |

### Blades




There is a wide range of blades suitable for hundreds of cutting applications. See 'How to...' sheet No.13 How to choose Stanley Knife blades.

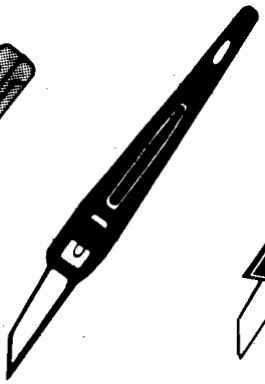
**SAFETY : A SHARP BLADE IS SAFER THAN A BLUNT ONE**

### Other Stanley Knives

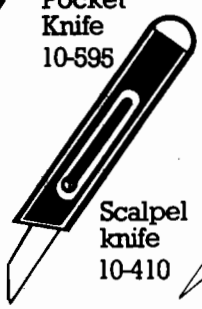
Folding Pocket Knife 10-598

Snappy Break-off blade knife 91-150

Throwaway 10-601



Retractable Mini Pocket Knife 10-595



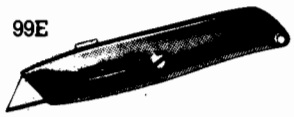
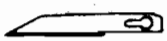
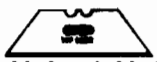
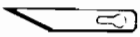
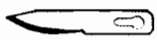
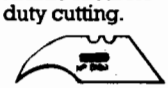
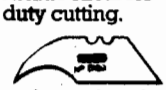
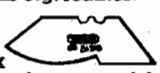
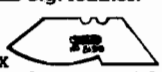
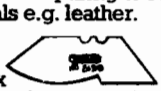
Scalpel knife 10-410

STANLEY

# No.13 KNIVES

## 13 How to choose Stanley Knife blades

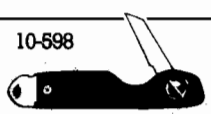
### Always use sharp blades – they are safer than blunt ones.

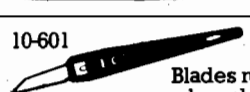
| 199 / 199A | 99E | 10-015 | 5900 |
|---|---|---|---|
|  |  |  |  |
| 1991  General light duty cutting. | N/R | 1991  General light duty cutting. | 5901  General light duty cutting. |
| 1992  Thicker blade suitable for heavy duty cutting. Most popular blade. | 1992  Thicker blade suitable for heavy duty cutting. Most popular blade. | 1992  Thicker blade suitable for heavy duty cutting. Most popular blade. | 5903  Ideal for fine intricate work. |
| 1996  Hooked blade designed for cutting soft sheet material e.g. vinyl, carpet. There is a version (1996F) with a flat point for use on textiles or sheet material in rolls. | N/R | N/R | 5905  Ideal for thin sheet material where more than the tip of the blade can be used. |
| 5191  Robust blade ideal for heavy duty cutting. | 5191  Robust blade ideal for heavy duty cutting. | N/R | |
| 5192  Concave for paring sheet materials e.g. leather. | 5192  Concave for paring sheet materials e.g. leather. | 5192  Concave for paring sheet materials e.g. leather. | |
| 5193 Convex  Ideal for sheet material where more than the tip of the blade can be used. | 5193 Convex  Ideal for sheet material where more than the tip of the blade can be used. | 5193 Convex  Ideal for sheet material where more than the tip of the blade can be used. | |
| 5194  For scoring hard laminate plastics. | N/R | N/R | |
| 1998 Heavy duty blade for cutting, vinyl, linoleum, roofing felt etc.  | N/R | N/R | |
|  1275B Wood cutting saw blade. | N/R | N/R | |
|  1275MB Metal cutting saw blade. | N/R | N/R | |

N/R Not recommended

### Other Stanley Knives

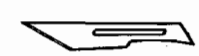

10-595 Blades to use 5901 5903 5905


10-598 5901 5903 5905

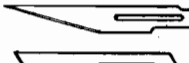

10-601 Blades not replaceable.


91-150 91-540


10-410


11-450


11-451


11-452

### HELPFUL HINTS

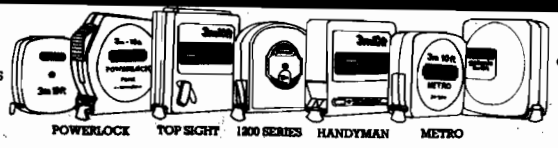
1. Wherever possible cut away from the body.
2. When kneeling on the floor cutting sheet material make certain your knee is **not** in line with the proposed cut.
3. When cutting against a straight edge make certain that it is thick enough to prevent your knife "riding up" over the edge and causing injury.
4. When cutting sheet material ensure it is secure and cannot slip.
5. Don't leave used blades lying about. Wrap them up and dispose of them carefully.
6. Keep knives out of the reach of young children and pets.

STANLEY

No. 14

# RULES

## 14 How to choose a Rule



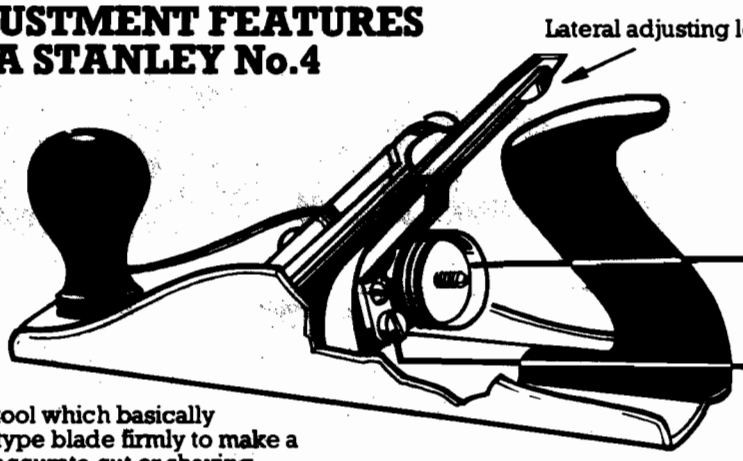

| Feature | Benefit | POWERLOCK | GALAXIE | HANDYMAN | 1200 SERIES | TOP SIGHT | METRO | T-SERIES |
|---|---|---|---|---|---|---|---|---|
| | | TYPE OF RULE | | | | | | |
| METAL CASE | Strong and robust | ● | | | ● | | | ● |
| PLASTIC CASE | Lightweight case | | ● | ● | | ● | ● | |
| BLADE LOCK | Ease of repetitive marking | ● | ● | | | ● | | |
| TRU-VIEW™ MOUTH | Precise and accurate blade readings, particularly in confined spaces. | ● | | ● | ● | | ● | |
| CASE MARKED WITH SIZE | Ease of calculations, particularly for internal readings | ● | | ● | ● | | | |
| TOP SIGHT FEATURE | Direct reading facility for internal readings | | | | | ● | | |
| BELT CLIP | Rule is conveniently at hand | ● | | | | | | |
| UNIQUE MYLAR COATING | Best blade protection available. Protects blade up to 10 times normal life | ● | ● | ● | ● | ● | ● | ● |
| TRU-ZERO™ HOOK | Compensates for normal measurements and measuring into corners. | ● | ● | ● | ● | ● | ● | ● |
| YELLOW & BLACK MARKINGS | Easiest colour codes to read | ● | ● | ● | ● | ● | ● | ● |
| METRIC/ENGLISH GRADUATIONS | Most popular blade markings | ● | ● | ● | ● | ● | ● | ● |
| METRIC GRADUATIONS | Metric measurements only | ● | | ● | | | | ● |
| ¼"/6.5mm WIDE BLADE | Very flexible, ideal for dressmaking, sewing etc. | ● | | | | | | ● |
| ½"/13mm WIDE BLADE | Most popular, general purpose blade size | ● | ● | ● | ● | ● | ● | |
| ¾"/20mm WIDE BLADE | More stable than ½"/13mm. Ideal for use on sheet material | ● | | | | | | |
| 1"/25mm WIDE BLADE | Professional blade size. Ideal for builders as blade length is 7.5m/25' (Plastic case) | ● | | | | | | |
| POWER RETURN ACTION | Automatic blade return | ● | ● | | | | | |
| REPLACEABLE BLADE | Increases life of rule | ● | ● | ● | ● | ● | | ● |

STANLEY

# No.15 PLANES

## 15 How to choose a Plane

### ADJUSTMENT FEATURES ON A STANLEY No.4



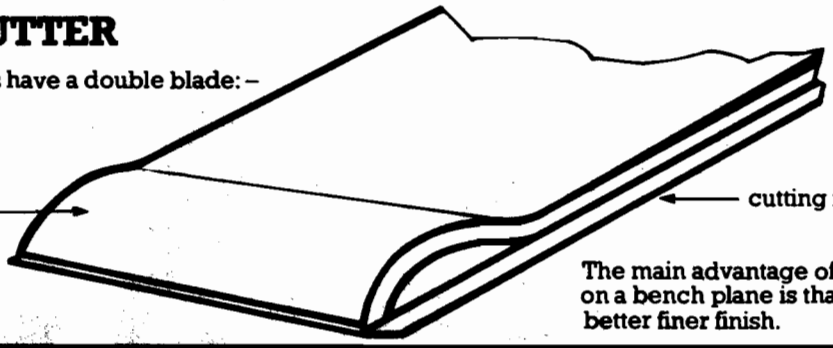

**Base or body.** The bottom of the base is called the sole.

Your plane is a tool which basically holds a 'chisel' type blade firmly to make a controlled and accurate cut or shaving. This is achieved by allowing the blade to protrude very slightly through the sole of the plane – the depth of cut adjustment and lateral adjusting lever control this.

These adjustments are described on information sheet No.27 – 'How to adjust your Plane correctly'.

### THE CUTTER

Many planes have a double blade: –




The main advantage of a double blade on a bench plane is that it produces a better finer finish.

### WHICH SMOOTHING PLANE TO CHOOSE

| | CAST IRON BASE | PLASTIC HANDLE & KNOB | DEPTH OF CUT ADJUSTMENT | FINELY GROUND BASE | INDEPENDENT LATERAL ADJUSTMENT | DOUBLE BLADE | CHROME PLATED LEVER CAP WITH SPRING | MOUTH ADJUSTMENT BY SCREW | FINELY GROUND CUTTING BLADE | FULLY FINISHED CAP IRON | LENGTH | CUTTER WIDTH | SUMMARY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Smoothing Plane No. 4  | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | 9¾" 245 mm | 2" 50 mm | A top quality, well balanced plane made of the finest materials and well finished. It includes all refinements. |
| Smoothing Plane No. H1204  | ● | ● | ● | ● | ● | ● | | | | | 9¾" 245 mm | 2" 50 mm | A workman-like product. Produces a good finish. |
| Smoothing Plane No. SB3  | ● | ● | ● | | | | | | | | 8¾" 213 mm | 1¾" 45 mm | A good substitute for a conventional double blade plane. Suitable for all planing jobs where fine finish is not essential. |

STANLEY

No.16

# PLANES

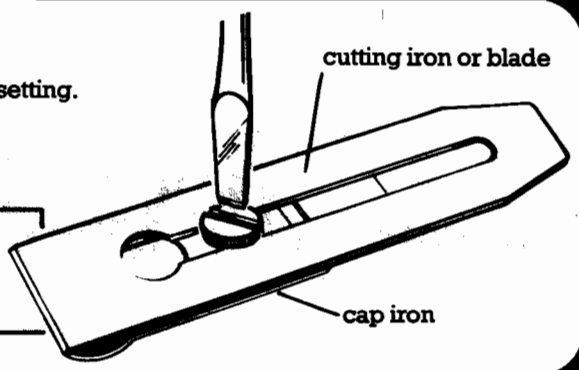
## 16 How to prepare a Plane for use - Part 2

### How to sharpen a plane blade

Before use all planes need sharpening and setting.

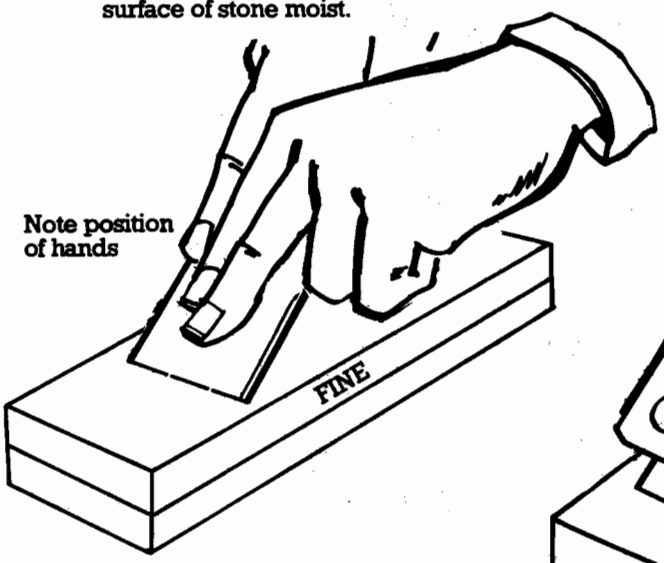
1. Remove plane blades from plane.
2. Remove cap iron.

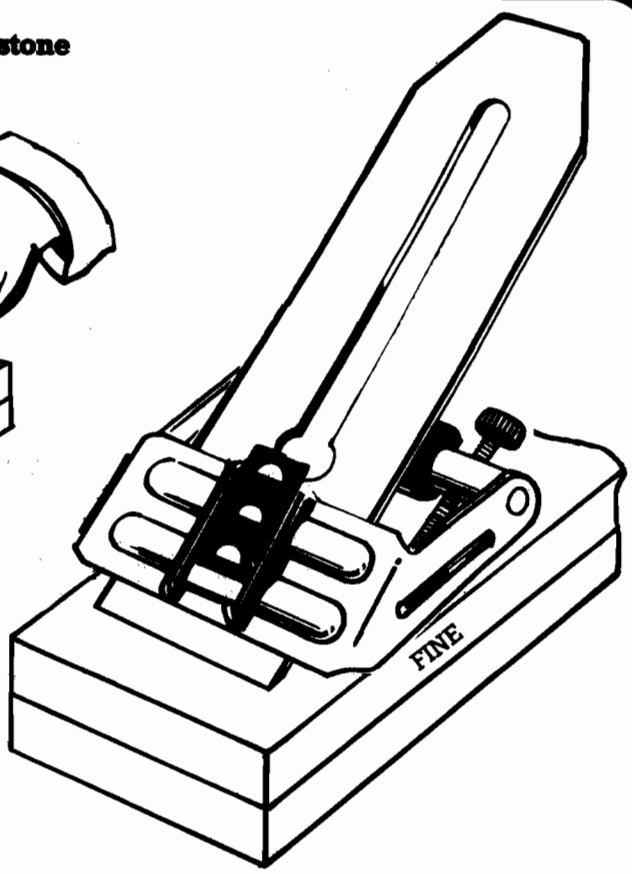
**For safety lay the blades flat on a bench or table top.**

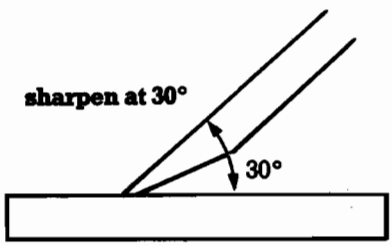



### 3. Sharpen cutting blade on an oilstone

Use light machine oil to keep surface of stone moist.



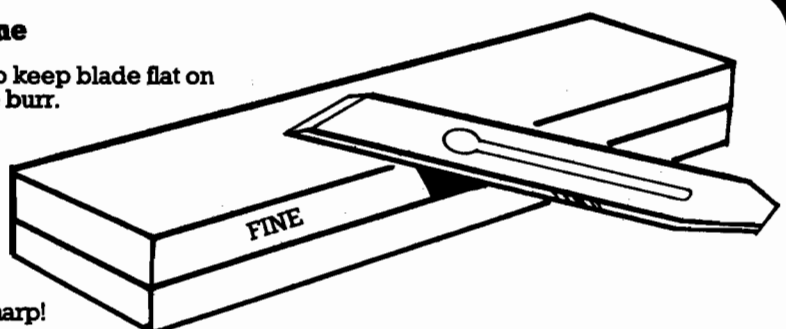




**OR**

If you have difficulty in keeping to the precise sharpening angle, use a Stanley Honing Guide (No 81-050).

### 4. Remove burr on oilestone

**IMPORTANT:** It is essential to keep blade flat on oilstone when you remove the burr.




5. Wipe blade clean with rag. Be careful, the blade is now sharp!

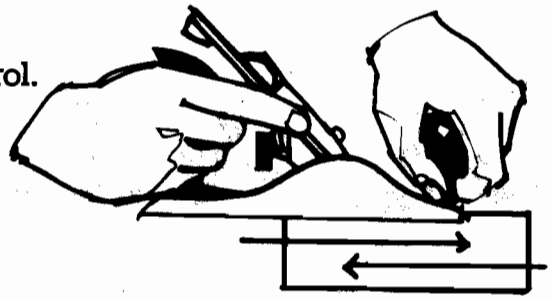
STANLEY

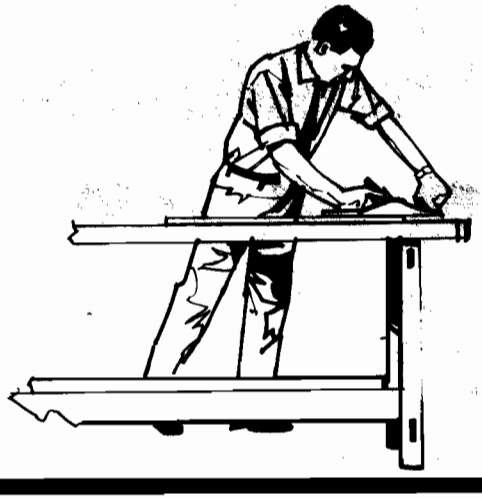
No.17

# PLANES

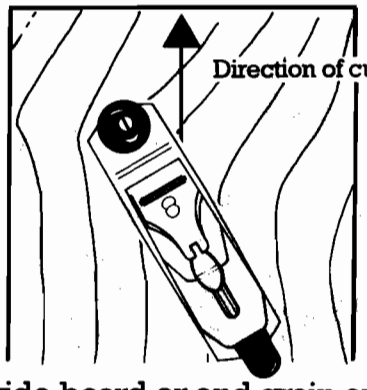
## 17 How to use a Plane

Grip plane firmly. Resting the first finger on the top of the blade will help balance and give better control.





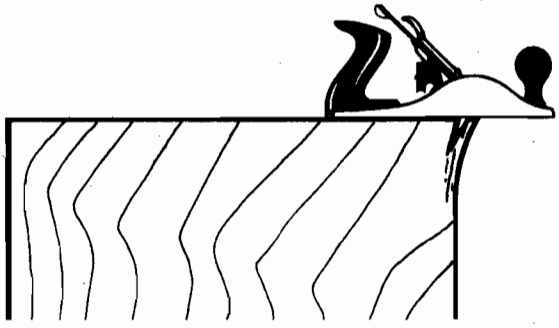
- Secure wood firmly
- Stand behind workpiece so that you are pushing forward.
- Feet apart will help give better control.
- A workbench or table height of 2'9"/84cm gives a comfortable working position.



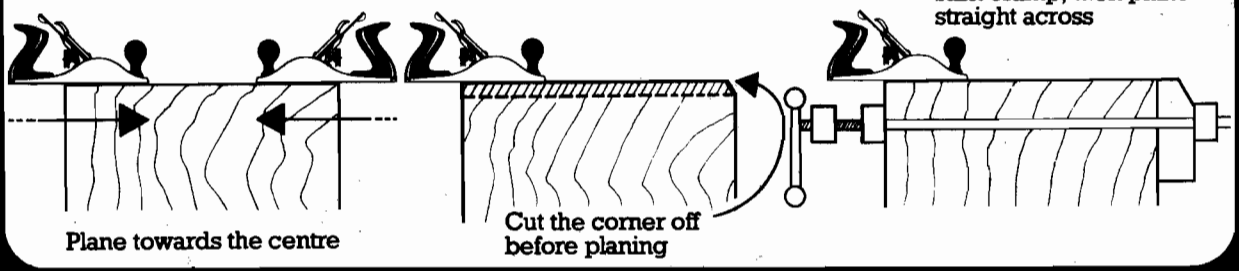

On a wide board or end grain or difficult (curly) grain, it is often better to use a 'slice' action. Simply hold the plane at a slight angle whilst cutting.

### Planing End Grain

If no precautions are taken, splitting can occur when planing end grain, plywood, blockboard.



This can be prevented in one of three ways.




### USEFUL HINTS

Always use a sharp plane – it's so much easier. Always secure work very firmly.

STANLEY

No.18

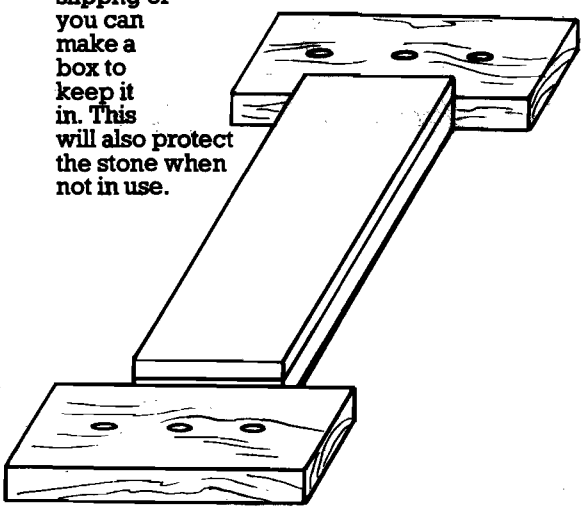
# PLANES

## 18 How to get the best from your Plane – Part 1

1 Always use a sharp blade.
It's easier to use
It's safer
It gives more satisfaction in use.

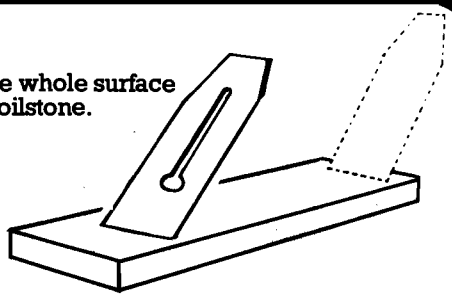
2 Your plane is a precision tool. Treat it carefully.
Don't plane over nails. They will chip the blade and scratch the sole of the plane.
Don't use your best plane on second hand timber. Paint will clog and grit embedded in the timber will damage the blade. Use a Stanley Surform.

3 When sharpening your blade hold oilstone firmly.
Fix down 2 pieces of scrap timber to prevent oilstone slippng or you can make a box to keep it in. This will also protect the stone when not in use.

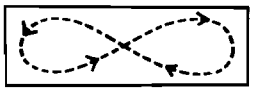


4 After use always remove excess oil from your oilstone.
This prevents small particles of metal and dust clogging the oilstone.

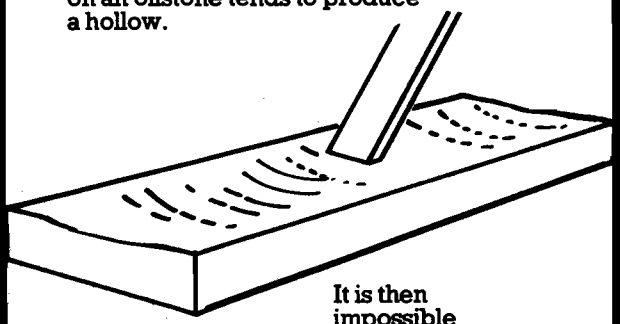
5 Use the whole surface of the oilstone.



Try to use a figure of 8 to ensure even wear on your oilstone.



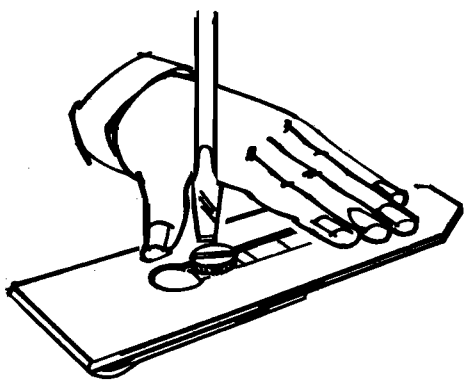
6 Keep a special oilstone for plane blades.
Repeated sharpening of chisels on an oilstone tends to produce a hollow.



It is then impossible to sharpen a wide plane blade flat and straight.

7 Wipe the sole of your plane with candlegrease.
It will help to make it easier to push.

8 Always hold blades firmly on bench top when removing cap iron.



STANLEY

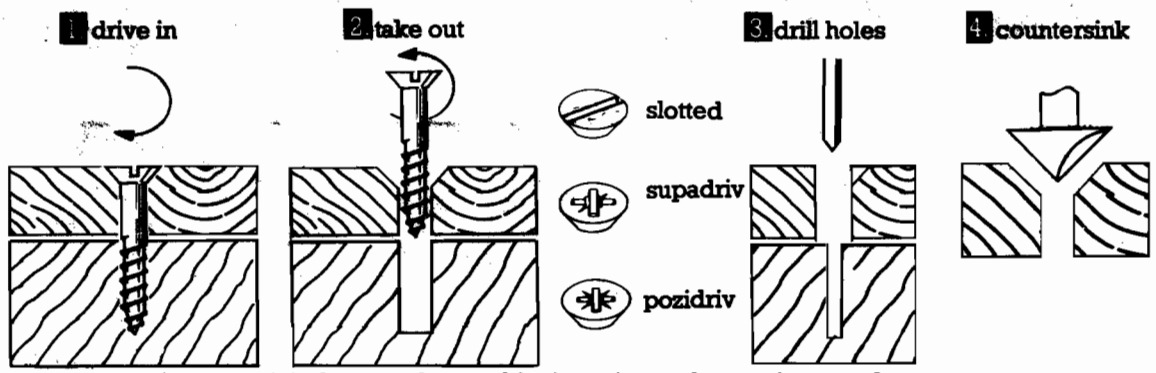
No.19

# SCREWDRIVERS

## 19 How to choose a Yankee Screwdriver

### WHAT DOES IT DO?

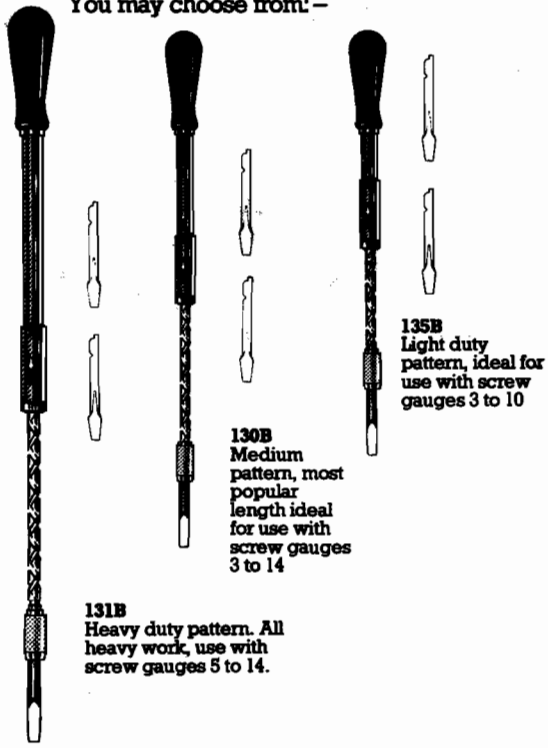
The first Yankee spiral ratchet screwdrivers were produced way back in 1898. 'Yankee' is the original spiral ratchet screwdriver. Used correctly it is the QUICKEST way of inserting a large number of screws by hand. It will work at least TWICE AS FAST as an ordinary screwdriver and can do the following.




With its accessories it is the complete tool for inserting and removing wood screws.

### WHICH PATTERN TO CHOOSE

Frequency, quantity and size of screw all play a part in the choice of the right pattern for you. You may choose from:–



**135B** Light duty pattern, ideal for use with screw gauges 3 to 10

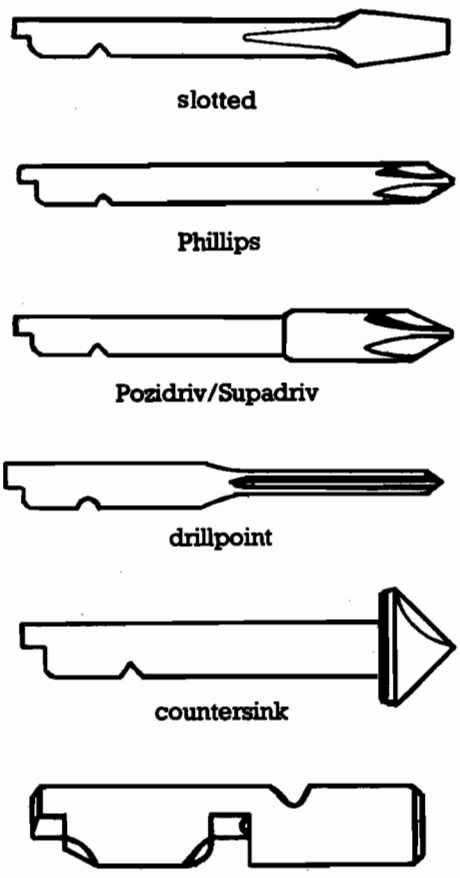
**130B** Medium pattern, most popular length ideal for use with screw gauges 3 to 14

**131B** Heavy duty pattern. All heavy work, use with screw gauges 5 to 14.

**133B** Handyman pattern. Light occasional use, comes with 1 x ¼" slotted bit.

**233B** Handyman pattern. Popular pattern as magazine handle carries an assortment of accessories making this a versatile self contained tool. It can put in and take out slotted and pozi/supa screws, and drill pilot holes.

### ACCESSORIES




A full range of accessories is available for your Yankee screwdriver. See packaging for precise details.

Pozidriv and Supadriv are Regd. Trade Marks of GKN Fasteners.

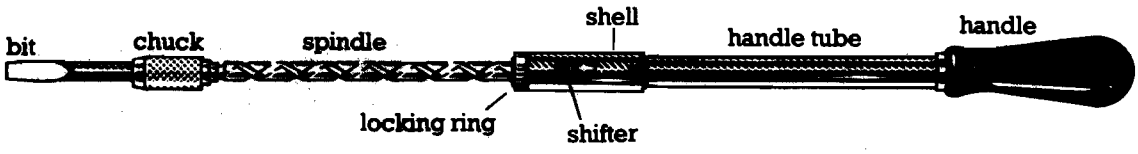
STANLEY

No.20

# SCREWDRIVERS

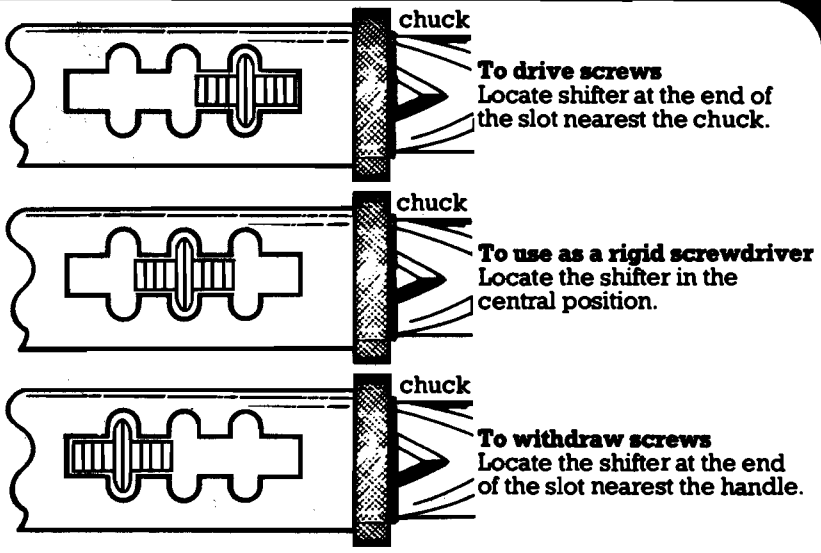
## 20 How to get the best from your Yankee Screwdriver

### PARTS:




### HOW IT WORKS:

**Using the driver**
Hold the screwdriver vertically over the screw steadying the chuck with one hand.



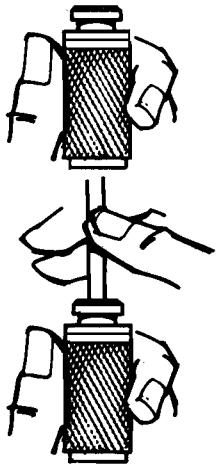

**To drive screws**
Locate shifter at the end of the slot nearest the chuck.

**To use as a rigid screwdriver**
Locate the shifter in the central position.

**To withdraw screws**
Locate the shifter at the end of the slot nearest the handle.

**NOTE:** With patterns 131B, 130B and 135B it is recommended that to prevent accidental damage to the spindle when using it as a rigid screwdriver that the spindle is locked into the handle tube. This is achieved by fully retracting the spindle and turning the locking ring. In this mode the tool may be used as an ordinary ratchet screwdriver, simply by moving the shifter as described above. This feature does not apply to the Handyman patterns Nos. 133B and 233B.

### HOW TO CHANGE A BIT



Extend the spiral spindle, place the ratchet shifter in the central position, pull the chuck sleeve down.

Insert the bit in the chuck and turn it until you feel it has seated. To remove the bit, pull the sleeve down and pull the bit out.

**A complete repair service is available for your Yankee. Ask you local stockist for details or write to:**

**Service and Repair Section, Stanley Tools, Woodside, Sheffield S3 9PD.**

### USEFUL HINTS:

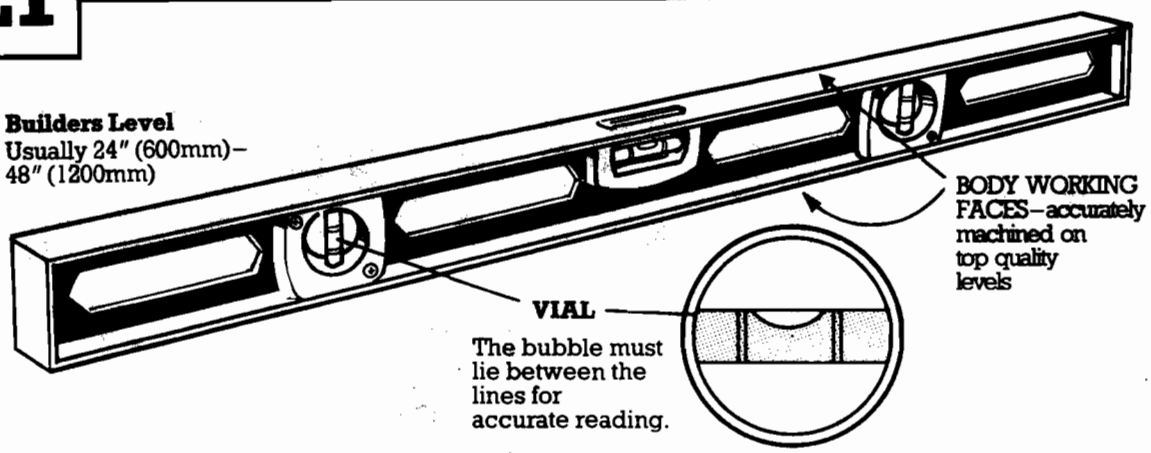
1. Store in the open position to avoid straining the return spring, and the possibility of accidental release of the spindle.
2. If using near double glazing units, remove the return spring to avoid accidental spindle release.
3. Ensure all bits are held securely in the chuck.
4. Lubricate with light machine oil or flake graphite – never use grease.
5. Soap or candle grease on the screw thread will allow the screw to be turned easily.
6. Never attempt to drive a large screw with a small Yankee.
7. Never drive a small screw with a large Yankee. There is too much power and screw damage will result.
8. If the tool becomes difficult or 'sticky' in use, clean the ratchet mechanism and spindle with paraffin.
9. Fitting a jubilee clip to the shell will help prevent the tool rolling off the work surface.

STANLEY

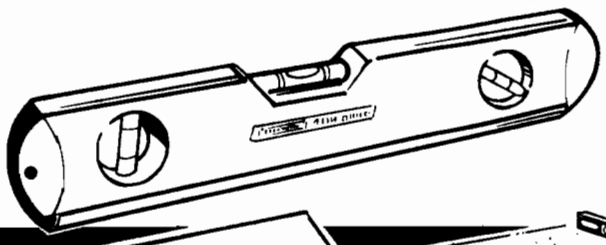
No.21

# LEVELS

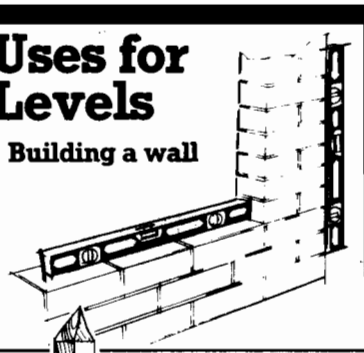
## 21 How to use Levels

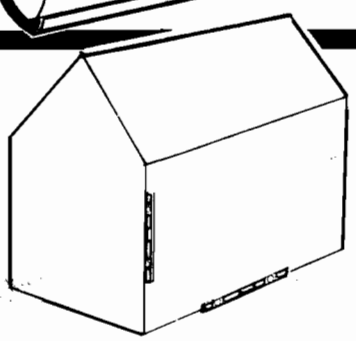


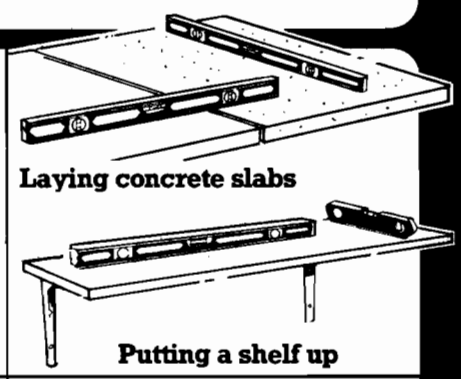

A level is a precision instrument for checking horizontals and verticals. To retain its accuracy it must be treated with great care. Don't bang it – Keep it clean – Store it in a safe place.

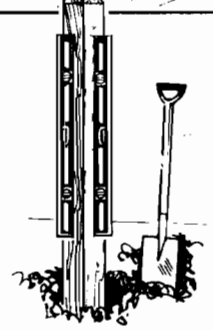


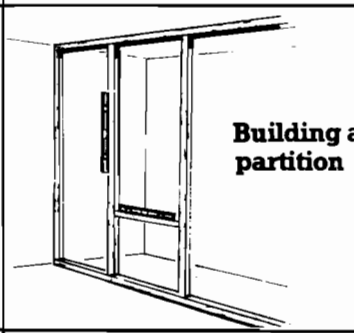

## Uses for Levels

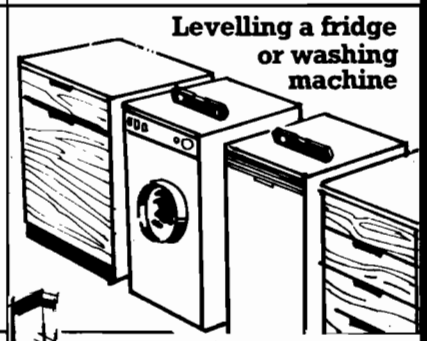


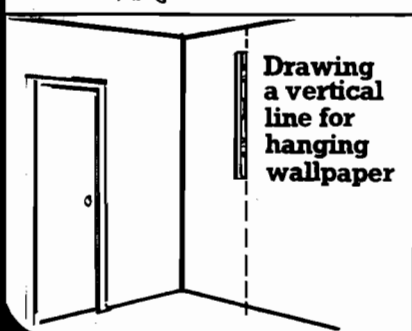



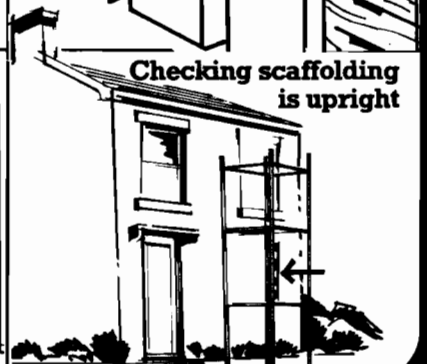







STANLEY

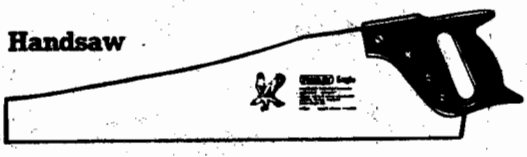
No.22

# SAWS

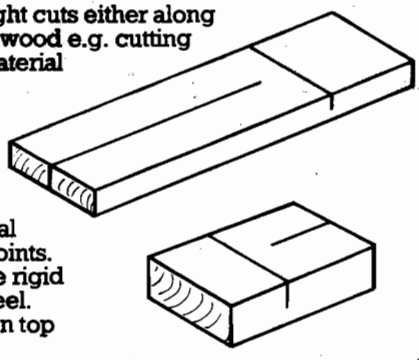
## 22 How to choose a Saw – Part 1

**WHAT TYPE DO YOU REQUIRE?** – This depends on the type of work you are to complete. In general terms, for straight cuts, there is a choice of a:—

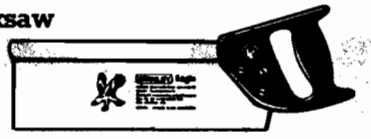
**Handsaw**



Produces long straight cuts either along or across a piece of wood e.g. cutting boards and sheet material to size.



**or Backsaw**



Produces light, accurate straight cuts either along or across a piece of wood e.g. general bench work and cutting joints. The back keeps the blade rigid and may be of brass or steel. Brass is generally found on top quality saws.



### WHAT SIZE OR LENGTH?

**BACK SAWS** – The most popular lengths are 10"/250 mm & 12"/300mm but 14"/350 mm should be chosen if using sawing aids such as a mitre box.

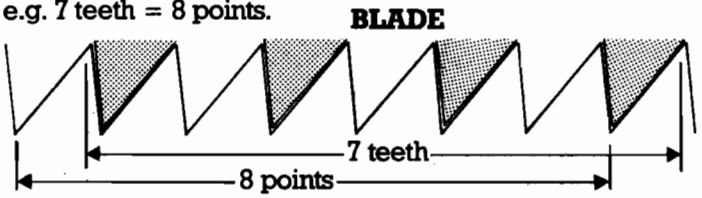
**HAND SAWS** – Lengths can vary between 20"/500 mm and 26"/660 mm – The choice of length will depend on the type of sawing to be completed but a 22"/550 mm is a good general purpose length.

As a general rule
– a long saw has large teeth which cut quickly, ideal for rough work.
– a shorter saw has smaller teeth, ideal for lighter more precise cuts.

* As the lengths vary so to do the number of points and teeth per inch = P.P.I. and T.P.I.

### WHAT ARE POINTS PER INCH (P.P.I.)

– This measurement describes the number of points in an inch or 25mm. The number of P.P.I. together with the length will determine how the saw will cut.
When choosing note that there is always one more point per inch (P.P.I.) than there are teeth per inch (T.P.I.) e.g. 7 teeth = 8 points.




| Use | Length of blade (approx) | Points per inch |
|---|---|---|
| Sawing down the length of a plank | 26"/650 mm | 4½ or 6 |
| Sawing across the width of a plank | 20"/500 mm to 24"/600 mm | 7 or 8 |
| Sawing wide panels and boards | 22"/550 mm | 10 |
| Sawing accurate joints – Back saws | 10"/250 mm to 14"/350 mm | 15 or 13 |

### WHAT SHAPE OF TEETH DO YOU REQUIRE?

Rip, Cross Cut, Universal, Fleam (See "How to..." No.30 How to choose a Saw – Part 2)

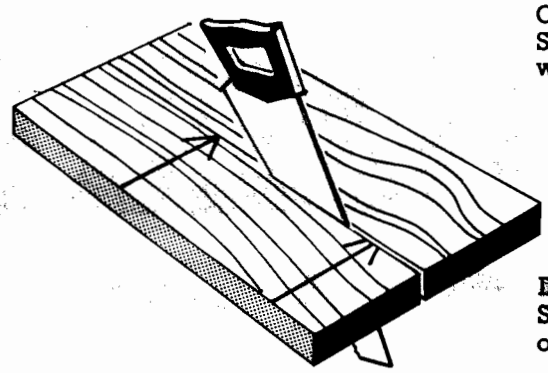
STANLEY

No.23

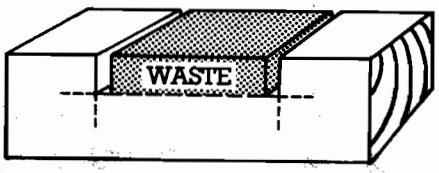
# SAWS

## 23 How to use a Saw – Part 1

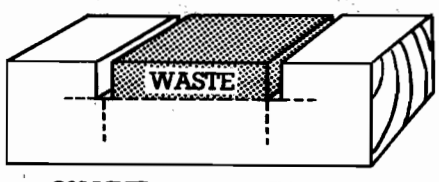
### Which side of the line to cut? – Saw to the waste side



CORRECT:
Saw cut is to waste side of line




INCORRECT:
Slot will end up oversize

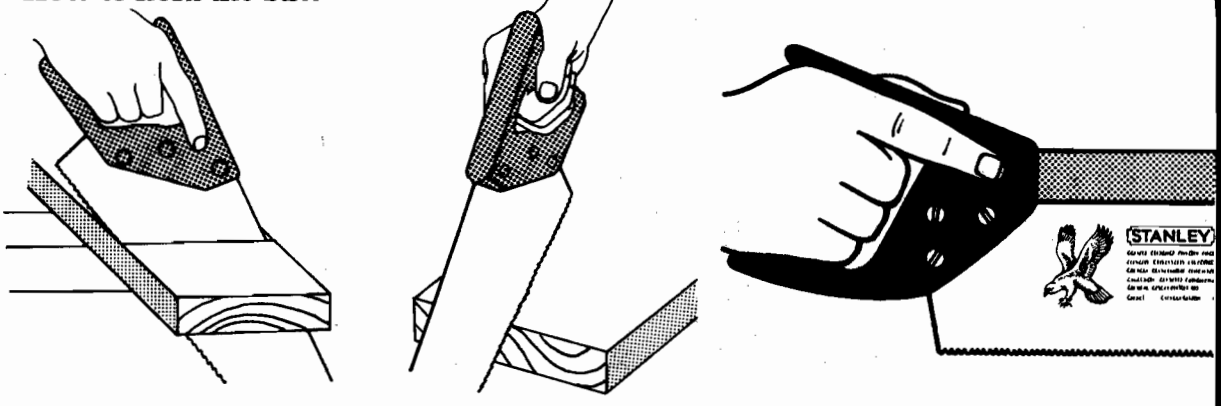



ON LINE WRONG SIDE OF LINE

Mark an arrow against the scribed or pencilled line to remind yourself on which side to saw.

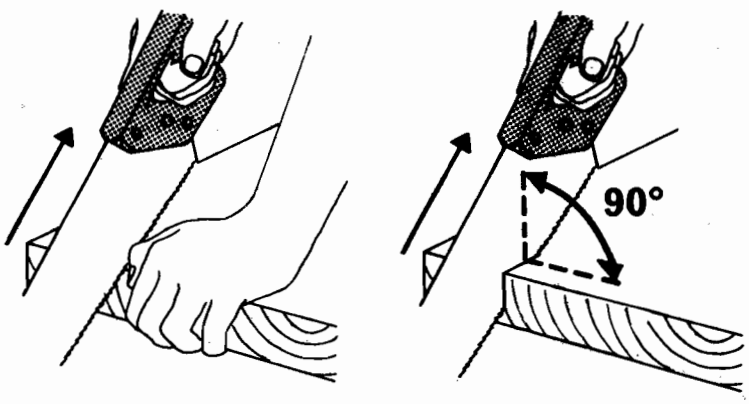
**USEFUL HINT:** Shading or marking the waste area helps to prevent mistakes.

### How to hold the saw



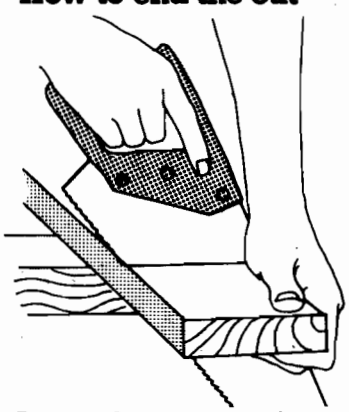

Whatever pattern of hand or back saw you use, note the position of the first finger. This helps balance and gives better control

### How to start the cut




Start the cut by drawing the saw backwards a few times. Use your thumb as a steadying gauge for this initial cut. Ensure the saw is square to the wood.

### How to end the cut



Support the waste with the other hand and make slow, careful strokes to prevent the waste breaking off, leaving a jagged edge.

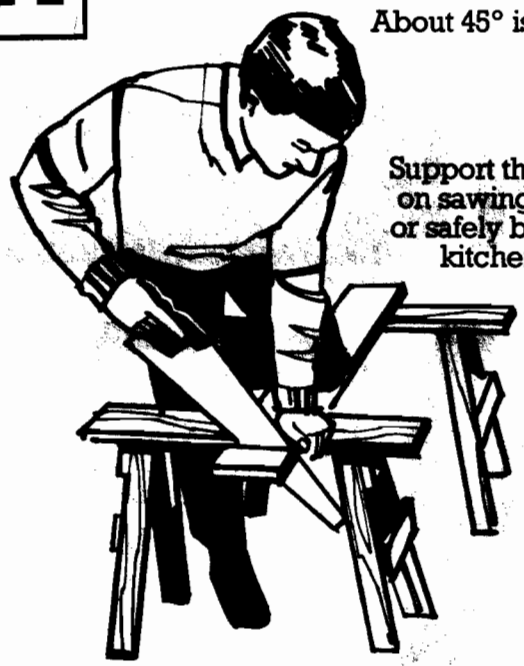
STANLEY

No.24

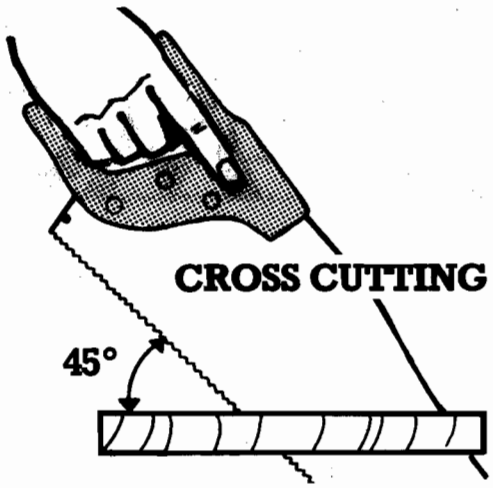
# SAWS

## 24 How to use a Saw – Part 2

About 45° is the correct angle for cross-cut sawing

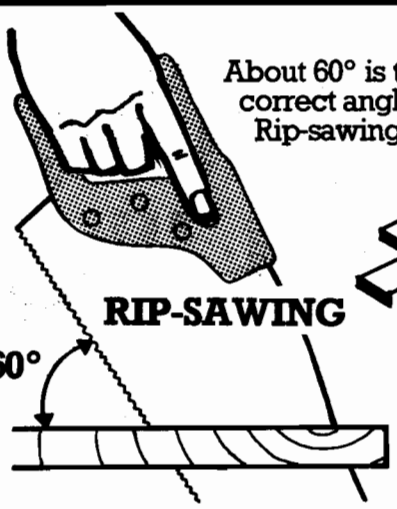


Support the wood on sawing horses or safely between kitchen chairs

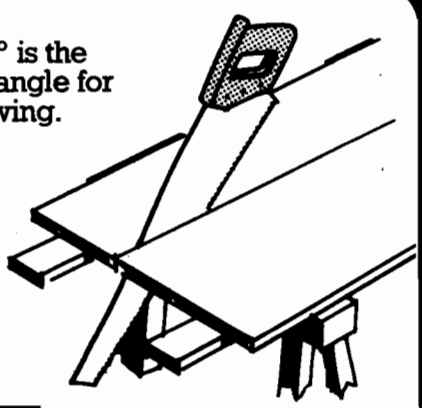



**USEFUL HINTS**

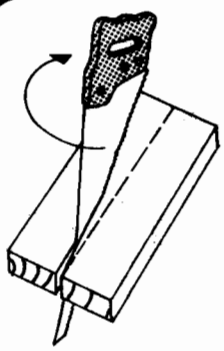
Pointing the first finger down the saw will help balance and gives better control.



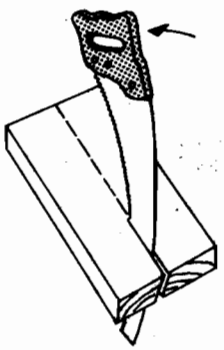

About 60° is the correct angle for Rip-sawing.



Support a panel on either side of the cut.

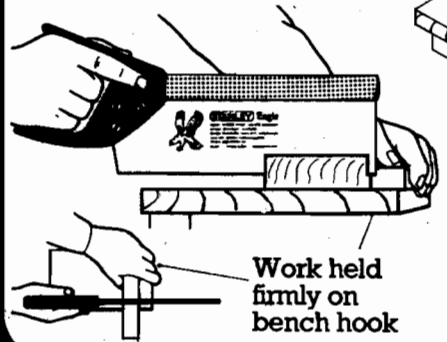


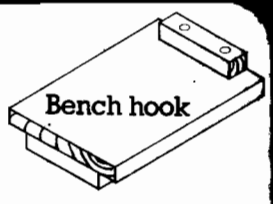
If saw leaves line, twist handle slightly and draw back to line.



If saw not square, bend it or bow the blade very carefully until the cut is corrected.

When using a back saw place the wood to be cut in a bench hook.




By placing end blocks in middle the bench hook can be used left & right handed

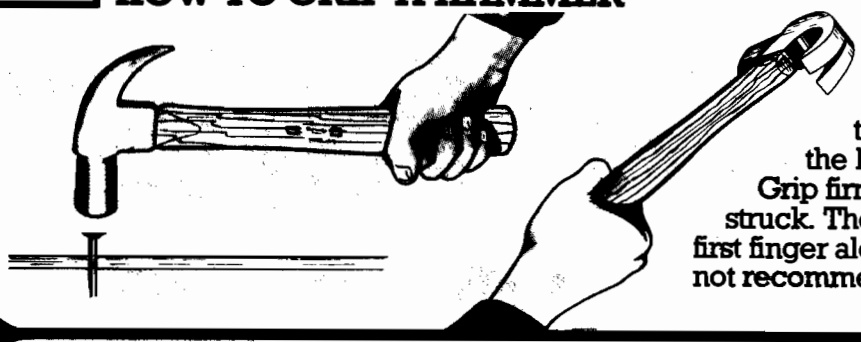
STANLEY

No.25

# HAMMERS

## 25 How to use a Hammer – Part 1

### HOW TO GRIP A HAMMER

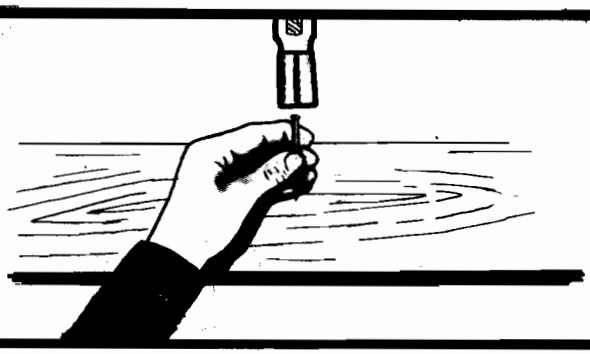


Hold handle towards the end **not** near the head.
Grip firmly as the blow is struck. The practice of placing the first finger along the handle is not recommended.

### HOW TO START A NAIL

Rest hand on wood.
Hold nail upright and firmly.
Start with light hammer blows square onto nail head.

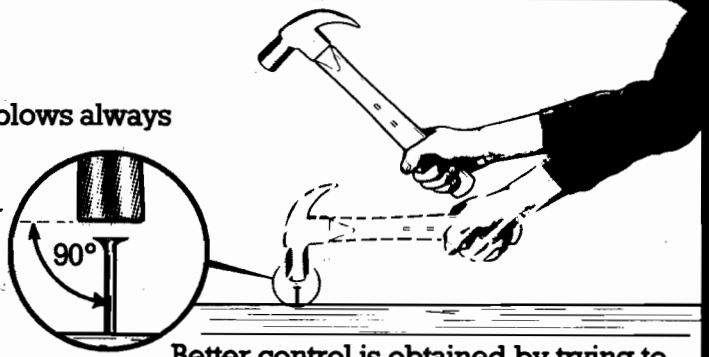
For small panel pins see "How to... No.2 How to choose the right type of Hammer.



### DRIVING A NAIL IN

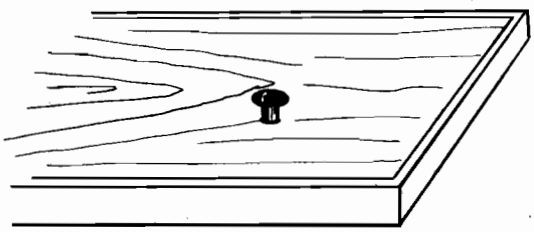
When nail has been started, deliver blows always maintaining a 'square' action.

Always keep your eyes on the nail head. Do not try to "drive-in in one!" There is a great danger of either bending the nail or slipping off the head and damaging work.




Better control is obtained by trying to swing the hammer from the elbow.

When the nail is driven nearly home, finish off with very gentle blows until it is just level with the surface of the wood.



With some nails you may wish to knock the head below the surface and fill the hole to give a neat appearance. For this use a Stanley Nail punch No. 58-112

### NAILS VERSUS SCREWS AS A METHOD OF FIXING

1. Nails are cheaper and quicker.
2. Screws are stronger.
3. Screws will allow dismantling much more easily than nails.
4. Screws usually give a neater appearance.

STANLEY

No.26

# PLANES

## 26 How to maintain your Plane blades

### When to re-sharpen a plane blade

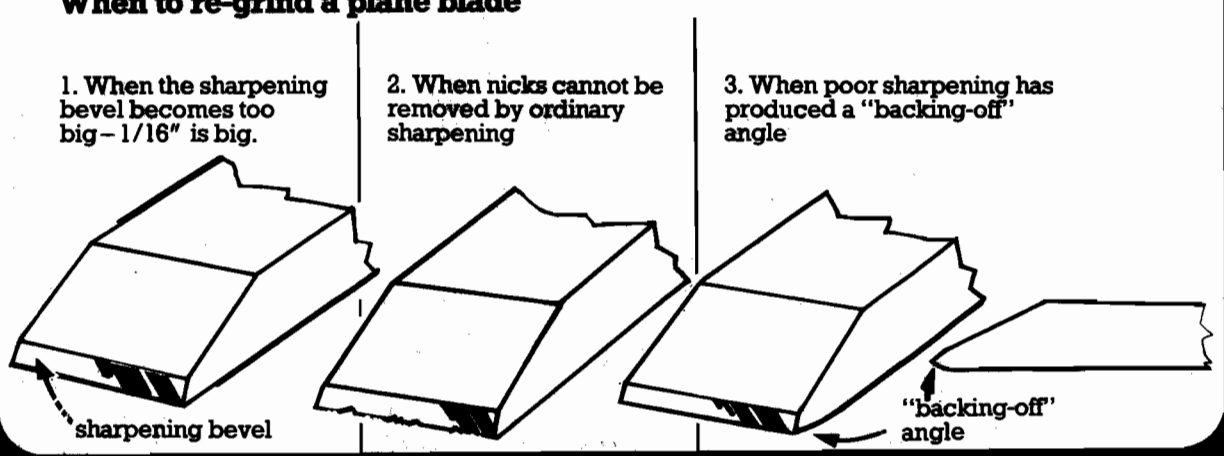
1. When it gets blunt and will no longer cut easily.
2. If it gets chipped – usually by careless use or continuous use on chipboard or plastic laminates.

**Remember** – a sharp blade
– is safer to use – gives greater accuracy in use
– is easier to use – gives greater satisfaction to the user

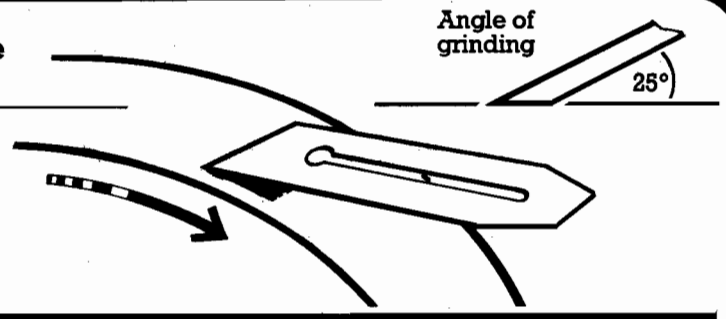
Re-sharpen frequently. The time taken is amply repaid.

### When to re-grind a plane blade

1. When the sharpening bevel becomes too big – 1/16" is big.
2. When nicks cannot be removed by ordinary sharpening
3. When poor sharpening has produced a "backing-off" angle

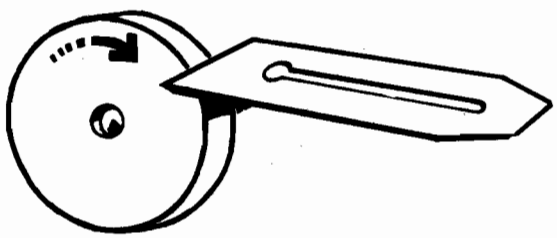



### How to regrind a plane blade




The preferred method is on a water-cooled, large diameter sand-stone wheel, running slowly

The alternative is on a small-diameter, narrow grinding wheel running at high speed, not lubricated – a common electric drill attachment.



Great care must be taken
– To maintain an angle of 25° across the whole width of the blade.
– To avoid burning the edge. If this occurs the temper of the blade is destroyed, which means that it becomes soft and will not hold its cutting edge when sharpened.

**CAUTION:**

If you attempt this method.
a) Practice on an old blade.
b) WEAR EYE PROTECTION (Stanley No.93-060)
c) Ensure all safety guards are in position.

STANLEY

No.27

# PLANES

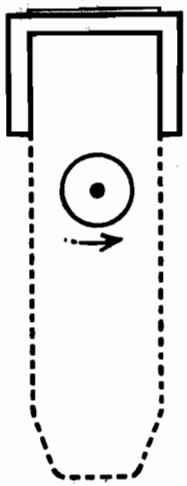
## 27 How to adjust your Plane correctly

**To get the best results from your plane it is necessary to understand what the main adjustments are for.**

1 Look down the sole of the plane.

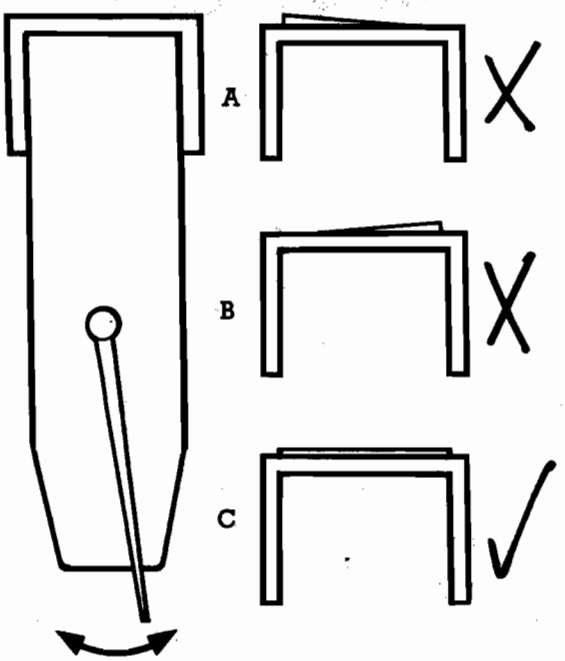
### DEPTH OF CUT ADJUSTMENT

2 This governs the thickness of the shaving.
Whilst holding the plane in this position adjust the screw until the cutting edge of the blade appears as a very fine line.



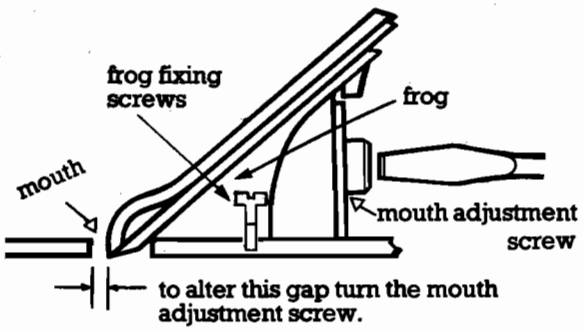

### LATERAL ADJUSTMENT

3 Similarly move lateral adjustment lever sideways to obtain even cutting as in diagram C.




### MOUTH ADJUSTMENT

This adjustment is used only occasionally.




**It is particularly useful to reduce the gap when planing very difficult or "curly" grain hardwood, as this will help to produce a smooth surface.**

**To make this adjustment you will need to:–**

- **slacken slightly the screws holding the frog to the base.**
- **replace blades in position**
- **Turn the mouth adjusting screw**
- **Re-tighten frog screws firmly. This is very important to avoid the blades vibrating or "chattering".**
- **check adjustment.**

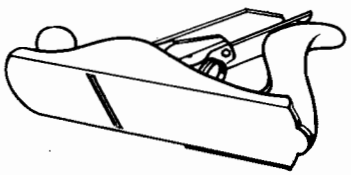
STANLEY

No.28

# PLANES

## 28 How to get the Best from your Plane - Part 2

1 When not in use place plane on its side.



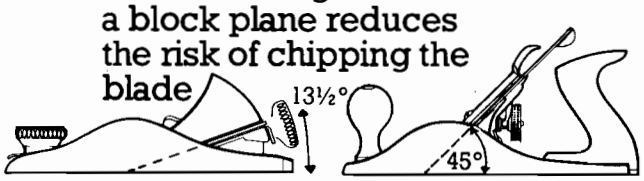
This prevents damage to blade.

2 Never push metal objects in the mouth to release jammed shavings.

If your plane jams with shavings, remove blades and clean out. If the problem recurs find out the cause.

3 When planing laminate plastics e.g. kitchen worktops, you may find it better to use a Stanley No.60½ block plane.

The lower angle of the blade in a block plane reduces the risk of chipping the blade




Block plane Bench plane

4 If your plane 'chatters' i.e. does not cut smoothly, it could be caused by loose frog fixing screws.

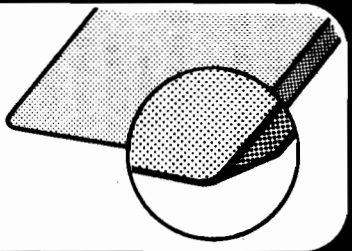
Check all screws are tight, particularly the frog fixing screws (see "How to... sheet 27).

5 Keep your plane clean and well lubricated. Occasionally wipe all metal surfaces with an oily cloth.

Care in maintenance will make it easier to use and last longer.

6 On smoothing planes remove the corners of the blade to prevent making ridges on the wood.

Only a very small amount should be removed from the corner.



7 It's easier to remove 2 thin shavings rather than 1 thick one.

It saves time and effort and produces a better result.

STANLEY

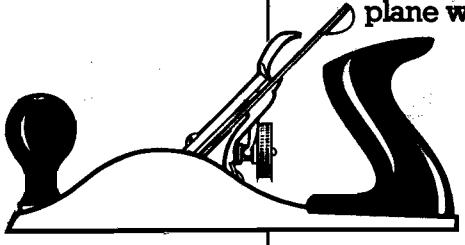
No.29

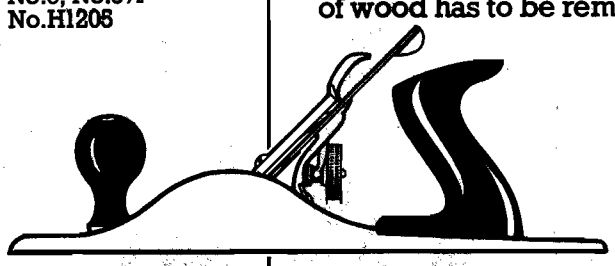
# PLANES

## 29 How to select the correct size Plane

**Here is a guide to help you choose the Bench Plane best suited to your needs.**

| Type | Use | Length | Cutter Width |
|---|---|---|---|
| Smoothing Plane<br><br>No.3, No.4, No.4½<br>No.H1204<br>SB3 | Designed for light cuts; smoothing a surface prior to staining, polishing, painting etc. Light to handle and easy to control. If you're only going to buy just one plane, choose a smoothing plane with a 2" cutter. | 8¼" – 9¾"<br>213 – 245mm | 1¾"/45mm<br>2"/50mm<br>2⅜"/60mm |
| Jack Plane<br><br>No.5, No.5½<br>No.H1205 | Heavy duty, designed for thicker cuts on rough work. Ideal when a lot of wood has to be removed. | 14"/355mm<br>15"/380mm | 2"/50mm<br>2⅜"/60mm |
| Jointer or Try Plane<br><br>No.6, No.7 | Designed for planing long pieces of wood accurately. Needs considerable skill to use correctly. | 18" – 22"<br>460 – 560mm | 2⅜"/60mm |





Sometimes you may prefer a block plane. A block plane is a small plane having one blade only set at a lower angle than the bench plane. They vary in length from 5½" – 7" (140 – 180mm) and are usually used with one hand only. They are ideally suited for use on end grain and the hard plastic laminates.

**Useful Hint**
Always buy the best quality tool you can afford. It more than repays your investment in the long run.

STANLEY

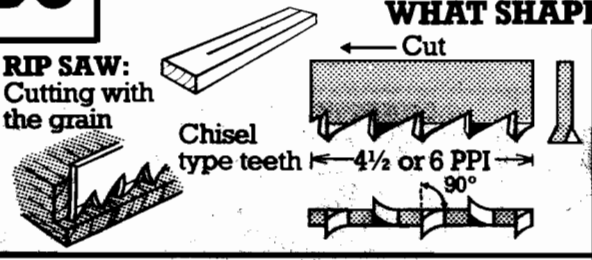
No.30

# SAWS

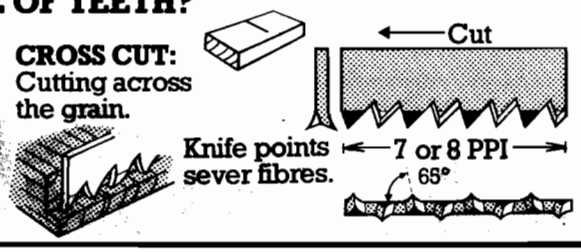
## 30 How to choose a Saw – Part 2

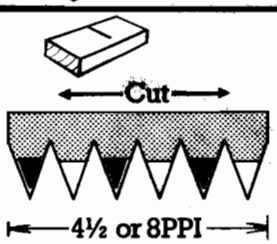
### WHAT SHAPE OF TEETH?

**RIP SAW:**
Cutting with the grain



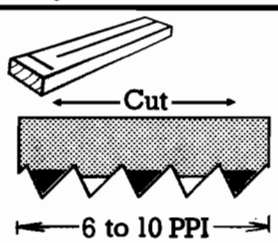

**CROSS CUT:**
Cutting across the grain.




**FLEAM:**
Cutting across the grain

Sometimes fleam teeth are called straight teeth. They are designed for fast cutting across the grain as they cut on the push and pull strokes.




**UNIVERSAL:**
Cutting both ways

Similar in profile to the cross cut, but works equally well both across and down the grain. This reduces the need to have a rip and cross cut saw.

### WHAT IS A HARDPOINT SAW?

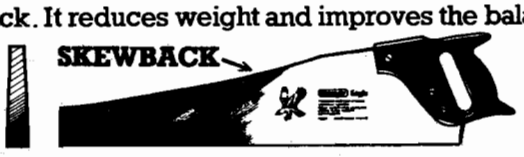
A hardpoint saw has teeth that are tip-hardened to give extra long effective cutting life. The teeth will last up to 5 times longer than normal patterns and the saw is ideal for cutting man-made composite boards, e.g. chipboard, plywood, hardboard etc. With the increase in teeth hardness for extra life, it means that a hardpoint saw cannot be conventionally re-sharpened, this type of saw is usually identified by having blackened teeth.

Normal saws have teeth which may be re-sharpened – a task best left to the expert.

### STRAIGHT OR SKEWBACK?

**SKEWBACK** – This refers to the curved back. It reduces weight and improves the balance of the saw making it easier to control.

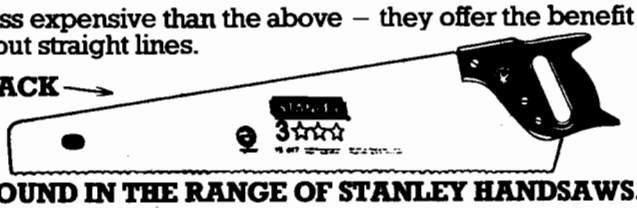
Taper Ground Cross section




Another feature often associated with a skewback is taper grinding. This is where the blade is ground on both sides to taper both from the handle to the tip and from teeth to back, this improves the clearance of the saw in the cut making it easier to use.

*** THE ABOVE FEATURES ARE NORMALLY FOUND IN TOP QUALITY SAWS LIKE THE STANLEY EAGLE HAND SAW.**

**STRAIGHT BACK** – Usually less expensive than the above – they offer the benefit that the back may be used for marking out straight lines.




*** THE ABOVE FEATURE IS FOUND IN THE RANGE OF STANLEY HANDSAWS.**

### WOODEN OR PLASTIC HANDLE?

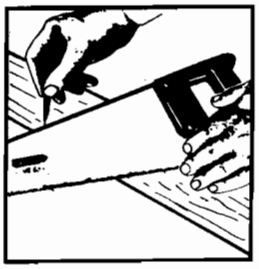
**WOOD HANDLE**

Traditionally, some people prefer the 'feel' of wood – care must be taken to prevent damage.

**PLASTIC HANDLE**

Virtually unbreakable

May have built in 90° and 45° marking out feature.



**AVAILABLE IN STANLEY RANGE.**

STANLEY

No.31

# SAWS

## 31 How to choose a Saw – Part 3

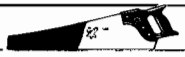
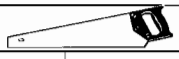
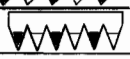
### CHOOSING THE CORRECT SAW FOR THE JOB

4½ OR 6 P.P.I. = Ideal for heavy sawing (along grain).
7 OR 8 P.P.I. = Good for general purpose sawing.
10 P.P.I. = Good for sawing panels and sheet materials
(P.P.I. = Point per inch)

### THE STANLEY HAND SAW RANGE

| SIZE: IN. | 20 | | 22 | | 24 | | | 26 |
|---|---|---|---|---|---|---|---|---|
| MM. | 500 | | 550 | | 600 | | | 650 |
| POINTS PER INCH | 8 PPI | 10 PPI | 8 PPI | 10 PPI | 4½PPI | 7 PPI | 8 PPI | 6 PPI |
| Eagle | | | | ● | | ● | | ● |
| 3 Star Universal | ● | | ● | ● | | | ● | ● |
| 3 Star Universal (hardpoint) | | | ● | | | | | |
| 3 Star Universal (wood handle) | ● | | ● | | | | | |
| 3 Star Fleam (hardpoint) | | | ● | | ● | | ● | |
| 2 Star Universal | ● | | ● | | | | | |
| Kite | | ● | | ● | | | | |

### WHICH SAW TO CHOOSE?
### FEATURES AVAILABLE IN STANLEY RANGE

| SPECIFICATION | BENEFIT | Eagle | 3 Star Universal | 3 Star Universal (hardpoint) | 3 Star Universal (wood handle) | 3 Star Fleam (hardpoint) | 2 Star Universal | Kite |
|---|---|---|---|---|---|---|---|---|
| 1 Chrome vanadium alloy steel blade | Long life | ● | | | | | | |
| 2 Swedish quality steel blade | Long life | | ● | ● | ● | ● | ● | ● |
| 3 Skew back  | Reduce weight/improves balance | ● | | | | | | |
| 4 Taper ground  | Improves clearance in cut, easier to use | ● | | | | | | |
| 5 Straight back  | Can be used for marking out | | ● | ● | ● | ● | ● | ● |
| 6 Universal teeth  | Cuts along and across grain | ● | ● | ● | ● | | ● | ● |
| 7 Fleam teeth  | Quick cross grain cutting | | | | | ● | | |
| 8 Hard point | Stays sharp up to 5 times longer, ideal for plywood, chipboard etc. | | | ● | | ● | | |
| 9 Normal hardness | Ideal for hardwood and softwood, can be re-sharpened | ● | ● | | ● | | ● | ● |
| 10 Wood handle  | Traditional handle | | | | ● | | | |
| 11 Plastic handle (screws)  | Ergnomically shaped for comfort | ● | | | | | | |
| 12 Plastic handle (screws) | Quality saw with 90° & 45° marking facility | | ● | ● | | ● | | |
| 13 Plastic handle (moulded)  | Strong long lasting with 90° & 45° marking facility | | | | | | ● | ● |
| 14 Hand set and hand sharpened | Sharp teeth, quality finish | ● | | | | | | |
| 15 Precision ground teeth fully cross sharpened | Sharp and accurate | | ● | ● | ● | ● | ● | |
| 16 Precision ground teeth straight sharpened | Sharp | | | | | | | ● |

STANLEY

No.32

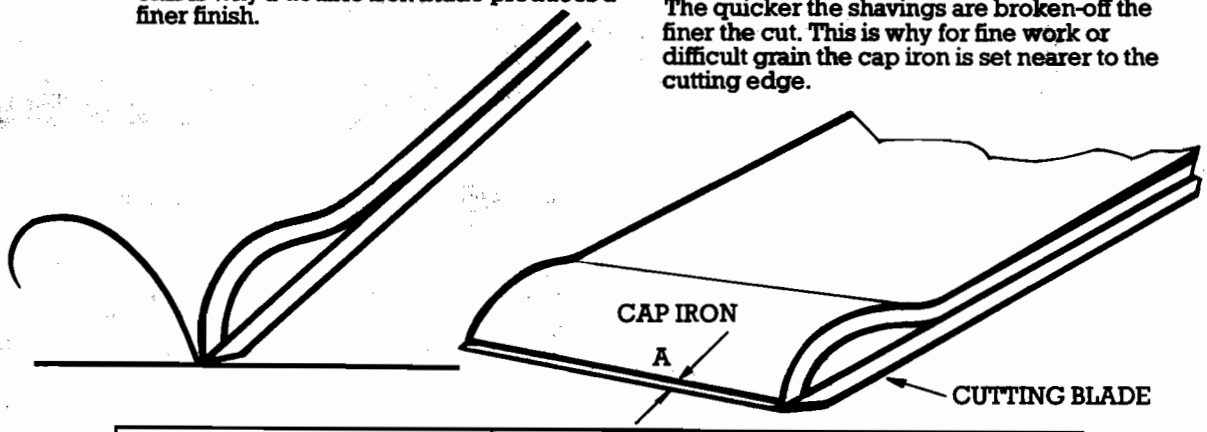
# PLANES

## 32 How to prepare a Plane for use – Part 1

### HOW TO SET A CAP IRON

The function of a cap iron is to break off and curl the shavings immediately they are cut. This is why a double iron blade produces a finer finish.

The quicker the shavings are broken-off the finer the cut. This is why for fine work or difficult grain the cap iron is set nearer to the cutting edge.

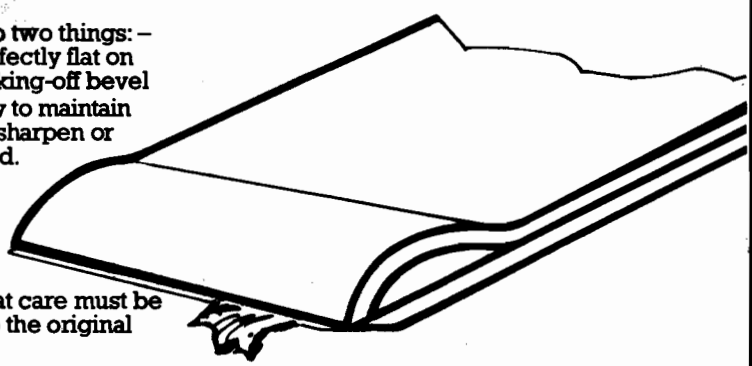



| Plane | Use | Setting of A |
|---|---|---|
| Smoothing No. 3, No.4, No. 4½, H1204 | – general work<br>– very fine cabinet work, hardwoods and difficult grain. | 1/32″<br>1/64″ |
| Jack No. 5, No 5½, H1205 | Rough, heavy work | 1/32″ – 1/16″ |
| Jointer or Try No.6, No.7 | Depending on wood and application | 1/64″ – 3/64″ |

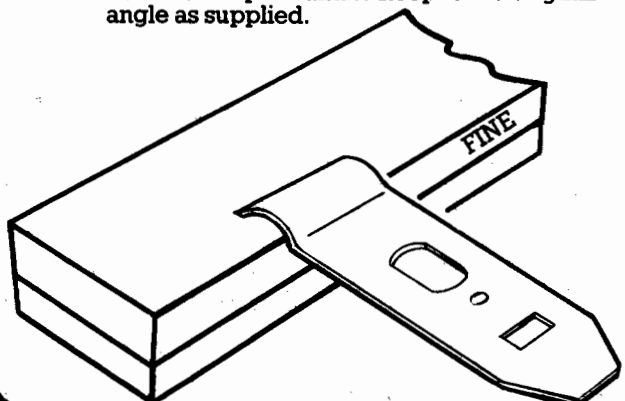
### POSSIBLE FAULTS

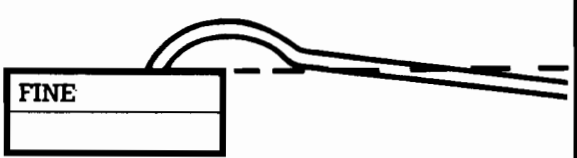
The cap iron must fit snuggly onto the cutting iron, with no gaps in which shavings can get wedged.
If this occurs it is necessary to do two things: –

a) check that the cutting iron is perfectly flat on the back i.e. that there is no backing-off bevel (see 'How to...'sheet no.26 – 'How to maintain your Plane blade'). If there is, re-sharpen or re-grind until it has been removed.



b) Re-dress the cap iron.
This is done on an oilstone. Great care must be taken to keep flat and to keep to the original angle as supplied.



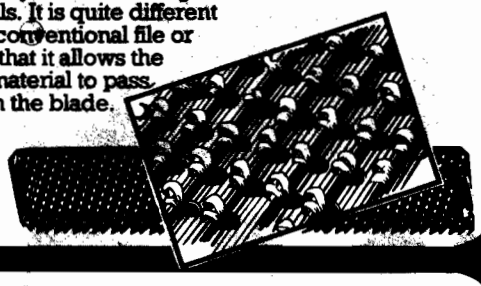
STANLEY

No.33

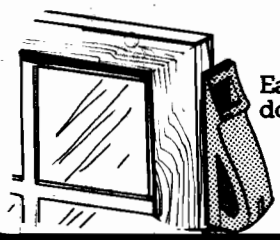
# SURFORM

## 33 How to use a Surform

A Stanley Surform tool is one of the safest cutting tools produced. Its many small accurately shaped and sharpened teeth make it a versatile tool which will cut effectively on a wide range of materials. It is quite different from a conventional file or rasp in that it allows the waste material to pass through the blade.

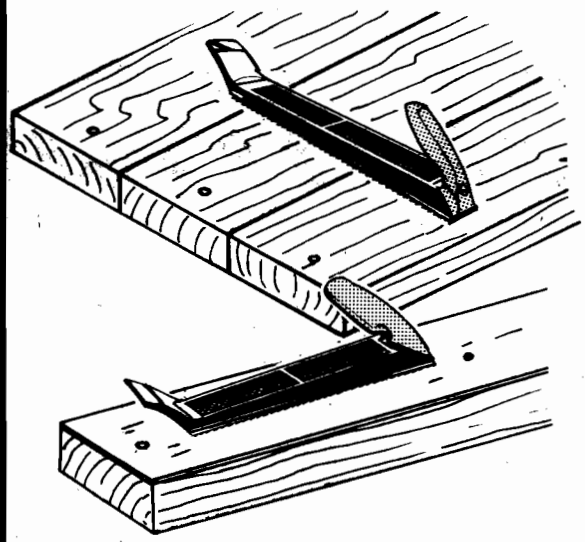


## What will a Surform do?

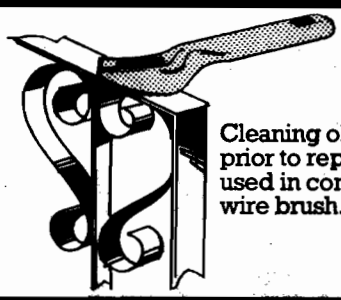


Ease sticking windows and doors.

Level uneven floor boards prior to laying vinyl, carpeting etc.

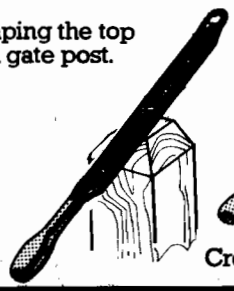


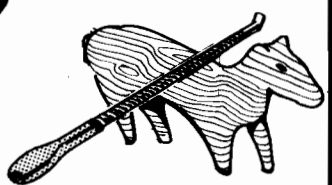
Cleaning up old painted secondhand timber which may have nails embedded in it.



Cleaning old paint off a gate prior to repainting. Often used in conjunction with a wire brush.

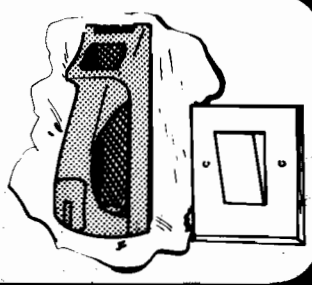
Shaping the top of a gate post.



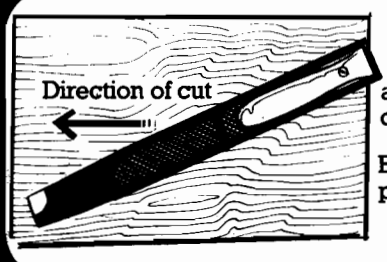


Creative sculpture work.

Remove excess filler prior to decorating.



These are just a few of the hundreds of jobs around the house and garden for which Surform is ideal.



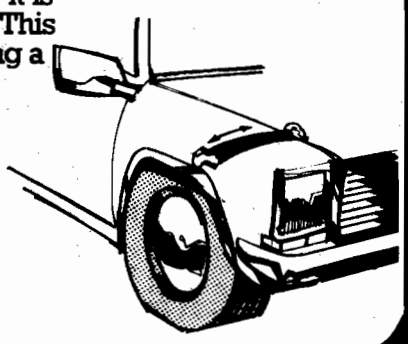

By altering the angle of the tool, a different cutting action can be obtained.

Experiment on a piece of scrap wood.

## Repairing Car Bodies

After application of car body filler it is necessary to remove the surplus. This can be conveniently done by using a Surform blade without its holder.

1. Use the fine cut blade 21-506.
2. Wrap rag around each end to provide a comfortable grip.
3. Use Stanley Eye Protectors (No.93-060).
4. USE GENTLY
5. Do not overbend the blade.



## USEFUL HINTS

- Replace a blunt blade. It will make cutting easier, produce a better job and save a lot of time.
- Always secure work very firmly.
- See "How to..." No. 17 "How to use a Plane" for information which will help you to use your Surform.

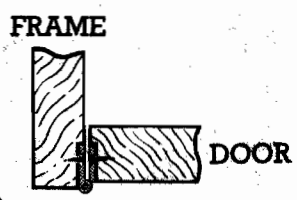
STANLEY

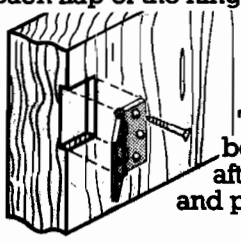
No.34

# HINGES

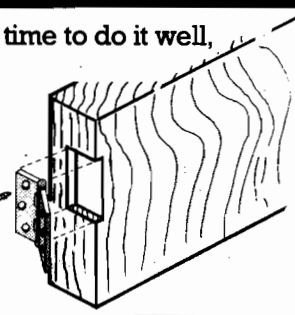
## 34 How to fit Hinges

**Fitting a butt hinge.** This requires considerable skill and time to do it well, because ideally each flap of the hinge has to be recessed.



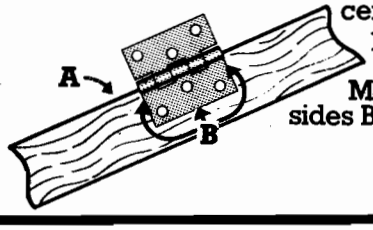
The recesses must be cut very carefully, after accurate marking and positioning of the hinge.

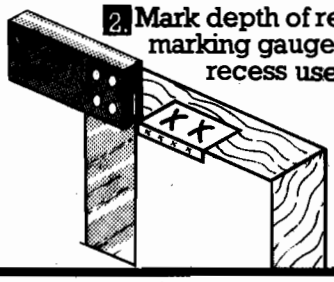


### How to cut the recess


1. Mark position of hinge using a Stanley knife.

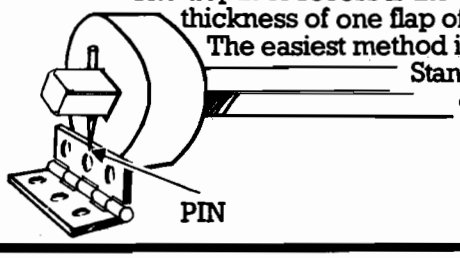
Lay hinge in position so that centre of hinge pin lines up with edge of door (A). Mark round the sides B.

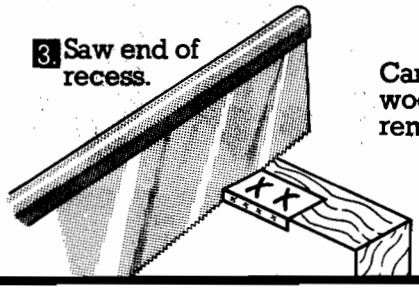



2. Mark depth of recess use a marking gauge. Mark end of recess use a try square.

The depth of recess is the thickness of one flap of the hinge. The easiest method is to use a Stanley marking gauge.

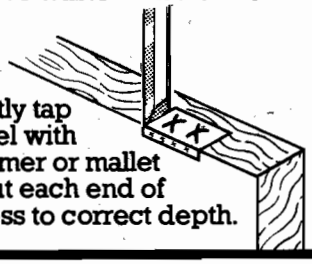


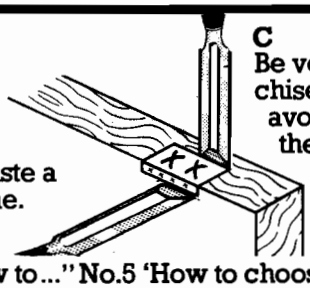

3. Saw end of recess.

Carefully saw in the WASTE wood marked with crosses to remind you.

4. Remove waste with a chisel.



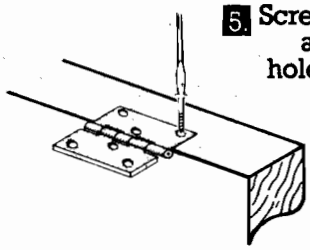

**A**
Gently tap chisel with hammer or mallet to cut each end of recess to correct depth.




**B**
Remove waste a little at a time.

**C**
Be very careful when chiselling vertically to avoid splitting the wood.

(See "How to..." No.5 'How to choose a Chisel' leaflet)



5. Screw hinge in position after preparing pilot hole using countersink screws. (See "How to..." No.8 'How to screw two pieces of wood together')

**Fitting Concealed Recess & Pivot Hinges**
Particular size drills are required for these depending on size of hinge.

**Tools required to fit a butt hinge**
Knife – 5900 is ideal. Saw – Back Saw 15-312 or 15-322. Chisels – 5001 or 5002, various sizes to suit hinge size. Screwdriver – 5006 size to suit screws. Hammer – ST1½ or H201½. Marking gauge – 5061. Try Square 19/6".

STANLEY

No.35

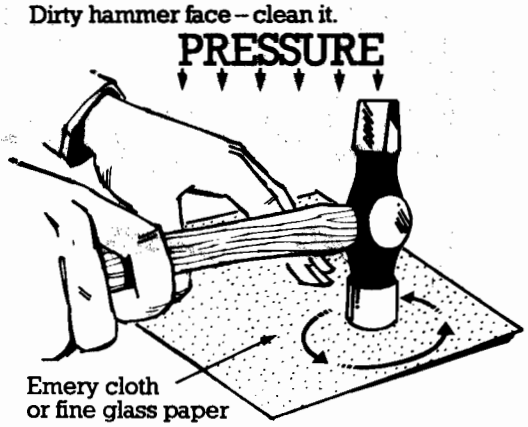
# HAMMERS

## 35 How to use a Hammer – Part 2

### If a nail bends –

**1 Try to find the cause –**

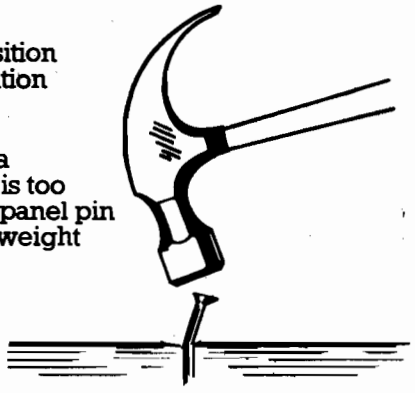
Dirty hammer face – clean it.




– Foul blow

Correct the position of elbow in relation to nail

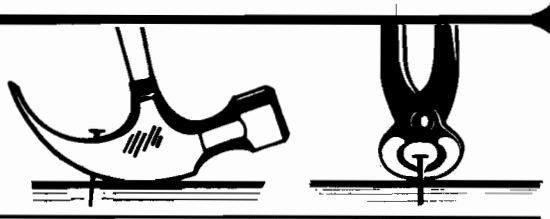
– Are you using a hammer which is too heavy? A small panel pin requires a lightweight hammer.



**2 Try to straighten it** and then use light blows only to drive it in OR Remove it and replace with a new nail.

### How to remove a nail

**When the nail head is exposed.**
Use a claw hammer or pincers.



**When the nail head is flush with the surface.** If the two pieces of wood can be prized apart then knock the nail through wood to expose head (Fig A). Otherwise cut two recesses using an old wood chisel or a cold chisel (Fig B). This allows a pair of pincers to be used to grip the nail and remove it (Fig C).

FIG B

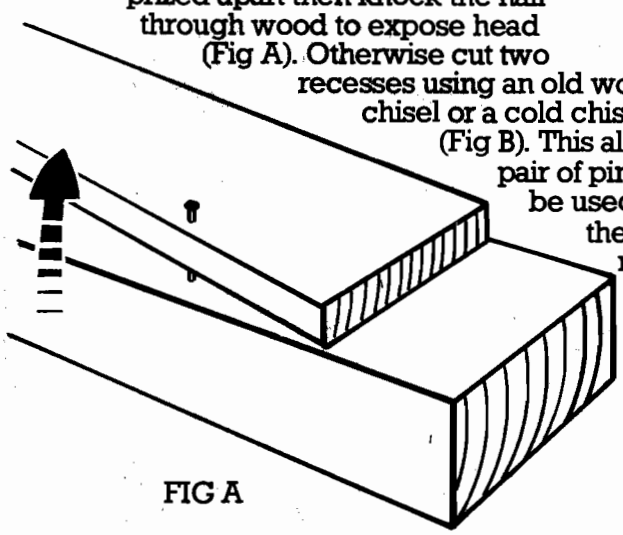


FIG A

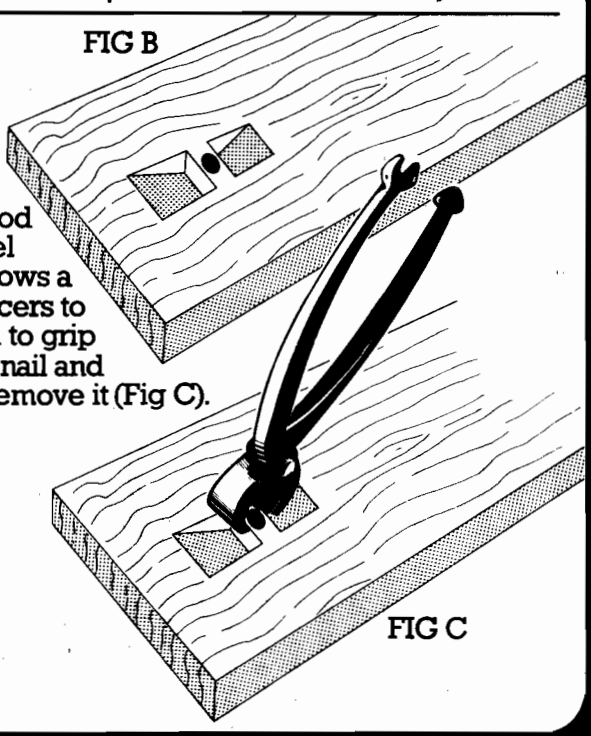


FIG C

### USEFUL HINTS

1. When using hardened steel masonry nails use a ball pein hammer and use light blows only. For SAFETY wear eye protectors (Stanley No. 93-060).
2. For very large nails drill a pilot hole slightly smaller in diameter than the nail. This will reduce the possibility of splitting and make it easier to drive the nail in.

STANLEY

No.36

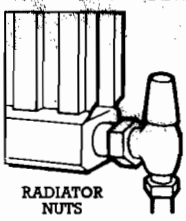
# PLUMBERS TOOLS

## 36 How to choose and use Plumbers Tools

A basic set of plumbing tools would include: ● Water Pump Pliers ● Adjustable Wrench ● Tube Cutter ● Hacksaw ● Stillson Wrench

Very useful additions would include: ● Gripping Pliers ● Chain and Strap Wrenches ● Sanigrip Pliers – and for the more ambitious DIY plumber – ● a Gas Blow Torch

### WATER PUMP PLIERS – *Popular size 10" (250mm)*




*EXAMPLES OF USES*

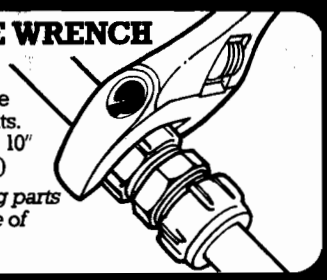
Can be used as a general purpose plier, but ideal where wide jaw opening is required to grip nuts or when working in a confined space

*Protect surface with rag to prevent damage*

### ADJUSTABLE WRENCH

General purpose spanner ideal for use on compression joints. Popular sizes 8" and 10" (200mm and 250mm)

*HINT – Keep moving parts lightly oiled for ease of adjustment*



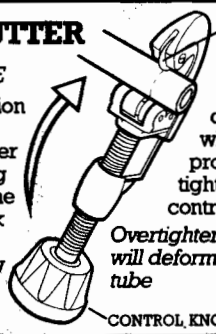
### Cutting Pipe

One method is to use a hacksaw. Care must be taken to produce a 'square' cut and all ragged edges must be removed with a file. An alternative is to use a Tube Cutter

### TUBE CUTTER

*HOW TO USE*

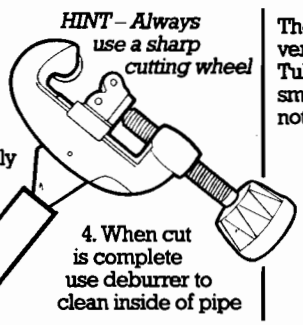
1. Mark position of cut
2. Attach cutter so that cutting wheel is in line with the mark and tighten control screw until it just grips




3. Rotate cutter whilst progressively tightening control knob

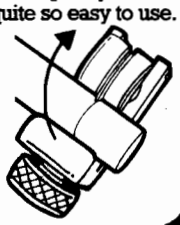
*Overtightening will deform tube*

*HINT – Always use a sharp cutting wheel*



4. When cut is complete use deburrer to clean inside of pipe

There is a miniature version of the standard Tube Cutter. It has a smaller capacity but is not quite so easy to use.

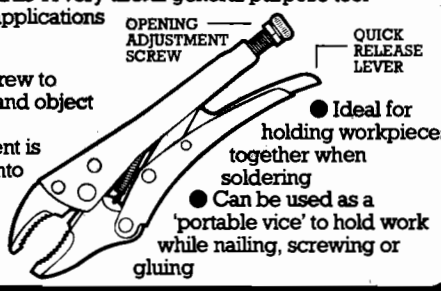


### GRIPPING PLIERS A very useful general purpose tool – ideal in many plumbing applications

*HOW TO USE*

1. Adjust opening with screw to leave gap between jaws and object
2. Close handles
3. When correct adjustment is made handles will click into position and hold
4. To release, operate quick release lever

*Lightly oil moving parts*



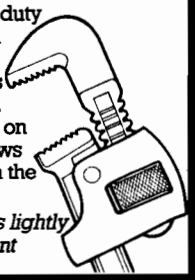

● Ideal for holding workpieces together when soldering

● Can be used as a 'portable vice' to hold work while nailing, screwing or gluing

### STILLSON WRENCHES

A general purpose heavy duty wrench. Look for one with forged jaws. Available in 4 sizes. The 10" (250mm) is a useful one for plumbing. Exercise care when using on plumbing fittings as the jaws can easily mark or scratch the workpiece

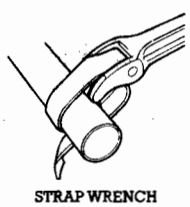
*HINT – Keep moving parts lightly oiled for ease of adjustment*

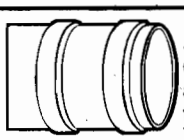


### CHAIN AND STRAP WRENCHES


Ideal for gripping large diameter pipes. Will work equally well on irregular shapes. Shape of serrated jaw is designed to act as a cam and increase grip as pressure is applied. Can be used for tightening or loosening

*USE ONLY ON METAL. CAN DAMAGE PLASTIC*



*EXAMPLES OF USES*

Gripping chrome pipes and taps to avoid damage to surface.

Loosening large diameter plastic rain water and waste pipes prior to replacement

*Ideal to grip a pipe located so close to a wall that a conventional spanner could not be used*

### SANIGRIP PLIERS are adjustable and have large circular jaws. Ideal for use on waste traps etc.

### HINTS ON PLUMBING

1. Always buy the best quality plumbing tools you can afford. They last longer.
2. Newly cut metal can be sharp and have rough edges. Handle with care to avoid injury.
3. After cutting, any burrs left on pipes, particularly inside, should be removed. They can affect the water flow.
4. Leave gas plumbing to the expert!
5. Take extra care when using a blow torch in confined spaces or near to combustible material. Many fires have been started by careless use.
6. The jagged edges left after cutting plastic pipes can be removed with a Stanley knife.
7. Don't forget you may need to obtain your local Water Authority's agreement for major changes in your plumbing services.