

Elementary Stagecraft
Hand Tools

Measuring Tools

- o Tools that are used to mark material for cutting or assembly or to check that alignment or placement is correct

Measuring Tools

TAPE MEASURE

- Measures the size of an object



Measuring Tools

FRAMING SQUARE

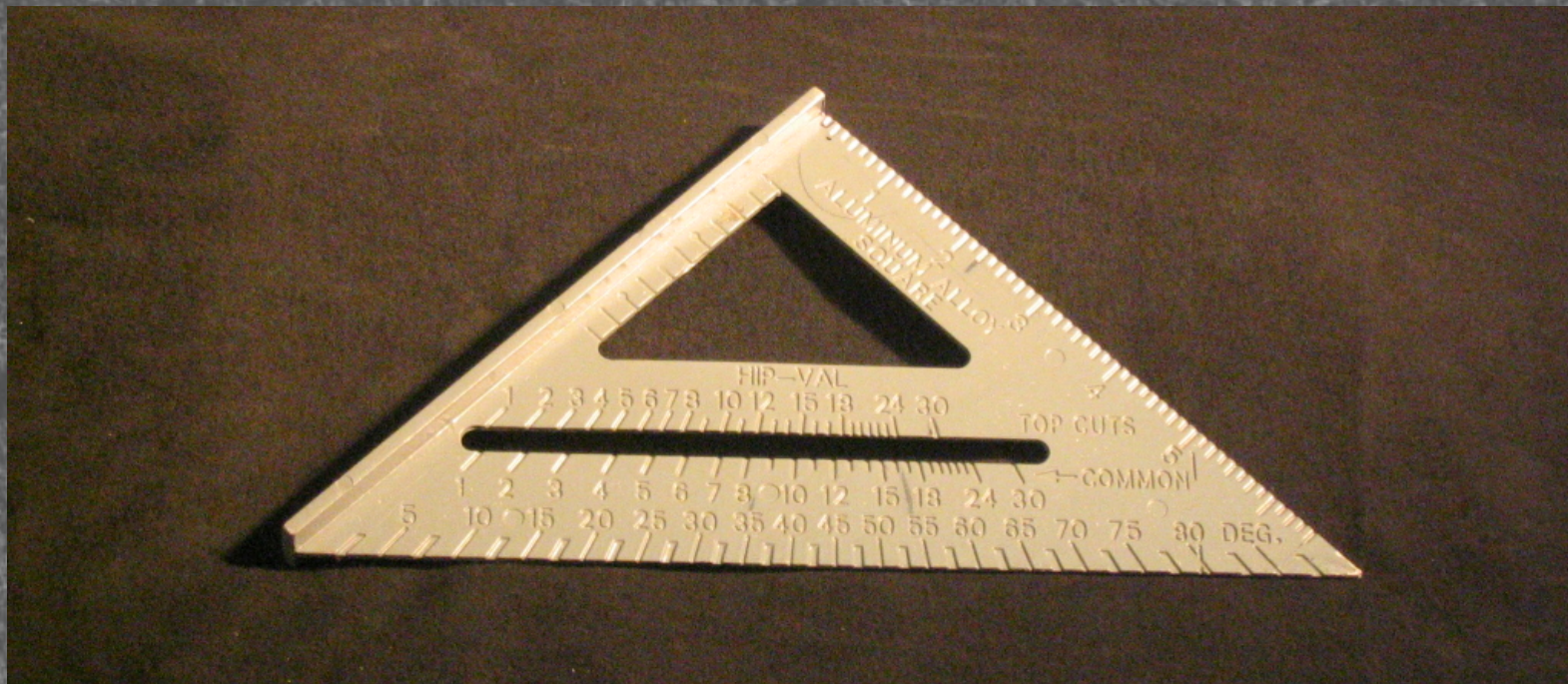
- Used for laying out large pieces of scenery
- Tests that two pieces meet at a 90 degree or right angle



Measuring Tools

SPEED SQUARE

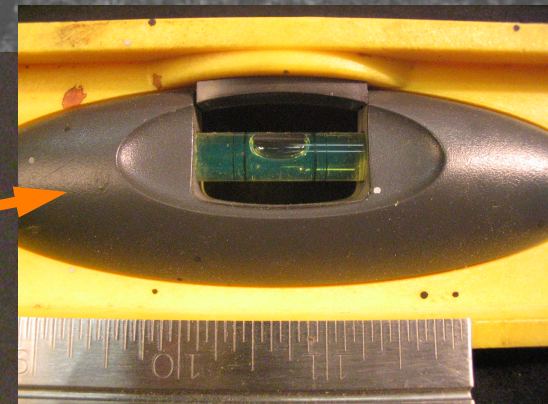
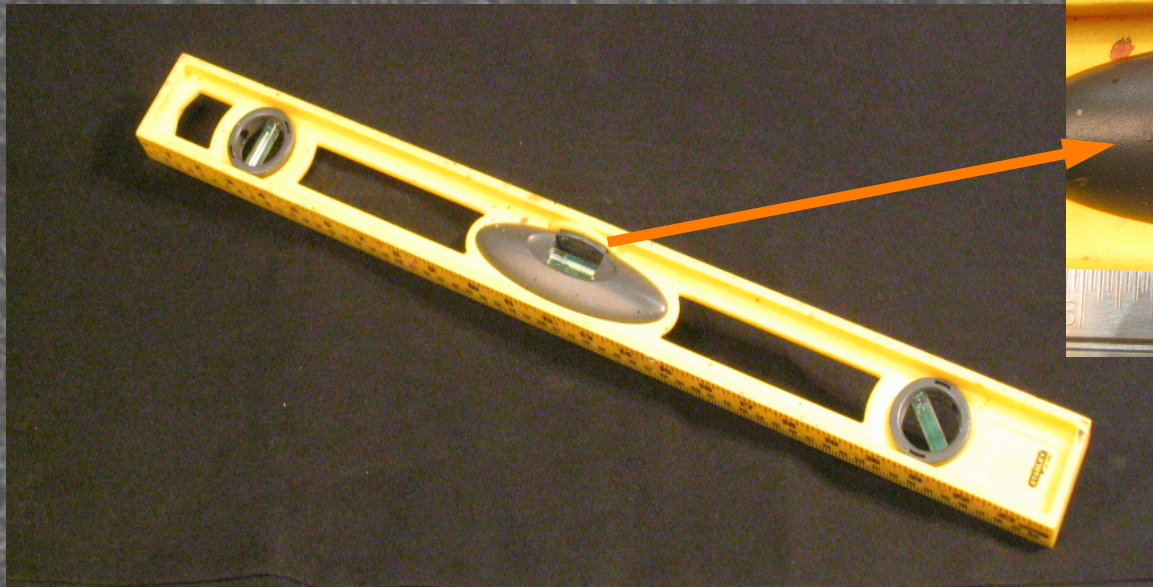
- Used to mark 90 or 45 degree angles
- Smaller than a Framing Square



Measuring Tools

LEVEL / SPIRIT LEVEL

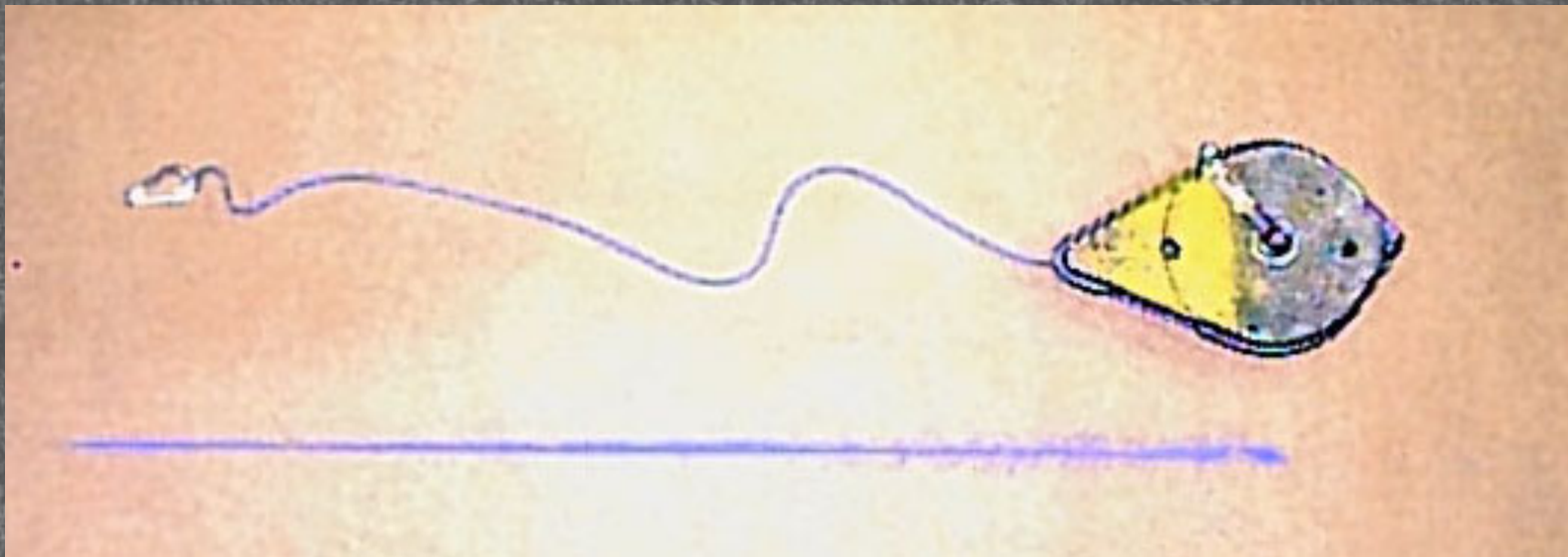
- Checks that a surface is “level” or parallel with the ground
- Can also check that a surface is “plumb” or vertical
- Can also check 45 degree angles



Measuring Tools

CHALK LINE

- Makes long, straight lines on flat surfaces
- Stretch string between points and snap to transfer chalk



Measuring Tools

BEVEL GAUGE

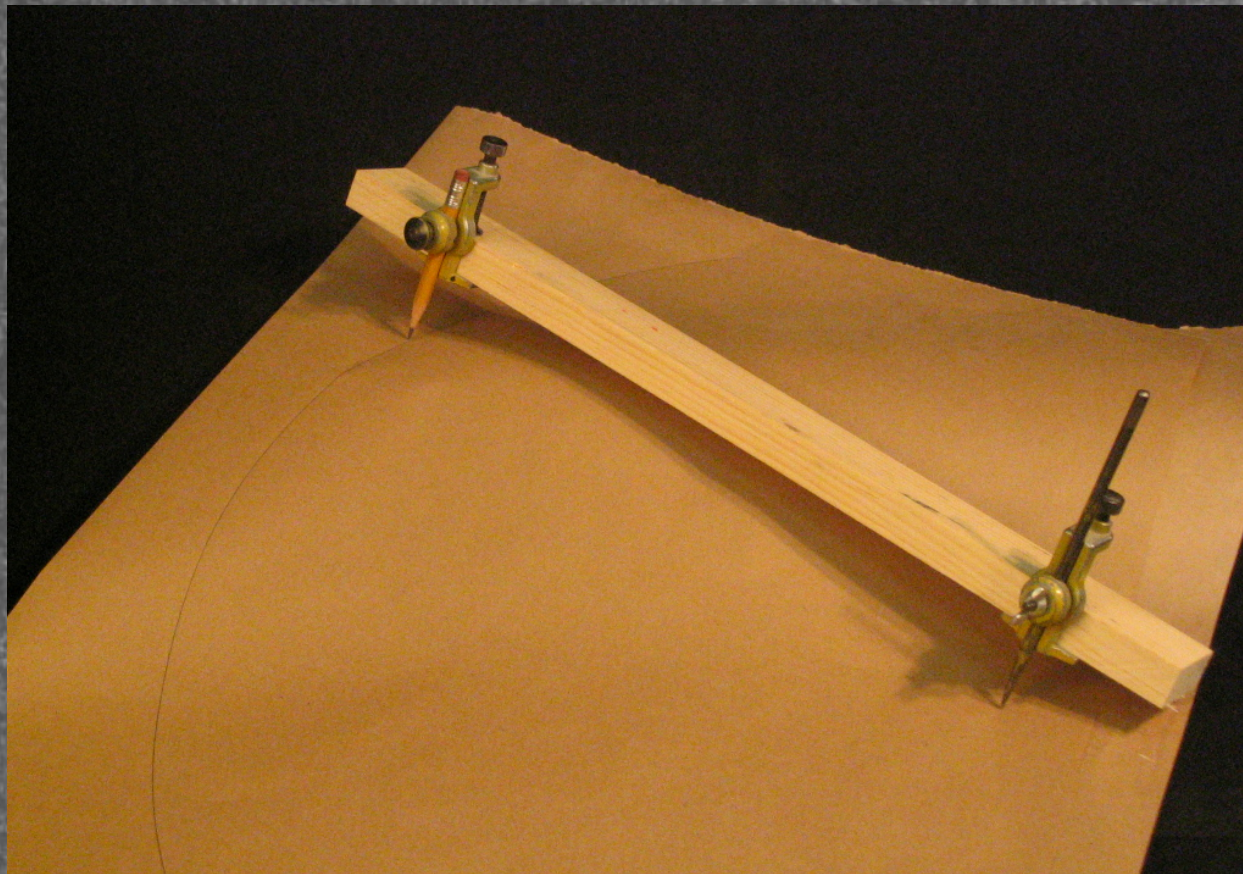
- Copies existing angles for transfer to other pieces
- Blade rotates to any angle



Measuring Tools

TRAMMEL POINTS

- Clamp to a piece of wood, used to draw arcs or circles



Measuring Tools

- TAPE MEASURE
- FRAMING SQUARE
- SPEED SQAURE
- SPIRIT LEVEL
- CHALK LINE
- BEVEL GAUGE
- TRAMMEL POINTS

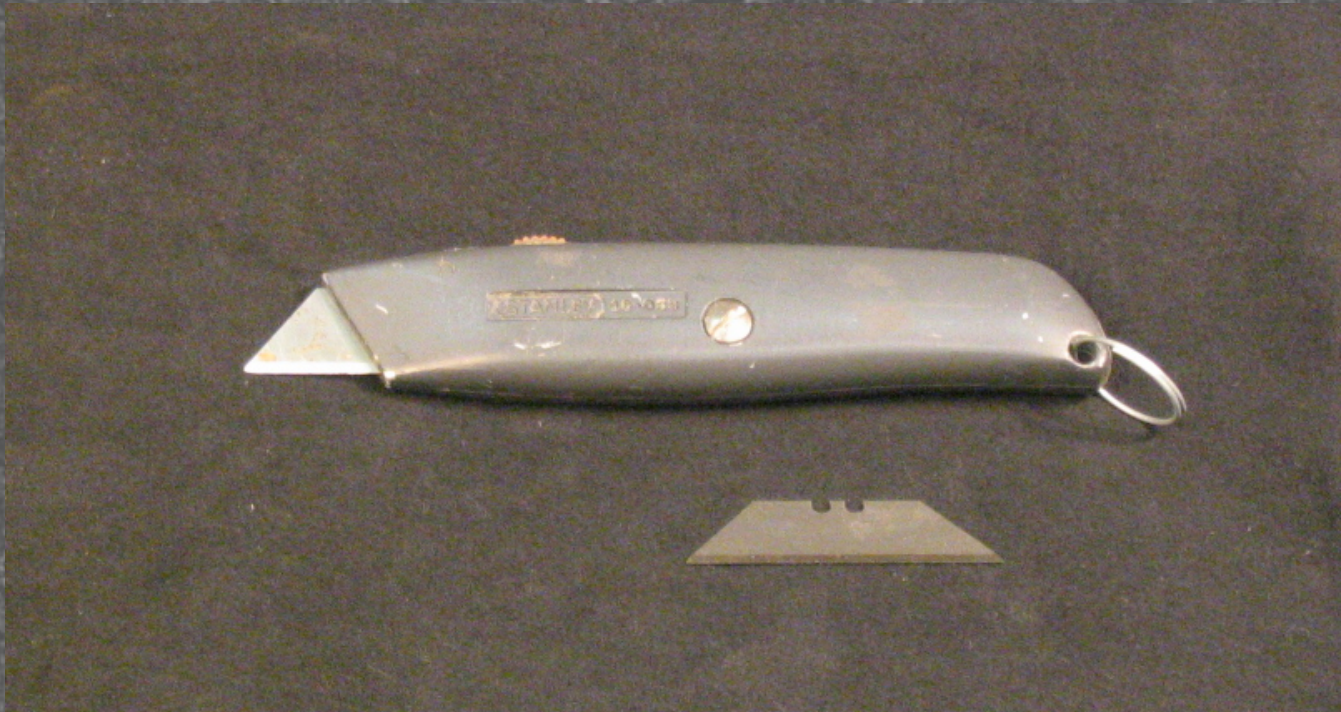
Cutting Tools

- o Tools used to cut material down to the desired size

Cutting Tools

MATTE KNIFE

- Used to cut paper, cloth and other then materials



Cutting Tools

CROSS CUT SAW

- Used to cut wood, but only across the grain



Cutting Tools

RIP SAW

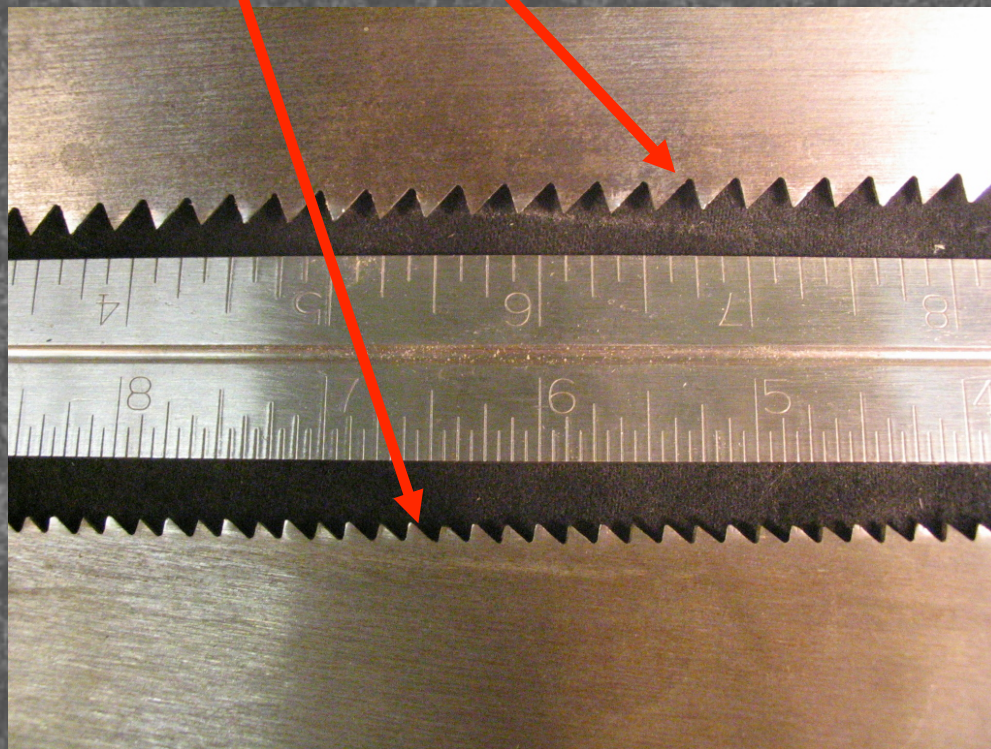
- Used to cut wood, but only with the grain



Cutting Tools

CROSS or RIP SAWS

- Two saws look identical, but under close inspection you can see that the Rip Saw teeth are about twice the size of the Cross Cut Saw teeth



Cutting Tools

SABRE SAW / JIG SAW

- Electrically powered hand saw used for making quick cuts or for cutting curves or internal cuts



Cutting Tools

CIRCULAR SAW / SKIL SAW

- Electrically powered hand saw used for fast, straight cuts



Cutting Tools

- MATTE KNIFE
- CROSS CUT SAW
- RIP SAW
- SABRE SAW
- CIRCULAR SAW

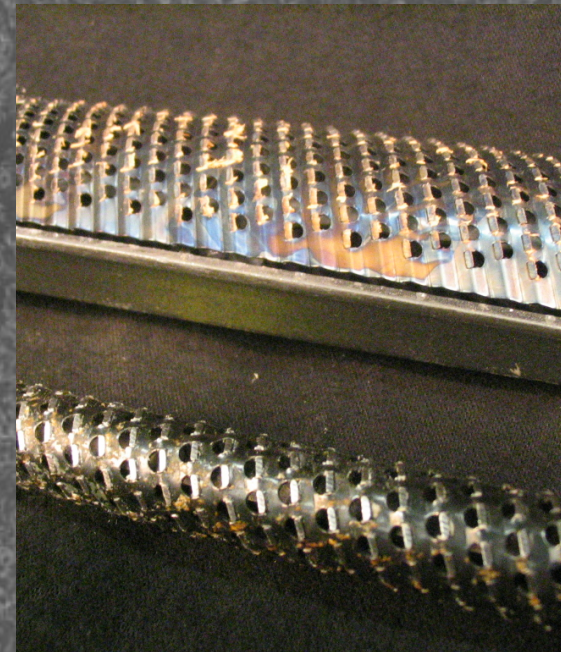
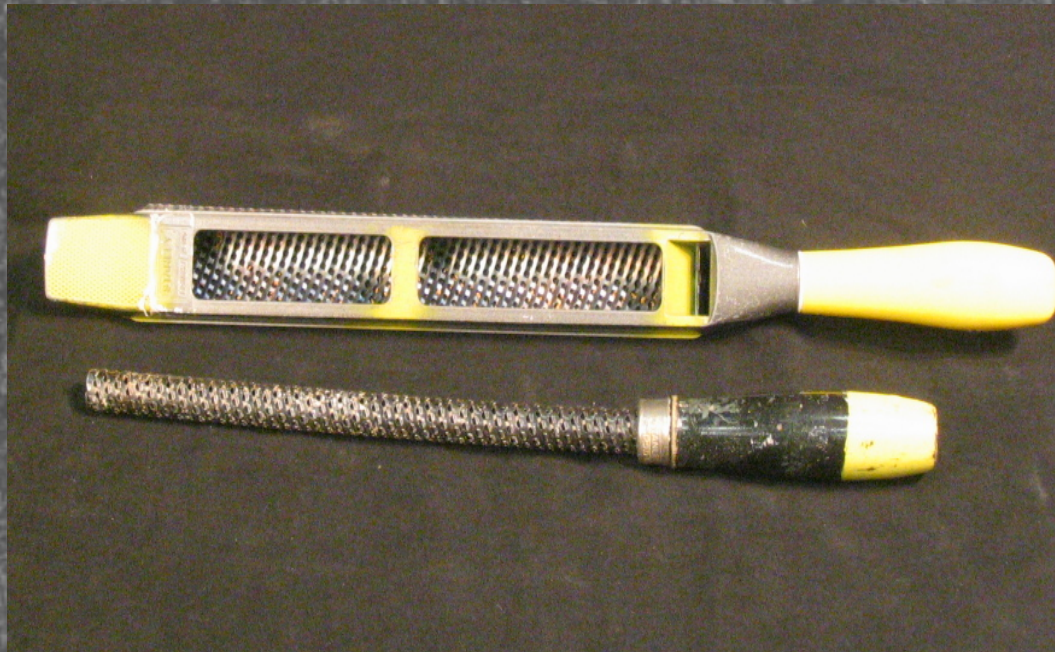
Shaping Tools

- o Used to shape the edges or smooth the surface of a piece of wood

Shaping Tools

SURFORM RASP or PLANE

- Used to shape or smooth wood
- Like a cheese grater for wood



Shaping Tools

BELT SANDER

- Used to make rough surfaces smooth
- Takes material off quickly



Shaping Tools

ORBITAL or FINISH SANDER

- Used to make smooth surfaces smoother
- Does not take off material quickly



Shaping Tools

ROUTER

- Used to shape the edge of a piece of wood or to carve details into a piece of wood



Shaping Tools

- SURFORM RASP or PLANE
- BELT SANDER
- ORBITAL or FINISH SANDER
- ROUTER

Boring Tools

- o Used to drill holes into wood, metal and plastic

Boring Tools

ELECTRIC HAND DRILL

- Used with different bits to drill holes into most materials



Boring Tools

TWIST BITS

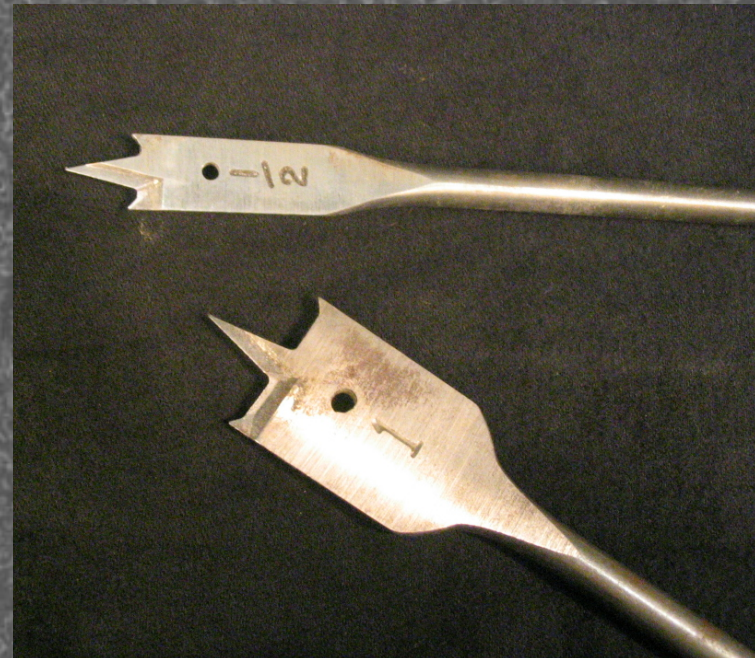
- Used to bore holes in wood, metal or plastic
- Sizes range from 1/32" to 1/2"



Boring Tools

SPEEDBOR or BUTTERFLY BITS

- Used in an electric drill to bore medium to large (1/4" to 1-3/8") holes in wood and other soft materials



Boring Tools

- ELECTRIC HAND DRILL
- TWIST BITS
- SPEEDBOR or BUTTERFLY BITS

Joining Tools

- o Used to join two or more pieces of wood together

Joining Tools

CURVED CLAW HAMMER

- Used to drive in nails
- Used to pull a nail out by its head



Joining Tools

STRAIGHT CLAW or RIP HAMMER

- Used to drive in nails
- Used to pry or rip boards apart



Joining Tools

CURVED & STRAIGHT CLAW HAMMERS

- Top hammer is a Curved Claw
- Bottom hammer is a Straight Claw



Joining Tools

PNEUMATIC HAMMER or NAIL GUN

- Uses compressed air to drive nails into wood
- Different sizes are available, shown is a framing nailer



Joining Tools

SLOTTED SCREWDRIVERS

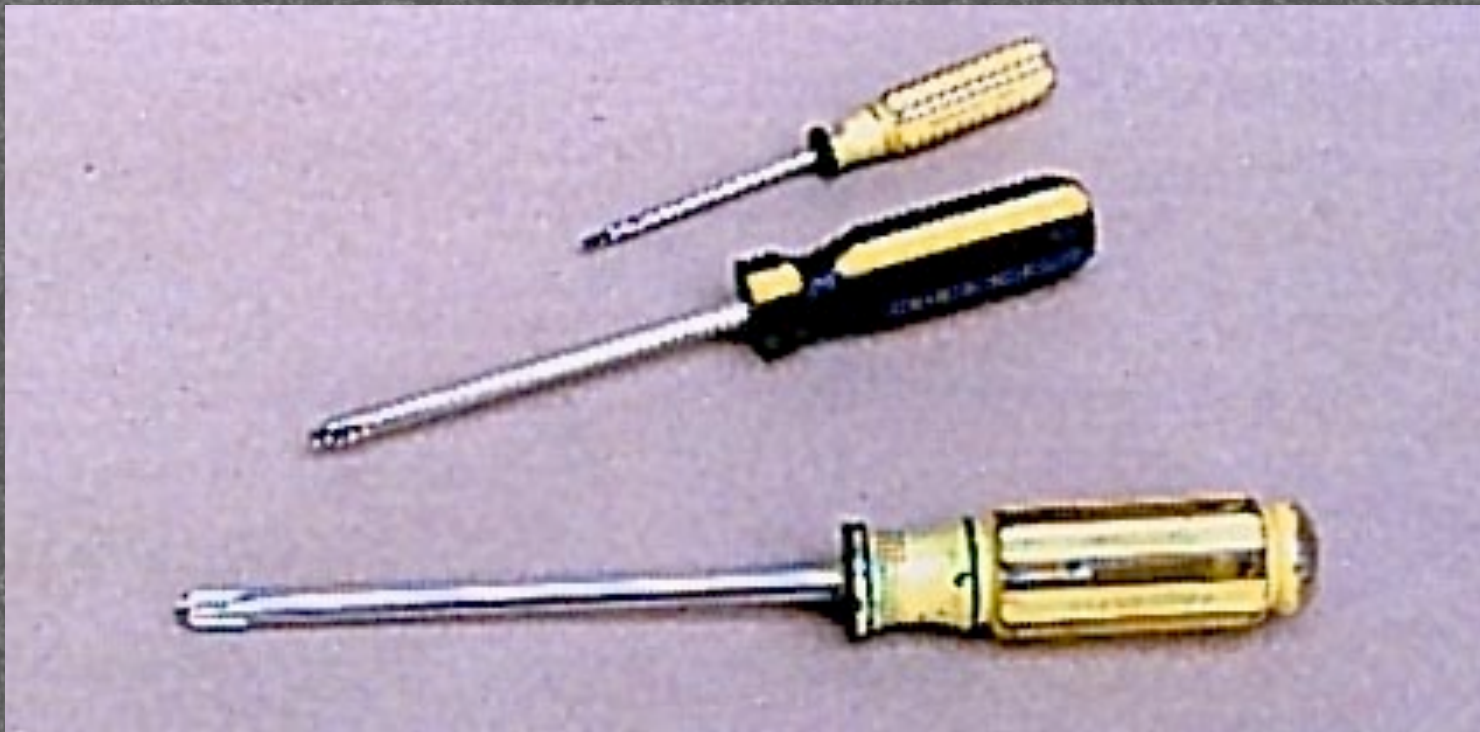
- Used to insert or remove slotted head screws



Joining Tools

PHILLIPS SCREWDRIVER

- Used to insert or remove Phillips head (cross shaped) screws



Joining Tools

CORDLESS SCREWDRIVER or SCREW GUN

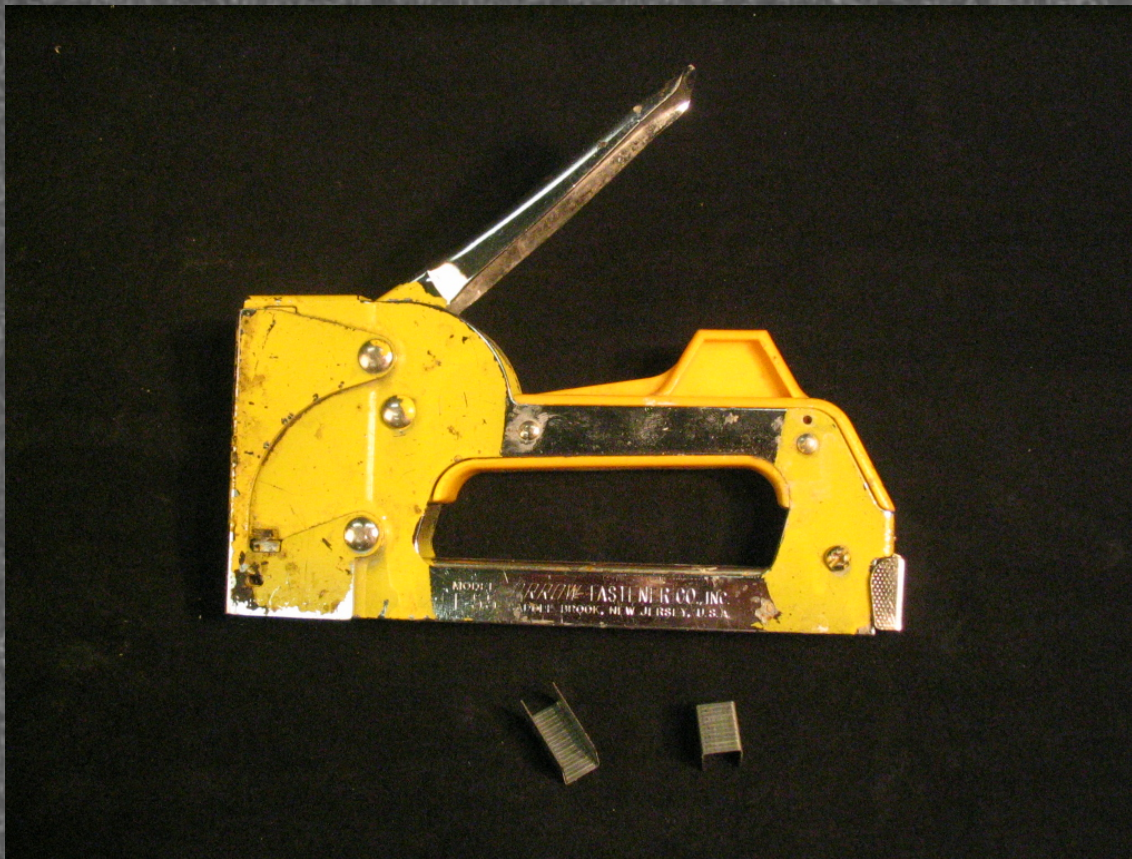
- Battery powered electric drill fitted with a screwdriver bit
- Can also be fitted with twist or other drill bits
- Battery can be recharged and reused



Joining Tools

STAPLE GUN

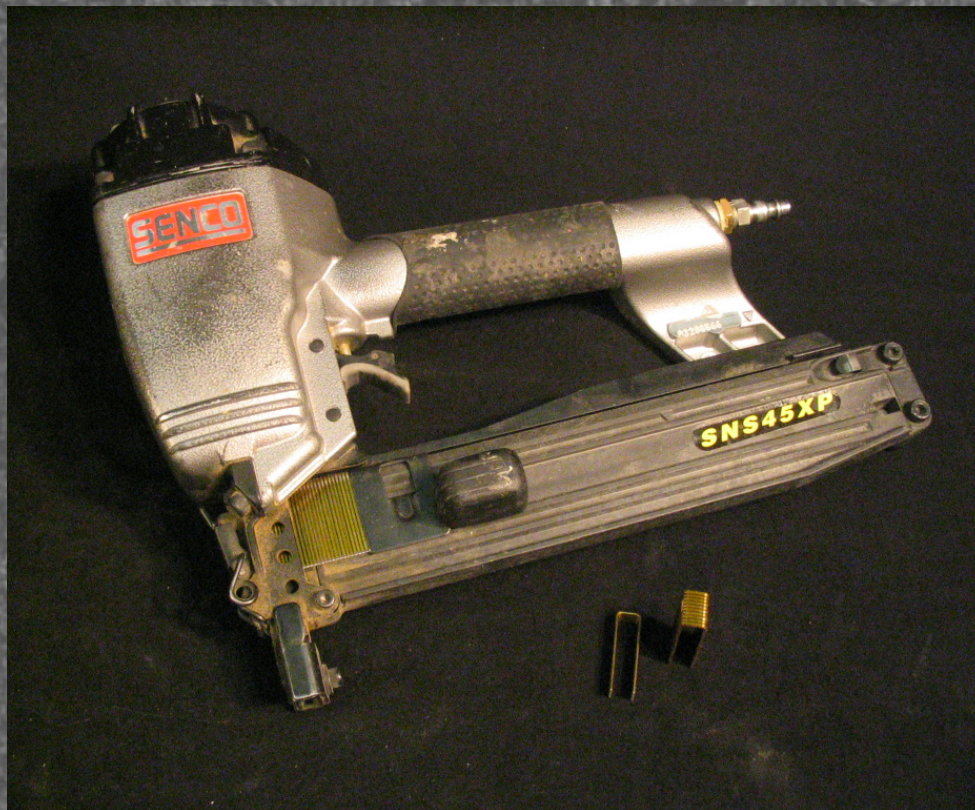
- Hand powered tool used to insert small staples



Joining Tools

PNEUMATIC or AIR STAPLE GUN

- Uses compressed air to insert staples into wood
- Can use larger staples than a hand powered gun



Joining Tools

HOT GLUE GUN

- Uses a heat activated glue to join materials together
- Fast, but not very strong



Joining Tools

- HAMMERS : RIP and CURVED CLAW
- NAIL GUN
- SCREWDRIVERS : SLOTTED AND PHILLIPS
- CORDLESS SCREWDRIVER
- STAPLE GUN
- PNEUMATIC STAPLE GUN
- HOT GLUE GUN

Wrenches & Clamps

- Used to grip or temporarily hold materials together, or used to tighten or loosen nuts and bolts

Wrenches & Clamps

PLIERS : SLIPJOINT

- Used to increase the gripping power of you hand



Wrenches & Clamps

PLIERS : LOCKING or VISE GRIPS

- Used to increase the gripping power of you hand
- These pliers can lock into place



Wrenches & Clamps

PLIERS : END NIPPERS

- Used to cut some materials
- Good for removing nails and staples



Wrenches & Clamps

ADJUSTABLE or CRESCENT WRENCH

- Has adjustable opening to fit a wide range of nuts & bolts



Wrenches & Clamps

RATCHET WRENCH and SOCKETS

- Used to tighten and loosen nuts and bolts
- Faster and easier than an adjustable wrench



Wrenches & Clamps

PNEUMATIC or AIR RATCHET

- Uses compressed air to tighten and loosen nuts and bolts
- Uses the same sockets as a standard ratchet
- Faster and easier than a standard ratchet



Wrenches & Clamps

C-CLAMP

- Used to temporarily hold two or more pieces of wood together



Wrenches & Clamps

VICE GRIP C-CLAMP

- Used to temporarily hold two or more pieces of wood together
- Uses the same locking mechanism found on Vise Grip Pliers



Wrenches & Clamps

- PLIERS : SLIPJOINT or LOCKING
- ADJUSTABLE WRENCH
- RATCHET WRENCH & SOCKETS
- PNEUMATIC RATCHET
- C-CLAMP
- VISE GRIP C-CLAMP

Strike Tools

- Used to disassemble scenery

Strike Tools

STAPLE PULLERS

- Used to remove small staples
- Two types shown



Strike Tools

FLAT BAR or WONDER BAR

- Used to pry wood apart that has been nailed together
- Can also be used to remove nails



Strike Tools

CROW BAR

- Used to pry wood apart that has been nailed together
- Can also be used to remove nails
- Larger than a Wonder Bar



Strike Tools

NAIL PULLER

- Used to remove nails without totally disassembling the structure



Strike Tools

- STAPLE PULLER
- WONDER BAR
- CROW BAR
- NAIL PULLER

