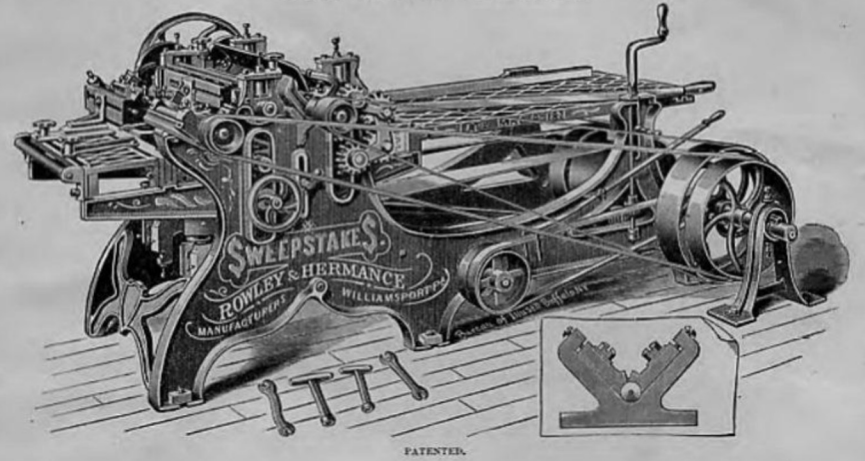


Machines of the Steam Era



THE SWEEPSTAKES PLANER, MATCHER AND MOULDER.
AS A SINGLE SURFACER.



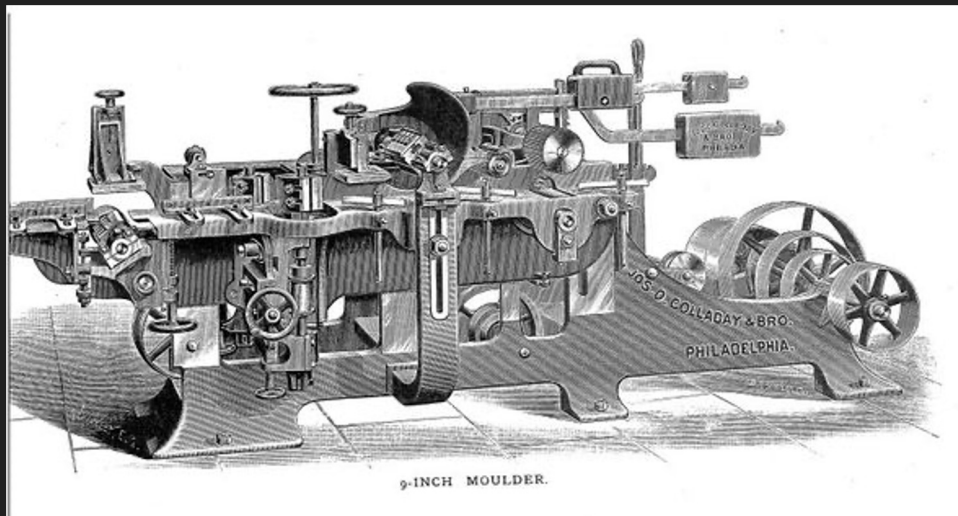
Planer Matcher

- Patented in 1828 by Woodworth
- Probably the largest technological advancement in woodworking history
- Produced smooth lumber of consistent thickness
- Could make shiplap and tongue-and-groove
- Standard width 24"



Molding Machine

- Patented at least as early as the 1830s
- Could cut all 4 sides at once
- Straight moldings, stair handrails, window and door parts, column staves, and even large radius work





Jointer

- Patented at least as early as 1860s
- Straightens, flattens, and squares lumber
- Standard width 16"



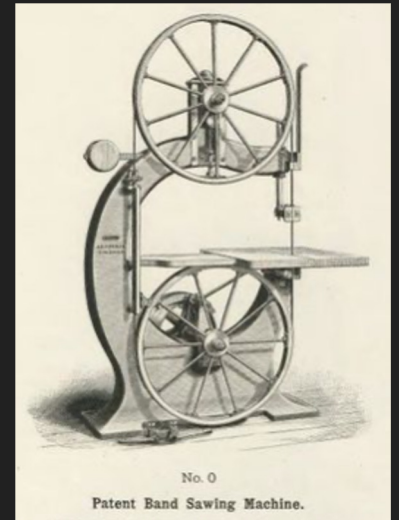
IMPROVED HAND PLANER AND JOINTER

Tables over 7 feet long and have steel lips. Cylinder Four-Sided, Slotted on Two Sides
Cylinder has Three Bearings, One of which is Outside of Pulley



Bandsaw

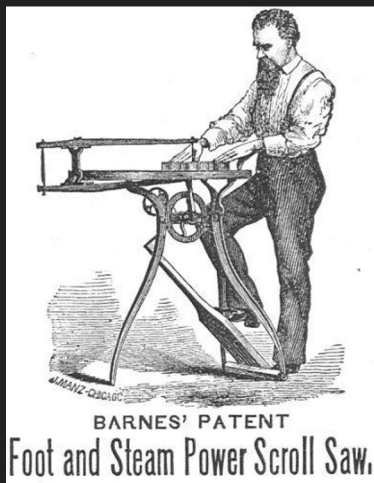
- Became popular around 1870
- Had to wait for steel technology to improve
- Capable of curved work, large scroll work, resawing
- Standard diameter 36"





Scroll Saw

- Patents as early as 1829
- Mostly 2 pieces in the 19th century
- No standard size limit



BARNES' PATENT
Foot and Steam Power Scroll Saw.



Table Saw

- Circular saws set into a bench at least as old as the 1830s
- Often called bench saws or variety saws in the 19th century



American #1 14" tablesaw ca. 1916 and Greenlee 226 mortiser ca. 1926



Ball Bearings (Extra)

American No. 1 Variety Saw Bench

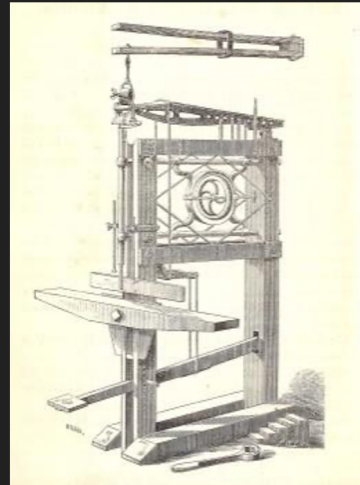
OUR No. 1 Variety Saw Bench is designed especially for fine and accurate cutting on all classes of work in furniture, sash, door and blind, cabinet, pattern and general woodworking shops.

The frame is a one piece casting, box form, broad base and absolutely rigid; and the slide ways for table bracket or yoke are a part of it. The machine is made with or without boring or mortising attachment, and may be had with ball bearings at an extra price.



Mortiser

- Patented as early as 1801
- Hollow chisel invented by Greenlee Bros in 1876
- Chain mortiser developed by New Britain in 1887

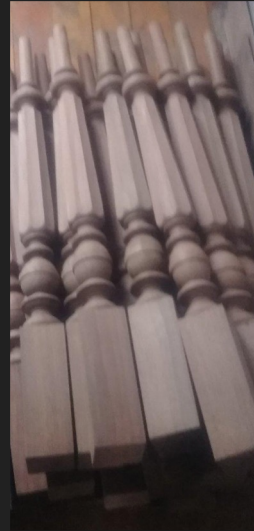




Tenoner

- Patents as early as 1820s
- For window sash, doors, cabinetry, furniture, frame and panel wall assemblies



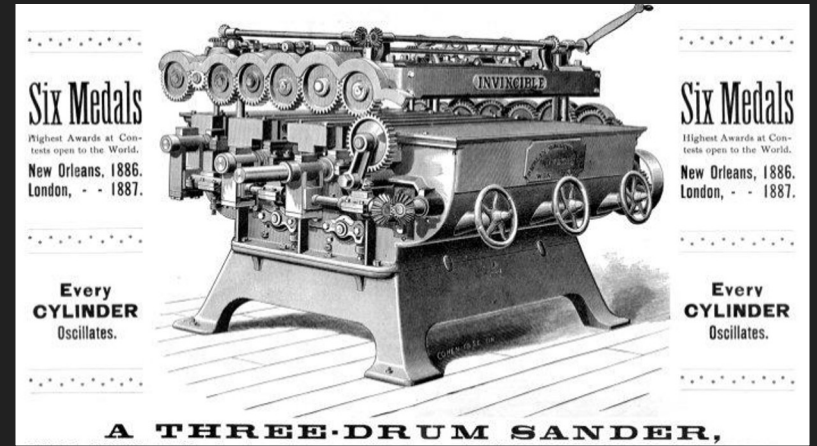


Lathe

- Invented in ancient times
- Wood bed was common in 19th century
- For spindles, radius molding, column bases, columns, and much more

Drum sander

- Patents as early as 1850s
- Commonly large enough to sand entire doors in one pass



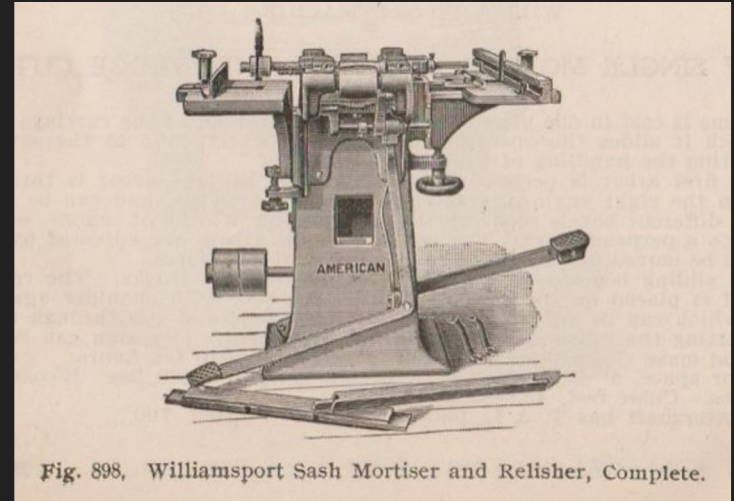
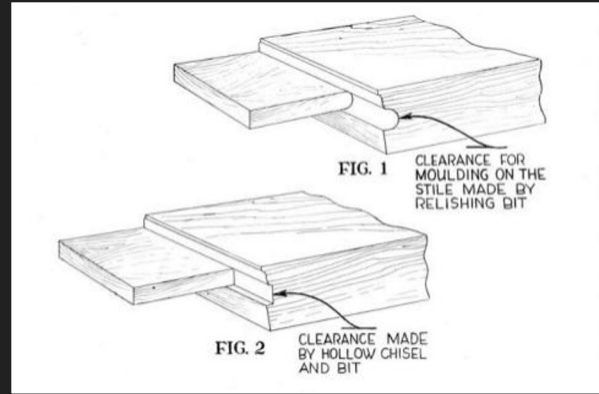
Sash Sticker

- Available by 1850s
- Specialized molding machine for door and window sash parts
- Can slot and bore for sash cord



Sash Relisher

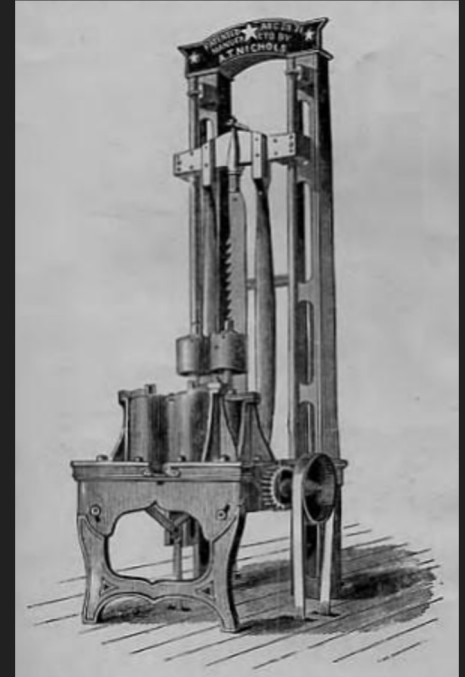
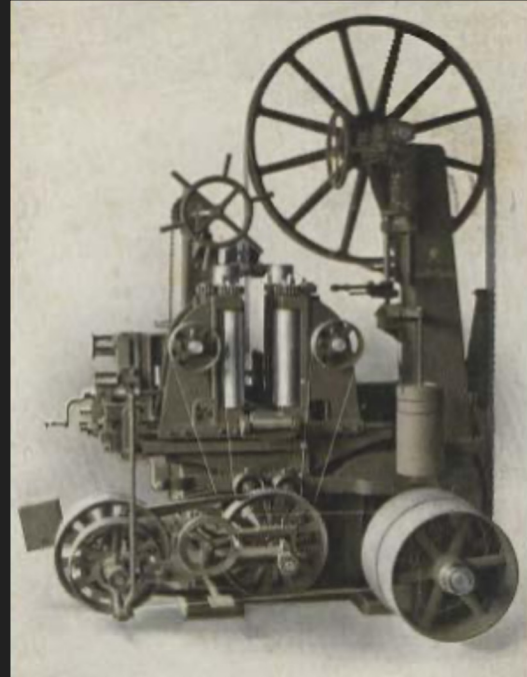
- Available by 1860s
- Very specialized window sash machine





Resaw

- Cut thicker boards into multiple thinner boards
- Reciprocating, circular, and bandsaw types
- Often tiltable for beveled siding



Wood-Working Machinery.

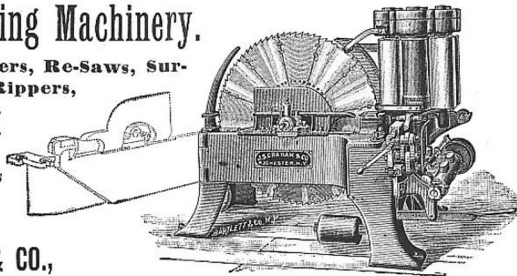
Planers, Gangs, Re-Saws, Sur-
facers, Gang Rippers,
Saw-Tables,
Moulders, Etc.

FOR CIRCULARS
AND PRICES,

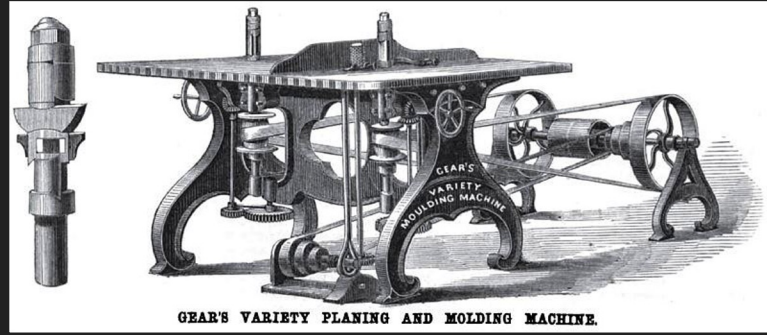
ADDRESS

J. S. GRAHAM & CO.,

272 Lyell Ave., Rochester, N. Y.



Improved Re-Sawing Machine.



GEAR'S VARIETY PLANING AND MOLDING MACHINE.

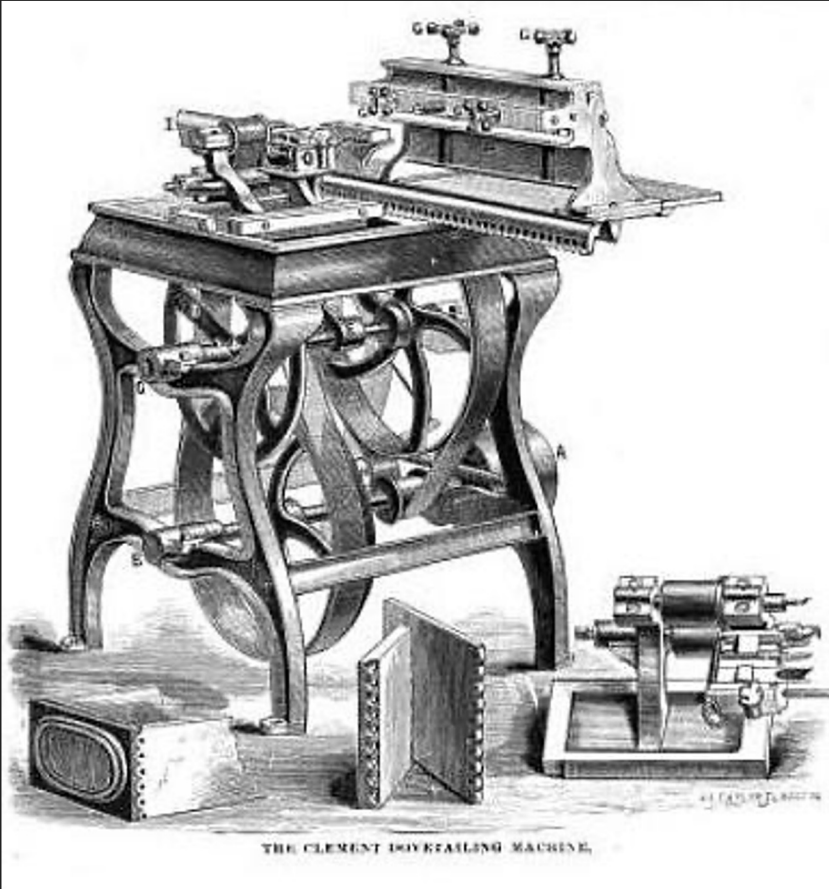
Shapers

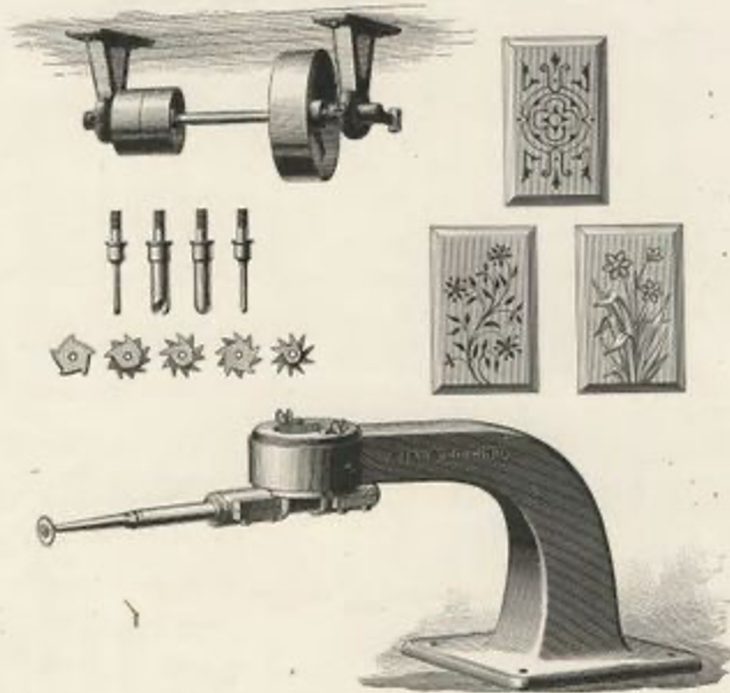
- Patents at least as old as the 1850s
- Capable of curved and irregular work, including moldings
- Double spindle or reversing machines could always cut with the grain



Dovetailing machine

- Patents as early as the 1830s
- Boulton and Knapp machines were commercially available
- Alexander Dodds' 1887 patent dominated the market





Hand Carving Machine.

With Radial Adjustable Arbor.

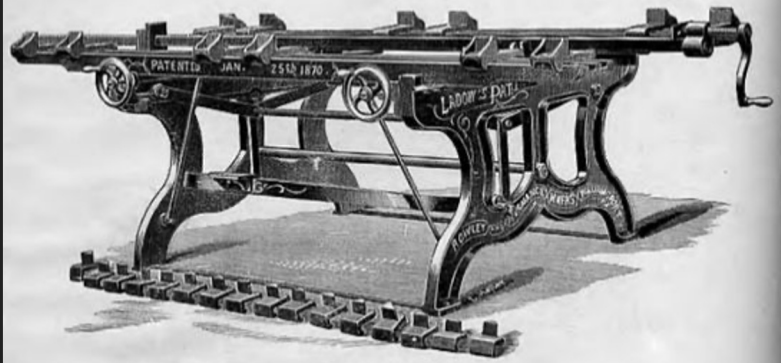
Carving machine

- Patents as old as the 1840s
- Spindle carvers available by the 1870s



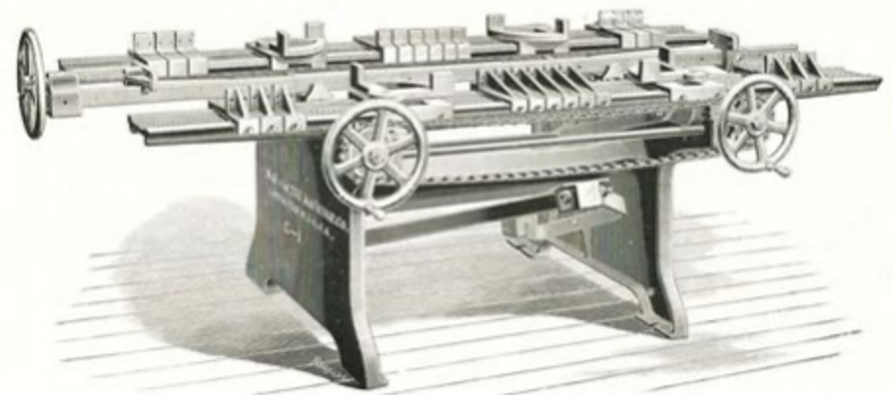


NEW PATTERN SINGLE MOTION DOOR & BLIND CLAMP.



Patented January 25th, 1870.

CLAMPING MACHINES

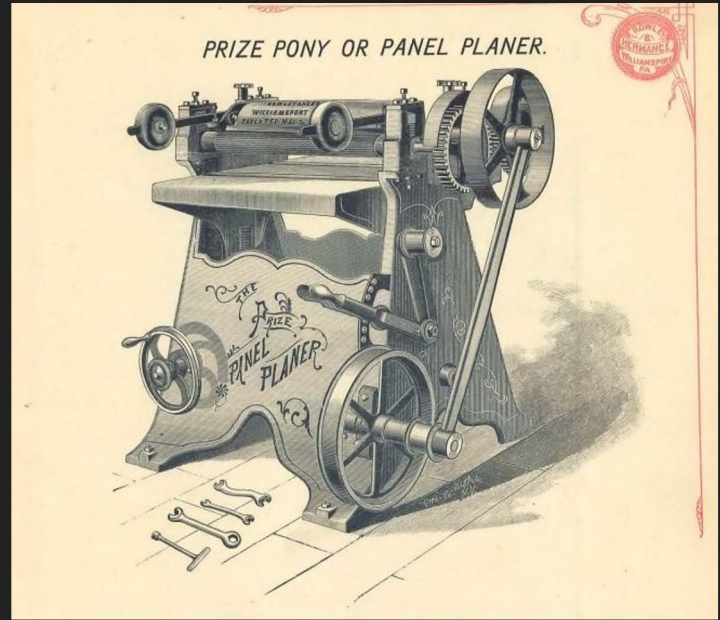


No. 510-B. DOOR AND BLIND CLAMPING MACHINE with Sash Attachment

(See description next page)

Door clamp

- Available by 1860
- Clamped doors and window sash together quickly and efficiently



Planer

- Single surfacers often called pony or panel planers
- Standard width 24"
- Used extensively in doors, sash, furniture, cabinetry



Louver Groover

- Also called blind stile mortisers
- Patented in the 1840s
- Cut slots for shutter louvers and rotating slat interior shutters (called blinds)

P. PRYIBIL, 512-524 W. 41st St. New York.



Manufacturers of
High Grade Wood Working
Machinery.



A full line of Cabinet Makers'
and Piano Makers'
Machinery.



Piano Action Machinery.



Special Machinery.



A few samples of work done
on our Corner Block Ma-
chine and Patent Flut-
ing and Twist Machine are
shown herewith.

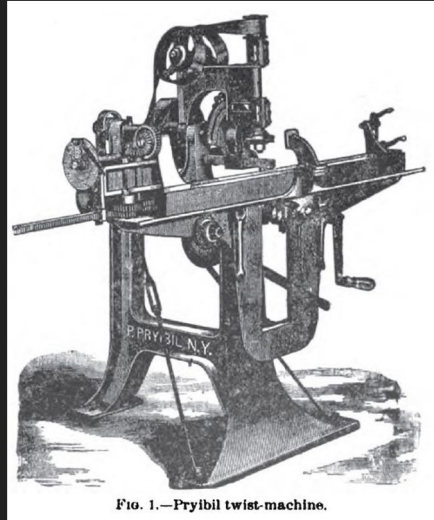
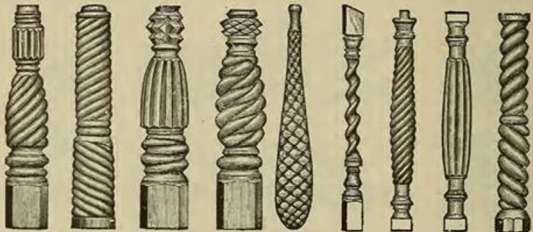
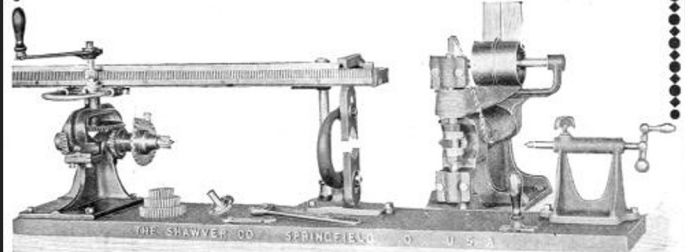


FIG. 1.—Pryibil twist-machine.

THE SHAWVER CO.

SPRINGFIELD, OHIO.



TWIST MACHINE.

Four-foot to twenty-foot cut. Twelve-inch swing. Price \$85.00.

Twist machine

- Patents as early as 1850s
- Could produce long lengths of rope molding and intricate furniture parts





Fluting Attachment

- Used to produce fluted spindles or furniture pieces

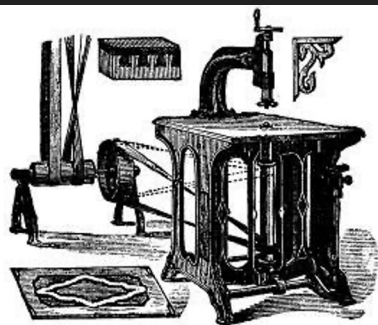


FLUTING ATTACHMENT



Thoroughly practical for light or heavy work. Always ready for use on any style or size turnings. Guaranteed capacity double that of any similar machine.

Write for circular and price. **THE SHAWVER COMPANY, SPRINGFIELD, O.**



Boulton's Carving, Panelling, Molding, and Dovetailing Machine.

Overarm router

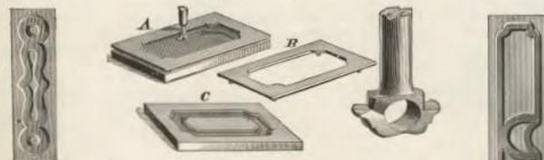
- Available by the 1870s
- For a variety of ornamental work including rosettes



Patent Carving and Edge-Molding Machine.
With Patent Friction Reversing Countershaft.

Samples of Work

In Paneling, Carving, Surface and Edge Molding done on the J. A. Fay & Co. Patent Carving Machine.



DIRECTIONS FOR OPERATING.

For paneling or cutting designs in the solid wood (Fig. C), prepare a template (Fig. B) of the form desired. Place this template over the piece to be carved with openings between (Fig. A) for the escape of chips, and to allow a view of the work as it progresses. The template must be as much smaller than the panel to be cut as the outside cutting edge of cutter extends beyond the line of directrix.



Franz Arzt House (1876)

140 years later

- Greenhouse demolished, replaced with brick structure
- Staircase sawed in half
- Pocket doors cut to pieces
- Rope brick molding removed





Pocket doors (before)

- Two pairs, 10' tall
- Cut and flipped, smaller door added
- Glass removed and missing

Nicknamed “Choppy the Pocket Door” and
“Sawzalled Sam”

Restoration of pocket doors

- Stile replaced and reclad with original wood surface
- New top rail clad with original wood surface
- Radius molding replicated on lathe
- Etched glass recreated by owner
- Refinished to blend in repairs



Restored doors reinstated



Staircase (before)

- Curved walnut staircase with burl veneer, scrollwork, fluted spindles, and carved details
- Sawed in half by previous owners to create a kitchenette
- Missing several pieces, including spindles, handrail, and much original ornamentation
- Damage to treads

Nicknamed “the Juggernaut”

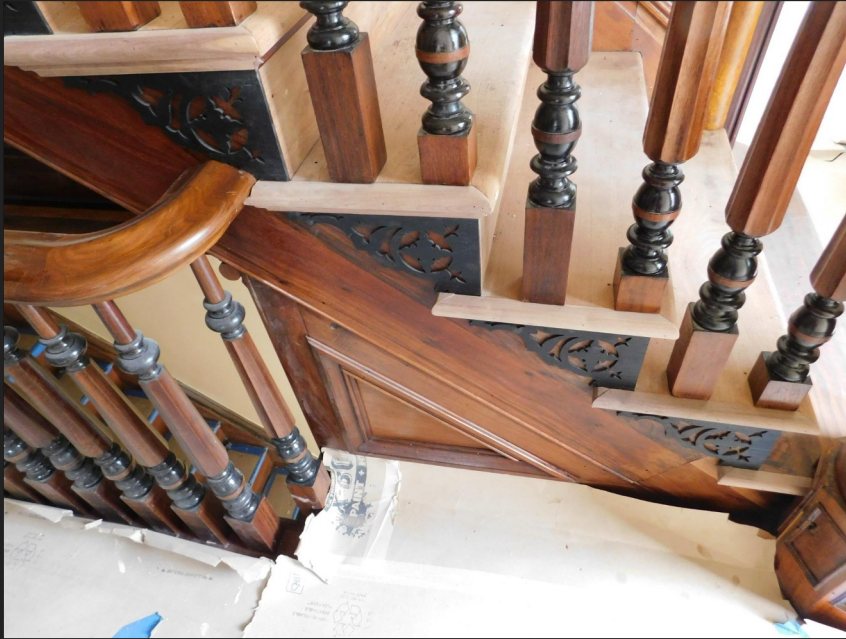


Restoration of staircase

- Spindles made on lathe, fluting done on fluting jig in shaper
- Handrail made in molder, radial pieces made on bandsaw and lathe
- Small ornaments made on scrollsaw
- Treads recut from salvage



Restored staircase



Original greenhouse (before)

- 14 windows, 9 feet tall with glass roof
- Torn down around the 1940s, replaced with brick structure



Reconstruction of greenhouse (as sunroom)

- 14 double-hung arched walnut windows, 8½' tall
- Corbels, scroll panels, twist columns and arches
- 15 - 20 unique molding profiles
- Copper roof
- Ornate interior



Tiled alcove surround (sunroom)

- Elements borrowed from sunroom exterior and staircase alcove
- 4 methods of making curved woodwork
- 44" outside diameter
- 6" wide molding
- 14" wide ornament with obsidian inset

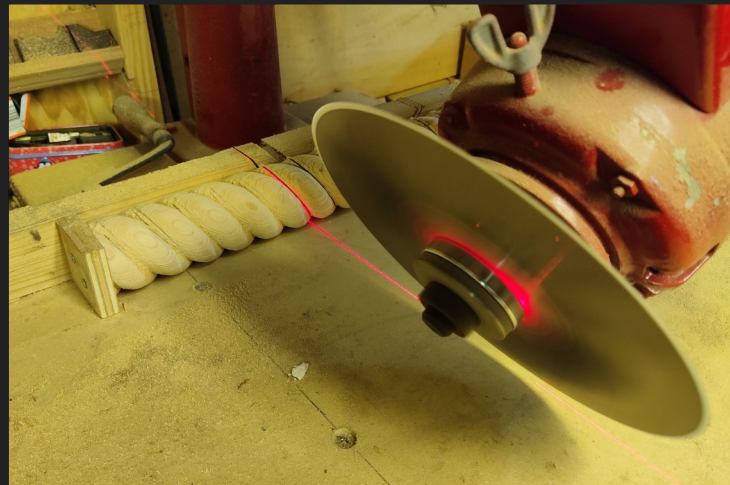
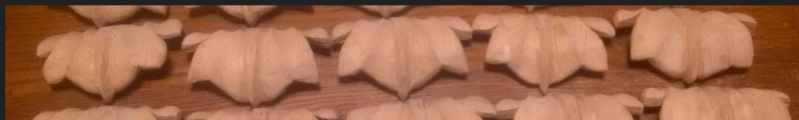


Completed sunroom



Kerf bending rope molding

- 28 arches in 10 different radii
- Half righthand twist, half lefthand
- Carved leaf in center



Franz Arzt House (2024)

