Introduction to Nails

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Nails are Useful to Archaeologists …

- Durable – will often preserve in the ground
- Corrosion is a major issue – fried chicken or Cheeto nails
- Manufacturing techniques change over time – provide opportunities for dating structures/sites
- Size and head information can provide clues about use
- Primarily made from wrought iron but will also see steel and copper nails

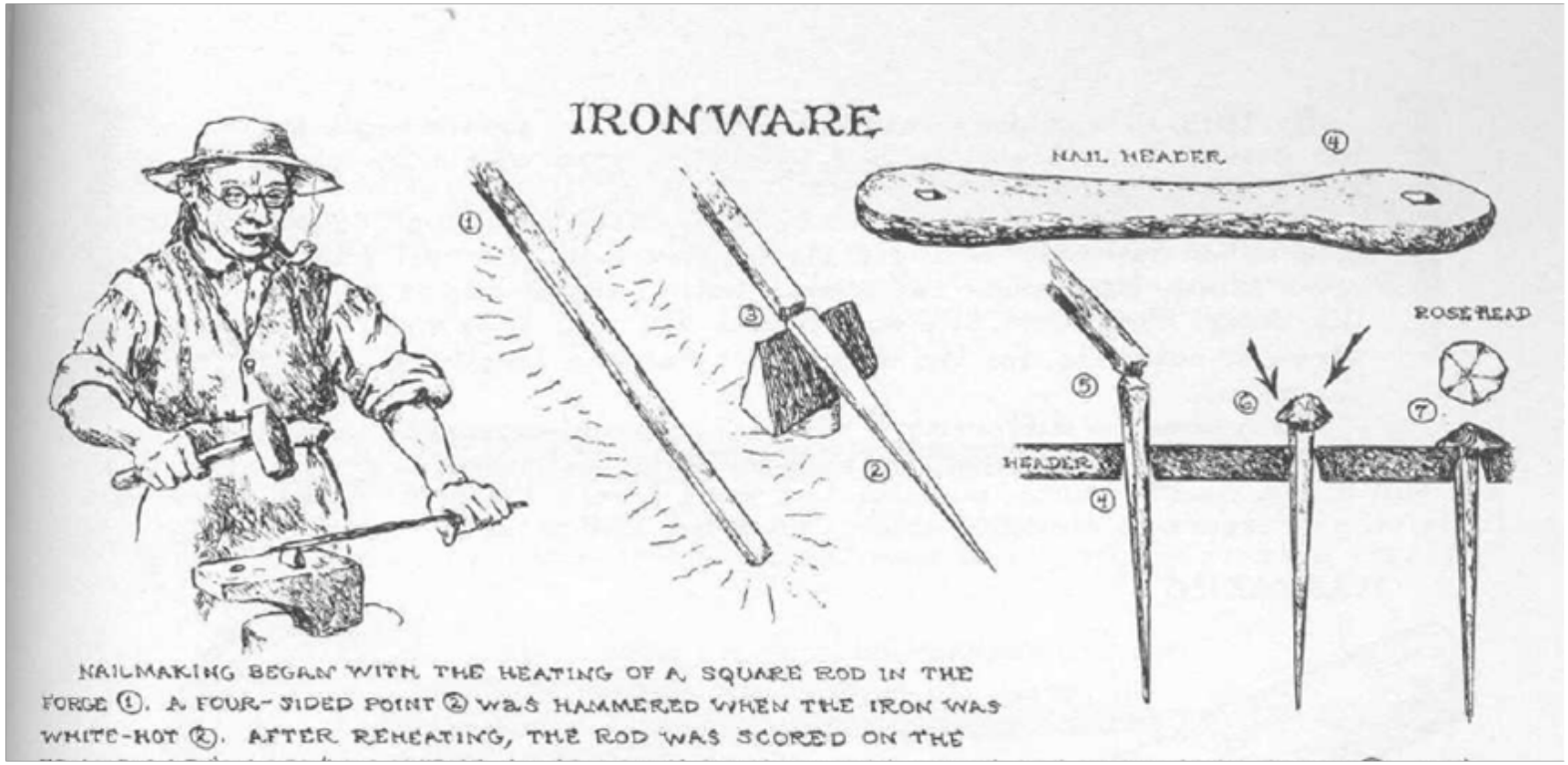
Nails – Manufacturing Techniques

Nails have chronologic importance!

- **Wrought/Forged** (primarily 17th-18th century, though can get them in the early 19th century and reproductions).
- **Machine Cut, hand heads** (1790-1810)
- **Machine Cut, machine heads** (1805-present)
- **Wire Nails** (primarily post 1860)

Wrought/Forged Nails

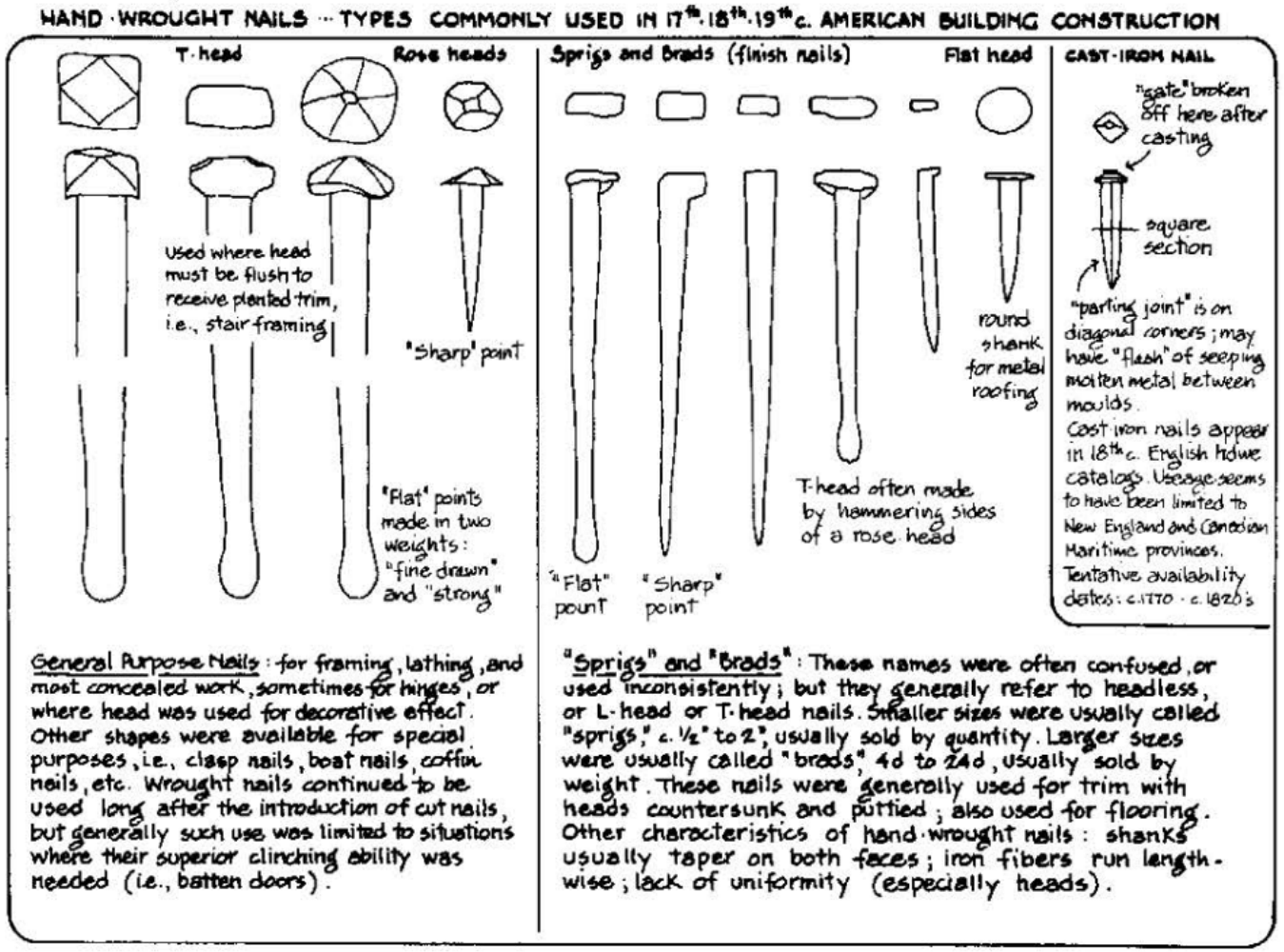
- Handmade from square wrought iron nail rod



Wrought/Forged Nails – Diagnostic Features

- Square in cross section
- Often have convex heads with indentations from individual hammer strikes
- Tips will often be rounded, pointed, or flattened from hammer strike (chisel tip)

Wrought/Forged Nails – Head Types and Uses



http://npshistory.com/publications/nail-chronology.pdf

Machine Cut Nails

- Made by machine cutting shanks out of rolled iron sheeting (although steel increasingly used by 1890s)
- 1790s-early 1800s – hand headed
- Early 1800s onward – machine headed
- Commonly used throughout 19th century

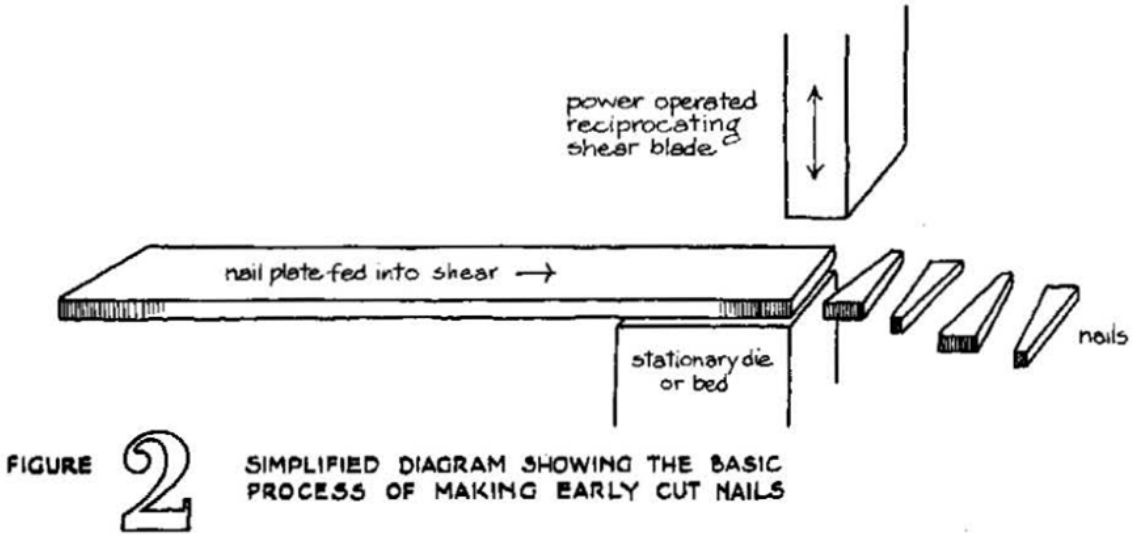
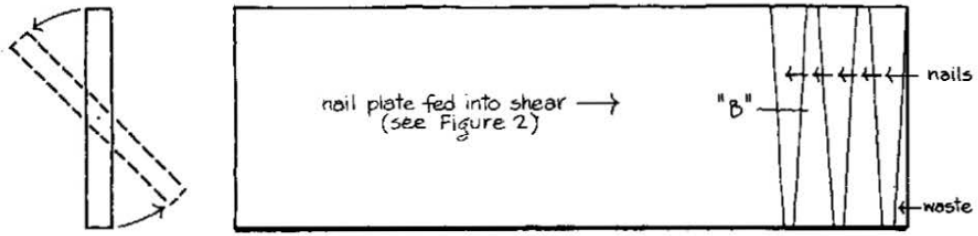


FIGURE 2 SIMPLIFIED DIAGRAM SHOWING THE BASIC PROCESS OF MAKING EARLY CUT NAILS



END VIEW TOP VIEW

FIGURE 4 SIMPLIFIED DIAGRAM SHOWING HOW NAIL PLATE WAS FLIPPED OVER TO COMPENSATE FOR TAPERED SHAPE OF NAILS

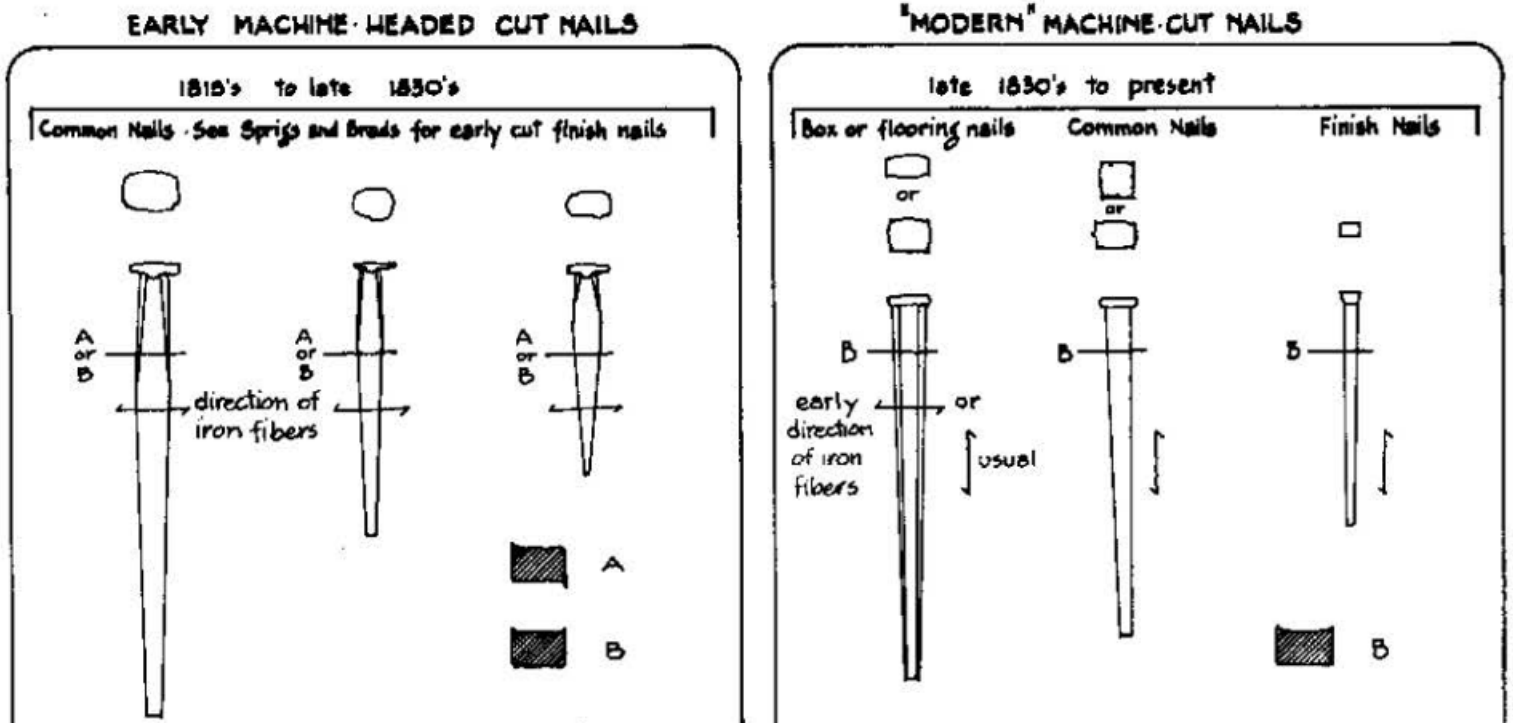
Nail plate was alternately cut from opposite sides.
Flipping the nail plate produced nails with: burrs or shear marks on common edges.

Cross-Section through nail : "B"

Machine Cut Nails – Diagnostic Features

- Taper in cross section
- Flat heads when machine headed
- Tips will often be blunt because they are the edge of the metal sheet
- Bevel where head meets shank from where heading machine grasped it

Machine Cut Nails – Head Types and Uses



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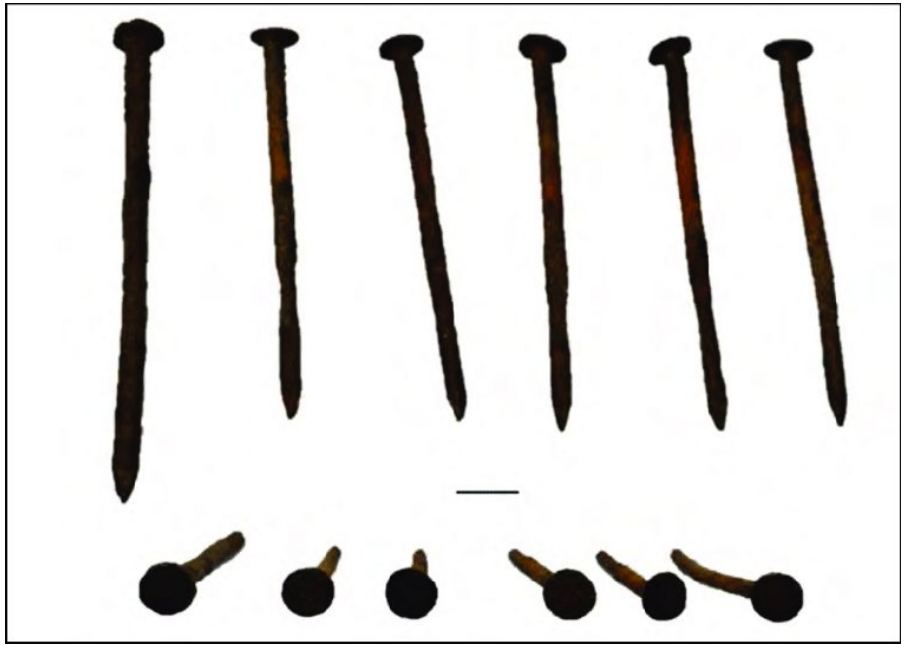
Wire/Drawn Nails

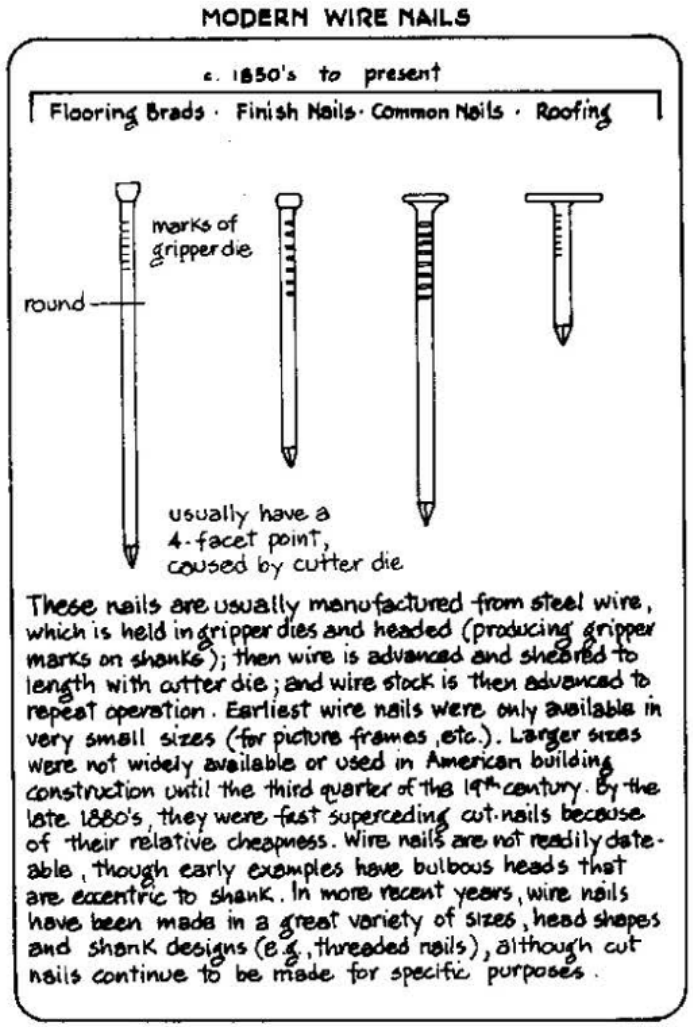
- Made by machine pulling and cutting prepared wire
- Machine also creates point and flat head
- Technology introduced in the 1850s but not widely used until 1880s

Wire/Drawn Nails – Diagnostic Features

- Circular in cross section
- Flat heads
- Tips are pointed
- Often steel instead of iron



Wire/Drawn Nails – Types and Uses



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