

CAN YOU GUESS THESE MYSTERIOUS MACHINES?

1 Holcomb & Hoke Butter-Kist Popcorn Machine, 1919 All electric model with rotating sign and side-mounted peanut roaster.

2 Sandusky Plow Plane, 1926 Used to cut grooves in wood. Beechwood construction with screw-style arms.

3 South Downs Sheep Shearing Machine, 1869 Because hand-shearing was rough work for the shearer...and the sheep!

4 Thayer Patent Combination Tool, 1881 combined a meat tenderizer, stove lid lifter, trivet, candlestick, pot lifter and more into one convenient household tool.

5 Ice Chopper, 1920s of the four-point, capped handle variety. The right tool to crack ice for your Mary Pickford or Mint Julep.

6 Gas Spectrum Analysis Device ...probably. It's in the McPherson Collection of physics instruments at McGill University in Montreal. The clips on the right side could secure polarizing filters, and the cylindrical extension is a high-voltage electrode input.

7 Ancient Chinese Compass Called a "Sinan" (device pointing south), it was made from a naturally magnetic lodestone. Used more for harmonizing home environments than navigating.

8 Surveying Instrument, mid-1800s. May be a *Theodolite* - used to measure horizontal and vertical angles; or a *Transit*, to measure straight lines. The names are often misused in surveying instrument nomenclature, and there are a variety of types including astronomic, solar, optical, vernier, etc.

9 Keaton Music Typewriter, 1950s. Made it easier for publishers, musicians, and teachers to produce sheet music in quantity—although composers preferred to write out music by hand.

10 The Corliss Centennial Engine is a 45-foot-tall all-inclusive rotative beam steam engine that powered virtually all of the exhibits at the Philadelphia Centennial Exhibition in 1876. Its side-by-side cylinders were bored to 44 inches with a 10 foot stroke and produced 1,400 horsepower.

11 Antique Tattoo Machine This is a soft-hit, long-stroke shader. Antique coil-style tattoo irons are still popular, and modern craftsmen create artistic and functional handmade machines.

12 Spring Lancet a medical device for blood-letting, used to treat everything from fever to anemia. The "elegant" spring-loaded blade type of lancet was popular in the 18th and 19th centuries.

13 Hoe's 6-Cylinder Rotary Printing Press Invented in 1843 by Richard M. Hoe, it could produce millions of copies of a page in a single day—although mass printing really flourished when the faster 'continuous feed' roll-paper press was invented.

14 Superheterodyne Developed during World War I by U.S. engineer Edwin Armstrong, it used frequency mixing to convert a received signal to an easier-to-process fixed intermediate frequency. Modern radios still use this principle.

15 Horseradish Grinder Brass-topped, wood construction, with cast-iron gears. Cooks in the 1880s enjoyed its hand-crank operation and convenient pull-out collection drawer.

16 Stepped Reckoner, 1694 Invented by German mathematician Gottfried Wilhelm Leibniz, it was the first mechanical calculator that could perform addition, subtraction, multiplication and division.

18 Universal Electric Toaster, circa 1919 A spring-loaded "pincher" type toaster with integrated bread rack. White, wheat, or rye?

17 English Theodolite, 1865 by William Stanley. A surveying instrument with a rotating telescope for measuring angles and sighting objects at a distance.

19 Chirographer patented in 1847 by Charles Thurber. An early typewriter inventor, Thurber gave up that technology in favor of this machine, which communicated "to a pen or pencil holder the motions necessary to delineate...letters or characters, by motions at right angles to each other, obtained by sets of cams, each set being so formed as to...generate the vertical, horizontal, oblique, and curved lines required to delineate the letters or characters."

20 Arithmomètre patented by Thomas de Colmar in 1820, it became the world's first calculating machine produced in a series. Manufactured from 1851 to 1915, it was reliable enough to be used daily in an office environment, and became the first commercially successful mechanical calculator.