

TYPEWRITERS & PRINTERS

A series of several parallel white lines of varying thicknesses, slanted diagonally from the bottom-left towards the top-right, crossing the right side of the text.

Kathie Koppenhaver

- ▶ A **typewriter** is a mechanical or electromechanical device with a set of "keys" that, when pressed, cause characters to be printed on a medium, usually paper.



TYPEWRITERS

- ▶ In 1714, Henry Mill obtained a patent in Britain for a machine that appears to have been similar to a typewriter.
- ▶ In 1808 Pellegrino Turri developed a typewriting machine.
- ▶ The first typewriter to be commercially successful was invented in 1867 by Christopher Sholes, Carlos Glidden and Samuel W. Sole.

TYPEWRITERS



- ▶ Christopher Sholes sold the rights to the typewriter to James Densmore.
- ▶ Densmore convinced Philo Remington (the rifle manufacturer) to market the device.
- ▶ The first "Sholes & Glidden Typewriter" was offered for sale in 1874 but was not an instant success.

TYPEWRITERS

- ▶ Pellegrine Tarri made an early typewriter that worked in 1801 and invented carbon paper in 1808.
- ▶ Typewriters used carbon paper and onion skin paper to make copies of the typewritten documents.
- ▶ In 1829, William Austin Burt invents the typographer, a predecessor to the typewriter.

TYPEWRITERS



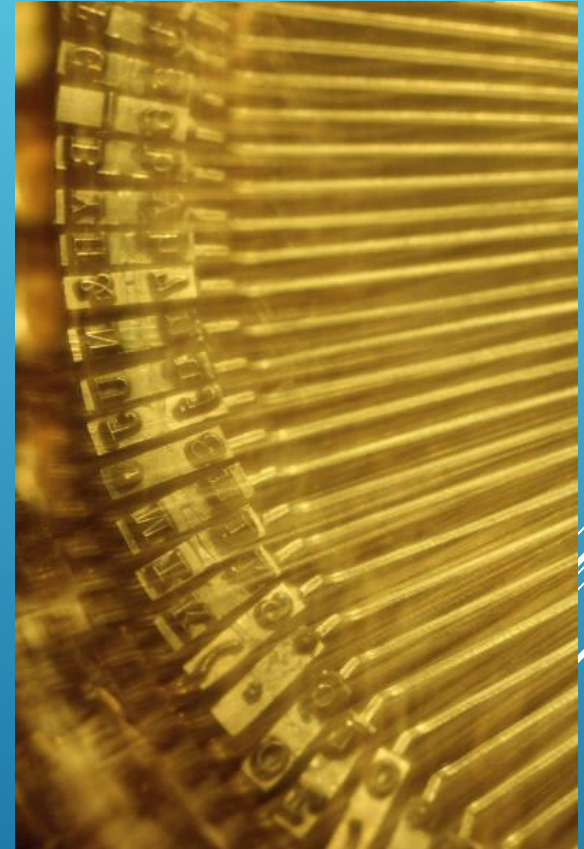
- ▶ George K. Anderson of Memphis, Tennessee patented the typewriter ribbon on 9/14/1886.
- ▶ Mark Twain enjoyed and made use of new inventions, he was the first author to submit a typewritten manuscript to his publisher.

TYPEWRITERS



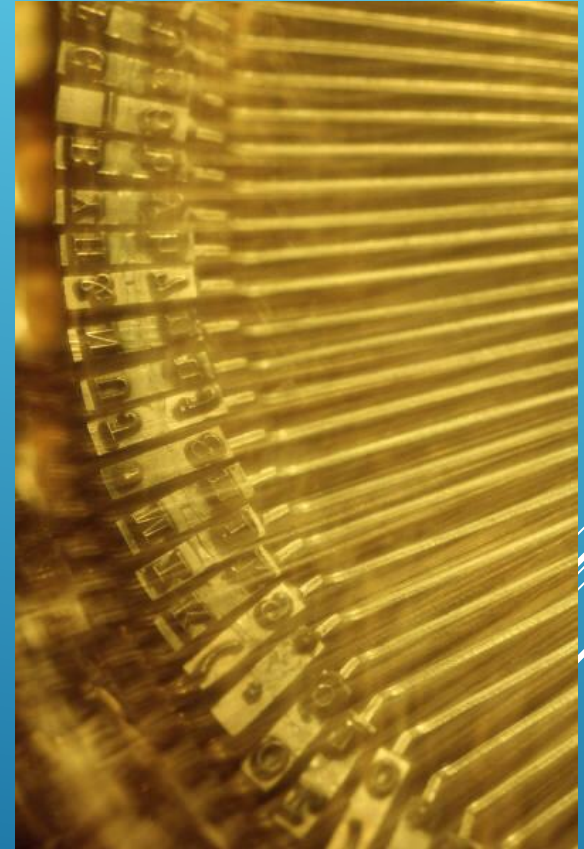
- ▶ The early typewriters contained type bars upon which the letters were affixed.
- ▶ The manual typewriter consisted of a series of mechanical linkages from the key to the type bar which threw the letter against the ribbon and the paper.

TYPEWRITERS



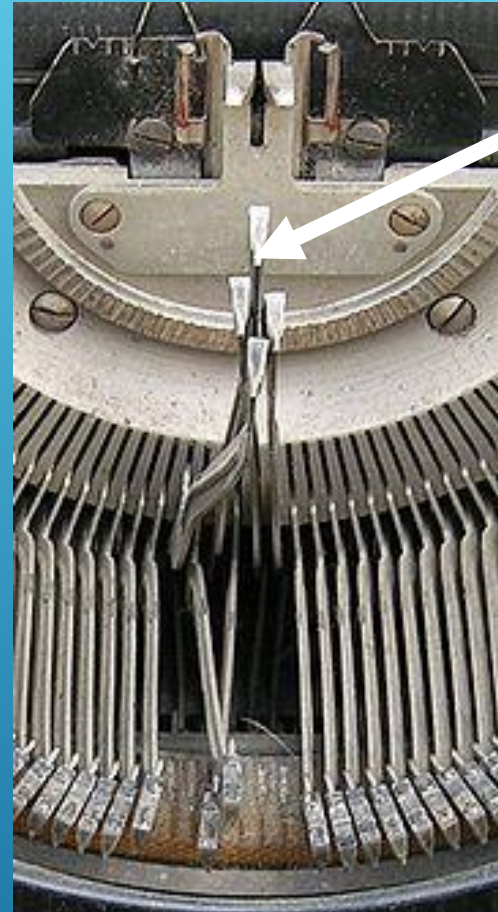
▶ The mechanical linkages developed individual characteristics that enabled document examiners to identify a particular machine.

TYPEWRITERS



- ▶ Early typewriters would have keys stick together.
- ▶ This resulted in the letters becoming misaligned.

TYPEWRITERS



1942 report Adler

Underwood champion

Moms typewriter

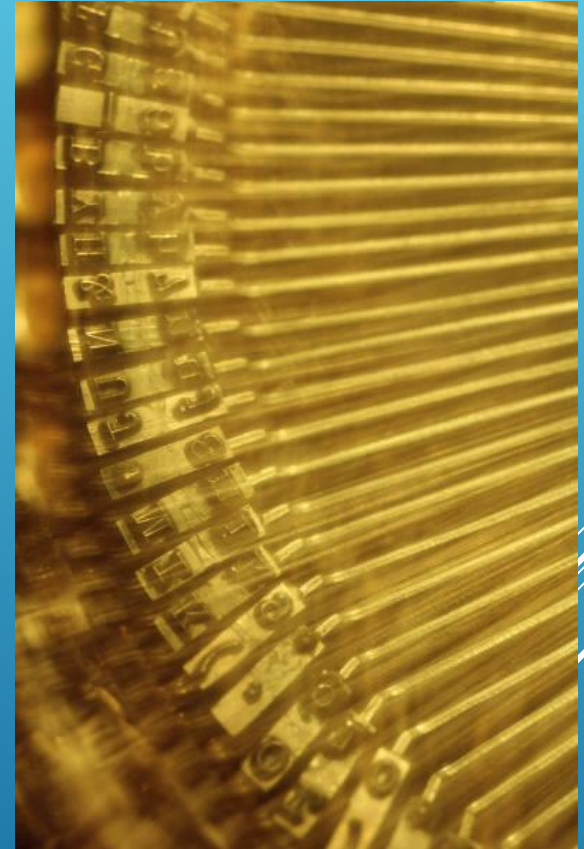
Carbon type

Kingthings

Junkos typewriter

TYPEWRITERS

- ▶ Early typewriters could be identified by their font.
- ▶ Later typewriters had multiple fonts.



TYPEWRITERS

- ▶ The first typewriters used pica or elite spacing. Pica places 10 characters to the inch on a line and elite places 12 to the inch. The lines of typing are arranged to be .165 inches apart or 6 lines per inch.

TYPEWRITERS



- ▶ Dates typewriters were introduced:
 - ▶ 1919 – Underwood Portable Typewriter
 - ▶ 1923 – Remington Portable Typewriter
 - ▶ 1933 – IBM Electromatic Typewriter
 - ▶ 1946 – Smith Corona Typewriter
 - ▶ 1952 – Olivetti Lexikon
 - ▶ 1961 – Brother Portable Typewriter
 - ▶ 1962 – Royal Empress

TYPEWRITERS





- ▶ The first electric typewriter was the Blickensderfer.
- ▶ IBM introduced proportional typewriters in 1944.
- ▶ Underwood developed the first electric typewriter in 1947.

TYPEWRITERS

- ▶ IBM introduced their Selectric typewriter in 1961 using the “golf ball” typehead. The ball prevented keys sticking together.
- ▶ The ball was interchangeable so various fonts could be used.
- ▶ The ball developed less idiosyncrasies than the type bar.



TYPEWRITERS



► The surface of the type ball is divided into two hemispheres. All the lower case letters can be found on one hemisphere while the capital letters occupy the other. The typefaces are arranged in horizontal and vertical rows. The element rests on the center position of the top row.

TYPEWRITERS

- ▶ Three types of movement take place to operate the ball typewriter. First the ball must rotate to the proper column. It must tilt so that the proper row is centered. Then the ball is moved forward to strike the ribbon and print the character onto the paper. The ball returns to its resting place. All this takes place in less than a second.



TYPEWRITERS

- ▶ 1964 – IBM's Magnetic Tape Typewriter
- ▶ 1969 - IBM's Magnetic Cards Typewriter
- ▶ 1973 - IBM's Correcting Selectric with lift-off tape.
- ▶ 1973 - IBM's first magnetic media machine that holds up to 8,000 characteristics that can be revised and recorded on cards.

TYPEWRITERS

- ▶ 1978 – Olivetti introduced the electronic daisy wheel.



TYPEWRITERS

- ▶ Typewriter manufacturers have discontinued making typewriters with the advent of the computer and printers.

PRINTERS

A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, set against a blue background.

- ▶ The first printers were similar to typewriters.
- ▶ The first printers had keys that struck the paper.
- ▶ Dot matrix printers replaced these printers.
- ▶ Dot matrix Printers were first manufactured in 1957.

PRINTERS



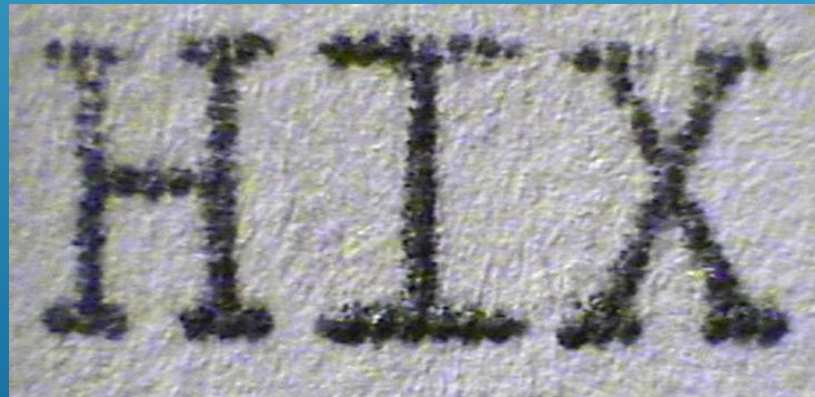
- ▶ A **dot matrix printer** or **impact matrix printer** is a type of computer printer with a print head that runs back and forth, or in an up and down motion, on the page and prints by impact, striking an ink-soaked cloth ribbon against the paper, much like a typewriter.

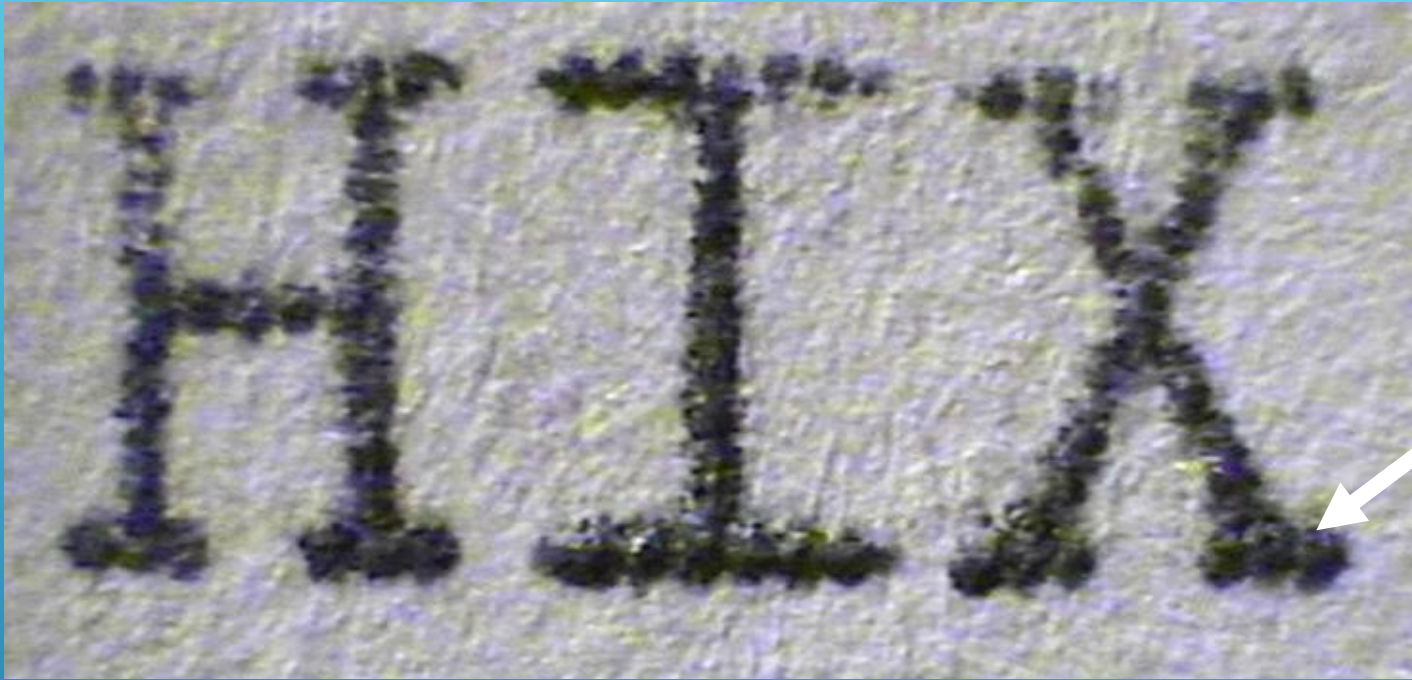
PRINTERS

A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, set against a blue background.

- ▶ The 9-pin dot matrix used either a series of 3 X 3 dots or a row of 9 dots as illustrated. 24-pin printers had either a series of 6 X 4 pins or 2 rows of 12, offset for finer quality.

PRINTERS





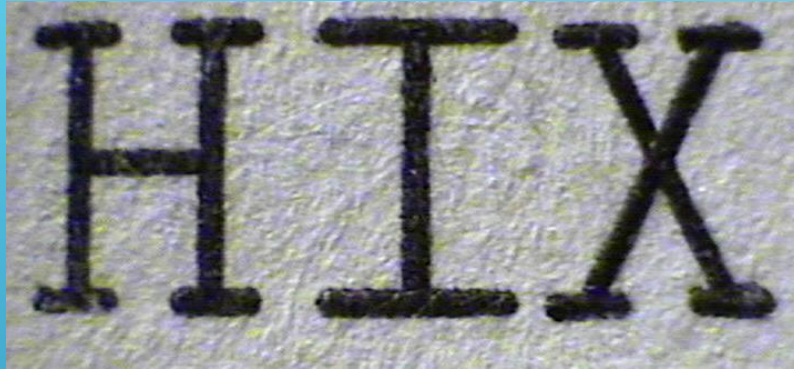
A microscopic examination will show the round edges from the individual dots.

PRINTERS



- ▶ Inkjet printers replaced dot matrix printers
- ▶ They were first manufactured in 1976.
- ▶ Inkjet printers left a dragged edge.

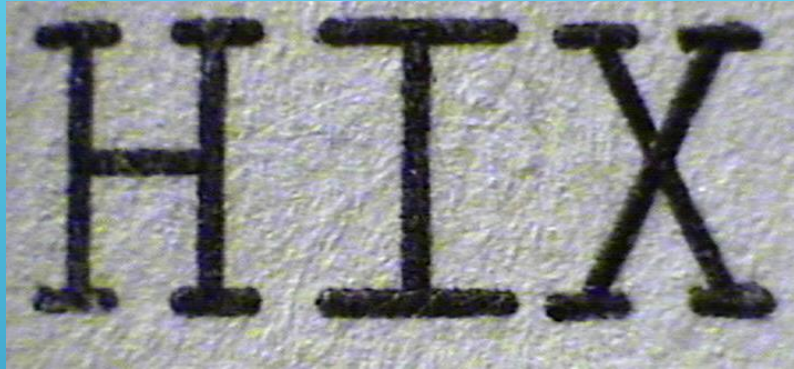
PRINTERS



- ▶ In 1983, Canon introduced the laser printer.
- ▶ A light source such as a laser exposes a photosensitive drum in a pattern of tiny dots to form an image.

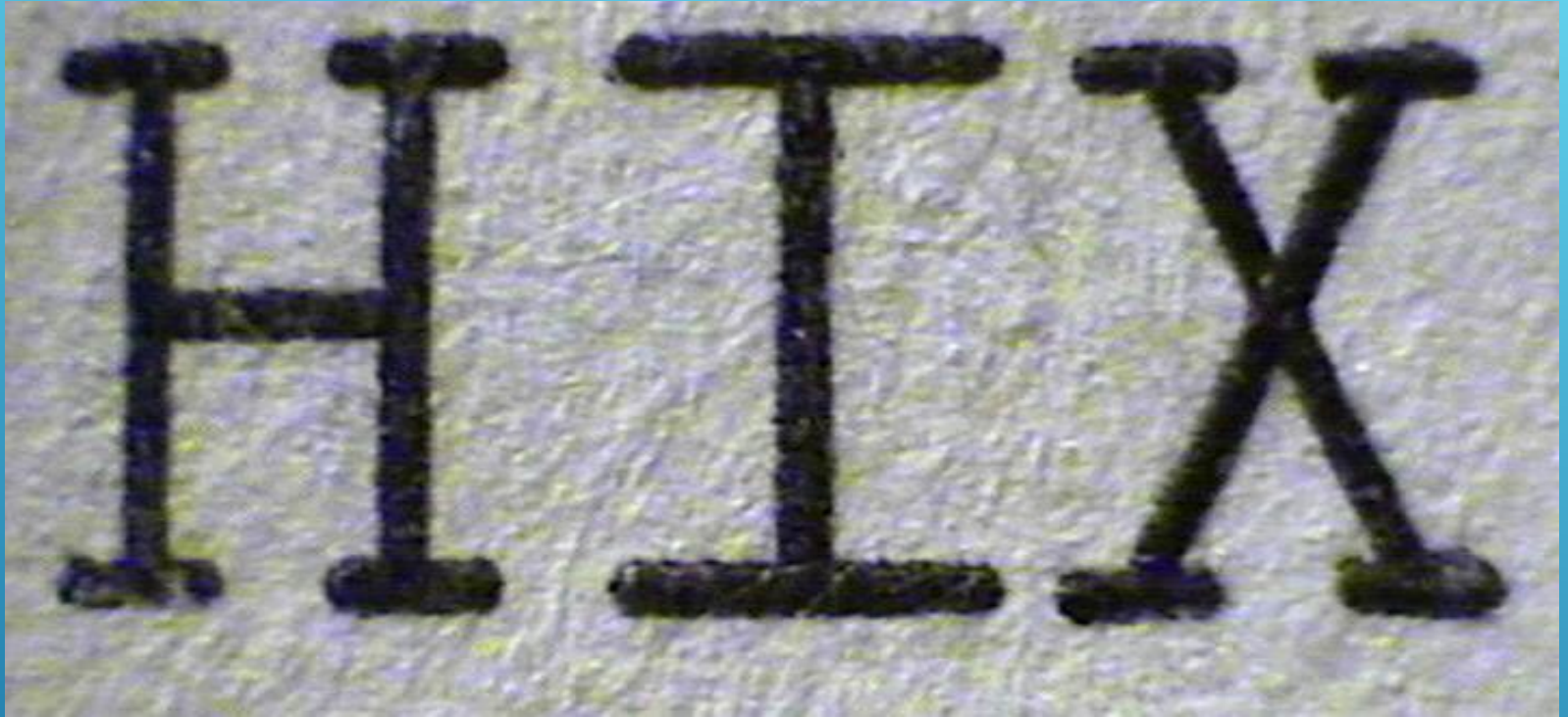
PRINTERS





- ▶ Negatively charged toner clings to the positively charged, sensitized areas of the drum.
- ▶ The toner is transferred to the paper which has been given a positive charge.
- ▶ The toner is fused to the paper by heat and pressure

PRINTERS



PRINTERS



PRINTERS



- ▶ It is important to be able to identify the type of typewriter or printer used to create documents.
- ▶ It is also important to know when various typewriters and printers were first available to the public.

TYPEWRITERS & PRINTERS



I have a set of typewriter fonts that are specific to individual typewriters.

If you need to identify a typewriter from its font, email the font to me and I will see if I have the font in my font library.

TYPEWRITERS & PRINTERS

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- ▶ I also have a book entitled, “Significant Dates of Modern Typing Methods” by Jan Seaman Kelly that is now out-of-print.
- ▶ It includes modern typewriters, printers, correcting fluids, lift-off tapes, post-it notes, carbon paper and a chronology of typewriter ribbons.
- ▶ It also includes the history of the Facsimile Machine.

TYPEWRITERS & PRINTERS