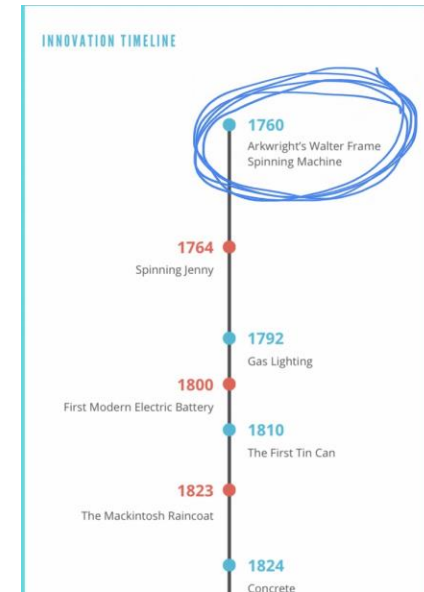


# **INNOVATION TIMELINE**

**BY: ISABELLA O'HEARN**

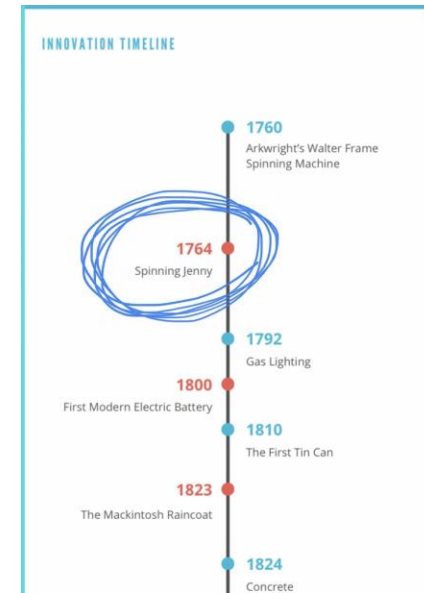
# 1760- ARKWRIGHT'S WATER FRAME SPINNING MACHINE

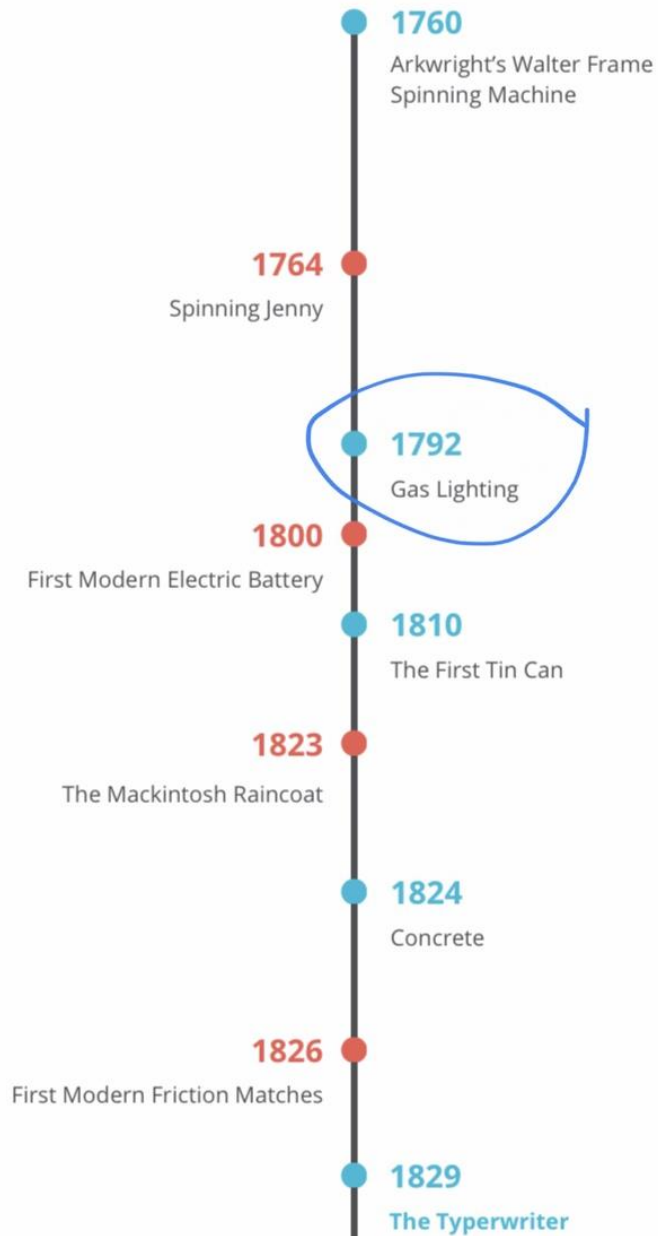
Richard Arkwright and John Kay created a machine that could spin cotton fibres into yarn or thread very easily. When Richard and John made their first prototype it could spin 4 strands of cotton at the same time. He released his machine onto the market in 1769. The machine eventually got upgraded so it could spin 100's of strands at once.



# 1764- SPINNING JENNY

It was invented by James Hargreaves in England. It was made for cotton spinning, the machine used 8 spindles. So one operator could spin 8 threads at once.

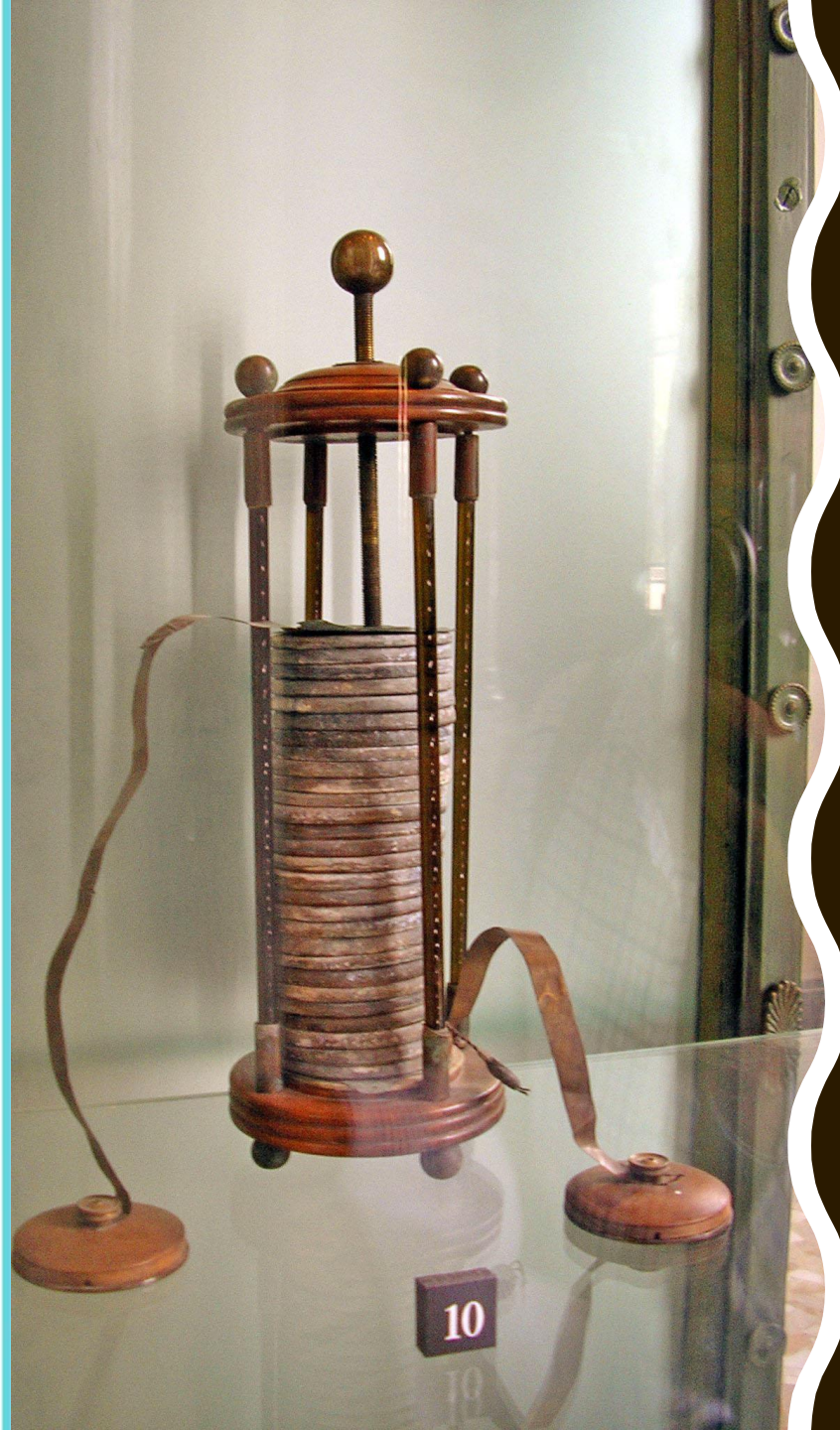




# 1792- GAS LIGHTING

Creator William Murdoch developed and introduced commercial gas lighting in 1792. The gas lights used coal gas as fuel. By the 1930's gas lighting got replaced with low pressure sodium or high pressure mercury lighting.

- 1760  
Arkwright's Water Frame Spinning Machine
- 1764  
Spinning Jenny
- 1792  
Gas Lighting
- 1800  
First Modern Electric Battery
- 1810  
The First Tin Can
- 1823  
The Mackintosh Raincoat
- 1824  
Concrete
- 1826  
First Modern Friction Matches
- 1829  
The Typewriter



# 1800- FIRST MODERN ELECTRIC BATTERY

It was created by Alessandro Volta with the development of his voltaic pile. Mass production of the world's first battery started in 1802 by William Cruikshank. The first rechargeable battery was invented in 1859 by Gaston Plante.

# 1810- THE FIRST TIN CAN

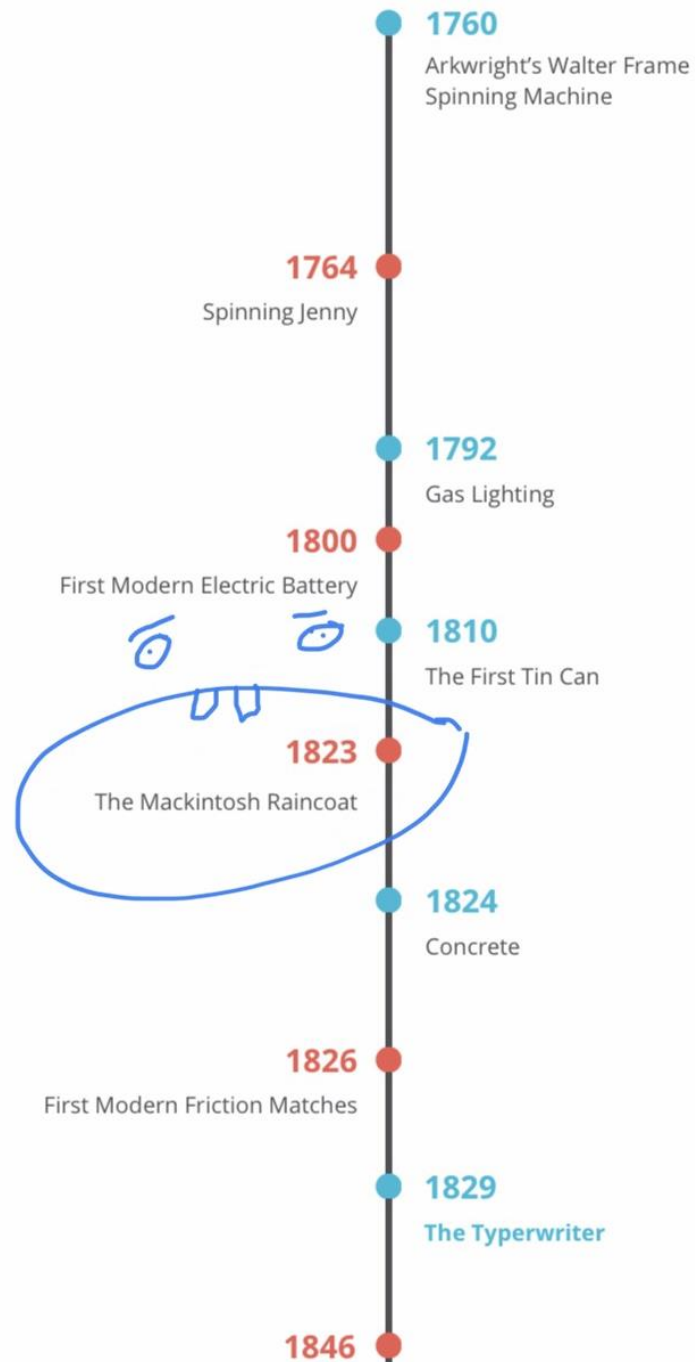
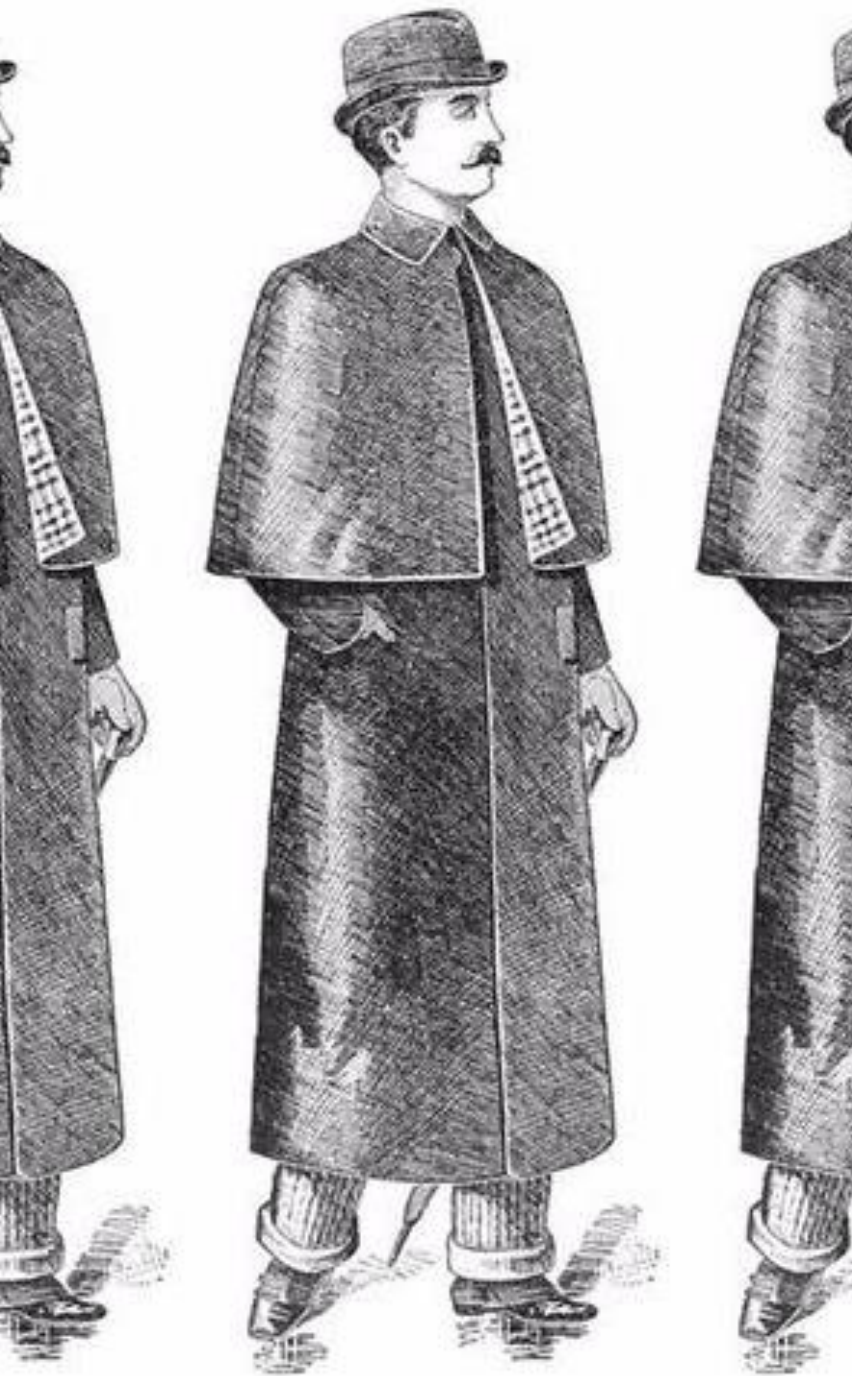
Peter Durand invented the very first tin can. This had a huge impact on food preservation, and it still does. Apparently at first the tin used to make cans was very thick, so in order to open the cans you would have to crack open the can with a hammer. Overtime the tin became a lot thinner, but by then the very first can opener had been released into the market in 1858



How the original tin cans were made

Source: Science Museum





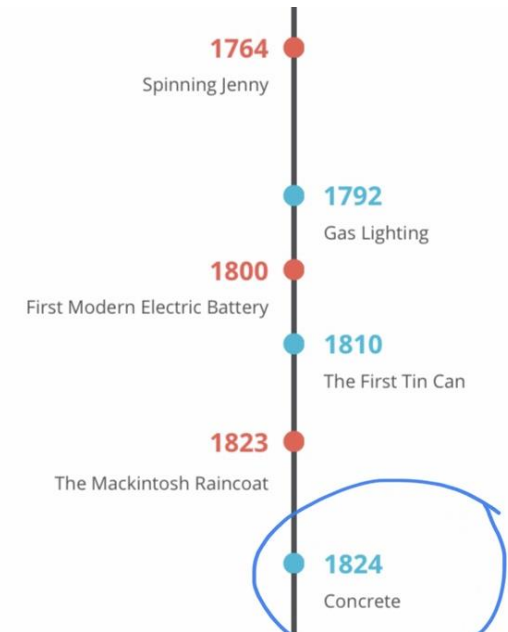
# 1823- THE MACKINTOSH RAINCOAT

Charles Mackintosh created the first waterproof jacket. He added a coat of rubber to the clothing, but in the hot weather the rubber would get sticky and tacky and extremely stiff in the cold months. Charles who was a chemist successfully fixed this issue and created a new way of using rubber to waterproof clothing. After this, Mackintosh had started mass production which merged into a larger clothing manufacturing company.

# 1824- CONCRETE



Joseph Aspdin, (who was a bricklayer and builder) created a chemical process for making cement. The process involved sintering a mixture of clay and limestone to 1400 degree centigrade. Then they grounded it into fine powder and later mixed it with sand and gravel to create concrete.





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1829

The Typewriter

1846

Sewing Machine



# 1826- FIRST MODERN FRICTION MATCHES

In 1826, John Walker introduced the first modern matches. Walker was trying to figure out how to make a slow burning flame. So by accident a match that was ready to go lighted itself from friction on the hearth, then he figured it out. After this he starting grabbing wooden splints or a stick of cardboard and he coated them with sulfur.

# 1829- THE TYPEWRITER

William Austin Burt created the first typewriter. He called it a “typographer”, apparently the machine wrote slower than someone handwriting. Therefore, Burt’s “typographer” didn’t get bought by the public because of it’s lack of efficiency. So it kind of died out.

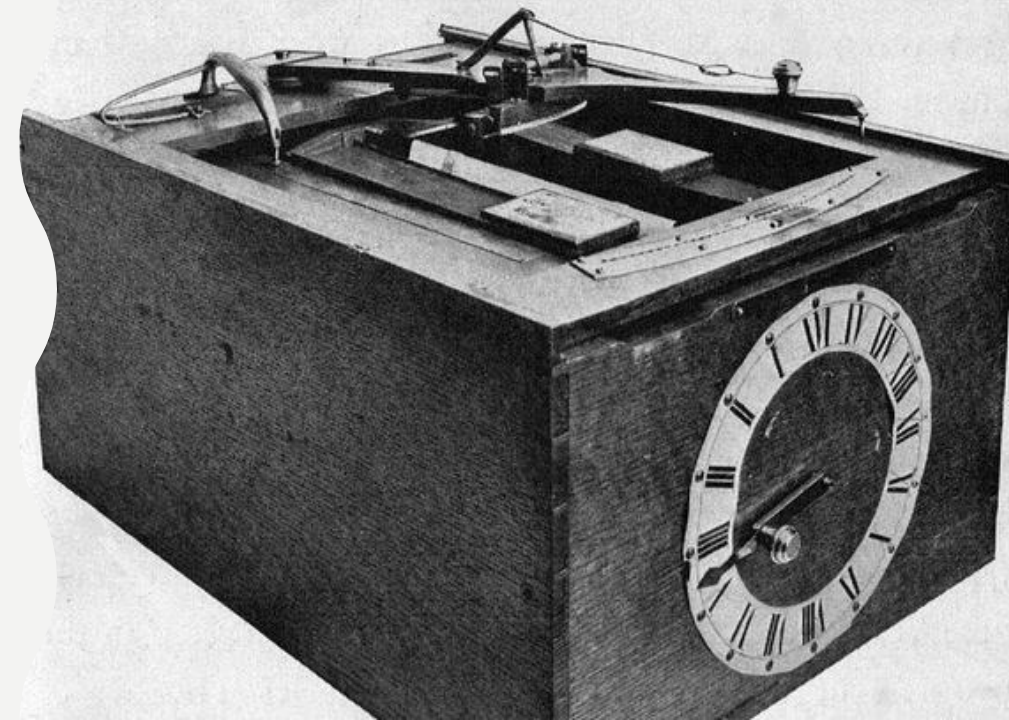
Later, in 1867, Christopher Sholes created a whole new typewriter that wasn’t super slow. (It did so much better than Burt’s “typograph”.)

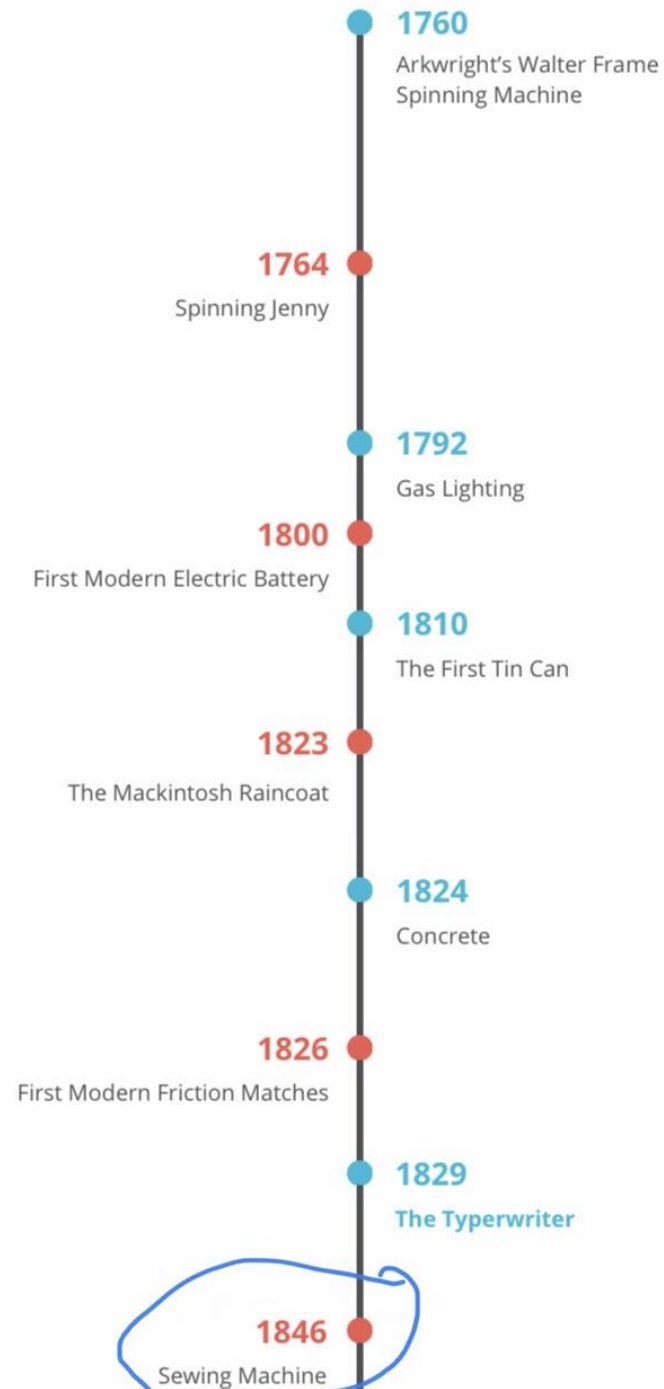
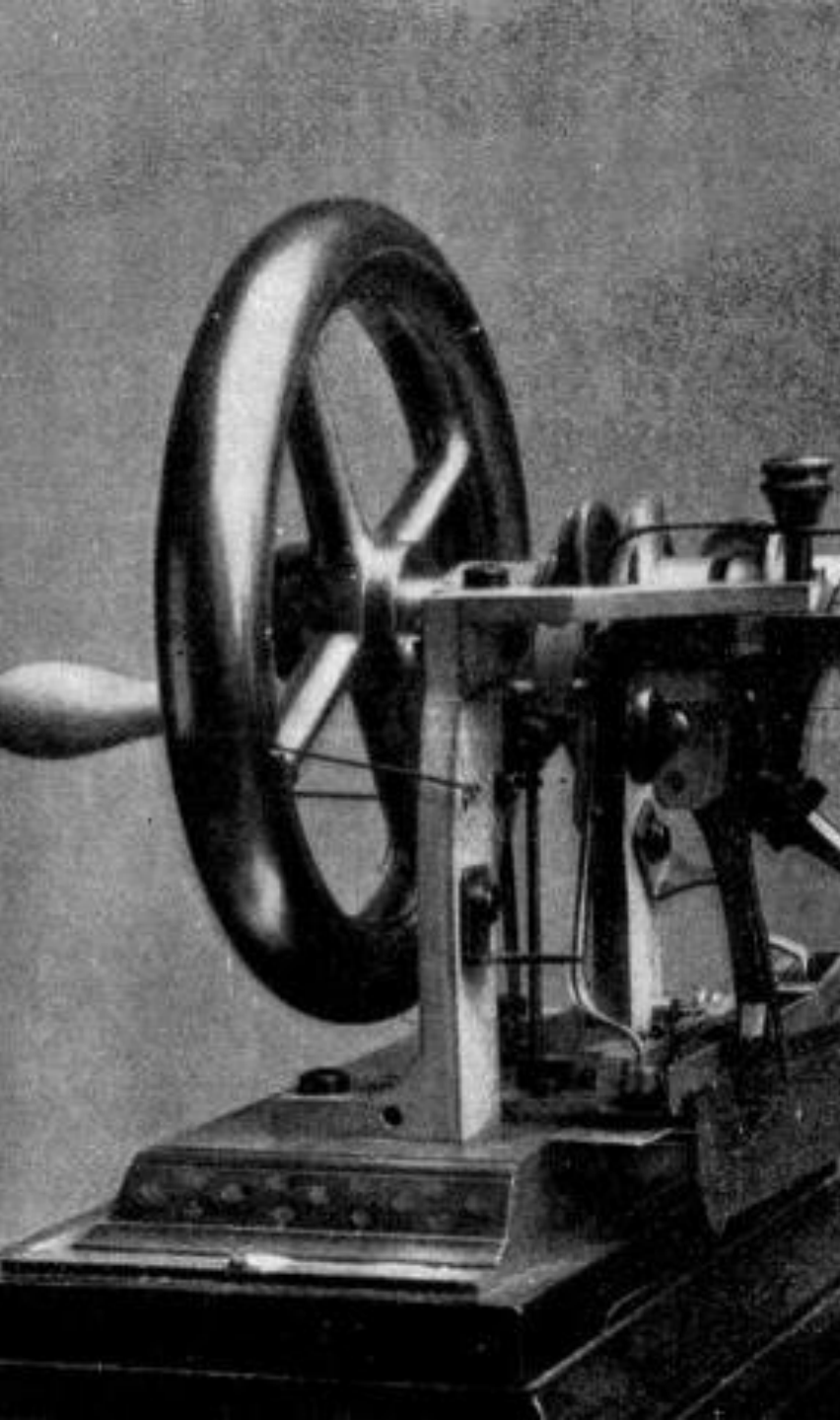
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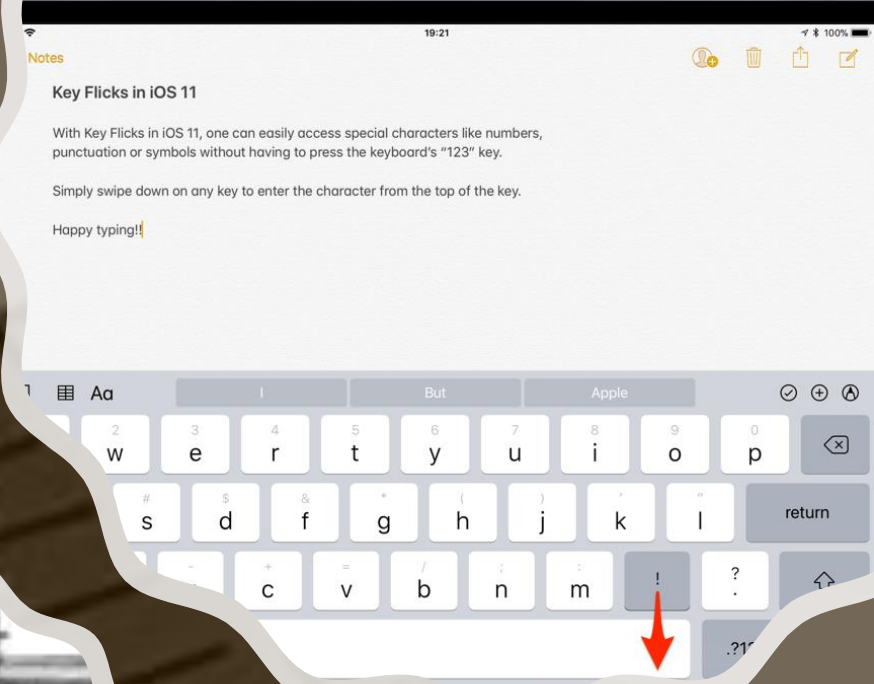


# 1846- SEWING MACHINE

The sewing machine was invented on September 10, 1846. Many people have been credited for making this product such as Elias Howe, Walter Hunt, Barthelemy Thimonnier and Josef Madersperger. It was used for making blankets and clothing.

# THE TYPEWRITER

This invention can be in many forms nowadays. Back then you would put a piece of paper in the slot and then type, unfortunately there was no backspace. So if you messed up you would have to start all over. The modern day keyboard/"typewriter" can be bought separately to hook up to your computer or iPad, but thanks to the built in keyboard on touchscreen devices such as iPhones, tablets and foldable laptops we no longer require the typewriter. I feel the purpose hasn't changed because we are still using a different version of the typewriter, but for the same purpose, TYPING!! It looks very different now from the very first typewriter.. The keyboard itself doesn't look that different from the typewriter's keyboard in the 1900s. I think it's a lot more convenient to have the touchscreen keyboard in an iPhone, in that way it has improved, and I think it's a lot faster.. The keyboards back then were very slow and less efficient. No negative changes what so ever.



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