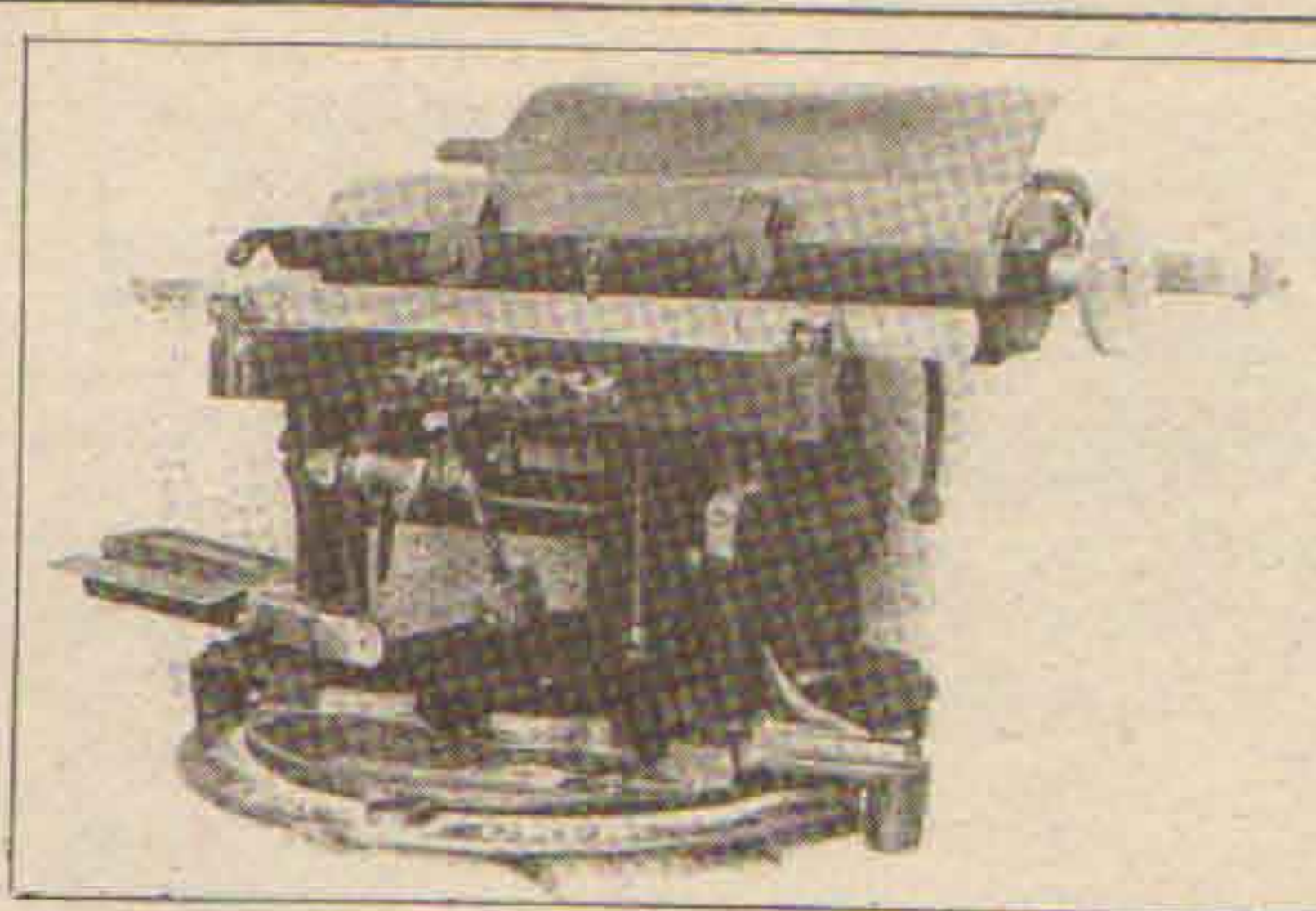
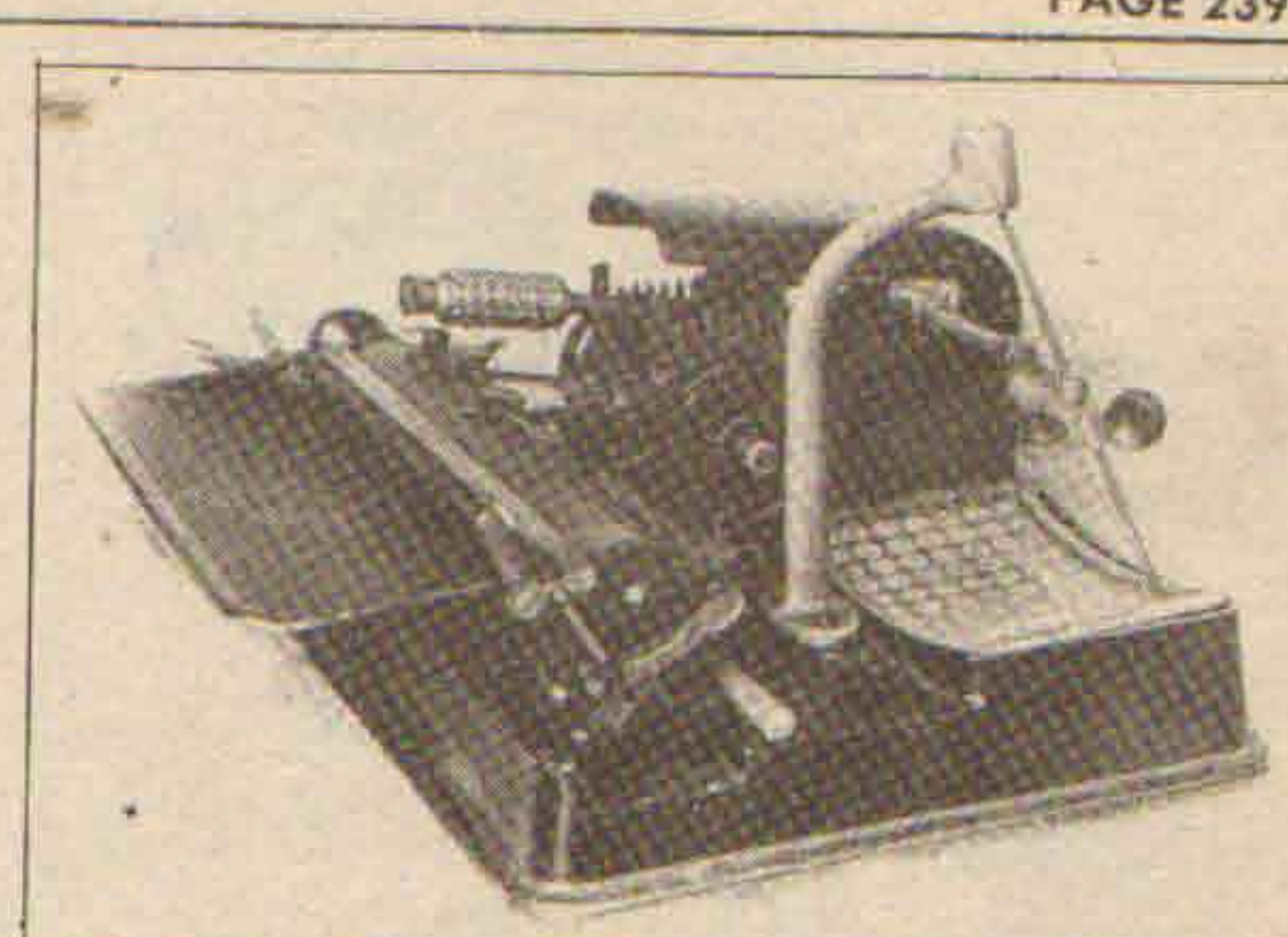


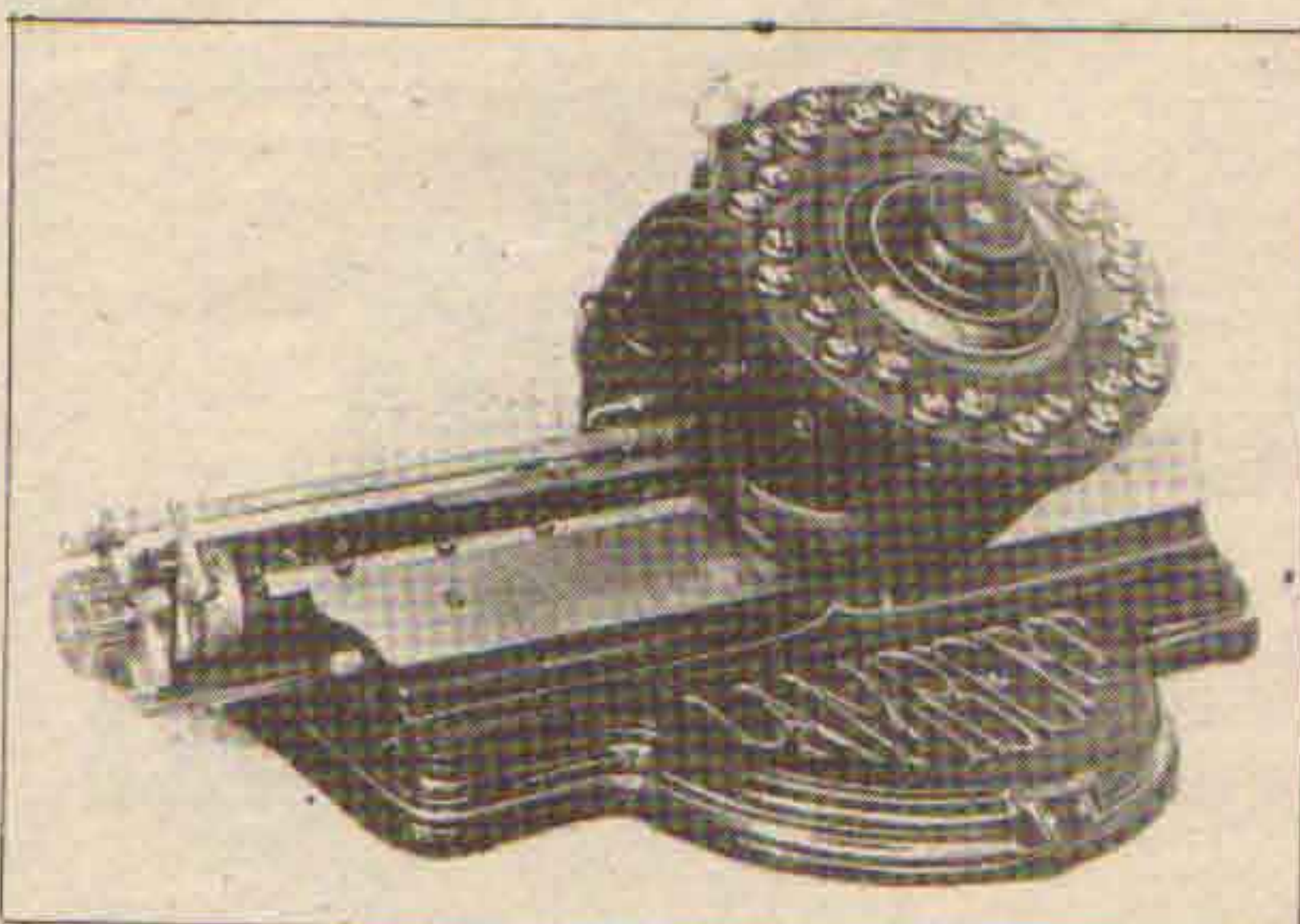
The Peoples, c. 1898.



The Edison Mimeograph, c. 1895.



The Yu Ess machine, c. 1917.



The Lambert typewriter, c. 1896.

durability because "as it has two sets of the parts most subject to wear, each set is subject to *only half the wear* sustained by similar parts in (conventional) machines while doing the same amount of work."

With its one-hundred keys, the Duplex may take the cake for the busiest looking keyboard of all time. There was an opposite extreme: writing machines that had only three keys, or two, or one, or, strictly speaking, none. They are occasional sources of confusion to the uninitiated who, because of these machines' simplicity, sometimes believe

TYPEWRITERS WITH FEW KEYS ARE EARLIER THAN TYPEWRITERS WITH COMPLETE KEYBOARDS.

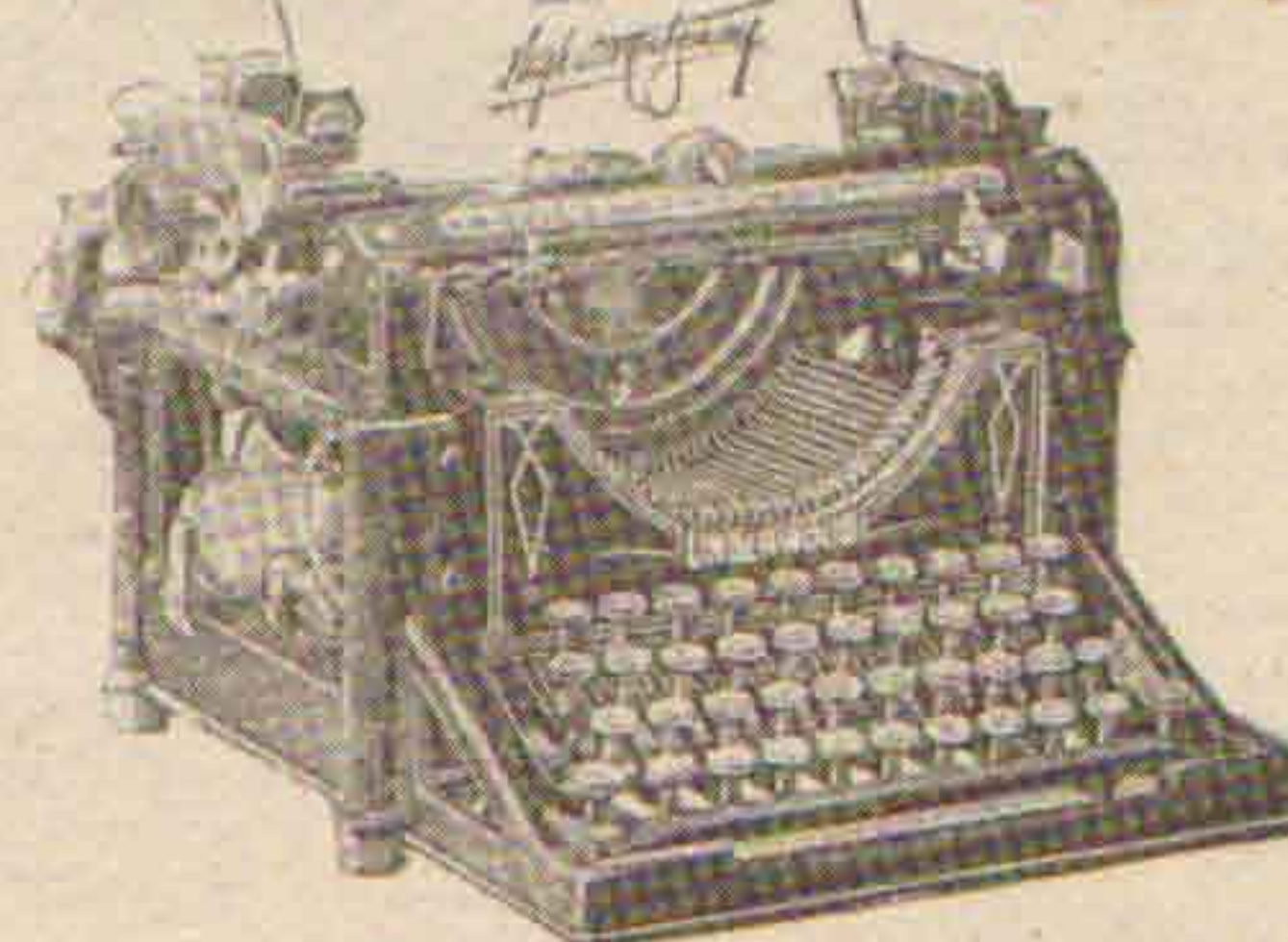
A whole school of typewriter design arose, wherein letter selection was accomplished not through the use of keyboards, but by some form of pointer. Known collectively as the "index" or "indicator" machines, these are sometimes thought to be older than keyboard typewriters. Not so. The first mass-produced index machine, the Hall, first came to the market in 1880, more than a half decade after the Sholes & Glidden; and the index school reached its peak popularity during the mid 90s.

The rationale behind these primitive instruments was economic. The standard price for office typewriters was \$100 (there were lower-cost rogues such as the Crandall, priced at \$75 initially and \$50 during the early 90s, and the Chicago and Blickensderfer machines in the \$35-\$50 range) which was big money at the time. The most expensive rolltop desks then cost \$35, an office clerk might earn \$8 per week, a good suit of clothes sold for a fivespot, a square meal could be bought for two bits, and a pen cost a penny.

In that economic context, a \$100 typewriter was something a big corporation could afford, but the mom-and-pop business and the private individual could not consider the expense. This was no great loss to smaller enterprises during the 1870s and early 80s, because in those days typewritten correspondence was considered too uniform and impersonal to be accepted. But as the industrial revolution swept the white-collar world in the late 80s, ethics and customs changed to suit. Typewritten correspondence became a symbol not just of business success; it came to represent a businesslike manner, period.

Thus arose the index machines, most of which were priced between \$5 and \$15 (the glaring exception was the Hall, whose original price was \$50; given the utter simplicity of its mechanism,

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Visible Writing, Universal Keyboard, Speed, Touch
Handsome Illustrated Catalogue mailed on request.
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An ad for the Underwood typewriter.

compared to a keyboard typewriter, it was one of the great ripoffs of history). A non-professional typist using a keyboard typewriter normally would find the keys one at a time, hunt-and-peck style; the inherent speed of \$100 typewriters, then, was lost on such users, and to them a typewriter wherein the characters were pointed-out one by one on an index was really no slower.

Generally meant for operation by one hand, the index machines presented a simplicity that their advocates claimed made them superior to the bigger and more costly keyboard machines. A catalog for the Hall quotes an 1885 typist's magazine as saying, "...we could not understand how one hand on (Thomas Hall's) machine could operate more rapidly than two on the other machines, when he stated that time was saved in passing over the short spaces on his index plate...That with the keyed instruments care must be taken that one hand only is used at one time...The operator (of the Hall) is certainly not confused by multiplicity of letters staring him in the face when he is looking for any desired key, nor distracted by trying to get two hands to work in harmony...On the Remington and Caligraph the letters are so far apart that the operator cannot measure with certainty the distance...and must necessarily confine his eyes to the key-board."

Despite their mechanical simplicity, the index machines, like the keyboard varieties, were produced with an astonishing individuality and variation in design.

In a machine like the American of c. 1893, the indicator pointed-out the character, then, when the printing button was pressed, a finger inside the machine pressed the type (which was on a strip of

A machine believed to be the Wagner [prototype of Underwood], c. 1894.



rubber) against the paper. Similar operations activated the Peoples of c. 1891 (A.K.A. Champion, Pearl) but here the indicator rotated a metal typewheel, and the printing key caused the entirety of the carriage to rock forward against the type. In the Odell of c. 1887, the type was all cast upon an iron bar that was slid left or right above the platen, then pressed down to make the impression.

Thomas Edison invented the Edison Mimeograph Typewriter, wherein a drum containing individual type plungers spun beneath the carriage as the letter index was turned. Pressing the type key induced a hammer to fly upward and bang the selected plunger against the paper; as the hammer returned to rest, a finger caught a protrusion on the plunger and brought it back to rest.

In the German-made Mignon of 1903 (sold during World War I in this country as the Yu Ess) the indicator was a pantograph-style of arrangement geared to a type cylinder that rotated and/or slid fore and aft; the printing key slammed the cylinder down upon the paper. In the Lambert of 1896, the entire upper body of the machine pivoted when one edge or another of it was pressed, causing the corresponding character at the other end of the machine to come into alignment.

Many other forms of index machines were produced, and, particularly in Europe, they were still being manufactured at least until the late 1920s. But their decline into anachronism had begun during the first decade of this century, when frontstrike portable typewriters began to appear. These were more expensive than the index machines, but they were coming at a time when conformity generally was becoming an accepted virtue. People apparently were willing to spend more on an instrument that was a "real" typewriter with standard keyboard, frontstrike typebasket and all. But as for that frontstrike basket, there is the question of just when, and by whom, it was originated. One highly disputable contention, for example, is that

THE UNDERWOOD WAS THE FIRST FRONTSTRIKE TYPEWRITER

The Condensed History of 1923 states that "the oldest living (typewriter) inventor ... in comment relative to placing of the type basket horizontally, made this observation: '...then the typewriter of today became evident and a greater visibility of writing ensued, so that this variation in the