



MARCIN WICHARY SHIFT HAPPENS PREVIEW





Palace Hotel in Cincinnati, West 6th Street side, ca. 1900  
CINCINNATI MUSEUM CENTER

## 2

# THE SHIFT WARS



July 25 in 1888 dawned with the promise of yet another gorgeous day in the middle of a great year for Cincinnati. The city was full of civic pride as the second-largest metropolis in the west,\* and in that year it was also celebrating the 100th anniversary of its settlement by hosting the Centennial Exposition of the Ohio Valley and Central States.

3

The expo was a hundred-day celebration of the five northwestern states, which at this point “recorded one-third of the population of the whole country within its limits, and possessed half the wealth.” Among the many attractions was the massive Machinery Hall, an impressive display of industry stretching three city blocks. It featured a chess and checkers automaton named Ajeeb, a large topographical map of Ohio carved out of stone, and gondolas brought over from Venice, perfect for a day with temperatures expected in the low 80s.

Those not planning a trip to the fair might have looked forward to attending the Fall of Babylon, a 1,200-person variety show advertised as “a spectacle of most bewitching loveliness,” “totally eclipsing every former effort in the same line,” and an “acme of human effort,” with completely new music, costumes designed in Europe, and “the most extensive stage ever erected in this country.”

But, remarkably, neither the exposition, the show, nor the giant summer sale at Miller Bros & Co. (“corsets at half price!”) proved to be the day’s most spectacular event. Instead, it was watching two men type exceedingly fast.

It was Frank McGurrin, a leading stenographer in America, who proposed the first public typewriting duel in the country. The competi-

tion was to take place in the newly built Palace Hotel – at eight floors, the tallest building in Cincinnati. The rules were simple: each participant had to bring their own typewriter, put \$250 in the kitty, type from dictation for 45 minutes, and then spend the same amount of time copying from longhand. Points were deducted for typos and other mistakes. The prize? Winner takes all.

The only person to pick up the gauntlet was Louis Traub, an already well-known typing instructor and the principal of the Typewriting Department of Longley's Shorthand Institute.

McGurrin brought the successor to the Sholes & Glidden machine. The Remington №2, already a decade old, disposed of sewing machine elements and Victorian motifs, and was no longer integrated with a desk. Traub chose a different machine, made by the American Writing Machine Company, Remington's first competitor. It was called the Caligraph.<sup>4†</sup> Its first version came out in 1880, but Traub had chosen its sequel, released two years later.

The duel attracted a certain amount of attention, and the two rooms under the beautiful mansard roof of the Palace Hotel filled with stenogra-



phers, typists, and reporters. McGurrin won the coin flip, and decided to start with dictation. In the other room, Traub was warming up his fingers, getting ready to do some copying.

Eventually, both young men – McGurrin was 27, Traub a year older – removed their coats and sat down to their white-keyed machines. They knew the stakes were high, involving both their personal reputation and a serious amount of money: the \$500 purse would be worth over \$10,000 in today’s dollars. And yet, they had no idea that the winner would determine the shape of keyboards for centuries to come.

At 9:50 in the morning, both men started typing. Many outlets reported the astonishing speed at which they operated their keyboards. “Their nimble fingers sped over the keyboards with bewildering rapidity,” reported the Cincinnati Commercial Gazette. The Enquirer mentioned “fingers flying over with the rapidity of a Hans Bulow improvising a staccato composition.” The rapid metallic clanging of the keyboards and typebars and bells dinging to indicate the end of the line drowned out the sounds of streetcars and horses outside. It was a din to hear and a sight to behold, a rare display of mastery in an era before typewriters invaded offices.





6

Shift

But things were about to get even more astonishing. In the middle of transcribing dictation, McGurrin did something no one had seen before. He closed his eyes.



Upper- and lowercase letters are a writing convention, since we don't speak in little and big letters. It's also a convention with a perhaps surprising history. Capitals arose from inscriptions carved in stone, which required strong, relatively simple forms that could be cut with a chisel. Lowercase, on the other hand, came from handwriting, where flowing cursives allowed for fast, legible writing. The two merged only much later, in manuscript writing, and followed along into printed type, which mimicked handwritten forms.

Both the first Remington/Sholes & Glidden and the first model of their rival Caligraph wrote in uppercase only. This owed partly to the ease of construction, but also to the expectations of how typewriters would be used. Sholes was convinced that a machine with lowercase letters "obviously had no future," and derided Densmore as being "wild as hawk" for insisting



on building a machine with two cases. Even when such a machine was made, he predicted that a single-case typewriter would outsell a dual-case one 10:1.

The first Remington had an early QWERTY keyboard, organized in four rows (traditionally called *banks*) of eleven keys each. But the first Caligraph tried something different. Its creators arranged the keys in six banks with eight keys each, making the keyboard a bit more square. Numbers and punctuation filled out its top two banks and its bottom one, while the three in the middle offered a slightly modified QWERTY layout, beginning with WTREYUIO. There were not one but two spacebars – one on each side – meant to be operated with pinkies. Both of the typewriters printed in uppercase only. (From the perspective of today it would appear as if they were constantly shouting, but that convention was not yet common.)

For the second Remington model, engineers Lucien Crandall and Byron Brooks chose to add lowercase letters using a clever method: they changed each of the typebars to have two letters, one above the other, and added a key that would *shift* up the entire carriage – the moving mechanism that carried the paper wrapped around the platen – and cause the subsequent typebar to hit the shifted carriage with the other letter.

Naturally, they named that key Upper Case.

It made sense to match uppercase letters with their lowercase siblings. Most of the other symbols were paired with numbers: " went above 2, \$ above 4, % above 5, and ( joined 9. ☹ The once absent semicolon now moved in with the colon, and the question mark was placed above the comma.

- \* Following St. Louis. Cincinnati was overall the 8th biggest city in the U. S. in that year. It would never again be that close to the top of the list. In 2021, it was in the 65th position.
- # *Caligraph* means “beautiful writer.”

The whole system appeared in the Remington №2, released in 1878. Many of those keys are in the same locations on keyboards nearly 150 years later.

The Upper Case key had its counterpart, Lower Case. Not wanting to mess with the QWERTY ordering, the two keys were put in the lower-left and upper-right corners. At some point in the 1880s, the maker renamed both keys Shift while swapping the action so that the carriage shifted only when one of the keys was held. A few years after that, the right Shift migrated to its familiar position on the right side of the lower row.

That was Remington. The other typewriter chose a different and arguably more natural approach. Instead of a complicated shifting system, the Caligraph simply added more keys. The new typewriter retained most of its arrangement of 48 keys, now outputting lowercase letters. Twenty-six more keys were added for uppercase, thirteen on each side, “surrounding the others like a protecting halo,” one publication rhapsodized. Every key corresponded to a single letter or symbol on its own typebar. At 74 keys, the new keyboard was slightly wider and quite a bit taller than the Remington №2. Somewhat predictably, it was called Caligraph №2.

Competition abounded by the late 1880s, and manufacturers offered more ideas on how to give their typists complete, twin-cased alphabets. Some used the same layout as Remington: four banks of keys, and one Shift replicated on both sides. The Munson typewriter and many that followed featured just three banks and relied on *two* different shifting keys, one usually called Fig (for “figures”) and the other Cap. Each key was now equipped with *three* functions: a lowercase letter, an uppercase letter, and a digit or a symbol. This was a complicated system, but it allowed for smaller keyboards and cheaper typewriters.

Some early machines, such as the Hammond and Crandall, modified that idea. While they included two Shift keys, they had only two wide banks, their layout resembling piano keyboards much more than later typewriters.

Other manufacturers liked the idea of a *full keyboard* – that is, one without shifting – but approached it differently than did the Caligraph. In the late 1880s, Bar-Lock and Smith Premier duplicated the QWERTY keyboard: an upper set of banks were dedicated to uppercase and the lower to lowercase, while the numbers and symbols were strewn around. Instead of the Caligraph’s two separate arrangements of letters, this setup – known as a *double keyboard* – required the typist to learn only one.

All of these typewriters were relatively popular at the time, but there were a few machines that tried even more extreme layouts with much less luck. A tiny typewriter called Fontana Baby was equipped with only twenty alphanumeric<sup>#</sup> keys, but four shifts allowed each one to produce many different characters. There was also a typewriter called Duplex, which had a full keyboard – and then kept going, adding another half one. The resulting immense 100-key layout was meant to speed the typist up by allowing them to press two letters at the same time, one with each hand.



Duplex proved too complex for its own good, but it demonstrated the wonderful creativity applied to solving the seemingly simple problem of putting a whole alphabet under one's fingertips.<sup>Ⓜ</sup> Alas, most of that creativity was absent from the Palace Hotel. Despite McGurrin's open invitation for other competitors, the only typewriters to face each other were the two most popular.

↳

McGurrin closed his eyes and – somehow – continued typing and – somehow – did it well enough that he won both the dictation part of the contest (he typed 15% faster than Traub) and the copying part (almost 40% faster). In both instances, he attained speeds of over 95 words per minute (wpm). Traub, on the other hand, achieved 83wpm during dictation, barely 70wpm during copying – and made more mistakes, too.

McGurrin won the first typewriter duel in America. Not only was it a decisive victory, but it was also a victory *in style*. The legend was born. “He is said to be the fastest typewriter in the world,<sup>Ⓜ</sup> although that has probably not been thoroughly proved. The way he left Louis Traub, another expert, in the rear, would, however, bear out such an assumption,” wrote one newspaper.

McGurrin's speed was a small part of the whole story. The Salt Lake City stenographer was one of the early proponents of *touch typing* – the idea

- ⊖ Unfortunately, no records remain as to why this particular arrangement was chosen. However, we know that early on, the company considered showing both the uppercase and lowercase letter on each of the alphabetic keys, but likely realized that people can make that connection easily in their heads.
- # Meaning keys with letters, numbers, and punctuation marks – in other words, everything except non-printing keys.
- Ⓜ There were also technical challenges. One of the typewriters required the owner to put it on a flat surface – any angled desk, and one of the Shifts would stop working. Another machine unnervingly made the *keys* move toward the typist when Shift was pressed.
- ≡ The first registered use of “typing” to mean “writing with a typewriter” appeared in 1888, but it was an ongoing struggle to find the right word for “one who types.” Some people called them “stenographers,” but others used “typewriter” to mean both the machine *and* its operator. To complicate matters, Remington was rumored to defend their exclusive right to use the word “type writer,” so some accounts vacillated between “caligraph operators” and “Remington typewriters.” Some proposed “typers.” Not that this was a unique problem: I also found one example of calling someone who dictated a “dictator,” not without some logic.





of using the keyboard with all ten fingers while looking elsewhere – and he dedicated years of his life to perfecting something “which was, on its face, fantastic, if not actually impossible.” People paid attention to the fact that he particularly dominated Traub in the copying part of the exercise: while his opponent needed to shift his gaze constantly between the original text and his keyboard, the only shifting McGurrin had to do was of his typebars.

The idea of touch typing rapidly gained popularity. People couldn't help but notice the typewriter that made it possible: the Remington №2, with four banks of keys and the ingenious Shift mechanism. The keyboard was small enough to allow all fingers to traverse it with ease, but not so small that it became complicated and cumbersome to use. The legend of the meeting made it seem Remington №2 was not just better than Caligraph №2, but better than anything else out there, even though those models were the only typewriters in use that day. Minutes before noon that summery day, in rooms 20 and 21 of the Palace Hotel, the entire future of keyboards became clear: QWERTY, served on four banks of keys with a side of two Shifts.

And there was an even more poetic coda to this competition. A friendly rematch was arranged for January 24 of the next year. It took place that day at Hopkins' Hall, a much bigger building allowing for about 300 people to attend, with many more turned away.

This time, possibly for reasons of drama, the contest was limited to dictation only. The text being read to each participant – first Traub, then McGurrin – was considerably more technical than before. McGurrin repeated his performance by typing at a little over 89wpm. But then, to everyone's surprise, Traub performed even faster and won the competition.

If that seems to contradict the story from July, fear not. Right after the first contest, Louis Traub became so disenchanted with his Caligraph that he decided to switch to a Remington typewriter right then and there, and within a span of half a year, he attained enough proficiency to defeat the opponent who had trounced him.

It was a story worthy of a movie. A hard-working contender convinced the world of the inarguably superior method of typing, betting on the best available technology that supported him in his mission. Then, his erstwhile arch-nemesis switched to the same method and the same keyboard and won it all, proving that touch typing on a Remington is something *anyone* can master, and that a single Shift was all that you needed to become a typing expert. It was an immensely satisfying narrative, and it was reported widely as such. It explained the rise of Remington, QWERTY, and the keyboard

#### ⏪ Previous pages:

- ↩ Smith Premier №10 typewriter with a dual keyboard (the keys next to the spacebar are Backspace, and the four red digits are tabulators) [MUSEUMS VICTORIA](#)
- Helios Klimax with three shifts and two rows [THE PRIVATE COLLECTION OF KATH MORRELL AT GALLERYEXTREME.COM](#)
- Munson typewriter with two shifts [COURTESY MARTIN HOWARD](#)
- ↩ Molle typewriters with two shifts and ortholinear (not staggered) layout [THE PRIVATE COLLECTION OF KATH MORRELL AT GALLERYEXTREME.COM](#)

with one duplicated Shift. Unfortunately, like many stories across the history of keyboards, this one also falls apart on closer scrutiny.

↳

While McGurrin had practiced on his Remington pretty much since it had become available on the market, ten years before the competition, Louis Traub not only didn't live in America – he didn't even speak any English!!! He moved to the States only at the end of 1882, attempting to master both the language and typewriting in the next five short years.

Caligraphs also weren't as well-built as Remingtons; buried within the accounts of McGurrin winning the first contest, one can find a note that Traub struggled with his Caligraph being unable to keep up with his typing.

McGurrin was praised for his closed-eyes typing, and some went so far as to call him – incorrectly – the inventor of this technique. Other accounts didn't notice that Traub *also* touch typed his way through the competition, using eight fingers, on keys he himself had blanked out.

There were suspect details in retellings of this event: disagreements on the location, putting both men in the same room, and many books misspelling Traub's name as "Taub," a typo that lingered far into the twentieth century. Most importantly, however, it was subsequent contests that cast dark shadows on the seemingly simple victory of the Remington.

Just a week after the first Cincinnati duel, McGurrin participated in a New York-based competition between four Remington typists. "Unfortunately the weather was excessively warm and the rooms very much crowded, so that the operators upon the machines were compelled to work at a decided disadvantage," reported one newspaper. McGurrin still won, but only barely. Another typist, New York's own Mae Orr, owner of a copying office, was breathing down his neck.

Two weeks later in Toronto, Orr did even better at a typing competition during the Canadian Shorthand Convention. Among ten contestants – five using Remingtons, five Caligraphs – Orr and McGurrin placed first and second, respectively, and "[Orr's] skill in manipulating the machine was marvelous. McGurrin, whose handling of the instrument was masterly[,] secured the silver medal." Yes, there were medals, the beauty of which was commented on widely in the articles about the event. And yes, people admired Orr's writing. But she didn't touch type: she used only two of her fingers.\*

There was another problem. Orr and McGurrin won the "general matter" competition: retyping pages taken from evidence presented at trial, or commercial letters. There was, however, another competition where typists were supposed to write one sentence over and over again<sup>†</sup> – and in that segment, first place was taken by T. Osborne, typing at an astounding 126 words a minute.



# THE KEY NOTE

of **Smith Premier**  
efficiency

is its key-for-every-character keyboard. One simple stroke prints any character. This saves time, increases speed and insures accuracy.



**Model 10**  
Visible

Write for information to  
The Smith Premier Typewriter Co., Inc.  
Syracuse, N. Y. Branch Everywhere

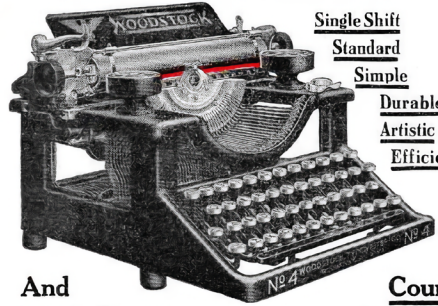
Complete Straight Line Keyboard  
A Key for Every Character  
Removable and Interchangeable Platens  
Reversible Tabulator Rack  
Ball Bearing Carriage  
Complete Control from Keyboard

Simple Stencil Cutting Device  
Drop Forged Type Bars  
Perfect Line Lock  
Bichrome Ribbon  
Uniform Touch  
Ball Bearing Type Bar  
Column Finder and Paragrapher  
Decimal Tabulator  
Perfect Erasing Facilities  
Interchangeable Carriages  
Right and Left Carriage Release Levers  
Swinging Marginal Rack  
Visible Writing  
Protected Ribbon  
Gear Driven Carriages  
Ribbon Controlled from Keyboard  
Variable and Universal Line Spacer  
Perfect Dust Guard  
Back Space Lever  
Carriage Retarder  
Improved Marginal Stops  
Escapement, Speediest Ever Devised



## The WOODSTOCK Silent Visible Typewriter

**Count the Keys!** and remember the Woodstock has 42 keys—84 characters. In other words single shift—has 6 extra keys for doing extra things. The Woodstock is the standard now universally used in all the best colleges and modern methods of typewriter teaching.



Single Shift  
Standard  
Simple  
Durable  
Artistic  
Efficient

**And Don't Forget**

**Count the Keys**

The double shift machines have only 28 keys, have to shift up and shift down. Most low priced machines on the market have been of this class and they are growing harder and harder to sell as they are not standard and are harder to use and harder to learn. The Woodstock is the result of 30 years of standardizing and has all the features of the best machines and will always be the STANDARD.

Woodstock Typewriter Co., Chicago, Ill.

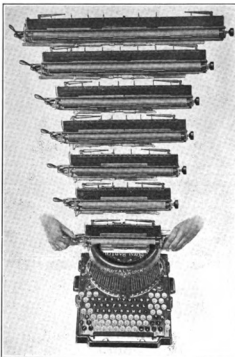
(See Other Side)



# BARLOCK

The Busy Man's Typewriter

Swift, Silent, Sure—The Machine of 100% Efficiency  
Every Key Depressed Types a Character—No "Shift Key" Blanks



**7 Paper Carriages—All Interchangeable**

in 30 Seconds, onto one letter size machine base; No tools needed other than the typist's fingers. The Barlock types any size from a postage stamp to a sheet of paper 27 inches wide.

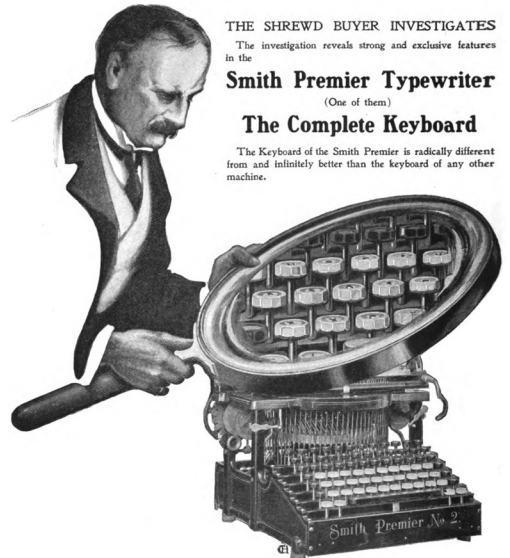
Manufactured by

**The Bar-Lock Typewriter Co., Ltd.**

Bar-Lock Buildings

Southwark Street

London, S. E., England



THE SHREWD BUYER INVESTIGATES  
The investigation reveals strong and exclusive features in the

**Smith Premier Typewriter**

(One of them)

**The Complete Keyboard**

The Keyboard of the Smith Premier is radically different from and infinitely better than the keyboard of any other machine.

On his Caligraph.

This became a small scandal. Some magazines pounced on this as evidence of the Caligraph's superiority;<sup>Ⓞ</sup> others derided the idea of repeating one sentence ad nauseam as having little to do with everyday typewriter use. Both manufacturers took out magazine ads announcing their respective products as the winners of the Toronto competition. At times it felt like the days of the Windows vs. Mac or Android vs. iPhone platform wars, but realized in the flowery language of the more distant past.<sup>#</sup>

The main issue was that the speed-typing competitions were neither particularly rigorous nor comparable with one another until more care was put into their organization in the early years of the next century. And since typewriters were still evolving at a fast pace, the early duels were oftentimes more a test of the machines than of the people operating them. Even Traub's comeback during the second Cincinnati competition was only possible because he had been given a 10% handicap for switching to Remington just half a year prior. Without that, victory would once more have landed in McGurrin's lap.

↳

The last of the misconceptions of those twin Cincinnati duels was that the superiority of **Shift** was established quickly and the Shift Wars were over before the 1880s came to a close. "The contest will settle once and for all a long-disputed question as to speed," wrote the Phonographic Record in August of 1888, but looking at the sales and advertisements for typewriters it's now obvious that battles among the full/double keyboard, the one-**Shift** layout, and the two-**Shift** arrangement lasted well into the twentieth century.

The Caligraph's manufacturer was particularly feisty, calling **Shift** a "gratuitous stroke," praising all the letters being "in full view, so there's no confusion," and being rather intense about capital letters that one didn't need a **Shift** key for:

[The competitors] would have the public believe that this is a quicker operation to push a shift-key down before printing an upper case character than it is to touch an independent key for every character, as in the CALIGRAPH, but their BOGUS CHALLENGES proved that they do not believe such nonsense.



A slight pressure of one finger on the shift key of the

## Remington Typewriter

brings all of the capitals under your hands. No duplicate set of keys to remember. No continual reaching after distant keys.

This fact, and its easy springy touch, enables Remington operators to write more and write longer with less effort and less fatigue than the users of any other writing machine.

WYCKOFF, SEAMANS & BENEDICT, 327 Broadway, New York.

Them fighting words did not discriminate – they were directed at single- and double-Shift machines in equal order:

COUNT THEM YOURSELF. To produce [a business letter] with a machine which uses a shift-key for Capitals, etc., would compel the operator to KEEP ONE HAND TIED DOWN by the heavy shift-key, while OVER EIGHTY upper case characters must all be written with one hand, making a loss of more than 30 per cent, wasted effort. In machines using a “shift” for figures also, the number of false strokes will be materially increased.

And the marketing department kept ratcheting it all up and up and up:

One touch of the finger should produce any character used by the operator of a writing machine; instruments that fail to accomplish this are deficient and do not fully meet the necessity that brought them forth. These facts are self-evident.

The Smith Premier, another well-known shiftless typewriter, centered a lot of its advertising on the beautiful phrase “a key for every character;”

Lenore Fenton, an extraordinary typist showing the proper typing and shifting form in the 1940s





claimed that their products relegate Shift “to a past age,” and asserted that any other keyboard is severely lacking:

The Smith Premier is the only typewriter with a *complete keyboard* – the only typewriter on which each character has its own exclusive key. This completeness of the Smith Premier keyboard is typical of the entire machine. The keynote of the Smith Premier is completeness – in every feature and for every purpose.

17

(A few more sentences followed these three, each one with the word “complete” in it.)

Bar-Lock, another double-keyboard maker, took that even further, explaining that a typist’s brain could not comprehend a key having two or three functions – and that keys that decide to do that are simply liars:

On the Bar-Lock there is a key for a A 2 respectively, and each means what it says. On other machines, the key states “A” and does not mean it. To write “A,” the shift-key must first be held down or the character printed will be “a.” With other machines, the key states 2 and if the key is depressed it prints not “A” but “a.” If “A” is wanted, the shift-key for capitals must be first depressed and held down, while with the other hand the key “A” is struck. If “2” is wanted, then the shift-key for figures must first be held down.

Bar-Lock advertised their typewriter as “Every Key Depressed Types a Character – No :Shift Key: Blanks” – trying to create the impression that

- \* The comments about Orr’s performance were laden with the kind of dark sexism that would in later decades permeate the industry. “She is a woman of whom the profession is justly proud, not only for her remarkable skill as an operator, but for her excellent personal qualities. She combines with business ability an unassuming and attractive manner; but is possessed of a quiet determination, the exercise of which carried her successfully through the Toronto contest. She carries herself with all the dignity necessary in a woman engaged in commercial pursuits,” and so on, and so on.
- # The sentence was “This is a song to fill thee with delight.” Seeing page after page filled with it over and over again had a certain *The Shining* feel to it.
- ⊖ One newspaper made the colorful observation that “The level key-board and slight depression of the Caligraph made the action of its operators seem graceful and easy compared with the labored action of the operators of other machines” – which sounded exactly as colorful when I encountered it in yet another newspaper, suggesting some of the articles were little more than regurgitated PR statements.

any non-printing key must be defective or worthless.<sup>Ⓐ</sup> Jewett mentioned “the keyboard being simplified by discarding the clumsy shift device,” and that instead of correcting errors, its product makes it possible for the typist to never make them.

Smith Premier tried to convince people that shifting was awful because carriages were heavy. And a simplistic typewriter called the Practical tried to go back to the original argument of C. Latham Sholes, saying, “The characters are all capitals, giving it GREAT SPEED,” and dismissing with Shifts altogether.

↳

But ignoring Shift took you only so far. The market spoke, and the last of the double-keyboard typewriters were sold in the 1910s. The manufacturer of the Caligraph folded, too, although not without securing its legacy of being the first keyboard with an @ key on it. However, it’s hard to say today that the Remington №2 keyboard won the layout battle on any single factor.

No one ran tests that compared touch typing on different keyboard layouts, as scientific measurements didn’t come to typewriters until much later. Even then, they came burdened with various agendas.

People speculated that Shift-equipped keyboards were simpler and cheaper to manufacture. That makes some sense, and at one point Bar-Lock swore in one of their advertisements that “the duplicate keyboard costs more to make than a shift keyboard, but no extra charge is made to you.” But that suggestion, too, was never proved.

Neither was the notion that the Caligraph’s keyboard was too big and cumbersome to operate. It wasn’t *that* much bigger than the competition’s, and its heyday happened before typewriters became portable. The idea that Remington’s single-Shift keyboard was the perfect sweet spot in complexity – balancing the ease of initial approach and repeated use – also barely stands the test of time: there were contemporary full-keyboard or double-Shift machines that found excellent operators. (In the early 1900s, for example, a typist, Marian Reichardt, reportedly routinely achieved more than 160wpm on a double-keyboard Smith Premier typewriter.)

Perhaps Remington was more reliable and pleasant to type on, allowing McGurkin to go much faster without encountering the limits of the machine like Traub did. But that also wasn’t enough, as evidenced by later

- # A tiny reminder how long ago all of this was taking place was that one of the later Caligraph models was called New Century – “New” referring, of course, to the twentieth one.
- Ⓐ A hilarious argument from the perspective of today, with many keyboard keys having a purpose other than outputting letters or symbols.





Two Victor adding machines released around the same time – a manual one with a legacy keyboard, and an electric one with a ten-key keyboard – a version of the Shift Wars in the calculator universe

machines made by Smith Premier, lauded as better than the Remington and perhaps the best-feeling typewriters of their time. Eventually, they too succumbed to the market's desire for a four-bank layout.

Even the very idea that the widely reported Cincinnati skirmish between Traub and McGurrin actually mattered is in dispute. It's true that Frank McGurrin's personality made the duels more exciting. "Despite a rather mild, amiable appearance, there was a certain streak of truculence in McGurrin's nature," wrote one typewriter historian seventy years later. McGurrin was eager to send open letters to manufacturers, contact the press to defend his honor the moment someone else claimed to be the fastest of typewriters, and show off his talents by typing with closed eyes – or even blindfolded. This showmanship put Remington's machines in the spotlight and garnered more interest from the press, eager to latch onto any semblance of personality during these rather nerdy endeavors.\* But there were also other contests and other fascinating touch typists.†

The real answer as to who won the Shift Wars might be disappointing, as it had little to do with merit. Remington won as the sum of its parts, each of which needed only be good enough. The rest of its success arose from establishing a training program, making deals with stenographic and business schools, and investing in a great sales department, a successful marketing division, and a legal force that wasn't afraid to send a nasty letter or two.

Similar to the ascendance of QWERTY and touch typing, and just like the first Sholes & Glidden machine, the story of single-Shift typewriters is a story of choosing the right combination of things at the same time, through sheer luck mixed with enviable determination.


Sholes, Glidden, and Remington did it in the late nineteenth century, and soon enough another company would take the mantle in the same way. That company, Underwood, kept the same Shift keyboard McGurrin used in that summer of 1888, choosing to battle Remington and Caligraph on a different field: allowing people to see what they typed as they typed it.


↳



The memories of dual keyboards quickly became so distant that already in the 1910s older salesmen wistfully referred to the "shift-less machine scare" of the late nineteenth century. No one also stopped to question the word *shift*, even though the key could have been named Push, Move, Slide, Draw, Swing, Oscillate, or Vibrate, all words used in patents or descriptions around that time. The duplicated Shift, like the spacebar underneath it, became such an expected presence that soon it didn't need any labels at all.








However, the technology behind it continued to evolve. Manufacturers realized that the Smith Premier ads were right in complaining that raising and lowering the carriage every time was tough on the little fingers, especially on accounting machines with wider (and thus heavier) carriages.




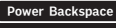

The Linotype, an extraordinary typesetting device that featured a famous keyboard without any  keys COURTESY HEINZ NIXDORF MUSEUMSFORUM

The solution was not abolishing the  altogether, but in making shifting easier. The best way was obvious in hindsight: the carriage shouldn't move up, the typebars – which weighed much less – should move *down*.

That idea was known as *basket shift*, but some early manufacturers went as far as branding the keys with marketing logos like Floating Shift, or Shift Freedom – then patents expired, novelty wore off, every single typewriter adopted this way of shifting, and everyone moved on to the next improvement. A similar situation occurred a few decades later, when a few electric typewriters briefly labeled their  keys , similar to power windows or power steering in cars, which too were aided by electricity.<sup>Ⓞ</sup>

But most typewriters kept the key blank. Ironically, the word  appeared on keyboards again long after baskets with typebars disappeared and when no more actual shifting needed to be done. It was when we started attaching keyboards to computers and adding other keys that shifted things – if not physically, then conceptually. Keys like , , , , and  were supposed to be pressed in combination with other keys. As they were located right next to the  and could be confused with it, the stalwart from 1878 once again needed a label – or a hollow up arrow, which became the iconic representation of this iconic first modifier key.

And if the Remington №2 and other keyboards that copied its layout won the first Shift Wars, some moments from that original timeline frequently reappear. Every few decades, an all-caps alphabet makes a grand entrance for reasons of space, cost, or technical complexity – and eventually, lowercase is added to it once again. The first Remington wrote only in capital letters for technical reasons, but so did later cheap typewriters in the Depression era – as did the first teletype machines, early laboratory computers, and, in the 1970s and 1980s, computers for homes and hobbyists.<sup>#</sup> Even in early text messages, lowercase was technically available but much harder or often impossible to input.

- \* It's worth noting that work sports were popular in the late 1800s across nearly all professions – office work, utility work, farm work, firefighting – as people grew more and more obsessed with efficiency.
- # This included McGurkin's brother, Charles, who took the mantle after Frank moved on from typewriting to the world of finance.
- Ⓞ Sometimes, you could also find , , and , all augmented by motors. The trend didn't last long.
- # In later years, uppercase-only messages from vintage computers were referred to in jargon as Great Runes, including the folklore that one of the computers supported uppercase-only rather than lowercase-only because the latter would not allow writing "God" without sacrilege.





Grid of vertical text columns, likely representing a list of items or characters.

Main grid of a reference table with multiple columns and rows containing numerical data and text.





Vertical text columns on the right side of the page, possibly serving as a legend or index.





ZX Spectrum


<b>1</b> <small>BLUE</small> EDIT	<b>2</b> <small>RED</small> CAPS LOCK	<b>3</b> <small>MAGENTA</small> TRUE VIDEO	<b>4</b> <small>GREEN</small> INV. VIDEO	<b>5</b> <small>CYAN</small> ↔	<b>6</b> <small>YELLOW</small> ↔	<b>7</b> <small>WHITE</small> ↔	<b>8</b> <small>BLACK</small> DELETE	<b>9</b> <small>GRAPHICS</small> CAT	<b>0</b> <small>BLACK</small> DELETE
<b>Q</b> <small>SIN</small> PLOT	<b>W</b> <small>COS</small> DRAW	<b>E</b> <small>TAN</small> REM	<b>R</b> <small>INT</small> RUN	<b>T</b> <small>RND</small> RAND	<b>Y</b> <small>STR \$</small> AND RETURN	<b>U</b> <small>CHR \$</small> OR IF	<b>I</b> <small>CODE</small> A↑ INPUT	<b>O</b> <small>PEEK</small> ↑ POKE	<b>P</b> <small>TAB</small> PRINT
<b>A</b> <small>READ</small> STOP NEW	<b>S</b> <small>RESTORE</small> NOT SAVE	<b>D</b> <small>DATA</small> STEP DIM	<b>F</b> <small>SGN</small> TO FOR	<b>G</b> <small>ABS</small> THEN GOTO	<b>H</b> <small>SQR</small> ↑ GOSUB	<b>J</b> <small>VAL</small> - LOAD	<b>K</b> <small>LEN</small> + LIST	<b>L</b> <small>USR</small> = LET	<b>ENTER</b>
<b>Z</b> <small>LN</small> COPY	<b>X</b> <small>EXP</small> CLEAR	<b>C</b> <small>L.PRINT</small> CONT	<b>V</b> <small>L.LIST</small> CLS	<b>B</b> <small>BIN</small> BORDER	<b>N</b> <small>IN KEY \$</small> NEXT	<b>M</b> <small>PI</small> PAUSE	<b>SYMBOL SHIFT</b>	<b>BREAK SPACE</b>	
<b>BEEP</b>	<b>INK</b>	<b>PAPER</b>	<b>FLASH</b>	<b>BRIGHT</b>	<b>OVER</b>	<b>INVERSE</b>			

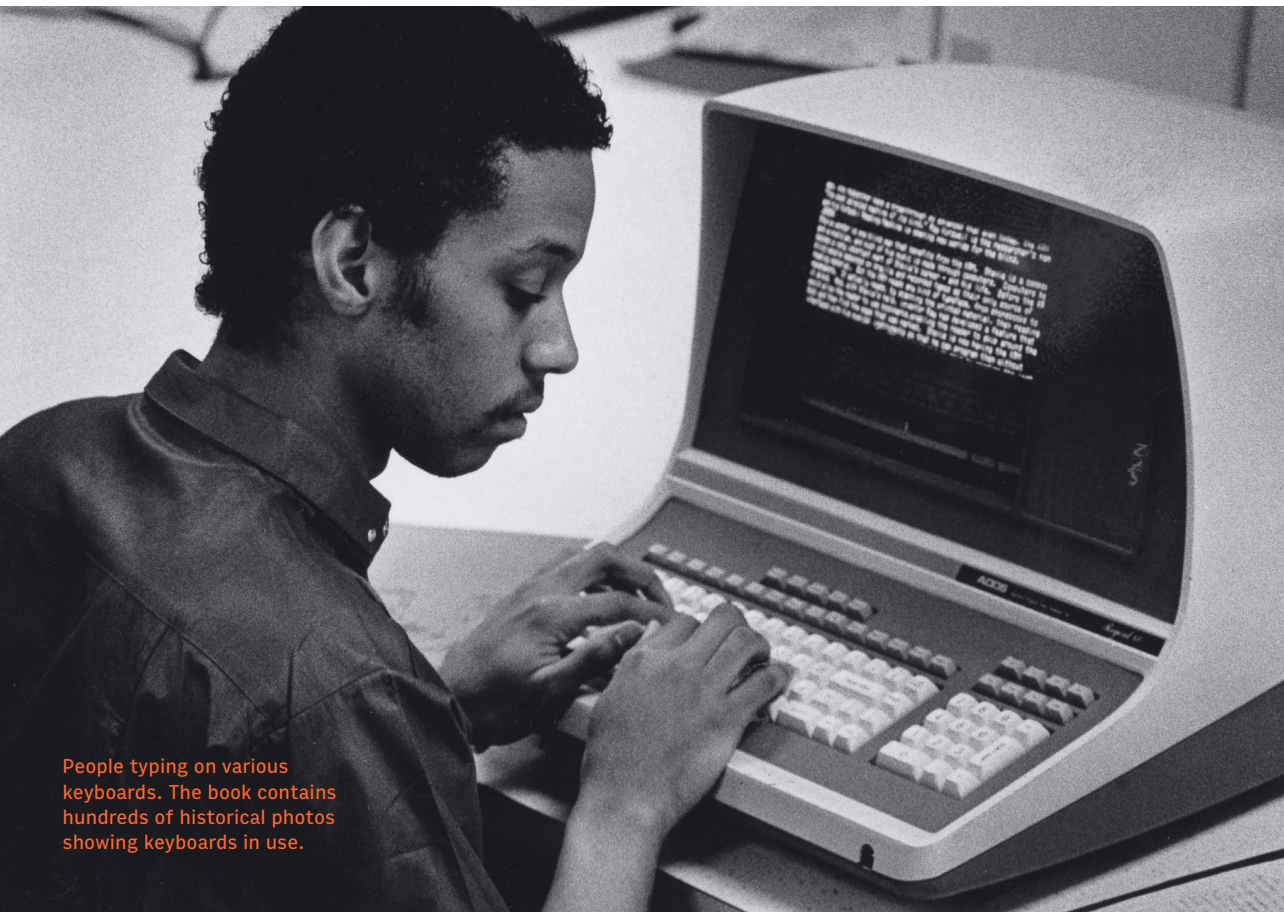


Full keyboards seemed to have gone away for good in the early twentieth century, but keyboards with two independent s came back.  and  keys reappeared for a while on the first portable typewriters – machines that decided to sacrifice some simplicity in exchange for a smaller size. And in an extraordinary turn of events, the same three-bank keyboard that first arrived in 1890 now graces your iPhone or Android screen – there are only three rows of keys, one  to get you to upper-case, and another one to swap letters with digits and symbols.

It seems like an innocent echo of the past, the abandoned three-bank solution reappearing not to save on manufacturing costs but to conserve valuable space on a smartphone screen.

But there's some irony here, too. With vastly more smartphones in use than computers, and the situation unlikely to ever reverse, only now we know the true victor of the Shift Wars. It was neither Traub and his shift-less Caligraph nor McGurrin and his touch-typing fingers on his four-bank, single- Remington. Despite existing mostly as pixels on screens, the winner of the Shift Wars is real: it's an everyday smartphone keyboard with three banks of keys, and not zero, or one, but two different s.

So if in your voyages you stumble upon an early typewriter with two s – perhaps a Munson, a Blickensderfer, a Chicago, or a Crandall – nod to it quietly, and show it the respect it deserves for being so far ahead of its time. And if you ever find yourself in downtown Cincinnati at the corner of 6th and Vine, walk into the lobby of the hotel today called the Cincinnati, and tell someone the story of the most memorable event that happened right above their heads, the few decades of the Shift Wars, and their unlikely winner right there in their pockets.



People typing on various keyboards. The book contains hundreds of historical photos showing keyboards in use.



Olivetti Praxis 48, one of the better-designed typewriters in history. The three photos are among hundreds taken exclusively for this book.





