

The Crandall We Never Knew

A recently found survivor helps tell the story of the earliest production.

By Martin Howard

While clearing out a closet of her uncle's estate in upstate New York in 2013, Joyce Miller lifted out an old, sad looking typewriter from the back of a neglected closet. Her sister, helping in the process, suggested that it be thrown out. Fortunately, that did not happen, because this typewriter would turn out to be the second earliest Crandall 1 typewriter known, with serial number 125. Although 130 years had passed between its creation and its chance re-discovery, this remarkable machine had travelled only 40 miles from where it was made. Fortunately I was able to place this typewriter in my collection and have taken the opportunity to learn about its design and history.

Little has been written about the Crandall 1 typewriter (collectors have added the 1), but I have discovered snippets of its story that can be pieced together to provide insights

Lucien S. Crandall, from the 1893 National Cyclopaedia of American Biography.



Crandall 1, Serial No. 125 (Howard Collection)

into the history of its manufacture and to highlight some intriguing mysteries about Lucien Crandall's first commercially successful typewriter, predecessor of the beloved New Model Crandall.

The Crandall 1

As the earliest known Crandall 1 pamphlet (*The Crandall Type-Writer, Benedict and Wilson, General Agents, Binghamton, N.Y.*, dated December 20, 1882 – in the Clark

collection.) correctly states, "The Crandall Type-Writer is radically unlike any other writing machine." The Crandall holds its place in history as the first commercially manufactured typewriter with a type-cylinder or type-sleeve, as Lucien Crandall called it. The type-sleeve is a cylinder about the size of one's finger, which rotates and rises up one or two positions before striking the platen, giving three positions in all. With two shift keys, 84 characters

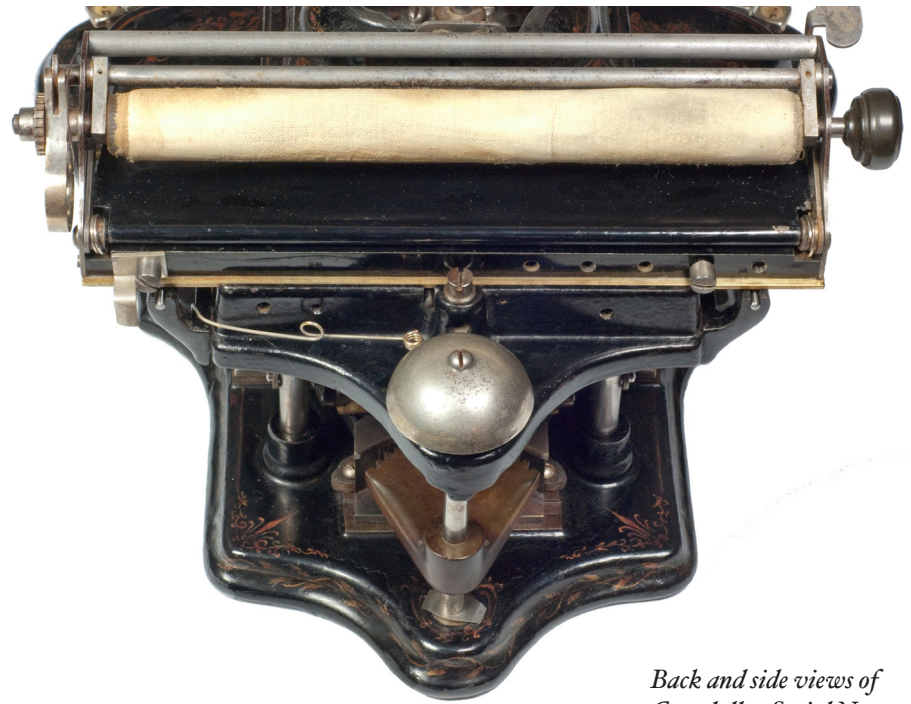
The author wishes to thank Peter Weil for his kind and continued encouragement to write this article and for wading into the somewhat murky Crandall waters with me; Bert Kerschbaumer, for providing some very key pieces of the Crandall puzzle; and Dennis Clark for sharing his important Crandall pamphlet and his fabulous photo of the Crandall workshop. If you have additional information on these or other Crandall 1s, please let me know at www.antiquetypewriters.com.

can be typed with only 28 keys. The type-sleeve is easy to remove, allowing for a change of font style. As stated in the pamphlet, “It has an interchangeable type-scheme whereby the same machinery may be made to print a number of styles of letters, the change from one style to another being made in a few seconds.” The type-sleeve was certainly a remarkable achievement.

Another impressive feature of the Crandall 1 is that it has proportional spacing, as described by the 1882 pamphlet: “This machine embodies a peculiar spacing device which causes each letter to take its proper space upon the paper, giving to its work the appearance of ordinary printing.” To achieve this, the carriage moves 2, 3, or 4 spaces depending on the character width. The Crandall 1 pre-dates the Hamilton Automatic by five years, so the claim in my article in issue 92 of *ETCetera* (2010) that the Hamilton was the first to have proportional spacing needs to be revised. Incidentally the Columbia 1, patented in 1886, also has proportional spacing. I will venture to suggest that the Crandall 1 now holds the notable distinction of being first. The Crandall New Model (1887) would not maintain proportional spacing. This was likely due to the difficulty of making corrections with proportional spacing and the extra manufacturing costs in providing it. Proportional spacing did make the copy look like it had come from a printing press, with correct kerning, but it seems that the compromise was to lose it.

Other notable features of the Crandall 1:

- Richly painted Baroque-style decorations adorn the frame. Each known Crandall 1 has a different style of decoration. Unlike the Crandall New Model that would follow, there is no mother-of-pearl inlay.



Back and side views of Crandall 1, Serial No.125



- The ornate piece of metal in front of the ribbon spools reverses the ribbon advance direction when slid from one side to the other.
- The platen on Crandall 125 is tightly wound with a white canvas-like material, whereas platens on other Crandall 1's have white rubber.

One can speculate that the canvas material was used when the factory was experimenting with different coverings for the platen, perhaps in an attempt to reduce the noise of typing. Or there may have been other particular advantages that made this a special order at the time.



- The right hand platen knob has a distinctive and beautifully formed circular handle for advancing the platen.
- The rear white key between the two shift keys causes the ribbon guide to drop down to expose the character just typed.

The keys are not of a solid construction as seen on the New Model, but are nickel rimmed with glass inserts.

Crandall Typewriter History

The first typewriter of Lucien Crandall's to have a type-sleeve was not the Crandall 1 but was an exquisite three-bank typewriter granted its U.S. patent (251,338) in 1881. It is generally believed that this typewriter was never produced. The only known example is the patent model presented to the U.S. Patent Office, which now resides in the Smithsonian Institution.

His next typewriter, the Crandall 1 (no known patent), would maintain two distinct features from the 1881 three-bank, the type-sleeve and proportional spacing, but would otherwise change its overall design quite dramatically.

From period accounts, let's now take a journey through the early days of Crandall typewriter manufacturing.

Blodgett Mills and Syracuse: the First Crandall Typewriter Workshops

The origin of Crandall typewriter manufacturing can be traced to a workshop in the tiny village of Blodgett Mills (formerly Blodgetts Mills) in upstate New York, with an entry in the 1881 *Cortland County Business Directory*, "Type Writer - Crandall L. S. - Blodgett's Mills."

There is also this report from 1881. *American Machinist*, March 26, 1881: "The Crandall Type-Writer Manufacturing Company, Cortlandville; L. S. Crandall, John Hubbard and others, incorporators; Capital \$100,000, in shares of 1\$ each. To manufacture and sell Type-Writing machines. March 3rd."

The next account is from the Crandall 1 pamphlet (December 20, 1882 - Clark Coll.) that states that the typewriter was to be placed on the market in February 1883. "We beg leave to call your attention to the Crandall Type-Writer which will be on the market February 1st, 1883... It will be sold for the very low price of \$50."

◀ *The exquisitely designed Crandall three-bank typewriter, patented in 1881, but apparently never manufactured. This patent model is now a part of the Smithsonian Institution collection.*

A later passage in the pamphlet reads "It is a small, light, and handsome instrument, which may be operated on one's lap or any convenient desk or table with the greatest ease. It occupies about the space of a Webster's Dictionary, and may be tucked under one's arm and carried from place to place as conveniently as any other ten to twelve pound parcel."

The claim about its size is puzzling since the Crandall 1 has neither the shape nor size of a dictionary. However the three-bank Crandall of 1881 does have the dimensions (4" high x 10" wide x 9" long) and shape of a dictionary. Furthermore, the Crandall 1 weighs 18 pounds, not ten to twelve pounds. This suggests that the model shown to the agents Benedict and Wilson in 1882 was perhaps the three-bank Crandall, not the Crandall 1, and it was this one that was to be manufactured and sold the following year.

It is unknown if the Crandall typewriter was on the market in February 1883 as the pamphlet (Clark Coll.) states, but the following report shows that they were being manufactured in June. "The Crandall typewriter is being manufactured at Blodgetts Mills." *Groton and Lansing Journal*, June 14, 1883.

By the end of the summer the *Groton and Lansing Journal* is lamenting the typewriter's desertion to the much bigger town of Syracuse: "The Crandall Typewriter Company was organized in New York City this week, and it was decided to locate the manufacturing in Syracuse where shops all ready for occupancy could be procured at a normal rent. It is a matter to be deeply regretted that Groton did not make a strong move to bring it here and infuse new life into our sluggish old town." (September 13, 1883)

Groton is only 15 miles west of Blodgett Mills, while Syracuse is 37 miles north.

What happened to the manufacturing of Crandall typewriters in Blodgett Mills? The answer is provided in this account from *The Inland Printer* magazine (Vol. 3, No.8, May, 1886): "The machine is the invention of L.S. Crandall, a native of New York State, who had thought over the subject of type-writing for years, and had previously taken out a patent for a complete instrument in 1875. [This typewriter had six characters on each type bar and clearly showed Crandall's disdain for type bars – U.S. patent 170,239.] That, however, was abandoned for what seemed good reasons, and another and entirely different model was worked out, for which a patent was awarded about the end of 1881, and which we are now considering." This must be a reference to the three-bank Crandall patented December 20, 1881.

The article in *The Inland Printer* continues: "With great hopes, founded on most encouraging inquiries, plans were laid for manufacture at Blodgett's Mills, New York, and a few machines were built, when fire destroyed the factory and necessitated a start again almost from the beginning. This was deplorable. Notwithstanding, affairs were persevered with, under continued favoring inquiries, and new interest in a measure seemed inspired by the distressing circumstances. As with its predecessors, the display of the few completed instruments was beneficial for the Crandall, since the class it appealed to most directly, and which had manifested the highest curiosity, had grown more critical than ever. There was no hesitation whatever in finding fault, and all comments, wise and otherwise, were duly pondered on profitability, the consequence being that the machine itself was greatly advanced in durability and utility."

Once again, assuming that the Crandall workshop did start selling typewriters in February 1883, typewriters were manufactured in Blodgett Mills between February and June and likely into August, with the report of the fire in September. But just what typewriter were they building? This report introduces the possibility that it was the three-bank Crandall, the

typewriter that was supposedly never made beyond the patent model.

That possibility would have the Crandall 1 not being manufactured until the move to Syracuse, as the account seems to imply that it was the three-bank Crandall that was fully evaluated after the fire, where "the machine itself was greatly advanced in durability and utility." If the Crandall 1 did emerge after the fire, how was such a different typewriter created in time to be manufactured just three months later when manufacturing resumed? Perhaps the Crandall 1 was already being developed in Blodgett Mills.

Despite the evidence suggesting that the three-bank Crandall was manufactured at Blodgett Mills, further accounts need to be cited to confirm this intriguing possibility.

The Crandall Typewriter Company would move to Syracuse towards the end of 1883, where Crandall 1s were certainly manufactured. It is interesting to note that no place of manufacture is shown on Crandall 78 (Barbian) or 125 (Howard) but on the next two, Crandall 372 (Breker) and 1027 (Russo), Syracuse is clearly shown.

Ill-fortune seemed to dog the company, since the following year there was yet another fire, just a few months after setting up shop

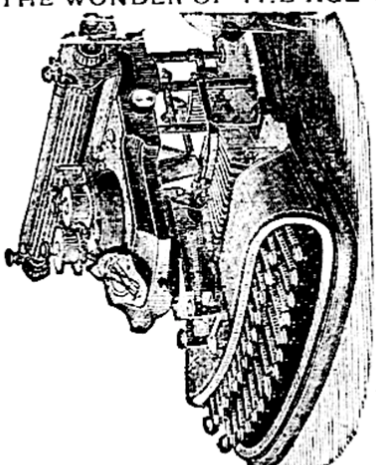
in Syracuse. The *Fort Worth (Texas) Gazette* reported the disaster on January 6, 1884: "Fire in Syracuse N.Y., January 5, The woodwork shop of the Whitney Wagon Works, and part of the roof of the salt water reservoir, owned by the state, and the factory of the Crandall type writer company burned last night. Loss \$40,000." The damage to the Crandall workshop was \$12,000, of which \$8,000 was covered by insurance.

Another account of the fire and the only known Crandall reference found in a Blodgett Mills news source appears in the *Homer Republic* in January 10, 1884: "The Crandall Type-Writer Manufacturing Company, which was removed from here [Blodgetts Mills] last fall to shops in Syracuse, was burned out last Saturday morning. I learn that they are to build new shops, get new machinery and start soon."

Crandall 1s were made exclusively in Syracuse from late 1883 to late 1886. It is not known how many were made during this time, but one can set a maximum number by considering the lowest serial number Crandall 1 made in Groton, its next place of manufacture, which is no. 1159 (Clark Coll.). So no more than 1158 Crandall 1s could have been made in Syracuse. This is quite a small number for a three-year period but then the Crandall workshop was still no more than a building with a few sheds. As well as enduring the fire, the upstart Crandall Company had to contend with the great upswing of Remington sales and to survive the tough economic times of the mid-1880s without the benefit of much marketing.

The first known advertisement for a Crandall 1 appears in June 1884, and the first display ad in September 1884. Interestingly, the agent is in Sacramento California. So the Crandall 1 had some marketing outside the Northeast during these early years

THE WONDER OF THE AGE !



"Crandall" Type Writer!
Is, without doubt, the cheapest and best in use.
No. 923 Second street, Sacramento.
Circulars sent to any address.
G. B. CORWIN.
General Agent for Pacific Coast. 3-21-4ply

◀ This first known advertisement for the Crandall 1 appeared in September 1884, far from northern New York, in the *Sacramento Daily Record* newspaper.

of manufacturing and took a first prize at the California State Fair: "This is the first time this little wonder has come in competition with other machines, and its superiority was so manifest the judges did not hesitate to give it the preference," reported the Sacramento-area *Democrat* on October 10, 1884.

The Village of Groton Pursues the Crandall Company

The village of Groton had not turned its back on the Crandall Type Writer Company after their earlier disappointment of losing out to Syracuse. Aware of competition from other places, the town came calling and this time they were successful, offering ample inducements and money to buy sufficient stock to bring

the Crandall factory to their village.

Here is the account in the *Groton and Lansing Journal*, October 14, 1886: "Within the past week, some interest has been developed in regard to locating the manufactory for the Crandall Type Writer in this village ... If anything is done, it should be done quickly, as parties in Binghamton (Benedict and Wilson, the general agents for Crandall) and Ithaca are offering inducements. This enterprise can be placed here, if those having capital will use some of it, there is little chance for loss and very much to gain. Shall we have it?"

The building of the new factory began shortly after and proceeded quickly enough for the *Auburn Bulletin* to report in December 6, 1886, that "the frame of the large building now

in process of erection by the Crandall Type Writer Co. is raised and nearly enclosed." It appears that the former staff were willing to follow them, as mentioned in the *Groton and Lansing Journal* just after Christmas that year: "All of the workmen connected with the Crandall Type Writer Company while at Syracuse will come to Groton. The Crandall Type Writer Company no longer dates its correspondence from Syracuse."

Local hopes were high that the business would flourish: "The Crandall Type Writer Co. are driving business along. They will be in running order in a short time. The building will be lighted by electricity soon." (*Groton and Lansing Journal*, January 6, 1887)

And those hopes were not misplaced, as the local newspaper



This exceptional photograph (Clark Coll.) shows the interior of the Crandall typewriter Co. in Groton, N.Y., during the first half of 1887, when Crandall 1 typewriters were made exclusively there. Twenty-two typewriters can be seen in the photo in various states of assembly.

Known Crandall 1 Typewriters

| Owner | Manufactured | Serial No. |
|----------------------------------|-------------------------|------------|
| Barbian | Blodgett Mills/Syracuse | 78 |
| Howard | Blodgett Mills/Syracuse | 125 |
| Breker | Syracuse | 372 |
| Russo | Syracuse | 1027 |
| Clark | Groton | 1159 |
| Kerz | Groton | 1302 |
| ex Rehr Coll. | Groton | 1323 |
| East Coast auction, 1988 | Groton | 1733 |
| Clark - similar to the New Model | Groton | none |

reports over the following months. "The demands for the Crandall Type Writer exceeds the supply. The company have sent a man out to employ 12 or 15 skilled workmen. The great trouble is the need of housing. We must have more places for people to live." (*Groton and Lansing Journal*, February 24, 1887). And just a few weeks later: "On Friday last an order was received by express from Chicago by the Crandall Type Writer Co. for thirty machines. Orders are numerous and the works are driven right lively." (April 7, 1887)

One of the early enthusiasts in Groton was the local minister. The *Journal* reports on January 27, 1887 that "The first type writer completed in this village has been secured by Rev. J. G. Noble. It is a very fine working machine and is highly prized by Mr. Noble." This was a Crandall 1 typewriter. On April 7 that year, an item of news appeared: "Rev. Noble has recently sold a number of the Crandall Type Writers. Mr. Noble is quite proficient in the use of the little machine." Rev. Noble would become one of the first sales agents for the Crandall typewriter.

The *Journal* reported with delight of the business's expansion and in

silencing any former critics (April 14, 1887): "Over fifty workmen in various capacities are employed at the shops. Thirty machines per week are now being made. This is pretty good considering that five months ago ground was broken for commencing building operations. The machines are selling readily and those who predicted it would not amount to much have nothing to say."

Even the newspapers of big cities in the region took note. On May 19 of that year, the *Ithaca Journal* reported: "Groton is experiencing a genuine burst of growth and improvement. Thirty-five typewriters are now produced weekly by forty skilled mechanics, whom residents welcome there as peaceable, temperate citizens."

All the typewriters produced so far would be model 1s. It is not known when the model 1 ceased production, but with the earliest known Groton model 1, numbered 1159 (Clark Coll.), and the highest, 1733 (owner unknown), at least 575 model 1s were made in Groton. This strongly suggests that the Crandall 1 was produced in Groton for at least four months before the Crandall New Model appeared.

With the rise of the popularity of the Crandall New Model, the success of the business was secured into the 1890s: "Sixty-four operatives are employed in the Crandall Type Writer factory. Between forty and fifty machines are manufactured each week." (*Homer Republic*, April 19, 1888).

The final report goes to Lucien Crandall, who would build the Parish Manufacturing Co. in Parish, N.Y., and would, starting in 1889, bring out the single and double keyboard International typewriters. Neither would prove to be successful but both are highly prized today.

Conclusion

The Crandall 1 is an important historical typewriter, as it was one of the first few typewriters to arrive on the scene after the Sholes & Glidden typewriter of 1874. It was designed by Lucien Crandall, one of the great early pioneers, and would define his legacy as a brilliant mechanical designer and successful businessman. As such, the Crandall 1 deserved to have its manufacturing history better understood, with accurate dates and fair conjecture on events that saw the Crandall become one of the very first successful typewriters. ■