The Unknown Oliver

by Darryl Rehr

Mention a four-row Oliver to most collectors, and they’ll immediately think of the conventional frontstroke products made by British Oliver in the years following the demise of the original Oliver company. However, photographs have now been discovered, revealing the existence of a prototype four-row Oliver, using U-shaped type bars, built in 1922.

The photos come from the collection of the McHenry County (Illinois) Historical Society, which received them from the estate of Chester Nelson, who was the very last employee of the Oliver Typewriter company.

Nelson joined the company about 1908, and worked as a cost accountant. He spent 20 years there, observing the heady success of the Oliver Typewriter, as well as its decline in the face of competition from the 4-row, frontstrike machines. Oliver’s original strategy to face this challenge was to get rid of its network of salesmen, and, by saving their commissions, cut the $100 price of their machine in half. Selling directly to the public, the plan worked, and sales skyrocketed. At its peak, Oliver was making 375 machines a day. The labor force grew to 875, each worker putting in 10 hours a day, six days a week at a salary of $3 daily, in cash.

(continued on page 4)
ETCetera
Newsletter of the Early Typewriter Collectors Association

Feb., 1989
No. 6

Editor
Darryl Rehr

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California 91006.

EDITOR'S NOTES

We're glad to present a bigger and better ETCetera in 1989. With it come some changes in the Early Typewriter Collectors Association.

A meeting of officers and board members took place in December of 1988. At that time we decided to streamline the Association to make it a less formal organization. To that end, we have eliminated the officer positions, and will run the group entirely through our managing committee. Basically, there will be people to do the jobs that need doing and that's about it.

The primary focus of ETC from this point will be ETCetera. Publication will continue four times each year in February, May, August and November. Now that startup costs of the organization are behind us, we can afford to put more money into the publication. That is why we can now offer a nicer bifold format, and have it printed using the offset method which can accommodate good quality halftone photos on any page where they're needed. Each issue will be at least 12 pages long, and some will be 16. That's a lot of information about old typewriters packed into a single package.

For the time being, the organizing of any collectors meetings will be at the initiative of individuals. The Association itself is not equipped to do things like booking meeting rooms, or handling the myriad of logistical details necessary in setting up a worthwhile meeting. If some member would like to step forward to take on this kind of work, the Association will provide all the support it can. Members in Southern California intend to continue meeting on a small scale a few times each year. We encourage other members in other areas to do likewise. ETC will provide publicity support where needed. If you plan a meeting, try to schedule it so that a notice can be published in the quarterly newsletter.

As editor of ETCetera, I will continue as a member of the managing committee. Dan Post will continue as steward of the membership roster, maintaining the mailing list and keeping records of who has joined, who has dropped out, or who needs to renew. If you have address changes, send them to him. Dan would like to pass this job onto someone who has a computer and is willing to take over, so if you'd like to get involved, let him know -- it's not a lot of work, but it's a critical function. Jim Kavanagh will continue to handle the funds, as he is a professional accountant, and is willing to do the job. Richard Dickerson remains a member of the managing committee with no assigned function. Any member anywhere (that means not just Southern California) may join the managing committee upon request. Nothing is asked of you except that you share your thoughts with us about what ETC should and can do. The only caution: If you make a suggestion, be prepared to do what is necessary to carry it out!

+++ I had the pleasure of visiting Ed Peters during a family trip to the East Coast late last year. Ed was thoughtful enough to gather together almost a dozen other collectors on the occasion, so I was able to meet some people that I knew well from the telephone and the mail, but had never met face to face. Ed's collection is a very nice one, and is shamefully well-kept. Among the machines I had never seen before were the McCool and the Keystone. The latter is much smaller to my eye than its published photos make it appear. It also has a very attractive keystoneshaped decal that I didn't know about before. Tom Fitzgerald brought his Brooks, and Dennis and Lee Ann Clark brought several small index machines of great charm including the Columbia Index and a Coffman. I was unable to bring machines from California for exhibition, but found that this was a great occasion to carry along my collection album (the kind of thing I have encouraged other collectors to make in a previous issue of ETCetera).

The certain surprise of the day was Paul Lippman's arrival announcing that his entire collection was for sale. The housekeeping, he said, was getting too much for him. Paul hobbled up to the house with his wife Barbara. He recently had major surgery on his knee, and was in the midst of a long physical therapy program to get up to his old speed, which, I understand, will happen -- it will just be a matter of time. Paul only brought a few of his for-sale items with him, but I was more than happy to go home with a Commercial Visible. I don't know who bought what, but everybody seemed to find something, I think. Some other collectors in attendance, by the way, were Ed Reiss of Pittsburgh, Mike Brown of Philadelphia, and Curt Scaglione of Ft. Dix, NJ. Needless to say, a good time was had by all.

+++ I did a little experiment in an attempt to provide color to the cover page of ETCetera, but, unfortunately, it didn't work out. At the WOMDA trade show we attended last year, we saw some breathtaking demonstrations of color copying machines. Thinking this might work for us, I asked Jack Lacy to hit up the Sharp people for a donation of free color copying services. Jack, with his winning ways and business clout, had Sharp print up a couple of copies of our issue No. 3, showing the Burns No.1 in color on the cover. The original was my standard laser printout with a trimmed color photo pasted in. The Sharp copy, while definitely in color, lost a tremendous amount of detail. In addition, the normally-sharp black and white print was ragged and unsightly, caused by what I assume to be a "digitizing" of the image, which I think those new copiers use. It wasn't good enough, I'm afraid, although I'm grateful to Jack and Sharp for the effort. Maybe in the future.
SHOPPING AT SEARS

The Little Gem Typewriter.
No. 97V7491. A practical machine for the household, and a kindergarten instructor of merit. Simple of operation, adjustable to single or double spacing, easily loaded, and may be used to write on a book, package or any other object as well as ordinary typewriter paper. Price $1.50.

Practical Typewriter.
No. 97V7493. A strong, handsome steel nickel plated typewriter, suitable for business and private use. Made on entirely new principles, easily understood and operated. Has roller spring with spring adjustment, full line characters, bell, large and small letters, writing in eight, twelve, and perfect alignment will take any width of paper up to 1/4 inches. Weight, packed for shipment, 15 pounds. $4.50. New Improved American Typewriter for Only $7.95.

20th Century Pocket Typewriter.
No. 97V7580. Codman's Pocket Typewriter. 11 inches long, 4 1/2 inches wide and 1 1/2 inches thick. Thoroughly practical, writes 15 characters per second, including capitals, small letters, numbers, punctuation marks, etc., and may be used to write on any plain, smooth surface, in books, on writing tablets, boxes, etc., can be folded up and carried in the pocket. It is endorsed and used by traveling men, doctors, lawyers, ministers, merchants, teachers, etc. Used in hotels and restaurants in printing bills of fare, etc. Teachers, students and ministers will find this machine very helpful in preparing examination papers, making weekly announcements, etc. All parts are made of brass and nickel plated, except the keys. Weight, packed for shipment, 10 ounces. Price $3.90.

THE "BEST" TYPEWRITER.
A Visible Writing Machine for Only $8.95.

This type-writer is not "equal to," it is better than all others. It has no equal in typewriter work, except the most expensive model. It is the best typewriter ever made. It is fully equipped with every facility for doing the most difficult work. It is not only the best, but it is the only machine which will do "equal to" work.

French, Russian, Serb, Polish, Dutch, Bohemian, Dalmatian, Portuguese, Hungarian, Greek, etc. We have realized the large and constantly increasing demand for an inexpensive and practical typewriter, one that is expressly adapted to the requirements of students, lawyers, authors, small merchants, private families, etc. A machine with all the capabilities of the higher priced ones, and yet so low in price that it can be afforded by every person. The type-writer is the only typewriter which will write eight characters and punctuation marks, etc., guaranteed to give satisfaction. It is not only a machine, but a work of art, and is the most improved, thoroughly up to date and best low priced machine ever made. Weight, packed for shipment, 10 pounds. $8.95. New American Typewriter, Extra Fine Type and Rolls, Price $7.95. Extra Metal Rollers, Price each, 10c; pair, 30c.

GARDEN CITY TYPEWRITER
A NEW UP TO DATE WRITING MACHINE, ONLY $15.75.

This machine is manufactured especially for us by one of the largest and best known manufacturers of typewriters in America, and is identical with their latest improved machine. ANYBODY CAN OPERATE IT. It prints direct from the type onto the paper and not through a ribbon. The alignment is positive and permanent. The touch is uniform, operated with both hands. Keyboard does not wear.

THE GARDEN CITY IS EVERYDAY. As there is nothing about it to wear out, except the keys, it is not subject to the wear and tear of other machines. It fills the requirements of doctors, teachers, scholars, lawyers, merchants and others. $15.75. The Garden City is on sale for less than cost. 10 c. postage extra, each, 2 cents; per pair, 3 cents.

The illustrations on this page come from a 1902 "Books and Stationery" Catalog from Sears Roebuck & Co. of Chicago. Ever hear of a Lambert sold as the "Garden City Typewriter?" How about a Niagara sold as The "Best?" Since these machines didn't sell so well, maybe Sears has some leftovers still in stock and would be willing to let them go at closeout prices!
Another view of the four-row Oliver prototype (1922)

UNKNOWN OLIVER (continued from first page)

No effort was spared, by the way, to insure quality. Each typewriter was subjected to a heavy "running in" test, using a drum-type device that pounded the keys at 150 words a minute, writing "The Quick Brown Fox Jumps Over The Lazy Dog" over and over and over again.

Despite the sales peak, someone in the organization must have seen the typewriting on the wall, because in 1922, Chief Engineer Theron I. Knapp presented the Oliver directors with his prototype for a four-row Oliver. The photos show the characteristic Oliver typebars mounted at an angle to swing toward the center from the front. The upright profile was abandoned, and it appears as if everything possible was done to make the Oliver look like other standard typewriters of the time.

The company, however, elected to shelve the four-row machine. At the time, there were other troubles.

A minor depression occurred during 1921-22. Thousands of Oliver customers, who bought half-price machines for as little as $5 down, defaulted on their time payments. Machines had to be repossessed by the truckload, and sold off at a loss. This, it seems, was the direct cause of the company's downfall. Rather than borrow money to retool and retrench, they simply decided to close up shop.

Once the decision was made, the company slowed its production. Remaining parts were assembled into machines (the Oliver 11 was the current model), and plans were made to sell off the company assets. By 1926, all of the employees were laid off, except for Chester Nelson, who was asked to stay on to supervise the liquidation of assets. These were sold to British Oliver, which, in all likelihood, also took possession of the tantalizing four-row prototype.

In recognition of his service, Nelson received an Oliver 11 typewriter, and the grandfather clock which had served to keep the Oliver operation on-time during the years of its prosperity.

In the years of his retirement, Nelson became active with the McHenry County Historical Society. The county is home to Woodstock, Illinois, where the Oliver factory was located. We normally consider Oliver a Chicago operation, which is true to the extent that the business end of the company was located there (the old Oliver Building at 159 North Dearborn Street is now an official Chicago Historical Landmark), but the nuts and bolts were in the giant factory in Woodstock. Nelson was unofficial keeper of the Oliver history at the Society, and, upon his death, his collection of papers and photographs were left there.

Among the things written about Nelson were some facts about the early history of the Oliver that do not appear in the various English-language sources available to us today.

First, we learn that the Rev. Thomas Oliver was a native of Epworth, Iowa. As has been reported, he conceived his typewriter as a means of writing out his sermons in a more readable form. He built his first machine by hand in Epworth about 1893, and showed it around to his friends. They immediately saw the possibilities of the machine (perhaps they had struggled along with many of the blind-writers of the day) and took up a collection to finance further work. They built Rev. Oliver a brick building to house a workshop. There, 16 workmen are said to have built 12 machines. Oliver, however, felt that large-scale production should be set up near a large commercial center. He and one of his workmen Charles Fay [does anyone know if this is the Fay of Fay-Sholes?] went to Woodstock to drum up some interest. Woodstock businessmen jumped on the bandwagon, and bought an old pump plant for the operation. The only stipulation was that Oliver keep his factory in Woodstock for at least five years. As it turned out, Oliver was there for 30 years, making its unconventional typewriter one of history's most popular and most enduring.
One of the assembly rooms at the Oliver factory in Woodstock, Illinois about 1909. Workmen are installing the famous U-shaped typebars.

Testing room at the Oliver factory at the time of World War I. Machines being tested appear to be No. 9's.
DID SHOLES AND DENSMORE KNOW WHAT THEY WERE DOING WHEN THEY DESIGNED THEIR KEYBOARD?

by Richard E. Dickerson
Pasadena, California

One of the surprising aspects of typewriter history is the rapidity with which the original QWERTY keyboard became irrevocably fixed. The keyboard first appeared on the Sholes and Glidden in 1874, and in slightly altered form on the Remington No. 2 in 1878. G.W.N. Yost's Caligraph in 1883 presented a very different keyboard layout, and James Hammond introduced his Ideal keyboard a year later. But by then it already was too late. Enough people had learned on the QWERTY keyboard to make it unsalable.

It was generally recognized that the QWERTY keyboard was less than optimum in speed and efficiency. Crandall, Fitch, Blickensderfer, Dvorak and others each tried to bring about a change to what they perceived as a more rational keyboard layout during the following 60 years, and they all failed. Experiments by the United States Navy in training new typists during World War II demonstrated quite clearly that the Dvorak keyboard was faster and more efficient than the QWERTY. But the investment that professional secretaries had already made in learning the QWERTY layout, and the certainty that the typewriters that they encountered later would have this keyboard, prevented the Dvorak keyboard from taking hold.

Only today, with the advent of computer terminals and word processors where one can change from one keyboard layout to another with a few computer commands, is there any hope that a coming generation of typists might opt for something more efficient than that which C.L. Sholes devised 120 years ago.

But why did Sholes produce the QWERTY keyboard arrangement in the first place? One of the more persistent and ineradicable items of folklore in typewriter history is the assertion that Sholes deliberately designed his keyboard layout to make it clumsy, in order to slow down the typist so she would not jam the primitive mechanism. This "sabotage" theory will not die, and keeps being copied from one popular article to another. One of its latest and most elegant versions was in an essay by the well-known Harvard biologist and essayist Stephen Jay Gould, entitled "The Panda's Thumb of Technology." The point that Gould wanted to make was that in technological evolution, as in biological evolution, you always have to work with what you start with; there is no overall master plan. Mistakes of earlier generations become ingrained and are hard to eliminate. The same idea was expressed differently by another Harvard evolutionary biologist, George Wald, who remarked that, "We are less the producer of authorship that of editing."

Gould uses the QWERTY typewriter keyboard as an example of an early technological mistake that became too ingrained to be changed later. So far, so good. But when he tries to explain why the QWERTY layout arose to begin with, he falls back on the old "sabotage" theory:

"In other words—and here comes the epitome of the tale in a phrase—QWERTY arose in order to slow down the maximal speed of typing and prevent jamming of keys. Common letters were either allotted to weak fingers or dispersed to positions requiring a long stretch from the home row."

Gould points out for his biological readers what every typist knows: that the vowels E, U, I and O are removed from the most comfortable home row to the upper row, with O given to the weak fourth finger, and that the other vowel, A, is moved to the left and given to the little finger. What could be more effective in slowing the typist down?

Of course the flaw in the "sabotage" theory is that it fails to take into account how people actually typed in the early days. Typing originally was done by the hunt-and-peck method using only the first fingers, or the first two fingers, of each hand. The all-finger method of touch typing did not appear until around 1883, and did not become widespread until the famous Remington vs. Caligraph speed trials of the mid-1890s. The O and A were not assigned by Sholes to the weak fourth and fifth finger, because nobody, including Sholes, originally used those fingers to type anyway.

Another theory about the origin of the QWERTY keyboard, which deserves even less credence, is that the letters of the word TYPEWRITER were all placed on one row so that a salesman could rattle off the word in short order to impress a customer. The silliest manifestation of this "pre-programmed message" theory is the assertion, which actually has been made in print, that it was James Daugherty who designed the QWERTY keyboard, and that he laid it out so that he could type his name with a few sweeps of the fingers: D--A--U--G--H--E--RTY.

But if one rejects both the "sabotage" and the "pre-programmed message" theories, how can one account for the strange arrangement of letters that Sholes chose? The most sensible, and hence the most attractive theory is that which says that Sholes did indeed lay out his keyboard to minimize the jamming of type bars. But he did this, not by deliberately making the keyboard awkward to use, but by seeing to it that commonly-occurring letter pairs were widely separated around the rim of the type basket. In the History and Development of Typewriters, published by the London Science Museum, G. Tilghman Richards says:

"It is interesting to remember that both Sholes and Glidden had been composers, and were therefore little interested in the alphabetical arrangement of the keys, and when, in the course of developing their various models, they found that serious clashing of the type-bars occurred even at moderate speeds, Densmore and Sholes conceived the idea of arranging the keyboard so that the letters which most frequently occurred together were placed as far as possible apart in the type basket. Amos Densmore asked his son-in-
law, who was at the time superintendent of schools in Western Pennsylvania, to make a list of the frequency of juxtaposition with which the letters in written English occurred, and this list formed the basis on which the 'universal' keyboard was ultimately arranged."

This sounds plausible. But is it true? At this late date we can no longer ask any of the principals what they did, but we can examine the QWERTY keyboard and ask whether they succeeded. Are the most common letter pairs really separated widely around the Sholes and Glidden type basket? To answer this we need to know both the probabilities of letter pairs in the English language, and the separations of all letter pairs around the basket.

I have recently carried out a simple computer experiment to test this theory. I wrote a short computer program, NABOR, that takes any textual matter that it is given, counts all of the letter pairs, and tabulates their sums in a 26 by 26 array. It treats all numbers and punctuation marks as spaces, ignoring them except to note where they separate letters. For example, if the NABOR program were given the three words TYPEWRITER, TYPE-WRITER and TYPEWRITER, it would count one EW letter pair in the first example but not in the other two, because the E and the W were not adjacent.

The NABOR program has been tried out with increasingly large samples of English text, as in accumulated letters, memos, manuscripts and reports on my word processor at UCLA over the course of this year. The various texts in this combined input file currently contain 386,914 letters, 81% of which are from my own writings, and 19% of which are from the Ph.D. thesis of a graduate student. Analyses of the two sub-files separately show no significant differences, so any possible bias arising from the prose style of a single individual can be neglected. The results of applying the NABOR program to this large combined file are shown in Table 1. The string of 386,914 letters produces 303,290 adjacent letter pairs. Only three pairs: TH, HE and IN, occurred more than 2% of the time. These were followed in frequency of occurrence by RE, ER, AN, ON and AT down to the 1.5% level, and 12 more letter pairs occurred at the 1% level or greater.

I also wrote a second program, NADIST, to calculate the distances between all pairs of letters around the rim of a Sholes and Glidden type basket. The original letter arrangement around the basket was:

![Diagram of the keyboard layout with letter pairs](image)

where * represents a number or a punctuation mark. The lower two rows of the keyboard alternate along the half of the type basket nearest the operator, from left to right, and the upper two keyboard rows alternate in a similar manner around the back rim of the basket. With 44 type bars, the minimum spacing between any two letters must be 22 or less. The NADIST program is a trivial one and may not seem worth writing. But with 26 x 26 = 676 distances to calculate, it is faster to write a program and let the computer do the work.

Now we are in a position to test the QWERTY theory. Is it true that the most common pairs of letters have been separated most widely around the type basket? Figure 1 shows a plot in which, for every letter pair, the horizontal axis measures how far the two letters are from one another around the type basket, and the vertical axis plots how often that particular letter pair was found in the sample of 386,914 letters. The most frequent letter pairs are given larger dots and labeled explicitly. In principle there should be 26 x 26 = 676 dots on this plot. All of the isolate dots are shown accurately, but toward the bottom or low-frequency part of the plot the dots overlap so much that they could not all be drawn. Note that a natural boundary is formed by the dashed line running from lower left to upper right. To the lower right of this line are the rarer letter pairs and wider separations around the basket; to the upper left would be those combinations that are both very common and very closely spaced. Note that this region is virtually empty, with the notable exception of letters E and R. This empty region proves that Sholes and Denison did, indeed, know what they were doing.

![Figure 1: Separation Between Two Letters Around the Sholes and Glidden Type Basket](image)
of the graph uniformly, instead of being concentrated along the
dashed line. The important thing is to prevent common letter
pairs from coming in close proximity around the type basket,
or to keep the upper left half of the graph empty. This
goal has been accomplished, with the notable exception of RE and
ER. The positioning of E and R side by side on the upper row
(or only two places apart in the type basket) seems to have
been Sholes and Densmore's one mistake. Aside from this
flaw, the son-in-law did his work well.

So, with the help of a computer we not only can re-create
the train of thought of people who have been dead for a
century; we can even catch them in an error. But the mistake
is so isolated that the general principle still holds: the
QWERTY keyboard was created in a systematic attempt to
minimize jamming of type bars, by distributing common
letter pairs as widely as possible around the rim of the type
basket.

It sometimes is said that Sholes commenced with an
alphabetical arrangement of letters on the keyboard, and then
introduced changes and permutations to this arrangement in
order to achieve his goal of reducing type-bar clash. This idea
may contain an element of truth, except that a greater remnant
of alphabetical order is seen if one looks at letter order around
the type basket, not on the keyboard itself:

**Alphabet:**

AB CDE FG HI JKLM NOPQRS TUV WXYZ

**Basket:**

A ZSCD XFGDH NJKLM PO IUYT REW Q

**In common:**

* ** * *** ****(**) ** *

The order of letters around the basket essentially is the order of the
alphabet, with dispersal of all vowels but A toward the
right end, shifting of N away from O and I, and relocation of R
and S in opposite directions, probably all done with
Densmore's son-in-law's letter pair frequency list in hand.
Unfortunately, when they moved R they allowed it to end up
next to E, in what amounts to their sole error.

As a postscript to the main topic, it is interesting to see
whether a rational basis can be found for the very different
Caligraph keyboard. It has lower case in the center of the
broad, six-row keyboard, and upper case letter keys to left and
right.

```
W 2 3 4 5 6 7 8 9 JK
RTE (S Q Z) UGH
A SwtreyuiO
DFasdfghckNL
BCjxvbnmpMP
QX: # ? " , - YZ
```

It seems to involve, not so much a bringing of the most
common capital letters to the center, but a pushing of the least
used capital letters out to the four corners of the keyboard,
broader than even the symbols. The rarest four capital letters: Q, Z,
X, Y, are exiled to the left and right of the bottom row,
working from outside in. The next scarcest: V, J, K, go to
similar positions in the top row. The planner of the Caligraph
keyboard obviously considered these capitals less important
than either numbers or punctuation marks. It is highly
unlikely that this isolation of the least-used capitals ever could
have come about by chance without some working knowledge of
capital letter frequencies. The more common capitals then
are grouped to left and right of the central four keyboard rows,
in ways that are reminiscent of the lower case layout: R, T, E
associated together, and A, S, D, F broken up among two
rows at left, with B, C in the next row down as on a
QWERTY keyboard. At the right end, G, H, I cluster above,
and L, M, N cluster below. The layout does not seem to have
been as systematic as on a Sholes and Glidden, but one can see
a purpose, and it does involve knowing the relative frequencies
of use of English upper case letters. The goal was not so
much that of bringing the most-used capitals to any particular
arrangement, as of sending to the wings the least-used capitals.

**FIGURE 2**

Keyboard layout of the Caligraph typewriter. Below each capital letter
is its relative usage frequency (1-most frequent, 26-least frequent).
Note how the least-used upper case characters are systematically
consigned to the outer limits of the keyboard.

<table>
<thead>
<tr>
<th>Letter</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>W</td>
<td>22</td>
</tr>
<tr>
<td>X</td>
<td>23</td>
</tr>
<tr>
<td>J</td>
<td>24</td>
</tr>
<tr>
<td>K</td>
<td>25</td>
</tr>
<tr>
<td>E</td>
<td>17</td>
</tr>
<tr>
<td>R</td>
<td>11</td>
</tr>
<tr>
<td>T</td>
<td>21</td>
</tr>
<tr>
<td>A</td>
<td>19</td>
</tr>
<tr>
<td>S</td>
<td>4</td>
</tr>
<tr>
<td>W</td>
<td>18</td>
</tr>
<tr>
<td>N</td>
<td>7</td>
</tr>
<tr>
<td>P</td>
<td>12</td>
</tr>
<tr>
<td>M</td>
<td>3</td>
</tr>
<tr>
<td>Q</td>
<td>26</td>
</tr>
<tr>
<td>X</td>
<td>25</td>
</tr>
</tbody>
</table>

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8 / EtCetera #6 / February, 1989
The QWERTY keyboard was considered important enough to include in the patent of the original Type-Wrter when it was finally filed in 1878. Historians tell us Densmore delayed filing for the patent in hopes of extending the profitable years of the business venture. We can't say whether QWERTY was included for its design value, or for the fact that Densmore knew others would copy it, and figured he could collect royalties on that basis.

All of this comes from playing around with three short computer programs that calculate letter frequencies, trying to second-guess thought processes of people who have been dead for 120 years and left no written record of their actions. If anyone would like to find out why and how Jay Gould used the QWERTY typewriter keyboard to say something about evolution, I will be happy to send a copy of the essay, The Panda's Thumb and Technology. I will also be glad to send you FORTRAN listings of the programs NALET, NABOR and NADIST, in English, German or any other language. Program changes to include un-laut and special letters could be made easily. Write to me at 612 S. Sierra Bonita, Pasadena, Cal. 91106. I would ask only that, if you use the programs for a language other than English, you send me a copy of the output so I can see what difference a change of language makes.

Note: The calculations have recently been repeated with a text base containing 617,555 letters and 488,986 letter pairs. The conclusions remain the same.

### TABLE 1
Frequency of Occurrence of the Most Common Letter Pairs in a Mixed Sample of English Prose Containing 303,290 Pairs

<table>
<thead>
<tr>
<th>Rank</th>
<th>Pair</th>
<th>Freq.</th>
<th>Rank</th>
<th>Pair</th>
<th>Freq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>TH</td>
<td>10097</td>
<td>15.</td>
<td>ES</td>
<td>3552</td>
</tr>
<tr>
<td>2.</td>
<td>HE</td>
<td>8333</td>
<td>16.</td>
<td>IS</td>
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<td>3.</td>
<td>IN</td>
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<td>4.</td>
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<td>5528</td>
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<td>ER</td>
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<td>5440</td>
<td>20.</td>
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<td>ON</td>
<td>5006</td>
<td>21.</td>
<td>SE</td>
<td>3009</td>
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<td>AT</td>
<td>4674</td>
<td>22.</td>
<td>ED</td>
<td>3006</td>
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<td>EN</td>
<td>4299</td>
<td>23.</td>
<td>TO</td>
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<td>ND</td>
<td>3978</td>
<td>24.</td>
<td>RO</td>
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<td>OR</td>
<td>3865</td>
<td>25.</td>
<td>NT</td>
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<tr>
<td>12.</td>
<td>TI</td>
<td>3825</td>
<td>26.</td>
<td>HA</td>
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<td>13.</td>
<td>TE</td>
<td>3084</td>
<td>27.</td>
<td>LE</td>
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<tr>
<td>14.</td>
<td>ST</td>
<td>3554</td>
<td>28.</td>
<td>NG</td>
<td>2720</td>
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</tbody>
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### TABLE 2
Frequency of Occurrence of Capital Letters and Lower Case Letters in a Mixed Sample of English Prose Containing 386,914 Letters

<table>
<thead>
<tr>
<th>Rank</th>
<th>Caps</th>
<th>Freq.</th>
<th>Lower</th>
<th>Freq.</th>
<th>Both</th>
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<tr>
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<td>2.</td>
<td>T</td>
<td>2167</td>
<td>t</td>
<td>33375</td>
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<td>C</td>
<td>1984</td>
<td>a</td>
<td>29333</td>
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<td>I</td>
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<td>o</td>
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<tr>
<td>5.</td>
<td>D</td>
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<td>i</td>
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<td>G</td>
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<td>N</td>
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<td>r</td>
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<td>B</td>
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<td>s</td>
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<td>1068</td>
<td>h</td>
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<td>l</td>
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<td>w</td>
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<td>V</td>
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<td>26.</td>
<td>Q</td>
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<td>j</td>
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ETCetera #6 / February, 1989 / 9
ON TWAIN AND THE TYPEWRITER

by

Darryl Rehr

About a year ago, $18,000 was paid at auction to acquire an original letter written by Mark Twain for the Buffalo and Erie County Public Library. It contained some tantalizing facts about the author's use of the typewriter for his professional work.

The letter was written by Twain to James Fraser Gluck, a prominent native of Buffalo, who was on the Library's board of managers in the 1800's. Gluck, it seems, had asked Twain for an original manuscript for his personal collection. Gluck requested Life on the Mississippi, but Twain responded with a chunk of Huckleberry Finn. The reasons, according to Twain, are set forth in the text of his letter:

"Hartford
12 November, 1885

"I will comply, as far as I can, with the greatest pleasure—that is, to the extent of 50 per cent of a MS. book ('The Adventures of Huckleberry Finn') I have hunted the house over, & that is all I can find except half of 'Life on the Mississippi'—in mixed & shabby condition & not worth expressage. Half of the Finn book is extant because that half was written after the typewriter came into general use. Before that, it was my custom (& everybody's in my line, no doubt), to have my books copied with a pen & ship the original to the printers, who never returned it. As soon as the book was printed, the copy, made by the amanuensis was no longer valuable, & was destroyed: it was only made, in the first place, as a precautionary measure.

"Between the writing of the first & last halves of Huck Finn, five or seven years elapsed. The first half was copied by the pen, & when the book was finally finished, the original of that half probably went to the printer & was destroyed; but the last half was copied on a type-writer, & the copy went to the printer instead of the less-readable original—and thus the original was preserved.

"Hereafter, all authors will send clear & clean type-writer copy to the printer, & the originals will remain in their hands. So, in beginning now to collect such ware, you have begun just at the right time. Three or four years ago would have been too soon......"

Gluck gave the manuscript of Huckleberry Finn to the Buffalo Public Library as early as 1886, and that is where it remains today. This important original letter explaining the origins of the gift is now there to accompany it.

Although Twain's autobiography names Tom Sawyer as his first typewritten book, it appears he didn't remember the facts correctly, and it was actually Life on the Mississippi. In confirming this fact, some additional interesting information came to my attention. It is contained in a letter to me from Victor Fischer, who is in charge of the Mark Twain Papers at The Bancroft Library of the University of California at Berkeley. For simplicity's sake, I will quote Mr. Fischer directly:

"I can tell you definitely which was Mark Twain's first book to be submitted to the printer in a typed printer's copy -- it was Life on the Mississippi. He wrote a testimonial letter about it to his typist, Harry M. Clarke of Elmira, New York, on 24 April 1883:

'This is to certify that Mr. H. M. Clarke copied a great portion of my forthcoming book, "Life on the Mississippi," for me [on] a typewriter, that this was the first copying done for me on the typewriter; that previously my books had been copied for the press with the pen exclusively.

'This experience with the type-writer has been of so high a value to me that not even the type-writer itself can describe it. It has banished one of the prime sorrows of my life. After one has read a chapter or two of his literature in the type-writer character, the pages of the sheets begin to look natural, and rational, and as void of offense to his eye as do his own written pages; therefore he can alter and amend them with comfort and facility; but this is never the case with a book copied by pen. The pen pages have a foreign and unsympathetic look, and this they never lose. One cannot recognize himself in them. The emending and revamping of one's literature in this form is a barren of interest, and indeed as repellent, as if it were the literature of a stranger and an enemy. My copying is always done on the type-writer, now, and I shall not be likely to ever use any other system..."
"As Mark Twain's letter testifies, the book was not written by him on a typewriter, but only copied for the printer. A portion of his original manuscript [I am using "manuscript" to mean a handwritten document only] of Life on the Mississippi is still extant.

"Everything we know about Mark Twain's earlier books confirms his memory. The original manuscript of The Adventures of Tom Sawyer (1875) still exists (it was submitted to the American printer and was marked for setting in the printshop), and so does a handwritten amanuensis copy (submitted to the English printer). The manuscripts of A Tramp Abroad (1880) and The Prince and the Pauper (1882) were both probably hand-copied in the same way with the copy sent to the printer. Unfortunately, neither copy survives, each most likely having been dumped by the printer after use.

"The first documents written by Mark Twain on a typewriter were letters, in 1874, when he bought a Remington [i.e., Shoals & Gihden - Ed.]. He soon gave away that typewriter, but by 1882 had acquired another [a No. 2, presumably - Ed.] and began again to type his letters and may have also worked on some shorter manuscripts (a play based on Tom Sawyer among them). For the most part, however, even his short manuscripts of this period were written by hand and, if typed at all, it was to make copies.

"He did not write Huck Finn (1885) on the typewriter. Portions of his manuscript were, however, copied at different times on the typewriter and finally assembled into a complete copy, which was then submitted to the printer....

"One of the early typewriter histories evidently got the story wrong and then the others perpetuated the error, which is why you probably have read that Tom Sawyer was Mark Twain's first typed book submitted to the printer. Mark Twain himself may even have been responsible for the confusion, if, as he sometimes did, he misremembered the story late in life. But the evidence of the documents and of his 1883 letter prove that Life on the Mississippi was indeed his first typed book submitted to a printer."

Victor Fischer
Berkeley, California

It has been claimed that Twain's Life on the Mississippi was also the first typescript for a complete book that anyone submitted to a publisher anywhere. Given the 1883 date for the work, it is hard to accept that as fact. In ETCEteras No. 3, Paul Lippman wrote of Fanny Kemble, the Victorian actress who submitted typewritten articles to Atlantic Monthly Magazine as early as 1875, using her Shoals and Gihden. This makes her the earliest writer known to have written on a typewriter. As for who produced the first complete typeset book, that is a question which seems to remain unanswered.

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FROM BROWN'S PHONOGRAPHIC MONTHLY, AUG., 1878

INTERNATIONAL NEWS
CURT HERZTARK

The November, 1988 issue of Hbwakweilt reports the death of Curt Herztark, the Austrian inventor of the famous Curta calculator.

The Curta was developed by Herztark while he was a political prisoner in Buchenwald during the years of World War II. Herztark was imprisoned by the Nazis because his grandmother was a Jew. His father was owner of the company which manufactured the Austria calculator prior to the war.

The Curta calculator was placed into manufacture in the postwar years, and remained in production until 1972, when electronic calculators began to promise a cheap alternative. The Curta was the only hand-held mechanical calculator capable of performing all 4 arithmetical functions. It is a small cylindrical device with a crank on top that resembles a peppermill.

Herztark passed away on October 27, 1988 at the age of 87.

INTERNATIONAL JOURNALS

Britain's Type-Writer Times is now back in production thanks to the editorial work of Paul Lippman of Hoboken, New Jersey. As reported in earlier issues of ETCEteras, the British Society renamed itself the Anglo-American Typewriter Collectors' Society to accommodate the bi-national nature of its journal's production. Since ETCEteras No. 5, we have received the August '88 of Type-Writer Times, which continues to maintain its own special character by featuring a color photograph of a rare machine pasted on the front cover. The issue pictures an International upstroke with its four-row keyboard. Type-Writer Times is available to American subscribers at $20/year. Write to Paul Lippman, 1216 Garden St., Hoboken, NJ 07030.

Germany's IFHB, which, until now, has produced two publications (Hbwakweilt, and Historische Burowell), has announced a restructuring of its efforts. The two magazines will be combined into one, and will be issued 5 times a year in February, April, June, September and November. The editors promise 36 pages per issue. The magazine is published in German, with English summaries for British and American subscribers. IFHB, by the way, maintains its position as the world's premier office machine collecting organization. In its most recent publication, it proudly announced the growth of its membership to 513. IFHB's magazine is available to Americans at DM100/year (about $60). The easiest method of payment is to send Deutschmarks (if you have a currency exchange nearby) or Dollars in cash. Write to Uwe Breker, Markusweg 10, D-5000 Köl, West Germany.

Holland's kwbl quarterly has just resumed publication after a year-long hiatus. We have recently received the December 1988 issue. The magazine is in 6.5" x 9" format, 42 pages long in Dutch. English Summaries and supplement are provided, including Richard Dickerson's ongoing series of articles in English based on advertisements in his extensive collection. Subscriptions 60 Dutch guilders per year. Write to Jos Legrand, Kreutzerstraat 24, 5011 AA Tilburg, Netherlands.
A WINDOW ON BLICKENSDERFER

Second of two parts

edited by

P. Robert Aubert

Introduction

Joseph Pittaro was an employee of the Blickensderfer Company from about 1915 until the time the firm closed its doors around 1919. In part one of this interview (ETCetera #5), we learned what life was like in the Blickensderfer factory. In part two, we hear about some of the people Pittaro knew, and what he remembers of Blickensderfer's unfortunate demise.

Interviewers were P. Robert Aubert and Paul Lippman, typewriter historians. Also present was Dolores Vaccaro, Mr. Pittaro's niece.

Stamford, Connecticut - January 16, 1988

PITTARO: Some of the other people I worked with in the machine shop were: Mike Pia, he did the drilling on the frames, Mike Abazzia did threading and had some men under him to help; Tom Lynas, Roy and Dick Creg operated the milling machines but sometimes did other things. Tony Gancola was the set-up man and told us what to do. I can still see them working now.

AUBERT: I brought a copy of an article about the Blickensderfer Company that appeared in the Guide to Nature magazine, August, 1913. It has photographs of various departments in the plant. I would like you to examine it closely and tell me if you can recognize anybody. I realize this was a little before you began to work there, but do the best you can. The first page is an illustration of a No. 6 typewriter. The next page shows William, I think, handing a machine to a woman. Is that Willie? [the photos from Guide to Nature were unavailable for inclusion in ETCetera - Ed.]^54

PITTARO: I think so. Look at the clothes on the girls! (laughter)

AUBERT: The next page shows the factory.

PITTARO: That's there yet. Pimney Bowes occupies the building now.

AUBERT: Then there are two women in a bed of Cannas. Do you recognize them?

PITTARO: No, does it give their names?

AUBERT: I don't think so. Here is William and George at their desks and some girls in the office. Do you recognize any of them?

PITTARO: No.

AUBERT: Now we are coming to some picture that you should know about.

PITTARO: Oh, yes, I think that's Tony Gancola, the set-up man. It sure looks like him.

He is pointing to the top photo on page VIII, man on lower right with bow tie. Another man on far left, with a white shirt and bow tie looks like the dreaded Superintendent Knapp. Pittaro isn't able to positively identify him. When I mention he was wearing a visor, Mr. Pittaro said Knapp did wear one sometimes.

PITTARO: The lower picture shows the bench lathes that I worked on. (He turns the page.) That's the tool room machine shop and upstairs where they did assembly. I don't know nothing about that. (He turns the page again.) Oh, I remember the boat races. They rowed from the light house to Halloween Park on the fourth of July. The Blickensderfers had nothing to do with that - the city ran it. I wonder why it's in there?

AUBERT: Well, they were just trying to promote their typewriters and show where they could be used, I suppose.

PITTARO: I remember one boat race where this old man won it! The young fellow who came in second rowed directly across the sound and couldn't figure out how this old man beat him by taking the long way around. It happens the old man was a ship's pilot who used to row out and guide the big ones in. He knew which way the tide was going and took advantage of it! (laughter)

AUBERT: That was a good story...Tell me, do you recall then George died?

PITTARO: No, I don't remember that. When did he die?

AUBERT: In 1917. Are you sure you don't remember that? They likely closed the shop for the funeral.

PITTARO: No, I can't say that I do. That's funny, though. Once I went over to a Blickensderfer house in Old
Greenwich with another fellow to pick apples. I don’t know which one that was.

AUBERT: That was George. He married a woman from there after his first wife passed away. But he died a year later.

PITTARO: Oh, I didn’t know that. I remember a Blickensdorfer house in town. But I don’t know who lived there either.

AUBERT: George lived there with his previous wife. He had a beautiful stone house on Bedford Street around the corner from the library near the Avon Theater.

PITTARO: That’s it! I remember what it looked like now.

LIPPMAN: Can you tell me anything about the different models or how many were made in a week?

PITTARO: No, I had nothing to do with that. I didn’t even know we made different ones. I just knew we made Blickensdorfer Typewriters. We didn’t make any during the War, but after it ended, they said we would have work because they were going to make an electric typewriter. I don’t know if it was the old one or a new one.

AUBERT: It probably was the old machine, because it would have taken too much money and time to design a new one.

LIPPMAN: What happened then?

PITTARO: There was no business, so they sold out to Remington.

AUBERT: Remington? Are you sure?

PITTARO: I am pretty sure. Yes, it was Remington, I think. They had another plant in Bridgeport or New Haven or somewhere like that. They still are in business today, I think.

AUBERT: Do you recall the name Roberts?

PITTARO: Yes, I believe I heard that name. But that’s about all I can tell you.

AUBERT: He invented a type bar machine called the Blick 90 and later the Roberts 90. Blickensdorfer also brought in an office size machine called the Blick-Bar. Can you tell us anything about that?

PITTARO: No, I don’t know anything about that.

AUBERT: According to my information, when Blickensdorfer went out of business, the Roberts Typewriter company took over for a year or so and made a typebar machine.

PITTARO: I thought it was Remington.

AUBERT: You may be right because they came out with the REM-BLICK in the late twenties. But Roberts was involved somehow soon after Blickensdorfer shut down.

PITTARO: I know some company did experimental work in the Blickensdorfer building afterwards. More than that I can’t tell you. You see, when I worked at Blickensdorfer’s, it was just a job. I was very young and didn’t know much about the business. I’m sorry I couldn’t be more help.

Both Paul and I assured him that he had helped significantly, thanked him for this time and went on our way very pleased that we were able to capture this little bit of history before it would be lost forever.

TYPEWRITER MYSTERY
By Mike Brown

Last issue’s Typewriter Mystery resulted in a holiday reindeer. This time, the theme pays homage to some of our overseas colleagues. As usual, the solution will appear in the next issue, but you have to type it out to really see it!

To solve the mystery, inset paper in typewriter vertically, space down 12 single spaces from the top, set side margins for a 40-space line, and begin typing, line by line. Symbols: “1:” means strike the colon one time; “2M” means strike “M” two times; “19sp” means strike space bar nineteen times, etc. Keep shift lock depressed throughout entire typing.

1- 19sp, 1:
2- 18sp, 2:
3- 16sp, 4:
4- 17sp, 4:
5- 17sp, 4:
6- 17sp, 4:
7- 18sp, 4:
8- 18sp, 3:
9- 18sp, 2:
10- 16sp, 2M, 1, 3M, 8sp, 7:
11- 11sp, 4, 3M, 1, 4M, 2sp, 13:
12- 4sp, 14, 1sp, 12:
13- 13sp, 5M, 1, 4M, 2:
14- 13sp, 2M, 1, 5M
15- 13sp, 1M, 4, 2M
16- 13sp, 1M, 4, 2M
17- 13sp, 2M, 4, 1M
18- 13sp, 2M, 4, 1M
19- 13sp, 2M, 4, 1M
20- 13sp, 2M, 4, 1M
21- 14sp, 4M, 4, 2M
22- 13sp, 5M, 4, 4M
23- 14sp, 5M, 1, 5M
24- 13sp, 6M, 1, 7M
25- 11sp, 18M
26- 4sp, 6%, 1sp, 17M, 1sp, 4%
27- 5sp, 6%, 1sp, 15M, 1sp, 6%
28- 3sp, 1%, 1sp, 7%, 1sp, 13M, 1sp, 8%
29- 3sp, 2%, 1sp, 7%, 1sp, 3M, 2, 1%, 2, 3M, 1sp, 9%
30- 2sp, 4%, 1sp, 7%, 1sp, 2M, 2sp, 1%, 2sp, 2M, 1sp, 11%
31- 3sp, 5%, 1%, 7%, 1sp, 7M, 1sp, 13%
32- 1sp, 7%, 1sp, 7%, 1sp, 5M, 1sp, 15%
33- 2sp, 7%, 1sp, 20%
34- 2sp, 7%, 1sp, 27%
35- 2sp, 7%, 1sp, 27%
36- 2sp, 7%, 1sp, 65, 11sp, 10S
37- 2sp, 7%, 1sp, 65, 1sp, 4S, 1sp, 4S, 1sp, 10S
38- 2sp, 7%, 1sp, 65, 1sp, 4S, 1sp, 4S, 1sp, 10S
39- 2sp, 7%, 1sp, 65, 11sp, 10S
40- 2sp, 7%, 1sp, 27%
41- 4sp, 5%, 1sp, 27%
Our ongoing discussion continues in this issue, with some further ideas presented by other members.

Jay Respler, of Freehold, NJ, suggests the following descriptive words for a 6-point rating system:

**APPEARANCE**

1. **Excellent** - looks virtually new, like a typical machine just a few weeks old.

2. **Fine** (or Extremely Good) - very nice appearance, but may have some slight definite wear, scratches or rust spots.

3. **Very Good** (or Above Average) - a little better than average, with definite wear, scratches or rust.

4. **Good** (or Average) - a typical machine that has had several years of use. Paint can have some fading and worn areas. Fair amount of dirt and rust.

5. **Fair** - below average. Has not been kept well. Much of lettering and paint worn off. Does not look good. Can be rusty and/or dirty.

6. **Poor** - looks bad. Much of finish worn or rusted off. Quite rusted, dirty.

**FUNCTION**

1. **Excellent** - perfect working condition. Virtually no wear.

2. **Very Good** - some wear. Very minor adjustment or lubrication may be needed.

3. **Good** - average wear. Basic typing satisfactory, but some small adjustment or lubrication may be needed for lesser functions like tab.

4. **Fair** - repairs needed.

5. **Poor** - overhaul or major repairs needed.

6. Machines that were dropped or are so bad that they are impossible to fix and can only be used to strip for parts.

In addition, Jay raises some related points. He first suggests a 5-point system for Appearance, contending that 6 points are not needed. As published in ET Cetera No. 5, he says dirt versus rust should weigh equally in ratings. In our last discussion of this subject, I suggested that dirt is not as bad as rust (since it's easier to remove), and might not weigh as heavily against a machine in rating its condition.

Jay goes on to take issue with Larry Wilhelm's suggestion that we use "about Good" as a description to fit between "Good" and "Fair." This is a term used by coin collectors. Jay, however says, "It seems to be a less than candid term for NOT Good. Let's be honest, don't try to fool anyone, and if something is bad, say so."

These are all points which deserve discussion. In the beginning of this intermittent series of articles, I suggested that we attempt to find a way to understand and use the German 6-point system here in the United States. I stick to that position, because the German system is one that is currently in use, and successfully so. It would be confusing to develop a different system.

As for Jay's terminology as set forth above, my problem is using the word "Good" for a level of quality that is more than halfway down the scale. One a 1-6 scale, "4" just does not seem like it would be "Good" to me. It seems like we always come down to this point. What do you call that grey area between Fair and Good? If "about Good" seems dishonest, what is the magic word that doesn't deceive? "Passing"? "Adequate?" "Only OK?"

I think Jay's outline of function descriptions comes close to what we want, although I have a little trouble distinguishing between Very Good and Good in the above outline. Also, from a collecting perspective, a lot can be said for an antique machine that has a fully-demonstrable mechanism, but is not quite capable of actually producing a written document. Case in point is the typical Blickensderfer. How many Blicks are there with inked rollers and smooth paper transports that can turn out clean typewritten copy? Not many, I'd guess. However there are loads of these machines than exhibit the magic of Blick's spinning wheel on the depression of any key. Do we call these Good or Fair?

Finally, I should say that Jay agrees that a rating system is only an approximation. It is not a substitute for detailed and specific descriptions used among trading partners. We continue to solicit input from members on rating typewriter condition, and will print more opinions in later issues. Whenever Rating Typewriter Condition IV pops up, I'll include a rundown of the interesting 10-point system used by antique camera collectors.

--Darryl Rehr
The following item appeared in the June 1878 issue of "Brown's Phonographic Monthly," as quoted directly from the "Danbury News."

RALPH MEEKER'S DESCRIPTION OF THE TYPE-WRITER
WHAT AN OLD REPORTER KNOWS ABOUT THE MACHINE

Several years ago, a seedy looking man walked into the New York Tribune office with a clumsy contrivance which he styled a writing machine. No one believed in it except the inventor and Mr. Greely. The editor beard him on the man kindly and bought the machine. That was the last seen of it, however. If he used it the printers knew nothing of it, and the telegraph operators sent his dispatches back to be translated, as usual, for they could not read them. But Mr. Greely had faith. He contended that other inventors would improve the machine until it could be used as easily and rapidly as a pen. His prophecy has proved true.

Remington & Sons, the celebrated fire-arms manufacturers of Ilion, N.Y., have taken a contract to furnish twenty-five thousand of the new type-writing machines which are rapidly coming into use. All of the departments in Washington have them. Postmaster Jewell, Gen. Bristow, and Secretary Chandler dictate their letters and official communications to shorthand reporters, who copy them on the machines with marvelous despatch. The New York Herald, Chicago Tribune, Danbury News, and other leading newspapers use them. They have been introduced into law and telegraph offices throughout the country and are giving satisfaction. Postmaster Jewell's private secretary says that he can write twice as fast with one of them as with a pen. The machine is called a Type-Writer. It was invented seven years ago, and more than forty thousand dollars were expended in perfecting it. It is now a thing of beauty, and a joy is seen on the face of every man who uses it. They keyboard is little larger than a telegraph blank, but the keys represent all the numerals, with every letter in the alphabet, including enough commas, periods and exclamation points to satisfy a girl just from boarding school. It is an ornamental piece of furniture, enameled and gilded and hidden in a cabinet of black walnut. A girl or boy can soon learn to work it with great facility. The poorest and most downtrodden child of the street can do as good work on paper as the president of a commercial college. A little practice enables one to print about twice as fast with it as with a pen. All kinds of manuscripts, legal documents, commercial papers, essays, perorations, Fourth of July orations, and dunning letters may be turned out with surprising rapidity.

By removing the inting ribbon we can print on twenty sheets of manifold paper at once. With it a girl may correspond with twenty promising young men without injuring her health or destroying the beautiful proportions of her spinal column. She may italicise every line, put all of it in caps, sprinkle exclamation points over her manuscript like the stars in heaven, quote the best parts, and fence in the rest with parentheses and brackets by simply touching the right keys.

Meeker's description, while bearing his personal stamp, is heavily dependent upon Remington promotional literature for details. The business about the 25,000-machine contract, the testimonials, even the invention "seven years ago," are all familiar phrases from Type-Writer pamphlets. - Ed.

Odd Hobbies. I hardly expected it, but there we typewriter collectors were right along with the string collectors, the dirty rag collector, the bowdery house token collectors, circus freaks and so forth. I wonder if we are incredible, weird or odd?

Rodger Nasch
Hampton, VA

SYRACUSE EXHIBIT

The Onandaga Historical Association has announced it will display a selection of machines from its 850-machine collection beginning March 23. The Onandaga collection consists mostly of the combined former collections of Remington and SCM. Included in the exhibit will be an Edison Mimeograph Typewriter as well as the famed Blickenstock Electric.

The Association's address is 311 Montgomery Street in Syracuse, NY 13202-2098. The phone number is (315)428-1864. If you have questions, ask for Laura Joss Griffin.

Hours for the exhibit are noon to 4 PM weekdays and 11 AM to 4 PM on Saturdays. An excursion to Syracuse will be well worth the trip for any typewriter enthusiast. We hope to have coverage of the Syracuse exhibit in a future issue of ET Cetera.

LETTERS

While in Phoenix, Arizona, saw a small display in the old state capitol building of old typewriters that were used there at one time. Have them in a glass case; some need some cleaning and restoration work. You are aware that there are several restored old timbers in the state capitol museum in Sacramento. While driving from Phoenix to Tuscon (to attend an Elderhostel at the Univ. of Arizona) visited the MacFarlane state park building at Florence, AZ, where they had a tired Oliver 3 in the restored judge's office.

Marco Thorne
San Diego, CA

While visiting Staunton, Va., I checked their very nice library where I found a very interesting book titled Incredible collectors, Weird Antiques and

BACK ISSUES

Back issues Nos. 1-5 of ET Cetera are available as a single package. Price is $18.75 ppd for all five issues (the same price paid by current members). Foreign members' cost is $25 ppd. These issues are a valuable resource for any typewriter collector. Included are articles on the Franklin family of typewriters, the rare Burn's No. 1, the Edison Mimeograph, the Smith Premier Centennial, rating typewriter condition, antique calculators, restoration tips, beginners' tips... and much, much more. Send funds to Dan Post, Box 150, Areiad, CA 91006.
ADVERTISEMENTS

FOR SALE: Hammond No.2 - 2-row curved, ebony keyboard, one damaged keytop. A superb specimen with oak base and cover also in excellent condition. TOM FITZGERALD, 2125 Mount Vernon St., Phila, PA 19130

TRADE: Odell #1 w/excellent case, Odell #4 w/fair case, Virotep/case, Abbot Check Protector, United States Check Perforator, Lightning Adder, A.W. Stephenson adder, many others.

FOR SALE: FRESH RIBBONS FOR OLD MACHINES: I have just obtained a supply of new ribbons in 7/8" and 1-3/8" widths to accommodate a wide range of old machines. The 7/8" is the correct size for Wellington/Empire/Adler (1" ribbon, which many people use, bunches up in the spools)—and it will also work well on the Munson/Chicago family. 1-3/8" fits the Remington blind-writer family, and will be adequate for many other word-processing machines as well. Ribbons are boxed in the old-fashioned way with Black Record ink that doesn't dry out after 6 months as most computer ribbons do. Price: $1/yd postpaid. $5 minimum (outside USA add $2 per order). Sorry, no spoons included. WANTED: Ribbon tee. DARRYL REHR, 11433 Rochester Ave. #303, L.A., CA 90025 (213)477-5229.

FOR SALE: 2 copies of Century of the Typewriter by Wilf Beeching. $3 each. Another copy with a mold stain on back cover for $30. Add $3 for shipping. RODGER NASETH, 47 Tower Drive, Hampton, VA, 23666 (804)838-1151.

WANTED: Chicago parts machine, Hammond curved KB parts machine. SALE/TRADE: Green Barr - good - $75. LARRY WILHELM, Box 1922, Wichita Falls, TX 76307 (817)692-3579.


WANTED: Sholes & Glidden & other early Remingtons & certain other early machines. Trade or cash. I can offer for trade machines as scarce as Williams 1. What do you have to trade? JIM RAUEN, 6937 Glenview Dr., San Jose, CA 95120

FOR SALE:
Corona 3/case-excellent cond. $40+$5 UPS. Harry McKeon, 18 Rose Ln., Fl ourtown, PA 19031

Mislser #4 stenotype-exc. cond. w/case, instruction books. $30 + ship. H. Robert Siwewart, 35666 Strathcona, Mt. Clemens, MI 48043

Burroughs glass-sided adder. Nice clean condition, working, no rust. $30 + ship. Loy Carter, P.O. Box 688, Clarksville, VA 23927 (804)374-8412

Blick 8 - good operating order. $150 Joseph F. Bombala, 5035 Stanton-Ogleton Rd., Newark, Delaware 19713 (302)994-4609

Corona 3 with case, R.P. Chaney, 402 W. Sarah, Cuevo, TX 77654

Hammond - model unknown, "about 1890" Barbara Winslow, R.D.2 Box 370, Lewisburg, PA 17837

Oliver 3, Mrs. James Mink, 2159 Principio Rd., Rising Sun, Md 21911

Corona 3 (pharmacy) with label holder, case, instructions. Irwin Kasdon, 18 Sherwood Rd., Springfield, NJ 07080


Blick 5. Cathy Danielson, 122 University Mall, Tuscaloosa, AL 35405. (205)556-1900

Caligraph 2 - not working. With glass Caligraph paperweight. Both for $150. Wayne Massey, 1612 Woodhall Ct., Middletown, O 43042

TYPEWRITER TRADER

As many of you know, the Typewriter Trader is a bulletin-board-of-the-mail that I have published since October of 1986 (preceding ÉCetéra by a year). The Trader is a convenient advertising medium for typewriter collectors who want to buy/sell/trade in-between issues of ÉCetéra. It is computer compiled, and available at any time to anyone. The way you get a copy is to send me a self-addressed, stamped envelope (my address on pg. 1). Canadians send $1 in US currency plus a self-addressed envelope, residents of other countries send $2. The cash pays for the stamps plus helps to offset the costs of computer paper, printer ribbons, etc.

The idea behind Typewriter Trader is to provide a channel of communication among collectors so they may easily receive and convey information about who has what for trade or sale. Some people have expressed disappointment because it does not frequently offer outstanding machines at bargain prices. Since it is a collectors' publication, bargains will normally appear only if a collector offers one. However, non-collectors are allowed to advertise as well, and those who do not send for the Trader do not know that outsiders have, in the past, offered at least 2 Franklins, several Blick 8 & 9s, a Bennett, an American Index, Fox blind, etc., none of which has been "picked off" by the editor. These types of items do not appear frequently, but they do appear, and only those who participate in the Trader's network will learn of them. I do not promise to pass along all of my prime tips obtained through my personal efforts, but people who expect that are asking a little too much.

Being computer compiled, the Trader is updated continuously, whenever new information comes in. Whenever you send for it, you get the latest information. Some collectors have sent piles of envelopes with instructions to send the Trader every month. Two collectors get it every week.

Ads in the Typewriter Trader will appear for two months and then will be dropped out unless renewed or updated.

-Darryl Rehr
The mission of the Early Typewriter Collectors’ Association is to support communication and interaction within the community of typewriter lovers and collectors, and to encourage its growth. Our magazine, ETCetera, serves that mission by gathering and sharing knowledge about typewriter history with the community and beyond.

Learn more at etconline.org