

The Typewriter Man

by Ian Frazier

I write on a manual typewriter, but don't bug me about it, okay? I know that recently certain machines have been developed that produce manuscripts more efficiently than a manual typewriter ever could. When these machines began to take over, people constantly asked if I used one; for a while that was the fact about me people seemed most interested to know. When I replied that I didn't, people usually became vexed, or in some cases nearly enraged. The arguments that followed were of a pattern. Those in favor of the new machines described their many advantages, never failing to include the ease with which the new machines could move paragraphs around. I defended myself with explanations that started out mild and reasonable and quickly descended to a whiny "I just don't like them!" None of this got anybody anywhere. Then one day a champion of the new machines pinned me down on the subject, extolling them, as usual, and finally confronting me with the inevitable question: Did I use one? My panic began to mount as I saw what lay ahead - the arguments, the rebuttals, the recriminations. I took a deep breath. "No...I mean, yes!" I replied. Satisfied, the prosecutor moved on to other topics, as my heart rate returned to normal.

Then suddenly that question was not around anymore. No one has asked me it in years. I guess the victory of the new machines has been so complete that there's no longer a need to hunt down resisters. Why bother? Time will take care of us. Meanwhile, I continued to write on the same Olympia portable manual I had bought with my first paycheck from *Oui* magazine, in Chicago in 1973. I liked it so much that when I got a little money I bought other Olympia manuals, fancier models, but all of them used, of course. They are perhaps not the best manual typewriters ever made - experts often give that distinction to Underwoods or Hermes - but they suit me, and I've stuck by them. The hell of it is, though, that after about twenty years they start to break. One afternoon in 1994 the e key on my favorite Olympia stopped working. E is not a rarity, like @ or %, that you can mostly do without. I was living in Brooklyn at the time. I called around and found a guy there who claimed to be able to fix anything, typewriters included. When he returned the typewriter to me, all the keys were at different heights, like notes in a lilting tune, and the e bar hit the ribbon hard enough to make a mark only if you helped it with your finger.

The Manhattan Yellow Pages has so many listings under "Typewriters" that you might think getting someone to fix a manual would not be hard. The repair places I called were agreeable enough at first; but as I described the problem (Fixing an e, for Pete's sake! How tough can that be?), they began to hedge and temporize. They mentioned a scarcity of spare parts, and the difficulty of welding forged steel, and other problems, all apparently my own fault for not having foreseen. I took my typewriter various places to have it looked at, and brought it home again un-repaired. This went on for a while. Finally, approaching the end of the Yellow Pages listing, I found an entry for "TYTELL TYPWRTR CO." It advertised restorations of antiques, an on-premises machine shop, a huge inventory of manuals, and sixty-five years of experience and accumulated parts. The address was in lower Manhattan. I called the number, and a voice answered, "Martin Tytell." I told Mr. Tytell my problem, and he told me he certainly could fix it. I said I would bring the typewriter in next week. "You should bring it in as soon as possible," he advised. "I'm an old man."

I got on the subway to Fulton Street right away and carried my typewriter up the stairs to his second-floor shop at 116 Fulton. I saw that he was indeed an old man, standing on a teetering

stepladder and moving a heavy typewriter onto a high shelf while a woman's voice offstage told him to be careful and reminded him of his recent heart surgery. He climbed down and shook my hand. He was wearing a clean white lab coat over a light-blue shirt and a dark-blue bow tie. His head was almost bald on top and fringed with white professor-style side hairs that matched the white of his small moustache. His blue eyes were slitted and wary and humorous, and all his features had a sharpness produced by a lifetime of focusing concentration down to pica size. He examined the typewriter and gave me a claim check and told me I could pick it up in a few days. His shop fixed the e and completely overhauled the machine and got it running better than it ever had.

I ended up going back to see Mr. Tytell many times. I moved from New York to a distant part of the country, but when I returned for visits I brought typewriters for him to repair. I met his wife, Pearl, and their son, Peter, who's fifty-two. Both Pearl and Peter are handwriting and document experts who often testify in court cases where written evidence is involved. Mr. and Mrs. Tytell have been married for fifty-four years. Pearl Tytell is handsome and petite, with unwavering blue eyes and long silver-blond hair, which she wears in a braid wrapped carefully on the top of her head. For clothes she favors suits in subdued colors or pleated skirts in dark plaid, and neat white blouses with a cameo brooch at the throat. She looks like someone you would believe on the witness stand. Her habit of accuracy provides running footnotes to the autobiography her husband likes to tell. The shop is mostly floor-to-ceiling shelves of typewriters in cases or wrapped in plastic sheets, boxes of typewriter parts past numbering, and disassembled typewriters on benches, all in a labyrinthine layout beneath fluorescent lights. Mr. Tytell works in one part of the shop and his wife in another, invisible but nearby among the shelves.

When my father was a communications officer on aircraft carriers in the Second World War, he sent his family letters typewritten on flyweight airmail stationery. He single-spaced and made almost no mistakes. To his younger brother in the hospital he described everything about the ship Boxer - the war had ended by then, and censorship had eased - that caught his eye, from the shadow of the bridge moving through the clear depths to the formations of the fighter planes above. His ship was the flagship of a convoy, and so carried both a captain and an admiral. He described how the one would send the other a message via the communications room, to be typed up in many copies and passed along in a procedure that took a long time, especially considering that the two men were at command posts separated by just a flight of stairs. He brought home sheaves of Navy documents in his sea chest. Many were stamped TOP SECRET in red ink and had holes punched in them and signatures affixed. They had to do with maneuvers and requests obscure to me, and the capture of a German submarine. They were on paper so light you could almost see through it, and their carbon-copy typescript was fuzzy and thick.

My father used a stand-up Royal typewriter, green with a tortoiseshell finish, and its type was small and clear. I remember him sitting with his hands poised over it, little fingers out to the sides, typing what I now know was a description of one of his patents or a letter of complaint to the Ford Motor Company. If one of my sisters or brothers or I lost a baby tooth, we always put it in an envelope under our pillow. When we woke in the morning, the tooth would have been replaced by a dollar bill and a letter from the tooth fairy. Generally these letters discussed some bureaucratic problem the tooth fairy was having with his lost-tooth filing system or with a secretary who had recently gotten pregnant and quit. The letters were neatly typed in the same clear print as on my father's Royal. He did not like me to fool with the typewriter, but I tried to

use it when I barely knew how to write by hand. It always surprised me what a bad job I did and what a mess I made. Somehow I always had to get my fingers into the works, tangling the typewriter ribbon and smearing ink and detaching the spool. Like the sound of a typewriter bell, that smell of an inked silk typewriter ribbon, a smell combining sootiness with a medicinal volatility, has almost vanished today.

In Mr. Tytell's shop, of course, it is in good supply. I can't say that when I breathe it there, impressions of the past come to me in a conscious or orderly way. It's deeper than that - as if I had opened my father's sea chest again and stuck my head into its stored-up aura of 1940s wartime. Mr. Tytell understands that his trade involves more than just some possibly out-of-date office machines. "We don't get normal people here," he says with a certain pride. Coincidentally or not, the second time I saw him he made a point of showing me a small typewriter in a steel case as smooth and silvery as a gun mount on an airplane wing. He told me it was an un-crushable typewriter case designed during the Second World War to survive being run over by a tank. Then he began to tell me his experiences working on typewriters for the government during the war.

The Second World War was a manual-typewriter war. One would be tempted to say that never will typewriters be nearly so important in a war again, were it not for the many manual typewriters in the Serbian and Croatian alphabets that Mr. Tytell has sold for use in Bosnia in recent years. Armies in the Second World War took typewriters with them into battle and typed with them in the field on little tripod stands. In the United States typewriters were classified as wartime materiel, under the control of the War Production Board and unavailable for purchase by civilians without special authorization. Among the ships sunk off Normandy during the D-Day invasion was a cargo ship carrying 20,000 Royal and Underwood typewriters intended for the use of the Allies. Mr. Tytell says that as far as he knows, all 20,000 are still down there. More than other veterans, a man whose life has been typewriters is likely to divide his history into short summaries covering before the war and after the war, and volumes in between.

Martin Tytell was born to Russian Jewish parents in New York in 1913, and he grew up on Rutgers Street, on the Lower East Side. He was the ninth of ten children, seven of whom survived. His father had come to America from Argentina, where he manufactured wheels for the Argentine government. In New York he worked as a machinist. Martin always loved tools and screws, and he began working in a hardware store when he was still a boy. He carried a screwdriver wherever he went. One day in gym class at Thomas Jefferson High School the assignment was rope climbing, which Martin thought was for monkeys, so he got the teacher to let him spend the period in a nearby office answering the phone. The office had an Underwood No. 5 typewriter, which Martin began to examine and take apart. That kind of Underwood was designed so that just a single screw disconnected the carriage, to allow for basic cleaning and maintenance without disturbing the rest of the machine. The screw was hard to put back in, however, so Martin had to leave the typewriter in pieces. This happened several times. Finally the repairman who came to fix the Underwood went looking for the kid who was taking it apart. He ended up offering to teach Martin how to work on Underwoods at his apartment in Canarsie. Martin went there for six Sundays in a row. Soon he could take an Underwood apart and put it together blindfolded, a trick that won him the account for maintenance of all the typewriters at Columbia-Presbyterian hospital when he went there one day cold-canvassing for a job. Before he was out of high school, he had several other accounts to maintain typewriters around the city, and his own office at 206 Broadway.

The records of his present business go back to 1935. By then he had moved to an office at 87 Nassau Street, which he left a few years later for 123 Fulton Street, which he left in 1964 for where he is now. As well as fixing typewriters, he had them for rent and sold them new and used. Pearl came to work for him in 1938. At about that time he added a new service to his business - converting American-made typewriters to foreign alphabets for the stationery department at Macy's department store. He did these jobs on short notice and fast. Macy's would tell a customer that they could provide a typewriter in the customer's language before he left town; then Martin would remove the type from an American typewriter, solder on new type for the alphabet desired, and put new lettering on the keyboard. Usually he converted to Spanish or French, not difficult jobs, but he did Russian, Greek, and German, too. He found that by adding an idle gear he bought for forty-five cents on Canal Street, he could make a typewriter go from right to left. That enabled him to do Arabic and other right-left languages such as Hebrew and Farsi.

Nights he took courses in business administration at St. John's University. When a recruiter came and made a pitch about the Marine Corps to the students there, Martin decided to join the Marine Corps Reserves, hoping to go on to flight school and become a Navy pilot. He did his basic training at Quantico and then served part-time at bases in the New York area. On his own he took flying lessons at an airfield on Staten Island. Pearl took lessons too; they courted while learning to fly. Pearl briefly considered becoming a ferry pilot for the military. Martin earned high marks on the entrance tests for flight school, but in the end didn't get in. The official reason was his flat feet. He thinks he would have made a good pilot, and that the real reason was cultural - that the Navy preferred WASP-y Ivy League types. The officer who signed his honorable-discharge papers in November of 1940 told him privately that "night-college guys" like him generally did not do well in flight school.

Factories that make typewriters use the same equipment and methods as factories that make guns. By the time the United States had entered the war, most American typewriter manufacturers had changed over to the production of things like bombsights and rifle barrels. Much as the war needed typewriters, it needed guns more. The lack of new typewriters sent the War Department scrambling for whatever machines it could find, in whatever shape; this led naturally to the shop of Martin Tytell. His sales business was nonexistent and his income from rentals slim, and he began to do more and more work for the government, fixing up used machines. In 1943 the War Department got a windfall of Remington typewriters designed originally to be sold in Siam. By then Martin was back in the service, in the Army this time, so Pearl (by then Mrs. Tytell) went down to the Pentagon and examined the machines and saw that they could be converted from Siamese to what the military required. An official of the War Production Board who had been an executive for a big typewriter wholesaler in the Midwest got Martin transferred from Fort Jay, on Governors Island, to a detached-duty unit called the Enlisted Reserve Corps for ninety days' service. Martin did the work on the Remingtons in his shop on Fulton Street while spending his nights at home.

From the kinds of typewriter jobs he was asked to do, and especially from the alphabets involved, Martin could make good guesses about upcoming strategy in the war. He predicted to the day the landing at Normandy. For a private first class, he saw the war effort on an unusually big screen, as he kept the typewriters working at Fort Jay and at the Manhattan offices of Yank magazine and at recruiting stations in the city and upstate. He spent much of his time assigned to the Army's Morale Services Division, at 165 Broadway, which dealt in information and propaganda. There he received his hardest job of the war - a rush request to

convert typewriters to twenty-one different languages of Asia and the South Pacific. Many of the languages he had never heard of before. The War Department wanted to provide airmen, in case they were shot down, with survival kits that included messages on silk in the languages of people they were likely to meet on the ground. Morale Services found native speakers and scholars to help with the languages. Martin obtained the type and did the soldering and the keyboards. The implications of the work and its difficulty brought him to near collapse, but he completed it with only one mistake: on the Burmese typewriter he put a letter on upside down. Years later, after he had discovered his error, he told the language professor he had worked with that he would fix that letter on the professor's Burmese typewriter. The professor said not to bother; in the intervening years, as a result of typewriters copied from Martin's original, that upside-down letter had been accepted in Burma as proper typewriter style.

When Martin received his honorable discharge, in November of 1945, the colonel of his unit gave him a testimonial dinner and a typewriter ribbon done up in the style of a military decoration. Being a civilian made little change in what Martin did every day. He still worked on typewriters for the government, and since manufacture had not yet resumed, he scoured up serviceable used ones just as before. For a while he was running an assembly line by car, carrying parts in his trunk to mechanics all over New York who had worked in typewriter factories and knew certain steps of the process. He hired more assistants at his shop, including some displaced persons recently arrived from Europe. One of them had escaped from a concentration camp and hidden in the house of a farmer; he worked for Martin for years and sent the farmer a package of food and clothes every month for as long as Martin knew him. Another had learned typewriter repair in Germany before the war, a skill that kept him alive at Auschwitz, where he was given the job of converting to German a large number of Russian typewriters looted by the Germans along the Eastern Front. After the Soviet Army liberated the camp, the Russians had him convert the typewriters back to Russian again.

The history of the typewriter from its invention to the present is complicated, but not that complicated. Where you can get lost is in discussions about who made the first writing machine - there are a lot of candidates, in Europe and in the early United States - and in lists of the many typewriters patented and manufactured in the years after the machines caught on. It's easier to say who made the first typewriter that led eventually to commercial success: in 1873 E. Remington & Sons, gun makers of Ilion, New York, began production of an up-strike typewriter with a four-bank keyboard based on a machine developed a few years before by the Wisconsin inventors Carlos Glidden and Christopher Latham Sholes. The company made 550 typewriters the first year; Mark Twain bought one. People said the typewriter would never replace the pen, but in offices it soon did. Its popularity gave women a way to enter the work force in large numbers for the first time. For a while their name, "type writers," was the same as the machines'. The typewriter gets some credit for contributing to the movement for women's suffrage and emancipation at the turn of the century. By that time more than thirty companies were making typewriters in the United States, and the typewriter bell had become a commonplace business sound. Remington & Sons sold its typewriter division in 1886, but its name appeared on manual typewriters for almost a hundred years.

The Remington and other early machines were sometimes called "blind writers," because the paper disappeared down into the works and the type struck the paper where it couldn't be seen. A German-born inventor named Franz Xavier Wagner thought that an upright machine whose type hit the paper in sight would be a better idea. He invented one and took his "visible writer" to Remington, but the company wasn't interested. Wagner founded a company and

began making the machines himself in the mid-1890s. Their obvious superiority to the blind writers won the market in a few years, and every typewriter company began to make variations on Wagner's design. With that the basic technology of the manual typewriter was in place, and would remain unchanged. The company Wagner founded soon became the Underwood Typewriter Company, of New York and Connecticut. America produced many other fine makes of typewriter - Royal, Hammond, Corona - but the Underwood would remain the industry standard for the rest of the manual typewriter's reign.

By the 1920s about half of all typewriters sold in the world were Underwoods. Typewriter technology moved on to refinements, with machines that were quieter or lighter or easier on the fingertips. Oddly, no typewriter manufacturer succeeded in improving on one of the most inefficient features of the original machines - the arrangement of the keyboard. Almost all typewriters used the Universal keyboard, also called the QWERTY keyboard, which dated from the experimental machines of Glidden and Sholes. Remington had copied its keyboard from their model, and other manufacturers copied Remington. Today no one can say for sure why Glidden and Sholes arranged the keys that way. Their three-tier layout of letters, with an apparently random selection on the top line, a quasi-alphabetical-order segment as part of the middle line, and more randomness on the bottom, resists persuasive explanation. As the machinery improved and typing speeds increased, the awkwardness of the keyboard became plain. An industry conference met in 1905 and considered ideas for better keyboards, without result. In 1932 a professor at the University of Washington named August Dvorak introduced a statistics-based keyboard arrangement that he said improved typing speed over the Universal by 35 percent. He spent decades trying to get his keyboard accepted, but finally concluded that it would be as easy to change the Golden Rule. There just never was a moment when enough people who knew how to type were willing to learn all over again. The QWERTY layout survived on manual typewriters, and slid effortlessly onto electric typewriters and beyond. Today, no matter what kind of machine you write on, the QWERTY, a "primitive torture-board" according to Dvorak, is probably the keyboard you use.

As a maker of manual typewriters, America declined after the Second World War. Production never returned to what it had been; from being the world's largest exporter of typewriters, the United States became the largest importer. The postwar years brought the rise of typewriter companies in countries where peaceful manufacturing was encouraged while we continued to make guns - Nippon in Japan, Olympia in West Germany, and Olivetti in Italy. Olympia and Olivetti quickly grew to multinational giants. Olympia built typewriter factories in Yugoslavia, Canada, Mexico, and Chile. Olivetti, which had been making typewriters since 1911, expanded into England and the United States. In 1959 it bought Underwood, and eventually phased out that famous name. By the mid-1960s manual typewriters had begun to disappear owing to the success of the electric typewriter, an invention that would have its own saga of rise and decline. No one has made manual typewriters in America for decades. The European companies have mostly discontinued their manual lines and moved into various electronic machines. For someone interested in buying a brand-new manual typewriter, a hundred-plus years of typewriter history comes down to this: Olympia still makes a small portable, Olivetti makes two portables and a heavier office machine, and the largest manufacturer of English-language manual typewriters in the world seems to be the Godrej & Boyce Manufacturing Company of India, located on the outskirts of Bombay.

Mr. Tytell goes to his shop two or three days a week, depending on how he's feeling. Customers who want to see him call his answering machine, and he calls back and sets up

appointments. A sign on the wall that says "PSYCHOANALYSIS FOR YOUR TYPEWRITER WHETHER IT'S FRUSTRATED, INHIBITED, SCHIZOID OR WHAT HAVE YOU" contributes to the doctor-patient quality of the visits. Plus he's wearing a white lab coat and you're not. Some customers arrive in limousines, which wait nearby until the sessions are through. Mr. Tytell has fixed typewriters for such people as Perle Mesta and the Archbishop of Lebanon and Charles Kuralt. Some customers climb sweating from the subway station and stop for a moment in the daylight of Fulton Street to switch the case containing the heavy machine from one hand to the other. Because of a mishap involving a romance novelist, a treasured typewriter, and the wreck of a parcel-service truck, Mr. Tytell now refuses to ship typewriters under any circumstances. Getting a typewriter repaired by him is a hands-on, person-to-person deal.

Several afternoons last spring I sat on a swiveling typing chair by the clear space on the table where Mr. Tytell lets people test their typewriters before taking them home, and he and Mrs. Tytell and I talked. "People get very emotionally involved with their typewriters," Mr. Tytell said. "I understand it - I talk to typewriters myself sometimes. On the one hand, you have people who love a machine for whatever reason. On the other, sometimes you find a person with an extreme dislike, almost a hatred, for a particular machine. It's funny how the two go together. Recently I got a call from a lady and she had a portable typewriter, like new, and she wanted it out of her apartment right away. It's from a divorce or something; I didn't ask. She's not selling it, she says she'll pay me if I'll just come and take it away. Well, three hours earlier I had gotten a call from another lady; her husband had just lost a typewriter he loved, somebody stole it, and it was the exact same make and model this other lady described. So I went and picked up the machine, and when I got back, I called the other lady, and she rushed right down and bought it and carried it out the door. She was overjoyed.

"People hug and kiss me when I fix their typewriters sometimes. That call just now was from a lady I did a Latvian typewriter for - she was so happy I could hardly get her off the phone. I don't know why, a typewriter touches something inside. A couple - she's the secretary to the Episcopal Church in Manhattan - brought in an old Underwood for an overhaul, and I made it sing, and they came by the shop with coffee and cake to thank me, and the husband wrote me a poem in iambic pentameter. It's called 'Tytell, the Wizard King of Fulton Street.' You see, people get carried away. They write me letters, they send me fruit baskets, they give me miniature typewriters made out of porcelain. Almost everybody I deal with is an interesting person of some kind. Here's an invoice for a job I did for the only harp mechanic in the New York area, a guy who tunes and repairs harps, and he's decided he wants to translate Homer from the original Greek, and he wants me to make a typewriter in Homeric Greek for him. That's no problem - I've done ancient-Greek typewriters before. I even did a typewriter in hieroglyphics one time, for a curator at the Brooklyn Museum."

On a shelf across the table, just at eye level, was a typewriter bearing the Exxon logo. It looked big and black enough to spill ink all over Alaska, and I asked about it. Mr. Tytell said that the oil company manufactured its own brand of electric typewriters briefly some years ago; he keeps this one for its oddity, and for parts. Then, back among the windings of his shop, he showed me the century in typewriters: a 1910 Hammond portable, with a keyboard that folded out on hinges and hung suspended in air; a Smith Premier Monarch of the 1920s, as solid and imposing as a safe; a Remington Noiseless from 1938, on which the type bar just kisses the roller, or platen, and the keys respond to the lightest touch; a Woodstock typewriter from the 1940s or 1950s, the brand sold for many years by Sears & Roebuck, on which Godrej & Boyce modeled the first manual typewriters it made; a TelePrompTer typewriter of the kind formerly

used by TV studios to type up scripts for scrolling on TV monitors. Newer technology has made TelePrompTers obsolete, but Mr. Tytell still sells a few of them, usually to organizations that help the hard-of-seeing, who like the outsize type.

We sidled through right angles into a dark and cramped part of the shop where we had to proceed by flashlight. "In these cabinets reposes the largest collection of foreign type in the world - a hundred and forty-five languages, over two million separate pieces of type," he said, sweeping the beam over banks of minutely labeled metal drawers. Sixty years of converting typewriters to different alphabets has amassed this inventory; Mr. Tytell can list man's written languages better perhaps than any nontenured person in the world. "Over there are some languages of India - Hindi, Sindhi, Marathi, Punjabi, and Sanskrit - and next to that is Coptic, a church language of the Middle East; it's a beautiful-looking thing. Then there's Hausa, a language nobody here has ever heard of, spoken by twenty million people in northern Nigeria. Over there's Korean, and the Siamese I took off those Remingtons during the war, which I've relabeled Thai, and Aramaic script, and Hebrew, and Yiddish ..." He pointed out with the flashlight drawers of Malay and Armenian and Amharic, and boxes of special symbols for pharmacists and mathematicians. One drawer seemed to be mostly umlauts. He opened it and took out a small orange cardboard box and shone the light on the dozens of mint-bright rectangles of steel inside, each with its two tiny raised dots. "Nobody else in the world would even bother with this stuff," he said.

We wandered to a better-lit area of shelves filled with IBM Selectric typewriters circa 1970. The Selectric was to electric typewriters what the Underwood was to manuals, and it also is extinct. It has an equally dedicated following; fixing Selectrics is a lively part of Mr. Tytell's business. Mrs. Tytell, who had been on the phone, joined us. I asked Mr. and Mrs. Tytell what machine, of all the manual and electric typewriters ever made, they thought was the best. Mrs. Tytell said you couldn't really compare manuals and electrics. "I'm prejudiced," Mr. Tytell said, "because I spent so many years servicing Underwoods. Actually, I love all typewriters the same, but an Underwood manual with a serial number in the eight millions" - he climbed riskily onto a stepladder at another shelf and shakily handed one down - "which would be an Underwood made around 1959, is a beautiful machine." He pulled away the plastic that wrapped the typewriter. Its grayish-beige buffed finish, still in good shape, was pure 1959.

Mrs. Tytell tapped her clear-lacquered fingernail on a key in the upper right-hand corner of the keyboard. The key had a plus sign on top and an equal sign below. "This key on this particular kind of typewriter was the deciding piece of evidence in a multi-million-dollar fraud case I worked on a few years ago," she said. "A younger son of a wealthy man had been specifically excluded from inheriting some theaters the father had owned. An assignment document, typewritten and with the father's signature, gave the theaters to the older sons instead. The younger son was twelve when his father died, and he always felt that his father wouldn't have done that to him, because his father used to take him to these theaters all the time. The younger son grew up and became a lawyer and pursued this question, and finally he came to me with the assignment document, and I found that it was typed on an Underwood of this particular model and year. The assignment document had no plus or equal signs on it, but I was able to prove that the machine that had typed it also typed other documents that did have those signs, and that was the clincher. Underwood didn't add that particular key to their keyboard until well after the document in question was supposed to have been signed. When I explained all this to the lawyer for the older brothers, he said, 'So what?' A few weeks later they settled out of court for a lot of money."

In the 1980s Mrs. Tytell provided important evidence in the income-tax-evasion trial of the religious leader Sun Myung Moon. To prove that more than a million dollars in bank deposits were church assets and not personal funds, Moon had produced a number of dated documents. Mrs. Tytell, who studied at the Institute of Paper Chemistry, examined the paper the documents were printed on, and eventually learned what mill had made the paper and what year it was made. Certain intricacies of the papermaking process meant she could have learned the month it was made and maybe even the day, but that wasn't necessary. The paper dated from a year after the date on the documents. "It was what you call a slam dunk," Mrs. Tytell said. Moon went to jail for about a year.

When I remarked to Mr. and Mrs. Tytell that I had seen a certain manual typewriter for sale in a pawnshop in South Dakota, they said, simultaneously, "Buy it!" They said that you never see manual typewriters in pawnshops or at flea markets anymore. Suddenly typewriters have become valuable, and they turn up in museums and antique shows and Hollywood prop-company warehouses. Collectors see typewriters disappearing over the horizon and grab for them. Collecting may become a bigger part of the Tytells' business; Peter Tytell regards old typewriters as holy, and tells his parents to hang on to them, and is an avid collector himself. The thought of the typewriter's approaching antiquity reminds me of what happened to Latin, another antiquity. Once Latin was safely dead as a language, it acquired an appeal for scientists and others not only for its precision but because it would remain forever unchanged. Maybe the perfection in form and function of a 1959 Underwood manual will have a similar appeal for people who want a writing system they won't ever have to upgrade. Before I left Mr. Tytell, I asked him if he thought that the manual typewriter would survive.

"I'm eighty-three years old and I just signed a ten-year lease on this office," he said. "I'm an optimist, obviously. I hope they do survive - manual typewriters are where my heart is; they're what keep me alive. What's so intriguing about a manual typewriter is that it's all right there in front of you - all the thought that went into it, all these really smart guys that worked on it and gave their lives for it. The way these machines continue to function, it really is a miracle. You see some old beat-up machine in an attic or someplace and you touch the keys and it still works fine. Companies still make typewriter ribbons - the dry-goods business is as strong as ever - so obviously somebody's still using them. Like in the war, nobody was making typewriters, but people kept on using them anyway. A little bit of maintenance and regular use and you can keep a typewriter running a long time. These other machines, computers and so on, even electric typewriters, they have a soul that's hooked into the wall. A manual typewriter has a soul that doesn't need anything else in order to exist - it exists in itself. People are always going to like that about a manual."