



Hugo and the Automaton continued
next month part II
© 2011 Paramount Pictures. All Rights
Reserved.

○ # 05

○ Vol-24

○ 2019

Jacket art and drawing
from The Invention of Hugo
Cabret copyright ©
2007 by Brian Selznick,
published by Scholastic Press,
an imprint of Scholastic



NEW MEXICO RADIO COLLECTORS CLUB

Next NMRCC Meeting May 19th Spring Picnic - Don Menning's

Next Installment below: As we continue this series, I'll discuss the evolution of the writer-draftsman class of automata, and how the Maillardet automaton specifically departs from earlier endeavors. We'll learn more about the various devices that give the automaton its writing and drawing capabilities, and what enables the fluidity of movement that seems to be the sole domain of the Maillardet automaton.~

The Wonderment of The Maillardet Automaton By Andrew Baron

Part TWO: To understand the prestige that the Maillardet automaton commands within its class of machine, it is helpful to compare it to the writers and draftsmen made during the eventful decades prior to its ca. 1795 debut. This fertile period witnessed remarkable strides as artisan-horologists progressed from non-anthropomorphic writing machines to extraordinary imitations of life. Friedrich von Knaus (1724–1789) began making complex mechanical writers in 1753. His first machines made no attempt to represent the human form, but his fourth (1760) incorporated a small statuette with an animated writing arm (photo at right). The figure

sits upon a platform, atop a globe containing the motor and mechanism (photos facing page). A vertical panel behind the figure supports a moving platen, to which blank paper is affixed. The writing arm's range of motion is small, extending just beyond the maximum width and height of each letter. Once a letter is rendered, the platen shifts to the left to make room for the next, and moves upward after each line of text. An inkwell automatically rises at intervals to recharge

the pen. The clearly mechanized writing apparatus with its moving inkwell and small, stationary statuette provided the merest suggestion of a link be-

(Continued on page Four)



Photo by Fred Adams, courtesy of www.ablogwatch.com.
Pierre Jaquet-Droz provided the next evolution with "l'ecrivain," or "the Writer" in 1772.

Listening to the radio - 1942, NYC

I was finally getting a day off from my work at the Brooklyn Naval Yard. I had been spending weeks of 14-hour days installing communications gear on the U.S.S. Iowa. She was due to be launched in a few weeks and work was going

at a hectic pace. So here, on Sunday, June 14, 1942, I was finally getting some time to enjoy a Sunday at home.

Normally, on Sunday mornings, I would be "rag-chewing" with my ham radio buddies - Bob, W2JLH, in Yonkers and Sid, W2BKV, a local also in Brooklyn,

on 40 meters AM. But since December 8, 1941, all normal amateur radio activity had been suspended by the FCC. Both my friends had joined the Army and were now training at Fort Monmouth, New Jer-

(Continued on page Eight)

NMRCC Meeting Minutes February 10, 2019 by Chuck Burch and John Hannahs

President John Anthes opened our monthly meeting at 1:10 pm. The main event will be the second part tutorial regarding the servicing and functionality of a 5 tube "All American" radio. At least 20 members and guests checked in. It was good to see long-time member Andy Baron return and update us with things to see. New Members Pete Harvey, Wess Cooper and Lou Hartswick were present. Lou teaches high school machine shop. All new members and guests are offered the opportunity to introduce themselves and say a few words about what they have done and are interested in what the club can do to interest them.

As many times in the past our spring mini-meeting and PICNIC will be at Don Mennings house in Albuquerque, May 19. Members can arrive between noon and 1:00 pm. The address is 2700 Ross Ave. SE, phone 505-720-6308. Food and drink will be served. Tables are needed for food and the auction so please bring a table if you have one that can be moved easily. Members are encouraged to bring a friend. Food items promised are: 2 pounds of beef brisket, the usual Estock & Col. Sanders chicken, pulled pork by Randy, and Pizza to be ordered at meeting time by Less Davidson. John Anthes brings soft drinks, Charley brings beer. Somebody bring dessert and salad. The club, as usual, will reimburse.

Chuck Burch is our auctioneer, and if an item is "no bid" chances are Chuck will see a use for it or combine it with another item to sweeten the pot. Many of our members need to do a spring cleaning and so our May meeting will have more "good junk" and maybe "really good stuff". Items for the April meeting were a little on the thin side. We had a roll of old antique D and C sized drawings that went on the cheap. Some NOS transistors went likewise. A collection of new 1960ish potentiometers went for \$30. A box of NOS (new old stock) WW2 and probably British make VR65 pentode tubes brought \$10 which would be a steal if Estock can find a buyer. Mark bought a box of 1930's tubes for

\$22, which he probably had a buyer for. A book outlining early Zenith radios went for \$25; it was a classic as much as old and pristine Zenith items seem to be. Then we had a heavy box of telephone insulators that went for \$10 and will probably sell for much more on Ebay? An early Xerox desk top copy machine that works went for a few bucks. A nice 5 tube radio that is transformer operated went for \$41.

Les Davidson presented his 5 tube schematic and with his pointer and tons of knowledge presented in reverse order the detector and first audio tube and circuitry, the IF amplifier and the converter (local oscillator and mixer), and finally the loop antenna. The power supply and audio output was discussed the previous month. Emphasis was on the AVC circuitry and problems with IF transformers due to humidity and just aging problems. The AGC circuit provides a negative bias back to the front end control grids, the more negative the bias the lower the gain. So as RF weakens at the antenna, bias will increase toward ground potential. It is smart to always check the tubes first. Leaky coupling caps are checked next. Resistors should be checked to see if they are within 20% of assigned value. Anyway, Les is a pro and if he can't restore an old radio nobody can.

Show and tell this month was antique Crosley radios. Andy Baron brought in a 1934 Crosley restoration that Mark had restored the cabinet on. It turned out to be exquisite. Mark gives some of the credit to J B Weld. Radio Museum lists this as model 80AW. Andy Baron walked away with the prize. Mark Toppo brought a fine Crosley model 179 tombstone that has 2 bands, 7 tubes, and like Andy's was one of Crosley's best creations for 1934. Still, Chuck Burch was no slouch with his model 52 which was a 3 tube TRF with three 01A tubes that required headphones and batteries. John Anthes brought two 1952 vin-

NMRCC 2019 MEETING DATES

- January 13th** '40s through '60s tube portable MW – SW radios
- February 10th.** '30s art deco radios, chrome chassis and intricate wood design radios
- March 10th** Techno Art and Techno Jewelry radio-electronics-science-related items that have been made into art or alternate-use objects, such as tubes made into lamps, fish bowls
- April 14th** Crosley tube radio sets
- May 19th** Spring Picnic - Don Menning's
- June 9th** Methods of casting, replicating, and repairing radio parts
- July 14th** Radios with odd construction
- August 11th** Wild Card Sunday
- September 15th** Test equipment and classroom demonstration equipment- tube testers, signal generators, oscilloscopes, bridges, meters and etc
- October 13th** Fall Ribeye Steak Picnic (Majestic's)
- November 10th** Magnetic tape and wire recorders
- December 15th** Holiday Party

tage Crosley clock radios known as "dash board" radios. These are bakelite cabinet models available in several colors. They had a clock adjacent to the tuning dial and maybe they called it "dash board" because the clock was about as reliable as car radio clocks of that era.

The meeting concluded with Richard Majestic showing us pictures of the Organ Mountains near his home in Las Cruces.

~J Hannahs

NMRCC Officers for 2019

- *John Anthes: President*
- *David Wilson: Vice President*
- *Richard Majestic: Treasurer*
- *Chuck Burch-John Hannahs: Secretary*
- *Randy Gray: Membership*
- *Tony Marshal: Director*
- *Ray Trujillo: Director*
- *Mark Toppo: Director*
- *Don Menning: Director*
- *Richard Majestic: Newsletter Editor (President pro-tem)*

**From the President's Bench:
May 2019**

Every year we get together in May for an outdoor auction of all types of antique radio ephemera and a back-yard style banquet lunch together. Frequently the member's better half are also drawn in as well to share in the festivities! Once again Don Menning has generously offered to host:

**May 19th Spring Picnic.
2700 Ross Ave, SE, Albuquerque NM 87106.**

In addition, if you can fit one into your vehicle, please consider bringing a table for our auction items to sit on. Please consider arriving about noon to help set up the auction and the food.

We also want to recognize two members of the local High Desert Amateur Radio Club who gave a very informative review of a portable HAM station based on the Icom 7000 transceiver during the 14 April meeting.

Jerry Aceto K6LIE and Larry Elkin NY5L, officers in the HDARC, presented a real time demonstration color display of all functions connect to a video monitor.

For more detailed information visit:

<https://www.nm5hd.com/>

Thank you Jerry and Larry!
Am looking forward to another wonderful Spring meeting.



Crosley tube radios at the April Meeting



(Continued from page One)

tween the writing and a human touch. This fourth writer of von Knaus is programmable, by inserting pegs into rows of holes in a concealed cylinder. As each peg is encountered during rotation, corresponding cams activate the statuette's arm, which writes out each letter. This writer appears simple when compared with later automata, yet it remains a watershed accomplishment. Its victorious debut before Emperor Francis I and the Empress Maria Theresa created a sensation in Vienna, where it can still be seen today at the Technisches Museum. To place this event in the context of time, about two years after von Knaus' triumph in Vienna, the Empress was entertained by the 6-year-old prodigy, Amadeus Mozart. Perhaps the oldest surviving automaton writing is on a paper penned by one of von Knaus's earlier writers. The message translates to: "God has established the royal

This is the second in a series of articles about the Maillardet automaton which can be found in Philadelphia's The Franklin Institute. The first article in this series was printed in *Mechanical Music*, Vol. 62, No. 3, May/June 2016. This article is adapted from its originally published form in the May 2014 edition of *Horological Times*. Reprinted with permission of the author.

Silent Symphony Part II: The ascension of realism in the writer-draftsmen automata
The 1760 fourth writer of Friedrich von Knaus features a figure on top of a globe with a writing arm that moves just enough to make each letter. The platen, which holds the paper, slides to the proper position where the letter is to be written.

26 MECHANICAL MUSIC July/August 2016

house of Austria without limits in either time or space." The next development dramatically elevated the human figure as the apparent creator of the writing. Completed in 1772 in the legendary workshop of Pierre Jaquet-Droz (1721–1790), "l'écrivain," or "the Writer," was first publicly exhibited in 1774 along with the Jaquet-Droz Draughtsman, Lady Musician and Grotto. The Writer appears as a young boy about 21/2 feet tall, sitting at a small desk. He is powered by a miniaturized movement that fits almost entirely within the torso. A supplemental mechanism

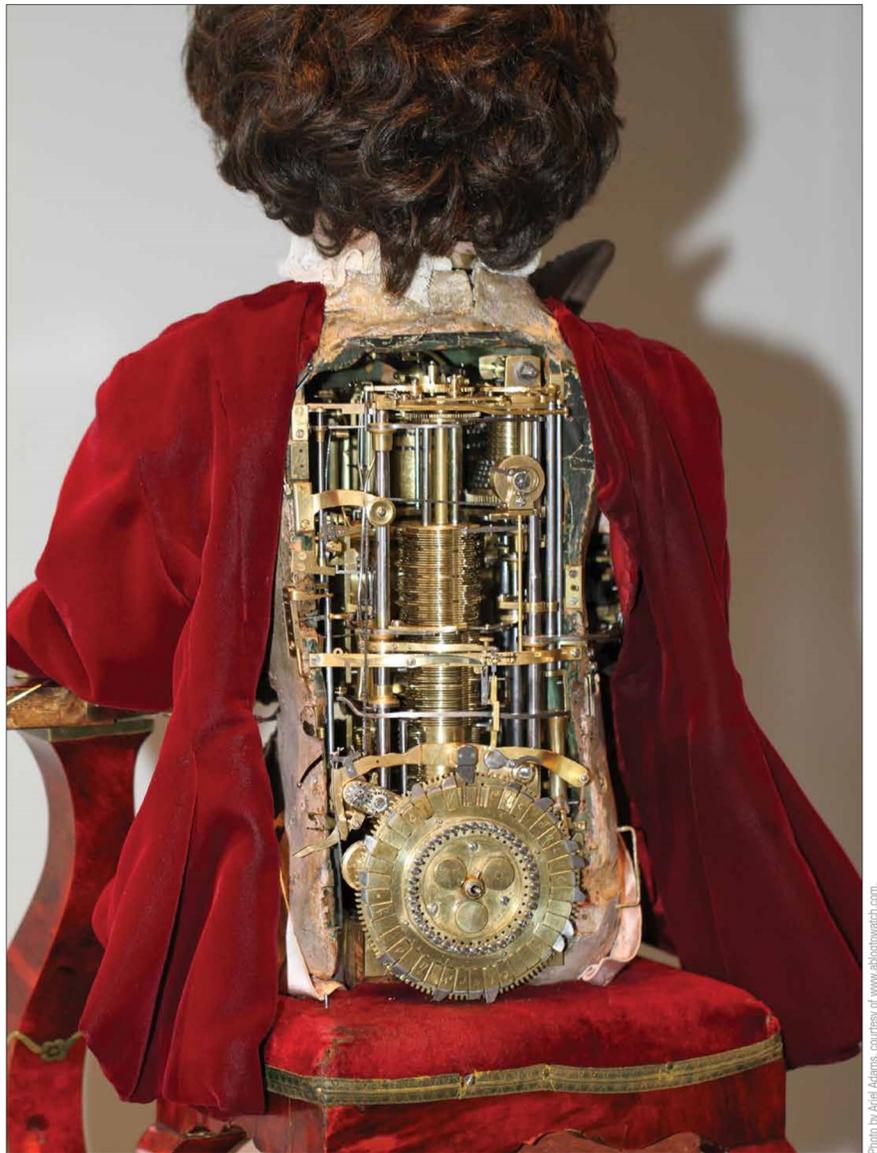


Photo by Arter Adams, courtesy of www.abogwardach.com.

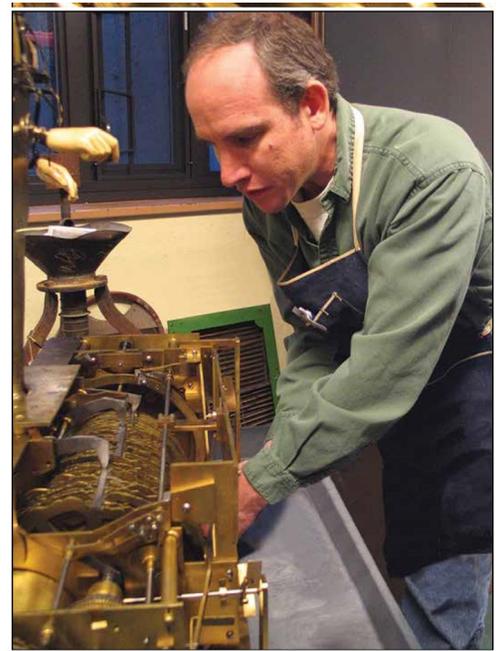
is dedicated to the horizontal moving platen, which advances after each letter in the way of von Knaus. Like its antecedent, this writer is programmable. By installing a set of up to 40 small steel cleats into as many slots in the periphery of an index wheel, the exhibitor can compose a text of up to 40 characters. Each cleat has a shallow, engraved letter that incorporates a crown of prescribed height. Calibration screws on the wheel fine-tune the cleat placements for precise interfacing with a corresponding cam trio, selected from 120 cams that are permanently installed in a stack on the common arbor. A trio is required to provide X-axis (side to side), Y-axis (forward and back), and Z-axis (up and down) control of the drawing hand, the Z coming into play at the start, finish, and when taking on ink. Two dedicated motors with fusees* are incorporated. Similar to how a jukebox might have one motor devoted to

(Continued on page Five)

(Continued from page Four)

selection and another to spin the platter, the first motor that spins into action in the Jaquet-Droz Writer provides rotation to the index wheel, which stops at regular intervals to allow selection. The cam stack then slides vertically, aligning the desired cam trio under the three dedicated followers that track their surfaces. The second motor then rotates the entire cam stack through one complete revolution, transmitting the data in the undulating surface of the cams, through connecting rods that guide the figure's right hand. Jaquet-Droz has somewhat camouflaged the action of the advancing platen by having the automaton's left hand (which is pulled along with the platen) appearing to provide the guiding force. As with von Knaus, the rendering range is quite limited, with one charming exception. The Writer's arm is programmed to move beyond the edge of the platen at the start of each line, to dip the pen in an inkwell and shake off the excess in a most life-like manner. Further distancing the Writer from its predecessor, an engaging final complication turns the figure's head as it reaches for the inkwell, and moves the eyes side to side at regular intervals. When observing the Writer, we see the message appear letter by letter while hearing the rhythmic sounds of the motors. Although the movement of the writing hand is steady and engaging, the figure's head, eyes and traversing platen all move in sudden, rapid actions that along with the ambient mechanical sounds, somewhat dilute the illusion of life. Nonetheless, following a captivating performance, the message is complete and the Writer comes to a quiet stop. The next automaton of the writer-draftsman class is attributed to Pierre's son Henri-Louis Jaquet-Droz (1752–1791) and Jean-Frédéric Leschot (1746–1824). It is known as "le desinateur" or "the Draughtsman." It creates four small pencil illustrations, one of which is accompanied

by a two-word phrase indelibly sculpted into its more complex cams (see Page 30). The Draughtsman's mechanism was simplified by trading the Writer's cleats, index wheel, and the permanently installed, finer 120-cam stack for removable, thicker cams in a single set of 36 for each large drawing, or a double set of 18 cams each that renders the two smaller drawings. Substitution of the Draughtsman's cam stack could be accomplished much like an interchangeable cylinder in a music box. It retains two motors, which also produce quiet steady sound during the entire performance. The drawing arm's physical range is broader than that of the Writer, but the arm remains fairly close to the torso, constrained by the limited practical amplification that the small cams can yield, in relation to the geometry of the arm's connecting rods. The drawings thus produced are about the size of a calling card. The Draughtsman's repertoire is both impressive and whimsical, revealing a portrait of Louis XV, a double portrait of King George III and Queen Charlotte, Cupid sitting on a chariot drawn by a butterfly, and a steadfast canine accompanied by the words "Mon Toutou" (my doggie). Light hatch marks for shading appear in two of the drawings, revealing nuanced pressure at the drawing hand. Each of the four drawings is a unique work of art, with no replication of detail. Each drawing requires more data than can be read in a single cam trio rotation, so the cam stack automatically advances one position for each subsequent drawing segment. In the Draughtsman we still have the basic primary mechanism, but this automaton is endowed with vastly more intricate cams and brilliant mechanical refinements. When contrasting the Jaquet-Droz/Leschot Draughtsman with the slightly older Jaquet-Droz Writer, we find that the Draughtsman's output has no two lines that are precisely the same, while the Writer recreates each letter of its words from the same cam trio. One can imagine that



Andrew Baron works with the automaton's main movement in the Curatorial Department of The Franklin Institute. The figure's hands are seen on the left. Photo by Carol Barton

About Andrew Baron

Since age 12, Andrew Baron has been actively involved in the restoration of a variety of antique machines, both mechanical and electric. His expertise was sought by the Library of Congress when they wanted to obtain a cylinder phonograph ideally suited for transcription, and he has provided repair services and artifact documentation for a number of museums, including The Franklin Institute, in Philadelphia, PA, and The Musical Instrument Museum, in Phoenix, AZ. Baron is also an international award-winning paper engineer (pop-up and moveable book designer), with top honors in that esoteric field. A brief description of his work, as well as a detailed report of his restoration of the Maillardet automaton, can be found at www.popyrus.com/hugo.

the task of profiling the Writer's cams was simplified by the repetition of many of the same details, perhaps after initiating the trace pantographically via the writing arm or a surrogate model. For example, once a cam trio was scribed and shaped to produce an m, it would

(Continued on page Six)

(Continued from page Five)

have

been a fairly simple matter to modify subsequent cam trio profiles to yield an n. Likewise, the first portions of the letters n, i, r, v, w, u, and y, share the same basic starting hook and descending line as the letter m. For the Draughtsman there was no such economy. The showmanship that's evident in the Writer's pen-dipping action has a lovely parallel in the Draughtsman, which is engineered to stop at intervals to allow the figure to blow pencil dust from the paper by virtue of a concealed bellows. As with the Writer, the head moves in a single axis, this time a nodding action instead of the Writer's swivel. This may have been influenced by the desire to debut the automata together, each with its own unique mannerisms. The supplemental complications of each automaton are a testament to their makers' inspired efforts to faithfully serve the two masters of practical engineering and imaginative presentation. These tours de force of anthropomorphized mastery drew tremendous acclaim, and propelled the house of Jaquet-Droz to exalted heights as every court in Europe vied to see the wondrous creations. An amusing story is told about the Draughtsman's debut for the King and Queen of France, where it was announced that Marie-Antoinette would be treated to the pièce de résistance, her own portrait drawn by the little artist (apparently rendered from a long-lost set of cams). Imagine the chagrin of the young Jaquet-Droz and Leschot when instead of the queen's portrait, "Mon Toutou" appeared on the carefully prepared paper!¹ Nearly a quarter of a millennium

The 1774 Jaquet-Droz Draughtsman draws Louis XV at the Museum of Art and History, Neuchâtel, Switzerland. For more information, please visit: <http://www.mahn.ch/expo-automates>

Photos by S. Lori

30 MECHANICAL MUSIC July/August 2016

has elapsed since Jaquet-Droz' Writer and Draughtsman were introduced, and we are as enchanted as ever to see the little figures perform. The complex, ambient sounds of mechanism, which were a wondrous curiosity to their original audiences, neatly fit our modern sensibility of what a robot should sound like. Movements of the head

and eyes are sudden and quick, with noticeable starts and stops at discernible intervals. The Draughtsman's head tilts slightly upward before it drops and stops in its centric position. The Writer's head swivels in lockstep with the arm's excursions to and from the inkwell. The traversing platen that simplifies the mechanics of the writing arm pushes the envelope of suspending disbelief, and yet these pivotal automata were hailed as being uncannily lifelike in their day. Beyond doubt, they created the solid technological foundation upon which the Maillardet automaton rests and wouldn't otherwise exist. The Draughtsman in particular was the springboard from which the main mechanism of the Maillardet automaton materialized and diversified. The original company formed by the Jaquet-Droz was dissolved in the early 1800s. The famous name was registered anew in the late 20th century, and is now owned by the Swatch Group. I will conclude this chapter with a brief survey of the features of the Maillardet automaton, which form the basis for its departure from prior art and enable its mesmerizing subtlety of movement. In July 2013, André Ginesta was the first contemporary European historian to witness the Maillardet automaton in action. The current president of Swiss Friends of Mechanical Music and a lifelong collector with a special interest in automata, Ginesta captured the nuanced presentation of the Maillardet automaton perfectly when he described it in two words: "Casual elegance." Well acquainted with the Jaquet-Droz automata in the Art and History Museum at Neuchâtel, he was impressed with what he described as "an even better result of that technic." If one goal of the automaton builders was to create the illusion of life, there was room for further refinement in the latter part of the 18th century. The Maillardet automaton appears to have carried the writer-draftsman class of machine to a point of polished maturation, and more than two centuries later it remains the Prince of Presentation. Its motions are graceful and vividly lifelike. Comparative study suggests there may have been at least five objectives during its design and creation. Some of these may have been anticipated by a Jaquet-Droz writer-draftsman residing in Beijing (see sidebar on Page 32), but all are evident in the Maillardet automaton: (1) More natural movement of the head and eyes was made possible by significantly increasing the diameter of the cams that control these motions. This, in turn, was made practical by liberating the primary mechanism from

(Continued on page Seven)

(Continued from page Six)

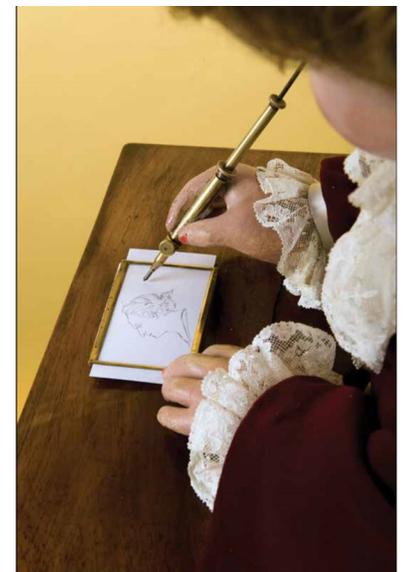
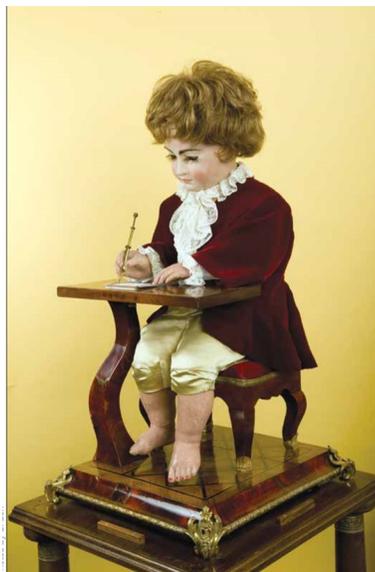
within the confines of the figure's torso; containing it instead within the decorative chest upon which the figure, when costumed, appears to be kneeling. The larger cams and longer throws of the connecting rods allow for more optimal placement of pivots, and enable the followers to more gently traverse the cams in a much broader field of play. The unnatural synchronized head swivel of the Jaquet-Droz Writer and the Draughtsman's nod-and-drop were dispensed with. Dramatically departing from these earlier single-axis systems, the Maillardet Vol 62, No. 3, May/June 2016, There are few recent photographs available, and these show a notably smaller figure. There is a pedestal of sorts beneath the figure, but this appears to be relatively shallow. So the question arises as to whether the mechanism is yet further miniaturized within the figure's body, or did this mysterious stepping-stone to the Maillardet automaton have cams within the base. The more extensive memory seems to point toward the latter, and yet the base appears to lack the depth of the cabinet that contains the Maillardet automaton's elaborate motors and extraordinary memory. Jere Ryder of the Morris Museum suggests that there may have been large, horizontally mounted cams. More research and precious detailed photographs are needed to complete the story.

*Flights of Fancy: Mechanical Singing Birds by Sharon and Christian Bailly, pp. 184 and 194. Anitquorum Editions, 2001 during each rendering cycle. Mechanical sound is heard only in two-second intervals between programs, when the banking pin on the rotational motor is arrested, which prevents the cams from turning when the transverse motor laterally shifts the cam stack. Once the stack has been safely moved to its new position the rotational motor automatically resumes. Each drawing has two to three such momentary interruptions, accompanied by a brief series of clicks, between which we are easily drawn back into the magical sight of the automaton silently drawing for another minute and a half, without distraction. The cabinet enclosure may once have muted the sounds as well. The original cover panel upon which the figure kneels is lost to history and has been replaced with glass to show off the mechanism. The original panel may have used a felt lining as an acoustic seal. Today's glass top and semi-open back allow the switching sounds to be readily heard. (4) Extensively augmented data storage derives from a large set of permanently installed, conveniently selectable cams. These are approximately double the size of the Draughtsman's, and run at about half the speed, enabling the rendering of much finer details down to a near-microscopic level. This is analogous to the long-play phonograph record in which the slower speed allows for less crowding of data and greater fidelity of dense passages. When the Maillardet automaton produces a single, 6-minute, four-revolution drawing that utilizes 12 cam trios of approximately 8 inches in diameter, it is traversing the approximate equivalent

of three 30-inch diameter cams that contain more than 23 linear feet of data. By retaining the switching arrangement as developed in the Jaquet-Droz Draughtsman, the 74 optimized cams (72 for drawing and writing, plus two for the head and eyes) all fit neatly within the confines of the cabinet below the figure at its drawing desk. (5) Analogous to a music box with a long cylinder and multiple combs with numerous teeth, significantly enhanced entertainment value was another benefit of the larger cams. The designers had tremendous latitude in the details they could include, opening the door to more imaginative choreography and programming. This is abundantly evident in the many entertaining moves the automaton makes. Crossing t's, dotting i's, and putting in punctuation are just part of the show, while embellishments, flourishes and a lettering style change are another. And, just as a real artist would, the little savant now and then appears to abandon one part of the work to turn his attention elsewhere,

especially during the rendering of tedious details. He always finishes what he starts however, despite these frolicsome and occasionally mischievous diversions. In its time, the Maillardet automaton must have seemed positively supernatural. Despite the technological strides of the past two centuries, we're still captivated by this child of the late 1700s. It exceeds most late-20th-century animatronics in naturalness of action, and represents the highest-known state of the art of the writer-draftsman class of automata.

~ Andrew Baron



The 1774 Jaquet-Droz Draughtsman draws Louis XV at the Museum of Art and History, Neuchâtel, Switzerland. For more information, please visit: <http://www.mahn.ch/expo-automates>



**NEW MEXICO RADIO
COLLECTORS CLUB**

New Mexico Radio Collectors Club

Richard Majestic (Membership inquiries)
5460 Superstition Drive
Las Cruces NM 88011

E-Mail: rmajestic@msn.com
Phone: 575 521-0018



FOR INFORMATION CHECK THE INTERNET
<http://www.newmexicoradiocollectorsclub.com/>



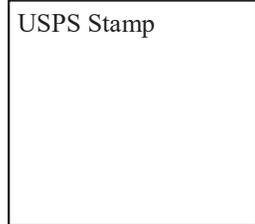
The New Mexico Radio Collectors Club is a non-profit organization founded in 1994 in order to enhance the enjoyment of collecting and preservation of radios for all its members.

NMRCC meets the second Sunday of the month at The Quelab at 680 Haines Ave NW, Albuquerque NM, 1:00PM meetings start. Visitors Always Welcomed.

NMRCC NEWSLETTER

THIS PUBLICATION IS THE MONTHLY NEWSLETTER OF THE NEW MEXICO RADIO COLLECTORS CLUB. INPUT FROM ALL MEMBERS ARE SOLICITED AND WELCOME ON 20TH OF THE PRECEDING MONTH. RICHARD MAJESTIC PRO-TEMP NEWSLETTER EDITOR, SEND ALL SUBMISSIONS IN WORD FORMAT, PICTURES IN *.JPG FORMAT TO: RMAJESTIC@MSN.COM

USPS Stamp



sey, in the Signal Corps. So today I planned to enjoy some New York radio programs and relax. There was plenty of programming choices with twenty local area radio stations from which to choose.

I turned on my 12-tube 1938 Zenith and watched as the tubes began to glow and the speaker come alive. The large green tuning eye tube glowed and music burst from the radio. The receiver had been left on 880 kilocycles and the booming voice of Burl Ives on WABC (CBS's New York City Flagship station) filled the room. Later that morning I roamed the airways and found the U.S. Marines program on WNEW, Artie Shaw records on WHN, the BBC news and the Know Your Enemy program on WOR (the first CBS Flagship station, later forming the Mutual Broadcasting System and now its Flagship station), the Amsterdam String Ensemble on WNYC, and the War Work for Women program on WEAJ (NBC's Red Network Flagship station - now WNBC).

The morning went by quickly.

The afternoon programs promised some good entertainment and, hopefully, some good war news. Ever since Pearl Harbor, most news seemed to be bad for the Allies: the fall of Hong Kong, Guam and



Wake Island in December, 1941; the fall of Singapore in February, 1942; and the recent fall of the Philippines in May, 1942. I had talked to some of the hams at Fort McKinley's amateur radio station KA1HR, operated by the 12th Signal Company, on 20 meters in the past. Gee, I hoped those fellows were OK. And 1942 found the Germans continuing to penetrate Russian defenses and have successes in North Africa.

The news on WABC at noon with Eric Sevareid gave some of the details of the Battle of Midway just last week. It appears our Navy has won a decisive battle. Let's hope so!

I enjoyed some of Xavier Cugat's music on WMCA and then tuned into Mayor La Guardia's Talk to the People program on WNYC. It was heartening to hear the Mayor's uplifting speech.

I tuned into the Anchors Away program on WOR and then enjoyed the Sammy Kaye Serenade on WEAJ. For a change of pace, I settled down to concentrate on