

# LITERATURE DISCOVERY FROM AMERICA'S FIRST COIN-OP MUSEUM

Rick Crandall

MOST collectors of automatic music machines undoubtedly thought as I did, that we were in a field of collecting that dates back only to the 1950's or so. Certainly it has been only a few decades, during which time published literature has become available, that restorers have



developed their skills, and prices have commenced their upward movement. Who would have imagined that there would be anyone interested in collecting these items in the 1930's since many of the later instruments were first being junked then? After all, you don't find many people collecting electronic calculators today. When they become obsolete, they get trashed.

**Figure 1.** Alden Scott Boyer, circa 1938.

In the 1930's, however, there was a visionary, a Chicago chemist by the name of Alden Scott Boyer, who saw the beauty and fascination of coin-operated entertainment devices, and who began to establish a collection. Like most modern collectors, Boyer had a regular job during the day. He was President of Boyer Chemical Laboratory Co., Inc., of Chicago and Paris.

He already had the collector's bug in his blood made evident by his position as President of the Chicago Coin Club for six years. He was also President of the American Numismatic Association.

One day in the year 1938, Boyer had a meeting with a man by the name of Mr. Lightner, the publisher of *Automatic Age* magazine. *Automatic Age* was a prominent national monthly magazine that had been well established since 1926, specializing in all forms of mechanical entertainment devices. Alden Boyer learned from Mr. Lightner that no one had

yet established a collection of coin-op machines that was comprehensive and historically important.

The idea caught fire in Boyer's imagination, and in short order he had formed the Chicago Coin Device Museum housed in the Boyer Building at 2700 South Wabash Avenue in Chicago.



Figure 2. Assorted letterheads from contributing dealers and distributors.

How many of us would like to turn the clock back to 1939 when Boyer was able to place a few ads asking for "... old-time slot-machines, Regina musical boxes, Mills Violanos, and slot-pianos," and to have returns coming in from all over the country?

# CHICAGO COIN DEVICE MUSEUM

**VISITORS WELCOME**  
**OPEN DAILY**  
**- FREE -**

OF OLD COIN CONTROLLED MACHINES  
AND AUTOMATIC MUSICAL INSTRUMENTS

**NO MACHINES**  
**OPERATED & NONE**  
**FOR SALE**

BOYER BUILDING No. 1 ALSO BOYER BUILDING No. 4  
2700 WABASH AVENUE 2701 WABASH AVENUE

CHICAGO, U. S. A.

OFFICE OF THE PRESIDENT  
ALDEN SCOTT BOYER

## IF YOU GET THIS SHEET -

- \* We got your name from somewhere. You guess where?
- \* Now its about that Old Time Obsolete Stuff a'laying around there, maybe forgotten. If you want to get shed of this, please write us.
- \* We want the following Old Obsolete Stuff in any kind of condition. If broken, we can fix it and we can use it, no matter how old or hard looking . . .
- \* Old Slot Machines —
- \* Old Penny Arcade Machines —
- \* Old Nickel-in-the-Slot Pianos and Orchestropes —
- \* Old Wurlitzer and Other Band Organs —  
(No Matter How Big)
- \* Old Wooden Cigar Store Indians —
- \* Old Time Slot Machine Catalogues and Circulars —

## WE PAY CASH F.O.B. YOUR CITY

### WE PAY THE FREIGHT OR TRUCKING COSTS

It is Not Necessary to Crate Large Machines now. The Trucking Companies "Blanket" them and take "ax-ix" and cart to Chicago.

Here are the Names of some of the Old Machines we want . . .

- 1 \* Any Old Mills - Caille - Watling - Victor - Schall or other makes of Old Floor Slot Machines in any condition.
- 2 \* Any Old Electric Wet Battery Floor Slot Machine (Made by Berger, Blodgett or Others — or Parts for same).
- 3 \* Old Cigar Store and Candy Store Trade "Counter Slots" Stimulator Machines and "Wheels" 1c and 3c, made by a great variety of Firms years back.
- 4 \* Old Novelty and Trick Gum Machines.
- 5 \* Penny Shooters — "Shoot a Penny at a Target".
- 6 \* Old Penny Arcade Machines, Made by Mills, Caille, Rosenfield, Mutoscope, Marshfield, etc. . . .

## OFFER US ANY OF THESE YOU HAVE - BROKEN OR COMPLETE - - IN ANY CONDITION -

- \* Any Old Nickel-in-the-Slot Pianos — Pianos with Drums — Music Boxes — Automatic Violins — Automatic Banjos — Slot Machine Pianos — Race Horse Pianos — Profit Sharing Pianos (or their Rolls)
- \* Made by Regina — Wurlitzer — Resotone — Mills — Seeburg — Nelson Wiggins — etc.

## WE PARTICULARLY WANT . . .

- \* Mills Submarine Lung Tester —  
"5 Divers in a Tank of Water" —
- \* Bag Punchers — All Makes —
- \* Grip and Lift Strength Testers —
- \* Hand Squeeze Testers —
- \* Guessing Scales —
- \* Twin and Triplet "Dewey" Slot Machines —
- \* Chicken that Lays a Hard Boiled Egg Machine —
- \* Wall Punchers with Lights —
- \* Watling Musical Scales —
- \* Nelson Wiggins Piano Rolls —
- \* Wurlitzer Electric Harp —
- \* Black Cat Floor Slots —
- \* Prince of Wales Slots —
- \* Old Counter Pocket Slots
- \* "Battery Pay Out" Old Floor Slots —
- \* Old Time Pin and Bagatelle Tables —

## HELP! PLEASE HELP US!

If you know of anyone who might have some Old and Obsolete Stuff, please send us their Names, and if we get some from the names you send, we will send you a nice Bottle of Fine Perfume for your Trouble — Yes we will!

THE CHICAGO COIN DEVICE MUSEUM

*Alden Scott Boyer*

In Preparation — "THE STORY OF THE AUTOMATIC COIN MACHINE" — A Historical Book telling of the Early Day History with Photographs, etc. of Automatic Music Machines, Their Manufacturers and Operators by Alden Scott Boyer

Figure 3. Boyer museum mailer seeking desired machines. Note that even in the 1930's the desirability of the stringed instruments, the Encore Banjo, Mills Violano, and the Wurlitzer Harp, was sufficiently high to merit specific mention.

# TERRELL'S GAS STATION

Tydol and Atlantic Gasoline  
Beer and Lunches  
CASTLE CREEK. N. Y.

7-15-40

Dear Mr Boyer

I will try and have a snap shot of this machine as soon as possible. The name of this machine is a Multiphone and were made in New York, I have only 24 records believe I could get more, This machine has been in storage for a long time and I recently dealt and got it have had it on my porch for a few days and very few <sup>people</sup> have ever seen one This machine is 7 ft high 40" wide 18" deep I believe it will work when I get it cleaned up, will give further details and snap shot later

Plenty of barrel work on the case which I believe is walnut

Yours Truly  
Geo. M. Terrell

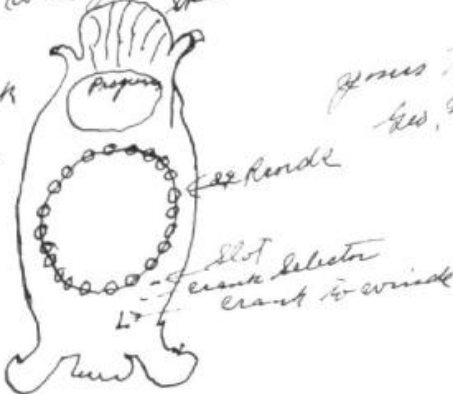


Figure 4. Letter offering 1905 "clamshell" 24-cylinder Multiphone. Wasn't it easy then?

In two months the Boyer museum had 150 machines, including some amazing rarities. In an interview, Boyer was noted as recollecting:

*Mr. McGrath of the McGrath Company of Chicago gave me a Wurlitzer piano containing a calliope [probably a misnomer for flute pipes -author] triangle and drums, an instrument that required eight men to move.*

The instrument he was describing may have been the one depicted in the center of Figure 9, a Wurlitzer CX orchestra.

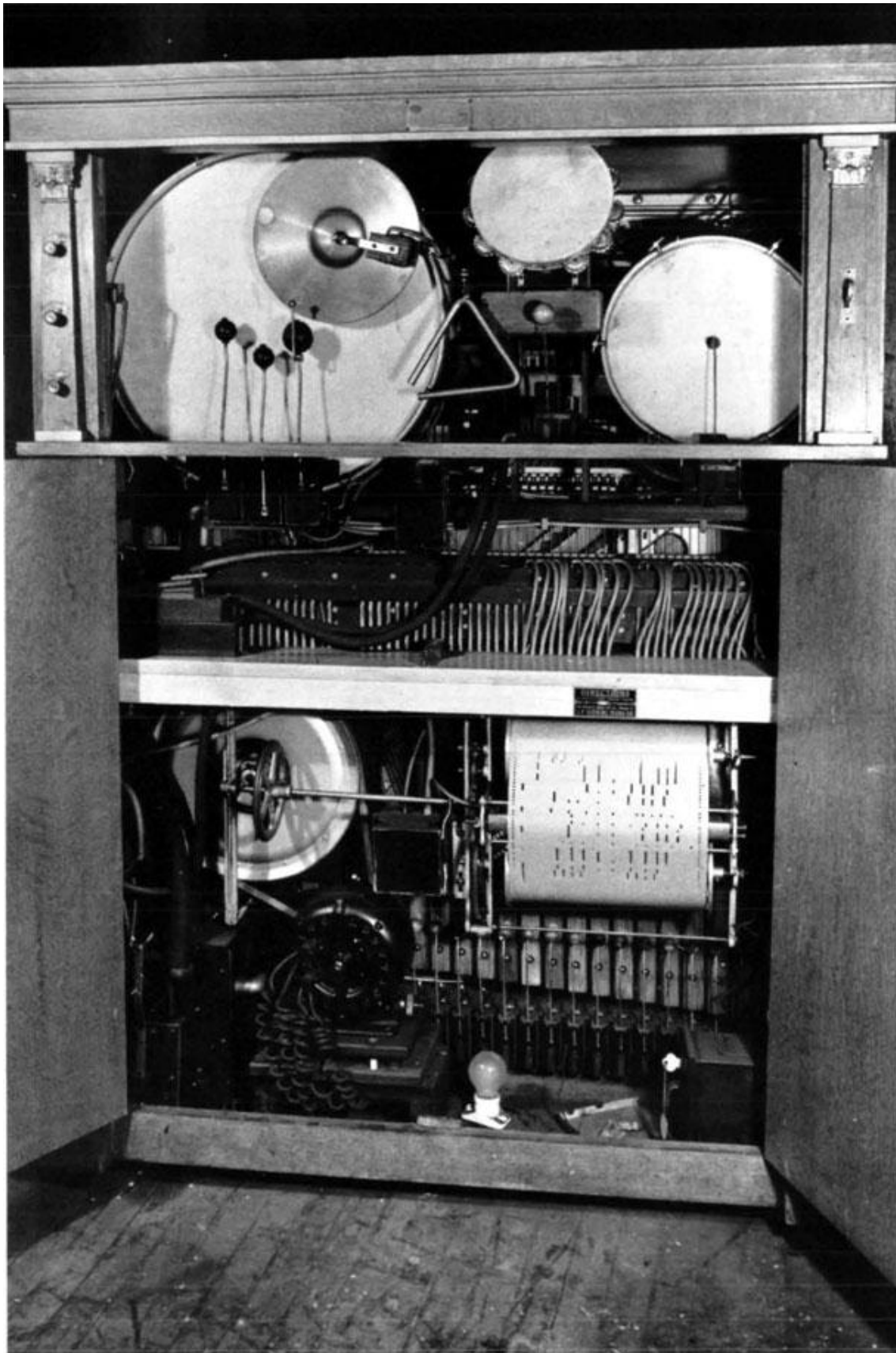


Figure 5A. From the Boyer Museum: Seeburg KT Special with art glass removed.

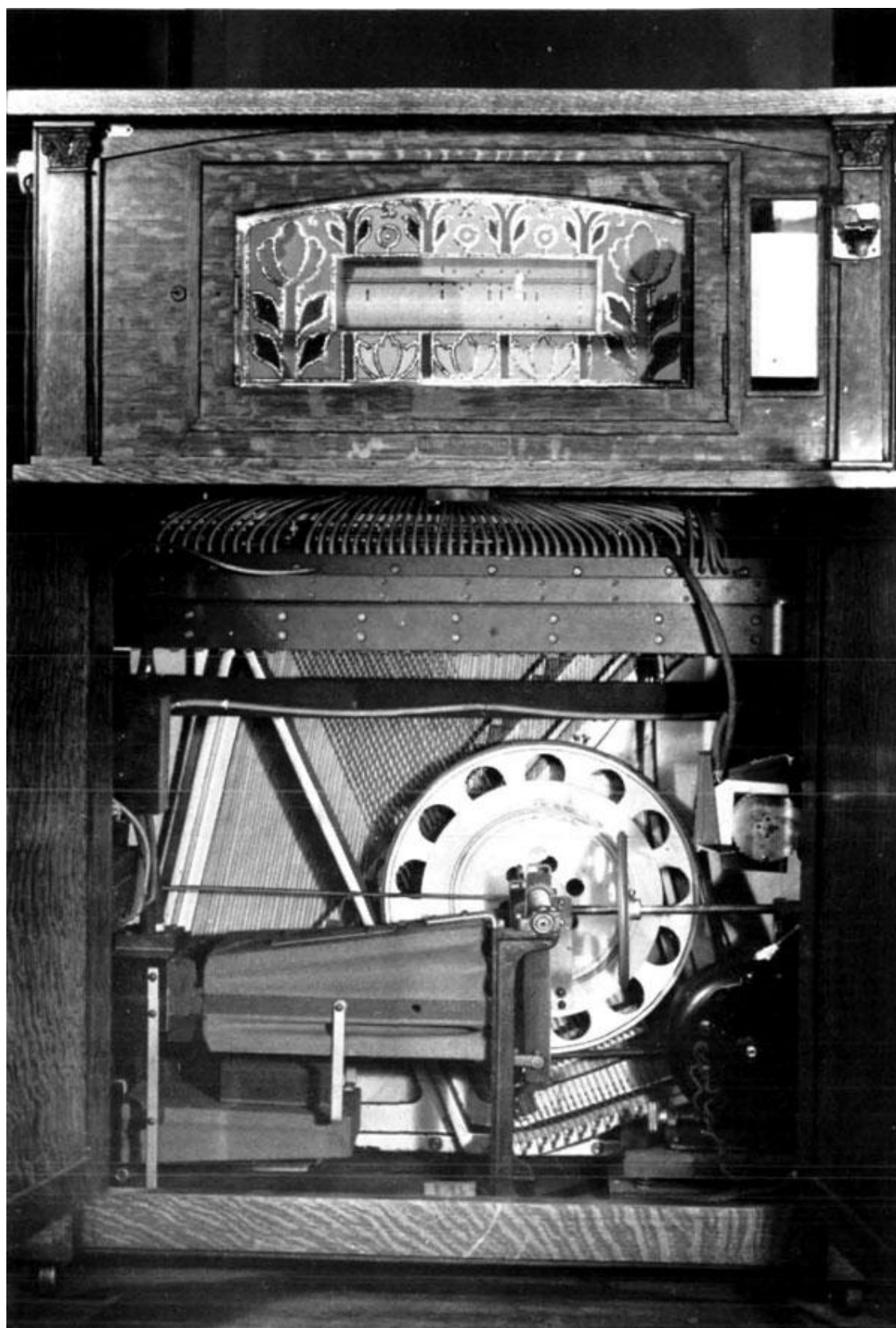


Figure 5B. From the Boyer Museum. Western Electric C cabinet piano playing A rolls.

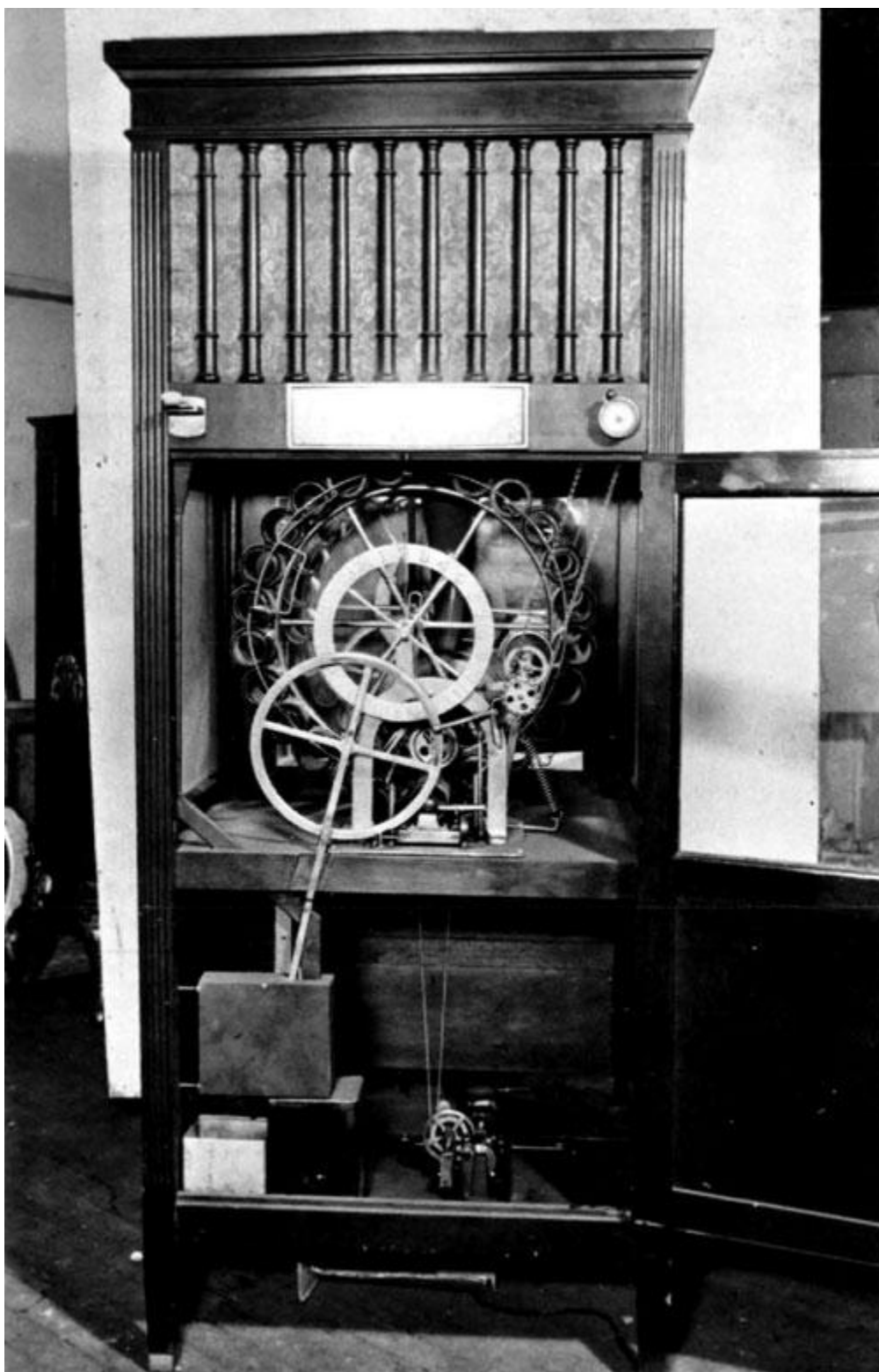


Figure 5C. From the Boyer Museum: rectangular-case Multiphone cylinder phonograph.

The interview went on:

*“Joe Ancell of Chicago secured for me, at very nominal prices, a complete series of Regina music boxes and records from the earliest to the latest styles and sizes.*

*Charles Ballou of Lakewood, Rhode Island, sent me a line of the oldest floor slot-machines (known to collectors today as upright single-wheel gambling machines), all stunning and new. Joe Paupa [son of the Paupa of Paupa & Hochreim - Author] gave me one of the first mechanical-payout five-cent machines that his father ever made, the 'Uncle Sam.'”*



**Figure 5D. Unusual Cremona cabinet machine with violin pipes and playing M rolls with special perforations to control the rare tune selector. This photo was mixed in the Boyer material, but we know from Art Reblitz that it came not from the museum but from a barber shop a few doors north of Svoboda's.**

*“Mr. Joseph Leighton of Wiscasset, Maine, sent me the Chicken-That-Lays-the-Hard-Boiled-Egg machine for six dollars and an aggregation of the oldest coin-machines I ever dreamed of.”*

*“Mr. Tony Endrizzi of Hurley, Wisconsin, gave me some old Silver Dollar slots from up in the wild north country, and he also sent me a Resotone slot-piano that gets its music from xylophone bars instead of piano strings.”*

Have you had enough? I repeat these recollections because they refer to many of the early operators with possibly undiscovered hoards that may yet surface.

An article in *Automatic Age* in February of 1940, said:

*“As a result of radio broadcasts regarding the Boyer collection, Mr. Boyer was able to obtain a Violano-Virtuoso with single violin and a Mills Violano with two violins and a piano.”*

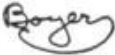


**Figure 5E. From the Boyer Museum: Mills double Violano-Virtuoso**

# BOYER MUSEUM

## ROLL OF HONOR

### FOR 1940

I thank the following for their help and cooperation in getting together for Preservation and Exhibition, the greatest aggregation of Early Coin Operated Machines now existing anywhere in the Entire World. 

|                        |                        |             |
|------------------------|------------------------|-------------|
| E. Joseph Leighton     | Wiscasset, Maine       | 21 Machines |
| Charles Jarl           | Omaha, Nebraska        | 19 Machines |
| K. Warner              | Hammond, Indiana       | 13 Machines |
| Tony Endrizzi          | Hurley, Wisconsin      | 9 Machines  |
| L. G. Connor           | Madison, Indiana       | 8 Machines  |
| F. D. Rose             | Gloucester, Mass.      | 7 Machines  |
| Charles C. Ballou, Jr. | Lakewood, Rhode Island | 7 Machines  |
| Joseph Ancell          | Chicago, Illinois      | 6 Machines  |
| Joe Kirstein           | Marathon, Wisconsin    | 6 Machines  |
| Square Amusement Co.   | Poughkeepsie, N. Y.    | 6 Machines  |

#### THE FOLLOWING SENT FROM 1 TO 4 MACHINES

|                              |                        |                            |                            |
|------------------------------|------------------------|----------------------------|----------------------------|
| Mills Novelty Company        | Chicago, Illinois      | Red Cross Drug Co.         | Nashua, Iowa               |
| National Vending Machine Co. | Philadelphia, Penna.   | J. M. Huber                | Chicago, Illinois          |
| Joe Frederick                | Detroit, Michigan      | H. M. Mark                 | Hurley, Wisconsin          |
| Basler & Eckblatt            | Chicago, Illinois      | Pace Mfg. Co.              | Chicago, Illinois          |
| Charles Trapp                | Streator, Illinois     | Vincent Slezak             | Chicago, Illinois          |
| A. M. Johnson                | Buffalo, New York      | American Sales Co.         | Chicago, Illinois          |
| Higbee & Company             | Chicago, Illinois      | L. E. Dicke                | Evanston, Illinois         |
| Tom Ferris                   | Manitowish, Wisconsin  | Buckley Mfg. Co.           | Chicago, Illinois          |
| Moritz Fritzsche             | Chicago, Illinois      | R. W. McGrath              | Chicago, Illinois          |
| Morrison Sales Company       | Flanagan, Illinois     | National Novelty Co.       | Baltimore, Maryland        |
| M. Schubb                    | Detroit, Michigan      | Mike Munves Corp.          | New York City, N. Y.       |
| W. Parker Lyon               | Pasadena, California   | George Briggs              | Warwick Neck, Rhode Island |
| Ted Filson                   | Fort Collins, Colorado | Charles E. Pittle          | New Bedford, Mass.         |
| Dixie Vending Machine Co.    | Anneton, Alabama       | O. C. Lightner             | Chicago, Illinois          |
| Pulver Company               | Rochester, New York    | N. R. Glass                | Philadelphia, Penna.       |
| Myrtle Hart                  | Chicago, Illinois      | Foreman Music Co.          | Watertown, New York        |
| Bill Schmidt                 | Fond du Lac, Wisconsin | Automatic Coin Machine Co. | Springfield, Mass.         |
| DeLuxe Amusement Co.         | Wichita, Kansas        | Lester Heinsheimer         | Sioux Falls, So. Dak.      |
| Herman Kraft                 | Chicago, Illinois      | Palmanstier-King Sales Co. | Canton, Ohio               |
| Fly-G Games Company          | Minneapolis, Minn.     | Amusement Games Inc.       | St. Paul, Minn.            |

### Why Did I Make This Collection?

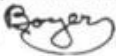
I am getting together a collection of old time Slot Machines and Early Automatic Musical Instruments, because I get much PLEASURE and ADVENTURE in the study of the mechanical principles used in these excessively complicated and thoroughly ingenious inventions, that were devised in the old days by men whose names are relatively unknown and whose glory is unsung. I am preserving them for future generations to see. 

Figure 6. Boyer Museum flier acknowledging contributors. Included among the benefactors were manufacturers, distributors, and individuals. Note the unusual and sincere statement of Boyer's motives.



Figure 7. Left to right: Caille 'Centaur' jackpot upright; Caille 'Ben Hur', a 1903 counter-style single-wheeler; 'The Chicken That Lays Hard-Boiled Eggs', ca. 1910 (the chicken cackles and vends hard-boiled eggs for a nickel); Mills 'Brownie' countertop payout gambling machine; Caille 'Eclipse' (missing top sign); Mills '20th Century' for silver dollars, paying from \$2 to \$20, a lot of money in 1901; 'Uncle Sam', thought to be the first of the color-wheel machines made in 1890 by the Chicago firm of Paupa and Hochreim, who sold out to Mills.



Figure 8A. A page from the 1913 Mills catalogue, one of 23 different Mills catalogues from the Boyer library.


**Mills Novelty Co.**  
 Coin Operated Machines
 

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### Violano-Virtuoso. Automatic—Coin Operated

#### Self-Playing Violin With Piano Accompaniment

One of the greatest attractions and money-making instruments ever offered to Clubs, Restaurants, Cafes and Amusement Resorts of all kinds.

A violin and piano playing together automatically—any class of music desired—and at any time wanted—just drop in a nickel, immediately its sweet tones compel attention, holding passing trade and bringing new patrons to the instrument to see the wonderful mechanical achievement as well as to hear it play their favorite selections.

The instrument may be connected to any electric lighting current and consumes no more current than one 16-candle power light.

When desired slot boxes may be installed in various parts of a room, in nearby booths, etc., so that patrons desiring music need not leave their seat or table, but drop their coin in slot, instantly violin and piano gratifies the musical desires as no human orchestra could.

A great advantage the Violano-Virtuoso holds is that of great volume of tone without the brassy, brassy sound so commonly heard in all other mechanically operated instruments. A conversation may be carried on at a table placed next to it, and each word heard distinctly while the instrument is in operation. The music is so clear and pure that it will carry to all parts of the room, still will not annoy or interrupt those placed nearest it. The more you hear the Violano-Virtuoso play, the more you want to hear it.

The Violano-Virtuoso Coin Operated Self Playing Violin and Piano is making new trade, pleasing and holding old patrons longer and making the operators of them handsome incomes from additional purchases made by patrons while waiting to hear the music and the money taken in by the instrument itself.

You should investigate this golden opportunity. Be the first in your locality to put out a chain of these instruments. Put the first out yourself or organize an Operating Company. We can and will help you. Write or wire for full particulars.

**Figure 8B.** An early and extinct Bowfront Violano is shown, which differs from the Bowfront in the author's collection in that the coin slot is on the right side (instead of the right front); cast-iron gargoyles used for legs are borrowed from the Mills 20th Century upright slot-machine of the same year; the Mills owls are cast in iron as top corners.

Alden Boyer was an eclectic collector, dividing his time between music and gambling machines and trade stimulators. His lineup of early, rare, and beautiful upright slot machines in restored condition was truly a sight to behold, as seen in the picture of just one corner of the museum, shown in Figure 7. People contributed machines with enthusiasm, and each one had a story.

Boyer recalls a Miss Myrtle Hart of Chicago, who "... gave me her mother's Violano-Virtuoso in perfect condition, practically new, with all the sacred-music rolls that the Mills Novelty Company made especially for her mother from songs in the Old Gospel Hymn Book, the leaves from the hymnal being in each box with its roll. Miss Hart said her mother used to sing with the Violano."

Fortunately for us all, Mr. Boyer was a true collector, with a sense of history. He not only assembled a wide sampling of machines, but he sought the associated literature as well. He was aggressive in posting ads for catalogues and circulars, and he wrote to manufacturers most of whom were still in business then.

*Automatic Age* comments, "The Mills Novelty Company supplied Mr. Boyer with several of their oldest catalogues, taken from their own archives, with information and illustrations that have been helpful in starting the collection." Assembling a library of original literature from contributions directly from the manufacturers' libraries is a luxury that is long since gone.

In fact, Boyer carefully gathered a broad selection of catalogues and advertising pieces from Mills, Regina, Wurlitzer, and others, as well as famous slot-machine companies such as Caille, Watling, and Jennings.



Figure 9. Left to right: Encore Banjo with 1901 New York-style earlier case, missing top crest; Wurlitzer CX orchestrion (note erroneous use of the word orchestrope, which was a model of a Capehart jukebox sold in 1928) with piano, mandolin, snare and bass drums, triangle, flute and violin pipes, xylophone, and 6-roll changer; an unusual Seeburg F, a keyboard piano with flute pipes, castanets, triangle and tambourine played by the G roll (front-mounted lamps missing); a Regina Hexaphone that made a selection from six phonograph cylinders.

Being a Chicago resident, Boyer must have been impressed with the Mills Novelty Company. Mills was one of the oldest and largest entertainment-device companies in the United States. Founded in 1895, Mills made a wide variety of repeat success in both the gambling and trade-stimulator fields as well as with automatic music-machines. Alden Boyer obviously made sure he cultivated his ground carefully, and he was successful in establishing just the relationship he wanted. His success was made clear by the article in the Mills house publication *Spinning Reels*, in November, 1941, which described how Boyer donated a \$100 antique cookbook to Fred

Mills as a contribution to Mills's cookbook collection. For this \$100, Boyer got the article (Figure 11) printed in the Mills magazine, which went to all Mills distributors and route operators.

**WANTED**  
To Frame for Display in  
The Chicago Coin Device  
Museum — All Kinds of  
Old Time Catalogues and  
Circulars, Pictures of Slot  
Machines, Slot Pianos, Slot  
Musical Instruments,  
Arcade Machines, etc.  

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Any Postage Paid will be  
Refunded — So send any  
old Catalogues and Circu-  
lars that you have on hand  
to  
**ALDEN SCOTT BOYER**  
2700 S. Wabash Ave.  
Chicago, Illinois  
  
Figure 10. Typical Boyer ad.

The museum was well appreciated and became widely known, but it was also to be short-lived. In the early 1950's Boyer died, and the museum was disbanded. Fortunately, Chicago Heights tavern owner Al Svoboda was an acquaintance of Boyer's and was also interested in coin-op machines. Svoboda had a loosely specified arrangement with Boyer, the result of which was the acquisition of much of the museum's properties. Some of the Boyer machines were still together as a collection for viewing at Svoboda's Nickelodeon Tavern as recently as 1982. Sadly, Al Svoboda's collection is now being disbanded.

Svoboda's was a haven for many collectors who entered the field throughout the 50's, 60's, and 70's. The music machines became a training ground for restorers, and many of today's acknowledged craftsmen worked on Al's machines.

Amid all the hoopla of setting up the Boyer machines in Al's Tavern, the library was packed into cartons and stored in the basement. Over the years, some have visited the catacombed basement and have located pieces of the library for inclusion in various publications, most notably the *Encyclopedia of Automatic Musical Instruments*. Not all of it had been seen together, since the literature was scattered throughout a richness of musical boxes, gambling

machines, arcade devices, parts, motors, tools, and anything else that Al had seen fit to collect and pile up in his basement. Amazingly, most of the library came through the years unharmed. In 1980, Al and his son Corky began laying plans to sell the collection. My own interest in the machines and the associated literature was fired by the grapevine news that some of the items would be sold.

It didn't take long to revisit Al Svoboda and retrieve a total of 3½ dusty cartons from the depths of Svoboda's Nickelodeon Tavern. With excitement and anticipation, I began peeling back the layers of literature. At first all I could see were layers of 1940's WLS Radio magazines, Duo-Art reproducing-piano music bulletins, and some phonograph catalogues.



## Boyer Donates \$100 Cook Book to Fred Mills

One of the most unusual men connected with the coin machine business is Alden Scott Boyer, owner of the Boyer Chemical Laboratory of Chicago. Mr. Boyer is a dyed-in-the-wool collector and one of his dearest hobbies is the collection of *coin-operated machines*. For over two decades he has concentrated on digging up every type of coin machine ever invented, taking special delight in specializing in old-time money machines and music machines. In his imposing museum at 2700 S. Wabash Avenue he has gathered the largest and most intriguing

collection of machines ever assembled under one roof — hundreds of them — many of them more than half a century old — and every one in perfect operating condition. Mr. Boyer has two mechanics whose sole duty is to see that every machine operates perfectly at all times. He has secured these old relics, imposing examples of bygone days and of the inventor's genius of all eras, from near and far and he is intimately known to coin machine operators all over the U.S.A. If you have any old-time machines that you figure belong in Mr. Boyer's museum, just

tell him or us.

When Mr. Boyer heard Fred Mills was collecting cook books he dug up a beauty, called "Soyer's Antropheon" or "The History of Food and Its Preparation from the Earliest Ages of the World." Mr. Boyer had secured this classic of culinary erudition in a famous auction in London years ago in which he had to outbid several counts and barons who also wanted the book. With a glad heart he inscribed the book to Fred Mills with the legend: "From One Collector to Another" and recently presented it with much ceremony in the Mills offices. The book was printed in 1853 in London, in limited edition, and contains scores of the finest plates illustrating cooking and eating lore. The artwork alone is a rare treasure, the like of which is seldom found between the covers of a book.

If you have a cook book, it needn't be so special as Mr. Boyer's, nor need it be worth \$100 before you present it to Fred Mills. Fred is anxious to get cook books of any value from operators; old secondhand cook books are perfectly welcome and Fred will especially treasure those he receives from the coin machine fraternity. Send your cook books to Fred Mills, 3rd floor, Mills Novelty Company, 4100 Fullerton Avenue, Chicago, Ill. If your wife won't let you send Fred the cook book now in your home, go out to the secondhand book store in your town and pick up a collection of used cook books for a small sum. Be sure to write your name in all the books you send to Fred. To send the average sized book to Chicago (that is a book about 6 in. x 9 in. and 1½ in. thick) it requires only 3c postage to go through the U. S. Mails. Mark the package "Contents Book" and Uncle Sam will carry it for this nominal sum.

Figure 11. Article on Alden Boyer and Fred Mills published in the November, 1941 issue of "Spinning Reels."

Then real nuggets began to show in the bottom of the first carton. Almost a complete collection of Mills catalogues dating back to the late 1800's, including color pictures of early Violanos from 1906, emerged one after the other. There was an Ogden catalogue showing a music machine I had never heard of-Automatic Chime Bells, and there was a Rosenfield catalogue showing the Illustrated Song Machine. There were over 350 pieces in all, and the condition was excellent. In no time, the cartons were purchased, transported, dusted, organized, and catalogued. It was not until then that I realized that the contents of those cartons were a carefully assembled library.

Included were many of Boyer's letters searching for items in catalogues and deciphering dates on undated pieces. Thankfully, the literature is preserved, and once again it can help collectors shed light on the mysteries of an age that captures our imagination.



**Figure 12. Al Svoboda in a 1950 promotional photo that was later made into a post card. Left to right: Seeburg KT with art glass removed and automatic figures interspersed with the triangle and castanets; Link style C with flute pipes using the RX endless-roll system; early barrel orchestra. Al himself is shown with his "zig-a-boom" that became a kind of Svaboda trademark.**

Alden Scott Boyer was a true pioneer. He developed a fascination for automatic entertainment devices before they had any real value or following. His aggressiveness and sense of history undoubtedly resulted in saving an assemblage of material that would otherwise very likely have perished.

Here's an enticing thought: If the Chicago Coin Device Museum was the first of its kind, what was the second, and where is it today?

Credit. Special thanks are due to Dave Ramey, Chicago Heights restorer and collector. Dave not only gave me early information about the existence of some literature at Svoboda's, but was also helpful in identifying the instrumentation of some of the machines pictured in the article.