## Cyrus Crooks Shigley coin-op cylinder-playing phonograph



Multi-Phonograph Co., Winona

Coin-operated cylinder playing phonograph: Heavily grained quarter sawn oak cabinet with beveled glass side panels and door, front columns and applied carvings adorn the front, Queen Anne style legs curve down to ball and claw feet. Size: 80"h. x 32"w. x 20"d., excluding the horn. Label reads: Multi-Phonograph Co., Patented May 5, 1903, other patents pending, Winona, Minn., U.S.A.

A patent pending was No. 848,687 filed September 27, 1905, by Corneil Ridderhof as an improvement to the original patent No. 727,002 filed December 8, 1902, by Cyrus C. Shigley mentioned above.

The major operating company in Minnesota, Multi-Phonograph Co., was headed by manufacturer Edward W. Williams, who was born in Akron, Ohio, on the 8th October 1855, as son of James C. Williams and Rebecca Williams *(maiden name Pickards)*. Edward W. Williams graduated from Owasso High School in 1873, and graduated from the law department at the University of Michigan in 1875 *(degree of LL.B.)*. Engaged in practice of law in Toledo in Ohio in 1875 until 1878, and then moved to Winona in Minnesota. Edward W. Williams was married to Nora W. Toodruff in 1881, and started manufacturing shoes in 1882. Later investor and president of the Multi-Phonograph Co. and the Verde Queen Mining Co.. His home address was for many years 213 Main Street, and his office address was 66-68 West 2nd Street in Winona.



Cyrus Crooks Shigley patent filed December 8, 1902.



Electric Phonograph Co., Kalamazoo

Improved patent filed in 1916

Coin-operated cylinder playing phonograph only produced 1916 until 1918. The cylinder playing phonograph was based on several patents by Cyrus Crooks Shigley.

The Electric Phonograph Co. located on Willard Street in Kalamazoo started business in the late 1910s as a manufacturer of musical devices. The founder of the company, the inventor Cyrus Crooks Shigley, apparently hoped that a coin-operated jukebox would prove popular at dance halls, skating rinks, and bars, but it gambled, however, on a technology that was fading away - the cylinder records - and the company finally had to close the doors in 1926. After 1929 the commercial production of cylinder records had ceased.

When the Bowers Manufacturing Co. moved into the factory buildings in 1928, the new owners found several of the old jukeboxes. Mildred Bowers, daughter-in-law of the company owner, insisted that at least one of them should be saved. The machine in question is today in the Kalamazoo Valley Museum's collection, donated by Mildred Bowers' family after she died 92 years of age in 2009.

A similar mechanism to the one made by Cyrus Crooks Shigley, but developed by Allison Alonzo Pratt (1846-1929), was used in the ornate Multiphone cylinder playing coin-op phonographs designed by William H. Pritchard (1867-1938) in New York for the Multiphone Operating Co. *(1905-1908)* with production facilities at 92-94 Vandam Street. Until 2019 the faint writing MULTIPHONE could still be seen on the building.



The sister company Western Multiphone Co. with offices in St. Louis and San Francisco was incorporated by January 1908 in New York and headed by the banker and investor Wilbur C. Brown. The vice-president of the new company was Peter J. Collison. However, the company was not successful and had to fold in 1908.

The inventor Cyrus Crooks Shigley was born in Kalamazoo on the 15th June, 1866, as son of James Lincoln Shigley and Jane Pinnah Shigley *(maiden name Kincaid)*, and he married Mary Elizabeth Deuel on the 31st October, 1890. Cyrus Crooks Shigley died 75 years of age in Kalamazoo on the 2nd July, 1941, and was interred at the Riverside Cemetery.

October, 2011, Gert Almind Updated November, 2023

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A biographical story entitled "Made in the Valley" written by Cyrus C. Shigley's daughter Mrs. Gladys Balyen (1904-1995) and granddaughters is reprinted on the following pages:

## Made in the Valley Cyrus C. Shigley (1866-1941) and his Multiphone

Biographical information provided by his daughter, Mrs. Gladys Balyen, and her daughters, Mrs. Barbara Gruscinski and Mrs. Joan Quirin.

Of the many inventors throughout history, few have scaled the heights reached by Thomas Alva Edison or Alexander Graham Bell. Scores of inventors have conceived ideas, patented, produced, and marketed them, only to be forgotten by the majority of the public. Such a man was Cyrus Crooks Shigley, whose inventions, a bicycle warning whistle, peashooting toy gun, milk bottle carrier, and vehicle warning flashers; - neither changed history nor directly affected the way we live. Although Shigley is remembered by some for his multiple cylinder playing phonograph, the "Multiphone", the fame of a great inventor was not to be his.

Cyrus C. Shigley was born in Hart, Michigan, on the 15th June, 1866. Although he had no formal schooling, he was very well educated for his time, taught by his aunt Mary Foster, a School teacher by profession, who lived with the Shigley family in their log cabin. Cyrus was a thin, sickly lad given to love of flowers and a greater love of tinkering with his hands and working on fine machinery.

After Cyrus married Mary Elizabeth Deuel, the young couple moved to Traverse City and worked in the Traverse City State Hospital. The work held little interest, however, and they soon returned to Hart where Cyrus opened a repair and general fix-it shop in a one-and-a-half story frame building on the town's main street. A large wooden hobbyhorse in front of the shop indicated the spot where townspeople could have their clocks, watches and bicycles repaired.

Hart was, and still is, host each year to the county fair. Cyrus would always take an active part in the festivities, often providing some spectacle for the public; - riding an old-fashioned high-wheeled bicycle, for example. In the latter part of the 1890s a traveling showman, or 'fakir', brought to the Hart fair Thomas Edison's newly invented talking machine. For a small price, fairgoers could hear music or a comic monologue. The sound came from inside the machine through a rubber tube and into a stethoscope-like apparatus that listeners held to their ears. There was no selection, however, and the customer heard only what was already on the machine's single wax cylinder. Cyrus became one of the best customers the 'fakir' ever had.

His interest in the talking machine led Cyrus to inquire about phonographs made for coin operation. He found that several companies (Edison and Columbia among them) were producing a number of phonographs, but all played only in a set rotation and none offered the customer a listening choice. Cyrus decided to devise a coin-operated cylinder player that would allow the patron to choose the selections to be played.

In 1903, Cyrus felt he had a successful prototype for his "Multiphone" and moved his family to Grand Rapids. He took in a partner, Paxton McLaughlin (\*i), and set up headquarters in a rented shop, 61 South Division, in a walk-in basement below a saloon. The family rented a wooden frame home at 1204 Euclid for \$15 a month; - the home is still standing. The machine Cyrus C. Shigley put into production was sometimes called a "Patcy-Ola" ('Pat' from Paxton, 'Cy' from Cyrus, and the popular 'Ola'-suffix), but the more common term then and now was "Multiphone". The ornate and massive six-foot 'quarter-sawn' oak case was topped by a large black speaker horn. The front of the case and two sides held beveled plate glass windows; a large mirror mounted inside on the back wall reflected the interior works. The heart of the mechanism was much like a large bicycle wheel with wire spokes. Twenty-four cylinder records were arranged around the wheel's circumference, each on its own holder or 'mandrel'. A simple and reliable playing unit was mounted at the top of the 'Ferris wheel', and at the lower portion of the case were the coin slides and two cranks.

To operate the "Multiphone", the patron would select a cylinder record and move it to the top or 12 o'clock position by turning the smaller crank. The larger crank was then given a few turns to activate the powerful three-spring Triton motor, and a nickel was dropped into the slide. The coin, as it fell into the cash-box at the bottom of the case, released the spring motor which turned the cylinder record and lowered the sound reproducer onto the record. The heavy reproducer was pushed across the record's surface by a screw device which, at the same time, wound up a cord with a small weight on one end. When the selection was over, the needle (stylus) was lifted from the record, releasing the little weight which in turn sent the reproducer back to its original position and finally turned off the spring motor.

Several components were purchased rather than made for the "Multiphone". The Triton motor was manufactured by Edison companies. The cabinet was made by a Grand Rapids furniture company, which one is not yet known (\*ii), horns were ordered from several independent horn companies. At first, Cyrus C. Shigley used a Columbia Phonograph Co. reproducer, but he soon began manufacturing the item himself.

The "Multiphones" were distributed throughout the United States. Some in Michigan were rented out for a fixed rate or for a percentage of gross receipts. The Nick Fink Riverside Hotel in Comstock Park had two "Multiphones" at one time. Cyrus even spent a full year in England lining up customers.

But problems developed within the business, leading Cyrus C. Shigley to dissolve the partnership with Paxton McLaughlin, and move his operations to Kalamazoo. The Shigley's bought a home on the West Side of Kalamazoo and rented a brick factory on Willard Street; - both still stand today. Cyrus' new machine, called the "Kalamazoo Electric Phonograph", had been invented by him in Grand Rapids and was put into production in Kalamazoo in 1916-18. The machine itself was patented as was an elaborate coin 'accumulator' device and an electric coin-trip switch.

The "Kalamazoo Electric Phonograph", unlike the simple mechanism and ornate cabinet of the old "Multiphone", has a very plain case and exceedingly complicated interior works. The new case retained the front and side beveled plate glass windows and inside mirror, and was still a full six feet tall. The horn, made of sheet lead and almost five feet long, was now enclosed inside the cabinet beneath a simple grille. The visible part of the horn and the cast bedplate were painted a bright red; all other parts were polished aluminum or bright nickel-plated brass or iron. The Ferris wheel again held 24 records, extra-long

playing four-minute cylinders called Blue Amberols, but this time the records were laid loosely in cloth-lined tubes instead of mounted on mandrels. Record selection was still done with small crank that disengaged when the machine was in operation.

After the selection was made, a nickel was deposited in the slide; - as the coin fell into the cash-box it registered on a 'coin-trip-accumulator', which allowed up to twenty coins to be deposited at one time. The coin trip started the electric motor which drove the machine. On the motor was a speed control governor to operate the belt-driven control wheel which moved the record cylinders to their proper positions. The cylinders themselves were caught and rotated between two beveled discs. In Shigley's "Multiphone" the reproducer until moved across the cylinder. Here, the reproducer was stationary and the cylinder moved. As the cylinder played, the record and its associated parts traveled on a little 'train car' on 'train tracks' toward the rear of the case. When the selection ended the diamond point stylus lifted clear of the record surface, moving the control wheel to drive the little 'train car' back toward the viewer. In a split second, the 'car' reached its forward limit, the control wheel shifted to a neutral position and the machine shut off. If more coins were accumulated, the control wheel would not stop, but would continue until all coins were used up.

Unfortunately, the "Kalamazoo Electric Phonograph" came as interest in cylinder players declined. Edison was the only company in the United States producing cylinders after 1913; - production stopped in 1929. Recent evidence indicates that Edison did not want his cylinders used on the Cyrus C. Shigley machines. In fact, Edison has the inside rim of the larger end of each cylinder reamed out or beveled so that the Shigley bevel discs could not grip correctly. This unfortunate situation lasted only for a year, and the Edison-made cylinders were once again available to Cyrus. But, by the later 1910s, disc-playing jukeboxes were becoming popular. Finally, in 1925, the successful marketing of vacuum tube recording and amplifications spelled the death sentence for the "Kalamazoo Electric Phonograph".

The Kalamazoo Electric Phonograph Co. ceased production by the mid twenties and the shop closed. Cyrus moved out of the city and expected to enjoy his retirement living on dividends from a substantial investment in copper stock. This was not to be. The stock transaction was a swindle and Cyrus lost everything.

In 1930 a stroke paralyzed Cyrus and he was taken to live with his younger daughter Gladys. Although he recovered almost completely, he was unable to do fine work with his hands and turned to his former love of flowers.

Cyrus Crooks Shigley, aged 75, passed away quietly in Kalamazoo on the 2nd July, 1941, his life and work all but forgotten. Although fame had eluded him, perhaps he would have agreed with Thomas Alva Edison, who once remarked after losing a million dollars on an unsuccessful enterprise, "We lost a million dollars, but we had a hell of a good time spending it..!

\*i) ed.: Probably Herbert Paxton (*Pat*) McLaughlin (☆ May 20, 1874) († June 13, 1944).
\*ii) ed.: Probably Sligh Furniture Company.





The original Shigley "Kalamazoo Electric Phonograph" was at the Chicago show on the 20th April, 1946, wrongly presented as the first AMI coin-operated phonograph of the year 1900. The model was actually made first in 1916, only thirty years earlier, and it was certainly not one of the first jukeboxes (coin-op phonographs), and it was not made by the Automatic Musical Instruments Co. (AMI). However, the operating company Multi-Phonograph Co. headed by Edward W. Williams was incorporated in Grand Rapids with a capital stock of \$150,000 and in 1908 also authorized to locate in Illinois with a capital stock of \$30,000, but a connection to the original National twin-companies founded by Walter loor et al. in 1909, forming the AMI in 1925, cannot be found (the first National production took place in the village Oregon west of Chicago, Illinois). Cyrus Crooks Shigley may have purchased coin accumulators from a supplier for coin-operated player pianos. He occasionally worked part-time with salesman Oscar Powell Merryweather (1886–1972) and his young son John Samuel Merryweather (1911–1978) at the Grand Rapids Electric Piano Co., and he could easily have obtained the coin devices through them. Also, it seems Cyrus C. Shigley got the nice cabinets from a furniture maker in Grand Rapids, and most probably from the Sligh Furniture Co., also a supplier of precious wood to AMI. This may all together be the cause of confusion thirty years later.







Note 2:



Postcard image from a museum in California, published in 1948. Interesting to see the ornate "Multiphone" designed by Pritchard, with mechanism developed by Pratt, wrongly referred to as "an early Wurlitzer record player".

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## Cyrus Crooks Shigley patents related to the "Multiphone":









Cyrus Crooks Shigley 15/6 1866 – 2/7 1941 Mary Elizabeth Deuel Shigley 22/1 1868 – 19/1 1925 Riverside Cemetery, City of Kalamazoo (Lot Number Unknown)

Tokens for test and demonstration (New York, San Francisco)



1905-1906



Saloon interior with a Shigley Multiphone to the left, Menominee, Michigan



Charles A. Hummel (☆ June 26, 1941) († February 27, 2023)

Cyrus C. Shigley (1904) Multiphone