

PHOTOGRAPHS TO PHONOGRAPHS  
THE CONLEY STORY

by David N. Sterling, Mabel, Minn.

Kerry Ellsworth Conley (1866-1924) and his brother Frederick Victor Conley (1870-19??) may have taken their first interest in photography in the same year that George Eastman introduced his No. 1 Kodak, 1888. That was the year the Conleys opened their jewelry store in Spring Valley, Minnesota, where they not only sold watches and jewelry but also fitted those calling for eyeglasses and carried a "complete line of cameras".

In 1897 the Conley brothers devised a variation on the plate dropping mechanism for a magazine camera, applied for a patent, and began hand making these camera in the back of their jewelry store. Though they had been farm raised, they took well to this new venture. By January of 1899 they had established the Conley Camera Co. in factory space in Spring Valley and were employing fifteen workers.

These were also the early business experience years of Richard Warren Sears (1863-1914), formerly of Spring Valley and later to found Sears, Roebuck & Co. His R.W. Sears Watch Co. was two years old when Kerry and Fred opened their jewelry store and 1888 was the year of his first mail order catalog, which featured watches only. Sears was Kerry Conley's senior by three years and they were later to join forces in the anti-trust competition with Eastman Kodak Co.

Cameras and photographic items first appeared in Sears' 1896 Spring catalog. When Eastman bought out the Rochester Optical & Camera Co., Sears' supplier of many cameras, in 1903, Sears turned to the Conleys to make the Seroco line of cameras. Conley then became the prime producer of cameras for Sears until 1911, and continued to make photographic items for them until 1938.

Another noteworthy event from this period was the 1890 posing of Perley, Royal, and Almanzo Wilder by a prominent Spring Valley photographer, Jerome A. Stevens. These Wilder brothers have since become well known to millions of children around the world as they were real-life characters in the "Little House" series of books written by Laura Ingalls Wilder. (Though generally thought of as children's books, they are excellent reading for any age.)

The entry of the Wilders becomes more relevant when we see that the Conley family became their close neighbors in 1886, and that in 1892 and '93 both the Wilder and Conley families married into the Thayer families of Spring Valley. Like the Conleys and Wilders, the Thayers had previously come from up-state New York, where some acquaintances were likely known between them before coming to Spring Valley.

When the Conleys moved to Spring Valley, in 1886, the village population was approximately 1,370 people. By the time they started their camera factory, in 1899, the community had grown by about 400 people, though it dropped by 92 in the years 1895-1900 and again by 197 within the next five years. When the Conley operations moved to Rochester, Minnesota, 26 miles to the north, in June of 1904, only 16 employees moved with the company. It is not

known how many members of the families of these 16 were also re-located by this move but it was likely well under the 197-person population drop ... perhaps only a quarter of this.

After the 1904 Conley move, Spring Valley began to grow again, by 244 persons between 1905 and 1910. The population decreases between 1899 and 1905 may have been threatening to Sears' interest in the camera company. Rochester, Minnesota offered better rail service and the Rochester name was desirable on the camera line. Rochester's population in 1904 was 7,500.

#### A Conley Chronology

- 1833 - Thomas J. Connelley (1833-1906), father of Kerry and Fred, born in New York State (family name's spelling later changed to Conley).
- 1845 - Diana E. Hueston (1845-1902), mother of Kerry and Fred Conley, born in Canada on May 23.
- 1854 - Thomas J. Thayer (1832-1899), of Thayers Corners, New York, and Joseph B. Thayer (18??-1888), of Conneaut, Pennsylvania, move to what will become Spring Valley. They are among the original settlers. - Rochester, Minnesota, founded by George Head, who named it after his boyhood town of Rochester, New York.
- 1855 - Spring Valley, Minnesota, founded.
- 1857 - Thomas and Diana Connelley move to a farm northwest (?) of Spring Valley.
- 1863 - Richard Sears born, December 7, to James and Eliza Sears in Stewartville (half way between Spring Valley and Rochester), Minnesota.
- 1864 - C. Colonel Thayer (1813-1882) moves to Spring Valley from Burke, New York.
- 1866 - Kerry Conley born, September 1, on the family farm.
- 1869 - Richard Sears, age six, moves from Stewartville to Spring Valley with his parents.
- 1870 - Fred Conley born, July 3, on the family farm.
- 1871 - Richard Leach Maddox (1816-1902), English physician and amateur photographer, invents the first serviceable dry plate with his silver-bromide gelatine emulsion.
- 1875 - James and Angeline Wilder, parents of Royal, Almanzo, and Perley, move from Malone, New York, to a farm on the west edge of Spring Valley.
- 1876 - T.J. Conley family moves to a farm east of Stewartville.
- 1877 - Thomas Alva Edison (1847-1931) announces his phonograph. (Thirty-eight years later the Conley Camera Co. begins production of phonograph parts for Sears, Roebuck & Co.).
- 1879 - Death of James Sears, after his loss of \$50,000 in a stock farm venture. Son Richard, at age 16, learns telegraphy to support his mother and two sisters.
- 1880 - Patent No. 226,503 granted, April 13, to George Eastman for a device to mechanically coat emulsions on glass plates. By the end of the year he is mass producing dry plates.
- 1884 - Eastman introduces the Eastman-Walker Roll Holder (to convert plate cameras to roll-film use) and his "stripping film".
- 1885 - Almanzo James Wilder (1857-1949) and Laura Elizabeth Ingalls

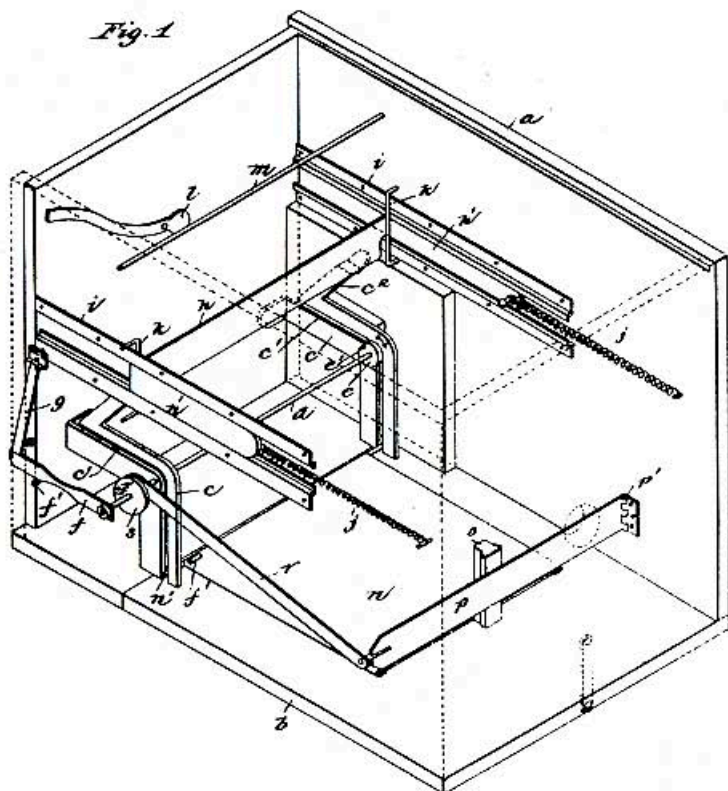
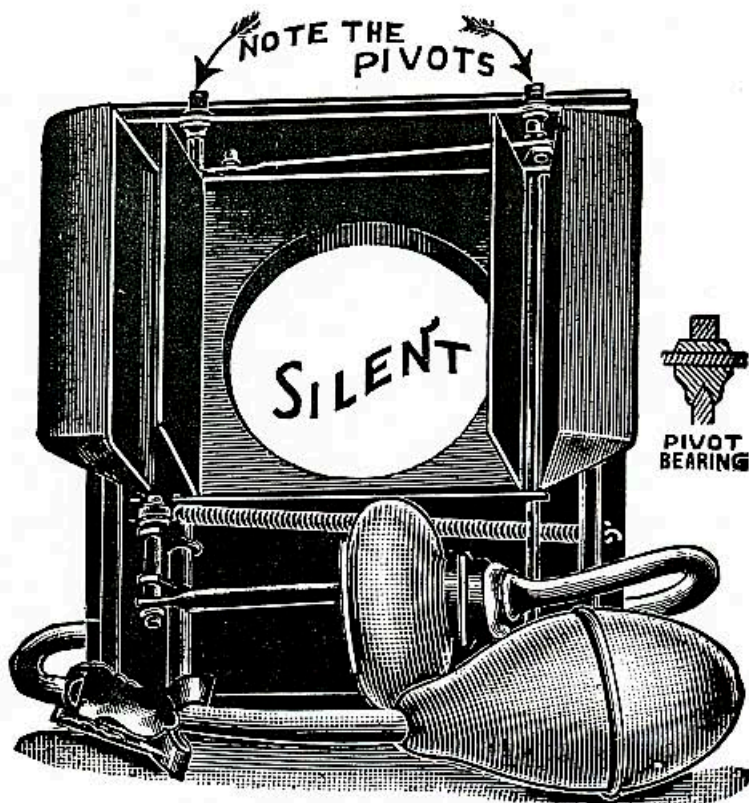


Fig. 1. Illustration from U.S. Patent No. 599,314 of February 22, 1898, for drop-plate changing mechanism for a magazine camera. This patent was the one on which the Conley's first magazine cameras were based.

Fig. 2. Illustration from advertisement (1912) for improved version of C.C. Henderson's Silent Shutter.



Notice how simple they are made.

“Silence is Golden”

- (1867-1957) wed, August 25, at DeSmet, South Dakota.
- 1886 - Tom Conley family moves to a farm one quarter mile west of the James Wilder farm at Spring Valley. Kerry Conley had been attending Darling's Business College, in Rochester, prior to this.
- 1888 - George Eastman introduces the Kodak camera. Kerry and Fred Conley open a jewelry store in Spring Valley.
- 1890 - Laura and Almanzo Wilder spend one year with his parents at Spring Valley. They were on their way to Florida for Almanzo's health. (Between 1887 and 1889 Laura and Almanzo suffered the loss of their house, due to fire, in De Smit and the crippling of Almanzo's feet and death of their infant son from diphtheria.)
- 1891 - Kerry Conley graduates from the Chicago Ophthalmic College and Hospital and is now prepared to fit eyeglasses in his jewelry store.
- 1892 - Kerry Conley marries Sadie I. Dodge, September 21, in Spring Valley. (Sadie is a granddaughter of C.C. Thayer.)
- 1893 - Tom Thayer marries Eliza Jane Wilder (1850-1930), September 6, at Spring Valley. (Eliza Jane is a daughter of James and Angeline Wilder.)
- 1895 - Peter N. Angsten and Charles H. Gesback of Chicago apply, August 20, for a patent on a panoramic camera. (Conley acquires this patent in 1908.) After nine years in business with R.W. Sears, Alva Curtis Roebuck (1864-1948) sells his one-third interest in the business to Sears for \$25,000 and Julius Rosenwald buys an interest, both on August 17.
- 1896 - Cameras and photographic equipment make their first appearance in the Sears Spring catalog, their first large general catalog. The Aiken-Gleason Co., manufacturers of pocket cameras and other novelties, is established, June 23, in La Crosse, Wisconsin. Patent No. 567,559, for a panoramic camera, is issued, September 8, to Angsten and Gesback.
- 1897 - Gramophones, records, and motion picture machines first appear in the Sears catalogs. These are made by the Enterprise Optical Mfg. Co., financed and managed by A.C. Roebuck, which also supplied such items to Montgomery Ward. Fred and Kerry Conley apply for patent on magazine plate-changing mechanism, August 14. Multiscope & Film Co., of Burlington, Wisconsin, incorporated, September 1. Multiscope & Film Co. acquires the Angsten-Gesback patent, September 28, which serves as the basis for their Al-Vista Panoramic Camera.
- 1898 - Patent No. 599,314 issued, February 22, to the Conleys for their magazine camera. Western Camera Mfg. Co. (est. 1897) introduces the Cyclone magazine Camera, America's most popular magazine camera, which has the Conley Magazine Camera ultimately as its top rival. James Wilder moves to Crowley, Louisiana, after selling his Spring Valley farm, investing his entire holdings of \$100,000 in the Eagle Rice Mill, owned by Tom Thayer, his daughter's husband. Articles of incorporation filed, December 31, for the Conley Camera Co.
- 1899 - Conleys obtain factory space in Spring Valley and begin manufacture of their magazine camera. Company officers: Kerry Conley, President and Treasurer; Fred Conley, Secretary.

Fig. 3. Early magazine camera by Conley Camera Co.



Fig. 5. Late model of Conley Magazine Camera.

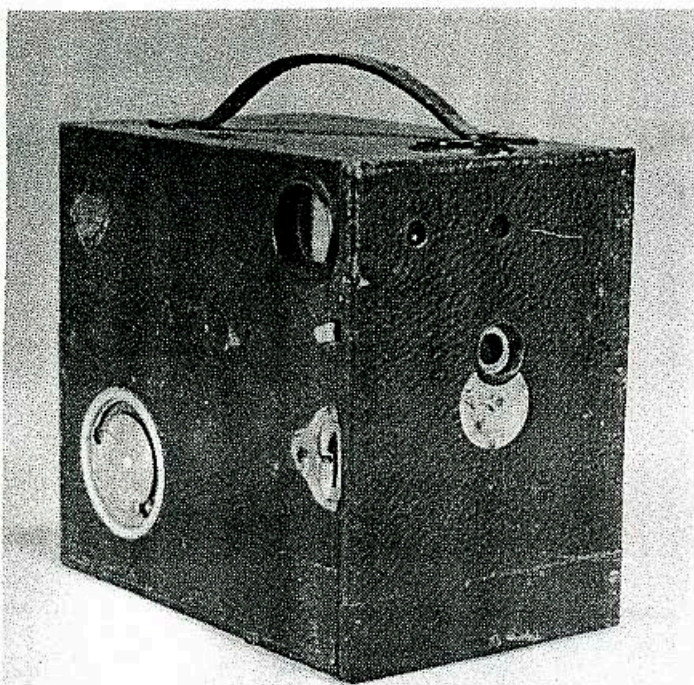


Fig. 4. Conley employees photographed outside company factory in 1907. Kerry Conley (1), James Drake (2), and Fred Conley (3) in the foreground.

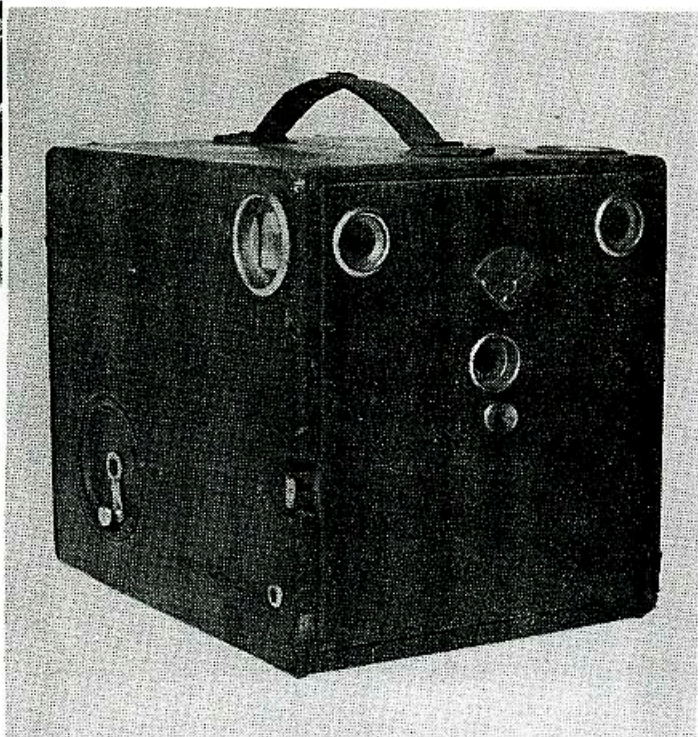




Fig. 6. Francis Kruger, working on assembly of box cameras in Conley Camera Co. plant, ca. 1913.

Fig. 7. 4x5 Conley Sr. folding plate camera.

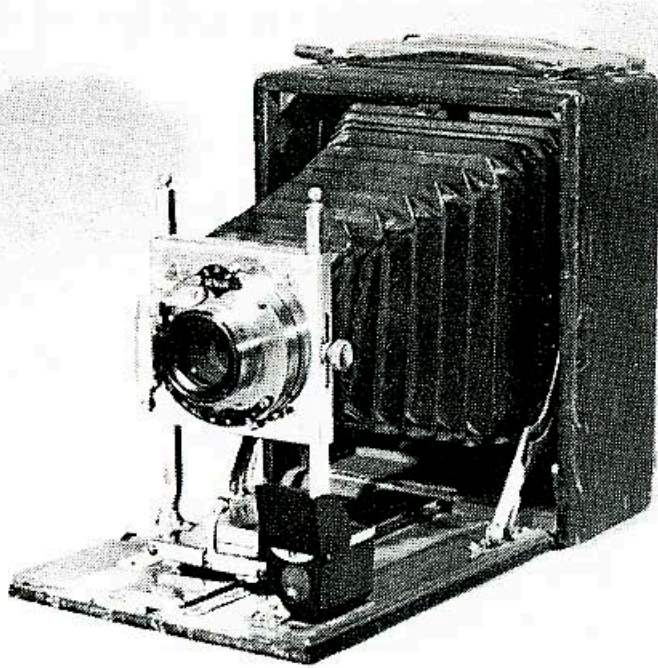
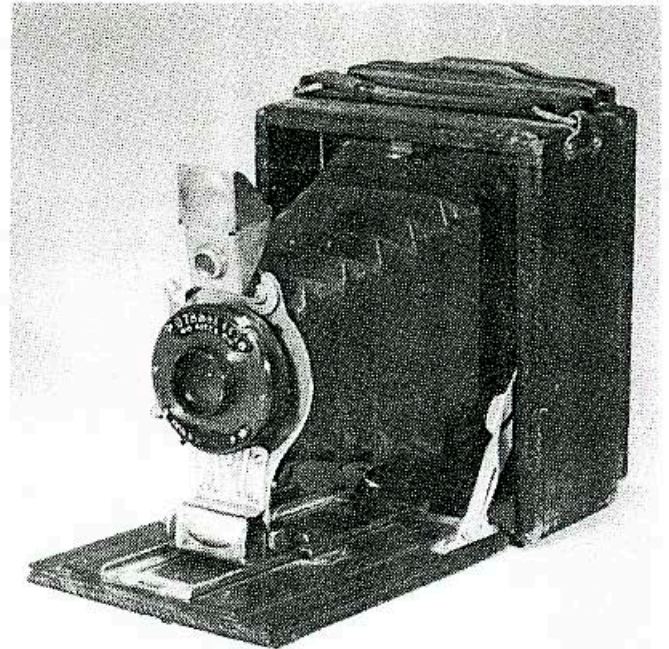


Fig. 8. 3¼x4¼ Conley folding plate camera.



- Charles Calvin Henderson (1868-1943), Spring Valley inventor, machinist, and tool and die maker, is employed by Conley. Eagle Rice Mill burns to ground in January. James Wilder dies, February 2, "of a broken heart because he had left the Minnesota home he had loved so well". Tom Thayer dies, February 8. Web Huntley, Spring Valley druggist, wins first prize in the Conley camera naming contest, the winning name being "Quick Shot". Fred Conley and Jesse Geneva Lawrence married, June 7, in Spring Valley. Western Camera Mfg. Co. merges, November 25, with other companies in the formation of the Rochester Optical & Camera Co.
- 1900 - Charles Henderson applies, September 5, for patent on a folding magazine camera. Tom Conley buys the Spring Valley Opera House for camera factory use, November 3.
- 1901 - Aiken-Gleason Co. becomes the Imperial Camera Mfg. Co., January 22. First use of name Seroco on cameras in Sears catalogs. Patent No. 680,203 issued, August 6, to C.C. Henderson for his folding magazine camera. Seneca Camera Co. formed in Rochester, New York, through the merger of the Sunart Photo Co. of Rochester, New York and the Bullard Camera Co. of Springfield, Massachusetts, formerly Wheeling West Virginia. (Seneca and Conley destinies to converge in 1924.)
- 1902 - Conley Camera Co. introduces a stereo magazine camera with twelve patented aluminum plate sheaths (aluminum being economically available since 1890). Fred and Kerry Conley apply for patents, July 12 and September 29, on silent shutters designed by Charles Henderson. Imperial Camera Mfg. Co. goes out of business. (The possibility exists that they did not sell out to any other firm, as after some thirty years, when the building was again used, several truck loads of camera boxes, unmounted lenses, papers, etc. were taken to a La Crosse land fill.) Diana Conley, the brothers' mother, dies, August 9, and Tom Conley sells his Spring Valley farm and moves to Verndale, Minnesota.
- 1903 - Patents Nos. 732,175 and 739,834 granted, June 30 and September 29, in the Conley name for Henderson's silent shutter invention, which was intended for use in child portrait work. Eastman Kodak Co. acquires the Rochester Optical & Camera Co. Sears, Roebuck & Co. switches to the Conley Camera Co. for its new source of cameras.
- 1904 - James C. Drake (1873-1960), of La Crosse, Wisconsin, hired, early in the year, by the Conleys. (Drake, former foreman of the Imperial Camera Mfg. Co., and Henry E. Willsie, inventor of the Photake and Willsie cameras, had various residence and business addresses close to each other and may have been acquainted.) Spring Valley Conley Camera Co. catalogs feature the brand names Success and Winner. Kerry Conley announces, April 29, the intent to expand to telephone and electrical apparatus manufacture. Conley Camera Co. moves, in June, to Rochester, Minnesota, with 16 employees. \$1,000 raised from Rochester businessmen to aid Conley move. \$500 support money returned to Spring Valley businessmen. A clothing factory in Rochester is purchased and eight train carloads are used to move the tools and parts to the 44 by 132 foot, two-story

- building. Viewfinder-lens grinding is done on the second floor. After the Sears contract and the move to Rochester the company expands rapidly to include a more complete line of cameras. An early Rochester catalog (1904, probably) uses a trade mark of three concentric C's, as did the Century Camera Co. at one time.
- 1905 - Mayo Foundation, Rochester, Minnesota, hires Dr. Louis B. Wilson (1866-1943) as pathologist and director of laboratories at St. Mary's Hospital. Dr. Wilson convinces the Mayos of the advantage of photographs over an artist's sketch for recording specimens. Henry G. Andrews, photographer, is hired soon after. Seneca Camera Co. becomes Seneca Camera Mfg. Co. Charles Bass acts as camera buyer for Sears.
- 1906 - Kerry Conley buys Dr. Charlie Mayo's Queen motor car. (These men are said to be the only auto owners in Rochester at this time.) Charles Raymond Conley (1880-1906), brother of Fred and Kerry, dies of typhoid at age twenty-seven. Charles was a machinist at the camera factory since the 1904 move ... maybe before. Fred Conley files, April 17, for a patent on an adjustable standard for a camera lens. James Drake files application for a patent on a plate holder, April 30. New Sears Administration and Tower building opened. Fred Conley and James Drake go Chicago, in October, on business (possibly to photograph stereo views of the new Sears plant ... 50 views, 35¢ - with quality hardwood stereoscope, 50¢). Success Mutual Benefit Association, an accident and sick benefits organization, formed for Conley employees. Prizes offered, in December, for introducing or inventing improvements or labor-saving devices in camera manufacture; 1st prize \$20, 2nd prize \$10, 3rd prize \$5. The company has 135 employees. Sears has 260 shares in the Conley Camera Co., valued at \$18,000. Kerry Conley elected alderman-at-large to the Rochester City Council for one year. (He had been on the school board and city treasurer in Spring Valley.) Tom Conley, father of Kerry and Fred, dies at his home in Verndale, in December.
- 1907 - James Drake awarded Patent No. 851,281, April 23, for a photographic plate holder. Patent No. 862,883 for an adjustable camera support issued, August 13, to Fred Conley. Sears' Fall catalog offers 30-day free trial and 20-year guarantee on Conley cameras. (The guarantee is quietly dropped before 1909.) Seroco name on Sears' cameras is replaced by Conley name, "in honor of the men who make these cameras". Dr. Wilson and Henry Andrews devise a specimen camera for single or stereoscopic photography. James Drake wins first prize (\$35) in Conley improvement contest. Sears' Fall catalog devotes one full page to explaining "How We Came To Build Our Own Cameras" (also in the 1908 catalog, pg. 672). Herbert E. Crowell (1873-19??) photographs Conley workers in front of camera factory. (This picture is used in the camera section of the 1908 Sears' catalog, pg. 672.) 1907 figures: 135 employees, \$49,500 payroll, 28,000 cameras and 80,000 plate holders made, and 1,000 silent shutters and vignettters produced.
- 1908 - Conley markets the Wilson-Andrews camera as the Queen City Specimen Camera No. 42, which features a posing tank to keep the pathology specimens submerged during photographing and



used a single lens for both single and stereo views. The camera weighed 700 pounds. (The Queen City Specimen camera No. 42 takes its name from Rochester, known as "The Queen City of Minnesota" since 1877, when Delbert Darling, of Darling's Business College, needed a sales slogan for his school.)\* The Conleys buy a site for a new factory building for \$4,000 and sell their present building for \$7,000. Richard Sears, because of ill health, retires from active participation in his company, which is doing \$40,000,000 in annual sales. Kerry Conley, as a Republican, is elected to the Lower House of the Minnesota State Legislature. Sears catalog offers F.M. Needham's "Complete Instructions in Photography" free to customers. The booklet has a chapter on dry plates, but no mention of roll film, as Sears was trying to avoid "trust-made" photo goods. The directors of the Multiscope & Film Co. are authorized, December 2, to sell and transfer all patents, rights, tools, and dies to the Conley Camera Co. (The main Multiscope product, the Al-Vista Panoramic Cameras, probably served as the parents of the Conley Panoramic Camera of a few years later. The Conley version bears a strong resemblance to the earlier Al-Vista.)

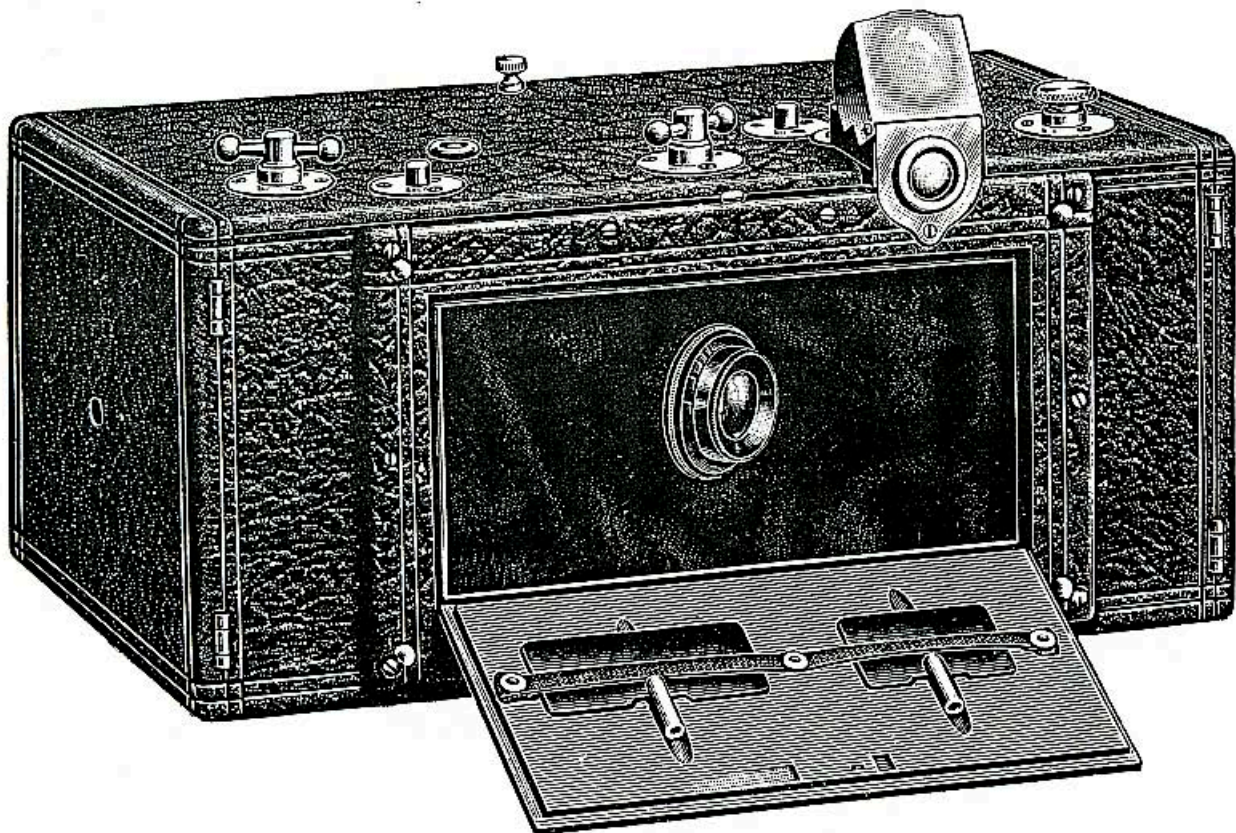


Fig. 9. Conley Panoramic Camera, Model A, of 1913.

\* Editor's Note - A number of the catalogs of the Conley Camera Co. feature cameras bearing the name Queen City, rather than Conley. This may well have been the result of some exclusive contract with Sears reserving for him the use of the name Conley on cameras.

- 1909 - Ground broken, in April, on new Conley plant site for the first poured-concrete building in southern Minnesota. New building occupied by camera factory in September. Bert Crowell photographs about 120 Conley workers assembled in front of new building. Conley brothers sell 47% interest in business to Sears, Roebuck & Co. to raise capital for new building.
- 1910 - Lloyd Valentine Conley (1886-19??), another brother, appointed foreman of the middle section at the Conley Camera Co., in February. James Drake files application, February 10, for patent on a multiple exposure attachment. Charles H. Dodge writes his cousin Center D. Thayer (Tom Thayer's son) in Congress, Arizona, on March 31, that he visited his sister Sadie in Rochester, and that "Kerry has been very sick - is now well". Sears, Roebuck & Co. buys complete interest in Conley Camera Co., November 18, and it becomes Sears' second wholly-owned factory. Kerry, Fred, and Lloyd Conley terminate their association with the camera factory. Sears sends Luke Lambert to serve as general manager. His son, Leon, begins a 48-year career with Conley. Charles Bass, former Sears' camera buyer, founds Bass Camera Co., Chicago, Illinois. Year-end Conley figures: \$50,000 capital, \$150,000 annual business volume, 175 employees.
- 1911 - James Drake awarded Patent No. 982,707, January 24, for his multiple exposure attachment, Fred Conley moves to Portland, Oregon and starts cash register factory. Lloyd V. Conley becomes Deputy Fire Marshall in St. Paul, Minnesota.
- 1912 - Kerry Conley founds the Conley Mfg. Co., makers of the Simplicity Easy Draft Road Grader.
- 1913 - Photographs made of several Conley Camera Co. employees at work for use in Sears catalogs.
- 1914 - Richard Sears dies, September 28, at his home in Waukesha, Wisconsin. Dr. Wilson, of the Mayo Foundation, devises cameras for use with protoscope, photomicrography, and a portable stand for a specimen camera. The Spencer Lens Co., Buffalo, New York, markets his connecting tube for camera and microscope to be used with Seneca or Folmer & Schwing cameras.
- 1915 - Conley Camera Co. begins production of phonograph tone arms and reproducers for use in Sears' other plants. Kewpie Kamera, a roll-film camera made by Conley, makes its appearance in Sears' catalog.
- 1916 - Luke Lambert leaves Conley, April 1, and James Drake becomes general manager. Conley begins production of complete phonographs, spring wound. (Mr. Silver, one of Conley's top craftsmen, was well known for the tone he achieved in his instruments and the Silvertone brand name is supposed to have originated from his work.)
- 1920 - Hotel Arthur erected in Rochester. Kerry Conley is manager. His son Arthur was architect.
- 1924 - Sears, Roebuck & Co. purchases the foundering Seneca Camera Mfg. Co. of Rochester, New York. Kerry Conley drops dead, March 5, while playing volley ball at the YMCA in Rochester.
- 1925 - United Camera Co. established, March 28, in Chicago, Illinois.
- 1926 - Conley Camera Co. acquires inventory of Seneca Camera Mfg. Co.

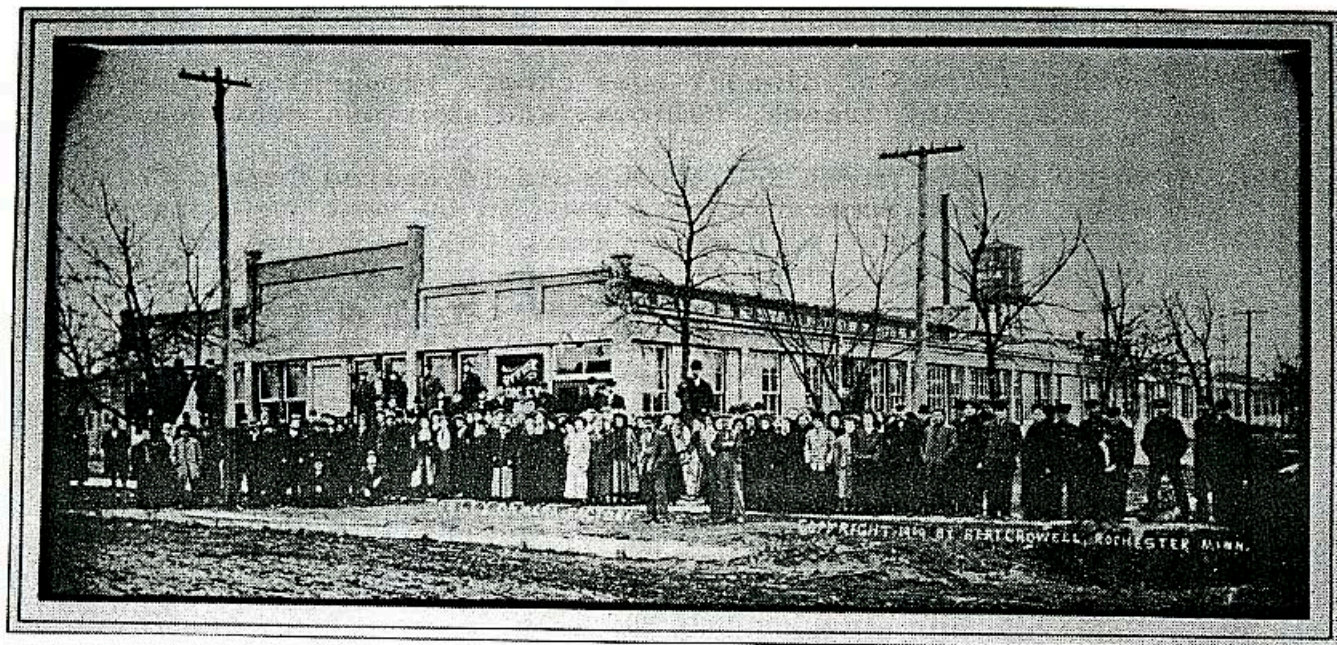


Fig. 10. New Conley camera factory, Rochester, Minnesota, with assembled workers. Photograph made in 1909 by Bert Crowell.

Fig. 11. Portable phonograph manufactured by Conley Camera Co.



- 1927 - Conley Camera Co. discontinues camera production. Some accessories, print frames, bellows, and shutters continued until 1938.
- 1928 - Conley camera parts and tools sold to United Camera Co., to whom Conley and Seneca cameras were to be sent for repairs.
- 1932 - H.M. Sauders sent to Conley Camera Co. to become Mr. Drake's assistant. Conley Camera Co. name changed, May 4, to The Conley Co., Inc.
- 1933 - The Conley Co. adds electrically driven phonographs to their line and also begins manufacture of items for the Columbia Phonograph Co. A.C. Roebuck rejoins Sears, after an absence of 38 years, and devotes his time largely to compiling the company history, "Early and Some Later History of Sears, Roebuck & Co." (unpublished manuscript, 2 vols., Chicago, 1940).
- 1935 - James Drake retires, January 29, and H.M. Sauders is made general manager. Manufacture of spring-wound phonographs for Victor begins. A hand-held body massager, the Hemp Massager, goes into production, and is sold by Sears and other distributors.
- 1936 - Toy telephones added to Conley line of products.
- 1939 - Leonard A. Julin, of the Section of Photography of the Mayo Clinic, devises an aseptic surgical camera. Conley Co. discontinues Hemp Massager and toy telephones. A line of radio cabinets added.
- 1940 - Sears, Roebuck & Co. sells the Conley Co., March 13, to Glen M. Waters and the name changed to Waters Conley Co. A formal engineering laboratory is added and the production of amplified phonographs begins. This opens new markets throughout the country and changes the sales pattern so that the company's largest volume is in its own product ... The Phabulous Phonola.
- 1941 - Engineering and laboratory facilities greatly enlarged, as war production begins in July. Company receives contract, November 10, with Army Air Corps for 40,000 emergency fishing tackle containers.
- 1942 - Contract with Wright Field, January 1, for truck engine parts. Halt of phonograph production, in February, because of inventory freeze. Contract, in April, for 75 armored-tank interphone systems. Contract, in September, for recorder for the Signal Corps. Fred C. Kennedy, engineer, begins with The Waters Conley Co. Pension and Profit Sharing Plan begins.
- 1943 - The company participates in the design and production of a radar-guided missile on a sub-contract with Western Electric Co. (drone plane "Bat"). C.C. Henderson dies, September 30, at age 75.
- 1944 - Richard E. Jones, electrical engineer, begins a four-year stay with Waters Conley Co. on January 1. At the same time he is employed as a consulting engineer for the Mayo Clinic.
- 1945 - Army-Navy "E" awarded to Waters Conley Co. and its employees.
- 1946 - Phonograph production resumes and an automatic milk pasteurizer for home use, the Home Health, is designed and put into production.
- 1947 - Richard E. Jones designs, in March, a camera for counting red blood cells. The only one built is used for research. He

- also designs an endoscopic camera, and alterations on it are made at the Mayo Clinic, for use with a movie camera. A special camera for photographing eyes, a camera-timing device, and a kymographic camera are designed in August. The Tower brand name appears for the first time on Sears' cameras.
- 1948 - R.E. Jones leaves Waters Conley, May 1, but remains with the Mayo Clinic Engineering Section. H.M. Sauders resigns from Waters Conley and Fred Kennedy becomes general manager and vice president. Leonard Julin, of the Mayo Clinic, adds spring-wind film advance to the aseptic surgical camera. Alvah C. Roebuck dies, June 18.
- 1949 - Waters Conley establishes a Medical Equipment Division. Battery-driven motor film advance designed for aseptic surgical camera. (The Adel Co. of California has been making an aseptic surgical camera since as early as 1940. Sears once again becomes a customer for phonographs, and also markets the Home Health milk pasteurizer under the David Bradley name.
- 1950 - Return to war production, with the Korean War.
- 1953 - Sears purchases a plant in Chicago and with their own facility, now, for manufacturing phonographs, discontinues using Waters Conley as a supplier.
- 1954 - Glen Waters sells the company, July 1, to Fred Kennedy and Gerald Rissman, retaining the medical equipment division, to be operated by his son, George F. Waters. Company name changed by new owners, August 2, to Waters Conley Co., Inc. George Waters names former medical equipment division The Waters Corp., August 6.
- 1955 - Firestone Tire & Rubber Co. becomes a new Waters Conley phonograph customer in April. In August, Zenith Radio and R. C.A. Victor also become customers.
- 1957 - Firestone changes to another source of phonographs. Montgomery Ward joins the Waters Conley customers. Waters Corp. starts using, August 14, old Conley Camera Co. building of 1904-1909 for IBM cable assembly.
- 1958 - Production of stereo phonographs begins. Waters Corp. vacates old Conley Camera Co. building.
- 1959 - Glen Waters resigns as vice president and director of Waters Conley Co., Inc.
- 1960 - Sears once again becomes a customer for phonographs.
- 1961 - Waters Corp. acquired by Flo-Tronics of Minneapolis, Minnesota.
- 1962 - Winona Industries of Winona, Minnesota makes phonograph cabinets for Waters Conley. 330,000 phonographs sold. About 500 employees. Twelve people working on pasteurizer.
- 1963 - Waters Conley begins its affiliation with the Telex Corp. of Tulsa, Oklahoma.
- 1965 - H.M. Greenspon becomes Waters Conley president. Fred Kennedy and Gerald Rissman retire from active employment, June 30, but are retained as consultants.
- 1968 - Flo-Tronics purchases the membrane blood-oxygenator of the International Research & Development Co., Kirkland, Washington. This operation moved to Waters Corp. and becomes a vital part of Waters' "MOX" 100 Kidney Preservation System.
- 1969 - Waters Corp. becomes Waters Instruments, Inc.

- 1970 - Article, "Those Wonderful Wishbook Cameras", by Kenneth Poli (POPULAR PHOTOGRAPHY, April 1970, p. 66), mentions some Conley history. A 1,500 sq. ft. "tower" built at Waters Instruments' new building for the production of the unique membrane material used in the oxygenator.
- 1971 - Waters Instruments, Inc. moves into its new 60,000 sq. ft. plant. About 200 employees. Last Waters Conley phonograph, a small portable model, produced for Sears.
- 1974 - Waters Conley becomes Telex Communications, Inc., April 1. Tom Burton becomes president of Waters Instruments, in August, with the resignation of George Waters, who stays on as Chairman of the Board.
- 1975 - 80% of home pasteurizer sales are to Sears, Roebuck & Co. Telex of Rochester (Minnesota) also makes aviation calculators and plotting boards, a photo map interpretation kit, fractional D.C. motors for tape recorders (one wound every 30 seconds), and an English-metric conversion disc (the Dial-A-Con Anglo-Met-Convertor). The Telex companies of today represent a merging of Magnecord, Inc. (est. 1946, Chicago), Viking of Minneapolis, Co., (est. 1954), Midwestern Instruments, Inc., and Waters Conley, Co., Inc. Their combined products, included in two groupings, are: 1) Computer Products Group; disk pack drive systems, magnetic tape drives and systems, train printer systems, memory subsystems, oscillographs and galvanometers, 2) Communication Group; aircraft high fidelity stereo devices, cartridge players and recorders, tape duplicating systems, reel-to-reel tape recorders and players, hearing aids, microphones, headsets, radio phonographs, high fidelity components, dynamic transducers, military tape recorders, terminal recording devices, air navigation mechanical computers and plotters, instrumentation tape recorders. The sophisticated line of Telex products is used in taking over a million measurement records from any one aircraft test flight, education (cordless headphone inductive loops), radio broadcasting (both professional citizens band), etc. The Section on photography of the Mayo Clinic has continued to use a Conley Silent Shutter daily since the last production of these shutters and probably for even longer.

Author's Note:

Sears, Roebuck & Co. was the sole distributor of Conley cameras for a number of years. Thus, much of my research (which Conley model covered which years) rests on my going through early Sears' catalogs. Though I have been to the Sears' Archives in Chicago to take notes from these catalogs, much more time is needed there to round out my work. There are several references I would like to make at this time but they will have to wait until I have another chance at the Sears' catalogs.

Lenore Swoislin, Curator, Sears Archives, has saved me a great deal of research by sharing with me a sixteen-page manuscript (unpublished) concerning Sears' sales of photo and phonograph products from 1896 to 1965. This manuscript was prepared for company use by the staff of their archives. Special catalogs dealing with photographic items have been put out regularly from 1897 until re-

cent years. Only the more recent of these special catalogs are available at Sears. They do have, however, all of their general catalogs covering the years of their camera sales.

Much thanks go to both Don Ryon and the late Victor Moyes of Kodak's Patent Department Museum, to Sears Archives for their help and for the use of their 1965 History of Cameras (from the Sears' catalogs), to Fred Kennedy and his 1965 History of the Waters Conley Co., Inc., to Telex Corp., Waters Instruments, Inc., the Mayo Clinic Archives, the Olmstead County Historical Society, the Spring Valley Community Historical Society, and to numerous others for their considerate letters, interviews, and open files.

I hope that readers will excuse my inclusion of a few historical events commonly known to the photo-historian and camera-collector subscribers of this Newsletter, as I intend to share reprints of this article with the Olmstead County Historical Society in Rochester, Minnesota, my high school library in Spring Valley, Minnesota, and others who are laymen to the history of photography. Also included are a few family events not directly related to the production of Conley cameras and their sales, but hopefully of interest to my readers.

Additions and corrections will be greatly appreciated and can be sent to me, c/o THE PHOTOGRAPHIC COLLECTORS' NEWSLETTER.

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