PHILADELPHIA’S SHARE IN AMERICAN PHOTOGRAPHY.

A VERY interesting contribution to the history of photography- in America appeared in a recent Issue of the Public Ledger, Philadelphia. We republish extracts from this account because this MAGAZINE was born in Philadelphia in 1864, and its editor “mixed up” with the early growth of photography in the Quaker City. Prior to the beginning of the MAGAZINE its editor was associated with Mr. Gutekunst, and often heard the veteran portraitist refer to the details given in the record as published by the Public Ledger. The Ledger’s account is supplemented by the reproduction of the first daguerreotype taken by Cornelius, in 1840, a portrait of Mr. F. Gutekunst as he appears to-day, a portrait of Robert C. Cornelius, the first daguerreotypist of Philadelphia, and an ambrotype of two gentlemen taken by Mr. Gutekunst in 1854 (with the lens spoken of in the first part of the Ledger’s account), in the druggist’s store of Mr. Avery Tobey.

As the men and landmarks mentioned in this historical note are fast disappearing from among us, we are sure that our readers will agree with us that the matter is worthy of preservation in our pages.—[editor W. P. M.]

“In these days when there is an amateur photographer in nearly every household, it is interesting to note that all of the earlier professional photographers were amateurs at the outset. This is true of the Nestor of the profession, Frederick Gutekunst, the veteran, who has maintained a famous gallery on Arch street, above Seventh, for nearly fifty years. The story of his career is that of the development of the photographic art in Philadelphia, which has contributed as much as any one city in the world to the inventions and discoveries that have made the business of taking pictures the plaything of the public.

‘DAGUERRE’S DISCOVERY. The discovery of the method of making sun pictures or drawing by light was not the result of the work of one experimenter alone, but like almost all scientific discoveries, represented the labors of many men, though the final process received the name of the man who crystallized what had before been nebulous. The camera obscura, invented by Jean Baptiste Porta, showed how the image of an object could be projected upon a screen. Professor Charles, Sir Humphry Davy, Wedgewood, and James Watt contributed information on the subject, and Talbot was on the eve of success when Daguerre, who had been at work with Niepce, discovered a means of fixing the image, and received all the credit of the invention.
“But the art was not fully established until Scott Archer made public the collodion process upon glass, which itself has been displaced by gelatine. Photography as we understand it to-day is little more than half a century old. An attempt was made to patent the fundamental principle of photography, but it failed: one of the important bits of evidence proved that the process had been used and was common property before the application for the patent had been made, being a photograph which showed the front of the Chestnut Street Theatre bearing a dated playbill. It was a good custom of those days to date all playbills and placards in full, and in this, as in other cases, the playbill helped to fix the time of the occurrence.

“It is related that Daguerre accidentally discovered the means of developing daguerreotypes with vapor of mercury. Before he made the discovery a very long exposure was required. . . . The announcement of his process had no sooner been made than hundreds of amateurs in all parts of the world began experimenting along the same line, and in a very short time the process was greatly improved, and other means of making sun pictures were found. Professors Morse and Draper, in New York, and Dr. Paul Beck Goddard, in Philadelphia, were among the successful experimenters who improved the processes.

“FREDERICK GUTEKUNST. Frederick Gutekunst was the son of a German cabinetmaker, who upon coming to this country settled in Germantown, where Frederick was born in 1831. The boy, after receiving a common school education, began his experiments while in the employ of Avery Tobey, a druggist, at 1215 Market street. Here, while attending strictly to his business, he gave some attention to chemistry and electricity—the latter a science which had not then advanced much beyond electroplating, electrotyping and telegraphy. Daguerreotypes, although they had been made for several years, were still regarded as great curiosities. Young Gutekunst conceived the idea of making copper electrotypes from daguerreotypes, and succeeded in doing so, though the process did not become of commercial value, because of the advancement of the art in other directions. Nevertheless, the product of this experiment—a portrait of Mr. Gutekunst himself—is an interesting example of the beginning of reproduction processes. Mr. Gutekunst made three of these copper plates from one daguerreotype, and has one of them framed, hanging in his studio.

“Mr. Gutekunst’s experiments in electrotyping led in a very strange way to the adoption of his profession. Dr. Isaac Norris, afterward Secretary of the Franklin Institute, then a young man, had been experimenting with daguerreotypy, and had heard of young Gutekunst. He sought the latter’s home and proposed to exchange his camera for the latter’s electrical battery. Gutekunst willingly made the bargain, for he had been a frequent (volunteer) sitter at Root’s gallery, and was greatly interested in the relatively new process of picture making. What Mr. Norris did with the electrical apparatus is not recorded, but Mr. Gutekunst experimented under great disadvantages, mainly because of want of light, with the camera. He succeeded in getting images of some sort, which only whetted his appetite for something better. He wanted a better lens, and when he had saved $5 he started from his drug store to the Public Ledger office to advertise his needs. On the way down Market street he came to the ambrotvpe gallery of a man known as the “Buckeye Blacksmith,” and, seeing the proprietor at the door, asked him about the process of coating a plate for ambrotypes, at the same time explaining his errand in advertising for a lens. The “Buckeye Blacksmith,” who cannot be more definitely identified in this veracious history, replied that he had a lens to sell, and thus deprived the Ledger of an advertisement, for the price he asked for it was $5, and this was the exact
amount which young Gutekunst had saved for its purchase. The bargain was quickly made, and with his new lens Mr. Gutekunst began his amateur career as a taker of pictures. His only leisure time was during the noon hour, but as an enthusiastic amateur he was always ready to sacrifice his dinner for the opportunity of taking a picture.

“His First Gallery. The hardware store had been kept open late; when it was closed the proprietor and young Gutekunst started together to their respective homes at Fourth and Branch streets. Passing through Arch street with a companion Mr. Gutekunst noticed that 706 Arch street (then No. 164) was for rent. He remarked that it would be a good place for a gallery, and on his arrival at home mentioned the house to his brother. The latter at once said that the place should be rented on Monday morning, but Frederick went to his work as usual. In the course of the day he was informed that his brother had taken the Arch street house, and he was, therefore, obliged to give notice to his employer that he intended to leave, which he did with regret.

“The gallery was quickly fitted up with the necessary skylight, and Mr. Gutekunst began in 1856 his long career as a professional photographer with his $5 lens. His camera-box had been made by himself with the aid of his father, for amateur work. Success attended the undertaking from the beginning, and gradually the outfit was improved.

“From the beginning to the present day Mr. Gutekunst has taken a great pride in his profession, and has personally supervised all the work of his studio, from the taking of the negatives to the printing, mounting and other finishing processes. He has, of course, been obliged to employ assistants in all branches of the work, but has always retained direction, and to-day, as for more than forty years, is always to be found at work in his galleries during business hours. Because of his love for his profession, he has been ambitious to make photographs of men eminent in their several professions, and his collection of negatives of distinguished characters is probably equalled in few galleries in the United States, he has, likewise, been extremely conscientious in the delivery of prints. They may be satisfactory to the sitter, but if they are not regarded as satisfactory by Mr. Gutekunst, he will not permit them to go out, but insists upon a new sitting. The product of the gallery is thus kept at a high standard.

“The business grew apace with the growing demand for pictures. It grew amazingly with the opening of the Civil War, for then every soldier had to have his photograph taken, and so did all his relatives and his close friends. Photographers flourished as never before or since, and for years after the war some galleries lived upon the business brought them by the mere possession of old-time negatives.

“Growth of the business led Mr. Gutekunst to add the upper floors of No. 704 Arch street to his gallery at 706, and thirty years ago he moved to the commodious building, 712 Arch street, since occupied by his galleries. His brother urged him to buy a property at Twelfth and Chestnut streets for $80,000, but he preferred his old neighborhood. The Chestnut street property has so advanced in value that it is now worth $500,000.

“A Growth of Interest. A few years after Mr. Gutekunst had established himself as a professional photographer the Photographic Society of Philadelphia was formed, composed of both professional and amateur photographers, of which Mr. Gutekunst was an original member. The fortieth anniversary of the society was celebrated at the stated meeting, November 12, 1902, at which interesting reminiscences of the early days were given by John C. Browne and Mr. Samuel Sartain, and the latter exhibited a complete outfit for taking of daguerreotypes. This, he said, was one of the three earliest outfits used in Philadelphia. It was made for Dr. Paul Beck Goddard, an assistant to Dr. Robert Hare,
Professor of Chemistry in the University of Pennsylvania, the maker being Joachim Bishop, a mathematical instrument maker. Dr. Goddard lived on the east side of Ninth street, above Chestnut, and one of his earliest pictures was of the University buildings opposite his home. Dr. Goddard probably learned at once of Daguerre’s announcement in the summer of 1839 of his important discovery, for it is certain that in the fall of 1839 three Philadelphians were experimenting with the process. They were Dr. Goddard, Joseph Saxton, and Robert Cornelius. The latter was a sheet metal worker, and was probably led into the business by the demands made upon him for silvered copper plates, on which daguerreotypes were taken. He perfected the process of making and polishing them. These three men owned the three cameras, etc., heretofore mentioned, and all were diligently experimenting therewith in November, 1839.

“An Early Daguerreotype. Dr. Goddard discovered that bromine greatly accelerated the action upon the plate, and this discovery was almost as important as that made by Daguerre, for the original process was not commercially practicable. An exposure of ten minutes in strong sunlight was required for the plates made with iodine alone, which rendered portraiture almost impossible. Dr. Goddard imparted his secret to Robert Cornelius, who soon afterward, early in 1840, began the business of taking portraits at the northeast corner of Eighth street and Lodge alley (now Ludlow street), just above Chestnut street. The use of bromine was kept secret for two years; soon after it had leaked out and when rivals had appeared in the field Mr. Cornelius gave up the business and subsequently became a member of the firm of Cornelius & Baker, manufacturers of gas fixtures. Mr. Cornelius, some years afterward, presented to Frederick Gutekunst a daguerreotype which he said was the first taken in Philadelphia.

“Dr. Goddard’s increasing practice led him to abandon his experiments, and he sold his picture-making apparatus to John Sartain, the famous engraver, whose son, Samuel Sartain, exhibited it at the Photographic Society. Mr. Gutekunst also has complete apparatus for making daguerreotypes, and has felt disposed of late to revive the beautiful art. Mr. Sartain says that the instructions accompanying the apparatus did not include the use of bromine, which was still a secret in the hands of Mr. Cornelius.

Some Early Operators. The number of daguerreotypers in those early days was never large, because considerable skill was required to produce good pictures and their high cost limited the demand for them. The introduction of the ambrotype increased the number of galleries, for pictures could be more easily taken, and they were brought within the reach of the multitude as to price. Photography still further popularized picture-making, and in the 50s there were many galleries in the city. Among the earlier operators were F. de Berg Richards [Frederick DeBourg Richards—edit.], the artist, who died recently; John Moran, brother of the famous painters, James, Edward and Peter Moran, and Messrs McClees, Germon, Collins, Wenderoth, Newell, Keeley and Bell.

“Van Loan & Mayall followed Cornelius as professional daguerreotypists. Their gallery was at Fifth and Chestnut streets on a part of the site now occupied by the Drexel Building. Marcus A. Root, who had been a teacher of penmanship and bookkeeping, succeeded Van Loan & Mayall and acquired great reputation for successful portraiture. He had the assistance for several years of Washington Peale, a descendant of the family of artists, whose brother, Howard Peale, subsequently became an operator in Gutekunst’s gallery. Mr. Root subsequently went to New York, taking Washington Peale with him.

“Ambrotypes. Inventions followed quickly as soon as the principle had been discovered and it was not long before ambrotypes supplanted daguerreotypes altogether. Occasionally a good ambrotype is seen, but, as a general rule, they are not equal to the
daguerreotypes of the same period. In the best practice the ambrotype was made on a piece of plate glass coated with collodion, sensitized with iodine and bromine. This was dipped into a bath of nitrate of silver, and while wet was exposed in the camera. The picture was developed with an iron solution and fixed with hypo or cyanide, the latter being generally used. Having been dried, the glass plate bearing the picture was sealed with Canada balsam to another plate, through which it could be viewed, and its back coated with asphaltum varnish as a backing. Ambrotypes thus made are very durable, some being as good as ever after the lapse of fifty years. The process was further simplified in the ferrotype or ‘tintype,’ which was made in a similar way on a piece of black enamelled iron. It required no backing, and was varnished to protect the film just as we see it to-day.

All of these processes labored under the one disadvantage, that they provided no means of reproduction; a sitting was required for each picture, except that, sometimes, a battery of lenses was used in which case as many pictures would be made as there were lenses exposed upon the sitter. Dry plate photography displaced them all because of its many advantages, chief among these advantages being that there is no limit to the number of pictures which can be made from one negative.

"For a great many years the wet process was used exclusively in photograph galleries, and it is still employed for making reproductions in photo-engraving establishments. The introduction of gelatine plates, which displaced collodion, was gradual.

"Amateurs in the early days were, generally, either chemists or artists, and thus brought to the work some special aptitude or fitness. They had to make their own apparatus at first, prepare their own plates and mix their own chemicals. Some of them made their lenses as well as their camera boxes, and not a few prepared the chemicals they were to use, for there were no supply houses except the drug stores. Down to the present day there are amateur photographers who perform all the work involved in the taking of a picture themselves, even to coating the paper upon which prints are made, and all who are worthy of the name develop the negatives and print their own pictures, preferably using developing and toning solutions prepared by themselves.

"ABOUT AMATEURS. There are many amateurs, however, who buy ready-made developers, fixing baths, toning solutions, etc., and know nothing of the art except that they are able to follow printed directions. There is a still larger army who can do nothing but ‘press the button’ and then engage professional photographers to do the rest. In the organization of the Photographic Society of Philadelphia, in 1862, professional and amateur photographers joined together on equal terms to found the organization. The society has maintained a high standard of membership, and its amateur members continue to vie with their professional brethren in skill and knowledge. The Photographic Society was started by Constant Guillou, who became its first President. Among the early members who contributed to the advance of the profession, as well as to the prosperity of the society, were Coleman Sellers, one time President and now the only honorary member; M. Carey Lea, whose chemical researches proved to be of great value: William Bell, John C Browne, Dr. Ellerslie Wallace, Frederick Graff, Edward L. Wilson and others."

[End of text.]

EDITOR’S NOTES:
The author of this text is not known to the present editor. An earlier article of similar title was authored by Julius F. Sachse. A comparison of the two texts reveals a marked difference of style. See Julius F. Sachse, “Philadelphia’s Share in the Development of Photography,” *Journal of the Franklin Institute* 85:4 (April 1893): 271–87.¹

The author provides a middle initial of “C” for the daguerreotypist Robert Cornelius. This editor is unable to locate confirming information regarding Cornelius’ middle initial.


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