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HERBERT BAMBER:

The Extraordinary Engineer of Highland, Michigan

PART II: FOLLOWING THE LIGHT

By John M. Havel

Part I—Herbert Bamber: The Making of an Engineer *was published in the Volume XXVIII, Number Four, 2012 issue of* The Keeper's Log *and recounted Herbert Bamber's upbringing in Highland Township, Michigan, his education and graduation from the Agricultural College of Michigan (now Michigan State University) in Lansing, and his first professional job as a surveyor in Utah. Part I concluded with Bamber in New Cumberland, West Virginia, working as an inspector at the dam on Blacks Island on the Ohio River for Lieutenant Colonel William E. Merrill of the Army Corps of Engineers.*

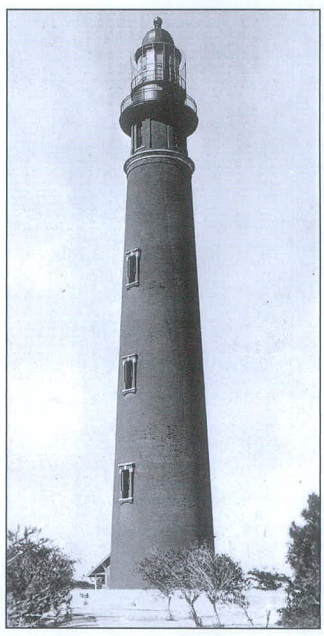
In 1885, just one month after his arrival in New Cumberland, Bamber wrote, "Received a letter from Major Smith June 24th offering me an appointment as superintendent of construction on a Florida lighthouse. With Col. Merrill's permission, I accepted the appointment as it gave me a longer engagement than the one I have here with the same monthly salary averaging $150 per month. Expect to leave here early in August."

A Lighthouse at Mosquito Inlet

The letter Bamber received a few weeks before his 27th birthday would begin his association with lighthouses—an association that would define the rest of his career. The letter offered him an appointment as superintendent of construction of the Mosquito Inlet Light Station on the eastern coast of Florida, midway between the Cape Canaveral Lighthouse to the south and the St. Augustine Lighthouse to the north. In 1835 a 45-foot brick lighthouse stood on the south side of the inlet, but through a series of misfortunes the light was never lit, and violent storms caused the tower to topple into the sea in early 1836, and so a new lighthouse at the inlet was critically needed.

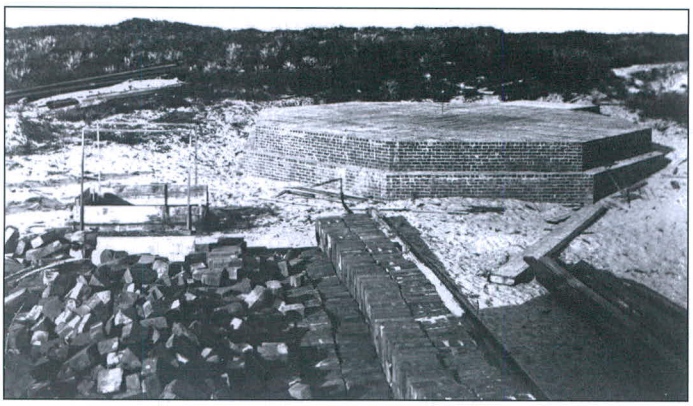
The offer to Bamber came about as the result of a tragic accident in June 1884 suffered by General Orville Babcock, chief engineer for the 5th and 6th Light-House Districts. Babcock had been in charge of the project at Mosquito Inlet since January 1883. Ellen Henry, current curator at the light station, wrote in the October 2007 *Ponce de Leon Inlet Light Station Quarterly Journal* that on his first survey trip to the area early in 1883, Babcock "discovered that the [lighthouse tender] *Pharos* was too large to enter Mosquito Inlet. Babcock determined that attempting to go ashore in small boats from the *Pharos* would be too dangerous, so he decided to take interior waterways and approach Mosquito Inlet from the Halifax River." It took Babcock two days to reach the inlet by taking this inland route, but it was a far safer way to go, considering the dangers of the inlet's shifting sands, shallow water, and dangerous currents.

For the next year and a half, Babcock's work consisted of surveying for an appropriate site for the new light. Once he determined an optimal location, he proceeded to arrange the purchase of the necessary 10 acres from the Pacetti family, who later used the sale money to open a boarding house. Babcock conducted tests of the sand and soil, oversaw the design of the lighthouse, arranged for the transport of materials and supplies, and hired a small work crew to begin construction of workmen's quarters and other temporary buildings. During the spring of 1884, he worked tirelessly overseeing the construction. The 6th District's April and May reports indicate that the engine and boiler for hoisting materials had arrived, the tramway from the river shore to the tower site had been completed, and additional supplies had arrived.



Mosquito Inlet Lighthouse. A 1923 photograph of the first lighthouse for which Herbert Bamber was chosen as superintendent of construction. It was renamed the Ponce de Leon Inlet Lighthouse in 1927. Photo courtesy of the Florida State Archives.

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Photograph of the completed foundation at Mosquito Inlet Light Station, c. 1884. Photo courtesy of the Ponce de Leon Inlet Lighthouse Preservation Association.

On June 2, 1884, Babcock arrived onboard the *Pharos* which sat at anchor in the open sea. Ignoring his own earlier advice, Babcock and a small party attempted to come ashore in a passing whaleboat. Although the surf was not unusually rough that day, the breakers were still quite large, and as they reached the first breaker, the steering oar snapped, the boat swung broadside to the waves, and the next breaker capsized the vessel. At first the men valiantly hung onto the boat, but they were soon washed away. Babcock and three others drowned. Only one of Babcock's party survived, a B.B. Smith of the 6th Light-House District.

Nevertheless, construction of the tower's foundation began a few days after Babcock's untimely death and, by the end of 1884, the foundation had been completed and the tower had risen to a height of about four feet.

At that point, appropriations had run out, and construction at the light station ceased. Congress made a new appropriation early in 1885, but as malarial fever ran rampant in the mosquito-infested waters, work was delayed until after the hot "sickly" season had passed. Within weeks of Babcock's death in June 1884, Major Jared A. Smith, U.S. Army Corps of Engineers, received orders to take charge of the 5th and 6th Light-House Districts. Smith had been Bamber's supervisor in Indianapolis and, appreciating Bamber's engineering aptitude, wrote to him in July 1885 offering him the appointment in Florida.

On August 1, 1885, Bamber completed his duties at the dam on Blacks Island and, two days later, on August 3, reported to Smith's office in Baltimore.

Construction Resumes

Three months later, in October 1885, Bamber arrived with Major Smith and two others in Florida. One of the men in their party was B.B. Smith, the survivor from Babcock's drowning incident.

In his journal, Bamber wrote, "Ponce Park, Florida: Major [Jared A.] Smith, Mr. B.[B.] Smith, Asst. Engineer 6th, Mr. Wilder and myself arrived here October 30th. The Major and Mr. B.B. Smith left us on November 1st....We immediately made the acquaintance of Mrs. Pacetti, who entertains tourists and got some dinner of which we were somewhat in need, having been some time on the steamer whose accommodations were not palatial."

From this point on in his journal, Bamber's notes are sporadic. Late in 1885 he wrote that "[s]ince November 2nd have been working from 3 to 8 men grubbing, receiving brick, making shed, etc." On December 27, he notes, "Have not begun bricklaying yet. Are waiting for the Tracy Brown to bring a cargo of building sand from the Savannah River." We learn from the journals that although his small work crew busied themselves with various projects at the site, work on the tower did not resume until January 1886, remaining just four feet high since the end of 1884.

However, a different source informs us that Bamber was not idle during this time. The 1887 *Annual Report* of the U.S. Light-House Board contained two appendices written by Bamber. The first was a "Report upon the Test Made of the Cements Used in the Construction of the Mosquito Inlet Light-House, Florida," which, according to volume 15 of *The American Engineer*, he presented at a meeting of the Engineers' Club of Philadelphia on April 7, 1888. The second piece, more relevant to the story, was a "Report upon the Working Platform Used in the Construction of the Mosquito Inlet Light-Tower, Florida." This innovation of Bamber's was likely designed and developed during the extended lull in construction, as several period photographs show his working platform in use as the work progressed.

The first page of this appendix opens with:

Highland, Mich., October 15, 1887.

Colonel: I have the honor, in response to your request through Captain Mallery, to inclose a brief description of the outside working platform used in the construction of the tower at Mosquito Inlet, with a description of the process of raising, etc.

Very respectfully, your obedient servant,
H. Bamber,
Superintendent of Construction Mosquito Inlet Light-Station.

Col. James F. Gregory,
Engineer Secretary, Light-House Board, Washington, D. C.

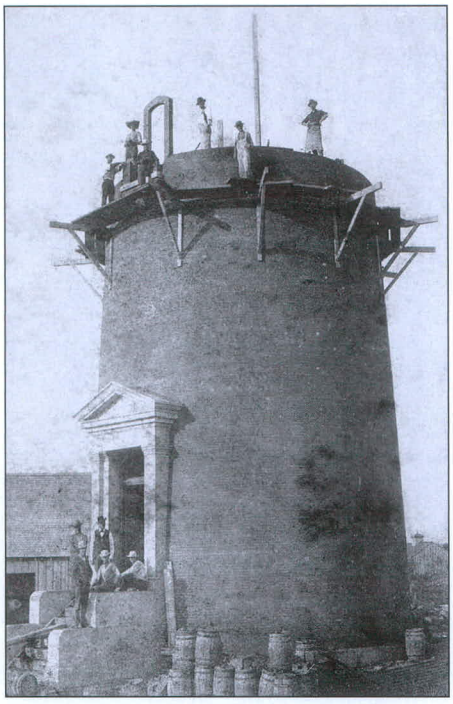
Bamber's description of this new scaffolding system is just a page and a half long and includes a fold-out drawing of the platform in use, with details and notes.

In Bamber's design, individual bricks were left out of the exterior tower wall every 10 feet vertically and horizontally so that support brackets for the platform could be set into these holes. Once the tower was completed, the platform was lowered level by level and the gaps filled with bricks. According to the National Historic Landmark Study (Eshelman, 1997), Bamber's invention increased the efficiency and ease of constructing masonry towers. The study goes on to say that this new technique, first used at Mosquito Inlet, was so successful that the U.S. Light-House Establishment adopted Bamber's method as standard practice for future brick masonry tower construction.

One year later, in 1886, Bamber wrote of tragedy and illness, "November 28th, Ponce Park: Have been alone in the office since the latter part of September. Mr. Smith, foreman, was drowned near Port Orange in February. Mr. Strachan was sent to take his place early in May. During July and August Mr. Wilder and myself were troubled with a dysentery and Mr. Wilder was obliged to go north. I was about, with the exception of about two weeks in July when first attacked."

His entry continues, telling of the progress made since work resumed early in 1886. "Work on the tower was begun last January and continued until the 8th of September when the supply of brick suitable for the tower being exhausted, work was suspended and begun on the foundations of the dwellings. Work was continued with a small

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Mosquito Inlet Lighthouse under construction. Photograph taken in 1886 by S. Shear. Workmen at the top are standing on the working platform designed by Bamber. Photo courtesy of the Ponce de Leon Inlet Lighthouse Preservation Association.

force until November 17th when more brick, having arrived, work upon the tower was resumed."

Progress reports to the Light-House Board reveal that by the end of the year "470,000 bricks had been used and the tower stood at 51 feet." In March 1887, Congress authorized an additional $20,000, the oil house was completed, and the three keepers' dwellings and their outbuildings were ready for plastering. The tower's first-order Fresnel lens was installed late in 1887.

In his journal, Bamber makes a reference to a separate "station journal" that was kept, but it has yet to be discovered. Perhaps Bamber recorded more details of daily activities at the construction site in this station journal and neglected his personal journal as a result.

In the last weeks of 1886, Bamber wrote, "December 5th, Ponce Park: Pleasant weather the past week. Work on the tower going forward satisfactorily. Fifteen in the party besides myself—4 bricklayers. Lumber and other material for dwellings to be delivered January 15th, after which date it will have to be freighted to the station."

This is the last entry regarding construction at Mosquito Inlet in Bamber's journals. By the time he wrote again, a full year had passed and construction at the light station had been completed.

"December 31st [1887]: Was not able to leave the M.I.L.S. Ponce Park, Florida until the first Sunday in October [this was October 6]. Left Walter Crook in charge and proceeded to Baltimore." Having completed his assignment, Bamber left Mosquito Inlet and began the trip north, stopping in St. Augustine and Jacksonville. Upon arriving in Baltimore he wrote, "Completed my report, etc., so that I left Baltimore for a visit home on the second Sunday of October."

In his last journal entry, we learn of Bamber's next assignment, the position he will remain in until he retires. "Having been transferred to or given the appointment of Superintendent of Construction in the 4th Light-House District, I reported at the office [in Philadelphia] November 1st. Was at home again Thanksgiving week to be present at the marriage of Mary on November 23rd." On that date, his sister, Mary Elizabeth, was married to Leslie Albert Buell, a local farmer. Soon after their marriage, Mary and Leslie moved to Kansas where their only child, Herbert Joseph Buell, named after Mary's dear brother, was born.

On November 1, 1887, the same day Bamber reported to his new position in Philadelphia, Principal Keeper William Rowlinski climbed the tower of the Mosquito Inlet Light Station and lighted the lamp for the first time.

The light station, renamed Ponce de Leon Inlet Lighthouse in 1927, was designated a National Historic Landmark in 1998. After decades of restoration by the Ponce de Leon Inlet Lighthouse Preservation Association, the lighthouse stands today as one of the best preserved, most complete light stations in the nation, and a private aid to navigation that after 120 years still guides maritime traffic along the Florida coast.

The 11 journals of Bamber acquired by the Highland Township Historical Society (HTHS) end here in December of 1887 with Bamber's new assignment in Philadelphia and just a brief note on the passing of his maternal grandfather, Noah Pomeroy Morse.

Working for the Light-House Establishment

Records regarding Bamber's activities serving the 4th Light-House District over the next few years are sketchy, but they provide some information to help paint a picture of his work during this period. Collections of Bamber's papers at both the Detroit Public Library and Michigan State University may provide more details, but examination of these records was not possible before the publication of this article.

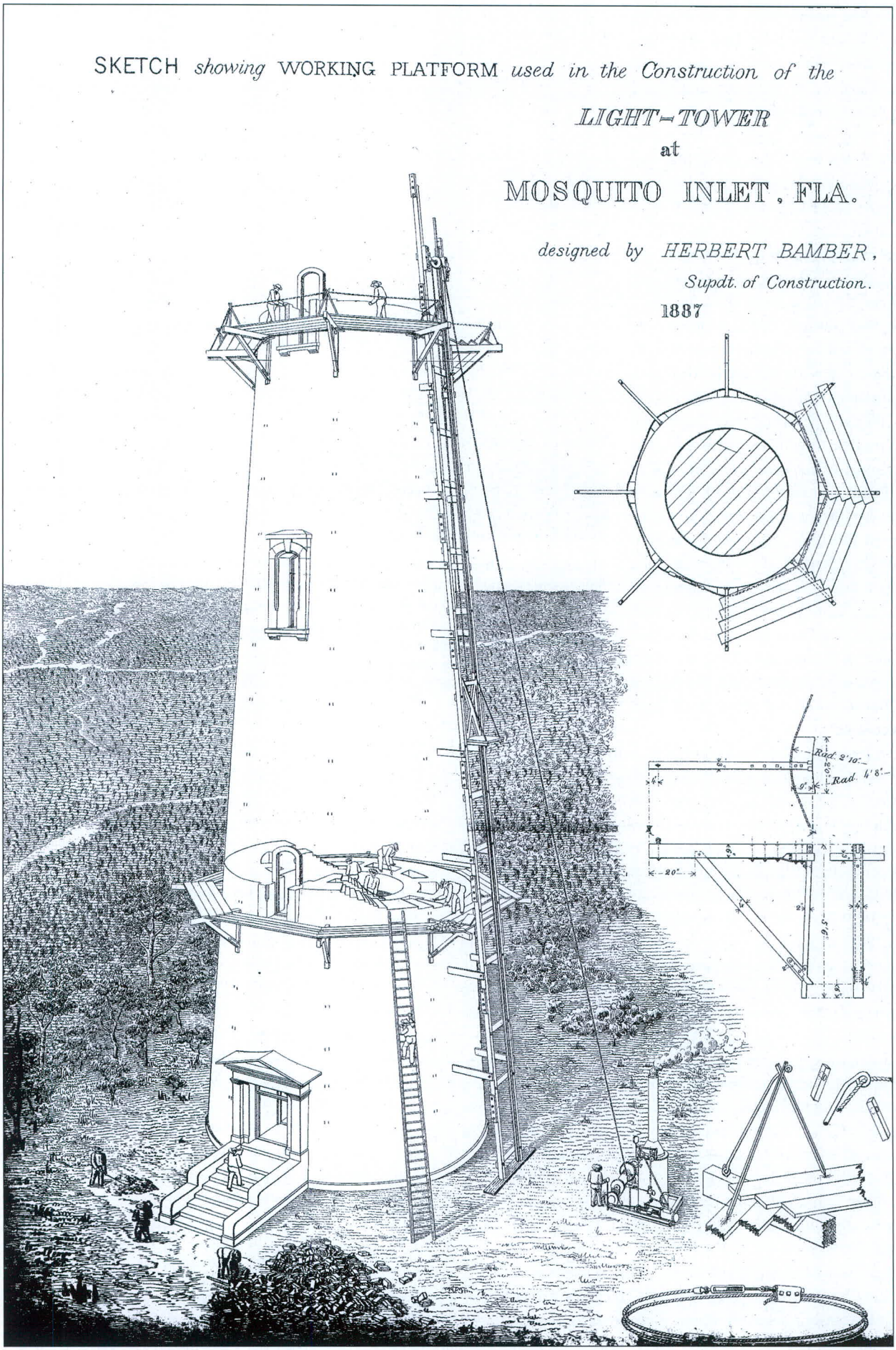
In 1852 the U.S. Light-House Board divided the country into 12 districts (more districts were created in later years) as part of its modernization and restructuring of the administration of lighthouses. The 4th District, where Bamber would serve, was defined as follows: "This district extends from a point on the coast of New Jersey opposite Shrewsberry Rocks but does not include the rocks to and includes Metomkin Inlet, Virginia. It embraces all aids to navigation on the seacoast of New Jersey, Delaware, Maryland, and Virginia, and the tidal waters tributary to the sea between the rocks and the inlet."

At the time Bamber began his service, the *Annual Report* for the U.S. Light-House Board listed the following navigational aids for the 4th District: 49 light-houses and lighted beacons including: 5 first-order lights, 3 third-order lights, 12 fourth-order lights, 9 fifth-order lights, and 3 sixth-order lights; 1 lens-lantern, 8 range-lenses, 8 reflectors, 3 light-ships in position, 2 day or unlighted beacons, and 179 buoys and fog signals.

Bamber began his service with the Light-House Establishment in November of 1887. The *Official Register of the U.S., Containing a List of the Officers and Employés in the Civil, Military, and Naval Service* continues to list him in this position until at least 1892, and in both census records and passport applications through 1912, he is listed as a "civil engineer" for the U.S. government residing in Philadelphia. As noted in Part I of this article, Bamber's various titles—superintendent of construction, assistant engineer, and surveyor—all fall under the discipline of civil engineering. Without journals or other personal accounts, one of the few other resources from which to discover Bamber's activities in these years is the National Archives.

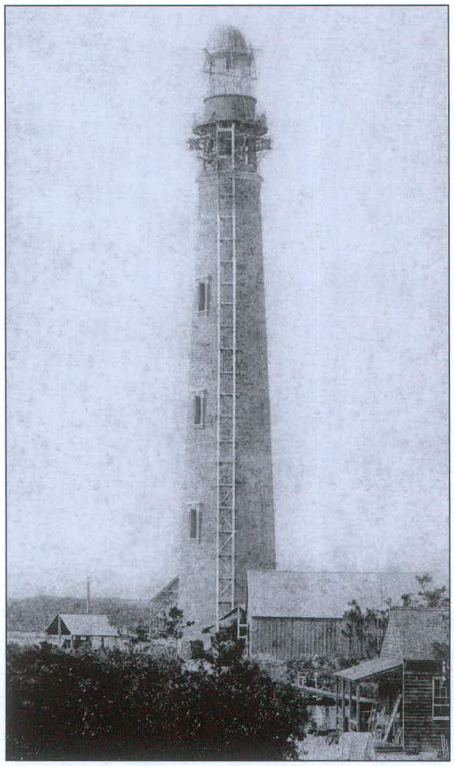
The National Archives and Records Administration (NARA) in Washington, D.C., contains a collection of records designated "Correspondence of the Light-House Board, 1776-1900," under Record

Facing page: Bamber's 1887 sketch of his working platform first used in the construction of the Mosquito Inlet Light Station. His superb draftsman and artistic skills are clearly demonstrated in this rendering, which appeared in the appendices of the 1887 *Annual Report* of the U.S. Light-House Board.


SKETCH showing WORKING PLATFORM used in the Construction of the
LIGHT-TOWER
at
MOSQUITO INLET, FLA.
designed by HERBERT BAMBER,
Supdt. of Construction.
1887
Rad. 2'10"
Rad. 4'8"
20'

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Group 26, the main collection for holdings of the U.S. Coast Guard through the years. These records were collected into bound volumes when the Archives was established in 1935 from records stored by a variety of agencies. Some were found in basements and attics, many were subjected to fires and flooding over the years, and many, therefore, are damaged, fragile, or incomplete. According to Susan Abbott, archivist for NARA, "In many cases page numbers located on the outside corner of the page were burned off, and some of the pages are so brittle that they crumble when touched. When records can be located, they can be pulled for researchers as long as they are not too damaged." Therefore, it is important to remember that these records can contain many gaps, and those that can be accessed may be only a small representation of the original correspondence of the Light-House Board. The Archives also has created reference slips for every document acquired, forming an index for the entire collection. These are handwritten or typewritten slips that contain the name, subject, and date of the original document, as well as a one sentence description of its subject. The slips also include the number of the bound volume, or "letter-book," and a page number where the original correspondence can be found—if it still exists and is accessible.



Photograph of Mosquito Inlet tower construction nearly complete. Photograph by E.G. Harris of Daytona, Florida, most likely in 1887. This is a cropped and enhanced image of the original photograph, in the collection at Ponce Inlet and which is in very poor condition. Photo courtesy of the Ponce de Leon Inlet Lighthouse Preservation Association.

In a recent search, 43 reference slips associated with Bamber were located, representing 43 different letters sent by, or pertaining to, Bamber and his activities between 1885 and 1895. Although this division of the Archives contains records through 1900, no records later than March 1895 were found for Bamber. Additionally, six letters for which slips had not been found were discovered.

Looking first at Bamber's activities at the Light-House Establishment until 1892, eleven references dated from October 7, 1887, to June 14, 1889, were found. Of these, only two complete letters could be retrieved—for the others we have only the information found on the reference slips. The first two of these slips are simple requests for reimbursement for Bamber's travel expenses while working for the 4th District.

The first complete letter that could be retrieved is dated October 7, 1887, and is written by the secretary of the U.S. treasury, under which the U.S. Light-House Board served at this time. "As requested in your letter of the 3rd instant you are hereby authorized to transfer and employ Herbert Bamber as Superintendent of Construction in the Fourth Light-house District, with compensation at the rate of one hundred and fifty dollars per month from date of entering on duty, vice E.A. Gieseler, resigned. Respectfully yours, C.S. Fairchild, Secretary"

The next complete letter was written by Bamber on December 4, 1888, asking for reimbursement for travel. The letter states, "I have the honor to transmit herewith receipted vouchers for service during the month of November and also vouchers for travelling expenses ($45.00 & $92.75), Very respectfully your obe't servant, H. Bamber Inspector of Metal-Work, D.I.L.H." This was the only instance found where Bamber signs a letter with a title other than "Superintendent of Construction" or "Assistant Engineer." The initials "D.I.L.H." possibly stand for "Destruction Island Light House" in Washington. Bamber had a set of blueprints for this lighthouse among his papers at the Detroit Public Library, and the tower was under construction in 1888—however, this is only an educated guess.

Seven more reference slips refer to letters dated between January and June of 1889. All seven are requests for reimbursement for traveling expenses. The first three in January and February were addressed from Highland, Michigan, so we may assume Bamber was home for the holidays. All others were sent from Philadelphia and Bamber uses the title of superintendent of construction on all. So, the most we can conclude is that Bamber was traveling for the Light-House Establishment during his first four years, and we have the one letter signed "Inspector of Metal-Work," but precisely what his other assignments were is unknown at this time.

The Lighthouse Photographs

The summer of 1892 marked a major change in Bamber's professional career. To understand more, we need to return to the subject of Bamber's well-known photographs of American lighthouses mentioned in the introduction to Part I of this article. As the primary focus of my research is the Cape Hatteras Lighthouse in Buxton, North Carolina, I knew that the seven photographs Bamber took in 1893 were also the earliest known images of this light, completed and lit in December 1870.

The foremost dealer in nautical and lighthouse-related antiques, Kenrick A. Claflin & Son Nautical Antiques of Worcester, Massachusetts, occasionally listed original photographs and other Bamber items for sale. It was through the Claflin's website that I first learned the term "cyanotype," a different kind of photographic print—quick, inexpensive copies, with a distinctive blue-green hue—that Bamber produced on-site and retained for his own records.

From the lighthouseantiques.net web site: "Mr. Bamber made an extra print of each photograph for his own files and these photographs were found in his barn in the Midwest a few years ago. These were original photographs, hand printed at the lighthouse location in 1892-93....These rare early views were from a process known as cyanotype, named for one chemical, cyan, that is used, thus the blue/white coloring rather than the traditional black/white. Most photographs printed in this manner show considerable detail." [Note: cyan is not actually a chemical, but the blue-green hue produced by the chemical potassium ferrocyanide.]

As mentioned earlier and recently verified with James Claflin

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(Kenrick's son), a trunk full of Bamber's materials, including the cyanotypes, was found in a barn on the Bamber family property in Highland Township. It is known that this trunk, and possibly other possessions, was sold at auction sometime prior to 1978 when the present owners purchased the property. Claflin indicated that an elderly couple brought the trunk of materials to him to sell on consignment in the mid-1990s. Bamber's photographs and documents were then sold through Claflin's website and catalog to their extensive clientele of lighthouse collectors and aficionados.

In the spring of 2011, an Illinois man offered for sale on eBay a collection of Bamber materials that he had purchased from Claflin in 1997. The collection included seven original cyanotypes, three of which were of Cape Hatteras. I purchased the collection immediately. What I did not realize at the time was just how valuable, in terms of my research, the other materials in this collection would be. In addition to the seven cyanotypes, the collection included:

•Two carbon copies of Bamber's photographic supply order, as well as two carbon copy pages of typewritten price quotes received from Williams, Brown, & Earle, importers and manufacturers of mathematical, optical, microscopical, and photographic instruments and supplies in Philadelphia. Each of these sheets is dated and contains Bamber's original pencil notes he made in preparation for his journey.

•A photocopy of Bamber's first logbook detailing each lighthouse location and every photograph he took, with notes on weather conditions, exposure settings, and other comments, including the notation "To L. H. B." to the right of each entry, which he sometimes spelled out as "To L. H. Board," to confirm that each finished print was mailed back to Light-House Board headquarters. Unfortunately, this logbook only includes photographs through number 261, taken at Point Loma, San Diego, California, on December 13, 1893, so we do not have a detailed record of the rest of his journey. Additionally, some pages of this photocopied logbook are difficult to read, due both to Bamber's handwriting and the quality of the reproduction.

•A second photocopied book of all the cyanotype prints found in the trunk. In the field, every final photograph that Bamber created was neatly labeled along the bottom edge, but in the case of the cyanotypes, the labeling simply included his print number and the light station name, usually in pencil on the back with the print number sometimes in red ink on the front. In this volume, which was printed in March 1996, Claflin added his own printed labels on each page. These labels include Bamber's numbers and the light station's name and are ordered numerically within the album. The volume begins with photograph number 2, taken at the Isles of Shoals Light Station in New Hampshire, and ends with number 371, taken at Willapa Bay in Washington. Some prints are missing, and many of them, including the seven I purchased, show some water damage to one side of the print. In most cases the damage is just a brown staining extending into the print, but it is clear that some prints were badly damaged, which may explain why some images are missing.

These new-found documents provide a wealth of information concerning Bamber's photographic expedition, enabling me, 120 years

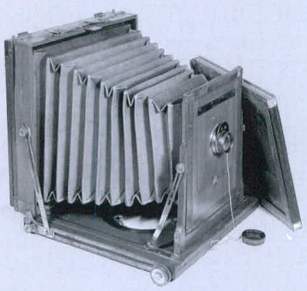
Photography in the 1890s

For some readers, film photography may be an unfamiliar concept—especially in this digital age with a camera phone in every pocket. For those who do remember film photography—using negatives, paper, and chemicals for processing—we may have a somewhat better understanding of what photography was to Bamber and his contemporaries.

At the time Bamber took his first photograph in 1892, photography had become a popular pastime, profession, and tool, and innovations were rapidly being made. Most 19th century photographs were "albumen" prints. Invented in 1850, the albumen print was the first commercially usable method of producing a photographic print on paper from a negative. It used the albumen found in egg whites to bind the chemicals to the paper and became the primary form of photographs through the turn of the century.

The beauty of albumen photographs was related to their smooth, hard surface; translucent luminosity; and soft tonal coloration. The warmth and radiance of such prints are their fundamentally distinguishing characteristic, and their color varied from a red-violet to a warm reddish brown or sepia.

Albumen photographs were printed on very thin paper. Although none of Bamber's lighthouse photographs were mounted, most 19th century albumen prints were glued to a piece of cardboard called a mount. The larger of these mounts was called a "cabinet card," so called because it was often displayed in a cabinet. Smaller, pocket-sized versions were known as *carte de visite*, French for "visiting card," and often were used as calling cards. Local stores often sold cabinets or cartes of famous people, from presidents to actresses, as well as nature scenes and cityscapes, and collecting these and pasting them into albums was a popular pastime.



A Scovill Albion 8" x 10" folding camera, such as the one used by Bamber to create his lighthouse photographs.

Another photographic process, invented in 1842, was the cyanotype. Unlike albumen prints, these vivid blue images had a matte surface, but they also showed considerable detail. The process became commonplace because of its relative ease compared to other processes. By simply pressing a sensitized sheet of paper against the glass negative and exposing it to direct sunlight, a "negative-of-a-negative" could be made—the cyanotype. These were actually the first "blue prints" and were used to reproduce engineering drawings, as well as photographs, just as many blueprints are still created today. In fact, on one of the sheets of Bamber's photographic supplies quote, in his own handwriting he noted a number of additional items, the first one being, "6 Doz. 8 x 10 B. Print Paper," or, six dozen sheets of sensitized "Blue Print Paper" for the cyanotype copies he wanted for his own files.

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later, to create a reasonably complete record of his journey. Using the dates from the quote for photographic supplies and from his logbook, the album of his cyanotypes from Kenrick Claflin, the 17 intact letters obtained from the National Archives, as well as information from the 43 reference slips, I was able to determine which light station Bamber was at on a particular day, how long he stayed (or at least when he arrived at the next location), the totals for the number of photos he took and stations visited, and how many months this protracted assignment demanded of him.



A cyanotype print of the Point Pinos Lighthouse in California. Photograph taken by Bamber in 1894. This is one of the hundreds of cyanotype prints found in a barn on the property known as "The Ark Farm." The water damage and staining on the left side of this fragile paper print is typical. The original is of a bright blue hue. Photo from the author's collection.

Bamber's "Special Duty"

One reference slip found refers to a letter dated March 15, 1892. It was written by the secretary of the treasury and states, "Bamber, H. Engineer Asst. L.H. Service employment. authorized." As we know Bamber was already employed with the Light-House Service, but evidently, at this time, Bamber had been assigned to a new position.

Although the complete letters could not be retrieved, two reference slips dated June 14 and June 25 reveal that Bamber had been reassigned to perform a "Special Duty"—described in several subsequent records as a "Survey of Lighthouse Reservations." As these new records came to light, it finally became clear that Bamber's enduring and well-recognized photographs were just one part of a larger scheme within the Light-House Establishment. The letters reveal that much of the time traveling Bamber wore the hat of surveyor, with his transit (a surveyor's instrument of measure), level, and notebook, methodically calculating corners and measuring angles and distances, to determine and record the precise boundaries of each lighthouse reservation. Subsequently he put on the hat of a photographer to create his renowned images.

On June 20, 1892, Bamber received a quote from Williams, Brown & Earle, importers and manufacturers of mathematical, optical, microscopical, and photographic instruments and supplies in Philadelphia, for equipment and supplies required for a photographic field and developing outfit. The camera he chose was a folding Scovill Albion 8" x 10" camera, a state-of-the-art camera for a photographer working in the field. Twenty-four days later, on July 14, Bamber recorded his first photograph in his logbook at the Isles of Shoals Light, on present day White Island, six miles off the coast of New Hampshire.

By their nature, lighthouses are often remote, lonely places and, especially in the 19th century, difficult to access. From the solitary rocks of White Island, New Hampshire, to the mosquito-infested sands of Hatteras, North Carolina, to the craggy cliffs of the Pacific Northwest, Bamber steadfastly trekked onward. We can only imagine the difficulties Bamber had transporting camera, chemicals, glassware, and other delicate equipment from trains, to boats, to horse and wagon, to 68 light stations in every nook and cranny of America's coastline. Upon arrival at each station, Bamber surveyed the station's site, carefully composed and shot his photographs, noting the camera's station for each exposure on his survey, developed his negatives, printed his final prints and copies, carefully labeling each one, and finally, packed up his equipment for the next leg of his journey to another remote guardian of the shores.

In Part III we will follow Herbert on his three-year journey crisscrossing America to survey and photograph light stations, and learn of his remaining years as an engineer for the 4th District and his retirement back, once again, at his Highland Township home.

Acknowledgments

My sincere appreciation goes to Diane Needham and the Highland Township Historical Society (HTHS) of Oakland County, Michigan, for generously sharing the journals of Bamber. In 2005 the HTHS acquired 11 of Bamber's journals from a local collector. Two HTHS members, Dick Bohl and Roscoe Smith, transcribed the handwritten journals, which then were published in the society's newsletter from 2007-2010. As their society is quite small, few people outside the Highland community were aware that these documents existed. The journals have been invaluable in bringing the faintly outlined figure of Bamber into clearer focus.

Special thanks also goes to Elizabeth (Betty) Buell Baldwin of Garrett Park, Maryland, (whose grandmother was Bamber's sister, Mary Elizabeth Bamber Buell) for entrusting numerous original photographs of Bamber and his family to me for scanning and publication—finally putting a face to his name.

John Havel is a graphic designer with the U.S. Environmental Protection Agency in Research Triangle Park, N.C. He has been fascinated by the Cape Hatteras Lighthouse for many years, and this study of Herbert Bamber is an offshoot of a larger research effort to create an accurate photographic history and chronology of this interesting and beautiful lighthouse. John lives in Raleigh with his wife, Aida, who helps with his lighthouse research.



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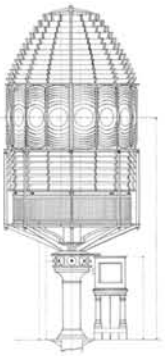


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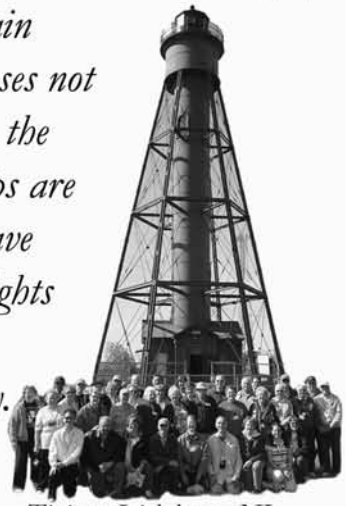
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