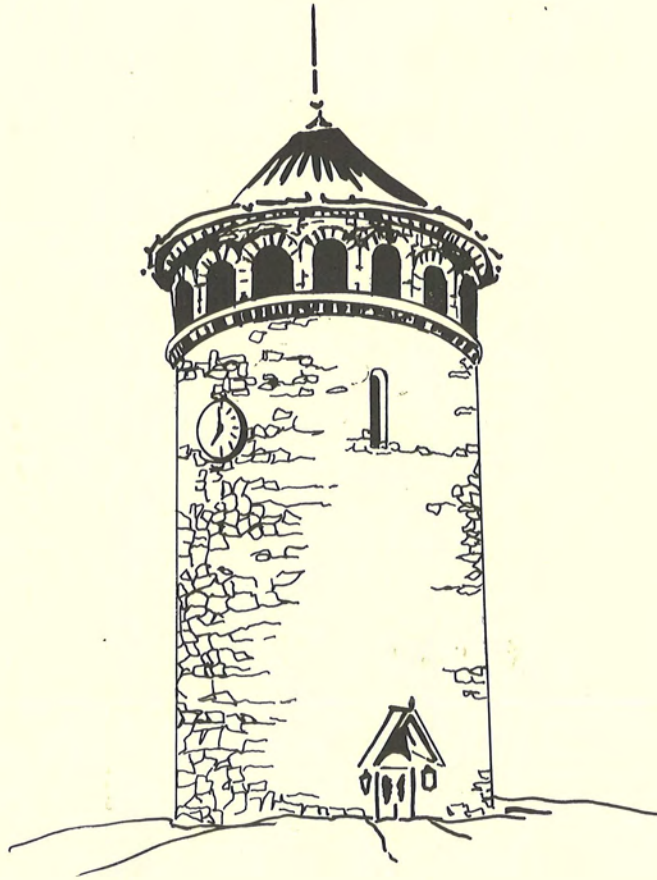




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ROCKFORD TOWER



ROCKFORD TOWER

Constance J. Cooper

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Wilmington, Delaware

THE CEDAR TREE PRESS, INC.

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DELAWARE PUBLIC ARCHIVES

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DEDICATION

For almost two decades, The Cedar Tree Press had the privilege of printing a New Year's remembrance book for William Winder "Chick" Laird and members of his family. While intended for private distribution to members of his family, we, as the printer, were able to read and enjoy these historical vignettes.

Knowing how much Chick enjoyed compiling the data necessary for those brief pictures of history, we felt that it would be a fitting remembrance to dedicate this book to his memory.

ACKNOWLEDGMENTS

The author would like to thank the Historical Society of Delaware; Paula Manolakos, records manager for the City of Wilmington; and John Hanley, engineer in the city's Department of Public Works, for their assistance in the preparation of this essay.

The publisher would like to thank the James River Corporation for their generous support in supplying the special acid-free paper for this project; John R. Schoonover for his photography of the tower today; and Lorraine Russell Gilson for the pen and ink sketch on the cover.

PREFACE TO THE SECOND EDITION

When we at Cedar Tree Press decided to begin publishing a series of historical studies of the Wilmington area, it was intended to be solely for distribution to our customers each year during the holiday season. However, we did not take into account the popularity of our first subject and quickly ran out of copies for free distribution.

At the urging of friends we are reprinting our *Rockford Tower* for limited sale throughout Delaware.

BY WAY OF INTRODUCTION

Wilmington, Delaware is a location rich in heritage and history with many fascinating areas taken for granted by those of us who were born here or have lived in this area for a long period of time. Coupled with the recent rapid growth in the area, the percentage of natives vis-a-vis newcomers has certainly decreased in the past decades adding to the list of people who wonder how or why a certain thing is the way it is. Even those who are somewhat knowledgeable about our environs can learn much from a definitive study of a particular point of interest.

It was with these facts in mind that I decided last year to change our ten-year tradition of reproducing a painting of a historical area of the Wilmington or New Castle County region. If a picture is indeed worth a thousand words, then a few thousand words and many pictures should be much more descriptive and informative. I think you will find that, at least in this instance, this is true.

I have attempted to combine the old and the new in both the subject of the book and in the printing processes used in its production. We have used a typeface designed many years ago but recently modernized for today's high-speed photocomposition equipment and lighter styles. The paper used was made by a forward-looking company but on older equipment that produces primarily high-quality text grades. The book is sewn and case bound by a firm that was established in 1892, on up-to-date equipment. Additional facts about the production process can be found in the Colophon.

The subject is also a combination of the old and new. Tracing the history of an object through research and photographs affords us with the opportunity to see or be apprised of changes that have been made either visible or concealed. The tower looks much the same today as it did when it was built and serves today in the same capacity as then: the primary source of water for thousands of Wilmingtonians. It has, however, as you will read, changed. Perhaps the saddest of these changes is its inaccessibility. Because of the threat of vandalism, the tower is kept locked, thereby precluding people from climbing it.

Nicholas L. Cerchio III
Wilmington, October 1990

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ROCKFORD TOWER

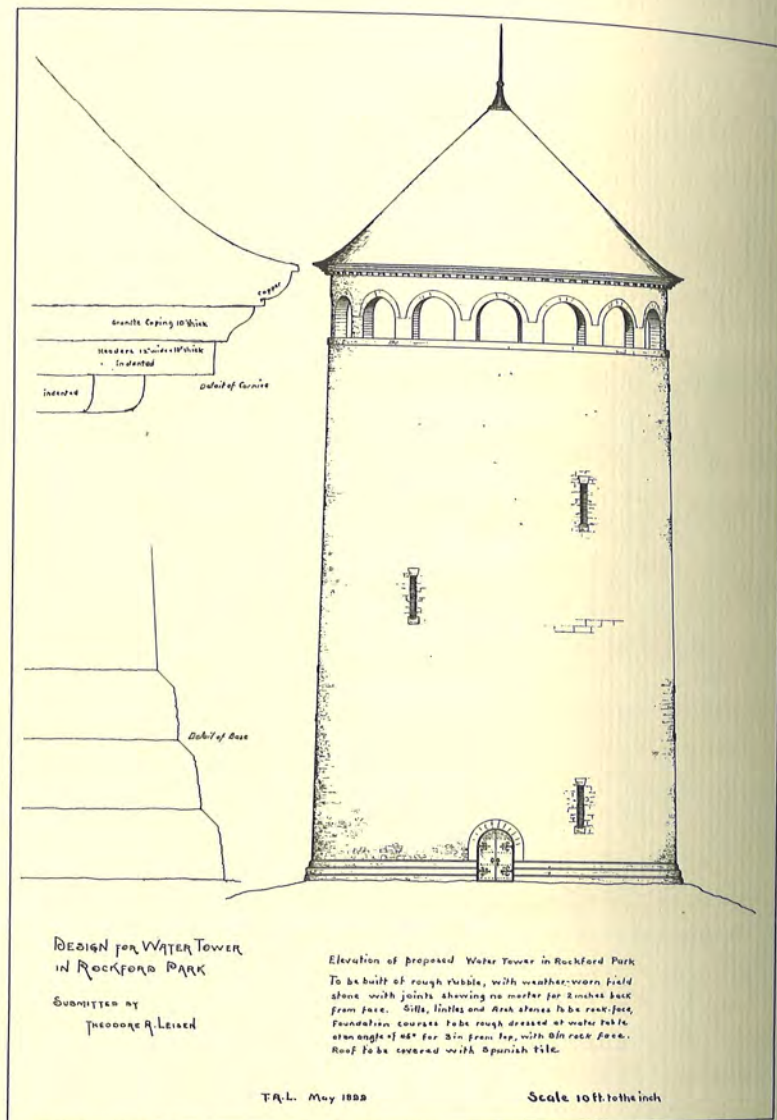
ROCKFORD TOWER

SOLID and serene, a massive stone tower stands on Mount Salem Hill in Wilmington's Rockford Park, a beloved yet slightly puzzling landmark. Rockford Tower appears to be both ancient and useless, but it is neither. Under the stonework stands a 500,000 gallon steel tank that has been a vital part of Wilmington's water system since its completion in 1901, not even a century ago.

In the late nineteenth century, Wilmington was a thriving, growing city. Its population grew from around 30,000 in 1870 to over 76,000 in 1900. Nearly half of its workers were employed in manufacturing, the source of the city's prosperity. Heavy industries, located mainly on the banks of the Christina River, produced a wide variety of goods for local, national, and international markets. Leather, railroad cars, foundries and machine shops, and iron and steel were the four leading industries in 1900.

The development of the trolley car allowed Wilmingtonians to move to new neighborhoods farther from the city's center. The area surrounding Rockford Park, known as the Highlands, was annexed to the city in the 1890s. This neighborhood's need for water led to the construction of Rockford Tower.

Wilmington has had a public water supply since 1804, when the Wilmington Spring Water Company began to circulate spring water through wooden pipes to cisterns where customers pumped water by hand. In 1810, the city purchased the company and assumed responsibility for water. As Wilmington grew, springs proved inadequate. In 1827, the city began to pump water from the



Theodore R. Leisen, the engineer for the park department, completed this preliminary drawing of Rockford Tower in May 1899. The rounded door, long narrow windows, and arches at the top give an antique, European appearance. (Courtesy of the Department of Public Works, City of Wilmington.)

Brandywine River to homes and public cisterns. Over the years, the pumping and storage capacity gradually expanded. In 1871, the first year for which statistics are available, the system pumped a total of 551,232,000 gallons to 5,358 homes, businesses, and factories. By the 1890s, the water system consisted of a pumping station on the Brandywine at the foot of the Market Street Bridge, the Rodney Street reservoir, and the Cool Spring reservoir and pumping station on Tenth Street. A filtration device to remove pollution was installed in 1892, but it proved unsuccessful. The city also installed a sewer system during the 1890s.

The Board of Water Commissioners faced two major problems in the 1890s. One was the tremendous growth in the demand for water. In 1890, the system pumped 2,533,314,586 gallons to 12,008 customers. Average per capita use was 111 gallons per day, up from 81 gallons in 1880.

The other problem was geographic. As the city expanded into higher lands to the north and west, the system had to provide satisfactory water pressure. Beginning in 1892, the water department erected towers in the Rodney Street reservoir and on Elliott Avenue, with a combined capacity of 50,000 gallons. These proved inadequate, however, especially for the Highlands. More needed to be done: The water commissioners decided to erect a large tower on high ground, which is how Rockford Park enters the story. The creation of Rockford Tower also shows, in a small way, Wilmington's involvement in some of the major trends and issues of the times.

In the years after the Civil War, America developed rapidly in a burst of unrestrained capitalism and individualism. Some hardy souls settled the vast expanses of the West, while others developed the nation's industrial might. Profit was the driving force, with little concern for anything else. In industrial cities — like Wilmington — this meant air and water pollution, squalid living conditions for the poor, and unplanned growth. Government was expected to be cheap and not interfere with the pursuit of wealth.

Rockford Tower



This picture of Rockford Tower under construction gives a sense of the tower's size. The door has been installed, but most of the stonework has not yet reached that height. Scaffolding is visible at the far right. (Courtesy of the Historical Society of Delaware.)

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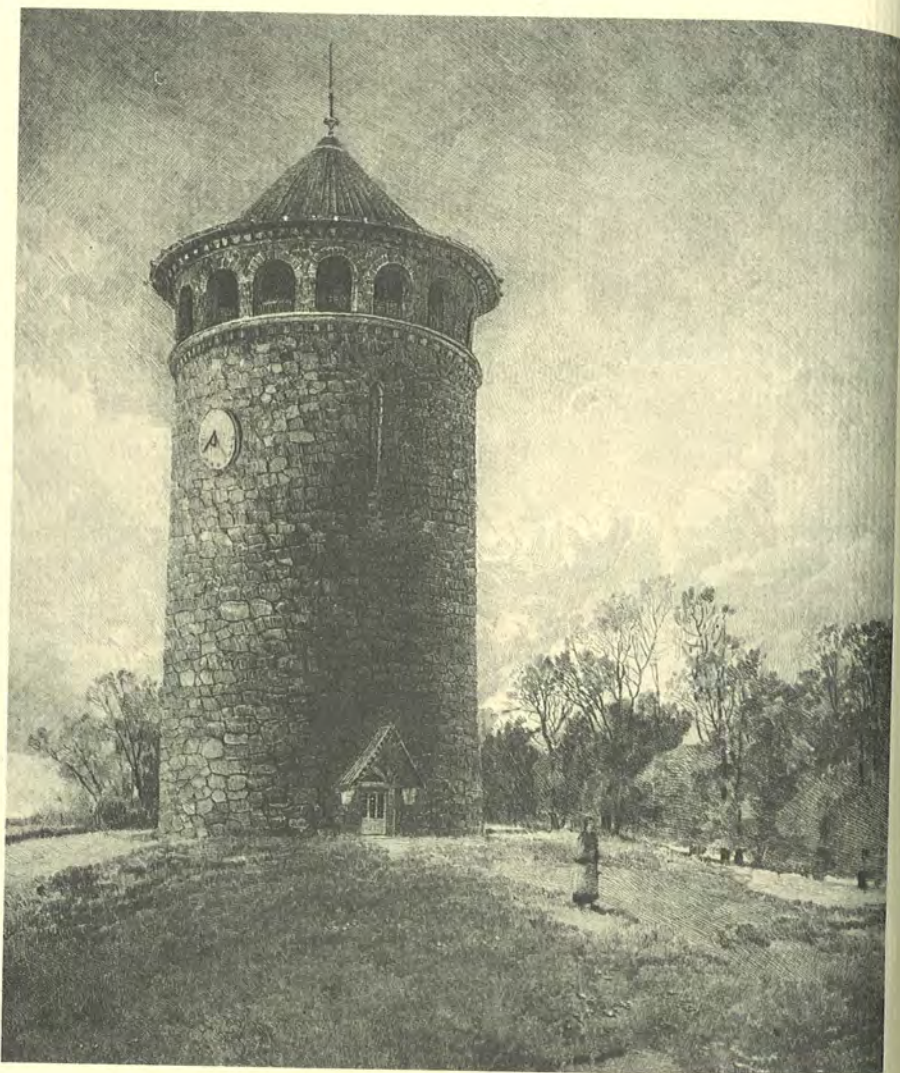
Yet even as development proceeded without restraint, a growing number of people began to question the status quo. They saw that the wilderness would not last forever. They lamented the poor quality of mass-produced goods. And, they became desperately concerned about conditions in the nation's cities. Valuing rural life as the source of the nation's greatness, earlier generations of Americans had generally ignored their cities. Now, in the 1880s and 1890s, they finally turned their attention to urban problems.

And problems there were in great abundance. A special concern was the plight of factory workers, who lived in densely crowded, dirty housing in neighborhoods that lacked good schools and recreational facilities. Long hours, low wages, and the lure of the saloon threatened family life. Such conditions offered little opportunity for a better standard of living. Reformers hoped that such amenities as playgrounds, parks, public utilities, and settlement houses would improve both the environment and the quality of people's lives.

The reformers wanted the city to be beautiful as well. Well-designed public structures would promote a sense of harmony and develop feelings of civic pride and loyalty. And, the reformers believed that government should play a major role in reaching these goals in an orderly fashion. America's cities could no longer be left to develop on their own.

Rockford Park — and the entire Wilmington park system — owes its beginnings to the efforts of William P. Bancroft, a Quaker industrialist and philanthropist who firmly believed in the need for both parks and city planning. As early as 1881, he offered to buy and donate the land that became Rockford Park. His dream became reality in 1889 when the Wilmington Board of Park Commissioners, of which he was a member, accepted Bancroft's gift of the major portion of Rockford Park. In 1895, the duPont family donated nearly ten additional acres to the park, with the restriction that no building open to the public be erected in a certain area, for fear of

Rockford Tower



The water department commissioned this etching by Wilmington artist, Robert Shaw, in 1902. This view proved very popular, and no doubt helped make Rockford Tower a landmark. (*Cedar Tree Press Collection.*)

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being held liable in case of an explosion at their powder mills.

In 1899, the need of the water commissioners creatively fused with the dreams of the park commissioners. Mount Salem Hill in Rockford Park, some 330 feet above sea level and the highest point in the city, provided the necessary elevation for the new water tower. The park commissioners agreed to the water department's request to use the site because it allowed them to realize one of their goals for the park. Since 1895, they had hoped to erect an observatory on the hill so that people could enjoy the view, and the water tower offered the perfect opportunity. The park commissioners required that the water tower be designed to include an observatory. And, they also stipulated that the tower should be designed to complement the surroundings and be an asset to Rockford Park.

Actually, it was not that simple. The best site for the tower was on land over which the du Pont family exercised its restrictions. In early May 1899, the family decided that the tower with an observatory would be acceptable only if the city agreed to assume liability for injury to persons or property at the tower in case of an explosion. On May 17, the newspaper confidently — and wrongly — predicted that city council would soon approve this arrangement. But the city was afraid of being sued, and in mid July formally rejected the proposal.

This action, a mere month before work on the tower began, angered the editor of the *Every Evening*, who wrote a lengthy editorial in favor of the water tower with an observatory open to the public. The final paragraphs of the editorial summarize the urban reformers' position on this and similar issues:

Utility is not everything in this life. The aesthetic and the beautiful appeal to people, and are as necessary to existence as food and water. The City Council can do much to gratify this taste, which is as marked among people in the lower walks of life as

Rockford Tower



This view from the late 1950s shows Rockford Tower with the statue of Admiral Samuel Francis Du Pont in the foreground. Admiral Du Pont (1803-1865) was a Union naval hero in the Civil War. His statue, done by Launt Thompson in 1884, originally stood in Du Pont Circle in Washington, D.C., but was moved to Rockford Park in 1920. (Courtesy of the Historical Society of Delaware.)

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among those who enjoy wealth and plenty, by granting the desired indemnity and thus securing the erection of the water tower and observatory on the site best adapted to the purpose.

Anything that tends to the enjoyment of people who cannot afford to travel, and therefore have to depend upon the attractions offered by the place of their abode should be promptly availed of by our local legislators.¹

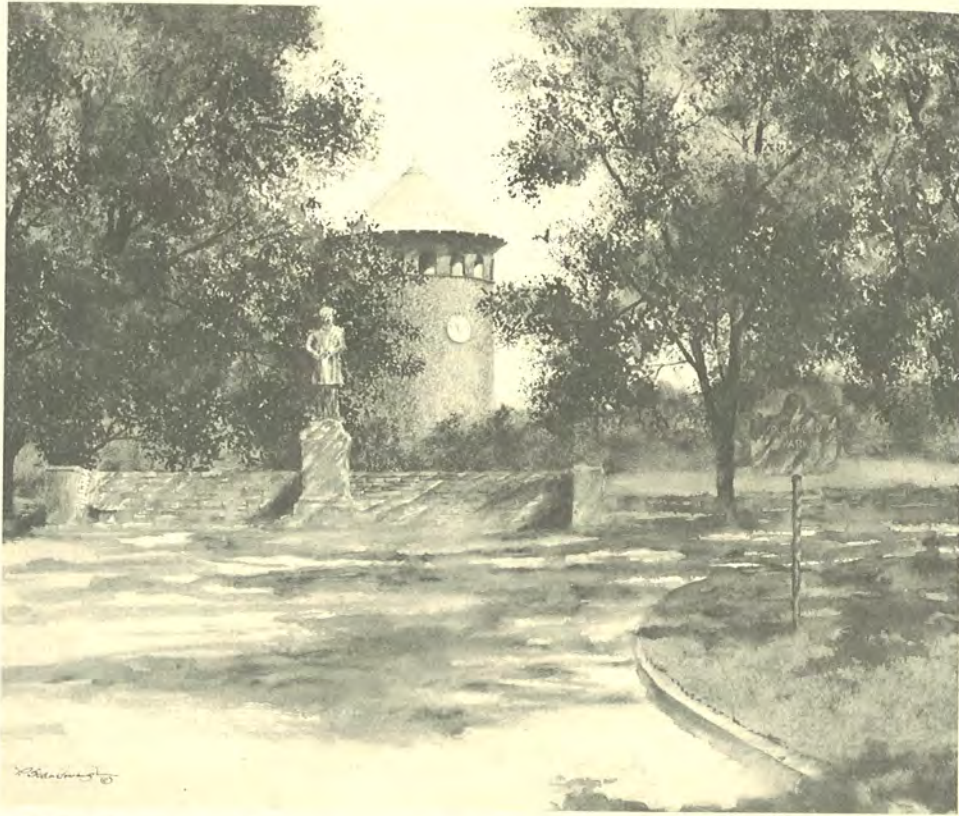
This voice of support did not change the reality of the situation. The water commissioners decided to build the tower as planned, but the observatory would not be open to the public.

Theodore A. Leisen, the engineer for the park department, and the Philadelphia architectural firm of Baker and Dallett designed Rockford Tower. Leisen (b. 1864), a civil engineer, worked for various city departments between 1891 and 1907, when he moved to Kentucky. He wrote the park department's report for 1895 in which the observatory was first described. Baker and Dallett consisted of Louis C. Baker, Jr. (1859-1915), and Elijah J. Dallett, Jr. who began their careers with Frank Furness before forming their own partnership in 1888. They had a number of commissions in Delaware in addition to Rockford Tower.

Rockford Tower consists of a steel water tank, 40 feet in diameter and 60 feet high, enclosed in rugged rock, with an observatory at the top. The rock was intended to be useful as well as picturesque, for it helped to prevent the water from freezing and thus damaging the tank. One door provides access to the 132-step staircase that leads to the top. Long narrow windows, 16 feet high by 2 feet wide, light the way. Columns and arches support the pointed roof and provide openings through which to view the surrounding countryside. Lion's head downspouts ornament the roof, while a sundial graces one side. The bottom diameter of the tower is 57 feet, tapering to 52 feet at the top. The total height of the tower is about 115 feet.

¹*Every Evening* (Wilmington), July 17, 1899.

Rockford Tower



Rockford Tower by Paul Scarborough. An original watercolor done 1984, with the statue of Admiral Du Pont in the foreground. (*Cedar Tree Press Collection.*)

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Perhaps the most striking feature of Rockford Tower's design is its appearance of great age. It looks today as though it has always been there, and it looked much the same when it was brand new. This was deliberate. Indeed, the park department's report for 1895 said that a tower built of rough stone "could with a little care, be given an antique appearance in a very short time, and a growth of English ivy could still further enhance the effect."²

The appeal of the ancient is another aspect of the spirit of the late nineteenth century. As people pondered the problems of society, many looked to the past for values and ideals. While social reformers believed that wooded, natural parks would help cure society's ills, architects found inspiration in designs and styles from earlier times. So, in 1899, Wilmington chose to clothe its water tower — an example of modern technology and a symbol of urban growth — in an ancient-looking case. In contrast, by the 1930s, people gloried in progress and technology. The frontispiece of the water department's report for 1936-37 proudly shows a utilitarian water tower painted with markings to guide airplanes.

The construction of Rockford Tower, which took two years, began in late August 1899 and cost \$76,281.07. The job required hard physical labor, provided by employees of the water department. All of the Brandywine granite for the tower, in shades of brown and gray, came from within the park. Some was easily recovered from stone walls left from earlier farms, while much of it had to be quarried.

The first step was to build the foundation and the very lowest portion of the tower. Then the 500,000 gallon, 6,000 ton steel tank, built by the Edge Moor Bridge Works of Wilmington, was installed. The tank rested on heavy steel girders set into the foundation 10 feet from the ground. The steel plates for the bottom of the tank were 5/8 of an inch thick. The sides of the tank were rings of steel plates 5 feet high and 21 feet long, ranging in thickness from 9/16 of

²Report of the Board of Park Commissioners of Wilmington, Del., 1895, p. 47



Flower Market is a Rockford Park institution. This picture from May 1953 shows children riding a miniature train. The first Flower Market was held in 1921 and took place in Cool Spring and other city parks. Its intent was to raise money for Associated Charities. By 1952, the Flower Market had grown so large that only Rockford Park could accommodate it, and it has been held there ever since. (Courtesy of the Historical Society of Delaware.)

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an inch at the bottom of the tower to 1/4 inch at the top. It took 6 plates to go around the circumference of the tank. The total height of the tank was 60 feet. Edge Moor also made the steel stairway that led to the top of the tower.

After the tank was completed in July 1900, work on the tower continued. Workers continued to quarry stone and build up the tower, erecting ever-higher scaffolding as they went. The mortar was recessed two inches to give the appearance of age. The tower was lined with 50,000 white glazed bricks, provided by Charles Warner Company of Wilmington. J.S. Thorn and Company of Philadelphia provided the copper roof and Charles P. Bancroft won the contract for the railings and grill work.

Preparations also had to be made to fit Rockford Tower into the water system. In 1899, a twelve-inch water main was laid to the tower from Sixteenth Street and Greenhill Avenue. The overflow pipe from the tower connected with the drain on the park driveway.

A new pump had to be installed at Cool Spring to pump water up to Rockford Tower. The water department purchased a pump capable of handling three million gallons a day from the Snow Steam Pump Works of Buffalo. And, the new pump did not fit into the existing building, so an addition had to be built onto the Cool Spring pump house.

As early as August 1900, just after the tank itself was completed, tests showed that it would provide excellent water pressure in the Highlands. It was put into full service the next year. Water was pumped up to Rockford Tower from Cool Spring and then it went down by force of gravity to reach people's houses.

In 1901, the first year for which there are statistics for Rockford Tower, it circulated 10,267,499 gallons of water. That year, per capita use in Wilmington was 93.4 gallons per day. Ten million gallons might seem like a large amount, but it is not when compared with what was to come as the area developed and the per capita use of water increased. In 1925-26, 316,859,000 gallons went

Rockford Tower



Rockford Tower keeps watch over a quiet moment at the Flower Market of 1958. With its varied attractions, the Flower Market today raises many thousands of dollars for children's charities in Wilmington. (Courtesy of the Historical Society of Delaware.)

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through the tower. By then, daily use had increased to 123 gallons per capita. Another quarter century later, 718,460,000 gallons circulated through the tower in 1950-51. Per capita daily use was up to 150.8 gallons. Usage grew to 888,094,000 gallons in 1975-76, when per capita daily use was 179 gallons. Today, about 4 million gallons of water pass through Rockford Tower daily.

Rockford Tower has always served the western part of Wilmington and its suburbs. In the very early years, only a few people received their water from the tower. Continuing development in the area, however, proved the wisdom of the tower's site and size. In the years before World War II, workers' housing owned by Joseph Bancroft & Sons, new housing in Wawaset Park and Westover Hills, and the new Du Pont Experimental Station increased the demand on Rockford Tower.

Development continued after World War II. Today Rockford Tower's service area extends as far as the Ferris School. The 1980s were a time of rapid growth in the area, with new houses, new shopping areas, and new Du Pont Company facilities at Barley Mill and Chestnut Run increasing the need for water from the tower.

As the use of Rockford Tower increased, the pumping facilities at Cool Spring were improved and enlarged, but the tower itself seems to have required — and received — very little attention. The first record of major maintenance does not come until the mid 1950s, when it was badly needed. The rivets and seams on the tank were reinforced and the tank was repainted with bright aluminum paint instead of black, to give more light on the stairway. At this time, the stairway, windows, and entrance were repaired, and damage from pigeons and vandals was cleaned up. The roof was restored in 1972-73.

By the mid 1970s, the water department knew that Rockford Tower needed major repairs. This was a major undertaking because water services had to continue while Rockford was out of service. The Greenhill Avenue Tower, also with a capacity of 500,000



This picture, probably from the 1920s or 1930s, shows the spectacular view from Rockford Tower towards the Delaware River. In the foreground are Rockford Park and some of the large, comfortable houses in the neighborhood. The creation of Rockford Park, Bancroft Parkway, and Kentmere Parkway made the Highlands a highly desirable residential area. *(Courtesy of the Historical Society of Delaware.)*



This aerial view from the early 1950s shows Rockford Tower and its neighbor, the Du Pont Experimental Station. As the Experimental Station underwent major expansion in the years after World War II, people climbed to the top of Rockford Tower to watch its progress. Rockford Tower began to supply water to the Experimental Station around 1937. *(Courtesy of the Historical Society of Delaware.)*

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gallons, was built in the early 1980s. The water department also built a temporary water tower in the park in 1981. Only then did the work on Rockford Tower begin. In 1983 and 1984, the entire interior of the tower was reconstructed. The old tank, which had deteriorated badly, was ripped out. The piping under the tower was redone, the foundation for the tank was replaced, and a new tank, steps, and observatory platform were installed. Cleaning up after pigeons was again a major chore, and this time the observatory area was securely screened to keep them out in the future. With this renovation, done at a cost of about \$700,000, Rockford Tower stands ready to serve Wilmington's water system for many more years to come.

Yet Rockford Tower was intended to be, and became, much more than simply a utilitarian facility. Even though the city had refused to sign the agreement with the du Ponts in 1899, the dream of opening the tower to the public did not die. At first, those who wanted to go up in the tower had to obtain a special permit from the water department. A large number of permits was issued in 1902, admittedly with some annoyance to both the clerk issuing the pass and the person requesting it. This difficulty of access, however, may have made the tower more fascinating than if it had been open without restriction.

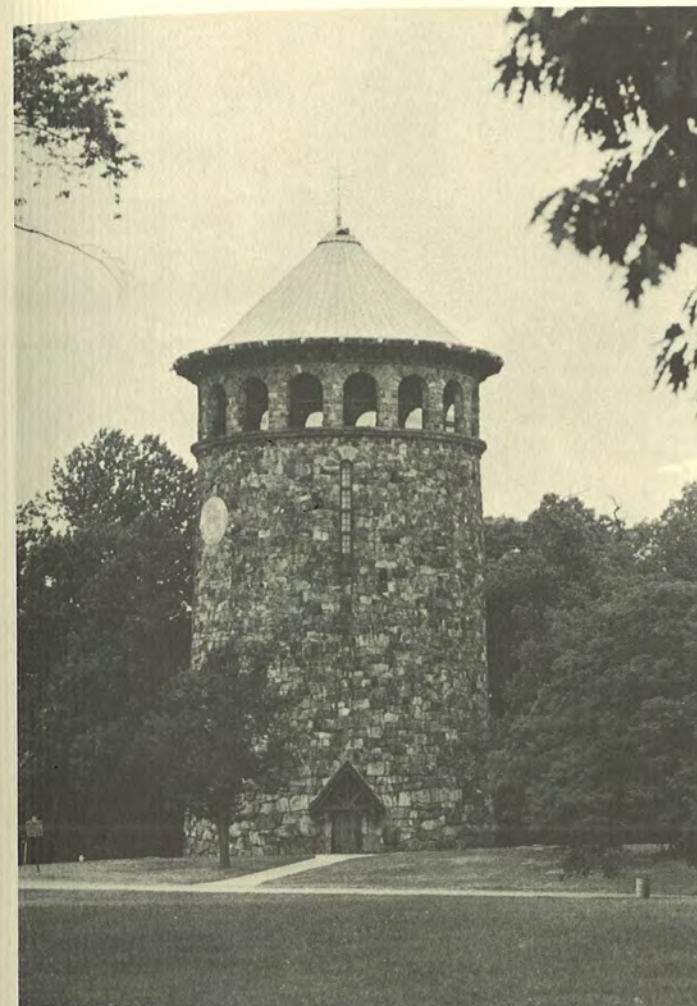
Efforts to reach an agreement between the city and the du Pont family continued intermittently, and everything finally came together in the latter part of 1903. In that year, the Delaware General Assembly passed a law allowing such an arrangement. As in 1899, the newspaper predicted on October 9, 1903 that the city council would vote for the agreement at its next meeting. Again the newspaper was wrong. After much debate, focusing again on the possibility of an avalanche of lawsuits in case of an explosion at the powder mills, council decided to delay the vote. The next week, after several councilmen visited the tower and assured themselves that the danger of explosions and lawsuits was remote, city council

Rockford Tower



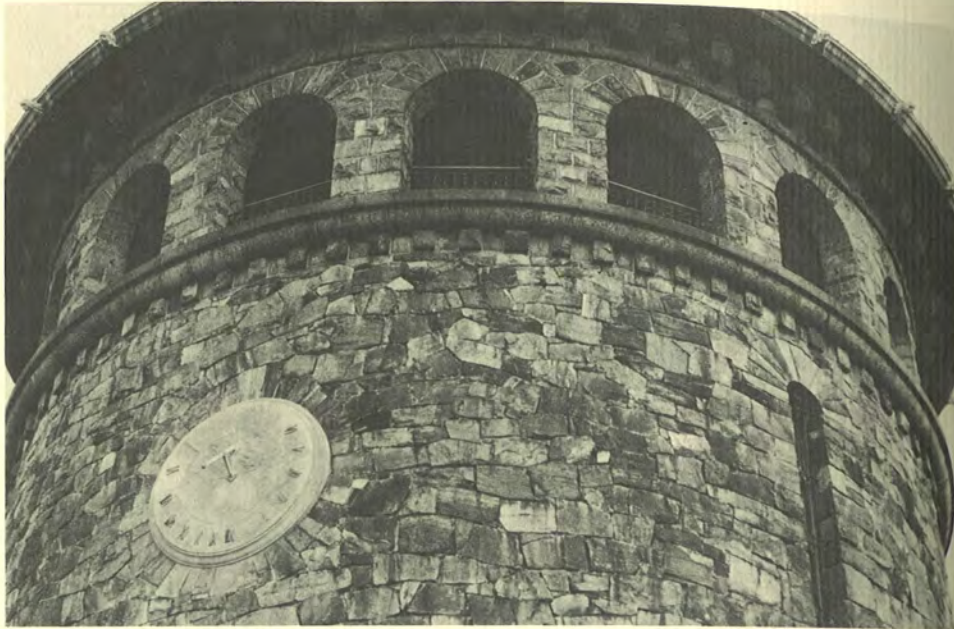
Dating from around 1905, this postcard shows Rockford Tower in an austere winter setting. *(Courtesy of the Historical Society of Delaware.)*

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This photograph of Rockford Tower was taken on September 19, 1990. *(Photo by John R. Schoonover.)*

Rockford Tower



Detail of Rockford Tower, September, 1990. (Photo by John R. Schoonover.)

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finally passed a resolution authorizing the mayor to sign the necessary agreement.

Easily reached by streetcar, Rockford Tower became a popular destination. On Sundays in May 1904, an average of nearly 600 people climbed the stairs to enjoy the view. Rockford Tower remained open without interruption until World War II, when it was closed for security reasons — it was feared that the enemy might harm the water supply. Since the end of the war, the tower has been open and closed at various periods depending on its condition and safety, and on financial considerations.

Over the years, Rockford Tower has remained a constant landmark in a park that has changed to meet new recreational needs. By 1910, active sports like baseball and football shared the park with sedate picnics and strolls. Today, people picnic, sunbathe, play tennis, and walk their dogs within sight of the tower.

Rockford Park has served the community in many ways. It has been the site of day camps, Easter egg hunts, Easter sunrise services, sports events, concerts, and fireworks displays. But the event most strongly associated with the park and the tower today is the Flower Market, held annually in May to raise money for charity. It has taken place in Rockford Park since 1952, attracting thousands of people every year.

Through an undefinable chemistry, this structure designed to provide water for one area and adorn one particular park has become a symbol for an entire city. Wilmington's park commissioners and water commissioners did their work well when they built Rockford Tower.

Colophon

This book was composed in eleven point ITC Garamond Light, three point leaded and printed on special-made 100# Curtis Text, felt finish, by The Cedar Tree Press, Inc., Wilmington, Delaware. It was bound and gilded by Murphy-Parker Inc. of Philadelphia in leather, using Curtis Tweedweave endleaves.