

JAMES REUEL SMITH (1852–1935) From a photograph taken about 1905

SPRINGS AND WELLS OF MANHATTAN AND THE BRONX NEW YORK CITY

AT THE END OF THE NINETEENTH CENTURY

BY THE LATE JAMES REUEL SMITH

Author of Springs and Wells in Greek and Roman Literature

WITH 154 ILLUSTRATIONS FROM PHOTOGRAPHS
TAKEN BY THE AUTHOR IN THE YEARS 1897-1901

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FOREWORD

During the years 1898-1901, the late James Reuel Smith used to bicycle around Manhattan Island and the newly-formed Bronx County, in search of springs and wells. Whenever he found one, in streets or gardens, in parks or woods or fields, he examined, measured, and photographed it, and discussed its condition and story with neighbor, passer-by, or owner. Mr. Smith carefully organized the data thus gathered and wrote accounts of the springs and wells with a view to publication. He corresponded with the New York Historical Society's late librarian, Mr. Robert H. Kelby, who expressed encouraging interest in his work, but his manuscript remained unprinted during his lifetime. However, in his will, he left this Society a bequest with which to publish any of his material. This volume, issued in accordance with that provision, contains Mr. Smith's descriptions of springs and wells of northern Manhattan Island and the Bronx, and reproduces the photographs he took of them four decades ago.

Mr. Smith's photographs are especially interesting because, since he took them, northern Manhattan Island, and particularly the Bronx, have so greatly changed in appearance. Streets have been cut through, trees cut down, meadows built up, private residences replaced with tall apartments. A few springs have been preserved, by grace of their situation in public parks, and some buildings shown in the following illustrations have survived, generally because of their institutional ownership.

In 1938, a nature-loving pedestrian can still wander under the trees of Central Park, and follow the path along the Bronx River in Bronx Park; he can climb the steep hillside of St. Nicholas Park and the ridge of Inwood, much as James Reuel Smith did forty years ago.

No well now adjoins 27 West 115th Street, but that wide brown stone Herrman house, visible in Plate 13a, is still standing beside its twin to the west, no. 29, with the words Centro Hispano Americano on a sign across its front (in April, 1938). Up on Morningside Heights, the dignified edifice of the Leake and Watts Orphan Asylum is preserved on the grounds of the Cathedral of St. John the Divine, although it is no longer possible to view its north façade as in Plate 12, because of the Cathedral's growth. The view southeast from St. Nicholas Terrace, about forty feet north of West 135th Street, is today very much as it was in 1900, when Mr. Smith photographed Plate 21, even to the boulder in the left foreground and the wooden steps at the right leading up from St. Nicholas Park to the Terrace. The large red brick edifice of the Hebrew Orphan Asylum, to which Mr. Smith referred, still stands on the west side of Amsterdam Avenue between West 136th and West 138th Streets, but the spring which was formerly that Asylum's neighbor (Plate 24) is now covered by the Stadium of the College of the City of New York. Continuing northwest, to the north side of West 140th Street near Riverside Drive, one finds that the square double brick house (now occupied by the Academy of the Holy Child) is painted gray in April, 1938, just as Mr. Smith described it in May, 1898 (page 76), but the double well and trees behind it, pictured on Plate 26a, have been replaced by cement and brick walls. The Isaac M. Dyckman house is still surrounded by trees, on West 218th Street, in Baker Field of Columbia University, but the attractive latticed covering shown on Plate 53a has been removed and the well filled in. Just below the northwest porch of the house, however, near the cellar steps, there is a distinct depression in the earth, encircled by imbedded stones, within the square outline of the well-structure's brick foundation.

However, the few survivals that one may trace are exceptional. Almost all of the springs and wells which Mr. Smith described have been obliterated, and their surroundings have been changed completely in the intervening forty years. Of many of them, Mr.

Smith's photographs and descriptions probably constitute the only records extant.

James Reuel Smith was born in Skaneateles, N. Y., October 6, 1852, son of James Mills Smith and his first wife, Nancy Jane Young. His paternal ancestors were New England people, his great-great-grandfather having been Joshua Smith, one of the early settlers of Sandisfield, Berkshire County, Massachusetts. Joshua Smith's son, Joshua Smith, Jr. (1744-1793), served in the American Revolution. The latter married Freelove Kibbe, and their youngest child, Reuel Smith, became grandfather of James Reuel Smith.

Reuel Smith was born in Sandisfield, Massachusetts, November 13, 1789, and was brought up on his father's farm. After some business experience in Sandisfield, he became established, about 1824, as a merchant in New York City. In that same year, on August 12, 1824, he married, in Sandisfield, Celestia A. Mills (1798-1829), daughter of Drake Mills (1756-1821) and of Sarah (Sage) Mills. Mrs. Reuel Smith had a sister, Sarah, married to Dr. Erastus Beach, and two brothers in business: Otis Mills, a merchant of Charleston, South Carolina, and Drake Mills, Jr. (c. 1792-1863). Reuel Smith took the latter into partnership, as the firm of Smith & Mills, and carried on a prosperous business on Front Street, in New York City, for two decades, purchasing large quantities of cotton, sugar, and rice from the Southern states.

Reuel and Celestia A. (Mills) Smith had three children: James Mills Smith, born in Lenox, Massachusetts, October 20, 1825; Sarah C. Smith, born in Brooklyn, N. Y., September 7, 1827; and Edmund Reuel Smith, born in New York City, February 2, 1829. Mrs. Reuel Smith died in New York City, February 5, 1829, a few days after her second son's birth, and was interred in St. John's Churchyard, where her little daughter followed her on April 21, 1829. In 1848, the remains of both were removed and placed in one grave in the plot owned by Reuel Smith in the Green Wood Cemetery, Brooklyn, N. Y.

About 1845, Reuel Smith dissolved his partnership with his

brother-in-law, Drake Mills, Jr., and shortly afterwards, bought property and built a house on West Lake Street, Skaneateles, N. Y., to which he retired. He died in New York City, September 6, 1873, and was buried near his wife in the Green Wood Cemetery.

Both Reuel Smith's sons married and left children. His elder son, James Mills Smith, married as his first wife, Nancy Jane Young, and their only child was James Reuel Smith, who was born in Skaneateles, on October 6, 1852. Shortly thereafter, on February 18, 1858, Mrs. James Mills Smith died, at the age of thirtyone, and was interred in the Beach plot in Woodlawn Cemetery, the Bronx. James Mills Smith remarried, his second wife being Mary Ann Hart. There were a number of children of this marriage, and James Mills Smith died intestate in New York City, on January 10, 1902, leaving his widow, who is now living at Atlantic Highlands, N. J.¹

When his mother died, James Reuel Smith was only five years old. He was brought up by his father's cousin, Erastus Mills Beach (1804-1874) of New York City and Skaneateles, whose son he for years believed himself to be. He was known during his youth and young manhood as James Reuel Beach, and he was married under that name, in June, 1882, to Elizabeth Thompson, of Philadelphia. Shortly after their marriage, Mr. and Mrs. James Reuel Beach petitioned the New York Court of Common Pleas for permission to assume his own name Smith, and by Court order, the change was directed to take effect November 8, 1882.²

James Reuel Smith had many interests and hobbies, and private inherited means enabled him to retire early in life and devote himself to his preferred pursuits: travel, photography, reading, and the study of springs and wells. He delighted in arranging and

² Papers on file in the New York County Clerk's Office, examined by Mr. George W. Cornell and by Mr. Clarence Sundean; Laws of N. Y., 1882.

¹ The sources of information about the Smith, Mills, and Beach families are as follows: data supplied by Mr. Edwin J. Smith, half-brother of James Reuel Smith, and by Mr. George W. Cornell, of Wilson, Wager & Cornell, of New York, attorney for both Mr. and Mrs. James Reuel Smith; Vital Records of Sandisfield, Mass., To the Year 1850, edited by Elizur Yale Smith (1936); Edmund Norman Leslie's Skaneateles (N. Y., 1902), pp. 141-142, 395-396; Joseph A. Scoville's Old Merchants of New York City (N. Y., 1870), I, 191-192; tablet on the Smith-Mills stone in the Green Wood Cemetery, Brooklyn, N. Y.

cataloguing everything about him according to an exact decimal system, and all his notes and clippings and photographs were in meticulous order. In his predilection for springs, he combined his varied interests, and it proved a happy hobby that could be pursued either afield or at home among his books, in New York City or in Europe, in ancient or modern literature. He went around Manhattan Island and the Bronx on his bicycle, carrying his camera, and photographing every spring he found. His delight in this pursuit is expressed in his Author's Introduction which follows. At home, he wrote his descriptions of the springs and wells which he had examined, dated and numbered and listed his photographic negatives, classified the springs by both type and location, and indicated their sites on a map, with small numbered pieces of paper.

Pursuing his hobby in another field, Mr. Smith read Homer, Herodotus, Virgil, Ovid, Strabo, Pliny, and Pausanias, systematically noting references to springs and wells, and then identifying their modern geographical locations. He traveled extensively around the Mediterranean, visiting the sites of classic springs, until the World War interrupted his European voyages. Then he continued his studies at home, in his own extensive library, through the published observations of other travelers from the seventeenth century on. The results of his reading and travels were published in 1922 in a 722-page volume entitled Springs and Wells in Greek and Roman Literature, Their Legends and Locations. This book he dedicated to the late artist, Howard Russell Butler (1856-1934).

Mr. Smith read and studied the Bible, and made compact abstracts of all its books. From the Bible, he used to cull every reference to springs and wells, and planned to publish a volume about them, but he did not finish the work. He also began making notes for a volume to be called *The Springs of Poetry and Romance*.

The presence of children in many of the photographs on the following pages shows that Mr. Smith must have chatted with them in friendly fashion during his spring-hunting trips about the city. His will proves his interest, for he left bequests to the Children's

Aid Society (designated as The Newsboys' Lodging House); and to The Children's Village (which he called the New York Juvenile Asylum). His other charitable bequests were to the Bide-a-Wee Home, the Presbyterian Hospital in the City of New York and the Charity Organization Society.³

As a young man, in 1875, Mr. Smith joined Company K of the Seventh Regiment, New York National Guard, and his continued interest in that regiment is indicated by his willing a bequest to the Seventh Regiment Veterans' Association, for the purchase of a trophy to be shot for annually. He was also a member, for years, of the New York Athletic Club.

In July, 1924, Mr. Smith bought a house at 14 Philipse Place, Yonkers, N. Y., on the hillside above Warburton Avenue, overlooking the Hudson River. True to his primary hobby, he named his new home "Dodona," after the sacred grove in northwestern Greece (Epirus), in which was situated the wonderful spring of Athamanis, which he described in his Springs and Wells in Greek and Roman Literature, 259-263.

Mrs. James Reuel Smith (Elizabeth Thompson) died at Yonkers on November 23, 1931, and was buried in the West Laurel Hill Cemetery, Philadelphia, beside her brother, J. Newman Thompson. Her will was probated in White Plains, Westchester County, N. Y.

Mr. Smith continued to live at "Dodona," surrounded by his four thousand books, his photographs, and his carefully-indexed boxes of notes and clippings. He died at his residence on Tuesday, November 12, 1935, aged eighty-three years, and was interred in the Green Wood Cemetery, Brooklyn, N. Y., beside his father, James Mills Smith, and near his grandparents, Mr. and Mrs. Reuel Smith.

Mr. Smith drew his own will on August 5, 1918, and it was admitted to probate on October 8, 1936, in White Plains, N. Y.

³ The will of James Reuel Smith, dated August 5, 1918, was admitted to probate on October 8, 1936, in Westchester County, and is on file in White Plains. A statement about its settlement was made by Surrogate William J. Sheils, June 30, 1937, in his decision in the Surrogate's Court of Westchester County, which contained some information about Mr. Smith's life and interests.

The several charitable institutions to which he left bequests have already been noted. He willed shares of his estate to fifteen friends, all but three of whom predeceased him. The American Museum of Natural History received a share "to be used in the preparation of topographical casts of the various states of the United States of America." His library Mr. Smith bequeathed to the United States of America "for distribution among, and for the use of, the various lighthouse stations of the United States Lighthouse Department." To the United States he also left a fifth of his residuary estate "to be applied towards the redemption of Liberty Bonds issued in the year 1918." As the last of the 1918 Liberty Bonds were called for redemption in October, 1935, a month before his death, it was agreed that his bequest could be applied to any part of the national debt. The government accepted his bequest by Act of Congress in August, 1937.

The fifth item in James Reuel Smith's will directed the payment of money to The New York Historical Society upon its agreeing "to publish any of my manuscript material and photographs of various springs that I may not have published myself." In accordance with this provision, his executor sent to the Society's library, from Mr. Smith's Yonkers residence, all his photographs and negatives of springs and wells in New York City, from which the illustrations in this volume have been made, and all his manuscripts and notebooks relating to them, from which the text has been compiled.

Mr. Smith's negatives were all carefully dated and identified, and his notes were in characteristically good order. Once his elaborate systems of numbering and classification were mastered, the task of preparing his manuscripts for publication consisted in arranging the material, numbering the illustrations, and checking proper names and locations from directories, maps, and local histories. The editorial work has been done by Miss Dorothy C. Barck, Head of the Reference Department of The New York Historical Society, and present street locations in the city have been checked by Mr. Henry B. Hoffmann, of the Library Staff.

The nomenclature for streets used by Mr. Smith has been followed in the text, but in order to guide the reader of 1938, the present-day street-names have been interpolated, in square brackets, and have been used in the section headings and in the captions under each illustration.

ALEXANDER J. WALL, Director
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AUTHOR'S INTRODUCTION Written by James Revel Smith about 1916

More than one hundred years ago, in its Collections for the year 1809, The New York Historical Society made a general request for descriptions of mineral springs, and for information about their origin, discovery, and history. It is regrettable that no traces are to be found among the Society's papers of any replies to that request, as with the very rapid progress of the City, especially during the last decade, springs and other natural features of the landscape are disappearing from sight with such celerity that it is merely a matter of months when there will be none whatever left in view upon Manhattan Island. Indeed many even of those pictured and described in the following pages as they existed at the beginning of the twentieth century, are already out of sight, their former pleasant woodland homes being now covered with the stone and metal hives of humanity.

The bringing of Croton water to the town was celebrated as far back as the 14th of October, 1842, and it soon thereafter superseded almost exclusively the use of springs, wells, and pumps. Therefore, to practically all New Yorkers under sixty years of age, springs in their present or former vicinity have never been known, or are merely impressions of childhood. Though truly, the City's mains may be called outlets of a spring, since a little road-side spring at the foot of a stone fence on Quaker Hill in the town of Pawling, Putnam County, is the principal one of the remote sources of the Croton River, according to Benson J. Lossing's *The Hudson* (1866), page 412.

But where one citizen has failed to reflect that spring water really flows from his faucet, a thousand will be surprised to learn not only that there are genuine springs within the extensive boundaries of the Greater City, but also that it is still possible to obtain a draught of spring water on Manhattan Island itself, without recourse to faucet or bottle. This one to one thousand proportion of numbers is based upon the fact that in a search extending over several years, no single person was found who knew of more than five springs; and it was a common occurrence to meet city people who had lived for years within a few blocks of a spring, who either never knew of it or had forgotten its location.

It is to this ignorance or oblivion that the city spring-hunter owes much of the charm and enjoyment of a quest which yields in a measure the excitement of a voyage of discovery. Greatly satisfying indeed is the draught from a spring where none is said to exist, and which has been come upon after patiently and inductively following a trail marked only by a moistened stone here, a willow farther on, and then a piece of watercress. In the days, not so very long ago, when nearly all the railroad mileage of the metropolis was to be found on the lower half of the Island, nothing was more cheering to the thirsty city tourist afoot or awheel than to discover a natural spring of clear cold water, and nothing quite so refreshing as a draught of it. Any drinking vessel served: a broken tumbler, a battered tin cup or dipper, a well-rusted stray can, or even, when any such medium failed, the top of a bicycle bell, or the hands joined together.

Springs are attractive not only to the thirsty traveler, but also to the artist, the photographer, and the lover of pretty nooks and rustic scenery. In general the Spring seems to delight in picturesque surroundings, and its moisture freshens and encourages neighboring vegetation, and offers attractions that allure the denizens of the pasture whose presence redeems the solitude from loneliness without disturbing the restful stillness that soothes the admiring wayfarer. A city spring frequently possesses all the beautiful surroundings of a rural one, and besides exciting that pathetic interest aroused by something pleasureable which will shortly cease to exist, it is, for the meditative, a link which connects the thoughts with the past. Any one may today sit down at the brink of active bubbling, wholesome springs on Manhattan Island, and

read references to them in the journals of travelers, in old Indian deeds, and in the patents of early Dutch governors.

There were perhaps few localities in the world more lavishly endowed with fountains than was the lanky little island of Manhattan, which doubtless contained originally some three hundred springs. This estimate can hardly be excessive when, as will be seen, there were nearly one-third of that number still left in the latter part of the nineteenth century. In 1889, the most southerly open spring to be found on the island was at Sixty-first Street and Broadway. At that date there were, as there are today [1916], many springs still running, but they are out of sight in cellars and subcellars of buildings, like the large one that was in the southwest corner of the New York Athletic Club (when it fronted on Central Park South), whose waters ran through the boiler room floor in a little canal that emptied by gravity into the Fifty-ninth Street sewer. No attempt has been made to describe, or even to enumerate the numerous springs so imprisoned, and it is only the open springs, out of doors, visible and freely accessible to everyone at the time they were photographed, that are pictured and described in the following section.

The southern boundary of the Hoorn Hook farms, in Harlem, as named in the patent, was "the commons and a certain run of water" near what is now the foot of East 80th Street. This was Marston's Creek, on the bank of which were two springs, which have been there ever since. The upper of these two springs, which a few years ago stood in the open, is now housed in a modern building standing on the southwest corner of 80th Street and East End Avenue. Neither concrete nor any other device of the Manhattan Electric Light Company have proved adequate to keep it from pouring into the cellar. The lower spring rises from under a pile of sand some one hundred and fifty feet west of East End Avenue in East 79th Street [Plate 9].

Journeying westward, the next spring met with is in full view of every one who passes over the East Drive in Central Park [Plate 3b]. With the exception of the springs on railway lines, it is safe to say that none looks upon so many thousands of passers-by

every day as does this one, and yet it is doubtful whether any unofficial visitor to the park has ever observed it. It is located some three hundred feet west of the East Drive, about on a line with 76th Street. There is no obstruction to the view of this spring from the Drive, but its color and outline harmonize so well with its surroundings, and it fits so snugly in its grassy bed, that the only likelihood of discovery is from a chance reflection of the sun from its surface. But if like some modest violet this spring was born to blush unseen, its near neighbor a dozen feet west of the West Drive, and fifty feet north of the line of West 83rd Street, has received as much observation as the boldest and most flaunting of sunflowers. Dr. Henry S. Tanner, who in 1880 achieved notoriety as an exhibition faster, used to visit this spring, and it is known to every one in the Park Department, and also to numbers of credulous people throughout the city, as "Tanner's Well" [Plates 4 and 5].

To learn that there is only one more spring in Central Park, and that it is up in McGown's Pass, will be like a dash of warm Croton to many people who have often walked out of their way, and stood in a line in the Park, waiting for a chance to get temporary possession of a battered and rusty tin dipper chained to some slimy rock. The little stream that trickles down the face of such a rock successfully deludes all but one in a thousand into believing that it is spring water, and not the same tepid Croton that might have been tapped without leaving the house.

The McGown's Pass spring is of historic interest, and is frequently mentioned in deeds, patents, and other official documents, nearly always under the name of Montagne's *fonteyn*. Its original site is covered over, but the water has been led to, and now seems to issue naturally from, a rock about seventy-five feet west of the East Drive where it crosses a bridge [*Plate 7b*].

A city street spring has the further charm of a curiosity that attaches to its unexpected location. What pleasanter surprise could be enjoyed by a thirsty rambler along Broadway than to catch a glimpse, to the west, of the 165th Street spring bubbling gaily and coolly up through a pure sandy bottom almost in the middle

of the roadway? [Plate 30b]. Yet there are people who live in its neighborhood and pass within fifty feet of it daily who do not know of its existence. Almost similarly situated were the two springs in 176th Street, a few feet east of Jerome Avenue, in the Bronx, [Plate 67], and the one in Burnside Avenue east of Sedgwick Avenue [Plates 69 and 70]. The last-named was the most pretentious of the street springs, for it rose in a neat little well made of a piece of earthenware drain pipe, and had a cover. Though they may have been stepped in, inadvertently, by careless pedestrians, the first and last mentioned of these street springs were as clear and clean and cool and pure as the most fastidious could desire.

The sidewalk springs are, with two exceptions, less obtrusive than those of the roadway. The exceptions are: in West 110th Street, near the lane that leads to the grounds of the Cathedral of St. John the Divine [Plate 11]; and in East 183rd Street near Jerome Avenue, in the Bronx [Plate 73b]. They are both on the inner side of the walk nestling at the base of a perpendicular wall of rock thirty or more feet high, and might easily escape attention but for the telltale stream that flows over the pavement on its way to the gutter. Those that are less obtrusive, and in fact are difficult to find, are on the Southern Boulevard north of Intervale Avenue [Plate 58b]; on Macomb's Dam Road [University Avenue] south of Kingsbridge Road [Plate 75b]; and on Fort Washington Avenue where it begins to turn down the hill into Broadway [Plate 38b]. The first two of these unobtrusive springs rise under the sidewalk in little stone houses of which the roof is formed by the flagging of the walk. The water of the third, on Fort Washington Avenue, comes out through a pipe under the sidewalk, but the spring itself is really some hundred feet away under the roadbed.

The springs on Manhattan Island have generally fallen to the care of the careless, and their housings have been allowed to go to ruin. On places across the River, however, in the Bronx, where the property is still in the families of the original owners of sixty or more years ago, decay has been less rapid, and the only partially ruined condition of many of the spring structures there, enables

one, in several cases, to see the architectures and in others easily to reconstruct it mentally, and so gain an idea of the spring fashions of earlier days, and judge what the Manhattan springs once resembled.

The city's springs, however, are fast being overtaken by the fate of its wells. The old wells, and even the later pumps, of wood or more elaborate metal, have passed away under the edicts that are making New York one of the healthiest cities of the world, and soon the more picturesque springs will all be things of the past. In the destruction of the well and pumps, there were lost only specimens of man's handiwork, but there is something more pathetic in the passing of a spring, for then the face of nature is deprived of one of her beauty spots.

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SPRINGS AND WELLS WEST OF CENTRAL PARK BETWEEN WEST 61ST STREET AND WEST 108TH STREET

BROADWAY AND WEST 61ST STREET

Plate 1

August 15, 1899. Along the west side of the Boulevard [Broadway] between 61st and 62nd Streets there is a high board fence which runs back along those two streets one hundred and twentyfive feet or more, and encloses a collection of shanties and stables known as the "sunken village." The spring of this "village" is about forty feet west of the Boulevard, and about fifty feet north of West 61st Street. It is covered over and rigged with a pump, the water being brought up by little buckets attached to a chain worked with a crank. The surface of the water is about five feet below the foot of the pump, and the water is said to be twenty-five feet deep. The lowest level of these lots, and apparently its original level, is about fifteen or twenty feet below the level of the Boulevard, and as the ground slopes away to the west several feet from the pump, the water is actually on a line with the lowest level of the lot, and this is therefore really a spring. The level of the water never changes. It never dries up, never freezes, and it is cold in summer and warm in winter. It is said to have been the well of the farm that was formerly located here. I drank of the water from a milk can (for of course there is a milkman here and his shed and cans are within a few yards of the spring). It was colder than Croton, but not very cold, and it had a slightly salty taste. Its water is used by all the people of these shanties, and by the stables there, all of which buildings are in a more or less ramshackle condition now, though some of them bear traces of ornamentation that tell of better days.

June 18, 1901. This spring is running as usual, although the Rapid Transit Tunnel excavation on the Boulevard [Broadway] outside is down some twenty feet, and has water in it. At 1:40 P. M., in the little shanty in the hollow at West 61st Street, the people are having dinner at a table covered with white oil cloth, with plants on it. The table is at a window overlooking a little triangular garden about ten feet on its side lines.

September 22, 1902. The water is still running, but there is a sign by the pump with white letters on a piece of black tin, about twelve by fifteen inches, reading:

Danger

The water from this well must not be used for drinking purposes: it contains sewage.

By order of the Board of Health.

RIVERSIDE DRIVE AND WEST 91ST STREET

Plate 2a

April 8, 1898. This well is about twenty feet north of West 91st Street, and about fifty feet east from Riverside Drive, or rather from the road parallel to the Drive, which runs some thirty feet west of, and below, the road. It was the well of Mr. [Cyrus] Clark's barn, which formerly stood near here, and of which traces of the foundation may yet be seen. The well is about three feet in diameter, covered with a board platform, on which there is about a foot of earth. In the platform, there is cut an opening about one foot across. The well is about twenty feet deep to the surface of the water, and there are three iron pipes leading up from the water, one running north, one southeast, and one south. The house was several feet away. Perhaps one of these pipes ran to it. Mr. [George R.] Schieffelin owns the property above the Clark's, and one of the three pipes is said to have run to Schieffelin's house, which is just south of his present barn. The pumps seem to be disconnected now, and the well is kept covered with several pieces of flagging. There is a large slab of brown stone which probably



PLATE 1—BROADWAY AND WEST 61ST STREET AUGUST 23, 1899



PLATE 2A—RIVERSIDE DRIVE AND WEST 91ST STREET APRIL 2, 1898



PLATE 2B—BROADWAY AND WEST 108TH STREET APRIL 9, 1898

used to serve as the well top. It has a hole about one inch in diameter in its center, through which a pipe perhaps protruded in former times.

Except on this northeast corner, West 91st Street is built up with fine new houses not a year old. There is a good view of the river from here. The ledge of rock on Riverside Drive at 92nd Street that I climbed up on with some difficulty about four months ago, and which was twenty-five feet high, is nearly all blasted away now.

HUDSON RIVER SHORE AT WEST 104TH STREET

November 16, 1898. It was only today that I learned of this spring from the flagman at 122nd Street and the Hudson River—I had previously been told that there was no spring along the rail-road south of 122nd Street. This little spring is about forty feet from the River, at the foot of the fifteen-foot retaining wall of Riverside Drive Park. As seen from the Park, it is about fifty feet south of the red disc signal switch, and about opposite the corner house, on the Drive, that has a stone balustrade along its roof. The water from the spring flows in a sluggish stream through a little trench to an earthenware drain pipe about eighteen inches in diameter, which runs under the railroad tracks and empties into the Hudson River.

This is a persistent, unquenchable spring. Until about three months ago it rose in a barrel and was in a thriving condition, but the boys who bathe in the river here made a practise of washing their feet in it. so the railway men took up the barrel and filled in the spring, so that the present little pool is only a ghost of the former spring.

Over the retaining wall stretches the Park, with its tall trees and green slopes and pleasant walks, which a few years ago was nothing but a thin line of forest with a rough country-like path running through it. The sinuous trail reminds one of the many snakes that once roamed through this section. One was killed in 1894 while crossing the Drive, and measured four feet in length.

The banks of the river are dotted with fishing men, more or less aged, who seem to be merely going through the motions of the sport. Many of them never catch anything during a whole day. Two or three blocks below here are seen the remains of an iron foot bridge which crossed the railroad tracks. It is now partially ruined, apparently by fire.

BROADWAY AND WEST 108TH STREET

Plate 2b

January 6, 1898. About fifty feet south of West 108th Street, about forty feet from the fence line of the Boulevard, on the east side of lot no. 998, there is a well four feet in diameter, curbed with loose stones. In the open space here there are eighteen trees about seventy feet high; two little boys are swinging in a barrel hoop hung to the branch of one by a rope. The Boulevard is some seven feet above the level of these lots.

An old Irish truckman named Richardson, who has had a shanty here for thirty-one years, dug this well fifteen feet deep, at a point one hundred feet east from what was then the Blooming-dale road or old Broadway. A man by the name of Cavanagh lived in a shanty on the other side of the road, and the well was called Cavanagh's well. When Richardson settled here, he had to buy axes and hire men to cut a way into this lot, the underbrush was so thick. The trees which are now seventy feet in height were then mostly swamp oak saplings. This land, part of the De Peyster farm, was then owned by the Remsen Estate. Even twenty years ago, Richardson could have bought the lot on which his shanty was built for \$1,000, though why he should have paid that sum, when he fully expected to live here for life, rent free, was then beyond his perception. Richardson says there used to be a well called Dixon's on the other side of the Boulevard, which was forty-five

feet deep and ice cold in summer; and that there was a well at 111th Street which had a windlass to wind up the bucket.

Running from 108th Street is a stone flagging that covers the brook that used to be there, and which ran from 111th Street down to Jauncey Lane, and emptied into the Hudson at 96th Street. It runs diagonally southwest, and where it disappears in 107th Street seems to be headed for the western end of house no. 266 on the south side of West 107th Street. This flagging is about fifteen feet below the level of 107th Street. House no. 266 is about two hundred feet from the Boulevard and east of it.

March 30, 1898. Some parts of Richardson's stables and shanty are still standing among the half-finished flats being built here. These flats, to be 240 West 108th Street, were begun four weeks ago. They now have the roof on and are to be tenanted in June! Richardson has gone to live at Fox's, 200 West 108th Street.

April 9, 1898. The water in the well is about four feet from the surface, although a week ago it was up to the top.



OPPOSITE EAST 63RD STREET

Plate 3a

October 26, 1897. In Central Park, about one hundred feet west of Fifth Avenue, and on a line with Sixty-third Street, there is a large irregular mass of rock at the east side of the path, a little south of the monkey house, and just opposite the wapiti section of the deer enclosures. Several small streams of water flow through fissures in the rock and trickle down its face in several places. There are two tin dippers, one chained to the rock and the other free. The latter enables a persevering person to obtain, from any part of the rock he desires, a drink of Croton water somewhat warmer and dustier than it can be found elsewhere in the city. A moment's observation of the locality will convince one that no spring would ever appear in such a preposterous position.

EAST DRIVE OPPOSITE EAST 76TH STREET

Plate 3b

April 2, 1898. There is a quiet spring about one hundred and sixty feet west of the East Drive, just about opposite the Jewish Temple Beth-El on Fifth Avenue. It is near the foot of the slope that rises to that part of the Ramble which contains the Park's giant boulders, some of which were rocking stones less than forty years ago. Leeks and dandelions are growing around the spring, and a little stream running from it, in a southwesterly direction, loses itself in the grass. It is so quiet that only this somewhat plentiful outflow from it shows that it is not simply a pool of water. Perhaps if the bottom were exposed, it might prove to be a boiling spring. Its water is cold and pleasant to the taste, and there is ample testimony that it is a good, potable spring, in the healthy



PLATE 3A—OPPOSITE EAST 63RD STREET IN CENTRAL PARK OCTOBER 26, 1897

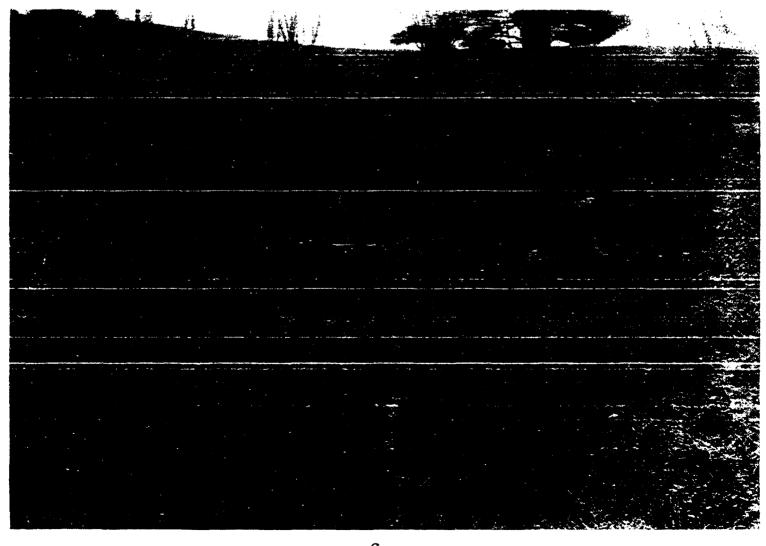


PLATE 3B—OPPOSITE EAST 76TH STREET IN CENTRAL PARK APRIL 2, 1898

frames of Park employees of seventy years of age who drink from it daily.

There is no obstruction to the view of this spring from the East Drive, but its color and outline harmonize so well with its surroundings, and it fits so snugly in its grassy bed, that the only likelihood of discovery is from a chance reflection of the sun from its surface.

"TANNER'S SPRING"

Plates 4 and 5

On the curving path that runs northeast from West 81st Street and Eighth Avenue [Central Park West] into Central Park, and about seventy-five feet north of the northerly line of West 82nd Street, there is a spring that was boarded up by order of the Department of Health about 18—. One of the upper boards was, however, soon loosened at one side and turning on a nail on the other side as a hinge, it became a narrow door [Plate 4a]. Park employees of this section all continued to get their drinking water through the opening, notwithstanding the Board of Health's edict against its use.

In July, 1880, while Dr. Henry S. Tanner was giving public exhibitions of going without solid food for forty days, he made almost daily visits to this spring, it is said, and drew from it such liquid sustenance as he was allowed to consume during his public fast. In consequence of these visitations, it became known as "Tanner's Spring" and has ever since retained that designation. Perhaps Tanner's apparent ability to live without eating was attributed to some nourishing element in this spring. At any rate, people came even from distant parts of the town with bottles, pitchers, and pails, which they filled here and carried to their homes. In those days, this spring had an extensive reputation as a specific for rheumatism.

After it had been boarded up by official order, the spring ap-



PLATE 4A—CENTRAL PARK—"TANNER'S SPRING" BOARDED UP. SEPTEMBER 28, 1897



PLATE 4B—CENTRAL PARK—OVERFLOW OF "TANNER'S SPRING" SEPTEMBER 28, 1897

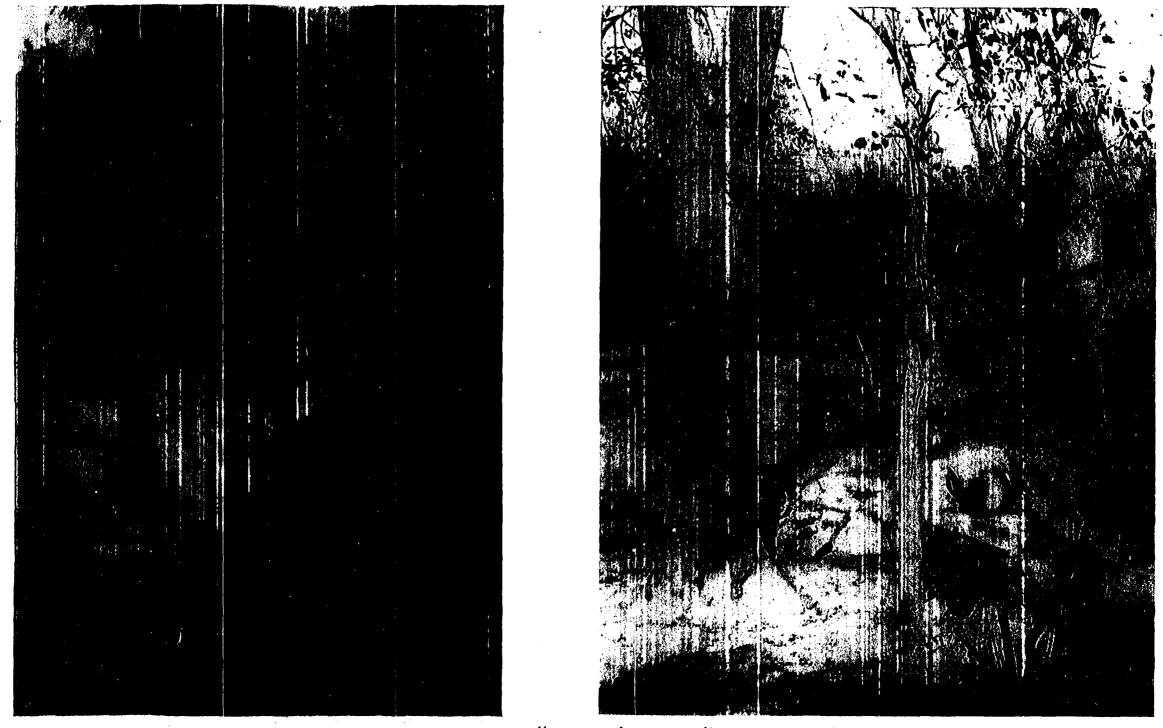


PLATE 5—CENTRAL PARK—"TANNER'S SPRING" OCTOBER 26, 1901

A—THE SPRING OPEN AGAIN

B—THE OLD BURIED PART



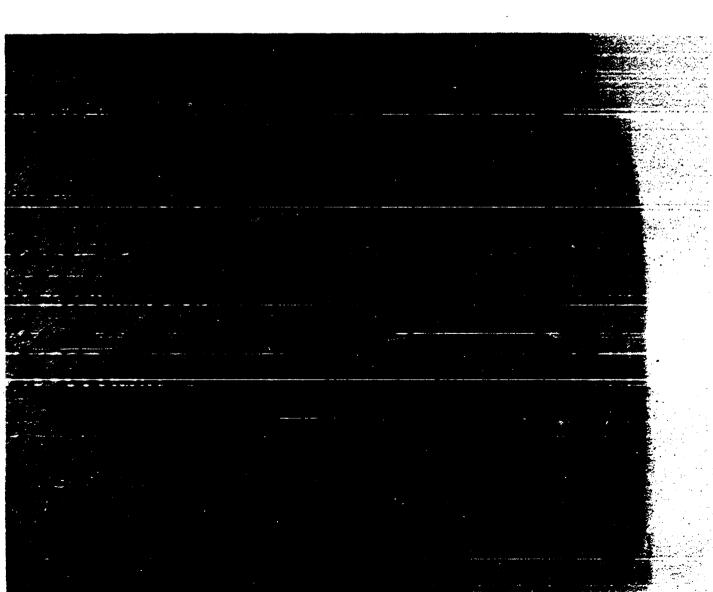


PLATE 6A—86TH STREET TRANSVERSE, CENTRAL PARK AUGUST 23, 1898

peared to develop a rebellious tendency, and in August, 1899, it forced for itself a new opening near the path twenty feet southwest from its prison. Over this opening flagstones and rocks had been piled to repress it, but without success, for it broke out again from under these stones, and formed a little pool with an eight by twelve inch surface of clear water from which its old friends drank as pleasurably as ever. After a couple of years its spirit of persistency was rewarded. The embargo was raised about 1901, the boarding removed, the spring cleaned out and well-lined, and it recovered its former popularity. [Plate 5a].

The water bubbles up at the base of an extensive formation of rock. A pipe that runs under the short side-path that leads to, and ends at, the spring, carries off the overflow.

EAST DRIVE OPPOSITE 97TH STREET

Plate 6b

July 23, 1898. There used to be a spring about one-third of the way between the south tennis ground and the East Driveway, about opposite 97th Street, near an outcropping of white rock. I remember I used to drink at it. At that time a little stream ran from it into a drain at the side of the path thirty feet north of it. It is now dry, and there is no water showing at all, probably because the stream was intersected when the aqueduct pipes were laid near-by some few years ago.

HORSE TROUGH, OPPOSITE EAST 104TH STREET

Plate 7a

October 26, 1897. At the northeast corner of the cricket field water appears, strangely enough, to come out of the very crest of the highest point of ground in the neighborhood. It pours into a large stone trough at the left of the bridle path a few yards south

of the line of McGown's Pass Tavern (which is east of the East Drive between the lines of 104th and 105th Streets). As this trough is not accessible to pedestrians unless they leave the walk some twenty feet, no provision is made for their service.

NEAR MC GOWN'S PASS

Plate 7b

June 7, 1899. After leaving McGown's Pass Tavern, the East Drive in Central Park (like some of its guests) takes a crooked course down the hill to the north, and curving around to the west and south, crosses a bridge with rocky parapets which spans a little stream that runs from the Loch into the skating lake or Harlem Mere. Two hundred feet from this bridge, and on the south side of the stream, is Montagne's *fonteyn*, a boundary point named in the old original deeds. It is west of the line of Sixth [Lenox] Avenue, about 105th Street. There is a path from the driveway to the spring, where the water trickles from and flows over some rocks a little higher than a man's head. A tin dipper is kept chained to the rock, and the water is nearly ice cold even on the hottest summer day.

Originally the spring appeared higher up on the hillside, in the bank about ten feet from its present location, but it was covered in laying out the artificial surface of the park, and the water was led to its present outlet through a pipe. Foreman McGovern, who is now dead, had it covered over and a Croton water pipe run through it, perforated at the top, which is why it spurts instead of flowing in a steady stream. Park policeman no. 2076 remembers this spring since 1879, when it was curbed.

August 9, 1899. This spring is now dry, and Policeman Robinson says it usually goes dry in August.

August 11, 1899. Two inches of rain fell yesterday, and today the spring is again running very cold water.

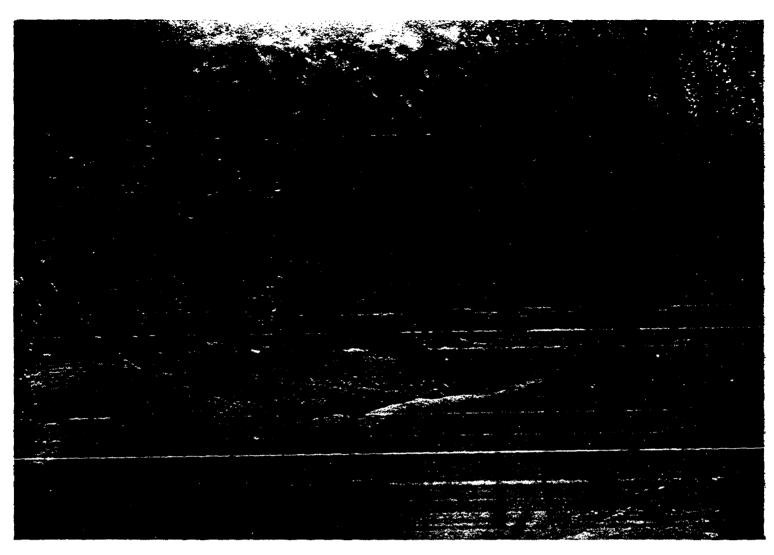


PLATE 7A—HORSE TROUGH OPPOSITE EAST 104TH STREET OCTOBER 26, 1897



PLATE 7B—NEAR MC GOWN'S PASS IN CENTRAL PARK DECEMBER 9, 1899

WEST DRIVE OPPOSITE WEST 109TH STREET

Plate 8a

March 18, 1901. There is a spring west of the West Drive, south of the line of West 109th Street, one hundred and fifty feet east of Eighth Avenue [Central Park West].

NORTH DRIVE OPPOSITE SEVENTH AVENUE

Plate 8b

October 16, 1897. About fifty feet west of the line of Seventh Avenue, and some twenty-five feet south of the North Drive in Central Park, near a large tulip tree, a so-called spring flows through a break in the eastern end of a mass of rock some hundred feet long. This rocky mass, when viewed from the side, looks like a whale sliding down the slope just below the high rocky ground on which the old Block House no. 1 stands.

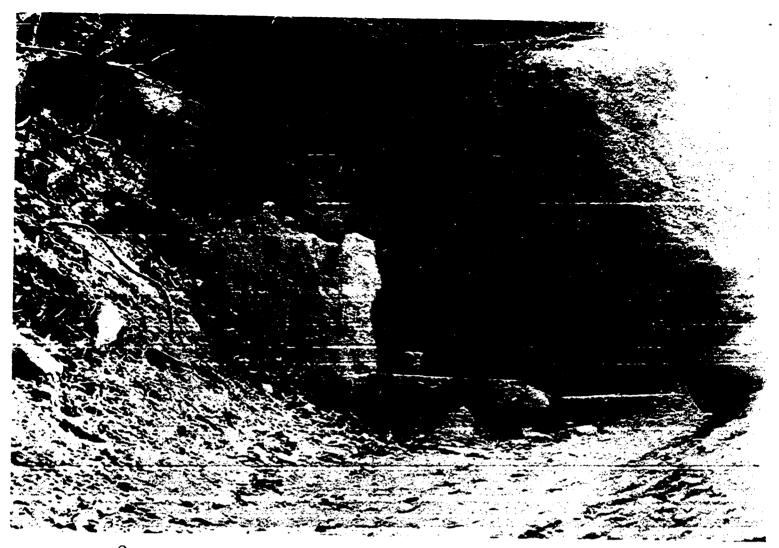


PLATE 8A—CENTRAL PARK—WEST DRIVE OPPOSITE WEST 109TH STREET MARCH 18, 1901



PLATE 8B—CENTRAL PARK—NORTH DRIVE OPPOSITE SEVENTH AVENUE OCTOBER 16, 1897

SPRINGS AND WELLS EAST OF CENTRAL PARK BETWEEN EAST 79TH STREET AND EAST 99TH STREET

EAST 79TH STREET NEAR EAST END AVENUE

Plate 9

March 8, 1898. On the north side of East 79th Street, about one hundred and fifty feet west of East End Avenue, between John Mullady's blacksmith shop and the sidewalk, there is a pile of building sand six feet high and twenty feet long. From under the pile, near the line of the walk, there appears a little spring, protected by planks from the sand over it. The water boils up lustily, and does not congeal even when the hydrants of the vicinity are frozen solid, as they were last winter. The children of the neighborhood are its constant patrons.

It was formerly surrounded by the grounds of the Bellevue Gardens, and perhaps if the sand pile were removed, its little basin with three steps leading to the water would again be brought to view as they appeared in the decade of 1850-60. The foreman of the Street Cleaning Department, whose office is in 80th Street, was born near-by, and his memory of the locality extends over fifty years. He recalls when this spring was in a slight depression, and was reached by a descent of three steps.

Looking eastward from this spot, one can see, not far away, the lawn-like shore of Blackwell's Island and part of its hospital buildings.

Mr. Fuer [?] is a Dutch farmer who lives on the south side of East 78th Street, above the street level. He used to have a well near the entrance to his present stable which had quite a reputation. People from all about the neighborhood were wont to come to it for water. But the well went dry when, about ten years ago, 78th Street was cut through the high bluff extending along the East River, leaving his castle and farm "in the air." Mr. Fuer has lived on and cultivated his "sky-farm" for thirty-seven years.



PLATE 9—EAST 79TH STREET NEAR EAST END AVENUE, LOOKING EAST APRIL 2, 1898

EAST 80TH STREET AND EAST END AVENUE

March 8, 1898. Ten years ago, this spring stood in the open, on the southwest corner of East 80th Street and East End Avenue, covered only by an unpretentious little box. Now it is in the southwest corner of the building of the Manhattan Electric Light Company and of the Harlem Lighting Company, and its water pours into the cellar, from which it is pumped, out of specially-constructed cisterns, at the rate of one thousand gallons a day. Mr. Edward A. Leslie, manager of the Light Company, kindly had me taken to the engineer, who lit a candle and showed me the traps in the cellar of the boiler room, where the water is collected.

This is the upper of two springs on the bank of Marston's Creek, which served as the southern boundary of Hoorn's Hook, in Harlem. The lower spring is the one just described, on East 79th Street.

65 EAST 87TH STREET

Plate 10a

April 21, 1898. On the north side of East 87th Street, between Madison and Park Avenues, in the yard behind the frame house numbered 65, there is a pump.

From the yard one can see the rear of the apartments on the south side of East 89th Street, and the tower of the Protestant Episcopal Church of the Beloved Disciple, on the north side of East 89th Street, between Madison and Park Avenues.

FIFTH AVENUE AND EAST 99TH STREET

Plate 10b

November 8, 1898. This hydrant is at the northeast corner of Fifth Avenue and 99th Street, in front of 1181 Fifth Avenue. It

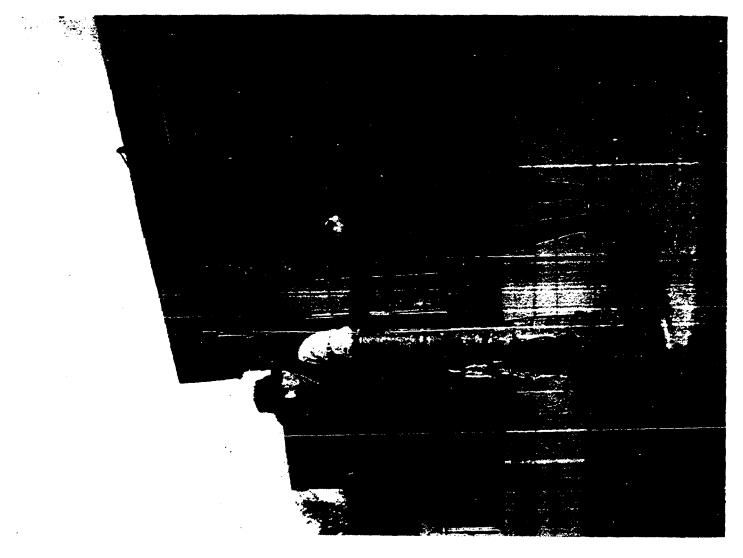


PLATE 10B—FIFTH AVENUE AND EAST 99TH STREET NOVEMBER 8, 1898



PLATE 10A-65 east 8_7 th street appendix 21, 1898

is labeled: "Hyde's safety Spring Valve. Patented Apl. 19th, 1870." Water is admitted to the hydrant by using a key to turn a square-topped rod level with the sidewalk, and then pressing down a lever at the side of the hydrant as long as it is desired to have the water run.

	SPRI	NGS AND) WEI	LLS	
BETWEEN	110TH	STREET	AND	125TH	STREET

WEST 110TH STREET NEAR MORNINGSIDE DRIVE

Plate 11

November 22, 1897. On the north side of West 110th Street [Cathedral Parkway] between Amsterdam Avenue and Morning-side Drive, a steep bluff rises from the inner line of the sidewalk to a height of thirty or forty feet. It was formed by cutting away the southern slope of Harlem Heights to lessen the grade of 110th Street westward from Morningside Drive. The original south-eastern base of this hill, near Eighth Avenue, is buried forty feet under the present land level in that vicinity. People who rode on the Elevated Railway in its early days will recall that at the 110th Street curve the cars were 110 feet above the visible bases of the supporting columns. Of that 110 feet of space forty have since been filled in to bring the level up to that of 110th Street at Eighth Avenue.

At the foot of that bluff, on the north side of West 110th Street (at a point opposite no. 118 West 109th Street), there is a detached rock with a large drill hole in it, at the base of which there is a little spring. This spring is 276 feet, 101/2 inches east of Cathedral Lane, the old road running parallel to, and east of, Amsterdam Avenue. Recently the City had a sign placed at this spring cautioning people not to drink from it, but the sign soon disappeared, and no effort having been made to tap the overflow into the sewer, it runs along the inner line of the sidewalk and finally finds its own way into that receptacle of the town's waste waters.

August 14, 1898. This spring is dry today.

March 12, 1899. Today it was running very freely. The water was coming down from under an arch of earth about ten inches high. No water was visible on the face of the bluff—it all came down out of sight through the earth and rock. A little channel has

been made to the north of the sidewalk for several hundred feet, and the overflow ran through this channel some one hundred feet and gradually disappeared, apparently soaking into the ground.

April 19, 1899. It was running big teacupfuls today.

[1903?] It is today just covered by a heavy stone wall three feet thick and thirty feet high that some Italians are building along the Cathedral Driveway, or 110th Street, on the north side. The rock with the drill hole in it is prominently placed in the front face of the wall, the construction of which has reached today a point opposite the eastern end of the wall in front of the new Woman's Hospital on the south side of the street.

FIRST AVENUE AND EAST 111TH STREET

September 11, 1901. At the southwest corner of 111th Street and First Avenue two pipes are discharging a large quantity of very cold water from a well they are pumping out there. One pipe is five inches in diameter, and the other four inches.

CATHEDRAL OF ST. JOHN THE DIVINE AND LEAKE AND WATTS ORPHAN ASYLUM

Plate 12

November, 1898. The Leake and Watts Orphan Asylum had a well in front of the north porch of their building, east of Amsterdam Avenue. A few feet from this institution the Cathedral of St. John the Divine is being built, about on a line with West 112th Street, between Amsterdam Avenue and Morningside Drive. The well was about two hundred feet west of Morningside Drive, and south of 112th Street, just about over where the font in the

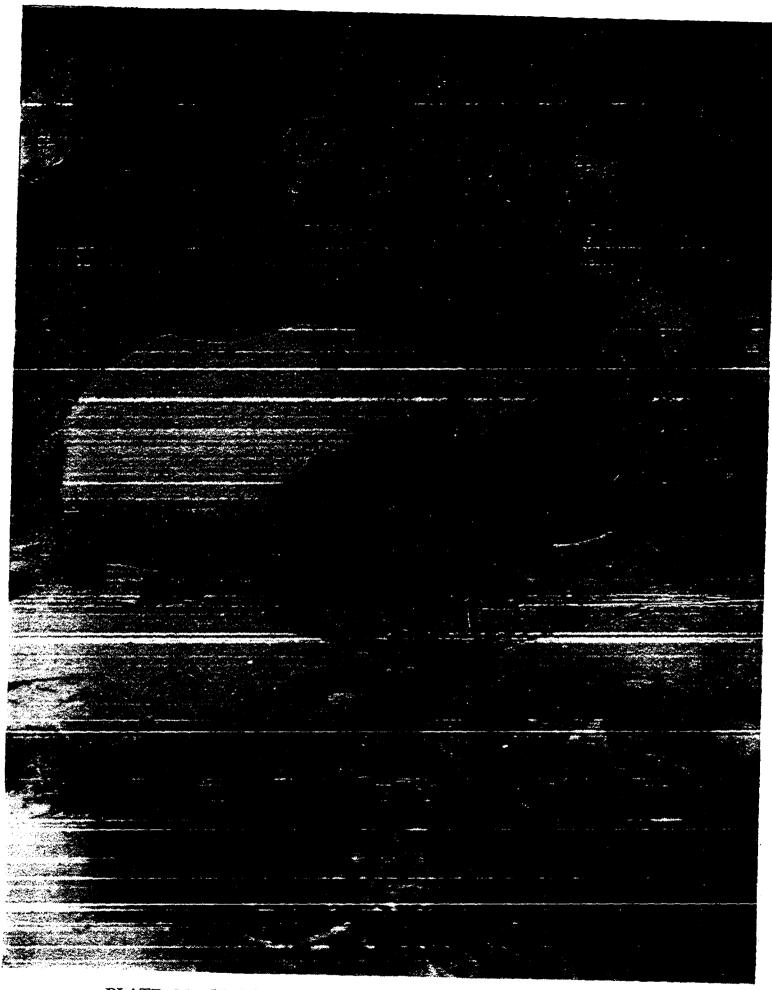


PLATE 11—WEST 110TH STREET NEAR MORNINGSIDE DRIVE SEPTEMBER 28, 1897

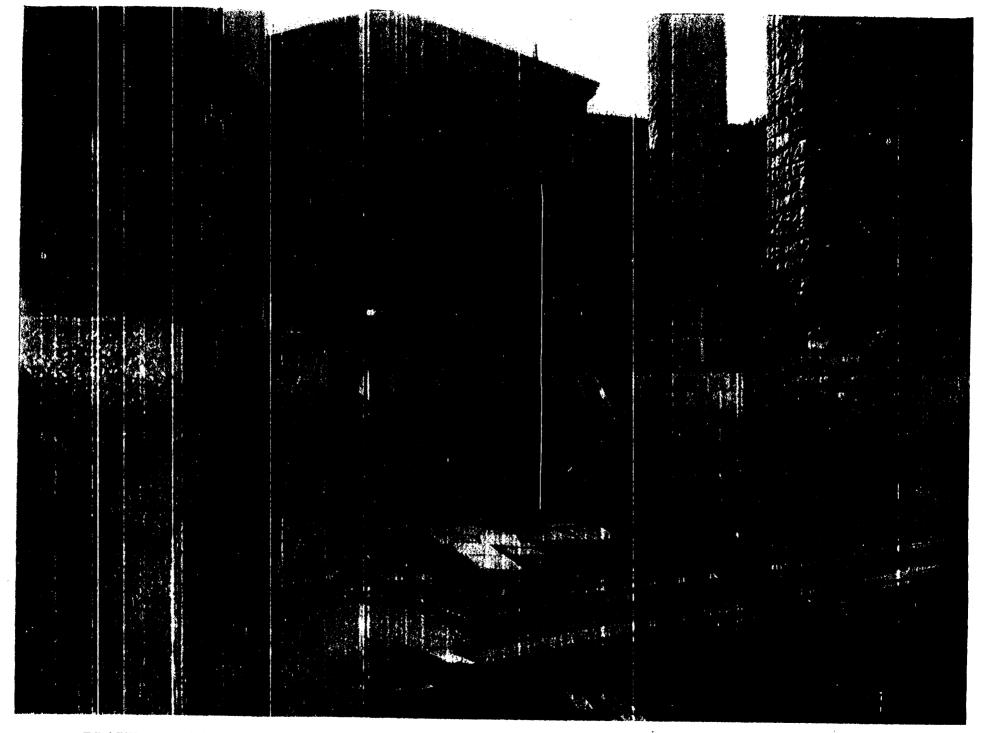


PLATE 12—CATHEDRAL OF ST. JOHN THE DIVINE AND LEAKE AND WATTS ORPHAN ASYLUM NOVEMBER 8, 1898

cathedral will probably be, so that the water for the font might have been taken from the well!

HUDSON RIVER SHORE AT WEST 112TH STREET

August, 1899. There is said to be a spring about 112th Street and the Hudson, near the railroad switch. Go down the ladder about 115th Street. It now runs through a pipe into the river.

45 WEST 114TH STREET

September 27, 1897. The foundation for this house is just being laid over a spring that was visible three weeks ago! There was a shanty there, and the spring was used by it a year ago.

27 WEST 115TH STREET

Plate 13a

May 20, 1898. On the north side of West 115th Street, between Fifth and Lenox Avenues, numbers 27 and 29 are two wide houses built together, with seventy-five feet of open ground on each side of them, and at the rear, a large court yard in common. These twin houses are occupied by the Herrman family.

Right against the eastern wall of No. 27 is a pump with a latticed house over it. This pump is supplied by a spring which ten years ago welled up out of the ground and gave the contractor a good deal of trouble. The German lamplighter, who lives nearby on the south side of 115th Street near Lenox Avenue, says that it used to come up in a sandy place under a little overhang, bubbling up in four or five places. The Irishman who lives in

the little house east of Grant's Tomb says the owners of the two houses wished to have the spring preserved, and that he super-intended the building of the spring house. The work was done by a contractor named Phelan.

The pump now yields muddy water. The water is four feet deep, and there is twenty feet of space above it, making it twenty-four feet deep. These lots were filled in about fourteen feet.

On the south side of West 115th Street, opposite, there is a row of narrow three-story houses.

WEST 115TH STREET EAST OF LENOX AVENUE

Plate 13b

December 12, 1897. On the south side of West 115th Street east of Lenox Avenue, about in the center of some vacant lots and opposite houses numbered 75-79, is an old wooden house inhabited by a German and his family. He is a lamplighter who has lived here, or within a few hundred feet of the place, for a quarter of a century. He used to have a well under the big tree fifty feet to the west of his house, the water of which was perfectly good, but some ten years ago the Health Department, in his absence, put Paris green poison in this well to discontinue its use.

There had always been a moist place behind and south of his house, so after the Health Department's work, he secured the help of another man and dug another well there, the present one on this spot. He made a large box four feet square and sunk it in the hole as the earth was dug out, to a depth of fifteen feet.

There are four or five feet of water in this well, and it never freezes. It is perfectly clear, and is used by the family for every purpose, as they have no Croton water on the place. The old gentleman inveighs against the city supply as being nothing but muddy water, and he says that neighbors who have the latter are fond of coming to his well at every opportunity. The well is uncovered and not very attractive to look into, as his youngest child's



PLATE 13A-27 WEST 115TH STREET DECEMBER 27, 1897



PLATE 13B-WEST 115TH STREET EAST OF LENOX AVENUE DECEMBER 27, 1897

chief amusement seems to be throwing sticks and newspapers into it.

I tasted the water which the lamplighter drew up very skillfully with a bucket tied to the end of a pair of old leather reins joined together. The water was clear (although it rained heavily this morning), very cold, and pleasant to the taste.

The old man says he is going to move on account of the carelessness of his new and citified neighbors. They live in very nicelooking flats behind his house, on the north side of West 114th Street, but are prone to throw into the vacant lots whatever material they wish to dispose of in haste, and he has grown tired of making vain protests against the practise. The land of these vacant lots around him is still at its old level, not having yet been filled in, and is about seven feet below the level of the street.

In the photograph, over the roof of the lamplighter's cottage and to the left of his chimney, may be seen the arched windows of the house of Fire Engine Company No. 58, at 81 West 115th Street.

ON COLUMBIA UNIVERSITY CAMPUS

Plate 14a

January 21, 1898. This well is in the block forming the south field of Columbia College, bounded by the Boulevard and Amsterdam Avenue, 114th and 116th Streets. It is about two hundred and fifty feet east of the Boulevard, and about three hundred feet south of West 116th Street. It is under what used to be the stable of the Bloomingdale Asylum for the Insane, and supplied the barn department of that institution.

The building over the well is a one-story arrangement with an attic, and forms the north part of a line of barns running back nearly to West 115th Street. The spring is under the house a little to the right of the center line, and about eight feet from the front line of the house. It rises in a circular brick well about twenty inches in diameter, with the water about four feet from the surface, and about five feet deep. It has three pipes running from it: one to a pump north of the barn, shown in the picture; one up to the room over the well, the floor of which is only about four and one-half feet above the well; and the third to the rear of the building where there is a second pump. Two of the three pipes run to within about three inches of the bottom of the well, but the third pipe goes down only about twenty inches.

The pump shown in the picture has stamped in its iron:

Lotos No. 1 W. S. Blount, N. Y. Pat. 1876-1879

The barn well was used as late as four years ago. The outside pump handle is now rusted off, and the pump is not in use. I think, however, that the people now in the building above this well, of whom Robert, a watchman of the college, is one, have lately used the well water, as the pipe leading upstairs was dripping water where it appeared to be broken off. This may account for their refusal to let me see the spring until I had obtained written permission from Mr. [Edward A.] Darling, the superintendent.

November 8, 1898. Mr. Darling quoted [James Dwight] Dana's Geology to prove there can be no true springs on Manhattan Island, and said to find one would entail the labor of the man who, after boring a long time for oil, told his scoffing friends that he was going to keep on until he struck oil, hell, or China! Not long afterwards, the newspapers announced that in cutting out the rock for the College swimming tank, a spring had been struck so copious that it would be used to supply the tank with water!

Today the spring under the barn is dry, and Robert, the watchman, says it is the first time he ever knew it to be so. Perhaps making the foundations for the College swimming tank and deflecting the spring water into it, have drawn the supply from this spring.

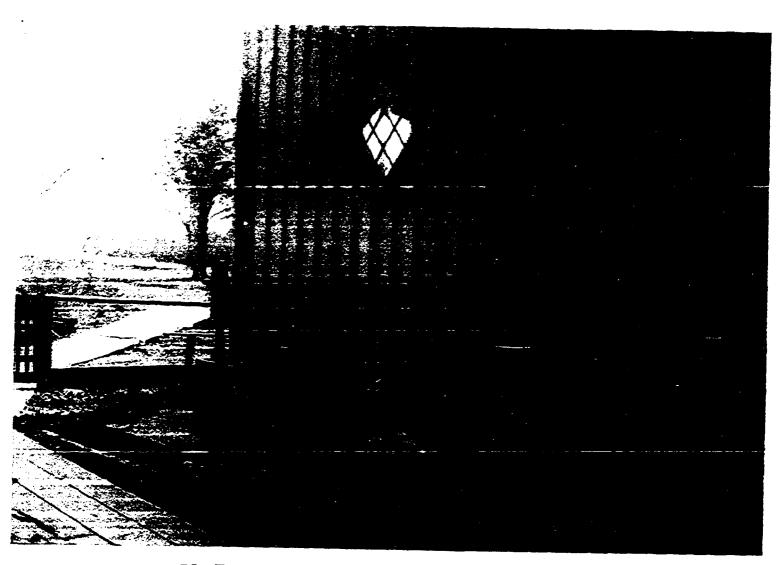


PLATE 14A—COLUMBIA UNIVERSITY CAMPUS NOVEMBER 8, 1898



PLATE 14B—WEST 116TH STREET AND AMSTERDAM AVENUE NOVEMBER 8, 1898

About one hundred and fifty feet to the west of the barn there is a little gulley or depression several hundred feet long that looks as though it might have been the bed of a stream. Along its banks several good-sized willow trees are growing.

WEST 116TH STREET AND ST. NICHOLAS AVENUE

There is a pump in the market garden at West 116th Street and St. Nicholas Avenue. There is also a pump in the back part of the house next door, to the south. The latter place seems to be a sarsaparilla factory; they say here that their pump was used until six weeks ago when the Croton water was put in. [Date not given.]

WEST 116TH STREET AND AMSTERDAM AVENUE

Plate 14b

January 7, 1898. This well is very prominently visible on the northeast corner of Amsterdam Avenue and West 116th Street. It adjoins a frame house that is set several yards back from the Avenue, on a terrace some four feet above the level of the Avenue and of West 116th and West 117th Streets. It is the only house in the entire block. Although the well and the house are weather-beaten, and many a long year has passed since either received a coat of paint, the well, with its neat lattice still in good order, is a fine memorial to the carpentry of other days. But alas, there is nothing save its exterior characteristics by which it may now be denominated a well, for its internal machinery and buckets have been taken out, and it has been used as an ashes receptacle for so long that it is now filled to the curb with solid matter.

The Columbia College buildings are opposite on the west side of Amsterdam Avenue, and represent the newest as the house does the oldest form of architecture in this neighborhood. The photograph shows a row of tall houses on the north side of West 117th Street, east of Amsterdam Avenue.

WEST 119TH STREET EAST OF AMSTERDAM AVENUE

Plate 15a

October, 1897. About one hundred and fifty feet east of Amsterdam Avenue, and about twenty-five feet south from West 119th Street, there is a spring over which a little enclosed wooden shed has been built. The water is about twelve feet from the surface of the ground, and is obtained by means of a pail and a fifteenfoot length of rope.

It is just east of the Croton water gate-house, by which it is hid from view from Amsterdam Avenue, which may account for the fact that a woman who has lived for thirty-seven years at 122nd Street and Amsterdam Avenue did not know of its existence, and the firemen of Engine Company No. 47, in West 113th Street just west of Amsterdam Avenue, were ignorant of it!

WEST 119TH STREET WEST OF CLAREMONT AVENUE

Plate 15b

November, 1898. This well is located seventy-five feet west of Claremont Avenue, on the south side of West 119th Street, just by the sidewalk. This was [James] Lynch's well. He is still living in the neighborhood. [The 1898 New York City directory lists James Lynch as living on Claremont Avenue near West 120th Street.]

Fiske Hall, of Barnard College is opposite, on the east side of Claremont Avenue, between West 119th and West 120th Streets.



PLATE 15A-WEST 119TH STREET EAST OF AMSTERDAM AVENUE OCTOBER 6, 1897

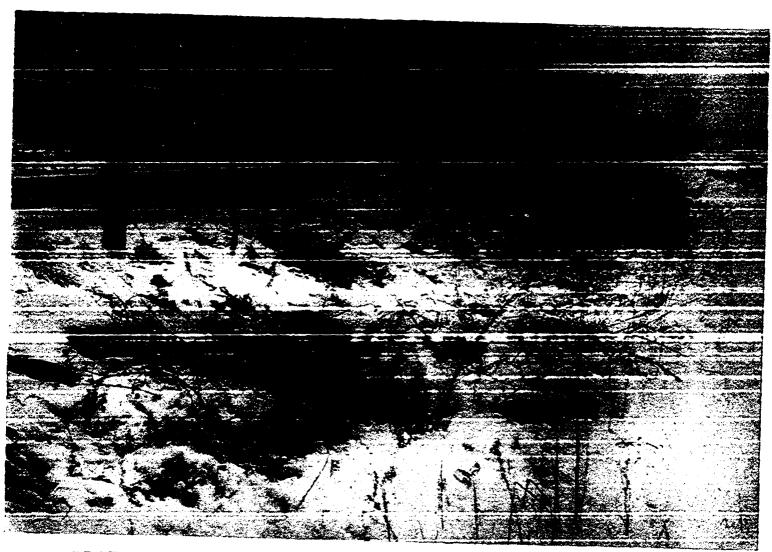


PLATE 15B—WEST 119TH STREET WEST OF CLAREMONT AVENUE NOVEMBER 26, 1898

HUDSON RIVER SHORE AT 122ND STREET

Plates 16a and 16b

November 16, 1898. This spring bubbles up a few feet east of the New York Central Railroad tracks on the Hudson River shore, between 122nd and 123rd Streets. It is at the western base of the high hill sloping down from Grant's Tomb, and at the base of the Riverside Drive retaining wall which is here some fifteen feet high. There is a ladder against the face of the wall. A year ago the spring was covered by a landslide of sand, but it has been uncovered. Those who knew this spring forty years ago before the wall was built say that the water comes from a cleft in a rock underlying the wall, and that it bubbles up through a sandy bottom when the spring is newly cleaned. The surface of the water is about six feet along the wall and about three feet wide and two feet deep. The retaining wall forms the rear; stones form the sides and front. The roof of the spring house is made of substantial planks and the front of boards with a sliding door, over which is roughly painted the soft admonition: "Please shut the door." In front of the sliding door is a rectangular space about six feet long, three feet wide and two and a half feet deep, down into which three steps lead from the level of the ground on which the railroad tracks are laid. Opposite the spring and a few feet south is the little house of the flagman who has charge of this section of the railroad. He declares there is no finer water to be had anywhere.

Formerly the Claremont Hotel, on the hill above to the north, got its water here when it was kept by [Edward] Jones. If its patrons of today were as interested in natural waters as were they who visited it in the early years of the ninetcenth century, they could be served from the same fountain of former renown.

1900. The slope above the spring is the northern end of a hill lying between Riverside Drive and the Hudson. As late as 1880, the entire tract down to 72nd Street was a forest in a primitive state. All of its thick undergrowth disappeared, and most of its lofty trees were uprooted to make room for the asphalt walks and

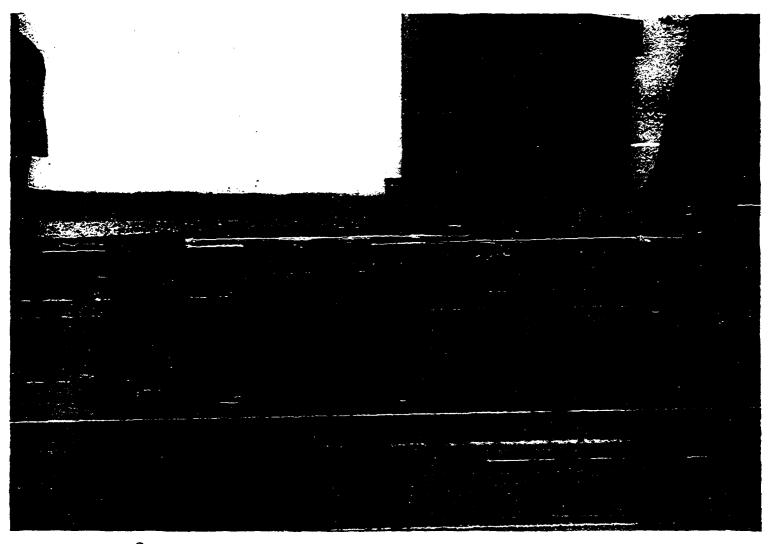


PLATE 16A—HUDSON RIVER SHORE AT 122ND STREET, LOOKING NORTH SEPTEMBER 28, 1897

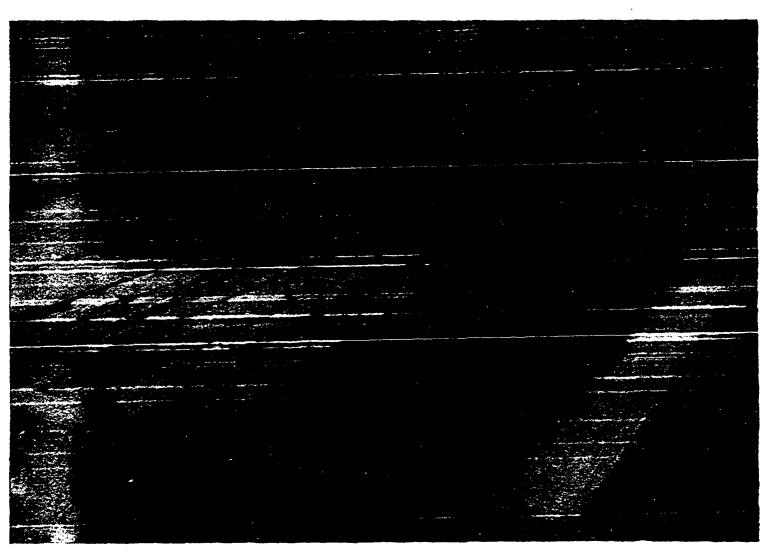


PLATE 16B—HUDSON RIVER SHORE AT 122ND STREET, LOOKING SOUTH NOVEMBER 16, 1898

close-cropped open lawns that the present park displays. Oak, chestnut, and hickory trees used to abound, and near the spring were some fruit trees, one of which, a peach tree, is still standing west of Grant's Tomb. This was so rural a forest that it had snakes, and it was not until 1880 that the last of them was seen. In that year a black snake six feet long was killed on Riverside Drive a few hundred feet from the spring.

In those days, and even into the 1890's, when the Park gardening had not been completed, any heavy and protracted rain storm would tear out deep gullies in the hillside and wash tons of carth and sand down the slope. After such a storm the spring would sometimes be covered seven feet deep with sand, a few feet of chain and a tin cup being all that was left visible to mark its site. After one such storm the railroad company hauled away a trainload of earth from the neighborhood, and the contractor who had laid many thousands of brick, in starting the foundation for the southern end of the viaduct at the head of the Drive, was unable for several days to locate a single brick. Since the slope has been sodded and the asphalted walks have been provided with drains, such landslides have ceased to occur; and it is only their former prevalence that accounts for the massive woodwork covering the spring on top and sides, and that necessitated the further protection of a framing of immense squared timbers.

BROADWAY, 123RD-124TH STREETS

Plates 17a and 17b

July 16, 1898. West 123rd Street now stops at the Boulevard, being blocked in its westward course by a high ledge of rock. On the west side of the Boulevard, about midway between 123rd and 124th Streets, set against the flat face of this rock (which is some twelve feet high) there is a tool house, which stands over what used to be a spring. Ascending to the top of this rock there is found (near 124th Street) a little old wooden house with a small

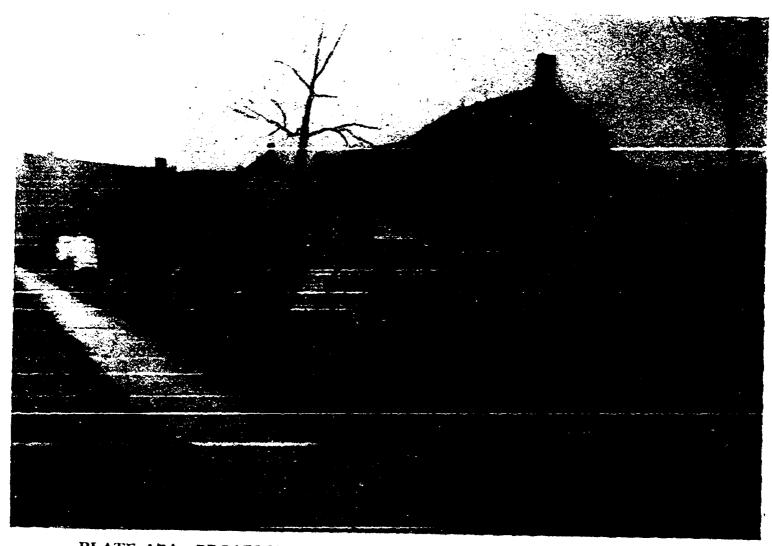


PLATE 17A—BROADWAY, 123RD—124TH STREETS, LOOKING SOUTH NOVEMBER 16, 1898

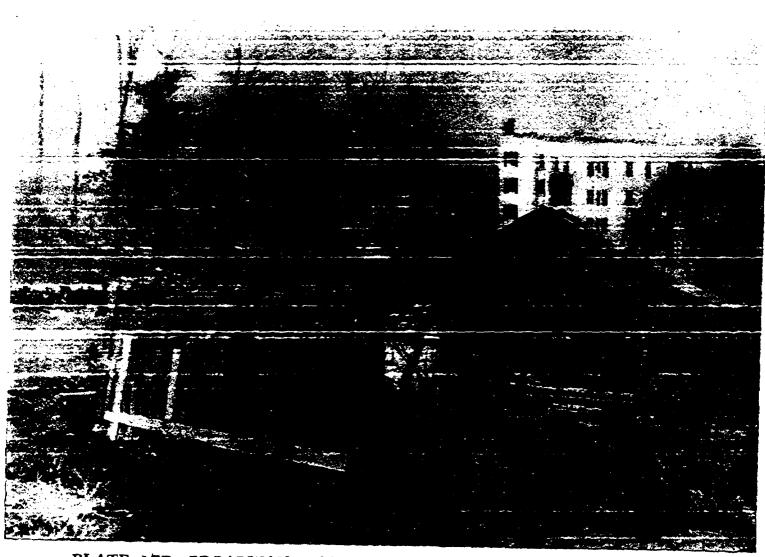


PLATE 17B-BROADWAY, 123RD-124TH STREETS, LOOKING NORTH NOVEMBER 16, 1898



PLATE 18A—BROADWAY AND WEST 124TH STREET, LOOKING NORTH, APRIL 9, 1898

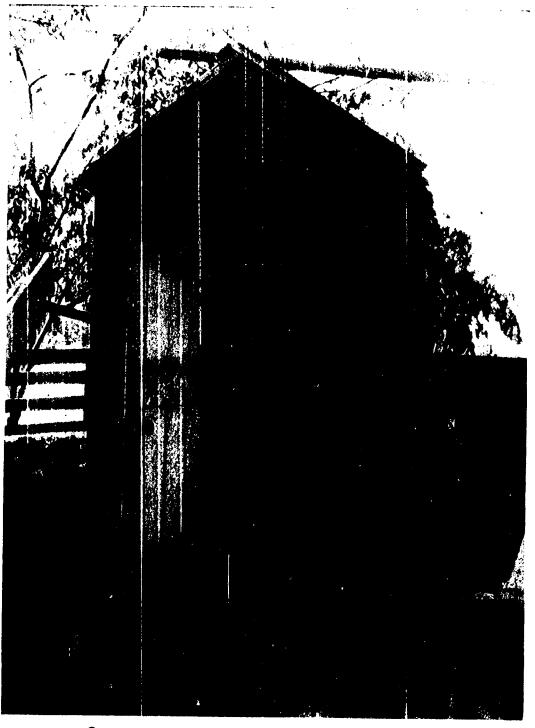


PLATE 18B—WEST 124TH STREET EAST OF AMSTERDAM AVENUE, SEPTEMBER 28, 1897

garden some twenty feet square. It fronts on what used to be Old Broadway (Bloomingdale Road), the outlines of whose course here may still be traced by a few tall trees on its western side, and a short stretch of retaining wall on its eastern side. The house is occupied by an old Irishman who has been in the neighborhood fifty years, and who used to work for Jones at what is now the Claremont Hotel near-by on Riverside Drive. The old man used to have a spring in his garden, up to the time the Boulevard was cut through some twenty-eight years ago, about 1870, but it is now dry. The outlet of this spring is where the water drips over the rocks on the Boulevard. The spring under the tool house was probably fed from the same source.

[The apartments in the background of the photograph (*Plate 17b*) are on the southwest corner of Broadway and what is now La Salle Place. Ed.]

BROADWAY OPPOSITE WEST 124TH STREET

May 4, 1899. On the west side of the Boulevard [Broadway], opposite West 124th Street, there is a shanty with a barrel cistern, run by a single board along the eaves (in contrast to other more elaborate systems all around a roof). The old woman just south says the shanty is occupied by Mr. Holland.

Mr. Holland was uncompromising and averse to having anything belonging to him photographed by me, and continued obdutate even when I got the policeman on the beat to urge a change of mind.

BROADWAY AND WEST 124TH STREET

Plate 18a

April 9, 1898. Just on the line of the curb on the northeast corner of the Boulevard, about twenty feet north of West 124th

Street, there is a pump. This is now disused, and there is carried up alongside it a Croton water pipe to which is attached a cock by means of which water is drawn. The tenants of the neighboring shanties get their water here.

The Boulevard is about five feet above the level of the lots on the north side of 124th Street, and the ground slopes down towards 125th Street [La Salle Place], where the Boulevard is some fifteen feet above the level of the lots. In the photograph may be seen a row of apartment houses on the north side of West 125th Street, east of Broadway.

On the southeast corner of the Boulevard [or Broadway] and West 124th Street, are some shanties, just behind which the land is all one mass of rock, some fifty feet high, the top covered with green grass.

[The east side of the shanties and mass of rock may be seen in the background of *Plate 19b*. Ed.]

WEST 124TH STREET EAST OF AMSTERDAM AVENUE Plate 18b

September 27, 1897. On the south side of West 124th Street, between Ninth Avenue [Morningside Avenue] and Tenth Avenue [Amsterdam Avenue], on the place of an old Irishman named Malley or Maloy, there is a well which he had sunk thirty-five feet deep, ten years ago. This is a regular cut well with two buckets running over a chain, one bucket white and the other dark.

The water is cold and clear, and on hot summer nights all the people of the neighborhood flock here to get a glass of this water. The horses near-by are supplied with this water also, and become so fond of it that the man says they will not drink during the day when they are away from it.

WEST 124TH STREET WEST OF AMSTERDAM AVENUE THE "INDIAN SPRING"

Plates 19a and 19b

October, 1897. On the southwest corner of Amsterdam Avenue and 124th Street, one hundred and fifty feet west of the Avenue and twenty feet south of the street, there is a fountain that is known traditionally as having been a favorite with the red men, and which is still spoken of by the old residents thereabouts as the "Indian Spring." It was also celebrated among former white generations as possessing remarkable potency in the cure of stomach troubles, and as late as ten years ago people made fifteen-mile journeys, from Madison Street [Square?] and return, to obtain its waters for their supposed medicinal properties.

It is said never to have frozen over. It has now become too hard for the laundry, and is used only for drinking purposes, and the requirements of the rough shanty accommodations for several truckmen's horses that are grouped about it a few yards to the south.

A few feet west of the spring stands an unpretentious house, but one that is trim and neat in a fresh coat of whitewash. The old woman who occupies it has lived on the borders of the spring for thirty-seven years. She says that there is always water running in her cellar.

The land immediately round about the spring is thirty feet below the present level of the street and Avenue, but it is being rapidly filled in and built upon. On a high bluff to the west of it is a cottage built sixty-five years ago, which is one of the oldest dwellings now left standing in Manhattanville.

November 16, 1898. The Board of Health is said to have condemned this "Indian spring."

On the north side of 123rd Street, about halfway between the Boulevard and Amsterdam Avenue is a tall apartment house



PLATE 19A—THE "INDIAN SPRING," WEST 124TH STREET WEST OF AMSTERDAM AVENUE, OCTOBER 6, 1897

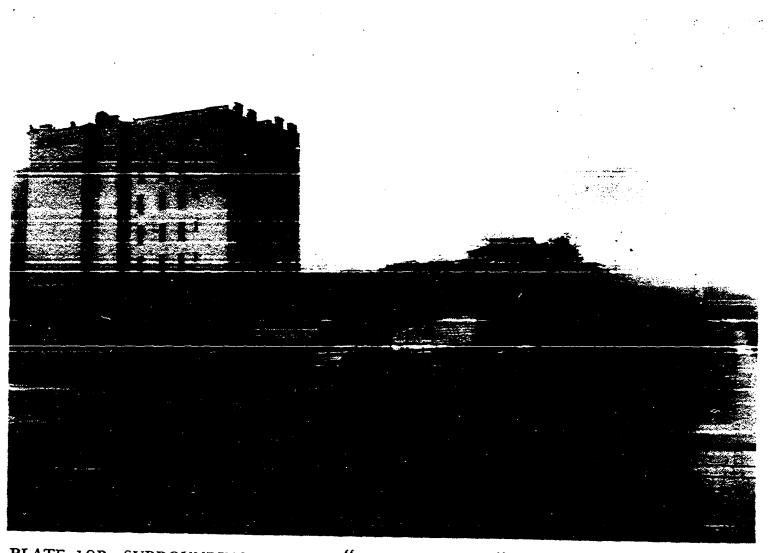


PLATE 19B—SURROUNDINGS OF THE "INDIAN SPRING," WEST 124TH STREET AND AMSTERDAM AVENUE, LOOKING SOUTHWEST, NOVEMBER 16, 1898

labeled "The Acropolis"—a good name for a house in this rock-region of hills. It shows in the photograph [Plate 19b.]

WEST 125TH STREET WEST OF BROADWAY TIEMANN'S DRINKING FOUNTAIN

Plate 20

December 19, 1904. On the south side of Manhattan Street [West 125th Street], west of the Boulevard [Broadway], there is a drinking fountain in front of the Tiemann color works, left accessible from the street where the neat white paling fence before the factory makes three right-angled turns out of its course. The fountain has one column of water rising an inch above the opening of a small vertical iron pipe, jacketed with a somewhat larger one about four feet high through which the waste flows.

Owing to its peculiar arrangement it used to have no counterpart in the city. It was the original prototype of those drinking fountains that later appeared in the public parks as a twentieth-century improvement, in which four short columns of water are set equidistantly around the rim of a large iron basin, which soon becomes the receptacle of greenish horrors that few, not in the last stages of thirst, would bow before.

When the founder of the color works, Mr. Daniel F. Tiemann (who was the 73rd Mayor of New York City, in the years 1858-60), was seeking a site, his chief concern was the character of the water. After analyzing all the large springs on Manhattan Island, he found the Manhattan Street spring was, with one exception, the purest and best adapted for his manufacturing purposes. That exception was the spring northeast of Dyckman and F Streets [Plate 47b], where he would have located but for its distance, four miles further away from the city.

The Tiemann spring itself is situated in the courtyard of the color works. A curbing has been built around it, forming a well with a depth of six feet of water. Through three six-inch pipes set

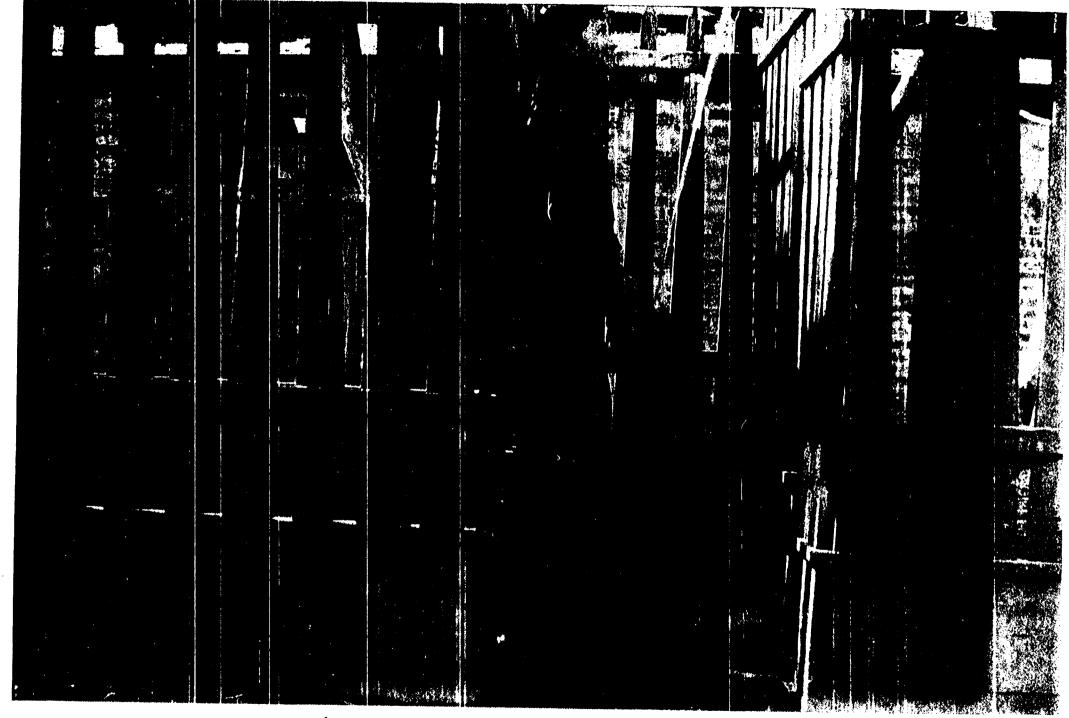


PLATE 20—TIEMANN'S DRINKING FOUNTAIN, WEST 125TH STREET WEST OF BROADWAY SEPTEMBER 26, 1897

in the spring, water is pumped to various elevated tanks, and is used in all parts of the works except the boilers, in which it is impracticable to make use of it, owing to the natural hardness of spring water. The height of the storage tanks gives a heavy pressure, which accounts for the rise of the water in the drinking fountain on the street.

The Tiemann drinking fountain was one stop that nearly every driver of the old Broadway stages and trolleys might be counted upon to make several times during the day. The space about the fountain, fenced in as it was on three sides, was not large enough to accommodate more than one drinker at a time. When a car stopped, and the driver and conductor sprinted for the drinking place, several of the passengers would usually follow them, so, what with these and a few passing pedestrians, there was frequently a line of a dozen or more people waiting their turn to get a few swallows.

The fountain also afforded much amusement to the small boy who delighted to make a squirt of the jet by covering with a finger all but an edge of the mouth of the pipe. He could then either send a fine stream of water high in the air and shower his companions, or with a horizontal stream he could drench any one of them that was caught unawares.

PARK AVENUE AND EAST 125TH STREET

April 27, 1899. On the northeast corner of 125th Street and Park Avenue, they have the foundation laid, and the iron pillars up, for the first story of a large warehouse building. About seventy-five feet north of 125th Street, and the same distance east of Park Avenue, there is a well they built and will leave open to supply the building. It is ten feet deep with water, and the surface of the water is about ten feet below the level of 125th Street.

A man in the draughtsman's house, who seems about fifty-five years old, said he used to be the chief engineer of the elevated

railroads and sank the artesian well they have at 145th Street and Eighth Avenue. He told me that anywhere in the foundation of this new building, water was struck at the same level, and that the workmen drank it and thought it was fine. He has an electric pump that pumps 30,000 gallons an hour, or five hundred gallons a minute. They pump only while making the foundation.

The water remains at about the same level, although it varies a few inches from time to time.

SPRINGS AND WELLS BETWEEN WEST 133RD STREET AND WEST 153RD STREET

WEST 133RD STREET AND AMSTERDAM AVENUE

August, 1903. There is a spring about one hundred feet west of Amsterdam Avenue and about fifty feet south of 133rd Street.

There is also another spring about the middle of the block, coming out from under 133rd or 134th Street.

The lots here are open.

ST. NICHOLAS PARK OPPOSITE WEST 135TH STREET

West of St. Nicholas Avenue at 135th Street, a path leads through a vegetable garden up the high bluff on which the Croton Water Works are situated. Near its base, and in a dense thicket of brambles a little stream issues from a crevice in one of the large masses of rock which form this bluff. (The bluff extends north and south for several blocks.)

The people in the neighborhood declare this to be a spring but from its temperature and its location at the base of the reservoir there are strong grounds for the supposition that the source of the water is as far distant as Croton Lake. It is, moreover, from its brambly environment practically inaccessible to any but the most enthusiastic spring searchers.

ST. NICHOLAS PARK OPPOSITE WEST 135TH STREET

Plate 21

October 4, 1899. 135th Street has within a few months been opened and continued, west of St. Nicholas Avenue, by building an unpainted stairway up the heights. Along the sides of this stair-



PLATE 21--VIEW SOUTHEAST FROM ST. NICHOLAS TERRACE NEAR WEST 135TH STREET AUGUST 23, 1900

way there are today two brisk little streams or brooks running down the hillside, crossing the pavement of St. Nicholas Avenue and emptying into the sewer on that avenue. The boys say the water comes from the marsh up on the hill which is fed by springs.

August 23, 1900. The accompanying photograph [Plate 21], taken from St. Nicholas Terrace near 135th Street, looking southeast, shows in the middle distance, in the center, the large building of Public School No. 119, which is located in the block bounded by Seventh and Eighth Avenues, 133rd and 134th Streets.

ST. NICHOLAS TERRACE AND WEST 135TH STREET

1902. There is a well about three feet deep at 135th Street and the Terrace, one block east of Convent Avenue. Quite a little stream of water runs alongside of it.

ST. NICHOLAS PARK OPPOSITE WEST 137TH STREET

May 4, 1899. I discovered a spring about twenty-five feet south of the line of what will be 137th Street when (if ever) it is cut through, and about one hundred and fifty feet west of St. Nicholas Avenue. The water comes from under a rock and is seen bubbling up through the bottom. The children say they used to drink out of it before the other children made it muddy.

ST. NICHOLAS PARK OPPOSITE WEST 139TH STREET

Plate 22

May 5, 1899. There is a spring about fifty feet south of West 139th Street, and seventy-five feet west of St. Nicholas Avenue. It



PLATE 22-ST. NICHOLAS PARK, OPPOSITE WEST 139TH STREET MAY 5, 1899

Terrace above on the heights, from which there is a somewhat precipitate sloping descent over large masses of bare rock. Where there is any soil, there is a dense growth of bushes and short saplings through which the boys have made winding paths in scrambling up and down. There is only one large tree on this slope extending from 143rd Street south to about 130th Street, and this tree stands about twenty-five feet from, and above, this spring.

The spring has a basin about three feet long and eighteen inches wide, the shape of an irregular ellipse. The water comes out from under a large gray rock, and it also bubbles up from the bottom, which is composed of a kind of gray marle and light yellow clay. It now gives out about a quart a minute, I judge, and the water in the basin is about three inches deep. The overflow runs down through a little winding channel and across the sidewalk into the sewer at the edge of the western sidewalk of the Avenue.

A man who has lived in the neighborhood twenty-six years and who remembers this spring twenty years back, says the water used to come up about two feet south of where it now appears, under a large stone which it required the united strength of himself and another man to lift. There was then more water flowing from the spring. This man says he has drunk the water for twenty years, and he looks like a strong healthy fellow.

Below 139th Street the rocks come down clear to the sidewalk, but above 139th Street they trend away to west and leave an open space beside the sidewalk, which open space broadens out towards the north. At about 142nd or 143rd Street there is a little market garden with a scarecrow ornamented with little American flags—protection, patriotism, and planting.

July 7, 1899. Today there is only about a gallon of water in the above spring. The water is not within eight inches of the usual outlet at the top. It seems to be going dry. The water is only about two or three inches deep. May 5, 1899. There is a spring about opposite 140th Street, some three hundred feet west of St. Nicholas Avenue and about two-thirds of the way up the slope. The outflow is weak and small, and sinks into the ground before it has gone over two hundred feet.

51 WEST 137TH STREET

Plate 23a

April 21, 1898. This well is on the north side of West 137th Street at No. 51, between Fifth Avenue and Lenox Avenue. The ground here is on a level with the street. The well is about fifteen feet from the fence on the north side of the street, and about twenty-five feet east of a little one-story wooden house or shanty, painted red. The house has an arbor leading from the street to the front door, which is set back about thirty feet from the front fence. At the side of the house is a long red-painted wooden bench suggesting old Dutch people, but the man who leased the place from a Mr. DeMilt is named more Celticly, Michael Barry.

This well is sixteen feet deep, with a pump over it. To strike water, a pipe was merely driven down into the ground. This well is used for all the purposes of the Barry estate both in the house and in the stable, as they have no Croton water.

Some two hundred feet east of here in the same street, there is said to have been a genuine spring well up to a short time ago when it was filled in.

February 25, 1899. Today on riding through 137th Street, I stopped to talk with a man who was watching four flats which had reached the floor of the second story only, and upon which work was halted. On asking him about Barry, he said, "This is where he used to live!" It turned out that Barry had moved to a little house

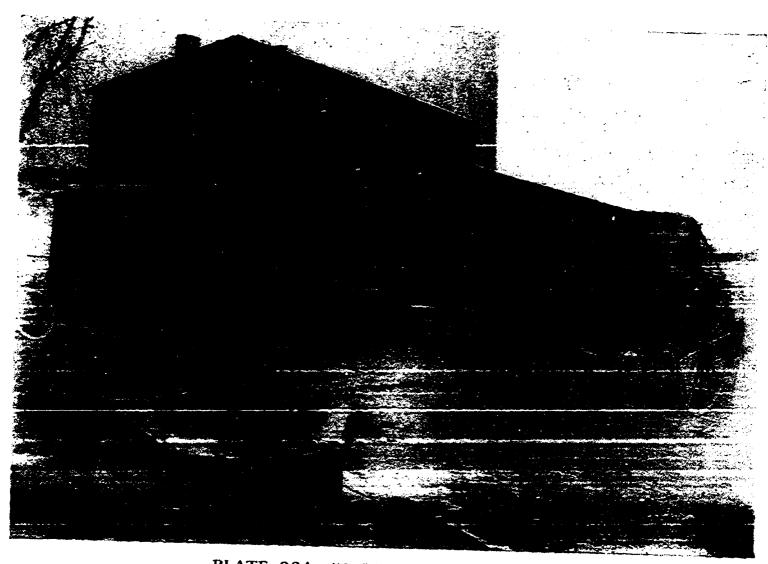


PLATE 23A-51 WEST 137TH STREET APRIL 21, 1898

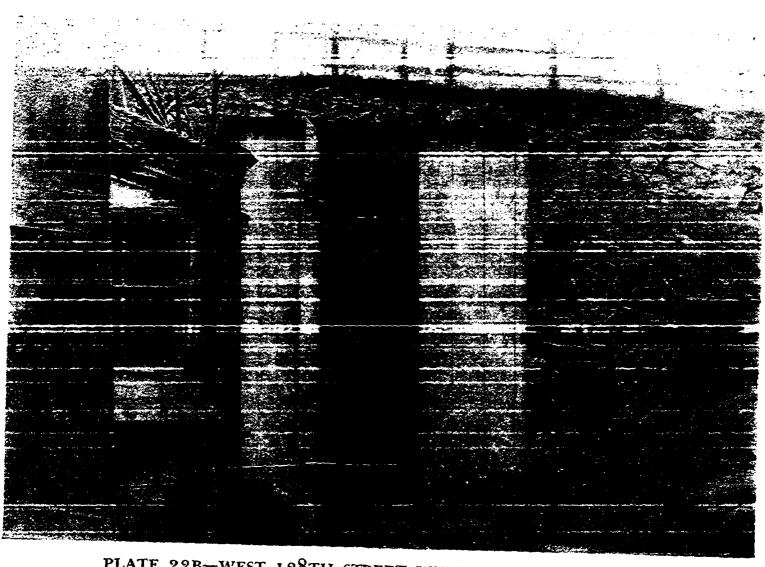


PLATE 23B-WEST 138TH STREET WEST OF LENOX AVENUE APRIL 21, 1898

on the street above, West 138th Street, which he pointed out from the vacant lots. My informant told me that Barry's ground on 137th Street was one hundred feet front, that a man by the name of [John] Babcock had started these four flats on it, and that Barry's well had been in the third of these houses from Fifth Avenue. Babcock's money gave out, he said, and Kitchen has now bought the property and is going to finish the houses. The man told me that the houses were begun last September—only a few months after I photographed the well!

WEST 138TH STREET WEST OF LENOX AVENUE

Plate 23b

1898. This well is about eighty feet west of Lenox or Sixth Avenue, and about twenty feet south of 138th Street (which is here built up some twenty feet above the level of the ground). It is about four feet in diameter and curbed. The water is about two feet below the surface of the ground.

The place is occupied by [Ignatz] Kunz, a market gardener who raises enough produce to enable him to go to market twice a week. Kunz dug this well himself. When he got down eight feet he struck water, and to get down to the present level of ten feet he had to work with great haste, because the water came in in such quantities. Kunz uses this water for all purposes—for his house, his stable, and for sprinkling his vegetables. It is good water and white in color. It rarely freezes, and then only to the extent of a thin crust about one-eighth of an inch in thickness, and that only in extremely cold weather.

Before Sixth Avenue was built up to its present level, forming an embankment some fifteen or more feet high, the tide from the river sometimes came across to this place. Kunz used to keep sunfish in his well, but one of the river's overflows killed them. His son remembers when there was a sunfish pond at 138th Street and Sixth Avenue.

Plate 24

April 9, 1898. This spring is about fifty feet east from the Amsterdam Avenue sidewalk, and about one hundred and fifty feet north of 137th Street. The water is clear, and the top of it is about a foot below the level of the ground; it is said to be eight feet deep, and to rise from under a ledge of rock. The diameter is about three feet, and the wall of it is very symmetrically curbed in circular form, with stones, something like Belgian paving blocks in shape, which have been cut so as to make the curb almost perfectly circular. There used to be frogs in the spring. Sometimes a thin sheet of ice forms on its surface in winter, but nothing more.

I reached this spring at half past three in the afternoon. About two hours before I arrived, the old weather-beaten box covering the spring was taken off, and replaced by the outside of a cabinet stained yellow (tomorrow is Easter Sunday!). The drawers of the cabinet still show on the outside, and have labels describing their former contents, from which one may judge that the cabinet was formerly owned by a minerologist and photographer. The old weather-beaten spring box is lying by the cellar door of the one-story brick house near-by.

The brick house is owned by the woman who lives in it, but the ground belongs to the Watt estate. She has lived in this house fifteen years, and in the neighborhood all her life. When she and her husband moved there fifteen years ago, the spring was choked up, but they cleaned it out and have used it ever since, having no Croton water on the place. They use a pail in drawing up the spring water, but the neighbors make use of a tin can and four feet of clothesline.

Amsterdam Avenue is about eight feet above the level of the ground in which this spring is located.

There used to be a spring in the cellar of the little brick house, but they have led off the water in some way so that it does not collect.

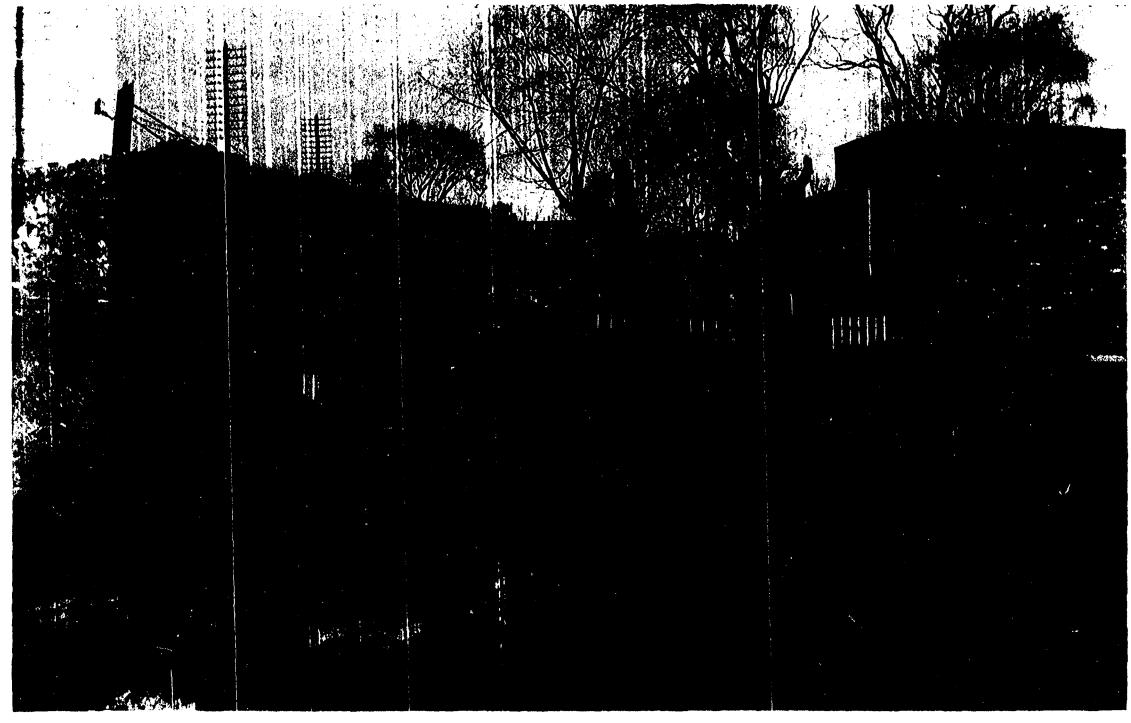


PLATE 24—AMSTERDAM AVENUE NEAR WEST 138TH STREET LOOKING NORTH APRIL 9, 1898

By the house is a willow tree with all its branches cut off about twenty feet from the ground. Some five years ago it blew down, and they could not get it back. So they cut off all its branches, some of them eighteen inches in diameter, and when the last branch was removed, the old tree sprung back into its former position!

North of the brick house there is an old weather-beaten wooden house. The rest of the block is vacant and there is nothing about except open unfenced ground where boys play baseball.

The Hebrew Orphan Asylum is on the opposite (or west) side of Amsterdam Avenue, between 136th and 138th Streets.

NORTH OF WEST 139TH STREET EAST OF SEVENTH AVENUE

Plates 25a and 25b

April 21, 1898. This well, with a pump over it, is about fifty feet north of West 139th Street and about one hundred and seventy-five feet east of Seventh Avenue. It is in a flower garden, and is about twelve feet from the rear of the white Pinkney house, on the north side of the street.

These grounds run from 139th to 141st Street, and are part of the Watt estate. On the place, about 140th Street, there is a large long stable where there are now thirty-five head of horses and ponies. The stableman showed me a colt four weeks old, and unlocking door after door, continued to show me colts of Shetland ponies of more and more tender days until he came to one born this morning!

There was another well on this place which was filled up about April 7, 1898, two weeks ago, because it began to smell badly. It was between 139th and 141st Street.

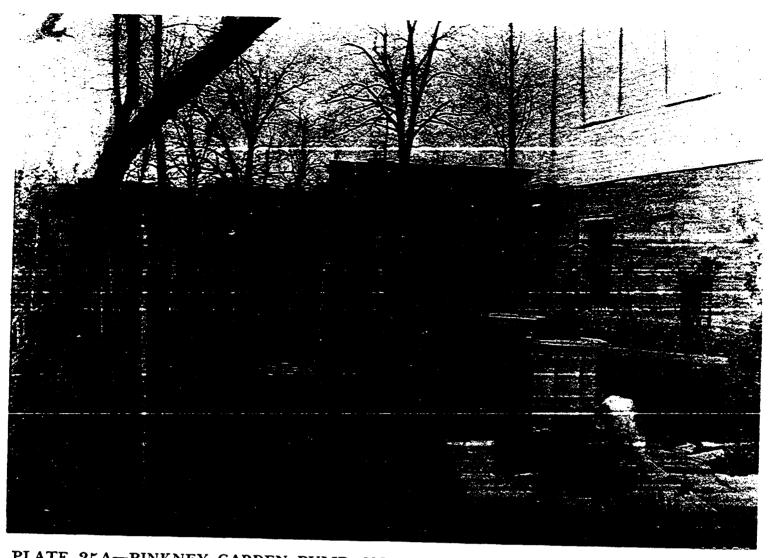


PLATE 25A—PINKNEY GARDEN PUMP, NORTH OF WEST 139TH STREET, EAST OF SEVENTH AVENUE, APRIL 21, 1898



PLATE 25B—PINKNEY STABLE PUMP, NORTH OF WEST 139TH STREET, EAST OF SEVENTH AVENUE, APRIL 21, 1898

WEST 140TH STREET NEAR FIFTH AVENUE

Mr. [Patrick H.] Halpin, a truckman, in West 140th Street between Fifth and Sixth [Lenox] Avenues, has a well. The water is about three feet from the surface of the ground. It is just back of the stable, and is covered with an iridescent, brown scum. He uses it only for the horses. He used to drive a wagon for Michael Barry, the contractor, of West 137th Street.

WEST 141ST STREET EAST OF SEVENTH AVENUE

December 16, 1897. 141st Street, now opened, is so much above the level of the ground that it is about opposite the second story windows of the fine large, three-story white stone house on the Archibald Watt estate, on the north side of 141st Street, between Sixth [Lenox] and Seventh Avenues, about four hundred and seventy-five feet west of Sixth Avenue. This house had a so-called iron well whose location is now marked by two flag stones at the inside of the curb of the southern sidewalk of 141st Street. The street level is now some twenty feet above the original lay of the land of the Watt estate at this point, and on the south side of the elevation that the filled-in street makes may be seen a three-inch iron pipe, projecting through the southern side of the embankment and covered with a wire netting, which is doubtless to carry off the overflow of the buried well below. These flags and the pipe are just south of the western end of the stone house.

There is said to have been another well on this Watt estate, at about 143rd Street, called the "Lime Well," which was boarded up about two years ago. It was used to supply water to a boiler, it is said. On this estate, about one hundred and fifty feet north of 141st Street, there is a pump over a circular structure which is said to be a cistern.

On the south side of 141st Street near and to the east of Seventh Avenue, is the remains of a road built up on stones, and suddenly terminated by the cutting through of 141st Street. This old road is some ten feet above the level of the comparatively new 141st Street. Just near the south side of 141st Street is a section of fence about eight feet long, and a fragment of stone steps leading down to 141st Street.

625 AND 627 WEST 140TH STREET

Plate 26a

May 13, 1898. The last house on West 140th Street, toward the North River, on the north side of the street, is a two-story and attic brick structure, painted slate color, which, from its roof, appears like one broad house. It is in reality two, with two front doors, and is occupied by two families: a very polite French family in the eastern half, and an American family with a negro butler in the other.

The well behind the building is on the dividing line between the two residences, and like the house, is double, having two spouts, so that the families on both sides have equal access to it. The French family said they used this well until five years ago, when two cats fell into it. They had a man clean it out, and when he went into it, the water was up to his chin. But their doctor told them that, as there were so many sewers about, they had better not use it any more, for safety's sake.

The well is four feet in diameter, constructed of brick and perfectly circular. In the roof is a hook upon which the pulley that held the rope formerly depended. There is water in the well now, about five and one-half feet deep, the surface of which is about twenty feet from the top. An immense willow tree grows against the back of the well and branches out over it.

A gate at the back leads into a large park-like ground full of tall trees. The houses hereabouts are all surrounded by considerable plots of ground giving the locality quite a suburban appear-

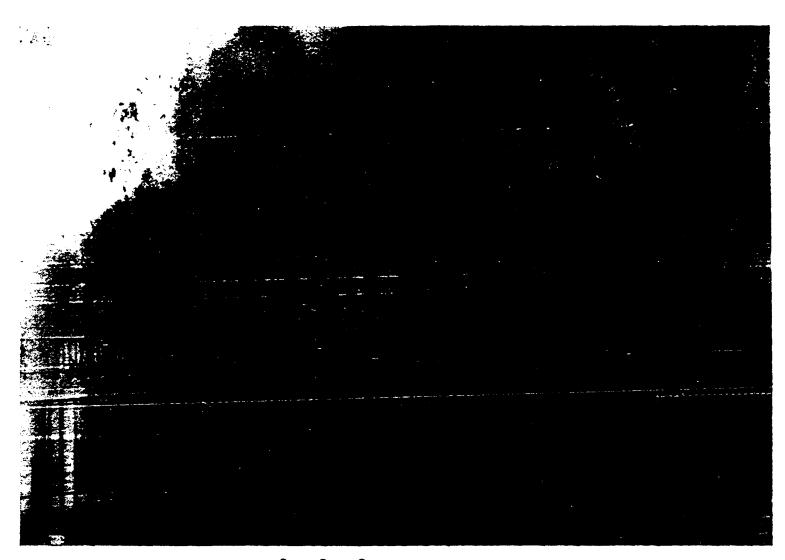


PLATE 26A-625-627 WEST 140TH STREET MAY 13, 1898



PLATE 26B—HUDSON RIVER SHORE AT WEST 149TH STREET MAY 13, 1898

ance. Cocks are crowing, wild birds are singing in the numerous tall shade trees, and a cat and her kitten are strolling about.

On the south side of 140th Street, opposite the double house, is the St. Regis Convent with Catholic Sisters. They rang a bell about one o'clock, and as I passed about one thirty there was a buzzing sound of intonation as if a number of them were at prayers.

140th Street does not run down to the Hudson River, but stops at a large, high double gate. It is the entrance to the ground along the river, which, for several hundred feet up from the Hudson, is fenced off. As I was passing, a man with two cows came through the gate and went over towards the Boulevard. I asked him if they had a well and he said he did not know!

146TH STREET AND EIGHTH AVENUE

July 6, 1898. Near the southeast corner of 146th Street, about one hundred and fifty feet from Eighth Avenue, the Manhattan Elevated Railroad Company has a well one hundred and ten feet deep and five inches in diameter all the way to the bottom. This well has just been driven to the above depth, as it formerly pumped up sand. In deepening it the drilling was not brought to the surface but was forced down. It remains now only to put the pump over it.

Colonel Hain, the former Superintendent, used to have two cans of this water sent down to his office every morning.

July, 1900. A bicyclist I met in Pelham Bay Park said he was an engineer on the Elevated Railroad, and that the tank and deep well at 145th Street had been abandoned, because a drill broke, and also from motives of economy, as it took two men to look after it. He said the water used to sparkle like vichy when it was drawn.

Might this have been part of the source of the old so-called mineral spring in the neighborhood of 145th Street?

HUDSON RIVER SHORE AT WEST 147TH STREET

March 7, 1898. About two years ago a spring appeared about one hundred feet north of 147th Street, and about one hundred feet east of the railroad tracks. Last winter this spring was buried under sand which washed down, but the ground all around the neighborhood is wet today.

May 13, 1898. The spring is still buried, but the ground all around is wet for a space one hundred feet square.

HUDSON RIVER SHORE AT WEST 149TH STREET

Plate 26b

May 13, 1898. The spring is about seventy-five feet south of the line of West 149th Street, and seventy feet from the railroad tracks. It is about ten feet higher than the tracks and on the slope of the hill leading up from the river. The railroad flagman here says that before 149th Street was built up, a few years ago, the spring rose in the center of what is now that street, bubbling up out of some "nigger head" rocks, and that a pipe was run from the original spring to its present position.

The spring water is contained in a barrel, the bottom of which is filled with small white stones, which make it quite attractive. The pipe leading into the barrel is about eight inches below the surface of the water and the water pours out over the top of the barrel and flows away in a stony channel with a noisy brook-like sound. The water is cold and very pleasant, and little sparkling bubbles come up through the water like champagne bubbles. There are some wavy green filaments attached to the pipe which the flow of water keeps in continual motion, and there is some of this green on the white stones. Over the barrel is a weather-beaten spring house.

There was a little boy here with a white pitcher nearly as big as himself; both are included in the photograph.

The cross streets here are built up some thirty feet above the natural level of the ground and end at the railroad tracks on well-built stone foundations. At 148th Street is a rickety alpine stairway leading to the railroad tracks, and this is the easiest way of reaching the spring. McCann's goat, from the Boulevard, is climbing about the rocks today, and adding to the Alpine nature of the scene.

About one hundred feet north of 148th Street is a brook that bubbles noisily down the hillside through a rocky channel. This is the brook that is fed by McCann's spring near-by on the Boulevard and it empties into the Hudson.

To the south about one hundred feet is a white shanty, and about thirty feet east of it is the foundation of an old house.

WEST 149TH STREET WEST OF BROADWAY

Plate 27

May 13, 1898. McCann's water supply is south of West 149th Street about one hundred and seventy-five feet west of the Boulevard. Formerly the spring bubbled up out of some rocks that were where 149th Street is now built up some thirty feet above the level of the land. When that street was constructed, McCann's father-in-law ran an iron pipe forty feet south to the place where the water now appears. issuing from the pipe three inches in diameter. There is quite a copious flow of water from the pipe into a clean butter tub. The water in the tub is about fifteen inches deep and its surface is about two feet in diameter. It runs out at the south side of the tub through a hole. I did not taste the water, but the McCanns think very highly of it.

This block contains only McCann's little house, except on the west, where some eight flats have been put up, four on 148th Street and four on 149th Street. In several places they have begun to fill

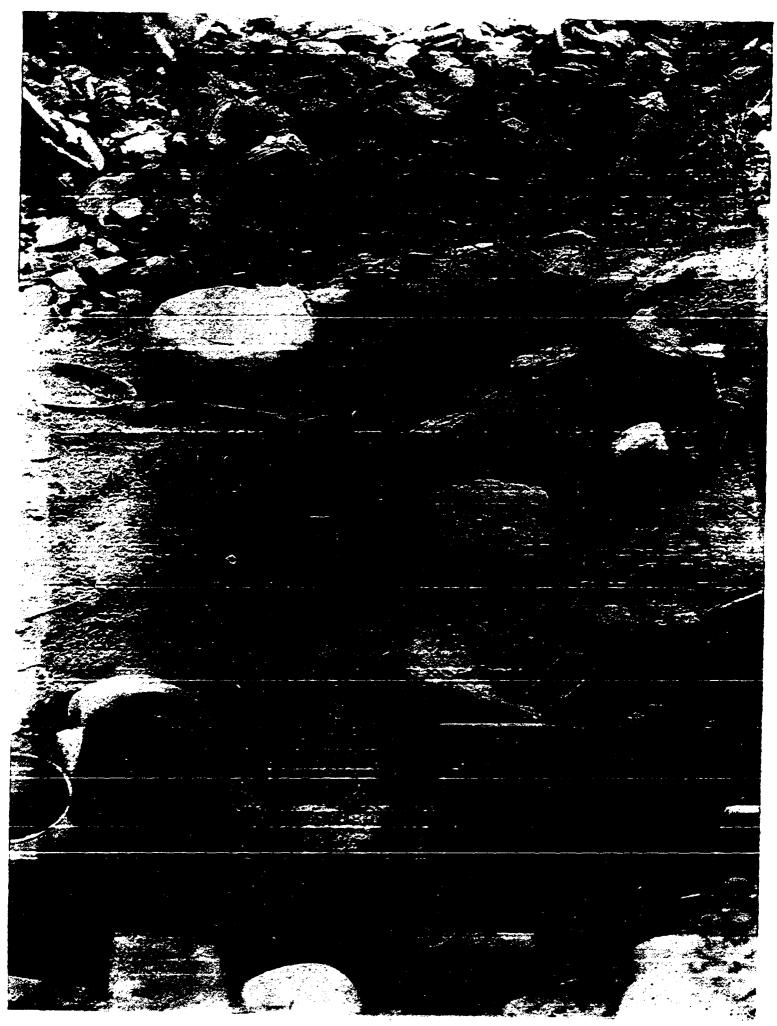


PLATE 27—WEST 149TH STREET WEST OF BROADWAY MAY 13, 1898

in this block. About one hundred feet west of the spring there is quite a good-sized flow of water that comes out of a culvert, opening toward the south, which is said to have been built to carry off the water from the brook on the east side of the Boulevard at 149th Street. The overflow from the spring joins the water from the culvert and runs some two hundred feet west and then disappears in the ground. It is carried through a tunnel made with barrels laid down end to end. Over these barrels the ground was filled in some twenty feet to make the back yards of the eight flats. On the extreme western side, beyond the flats, this water appears again in quite a little mountain brook running through a rocky channel down the hillside and into the Hudson River.

McCann's Irish father-in-law says "they will have trouble with those barrel sewers as shure as the Divil is in Hell."

McCann's father-in-law recalls that near where this spring is now there used to be a swan pond for geese and ducks, and that on the other side of the Boulevard, there used to be a fish pond that was ten feet deep. He says the houses there were built upon piles, and that their cellars are now very damp. To get rid of the water of this pond, iron pipes were laid in all directions, and it is the water collected by these pipes that is now running through the culvert referred to.

At McCann's, there is a long bent-horned goat chained in a small outhouse, there are two geese very proud of a small yellow gosling, and there are two dogs—one very big and ferocious, the other with a loud bark but a very gentle disposition. There are also some chickens, and six children, nearly all the same size and about six years old.

May 4, 1899. On the west side of the Boulevard, between 148th and 149th Streets, they are making foundations for houses. The ground here slopes down from the Boulevard—or rather, the Boulevard here was built up some thirty feet above the western slope down to the Hudson River, and the foundation is being made by building stone walls for the walls of the houses to be set

upon, the space between these walls being apparently filled with sand.

The one-story shanty that was between 148th and 149th Streets is having two stories built under it, so as to make it a three-story house. The overflow from the spring that was in this lot shows today as a little green pond.

WEST 149TH STREET AND BROADWAY

From Amsterdam Avenue toward the Boulevard, the block between 149th and 150th Streets is solidly built upon for about three-fourths of the way. All the buildings are private houses, I think, with the exception of one flat. Through the remaining one-fourth that is open, at the west or Broadway end of the block, a little brook runs, and disappears under the Boulevard at 149th Street. The brook near 149th Street and the Hudson River is probably the outlet of this brook.

A policeman who formerly lived in this block told me that there used to be a spring in it, from which he often drank. A lady at 547 West 149th Street told me she thought the spring used to be in the lot back of her house.

The same policeman said there used to be plenty of watercresses in the lots along the course of the brook.

On the opposite or west side of the Boulevard, between 150th and 151st Streets, is the Hebrew Orphan Asylum.

150TH TO 151ST STREETS, WEST OF BROADWAY

Between 150th and 151st Streets on the west of the Boulevard, behind the Hebrew Orphan Asylum, there is a hole about three feet deep in the market garden kept by the man who lives in the shanty on the north side of 149th Street (on the west side of the Boulevard). From this hole there is quite a stream of water running. It flows down and empties into the Hudson.

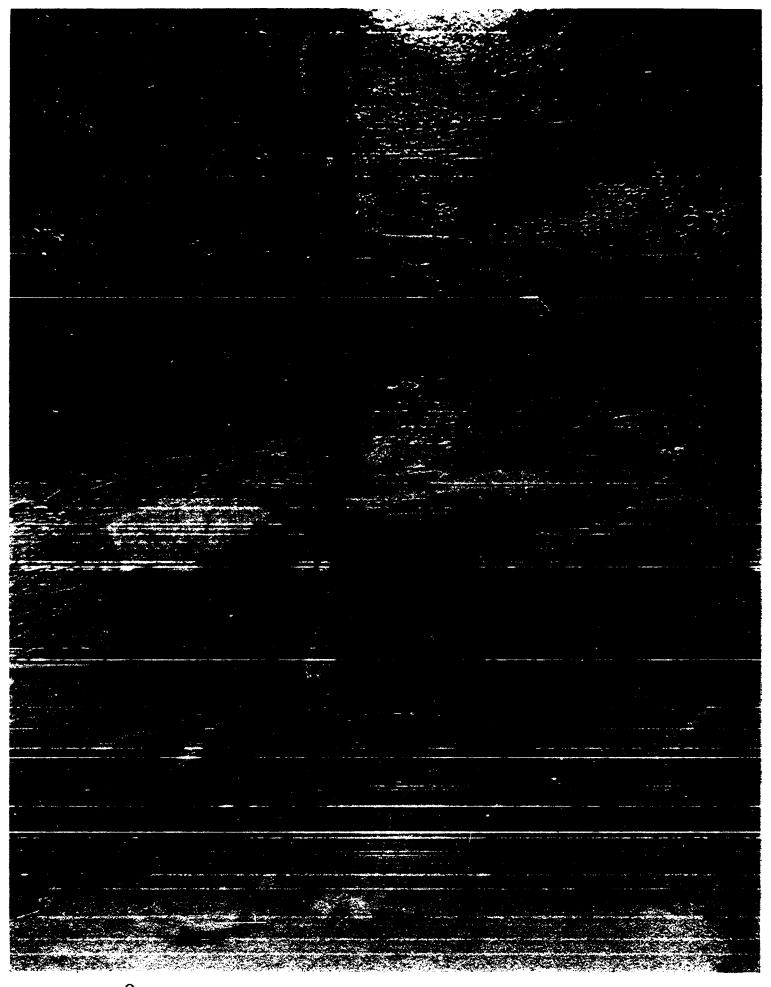


PLATE 28—WEST OF BRADHURST AVENUE OPPOSITE WEST 153RD STREET JULY 16, 1898

In this lot I met a gray-headed man with a gray goatee, who spoke like a person of education though he was dirty and looked like a tramp. He showed me several little bits of springs just south of 151st Street, some one hundred feet south of that street, and about three hundred feet from the railroad. The water is seen bubbling up through the sandy ground but it seems to sink into the soil without forming a stream. By the railroad tracks, however, it is collected together in sufficient volume to form a little brook, so that between 150th and 151st Streets there are two brooks flowing into the Hudson River.

BRADHURST AVENUE OPPOSITE WEST 153RD STREET

Plate 28

July, 1898. This spring is about seventy-five feet west of Bradhurst Avenue and twelve feet south of where the southern sidewalk of 153rd Street would come if it were prolonged west of Bradhurst Avenue. The spring was originally twenty-five feet further west, but the boys used to fill it with stones, so a pipe was laid to convey the water to a barrel inside the fence. The water in the barrel is two feet deep, and clear and cold. It never freezes. The German who occupies the place says that butter hardens in this water in thirty minutes. He has been here only eight months, but the spring, he says, has always been here. The water from the spring runs in a little stream into another barrel fifteen feet east in the vegetable garden.

The German has a wooden house there, with a garden and a diminutive farm which extends about one hundred and fifty feet along the western side of Bradhurst Avenue. Little beds of different kinds of vegetables constitute his farm, a very large part of the crop being cabbages, reminding one of the ancient dish of speck and cole. There are three young peach trees and some rose bushes and grape vines by the house. He has plenty of chickens, a tailless cat, and a black barking dog chained to a tree.

West of the wooden house and at its back, there is a little strip of forest extending north and south several hundred feet, and composed of tall trees, chestnuts and oaks, some of them twelve feet in circumference. There is a ledge of rock at the back of the house, and further back, to the west, Edgecombe Avenue is built up on a stone embankment. This land is going to be a public park [Colonial Park], the German says.

About one hundred and fifty feet north of the German's house is a large apartment house, and in winter when their Croton water freezes, the tenants come to this spring to get their water. The little house of the German is the only house on Bradhurst Avenue between 148th and 155th Street, except the apartment house mentioned, where the western spur of the Central Bridge runs up the hill.

SPRINGS AND WELLS ALONG THE HUDSON RIVER SHORE AND WASHINGTON HEIGHTS NORTH OF WEST 158TH STREET

HUDSON RIVER SHORE AT WEST 158TH STREET

Plates 29a and 29b

May 13, 1898. This spring is about sixty feet north of the foot of West 158th Street, just east of the railroad tracks, and about nine feet from the wall along the path. West of it are the railroad tracks and about thirty feet of ground and then the river. The spring is in an enclosure about four feet square, the south side made of stones, the north side mostly of pieces of railroad iron, the west side of the natural earth, and the east side of wood. It is covered with a wide board and a large door taken from some house, which are placed over it in a slanting direction to shed rain. The water is level with the ground. It is cool, quite white and clear, and has a pleasant taste.

The seventy-five year old railroad flagman in the shanty near-by, who has been at that post eleven years, says that about 1852 Dennis Harris built the Sugar House that is now standing, a tall brick structure on the bank of the river about 160th to 161st Streets. It has not been used, however, for thirty years, as the company failed. When the Sugar House was built, a large well sixty feet in circumference was dug to supply it, about two hundred feet north and one hundred feet east of the present spring. This spring is thought to be the overflow of that well. Mr. [William A.] Wheelock now lives in the house at the foot of West 158th Street, and formerly had a pump from the original well, but so many people went tramping through his grounds to get a drink that he removed the pump.

The spring does not dry up in summer but it ceases to run and people do not then use it. It is running today, and quite a little stream is coming out the northeast corner of it. This stream runs into a little hole in the ground about four feet away. The flagman says it percolates into the ground from there and disappears. There



PLATE 29A—HUDSON RIVER SHORE AT WEST 158TH STREET LOOKING SOUTHWEST MAY 13, 1898



PLATE 29B—HUDSON RIVER SHORE AT WEST 158TH STREET LOOKING SOUTHEAST MAY 13, 1898

is no further trace of it, and it does not show anywhere along the river front.

There is a row of young maple trees running north and south of the spring, but there are no willow trees.

In the accompanying photograph [Plate 29a], which shows the old flagman's hexagonal shack, may be seen (west of the tracks and south of 158th Street) the "Hudson Beach Bathing Pavilion."

WEST 165TH STREET AND FORT WASHINGTON AVENUE

Plate 30a

May 18, 1898. The Deaf and Dumb Asylum owns a large tract of property on Fort Washington Avenue, between about 162nd Street and 165th Street. Probably few people have ever seen the Asylum or even know where it is, although thousands have admired with wonder the manoeuvers and music of the three mute military companies of boys from the institution, marching in parades celebrating Decoration Day, naval victories and other epochs in the nation's history. The lockers in which the members of these companies keep their uniforms are in a greenhouse on the southeast corner of 165th Street and Fort Washington Avenue. Running east from the greenhouse, along the south side of 165th Street, is a red brick wall, which stops at an extensive elevation of rock. (The wall and the rocky eminence are shown in the photograph of the 165th Street spring [Plate 30b].) On the south side of the wall, in the angle where it joins the rocks, there is a spring. Its waters, coming from the rock and running through the grass, are collected in a two-foot square brick basin that was made for their reception, and from which there is an outlet that conducts the overflow to the sewer. The water has a peculiar taste which the gardener describes as mossy, and he says the spring is likely to go dry in the month of August.



PLATE 30A—WEST 165TH STREET AND FORT WASHINGTON AVENUE, MAY 18, 1898

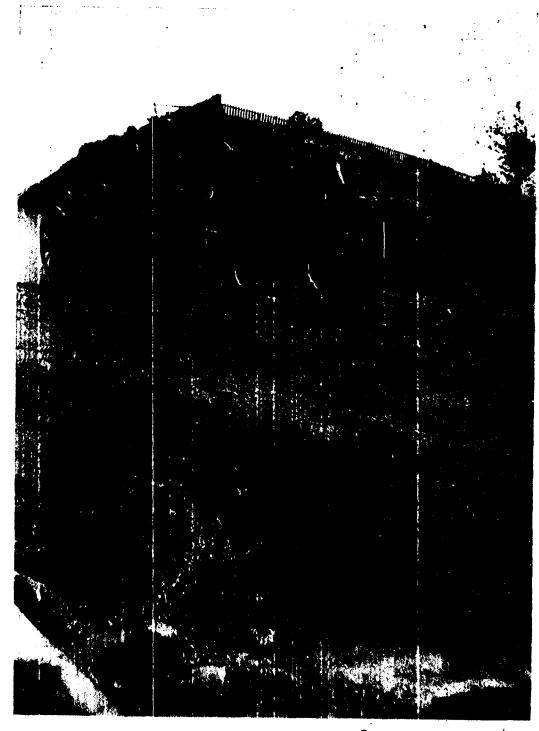


PLATE 30B—STREET SPRING IN WEST 165TH STREET NEAR FORT WASHINGTON AVENUE, SEPTEMBER 21, 1897

STREET SPRING IN WEST 165TH STREET NEAR FORT WASHINGTON AVENUE

Plate 30b

December 16, 1897. The most singularly located spring on Manhattan Island is in West 165th Street between the Boulevard [Broadway] and Fort Washington Avenue. It is in the roadway, three feet from the north curb. This stretch of the street is on a stiff grade, and the spring is east of, and up the hill from, a hydrant on the north side of the street. The water bubbles up industriously through the bottom of a sandy cavity in the roadway, but so unobtrusively, and in such a preposterous situation for a spring, that people standing within fifty feet of it do not see it, and many who pass through the street frequently, have never noticed it.

Opposite this spring (behind the brick wall which shows at the upper right of the photograph $[Plate \ 30b]$) there is another spring, $[Plate \ 30a]$ near the greenhouse of the Deaf and Dumb Asylum. The two may have some connection.

WEST OF FORT WASHINGTON AVENUE ABOUT WEST 168TH STREET LECHTHALER'S SPRING

Plates 31a and 31b

September 21, 1897. This spring, Lechthaler's, has the reputation of being the finest kept spring on Manhattan Island. It is some two hundred feet west of Fort Washington Road between 168th and 169th Street, and some twenty-five feet below the level of the road, on the hillside belonging to the Blind Asylum. Below the spring a delightful cool glen dips down to the Hudson.

The water comes out of a crack in a large sloping rock and pours into a well formed on the left side of loose stones, on the front of brick in cement, and on the other side of rock and cement. The bottom is strewn with round yellowish-white pebbles. A plat-

form five feet square with a trap door in it covers the water and protects it from dust and the cattle which graze around it. The spring never goes dry and the water never freezes. From the spring, for quite a distance down the hillside, there extends a line of receptacles placed a few yards apart, the water being conducted from one to the other through short lengths of pipe. The receptacle nearest the spring is a section of a hogshead set in the ground [Plate 31b]; then follow sections of casks and barrels diminishing in diameter until the line ends with small buckets. So the drinking facilities afforded the large herds of cows is of the most ample nature.

Mr. Lechthaler is a milkman with a large output.

May, 1898. Lechthaler in six weeks, or about July first, will have finished making a fence and doing other work, and will be at leisure all day and have nothing to do but mind the cows.

August 2, 1898. The spring does not seem very cold today. It does a great deal of business. The ducks come to it in a long procession, and so do the chickens. The pigeons fly to it. A little girl arrives with two pails, and a small boy with a milk can. The horses come and the cows. The Italian laborers on the Boulevard come with pails containing five cents' worth of oatmeal and five or six lemons. People from the Ridge Road [Fort Washington Avenue] descend to this spring, and the big dog "Major" lies in a large cask near-by and keeps a watchful eye upon every visitor, whether winged or legged.

At the dwelling house they have a cistern for rain water, which they use only for washing.

HAVEN AVENUE AND WEST 170TH STREET

Plate 32a

September 21, 1897. At about 170th Street, some four hundred feet west of Fort Washington Road, there is a spring on the

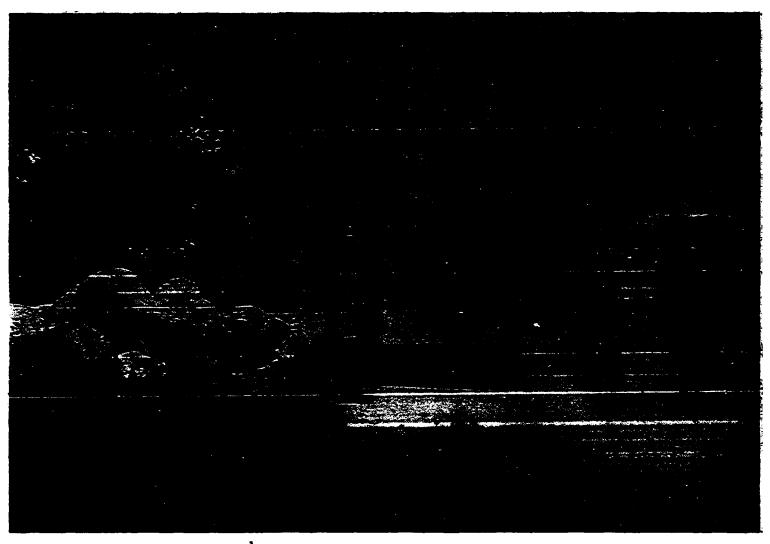


PLATE 31A—LECHTHALER'S SPRING, WEST OF FORT WASHINGTON AVENUE ABOUT WEST 168TH STREET, SEPTEMBER 21, 1897

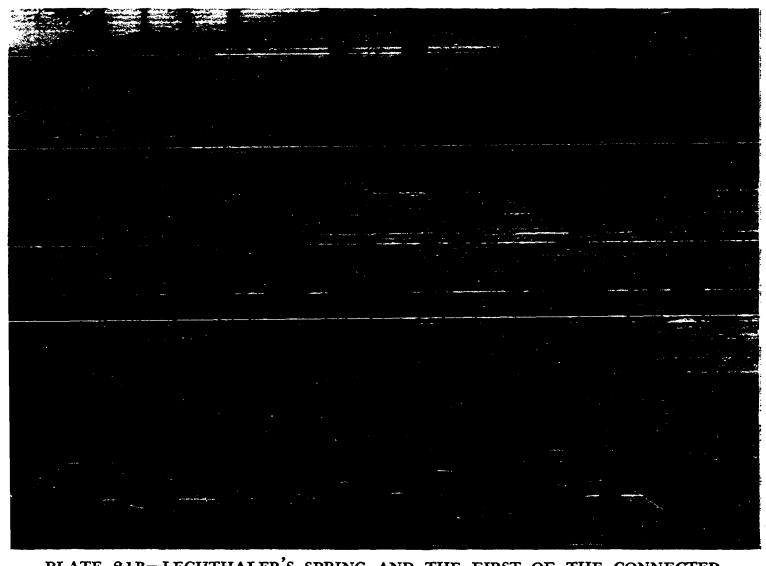


PLATE 31B—LECHTHALER'S SPRING AND THE FIRST OF THE CONNECTED RECEPTACLES, SEPTEMBER 21, 1897

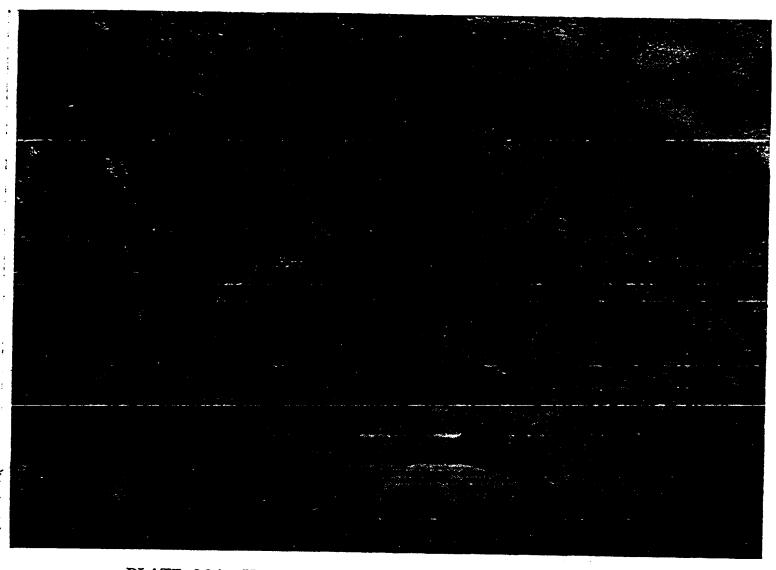


PLATE 32A—HAVEN AVENUE AND WEST 170TH STREET SEPTEMBER 21, 1897



PLATE 32B—WEST 171ST STREET WEST OF FORT WASHINGTON AVENUE DECEMBER 29, 1897

grounds near the pigeon shooting Gun Club. It is in a gulley at the foot of an overhanging rock, and is presided over by some zealous frogs who see to it that any unfortunate fly or insect that tumbles in is at once removed from sight. Frogs are pretty good judges of springs, and their presence in one is a fair guarantee that it is in fine condition and palatable.

This spring is situated in a pretty ravine shaded with large chestnut trees between whose trunks one catches views of the Hudson, a tenth of a mile to the west.

This section is now about on the southern line of the true forest district of the city and is as wild as Inwood. They have, however, begun to fill in and level off the ravine at its upper end near Fort Washington Road. When the work has progressed down to the spring they will lay a pipe in it for drainage and bury the frogs fifty feet deep under hundreds of tons of rock and earth, adding new sections of pipe as they go along until they reach the projected line of a sewer which will carry off the spring's overflow, and prevent its undermining the filling-in material.

WEST 171ST STREET WEST OF FORT WASHINGTON AVENUE

Plate 32b

December 16, 1897. About one hundred and fifty feet west of Fort Washington Avenue, about opposite what will be 171st Street when the property here is cut through, and near the highest point of the land, there is a very deep well. It was cut irregularly in shape, the lower part of it out of the rock. A curbing of loose stones is built up above this rock. It is some twenty feet deep and eight feet in diameter. Its sides are covered with moss, and ferns are growing in its interstices. A wooden fence eight by ten feet surrounds it, to keep the unwary from falling into its depths.

In a distance of fully two miles north from here, there is an almost unbroken woods, up hill and down dale, interspersed with

deep ravines, with numerous noisy brooks, rocks, a fallen tree, and all the wildness of a place far out in the country. Through this tract there are no city streets cut, but here and there are roads or lanes leading to the estates of a few wealthy families who are the owners of the territory. Their wealthy young sons here practice cross country horseback riding. One of them is seen in the picture, during a pause in some jumping lessons he was giving his six-year old mare "Pet."

From this well there is a beautiful view of the Hudson, to the west. About one hundred feet south of the well are the grounds of the Gun Club. Just north of the well is the home of the widow of the late J. Hood Wright, a banker who was a partner of Drexel, Morgan, & Company.

HUDSON RIVER SHORE AT WEST 177TH STREET

Plate 33a

September 25, 1897. Along the Hudson River near the foot of Depot Lane [West 177th Street], just east of the New York Central Railroad tracks and near the switchman's tower, there is a spring. The water trickles down from the rocks and runs through a few feet of pipe placed for convenience in filling a glass. This spring is only a few hundred feet from the site of old Fort Washington.

RIVERSIDE DRIVE SOUTH OF WEST 181ST STREET ON THE HAVEN-LANGDON ESTATE

Plates 34 and 35

May 31, 1898. The John A. Haven property is on the south-east corner of the Boulevard Lafayette [Riverside Drive] and West 181st Street. It is now occupied by Mr. [Woodbury] Langdon of the Rapid Transit Commission. The city has been doing some



PLATE 33A—HUDSON RIVER SHORE AT WEST 177TH STREET SEPTEMBER 25, 1897

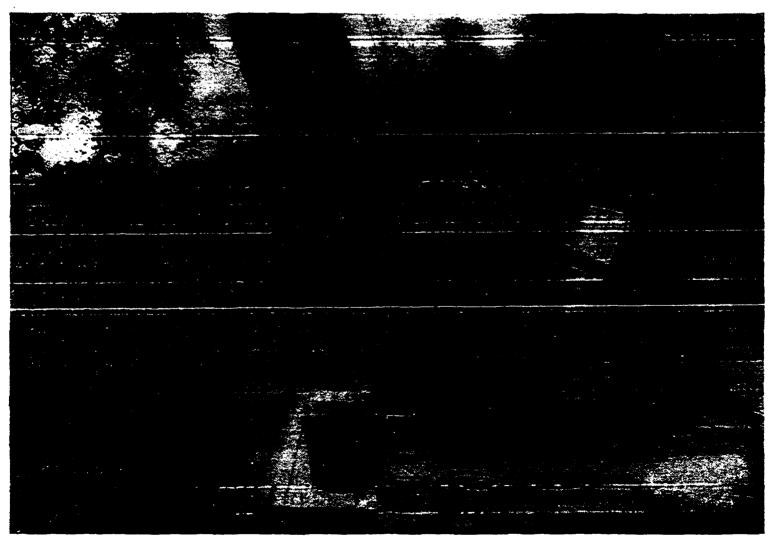


PLATE 33B—WEST OF NORTHERN AVENUE NEAR LINE OF WEST 183RD STREET MAY 31, 1898

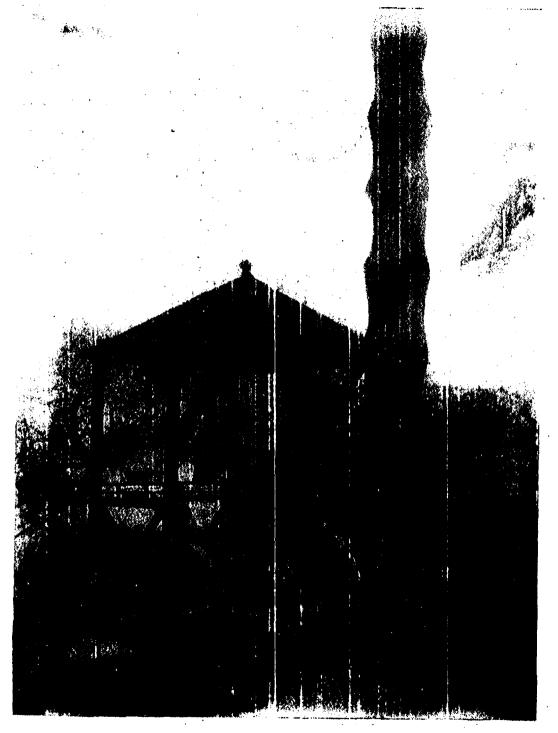




PLATE 34—THE HAVEN-LANGDON ESTATE, RIVERSIDE DRIVE SOUTH OF WEST 181ST STREET, MAY 31, 1898

A-THE ENTRANCE WELL

B-THE STABLE WELL

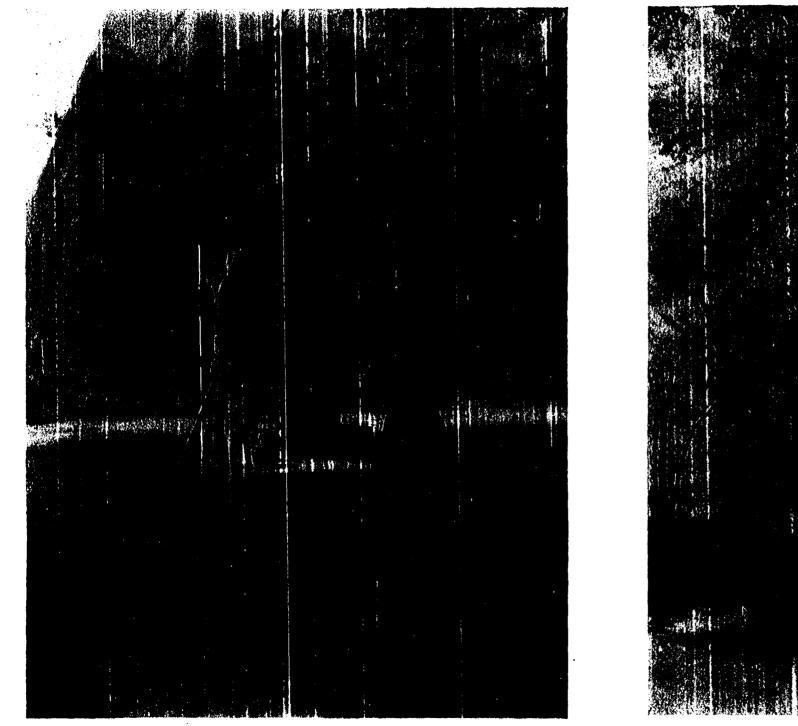




PLATE 35A and B—TWO VIEWS OF THE WELL NEAR THE HAVEN-LANGDON HOUSE, RIVERSIDE DRIVE SOUTH OF WEST 181ST STREET MAY 31, 1898

desultory blasting for a few weeks, for the opening of this street, but at the moment has abandoned the work and removed the drills.

One of the entrances to the grounds is on the south side of 181st Street or Haven Lane, about two hundred feet east from the Boulevard Lafayette. About one hundred feet in, on the west side of the road leading to the house, there is a well, rigged with a pump that is now rusty and disused [Plate 34a]. There is a shed over it and a seat running north and south at the back. A large tree stands north of it, and a bush on the south. It is said that it is ten feet to the water, and that the water in it is ten feet deep.

About one hundred feet further on, and within thirty feet of the Haven-Langdon residence, stands a second well with a more ornate shed over it [Plate 35]. The pump is carefully swathed in burlaps as a precaution against frost. The dimensions of this well are said to be about the same as those of the stable well described below. A few years ago, this well supplied the house for all purposes, the water being pumped to the top of the house by a small engine, but Croton water has since been introduced into the house from the main at Depot Lane (West 177th Street).

The house is surrounded with large boxes of flowers, and on the lawn in front there is a large silvered ball some eighteen inches in diameter which reflects a view of about one hundred and eighty degrees to the observer.

About forty feet from Haven Lane or 181st Street, and seventy-five feet to the west of the entrance road (and so not far from Boulevard Lafayette) stands the barn well, protected by a dome supported on six pillars [Plate 34b]. It is about four feet in diameter and symmetrically curbed. The water in this well bubbles up like champagne. It is five feet to the surface of the water, and the water is eight feet four inches deep as I measured it. The coachman, his attendants and family, use this water for drinking, while they use the Croton water, which is within ten feet of it, for the stable purposes.



PLATE 36A—NORTHERN AVENUE NORTH OF WEST 181ST STREET SEPTEMBER 25, 1897



PLATE 36B—NORTHERN AVENUE NORTH OF WEST 181ST STREET, THE SAME VIEW AS ABOVE, PHOTOGRAPHED MAY 31, 1898

NORTHERN AVENUE NORTH OF WEST 181ST STREET

Plates 36a and 36b

September 25, 1897. This spring is north of Haven Lane [West 181st Street] on the [Albert] Buchman property. Within ten years this spring was renowned for its medicinal properties, and people journeyed quite a distance to drink of its water. Two glasses of it were said to make a new being of one. Through not being properly attended to, however, its reputation has fallen into desuetude at the present day, and no one drinks from it now except an unwary stranger, or the ducks who swim and bathe in it.

Its waters fall into a masonry basin or reservoir of an oval shape, with a depth of some five feet, whose largest diameters are about forty and twenty feet respectively. At the western end is a discharge pipe near the top of the basin, and a small rubber hose pipe, which reaches the water at a lower level. At one side there is a small barrel.

A hydraulic ram in the cellar of the house on the property formerly supplied the house through a pipe, which may still be seen sticking out of the ground near one of the walls.

WEST OF NORTHERN AVENUE NEAR LINE OF WEST 183RD STREET

Plate 33b (on page 99)

May 31, 1898. This well is nearly on the line of 183rd Street, about one hundred and twenty-five feet west of what will be Northern Avenue. It is about five feet to the water and the water is about twenty feet deep, according to Mr. Murray, who lives in the Four-in-Hand Club House. Charles M. Connolly, Murray thinks, dug the well about thirty years ago, when he built his house about seventy-five feet south of the well. Although this house is one of the most recently constructed in the neighborhood, it is already a wreck. The grounds had metal statuary on pedestals, but

the pedestals have gone to decay. Venus now leans against the house, disconsolately regarding her base, which is tumbling to pieces a few feet away, and the other mythological beings in metal are no better off.

The Four-in-Hand Club, or rather the building formerly used by that club, stands about two hundred feet east of the Connolly well. This building is understood to be nearly in the center of what was formerly Fort Washington, the southern bastion of which, in a fair state of preservation, stands out boldly, but overgrown with trees, some twenty-five feet south of the southern piazza. Rock forming the west face of the old fort was cut away in making a driveway on the east side of the club house. The club house had a well in its cellar, but heavy blasting across the Hudson cracked the cement walls of the well and the water leaked out.

The ruins of Fort Washington are very indistinct, but the terrace on which Connolly Lane runs, and the large square terrace above it which was laid out for a croquet ground, have a very military appearance about them and have doubtless often been taken for parapets of the fort.

WEST OF FORT WASHINGTON AVENUE ABOUT WEST 187TH STREET

Plate 37a

May 18, 1898. Fisher's well is on the Ridge Road [Fort Washington Avenue] at about 187th Street, near the dividing line of the James Gordon Bennett and the Fisher estates. The well is a large one, some thirty feet in circumference. I judge that it supplies the Volunteer Spring which is due east of it some four hundred feet, and that most of the water which runs down the hill side to the Kingsbridge Road [Broadway] valley is the overflow of this well. The water is about eight feet from the surface of the ground and is about seven feet deep. In gauging the depth of the



PLATE 37A—WEST OF FORT WASHINGTON AVENUE ABOUT WEST 187TH STREET MAY 18, 1898

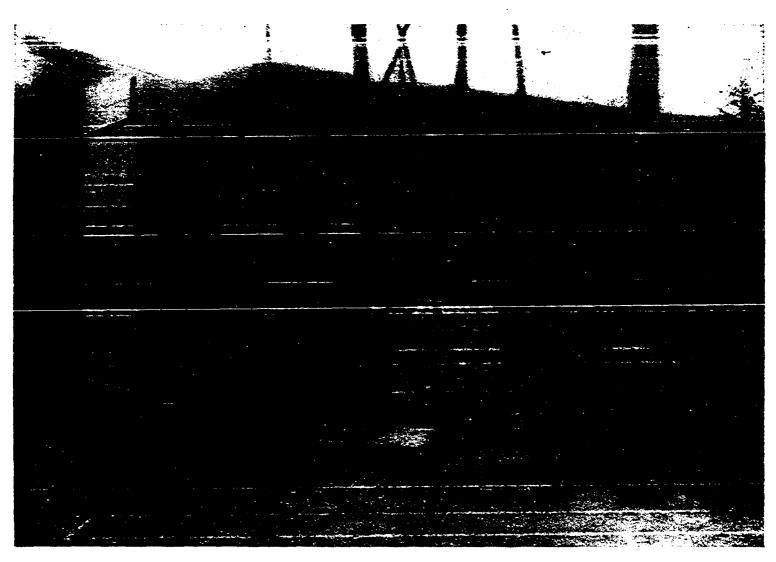


PLATE 37B—FORT WASHINGTON AVENUE NEAR LINE OF WEST 195TH STREET (FORT TRYON PARK), OCTOBER 16, 1897

water, I riled it, and brought up some of the bottom, but the water had a pleasant though somewhat earthy taste. The top cover has been broken and three large planks are now used to cover the well. There is an old bucket which is attached to a rope, and inside the box, in the southeast corner, is a little shelf on which to rest the bucket when it is not in use.

From the well, a little winding path leads to an old weather-beaten house about two hundred feet distant towards the west, located with a haunting view of the Hudson River. To the east is a small two-story cottage recently erected, which shows in the picture. The family there (a laborer's, I think) has a hammock swung under the trees. In the family there are a little girl about four years old, and a boy of ten; a puppy and two amiable dogs. Dogwood trees in white blossoms are all around.

This is near the highest point on the island, and just south are the remains of Fort Washington. A little distance north is Fort Tryon, and the house there has on its gates "Tryon Terrace."

A rounding sweep of the road to the west brings one to the verge of a cliff, when there is a fine view of the river and the thickly-wooded front of the Palisades opposite. A few hundred feet north from this viewpoint "The Abbey," a road house, offers the pleased traveller all manner of refreshment. It is kept by William P. Durando, who keeps the house by the Central Bridge and Eighth Avenue at 158th Street. His location here is given as 198th Street and Fort Washington Avenue.

July 3, 1904. There is a crab-apple tree by the fall from the overflow of Fisher's well.

EAST OF FORT WASHINGTON AVENUE ABOUT WEST 187TH STREET

Plate 38a (on page 110)

October 16, 1897. About one hundred and fifty feet east of the Ridge Road, (or Fort Washington Avenue as it is coming to be called in its days of expansion and greater prosperity), and some twenty-five feet north of the wire fence that separates James Gordon Bennett's property from Mr. Fisher's, a spring comes out of a slope in the ground through an eighteen-inch length of earthenware pipe, six inches across. A little shelf has been nailed between the double trunk of a chestnut tree, and a glass is kept upon it for those who know of the spring's whereabouts. A few yards away, its water flows into a deep gulley, and farther on it helps to increase the volume of a brook that takes its course along the west side of the Kingsbridge Road [Broadway] from above 183rd Street. This spring is perhaps fed from the same source as is Fisher's well, which is nearly due west from it across Fort Washington Avenue, some four hundred feet distant. The spring is in a grove of chestnuts and oaks, the roots of one of which twines about the pipe.

This spring is some four hundred feet south of the slate-colored building that the Volunteer Army maintains as a home for discharged convicts until suitable employment can be obtained for them. There are now thirty of these men in the home, which is rented from Mr. Shay.

This spring is about two hundred and fifty feet north of the location of the old James Gordon Bennett polo stables, which are east and south of it.

The trees in this section are the oldest and the largest now left on Manhattan Island. Buttercups, wild geraniums with their purple flowers, and jack-in-the-pulpits grow prolifically in these woods.

A lane, which from long disuse by vehicles has degenerated into a narrow path, winds down a steep hillside into the valley to the eastward, where the white dusty line of the Kingsbridge Road shows in the sunshine like a silver stream, six hundred feet distant.

FORT WASHINGTON AVENUE NEAR THE LINE OF WEST 195TH STREET (FORT TRYON PARK)

Plate 37b (on page 106)

October 16, 1897. This well is about fifty feet east of Fort Washington Avenue, on Francis A. Thayer's property, and is hidden from the road by a ledge of rock which though apparently covered with only about six inches of soil, supports a flourishing grove of some fifteen young cedar trees. A curbing of cemented stones is built around the well, and from a tripod a chain runs over a pulley with one bucket at the end. It is about fifteen feet to the water, which seems to be only a few feet deep. The temperature of the water is sixty-one degrees, as was noted by means of the thermometer which hangs next to the tumbler rack on the side of the gardener's house, beside the spring.

NORTHERN CURVE OF FORT WASHINGTON AVENUE (FORT TRYON PARK)

Plate 38b

September 21, 1897. One of the springs that is difficult to find is that on the Hays property, on Fort Washington Avenue where it begins to turn down the hill into Kingsbridge Road [Broadway].

Until recently, the road from Washington Heights down into the Kingsbridge Road was called Hays Lane, and its width was in keeping with the humility of its designation. In those days the spring nestled by the side of the lane, some two hundred feet from the edge of the high bank that overlooks the Harlem River. It supplied a large artificial fish pond that lay to the east of it and reached nearly to the edge of the precipice. About 1894-95, however, the City widened and remodeled Hays Lane, and christened it Fort Washington Avenue, which is the new road that winds down from the Ridge Road into the Kingsbridge Road. Along the

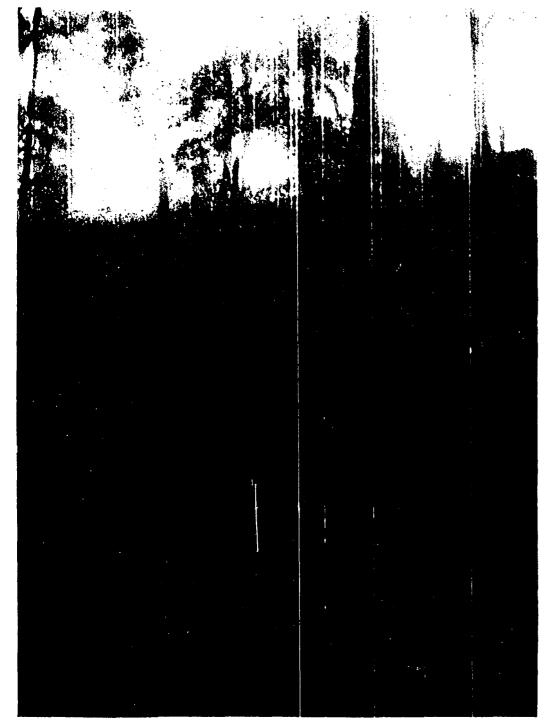


PLATE 38A—EAST OF FORT WASHINGTON AVENUE ABOUT WEST 187TH STREET, OCTOBER 16, 1897

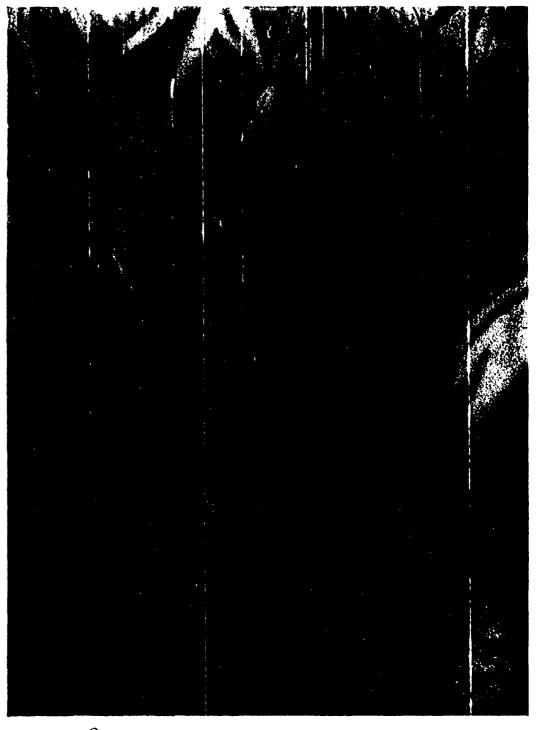


PLATE 38B—NEAR NORTHERN CURVE OF FORT WASHING-TON AVENUE (FORT TRYON PARK) SEPTEMBER 21, 1897

line of the new road, the Hays family constructed a stone wall, which passed just over the spring and completely buried it under a broad expanse of stone some ten feet high. An iron pipe was, however, run underground from the spring, and this pipe now discharges the spring water about three hundred feet further east, just on the other side of the stone foundation and wall that secures the new road at its first turn southward. A person with only a general idea of the location of the pipe's mouth would not readily find it, but by walking slowly along the wall and listening carefully, the tinkling trickle of the water will be heard. It is almost providential that there is nothing to attract a stranger to this present outlet of the spring, for it is at the edge of a precipice eighty feet high, and the edge is deceptively concealed by a dense growth of wellwatered rank grass and shrubs, so that, five feet from the pipe, a step into what looks like heavy grass would land one some eighty feet below.

There is always a tumbler under the pipe's mouth for the initiated. The water's crystal whiteness and its bright sparkle make it more pleasing to the eye, however, than it is to the palate on a hot summer day, because, travelling for such a distance just under the surface of the ground, the water is comparatively warm by the time it reaches the outlet. There is nothing in this, however, to discredit the history of the neighbors to the effect that when Commodore Vanderbilt was ill, the water from this spring was drawn fresh twice a day and sent down to him, his physicians having declared it, after numerous analyses, to be the best water to be found between New York and Tarrytown.

The walk up to this spring from the Kingsbridge Road is an interesting one. Just north of 186th Street, on the west side of the Kingsbridge Road, there is a path with a pretentious sign: "To the Ridge Road." The path crosses a little bridge, of which only one solitary plank is left, that spans a tiny brook some fifteen feet below it. This brook is fed by a spring rising a dozen yards to the south of the bridge, but as there are half a score of cows pastured in the field, it is generally in a very riled and unattractive condition. The continuation of this path, west of the narrow bridge,

leads through a deep gorge and under the trunks of large trees, which, uprooted by a tornado that passed over this section a few years ago, have fallen across and arched over the gorge. The path then winds up a steep hillside and ends at the Ridge Road [Fort Washington Avenue] in accordance with its promise at the beginning. Near the Ridge Road, east of this path, is the Hays spring.

After sundown of a late autumn day this walk of a quarter of a mile is as spooky as one could well imagine. On the right is seen the dim outline of a large rambling weather-beaten barn going to decay. Its windows and doors have long since disappeared, large sections of the roof have fallen in, and even in its walls there are great ragged gaps such as might have been made by a well-directed fire from twelve-inch guns. This is all that now remains of the home of the first pampered polo ponies brought to the United States by the younger James Gordon Bennett. All around on the hillside are ruins of foundations of curious and fantastic forms in stone and brick. The brown foliage and tall trunks of immense trees increase the gloom. Huge masses of bare rock crop out from the precipitous sides, wet and slippery from many little streams that, trickling from somewhere higher up, mingle together to form a brook. The stream suddenly pitches into a large rocky hole, and disappears as completely as if the hole were bottomless.

The ruins are all on the Bennett estate, and years ago formed trout ponds and private water-works constructed by the elder James Gordon Bennett. The parapet of a reservoir some sixty feet across may be traced, where once was collected the water which now follows its own sweet will to waste. There is an immense cylinder of brick which has been undermined and overthrown. This cylinder formerly supported the shaft which a horse on a treadmill used to work to pump water from the reservoir to the Bennett house on top of the hill. In the deepening evening shade one can easily fancy that one sees the ghost of that horse, calmly contemplating the old scene of his tiresome round; but investigation will prove the form to be that of a living cow that has wandered up the hill from the pasture near the spring at the beginning of our path.

SPRING AND WELLS BROADWAY, NORTH OF WEST 161ST STREET HIGH BRIDGE PARK AND FORT GEORGE

ST. NICHOLAS AVENUE OPPOSITE WEST 161ST STREET

December 16, 1897. It is said that there used to be a well on the east side of the Kingsbridge Road [St. Nicholas Avenue] nearly opposite 161st Street. It was near the roadway leading into the grounds of the Roger Morris or Jumel Mansion.

AMSTERDAM AVENUE AND WEST 162ND STREET

December 16, 1897. Mr. [James] Knowles, who is fifty or more years old, owns the building at 2069 Amsterdam Avenue, opposite 162nd Street on the east of the Kingsbridge Road [St. Nicholas Avenue]. He tells me there used to be a large well east of Amsterdam Avenue at 162nd Street. He pastured a cow near it, and one night when he went to look for her, she could not be found. He called to her, as he was accustomed to do, and heard her answer, but could not see her. Finally, after following the sound of her voice, he found her in this well into which she had fallen! The well was fifteen feet deep, and Mr. Knowles had a good deal of hard work to get his cow up to the surface again.

WEST 169TH STREET WEST OF BROADWAY

Plates 39a and 39b

December 29, 1897. One hundred and Sixty-ninth Street on its way to the Hudson River now halts at Eleventh Avenue [at the intersection of Broadway and St. Nicholas Avenue]. When it resumes its course under the guidance of the Department of High-

ways and has traveled two hundred feet, it will pass directly over a spring that still bears evidence of the considerable degree of care that was bestowed upon it in former times. The stone curbing of this well was so nicely done that it is today nearly as good as new. A platform with a trap door covers the curbing, and around the platform is the remains of a spring house, of the upper portion of which only the four corner stanchions and their top connections are intact. There was formerly, no doubt, an attractive roof and a neat green lattice at the back and side, as traces of green paint may yet be discerned on the stanchions. The water is some three and a half feet deep and rises to within six inches of the level of the ground. The well has a rock bottom.

The well belongs to the two-story and attic wooden house which is to the southwest. The family of Mr. O'Neill, who has charge of it, use the well water, notwithstanding the fact that they have a cistern near, and on the north side of, the house. They now boil the water, however, for drinking or cookery purposes, as the Board of Health has cast suspicion upon its quality, although not definitely ordering the well to be closed.

Some thirty-five yards south of the well, the overflow of this spring appears at the surface of the ground, and forms a brook that was crossed, about four hundred feet south, by a little stone bridge, traces of which are still clearly visible. South of the bridge, the brook broadens out into a shallow swamp that reaches to about 165th Street. This is a favorite winter playground of the children of the neighborhood, and scores of boys and girls open the skating season here, after the first few days of freezing weather. With the first fall of snow, the sloping hillsides to the west of the marsh are covered with youthful coasters.

Alongside the brook from the spring, there are some fine specimens of oaks with a curious growth: little branches only a few feet long that extend from the large boughs at a height of twenty-five feet down to within five or six feet of the ground.

North of the spring there is an avenue of trees bordering an old lane that probably extended formerly to Mr. Martin's property.



PLATE 39A—WEST 169TH STREET WEST OF BROADWAY LOOKING NORTHEAST DECEMBER 29, 1897



PLATE 39B—WEST 169TH STREET WEST OF BROADWAY LOOKING NORTHEAST DECEMBER 4, 1899

The photograph of the well in 1897 [Plate 39a], looking northeast, shows a row of wooden houses on the east side of the Kingsbridge Road [Broadway] between 170th and 171st Street. The photograph taken from about the same place on December 4, 1899, [Plate 39b] shows the well, a recently-constructed apartment house on the north side of 169th Street, just west of Broadway, and, at the left, two of the old wooden houses on Broadway.

HIGH BRIDGE PARK OPPOSITE WEST 171ST STREET

Plate 40a

September 19, 1897. On a line with what would be 171st Street, and east of Amsterdam Avenue, in what is known locally as the "Park Woods" there is a spring in a rock-bound glen. It is well down the slope of the Harlem River's bank, about two hundred feet from the course of the old Croton Aqueduct. Its water is cool and clear, but one who has loitered much in its vicinity cannot conscientiously recommend it as a drinking fountain, because these woods are too generally used as picnicking grounds by mixed companies.

IN HIGH BRIDGE PARK

CARMAN SPRINGS AND WELL

Plates 40b, 41a and 41b

September 19, 1897. Opposite West 175th Street, on Amsterdam Avenue, is a cut opening upon a rough, winding road leading down to the new Speedway along the Harlem. This road runs through the old [Richard F.] Carman estate, which is now a part of the system of public parks, in High Bridge Park. About three hundred feet down this road from the Avenue, and situated in a rocky and picturesque spot, is a deep spring with a copious supply



PLATE 40A—HIGH BRIDGE PARK OPPOSITE WEST 171ST STREET SEPTEMBER 19, 1897



PLATE 40B—CARMAN SPRING IN HIGH BRIDGE PARK SEPTEMBER 19, 1897

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of water, from which issues a little brooklet that runs noisily down the remainder of the hill and into the Harlem River. The boy shown in the photograph [*Plate 40b*] is Tom McCauley, of 514 West 168th Street.

July, 1898. This is at 175th Street near Amsterdam Avenue and east of it. From this spring there are some eight little streams diverging down the hillside which probably formerly fed the Carman well. The water comes out with a tinkle under a big rock which is five feet long, five feet wide, and four feet high. There is no water visible west of the rock.

June 29, 1898. This is near the white house about 200 feet northwest of it that stands just off the road that leads to the Speedway from 175th Street and Amsterdam Avenue. This is just above the line of High Bridge. It is a spring well perhaps three feet deep, and nicely curbed. A hundred feet east of it there still remains about one-third of a wall on the north and west side of an old fish pond which this spring perhaps supplied.

July, 1898. This spring is about 600 feet north of High Bridge and about 200 feet west of the Speedway. There is a road from 175th Street and Amsterdam Avenue, leading past this spring and 30 feet to the east of it. This road, going south here, turns short around to the north on a lower level around a large oak tree, and runs into the Speedway some 300 feet lower down. The Carman house, a white two-story and attic structure of wood some 40 feet wide, stands about 75 feet south by east of the spring. The spring is in a curbed well of brick and cement some four feet across and three feet deep, with an iron outlet pipe at the surface.

Just in the bend of the road and at the foot of the oak tree are the remains of an oval fish pond that was perhaps twenty-five feet long and fifteen feet wide and four feet deep. The road has taken away its eastern and southern walls and it is dry.

A path runs down to the spring over the sloping hillside, which is open and without trees. Grass has been cut from this meadow,



PLATE 41A—CARMAN SPRING IN HIGH BRIDGE PARK JULY 6, 1898



PLATE 41B—CARMAN WELL IN HIGH BRIDGE PARK JULY 6, 1898

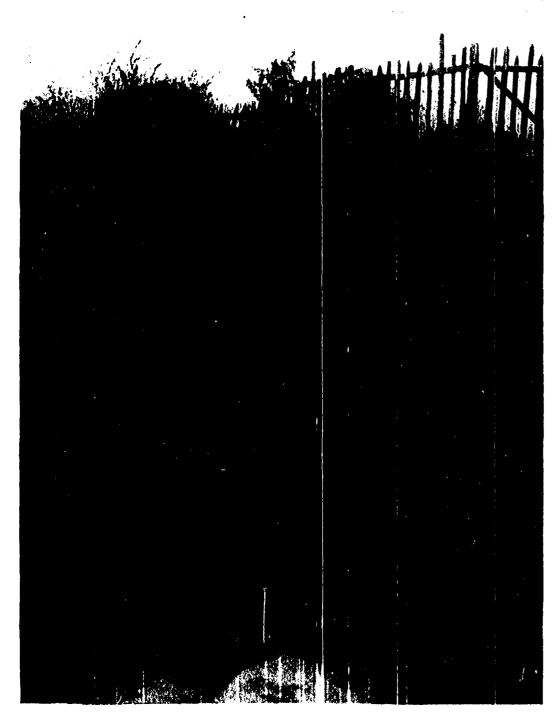


PLATE 42A—BROADWAY BETWEEN WEST 184TH AND WEST 185TH STREETS, SEPTEMBER 19, 1897

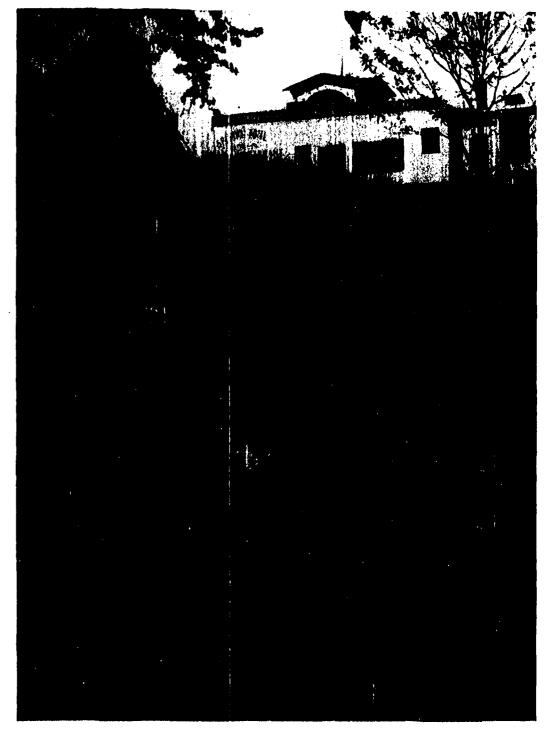


PLATE 42B—AMSTERDAM AVENUE AND WEST 185TH STREET, SEPTEMBER 26, 1897

making four haycocks. Beyond this hay field there is a stretch of woods about one hundred and fifty feet wide, extending from High Bridge north.

Just within the eastern edge of the woods, and midway between the spring and High Bridge, some two hundred feet further west and one third of the way up the hillside towards Amsterdam Avenue, there is a large well or cistern, on the old Carman property. It is some twenty feet in diameter. Its roof, which was once doubtless raised on pillars from the curbing, now rests on the curb. It has a white plaster ceiling, which is as white and fine and even as that of a parlor. [Plate 41b].

BROADWAY BETWEEN WEST 184TH AND WEST 185TH STREETS

Plate 42a

September 19, 1897. On the east side of the Kingsbridge Road [Broadway] between 184th and 185th Streets, there is a spring which is known in the neighborhood as "The Spring Well." A stone curb has been laid around it at the back and sides, and in front a framework of wood with a little door about three by two feet in size encloses it completely from the dust of the street. This spring is getting very low, although it fills up after a rain. It is evidently drifting toward the fate of the formerly numerous springs in this vicinity, which have latterly gone dry as the city's drainage system extended northward, or which have disappeared through being filled up and built over. These former springs are still remembered and extolled by residents of twenty-five years' standing.

AMSTERDAM AVENUE AND WEST 185TH STREET

Plate 42b

September 26, 1897. About one hundred and fifty feet east of Amsterdam Avenue, a little south of West 185th Street, there is a spring that has for years been tended with solicitous care by an old negro who lives a few yards away. One reaches it by following a well-trodden path that winds through a field filled with wild flowers, and ends at the edge of the wide flat stone that forms a cover over the spring. The water boils up through the bottom, and a glass full of it bubbles and sparkles like champagne for a minute after it has been dipped out. The water has become harder of recent years and appears to have a slightly salty taste, but the old negro still prefers it to Croton water. On the margin of the spring, at the back, under the flat stone cover, there is a little clump of wild flowers, growing in the semi-darkness.

In the background of the photograph [Plate 42b] one can see Michael Seraphine's "Speedway Hotel" on the northeast corner of Amsterdam Avenue and West 185th Street.

HIGH BRIDGE PARK OPPOSITE WEST 189TH STREET

Plate 43a

September 26, 1897. Fifty feet east of Amsterdam Avenue between 189th and 190th Streets, there is a spring on the Barney property. Mr. Leon Doncourt, a policeman, has lived on the place for sixteen years, and has used spring water exclusively for drinking. Like most spring waters, it is rather too hard for laundry purposes. The spring is close to a large clump of rock that is near the top of a pretty ravine that falls with considerable abruptness to the Harlem River. The ravine and all of the slope east of the Avenue, and for half a mile north, quite to the foot of the Fort George hill, is fairly heavily wooded. Mr. Doncourt's house is the only one in this entire tract. Mr. Doncourt has several kinds of



PLATE 43A—HIGH BRIDGE PARK OPPOSITE WEST 189TH STREET SEPTEMBER 26, 1897



PLATE 43B—HIGH BRIDGE PARK OPPOSITE WEST 191ST STREET SEPTEMBER 26, 1897

animals roaming around his dwelling and in the woods, and keeps the spring carefully protected with a framed cover of wire netting.

June 29, 1898. Above Washington Bridge a good deal of water is pouring down, with quite a rushing noise, through slits made in the western wall of the Speedway. Is this from Doncourt's spring?

HIGH BRIDGE PARK OPPOSITE WEST 191ST STREET

Plate 43b

September 26, 1897. A block north of Mr. Doncourt's spring, about opposite what would be 191st Street, is one of the so-called ice-cold springs. It is in the same hillside tract occupied by Mr. Doncourt, whose family consider it a finer spring than the one nearer his house, and until recently they used this one in preference to the other. However, a break or leak in the Croton water pipes along Amsterdam Avenue has made a marsh of a considerable part of the hillside between his house and this upper spring so that it is practically inaccessible to his family, unless they make a wide detour around the boggy marsh.

The spring is at the foot of a little cedar bush that has assumed the protecting offices once exercised by a very large tree, immediately back of the spring, out of the stump of which the bush is now growing. Sumacs abound in the neighborhood, and a flock of pigeons make it their chief headquarters during the day. The spring appears at the base of an outcropping of rock about four by three feet on top, and there are other rocks scattered about in the near neighborhood. Beyond to the east the outlines of the earth ramparts of the old fortifications that formed Fort George are plainly traceable, facing toward the northeastern horizon.

This is in the Fort George tract that, with the extension of the Third Avenue railroad, put forth a modest growth of side shows that now extends for nearly a mile along the avenue north of 191st Street, offering to large Sunday and holiday crowds cheap imitations of the cheaper Coney Island class, including dwarf Ferris wheels, merry-go-rounds, target shooting, ball pitching at huge heads, ring-tossing at walking canes, and strength-testers. There are also many purveyors of frankfurter sausages with rolls, ice cream, lemonade, and drinks made of extracts mixed on the premises with water. To the caterers on the east side of the hill, this spring is a source both of profit and pain. It makes them free of the Croton water tax, but it also drives them to desperation in their efforts to prevent the economical visitor from quenching his thirst directly from the spring, instead of buying their compounds. The caterers whose stands are nearest to it declared that the cost of boxes and locks for it made such an inroad on their profits that they had to give up that method, and in the end, they made the spring look as ruinous as possible, and resorted to tales of sickness and poison, which give them better protection than padlocks.

FORT GEORGE AVENUE AND AUDUBON AVENUE ZERRENNER'S SPRING

Plate 44a

September 26, 1897. Those who are familiar with the history of Sixth and Seventh Avenues will recall that as late as in the eighteen-eighties those thoroughfares were lined on both sides with little farms or truck gardens. These were gradually routed and driven away by the armies of street openers and of builders. Some of them, with their holdings reduced to a few rods in extent, still remain, between rows of protecting apartment houses which cover their former tillage, as at 110th Street and St. Nicholas Avenue, and between 114th and 115th Streets near Sixth Avenue. A small band of farmers has, however, taken a more open stand on the strategic summit of Fort George. There is a peculiar fitness in the sequence of history that these small foreign farmers on the former foreign stronghold of Fort George should now be raising vegetables almost exclusively to provision the residents of the patriot

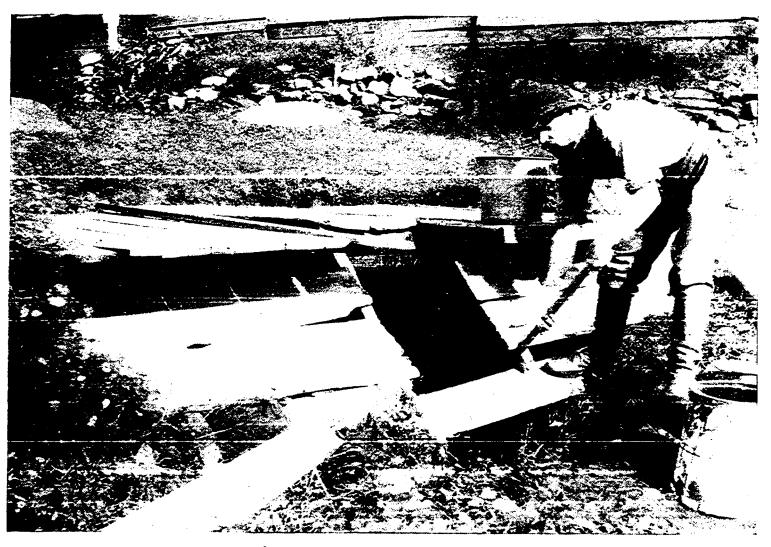


PLATE 44A—ZERRENNER'S SPRING, FORT GEORGE AND AUDUBON AVENUES SEPTEMBER 26, 1897



PLATE 44B—BETWEEN ST. NICHOLAS AND FORT GEORGE AVENUES OCTOBER 24, 1897

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Fort Washington district, which lies across the valley on the banks of the Hudson River.

On one of the most extensive of these farms now left on the island, there is a large spring, about fifty feet east of Eleventh Avenue [St. Nicholas Avenue] at 194th Street, nearly on the highest point of the Fort George tract. It is on the farm of Nicholas Zerrenner. It rises through a bottom of loose stones and supplies all the requirements of the farm not only for the household and the livestock, but also for irrigation purposes. The spring is about five feet deep, and has a diameter at the top of eight feet or more, which tapers gradually to about four feet at the bottom. For irrigation purposes alone they say that frequently a thousand gallons are drawn from it daily for a considerable period. Notwithstanding this use, it has never gone dry, but on the contrary, it frequently overflows.

BETWEEN ST. NICHOLAS AVENUE AND FORT GEORGE AVENUE

Plate 44b

September 25, 1897. The "charred tree spring" is about where 194th Street will be cut through, just by the Irishman's shanty on Eleventh Avenue [St. Nicholas Avenue].

SPRINGS AND WELLS NORTH OF NAGLE AVENUE ISHAM PARK AND INWOOD HILL

BROADWAY AND NAGLE AVENUE

Plate 45a

September 19, 1897. On the east side of the Kingsbridge Road [Broadway], at 194th-195th Streets, one can look down upon a remarkably fine bubbling spring which is widely noted, and is called "the travelling spring." Its waters are clean and deliciously cold on the hottest days.

There is a pathetic tale connected with this fountain. Twenty years ago it was thirty yards or more south of its present location, at the foot of an apple tree. Some mischance befell the tree, which withered, died, and was cut down for fire wood. Immediately after its death, so tradition runs, the spring disappeared and was not seen again for half a year, when, its period of mourning and seclusion having passed, it reappeared in its present location, removed from its former home, so that each recurring vernal season would not emphasize the loss of its old friend and of the white apple blossoms that the tree was wont to drop gently over it.

As might be expected of so sensitive and warm-hearted a spring, it never freezes, even in the coldest of winters.

This is the story told me by an old day-laborer, Patrick Kelley, whose spring it is.

In view of this propensity to wander, special pains seem to have been taken to guard against another migration. Not only has a barrel been sunk around the spring, but, in addition, a stout wooden framework with a solid lid has been constructed over the barrel.

July 3, 1903. Kelley's spring, at Kingsbridge Road about 194th Street, has disappeared through the making of Nagle Avenue.



PLATE 45A—BROADWAY AND NAGLE AVENUE SEPTEMBER 19, 1897

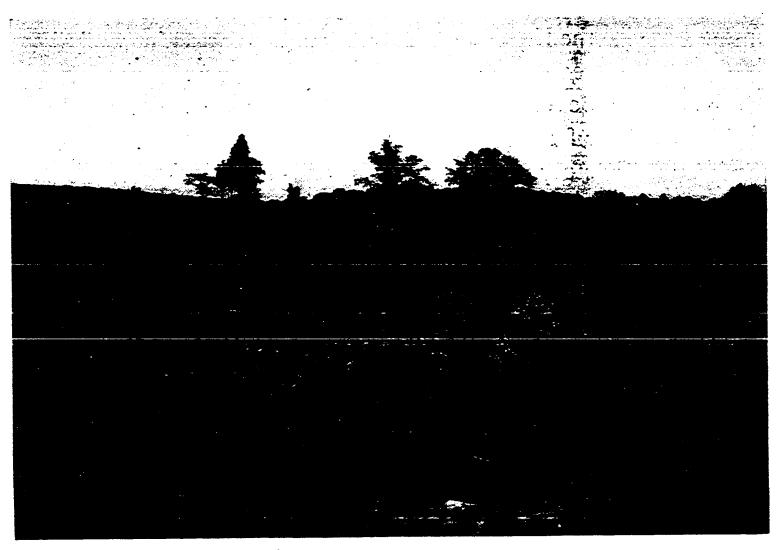


PLATE 45B—BANTELMAN'S SPRING, ELWOOD STREET AND NAGLE AVENUE SEPTEMBER 19, 1897

ELWOOD STREET AND NAGLE AVENUE

Plates 45b and 46

September, 1897. On coming to a well-covered fountain, one expects, and is disappointed not to find, a temperature in the forties and not very far from freezing, but it is an agreeable and unexpected surprise to find one with this quality in an open meadow on a broiling hot August day. Such a spring is the one found at about 198th Street, some five hundred feet east of the Kingsbridge Road [Broadway], and about five hundred feet northeast of Kelley's "travelling spring." It is near the greenhouse of the florist, Henry L. Bantelman. It lies all unprotected from the direct rays of the sun in an open meadow far from any trees, and surrounded only by a tropical growth of yellow, blue, and white asters, and other wild flowers. It rises in a small open-top box about a foot square and six inches in depth, and it is no doubt the large volume of its discharge that enables it to keep cold even on a torrid midsummer day.

In the photograph of this spring, taken looking north (or slightly northeast), one can see in the distance, near the left, the long building of Public School No. 52, on the corner of Kingsbridge Road and Academy Street. [*Plate 46*].

DYCKMAN STREET BETWEEN NAGLE AND POST AVENUES

Plate 47a

September 25, 1897. Some three hundred feet north of Dyckman Street, there is a spring at the base of a vertical face of rocky ground covered with a thick clump of trees. Dyckman Street was formerly called Inwood Lane.

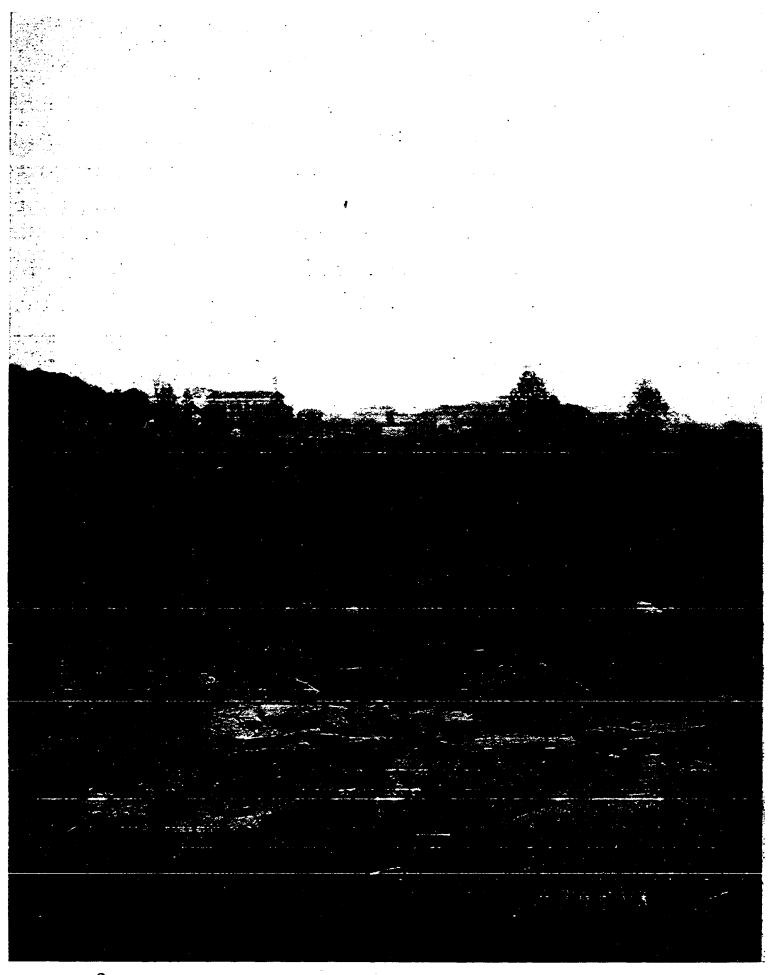


plate 46—view north from elwood street and nagle avenue, october 16, 1897, showing public school no. 52 and other buildings on broadway



PLATE 47A—DYCKMAN STREET BETWEEN NAGLE AND POST AVENUES SEPTEMBER 25, 1897



PLATE 47B—NORTHEAST OF DYCKMAN STREET AND PAYSON AVENUE SEPTEMBER 25, 1897

NORTHEAST OF DYCKMAN STREET AND F STREET (PAYSON AVENUE)

Plate 47b

September 25, 1897. At a point about three hundred feet northeast of the intersection of F Street and Dyckman Street is located what is probably the most generally known spring in the city. Its water has been demonstrated by numerous analyses to be the purest on Manhattan Island. It is situated at the base of a perpendicular wall of rock sixty feet in height and as many in width. A little brick coping has been built out from the face of the rock, making a basin some five feet long and two feet wide. The water is about fifteen inches deep. It is on the Gantz property and is called "the white stone spring."

June 29, 1898. The man who has lived ten years in the house on the northwest corner of Kingsbridge Road [Broadway] and Dyckman Street was cutting down a cherry tree sixty feet high because its centre was all rotten, although it was bearing cherries. I ate some of them and they were quite nice and ripe.

DYCKMAN STREET AND HUDSON RIVER

May 18, 1898. The Inwood barrel spring on Tubby Hook, at the foot of Dyckman Street, is filled up with large rocks and all the ground below it near the sidewalk is watery from the spring's overflow.

The little Sand Bay is there still. The sands of Coney Island have betaken themselves into the sea and the hotels on it have been moved back by a serried rank of locomotives, but the little Sand Bay of 1614 remains placidly to witness the truth of those who wrote of it nearly three hundred years in the past.

COOPER STREET AND WEST 204TH STREET

Plates 48 and 49a

May 18, 1898. Hawthorne Street [West 204th Street] and Cooper Street were built up some twenty feet above the natural level of the land with many pieces of white marble from the quarry. Cooper Street runs over the original site of this spring, but the owner of the ground insisted on having the spring preserved, so a semi-circular well of marble was built around the western side of the spring, and a barrel provided. The water flows into the barrel through an iron pipe running back under the street to the source of the spring. The water is very cool, although the sun, during the first half of the day, shines down full upon it. The milkman, William Drennan, who lives on the Kingsbridge Road [Broadway] just above, and his brother, a plumber, made the connection to carry the spring's water to its present location. They disconnect the pipe in winter to prevent freezing. To the right of the pipe is a culvert through which a brook runs from the meadows farther west, and joins the water flowing from the spring. The two streams, united, run under the little dark red house below. The Drennans never had a well but used this spring when it stood in front of the French-roof house now facing Cooper Street and not far from it. They still keep milk in the little house over the brook, in a large box through which the water runs. (They have Croton water at the house.)

Cooper Street is about two hundred and fifty feet west of, and parallel to, the Kingsbridge Road, from which the spring and the little house over the brook are plainly visible. In the photograph [Plate 48] the red wooden milk house may be seen in the lower left corner; in the center and left of the center are two houses on Cooper Street, and above, along the heights of Inwood, are several houses along Prescott [Payson] Avenue.

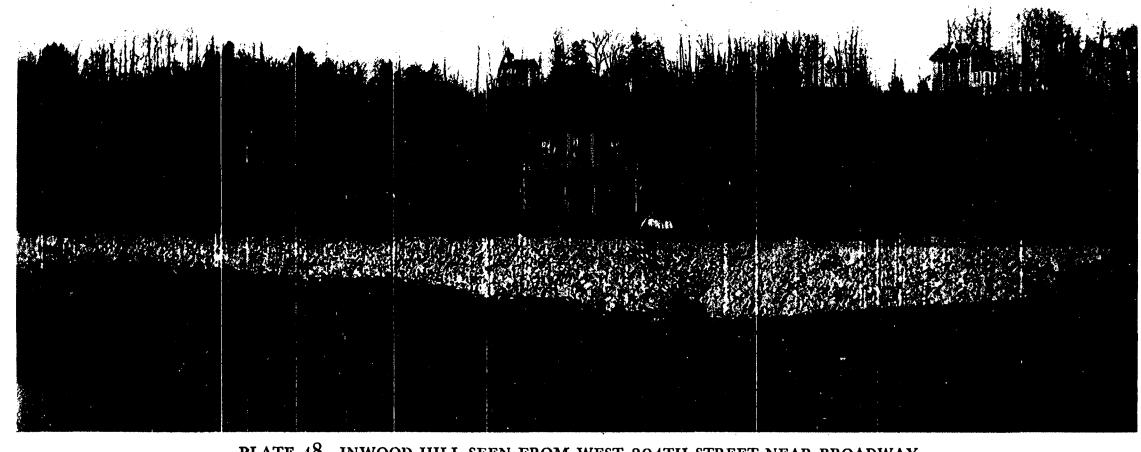


PLATE 48—INWOOD HILL SEEN FROM WEST 204TH STREET NEAR BROADWAY DECEMBER 4, 1899



PLATE 49A—COOPER STREET AND WEST 204TH STREET MAY 18, 1898



PLATE 49B—THE NAGEL OR CENTURY HOUSE AND ITS WELL, ON LINE OF WEST 213TH STREET EAST OF LINE OF NINTH AVENUE, MAY 18, 1898

ON LINE OF 213TH STREET EAST OF LINE OF NINTH AVENUE

THE NAGEL OR CENTURY HOUSE

Plate 49b

May 18, 1898. In 1736, John Nagel built him a stone dwelling on the banks of the Harlem River at what is now 213th Street (Riker's *Harlem*, page 538), and he built so well that the house is standing and occupied today. It is now resplendent in a new roof and suit of clapboards given it by its owner. The house is at present occupied by a man named White. In 1861, it was a house of public entertainment known as Post's Century House.

The spring well of this house is about seventy-five feet west of it, and about three hundred feet east of the line of Ninth Avenue, which has been laid out this year. The water is about six feet below the level of the ground and is three feet deep and not very clear. There is no cover over the well, which is curbed with large loose stones at the top. Down below it is some five feet across. The pail is one of tin; it is well rusted and leaks.

West of the well is a graveyard with some forty graves in it. The oldest decipherable date is 1825 and some of the names are Vermilye, Harris, Lockwood, and Smith. Near the graveyard is an old orchard of considerable extent, with apple, plum, and other fruit trees. It is the largest orchard left on Manhattan Island.

ISHAM ESTATE (ISHAM PARK) ISHAM STABLE SPRING

Plate 50a

June 9, 1898. Along the easterly border of a marshy meadow which stretches to the Harlem Ship Canal, there is a fence on the Isham property, near the stable. Twelve feet east of the fence, sixty feet east of the back part of the meadow, and about five hundred feet from the Canal, there is a spring. It is at the foot



PLATE 50A—ISHAM STABLE SPRING JUNE 9, 1898



PLATE 50B—ISHAM MEADOW SPRING JUNE 29, 1898 143

of one of four little fruit trees, which, with two others a short distance away, are all that are left of what was perhaps long ago a flourishing orchard. The tree beside the spring looks like a peach tree. Buttercups grow around it. Wild birds sing in the four fruit trees and drink at the spring. Their piping song mingles with the whistling of tugs on the Canal. The Ishams' horses and three cows come to the spring about noon for their drink, the cows respectfully giving precedence when a thirsty horse approaches by rising lumberingly and moving away with dignified alacrity.

The spring rises at the base of a small rock. It is eighteen inches deep and about twenty inches across. Natural rock forms the back of its basin, and in front of it is a piece of white Kingsbridge marble which has become slimy and yellowish-brown. Bubbles rise from the bottom, which is somewhat sandy and over which a conical fungus grows. The water is not cold but cool, although exposed to the direct rays of the sun. I drank some of it, and found it a trifle salty. The overflow runs away into the marsh.

ISHAM ESTATE (ISHAM PARK) ISHAM MEADOW SPRING

Plate 50b

June 29, 1898. About twenty-five feet southeast of the Isham stable spring, and on the other (or west) side of the fence, there is a spring. It bubbles up freely like champagne at the south-western end of a small ledge of rock that crops out from nearly the lowest level of the marshy meadow by the Spuyten Duyvil Creek. The rocky ledge forms one third of the basin, the rest being made of bricks laid in mortar. The spring is about three feet from side to side and two feet from back to front. The water is about two feet deep, although the outlet pipe still projecting up, and some pieces of the brick work, show that it was once a foot deeper. The curbing has probably been trampled down by the cows that pasture in this meadow. The bottom is sandy, and the

same brown fungus that grows in the stable spring grows in this one. The water is cold and nice, although it is completely open to the sun. There is a frog in the spring. In the bottom there is a piece of iron pipe about two inches in diameter which leads away in the shape of an "L" to the southwest. The pipe perhaps follows the line of least resistance in the ground and supplies a pump in the barn, for there is no house on the meadow, nor would its boggy condition lead one to suppose that there was ever a house there. The overflow from this spring runs away into the marsh as does that of the stable spring.

This is, I think, one of the most pleasantly situated springs of all. It is not only pretty in itself, but is picturesquely located. From it there is a view across the meadow, through the opening where the Spuyten Duyvil Creek empties into the Hudson, of the Palisades on the opposite side of the River. The surrounding scenery is dominated on the west by the towering cliff of Inwood, and enclosed on the south and east by the rolling slopes that run back to the Kingsbridge Road [Broadway].

BETWEEN BROADWAY AND SPUYTEN DUYVIL CREEK, SOUTH OF WEST 218TH STREET THE SEAMAN-DRAKE ESTATE

Plates 51 and 52

June 29, 1898. West of the Kingsbridge Road [Broadway], and northeast of the Isham estate, is the magnificent Seaman-Drake estate. The property contains twenty-six acres, and was formerly owned by Valentine Seaman. Its large white marble entrance arch (said to have cost \$30,000) is within a few hundred yards of the northern end of Manhattan Island, opposite West 216th Street, and is just "twelve miles from New York" according to the old brown milestone set by the roadside, just south of the arch. This arch has for half a century challenged the admiring observa-

tion of every traveller entering or leaving New York City by the Hudson River Railroad.

The grounds are a specimen of old-time gardening, laid out in the Italian style with statues, walks and driveways. Scattered about are small pieces of marble statuary on pedestals, representing Europa, Euterpe, and other classical characters. Where the walks lead down a slope there are marble steps, with figures of lions at the sides. The dwelling itself is of marble and has ampelopsis vines trailed over its south side. By those who live within sight of it, it is familiarly called "the marble house." This mansion is said to have cost \$150,000. From it there is a fine view of Spuyten Duyvil Creek towards the Hudson on the north and of the Harlem River towards the south. The chief man now in charge has been there only eighteen months but the man under him has been there or in the immediate neighborhood some thirty years. He lived near the Inwood Cold Spring sixteen years and built the basin for it.

Near and north of the marble entrance arch there was a fish pond, fed by a spring, which within the last month has been filled in by Mr. White who occupies the Nagel house. Some of the gold and silver fish that used to be in it were eight or ten inches long, the caretaker says. So many fish were taken from it that the neighborhood still smells of their decayed bodies.

The road from the entrance arch winds through the grounds up a gradual ascent to a point about sixty feet higher than the Kingsbridge Road level. At this point, about three-eighths of a mile in, there is a well in a lattice arbor, south of the mansion. [Plate 51a.] It is reached by a broad path on which there are a few stone steps ornamented at the sides with two large mortar vases prettily carved, and containing century plants. The well is eighty-five feet deep, four and one half feet across, and curbed with stones. It is latticed over, and is in good preservation. It is fitted with a pump, of which the sucker was too dry to work, when I first visited the well, in May of this year 1898. The pump was not used while the estate was leased by the Driving Club (which was until about a year ago). The caretaker has since, however, poured water down



PLATE 51A—WELL ON THE SEAMAN-DRAKE ESTATE MAY 21, 1898



PLATE 51B—GARDENER'S HOUSE ON THE SEAMAN-DRAKE ESTATE JUNE 29, 1898.

the tube and got it working, and now, in June, he drinks nothing but this water. He even carried it with him, for I found him making hay with a jug of this water carefully placed near him in the shadow of the haycock.

The gardener's house, a stone structure, stands some five hundred feet from the Harlem Ship Canal, and is shown in two of the photographs [Plates 51b and 52b]. There are large trees about its eastern front and ampelopsis vines growing over the wall at the back. It has a one-story extension with a roof shingled with widecut slates. Two gutters, one at the front and one at the rear, conduct the water by two pipes down the southern end. The two pipes join near the ground forming a large "Y," the stem of which carries the water to a circular cistern with a wooden top and a trap door. This cistern is full today (June 29, 1898). A pipe leads from it to a pump in the gardener's house.

There is a smaller cistern at the barn from which (when needed for the horses) the water is pumped into a large block of stone that has been very symmetrically hollowed out as a trough.

North of the mansion there is a well which is now flagged over. It used to feed the house pump which has since been connected with the Croton system. Water used to be pumped from the cistern near the mansion to the top of the edifice, to supply a fountain in the grounds. As the house is some forty-five feet high, sufficient pressure was thus obtained to give a stream with considerable play, when water was turned on at the fountain.

The mushroom house on the estate is dug into the side of a hill. It is some twenty-five feet wide and deep, and twenty feet high. The back of it is formed by the natural rock of the hillside. The front wall is two feet thick and is entered by a narrow and high doorway. The door has fallen to decay. In front of the house is a planked space some six by fifteen feet, and the caretaker says that the spring rises under this planking. The water of it is first visible, however, some three hundred feet away in a field, in a barrel (sunk in the ground and almost hidden from view in tall June grass), to which a pipe leads from the mushroom house spring. [Plate 52a.] A few feet away is a box that formerly stood over the



PLATE 52A—NEAR THE MUSHROOM HOUSE ON THE SEAMAN-DRAKE ESTATE JUNE 9, 1898

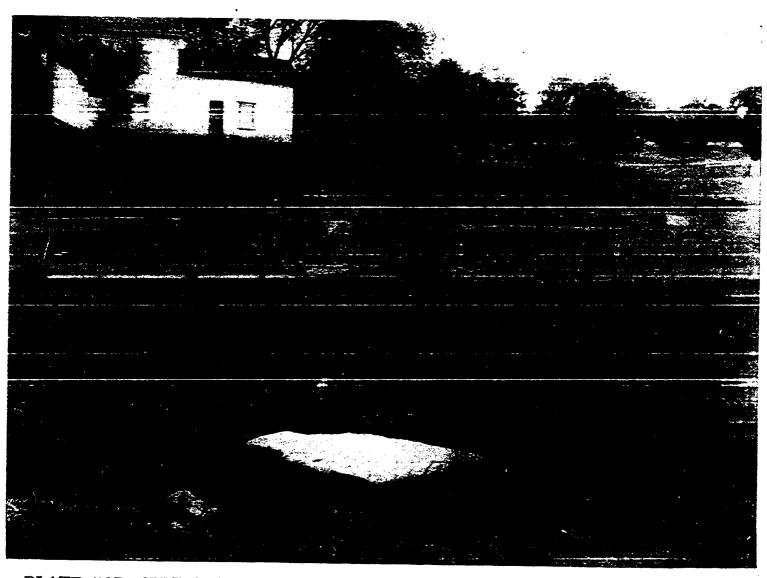


PLATE 52B—SPRING ON THE SEAMAN-DRAKE ESTATE, NEAR SPUYTEN DUYVIL CREEK, JUNE 29, 1898

barrel. Nearby, a line of white daisies marks the direction of a winding path that was once upon a time used from the gardener's house north to the stable.

West of the gardener's house, and about forty feet from the edge of the Harlem Ship Canal, there is another spring. [Plate 52b.] It is in the angle of a fence corner, about eight feet from the fence and near a gate that leads to a dock on the Canal. The spring is two feet in diameter, and its basin is a large piece of cement pipe sunk in the ground. Covering half of the pipe is a slab of Kingsbridge marble about three by two feet. The water is about three feet deep and is level with the ground. The curbing of the spring is about four inches higher. The outlet is through a slit in the cement curbing, and the water runs from it through the grass and into the creek. The spring has a sandy bottom. The land hereabouts is practically flat, and the ground nearby is marshy. The caretaker says that the spring sometimes goes salty.

When they began to dredge the Harlem Ship Canal, the men took water from this spring for their boilers, but Mr. Drake objected. So they dug a hole about three feet deep in the ground on the other side of the fence, about twelve feet north of the spring, and thus took the overflow of the spring and obtained sufficient water.

WEST OF BROADWAY, NORTH OF WEST 218TH STREET (BAKER FIELD OF COLUMBIA UNIVERSITY) THE ISAAC M. DYCKMAN WELL

Plate 53a

June 29, 1898. The [Isaac M.] Dyckman house is west of the Kingsbridge Road, north of West 218th Street. Its well is just north of the porch at the west end of the house. This is a latticed well, built something like the Seaman-Drake well, but having a rope and bucket instead of a pump. The rope runs over an iron



PLATE 53A—WELL OF THE ISAAC M. DYCKMAN HOUSE JUNE 29, 1898

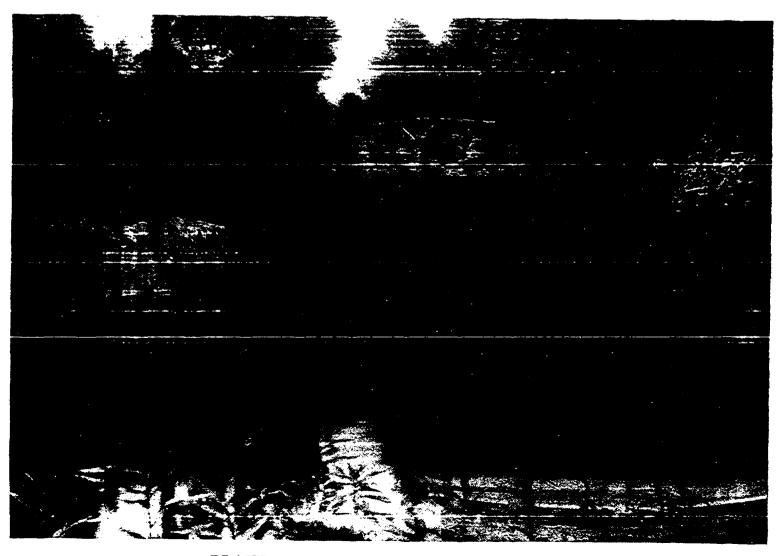


PLATE 53B—THE DYCKMAN ICE POND JUNE 29, 1898 151

pulley at the top. Its use was discontinued within a year or so apparently because one of the buckets broke, and as there is Croton water in the house, there was no urgent necessity for replacing it. The well is about twenty-five feet deep. It has a trap door which is now down. There is a spout at the side, and a stone slightly hollowed out to catch and carry off the water without having it dig a hole into the ground. The entrance to the well is within three feet of the house, almost facing the house, so that it is not easily photographed by daylight.

This well is just about opposite the power house on the Kingsbridge Road, and west of it about four hundred feet.

NORTH OF WEST 218TH STREET, NEAR SPUYTEN DUYVIL CREEK

THE DYCKMAN ICE POND

Plate 53b

June 29, 1898. The Dyckman ice pond is about one hundred and fifty feet north of the gardener's cottage on the Seaman-Drake estate. It is a beautiful object. The pond is about three hundred feet long by seventy-five feet wide and for the most part is cut out of the solid natural rock. Heavy trees and foliage and vines surround it, and I came within a foot or two of walking into it over a bluff twenty-five feet high! A swallow was busily engaged skimming for insects on the pond and it darted about dipping into the water with a swishing splash every now and then.

The southern end of the pond is made of small blocks of Kings-bridge marble and there is a sluice cut to let the water out into the creek a few hundred feet away. Near this sluice is a wooden platform with two long planks extending out into the pond. It was made to haul ice up when it is cut from the pond. They did not cut ice here last year. These planks, worn quite smooth and white, were covered with a thousand tadpoles, and from the other end, every few moments, came the deep note of a full-grown bullfrog.

At the north, the shore of the pond slopes steeply upward with a bend, forming a ravine which is crossed by a rustic bridge. On the pond is a small red rowboat with a small anchor as if it were used for fishing in the pond.

This pond is supplied by springs, although there is Croton water laid into it also. It takes two or three days to fill the pond when it has been drawn off for cleaning.

Just north of the pond is a hill, covering about three acres of ground, made of the white stone and stuff taken from the Canal, and for which the United States are paying Mr. Dyckman \$2000 a year rent. What with rain and settling, it is now so solid a mass that Mr. White, the man who filled the Seaman-Drake fish pond, found it cheaper to go a good deal farther and get earth to fill with.

NEAR SPUYTEN DUYVIL CREEK, INWOOD THE "COLD SPRING"

Plates 54a and 54b

November 13, 1897. The "Cold Spring" is some eight hundred feet south of the most northern point of Inwood, and on the east side of it. It is about one hundred feet from the shore of Spuyten Duyvil Creek, or, as it has come to be known in its enlarged and modernized condition, the Harlem Ship Canal. It is some six feet long east and west, and three feet wide north and south. Its water comes out from under a piece of rock, and a spring house is built over it of just the dimensions of the spring and some six feet high. From this house a pipe runs a distance of some ten feet into a barrel sunk in the ground. The overflow runs out of the barrel near the top and into the Creek.

This is the largest spring within the corporate limits of the City of New York.

With the exception of the cottage of an old boatman, Abraham Seeley by name, there is not a house within a mile of this spring,

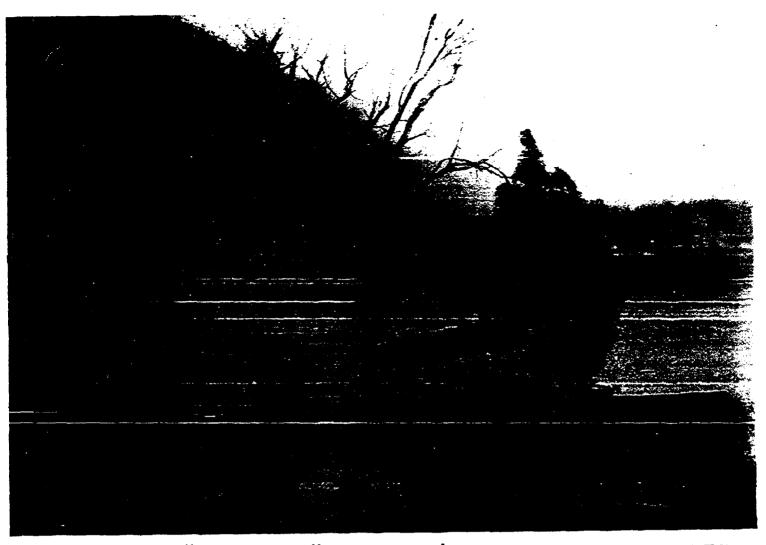


PLATE 54A—THE "COLD SPRING" AND SEELEY'S HOUSE, INWOOD, ON SPUYTEN DUYVIL CREEK, NOVEMBER 13, 1897



PLATE 54B—THE "COLD SPRING," INWOOD NOVEMBER 13, 1897
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but it pours forth as copious a stream as though its duties were to supply a city's needs.

May 21, 1898. The man on the Seaman-Drake estate lived at Cold Spring sixteen years and made the basin for it. He says it discharges six gallons a minute, which is about three times as much as the flow from the usual bathroom faucet.

Near Cold Spring are two others, one nearly hid at high tide and cut out of a white rock.

June, 1898. As this spring interfered with Seeley's sale of soft drinks to boatmen, he put a padlock on the spring house, and filled in with earth the space where the water appeared outside, so that the overflow runs into the creek below the level of the tide.

On Tuesday, June 28, 1898, Murray's house back of Seeley's caught fire from frying fish, and burned down at four in the afternoon. The fire engine had such a time getting there that it did not reach the place until half past four! Even next day many believed that it was Seeley's house which had burned, and the cause of the fire was said to be incendiary resentment over Seeley's having closed the "cold spring."

INWOOD HILL, EAST SIDE

Plate 55a

June 9, 1898. This spring is about one hundred feet down from the road that, after resolutely winding its way through the forest of Inwood on the east side, finally when it is within half a mile of the northern end goes about and retraces its course towards the south again, although somewhat west of its first course. The spring is some fifteen feet above the level of the Spuyten Duyvil Creek and within fifty feet of it. A walk three boards wide leads to it from a little house nearby and towards the east. It rises in two barrels side by side south of the walk. One of them, for drinking purposes,



PLATE 55A—EAST SIDE OF INWOOD HILL JUNE 9, 1898



PLATE 55B—WEST SIDE OF INWOOD HILL MAY 18, 1898
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is covered with a hinged wooden flap, and the other, for ablutions, is open. The water is said to be a little hard for washing, unless soda is added, so rain water is used for laundry purposes. The water appears to be muddy, but this is only the color of the sides of the barrels showing through it, for when water is dipped out, it is found to be crystal-white, as well as cold and very nice to the taste. The board walk is on the north side of the spring. On the south side there is a board platform to stand on, as the ground is wet and soppy from little trickling streams.

If there is pure spring water anywhere on Manhattan Island, it should be found here, as there is only one house within four hundred feet of it, a second about seven hundred feet away, and no other within half a mile. The primitive forest surrounds it without anything to contaminate the soil. Immense tall trees, thick green foliage, and tiny rivulets trickling down the sides of the hill are the characteristics of the place.

INWOOD HILL, WEST SIDE

Plate 55b

May 18, 1898. This spring is reached by following the road from Tubby Hook north along the Hudson. It is about seventy-five feet from the river and forty feet above its level. A basin has been scooped out of the nearly solid rock for it, and the sides of the basin slope conically upwards very symmetrically so that the periphery of the water at the surface is nearly a perfect circle. A dome of stones is arched over the top almost exactly reversing the lines of the sloping walls of the basin below. This dome is open in front and the contour of the inside is that of a perfectly formed lemon. The periphery of the basin at the surface of the water is cemented to make it perfect in form. The water is about two and one half feet deep and about three and one half feet in diameter. The top of the arch is about three feet above the surface of the water. The water is cold and good to the taste, and so crystally

clear that the sides and top of the dome are reflected in it as in a mirror. The overflow disappears down in a channel made in cement.

Two short converging gravel paths lead up to the spring from the road, and there is a house on the property about three hundred feet northeast of the spring. Above the spring stands a sign reading "No Trespassing allowed." Round and about are large trees.

INWOOD HILL, WEST SIDE

Plate 56a

May 18, 1898. The last house on the Bolton Road is Mr. James McCreery's. One eighth of a mile south of this house, about two hundred feet from the Hudson River, a pump comes up through a slab of blue stone four feet square. The handle is broken off near the top and the pump is rusty; it has evidently not been used for some time. The pump is on a terrace some fifty feet above the level of the Hudson, and there are several terraces above it which appear to have once formed a serpentine road to the river but now are so grass grown that they look merely like sloping lawns. There is a pretty view of the river from here although now it is disfigured with shad poles, and the fishermen are inspecting their nets. Wild birds are singing in the large forests round about and no sound is heard that is foreign to the country.

A maid in spectacles offered me a drink of distilled and boiled water as they have no well nor spring, and use Croton water.

INWOOD HILL, NORTHERN END

Plate 56b

June 19, 1898. This forest well is nearly at the highest point of Inwood and just beyond it the hill slopes down to Spuyten Duyvil Creek. It is the last natural water supply source on Inwood



PLATE 56A—WEST SIDE OF INWOOD HILL MAY 18, 1898



PLATE 56B—NORTHERN END OF INWOOD HILL JUNE 9, 1898
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Ridge, and is nearly a half mile from any habitation. The water is about five feet from the top, and about a yard in circumference. It is symmetrically curbed with stones, and is covered with two heavy flat stones, one of which I could barely move, and the other not at all. The water is perfectly clean on top as the stones protect it thoroughly. Although it is within two feet of a pathway, it would never be noticed by a stranger as the covering stones look perfectly natural.

Seeley told me about it and said it was twenty-five feet deep. Afterwards the man on the Seaman-Drake place told me that he measured it on a bet with McCreery's gardener, and that it was thirty-four feet to the bottom. He said it once supplied McCreery's house.

Where does the water come from that rises to within five feet of the top of almost the highest point in Inwood?

A little brooklet appears about three hundred feet away and loses itself in some underground passage on its way to the Spuyten Duyvil Creek.

Seeley's son says that not far from here were found battle axes and other relics, and a cave that had been made by Indian braves. He got a piece of British money from the cave but when he went to find the cave a second time there was no trace of it. There had been a landslide, and hundreds of tons of stone concealed the place.

OF	THE	SPRIN THERI			RISANIA

SOUTH OF EAST 132ND STREET AND ST. ANN'S AVENUE

Plate 57a

October 6, 1897. The continuation of St. Ann's Avenue from 132nd Street south is now an ordinary country road winding along the borders of a marsh to an old house near the East River. At the side of this road, on the Gouverneur Morris place, about where 130th Street may some day be laid out, there is a spring. It rises in a small barrel over which, to deepen it, has been placed part of a cask. A great many mossy green filaments rise in the cask and droop over the top of the barrel. The water is slightly salty to the taste and the outflow from the top of the cask is a steady stream one inch in diameter.

A large willow tree overhangs the road twenty feet away towards the river. The round house of the New York, New Haven and Hartford Railroad that runs along the river front is some five hundred feet distant.

ST. ANN'S AVENUE BETWEEN 136TH AND 137TH STREETS

November 14, 1898. On St. Ann's Avenue between 136th and 137th Streets is a basin made of concrete. This is the basin of a well that was twenty feet deep, according to the man who has lived for eighteen years in the house one door from the corner of 137th Street and St. Ann's Avenue. Making the sewer and laying the foundation of the house east of the well dried it up.



PLATE 57A—SOUTH OF EAST 132ND STREET AND ST. ANN'S AVENUE OCTOBER 6, 1897



PLATE 57B—SOUTHERN BOULEVARD AND LEGGETT AVENUE OCTOBER 6, 1897

THIRD AVENUE AND EAST 138TH STREET

1898. There is a large circular well back of the house on the northeast corner of 138th Street and Third Avenue.

SOUTHERN BOULEVARD AND LEGGETT AVENUE

Plate 57b

October 6, 1897. On the southeast corner of the Southern Boulevard and Leggett Avenue, behind a stone wall that flanks the Boulevard, there is an extensive spring on the corner of the Johnson place. It is two feet deep, and its level is an inch lower than the outlet. The surface, four by three feet in extent, is covered with autumn leaves. I did not taste the water. A heavy masonry curbing two and one half feet high surrounds it except in front. There it is open, and shows two broad stone steps leading to the water. On the curbing there is still standing a part of a neat lattice that testifies to the taste and affection of a former owner.

Overhanging the spring and almost touching the lattice is a remarkably curious willow tree that has eleven trunks, each from twelve to twenty inches in diameter. A clump of five trunks rose from one set of roots, and a clump of six from another set three feet away, and the two clumps are connected Siamese-twin-fashion, just above the surface of the ground by a bark-covered ligament or section a foot in diameter. Two trunks in each of the clumps are alive and flourishing, but the rest have been cut down.

WHITLOCK AVENUE AND EAST 156TH STREET

Plate 58a

October 19, 1897. Leggett's Lane is peculiar in that it grows more aristocratic as it travels eastward, so that at the Southern



PLATE 58A-WHITLOCK AVENUE AND EAST 156TH STREET OCTOBER 19, 1897

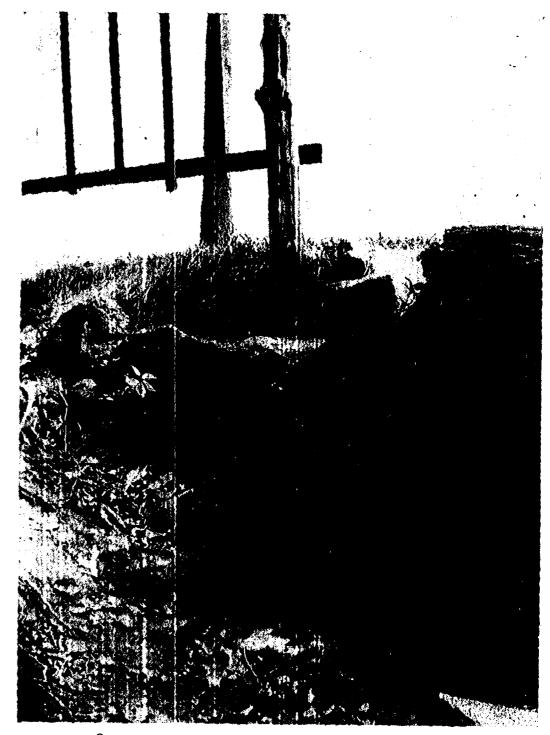


PLATE 58B—SOUTHERN BOULEVARD AND TIFFANY STREET OCTOBER 6, 1897

Boulevard it becomes Leggett Avenue. A few feet north of Leggett's Lane a rough country road branches off to the east of the Southern Boulevard, and crosses the New York, New Haven and Hartford Railroad. About one hundred and fifty feet north of this road, and some two hundred feet west of the railway, there is a spring. It is in the southwest corner of a piece of ground, a hundred feet square, bounded by a low stone wall which once retained water for an ice pond that was fed by this spring. The property was formerly owned by Judge Dennison White but now belongs to Mr. Johnson. The Southern Boulevard is about a block away to the west.

There is a small grove composed of cedar and cherry trees near the spring, and over the wall of the ice pond glimpses are caught of sails passing in Long Island Sound, over behind Oak Point, a half mile distant.

The neighborhood of the spring is now given over to a herd of cows. They monopolize the spring, and make it difficult to work with a camera. They are very good-natured beasts, but they nose around and peer into the lens and rub up gainst the photographer in pushing past to get their drink, as if human beings were trespassers on their private domain.

SOUTHERN BOULEVARD AND TIFFANY STREET

Plate 58b

October 6, 1897. On the west side of the Southern Boulevard about five hundred feet north of Intervale Avenue, a spring rises just on the inner line of the sidewalk, which purses over and makes a cover for it. The water is very cold but has a slightly salty taste. The copious outflow supplies a small brook. The brook runs along inside of the fence for a hundred feet, and then swerves off into the woods of tall trees among large outcroppings of gray rock, which extend along the Boulevard an eighth of a mile, and westward a quarter of a mile to Westchester Avenue.

HUNT'S POINT AVENUE RAILROAD STATION NEAR WHITLOCK AVENUE

Plate 59a

October 4, 1897. A few feet north of the west platform of the Hunt's Point station on the New York, New Haven and Hartford Railroad, and between the outer rail and the wall, is what a casual passenger takes for a kennel, perhaps wondering that such a location should be selected for the home of a dog. This is the box of one of the best-kept springs in the city. The station master cleans it out often, limes it, and always has several pieces of iron coupling in it to add to what he believes are its natural virtues. The water comes through rocks at the bottom and back, and is about eight inches deep. It has never been known either to freeze or to go dry. The water is said to have been analyzed by the Board of Health and found to rank with the purest in the city. Any one drinking from it, however, would be apt to pronounce it peculiarly tasteless if not actually flat. It has no frogs. The overflow, collected an eighth of a mile north, forms a good-sized pond on Mr. Ives' place, from which two crops of ice are cut in winter.

FAILE STREET NEAR WHITLOCK AVENUE

Plate 59b

October 4, 1897. Some six hundred feet north of the Hunt's Point railroad station, on the west side of the track, there is a small plot of ground enclosed with a triangular fence. Within the fence are the ruins of what was once an elaborate spring house. The water is a couple of feet deep, and is retained in a circular curbing of brick. Of the pretty lattice work structure which used to surmount it, only a small portion is left standing. Parts of the remainder are still to be seen strewn around in confusion, apparently as the result of some heavy gale of wind. This place belongs to a man named Simpson.



PLATE 59A—HUNT'S POINT AVENUE RAILROAD STATION OCTOBER 4, 1897



PLATE 59B—FAILE STREET NEAR WHITLOCK AVENUE OCTOBER 4, 1897
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The spring is overshadowed by an elm. Across the railway track towards the north and east, there is a beautiful view of rolling country and pastures. The boundaries of the fields are marked by low stone fences, covered with moss or vines. Here and there a fine solitary maple or a red oak affords noon-time shade for laborers and cattle. On the south and east the land has a slight upward slope. The views in this vicinity are more suggestive of an English country landscape than of the near suburbs of the American metropolis.

WESTCHESTER AVENUE

[1897]. In the grounds occupied by the Westchester Golf Club near the club house, I saw a well. This is on Westchester Avenue, not far from Southern Boulevard.

Westchester Avenue used to be full of springs, but draining and grading has caused them to disappear for the most part.

THIRD AVENUE AT EAST 165TH STREET

Plate 60a

November 14, 1898. In the yard of the house numbered 3338 Third Avenue, on the east side of the Avenue about opposite East 165th Street, there is a little old green wooden pump with a handle.

1062 FRANKLIN AVENUE

Plate 60b

November 14, 1898. There is a well, one of those little chain bucket wells, I think, at the second house on the east side of



PLATE 60A—THIRD AVENUE AT EAST 165TH STREET NOVEMBER 22, 1898



PLATE 60B-1062 FRANKLIN AVENUE NOVEMBER 22, 1898

Franklin Avenue, about at its beginning at Third Avenue, just above 165th Street. The house is numbered 1062 Frankin Avenue, and is the residence of John McMahon, a lawyer.

EAST 166TH STREET AND FRANKLIN AVENUE

Plates 61a and 61b

November 22, 1898. Eighteen inches inside the fence along the north side of Spring Place [East 166th Street] and twenty feet from the east side of Franklin Avenue, there is the bed of an old spring which was dried up some thirty years ago by the laying of sewers. It is two and one half feet deep, and there is an open place in the northeast corner where the water probably came from. It is about two feet long and eighteen inches across, with a curbing of stones and a wooden cover. People used to come from all around with pitchers to get water from this spring. Croton water was introduced in the neighborhood just before the spring dried up. At that time, there were wells all around here.

This spring-site is on the property of Mr. Andrew Allendorph, whose large house to the north, fronting on Franklin Avenue, has a great deal of ground surrounding it. His house is quite pretentious, two stories, basement and attic, painted light yellow. Mr. Allendorph is now a little old man. He told me he was the secretary of the Association which bought from Gouverneur Morris the two hundred acres which formed the town of Morrisania. Spring Place was opened about 1849, and he has lived there since about that time, and remembers when there was only one house anywhere near. He said that I might photograph the spring and take it away, but as he has kept the spring carefully in order during the thirty years that it has been dry, I take that as merely a Spanish figure of speech. Mr. Allendorph used to have a cistern, and a twelve-foot well behind his house. He used the well, rather than the spring, only because it was nearer the house. The opening of the sewers dried up the well, too.

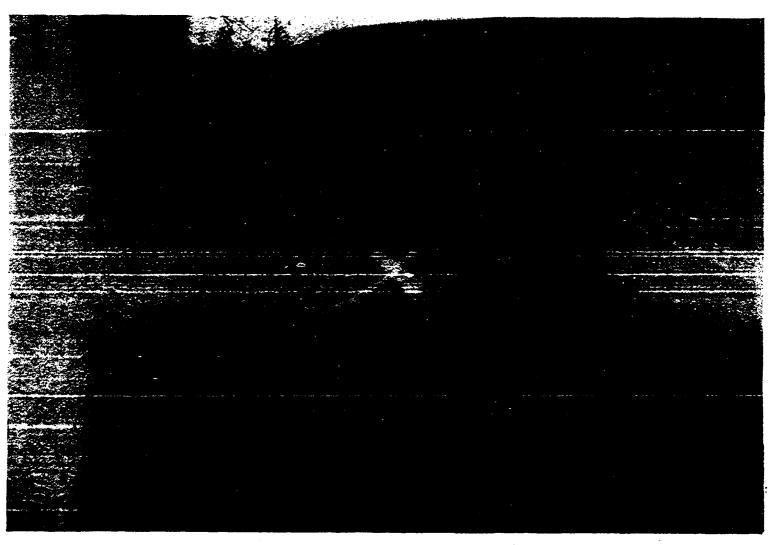


PLATE 61A—EAST 166TH STREET AND FRANKLIN AVENUE NOVEMBER 22, 1898



PLATE 61B—FRANKLIN AVENUE LOOKING NORTH FROM EAST 166TH STREET NOVEMBER 22, 1898

Mrs. Frederick Hoffman, who lives at 3410 Third Avenue, on the northeast corner of Third and Spring Place, formerly used the water of this spring. It was brought into her house through a lead pipe about one half inch in diameter, which ran into the cellar. The water ran day and night, and the overflow was carried into a gutter, and thence down the hill away from the house. There are several pieces of pipe still in the spring which were no doubt used to carry the water to other neighboring houses as was done in the case of the Hoffman house.

Spring Place begins at 3410 Third Avenue (Mrs. Hoffman's residence) and runs to the Boston Road. About two hundred feet from Third Avenue it is crossed by Franklin Avenue, to get to which one has to mount some stone steps, as Franklin Avenue is thirty or forty feet above Spring Place.

In the photograph looking north up Franklin Avenue [Plate 61b] Mr. Allendorph's residence is shown among the trees in the center, and at the left is St. Augustine's Roman Catholic Church, on East 167th Street.

NEAR SHERIDAN AVENUE AND EAST 166TH STREET

Plate 62a

December 8, 1899. This Fleetwood spring well is about three blocks south of 167th Street and one block east of Sheridan Avenue [Carroll Place]. It is curbed with stone in a roughly-made circle about seven feet in diameter. The water is about eighteen inches deep and the top of the curbing is about twelve inches above the level of the water. There is a house over it about eight feet square and nine feet high with a hip roof. It was whitewashed, and once no doubt looked like a diminutive dwelling, but now it is falling to pieces.

Opposite the well, on the other side of the road and about one hundred feet from it, there is a large wooden house. Back of the



PLATE 62A—FLEETWOOD PARK SPRING, NEAR SHERIDAN AVENUE AND EAST 166TH STREET, DECEMBER 8, 1899

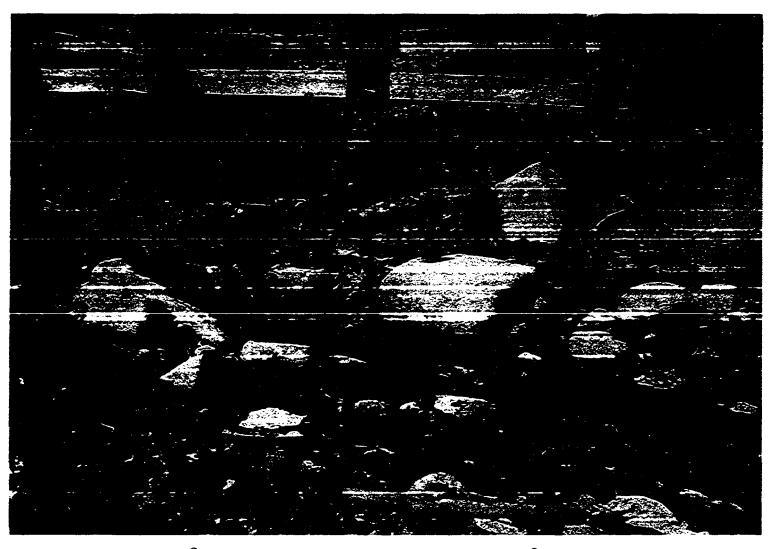


PLATE 62B—SHERIDAN AVENUE AND EAST 163RD STREET OCTOBER 4, 1897

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house stretches a large flat plain half a mile across, which has little ponds of water in it in several places.

NORTHWEST CORNER, EAST 163RD STREET AND SHERIDAN AVENUE

[1897]. On the northwest corner of 163rd Street and Sheridan Avenue is a well that the present tenant is filling up with ashes according to instructions from the former tenant. It is surrounded by a very pretty lattice.

SOUTHEAST CORNER, SHERIDAN AVENUE AND EAST 163RD STREET

Plate 62b

October 4, 1897. In a fence corner on the southeast side of Sheridan Avenue and 163rd Street, a fine spring with a water surface of some four by three feet bubbles up through a bottom of sand. The overflow of the spring now runs into a small pond formed by the filling-in that has been done to lay the foundation of Sherman Avenue. Sherman Avenue at this point is at present merely an embankment fifteen feet higher than the level of the pond.

Sheridan Avenue is really only a winding lane or road that leads northeast from 161st Street. Along its entire length of the equivalent of four blocks, it is lined with magnificent trees which are shortly to be cut down. There are numerous small truck farms round about, a great many cows are pastured in little fields interspersed among them, and one can see the greens of a forest a block away. These add fine touches of color and countryism to the general rusticity of the surroundings.

WALTON AVENUE NORTH OF WEST 151ST STREET.

[1897]. In the cut of the Hudson River Railroad [New York Central Railroad], south of Cedar Park [Franz Sigel Park] and about three hundred feet west of the Mott Avenue bridge over the cut, there is a spring that trickles through the high rocky walls of the cut. The water runs through a small piece of rusty iron pipe. This spring is practically inaccessible except to the railroad men working on the line. It is on the south side of the cut about fifty feet west of the signal room that from the bridge might be taken for a house over the spring.

NEAR CENTRAL OR MACOMB'S DAM BRIDGE

Plate 63a

[No date]. There is a flight of steps near the eastern end of Central Bridge or Macomb's Dam Bridge that leads down to a spring which the old-timers of the neighborhood remember as formerly having borne a great reputation for the good qualities of the water it furnished. From the parapet of the bridge, several large stones will be seen at the end of a little path running northward and behind these stones there is a barrel sunk into the ground over the location of the spring. This arrangement is very suggestive of a tub, and accordingly the spot soon became known to the floating population who tramp through the land. They were not long in appropriating it for a lavatory and then for a laundry, and now it is given over entirely to these purposes and is tabooed by every reputable resident of the neighborhood. Visitors will do well to follow their example.

October 1, 1897. Today the barrel is two-thirds full of mud and there is only about a quart of water in a depression in the mud at the side of the barrel.

August 15, 1898. The Macomb's Dam-Central Bridge spring has water in it today.

June 11, 1899. Today there is no sign of this spring! An old street sweeper on the bridge says that about two months ago they threw stones in it, and about two weeks ago they finished covering it up.



PLATE 63A—NEAR CENTRAL OR MACOMB'S DAM BRIDGE OCTOBER 1, 1897



PLATE 63B—POND OF REV. HASBROUCK DU BOIS, EAST OF WOODYCREST AVENUE, SOUTH OF WEST 166TH STREET, DECEMBER 6, 1899

WOODY CREST AVENUE SOUTH OF WEST 166TH STREET

Plates 63b and 64a

December 6, 1899. About seventy-five feet west of Woody Crest Avenue and about two blocks and one hundred feet south of Union Street [West 167th Street], the streets between not being cut through, there is a spring in a field with a kind of half fence, half house around it [Plate 64a]. This conglomerate structure has a door, and inside one finds a spring in a barrel. This spring lies in a little depression with a few stones in the shape of steps leading down to it.

There is quite an outlet of water from it which runs about southeast in a channel some six inches wide and goes under Woody Crest Avenue, on the other side of which it makes a small marsh which is today being drained by private individuals.

This also, I think, is the source of a pond some twenty-five feet in diameter in the shape of an irregular ellipse which is on the property of the Reverend Hasbrouck Du Bois on the other side of Woody Crest Avenue. [Plate 63b.]

The nearest house to this spring is a frame house about one hundred feet north, occupied by an Irishwoman, Mrs. McNeeley. The house sets back about twenty feet east of Nelson Avenue, on which it fronts. Nelson Avenue here shows from the break in the curbing that her house stands squarely in a projected street which will probably be about One hundred and sixty-sixth Street. The nearest opened street north of Mrs. McNeeley's house is Union Street, which is about two blocks above. Between Mrs. McNeeley's and Union Street there are only two other houses, and these two are side by side. They are about one hundred feet north of her house, and the northernmost one of them is numbered 1126 Nelson Avenue.

December 6, 1899. A lady in one of the houses near the Reverened Du Bois's said there was a spring west of Woody Crest Avenue near Union Street [West 167th Street] near an old boiler. I could not find it, however, and an old man told me that Woody Crest Avenue had been laid out over the spring and had buried it.

ANDERSON AVENUE AND WEST 165TH STREET

December 6, 1899. About two hundred feet east of Woody Crest Avenue and about two or three blocks below Union Street [East 167th Street] (these streets are not yet cut through) there is a fence, on each side of which is an iron pump. The water from them is cold but not very pleasant to the taste. These pumps seem to be on the highest ground of this neighborhood. Jerome Avenue lies down in the hollow to the east about three hundred feet away. About two hundred and fifty feet north of these pumps is the house of the Reverend Du Bois, on whose property there is the pond already mentioned. [Plate 63b.]

UNIVERSITY AVENUE AND WEST 165TH STREET

Plate 64b

December 6, 1899. About one hundred feet east of Sedgwick Avenue and about ten feet west of Lind Avenue [University Avenue] at about Devoe Street (which is equal to about 165th Street) there is a spring covered over with stones. It is about a foot in circumference and five inches deep. Quite a little flow of water comes into it in a small stream from the ground a few inches higher than the level of the water in the spring. Today there are a good many leaves in it, and the outflow makes oozy ground in its neighborhood.

A little path leads up to it from Sedgwick Avenue.



PLATE 64A—WEST OF WOODYCREST AVENUE, SOUTH OF WEST 166TH STREET DECEMBER 6, 1899

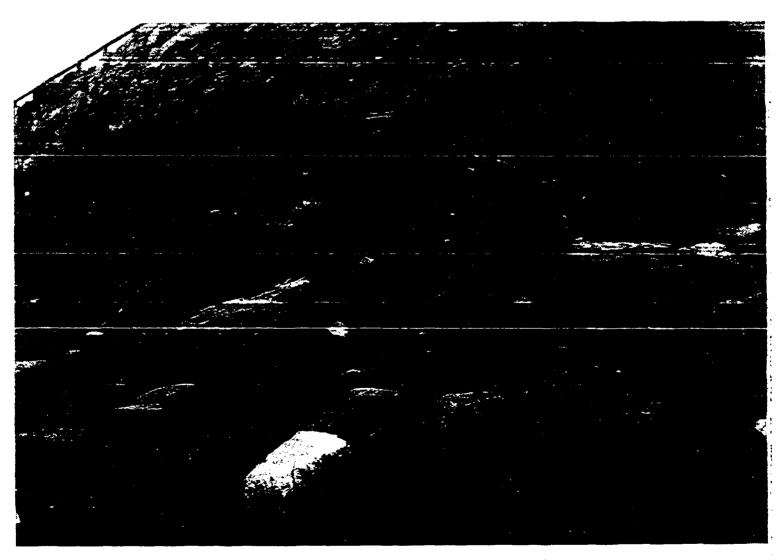


PLATE 64B—UNIVERSITY AVENUE AND WEST 165TH STREET DECEMBER 6, 1899

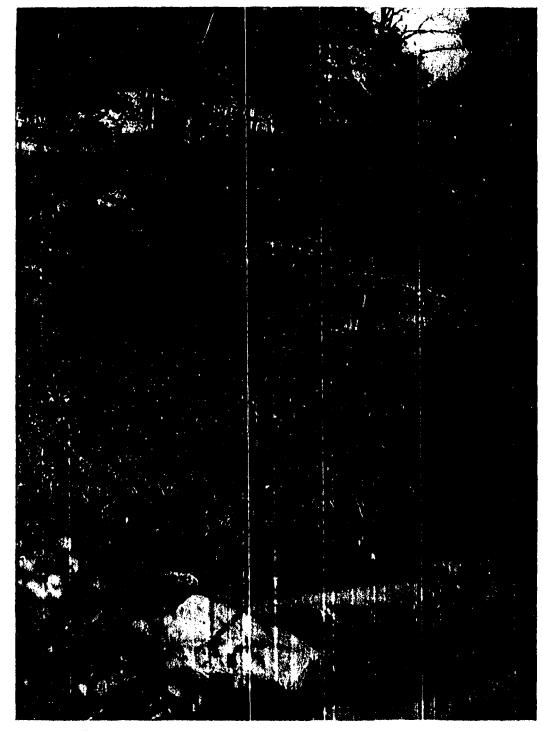


PLATE 65A—SEDGWICK AVENUE AND WEST 167TH STREET OCTOBER 13, 1897



PLATE 65B-OGDEN SPRING, UNIVERSITY AVENUE AND WEST 172ND STREET, SEPTEMBER 15, 1897

SEDGWICK AVENUE AND WEST 167TH STREET

Plate 65a

October 13, 1897. On the northeast corner of Wolf Street [West 167th Street] and Sedgwick Avenue, one hundred or one hundred and fifty feet from each thoroughfare, a spring rises in a barrel surrounded by stones. The water is cool, clear, and untainted, and is tenanted by frogs. It is at the foot of a terraced hillside bordered with chestnut trees, and is set in a little ravine from which High Bridge may be seen two blocks to the north. The resounding blows of the drillers' sledges ring ceaselessly from the top of the hill above, and the channel to the source from which the spring draws its water will probably soon be shattered.

BOSCOBEL AVENUE AND WEST 169TH STREET

[1898]. On Boscobel Avenue (new) about west of McElroy's roadhouse on Jerome Avenue there is an old latticed house well with one bucket. The water is milkish colored. This well stands in the line of the middle of the new avenue now being constructed, and of course will shortly disappear.

UNIVERSITY AVENUE AND WEST 172ND STREET OGDEN SPRING

Plate 65b

September 15, 1897. Almost facing the eastern end of Washington Bridge is a double gate in a red picket fence enclosing part of the William B. Ogden Estate. A few hundred feet inside the fence is a fine spring which is kept with considerable care. One might walk directly over it and not be aware of its presence as it is covered by a large trap door suggestive of the entrance to an

outside cellar. On raising the trap the suggestion is for a moment still further heightened by what appears to be the commencement of a flight of stone steps leading into the ground. There is in reality, however, only one broad step, for what appears to be the second is the surface of the water which in the gloom for a moment misleads the eye.

There are several springs on the large Ogden estate, and the Ogden mansion nearby was built over another fine spring.

MACOMB'S ROAD NEAR FEATHERBED LANE

Plate 66a

September 15, 1897. Near the top of the hill, on the Macomb's Dam Road, just before it reaches the line of Feather Bed Lane, there is a watering trough into which flows, through a piece of gas pipe, the water of a spring that rises about a quarter of a mile to the west. Before it is tapped by the pipe, the water from the spring flows like a brook past the barn and stables of the old Townsend Poole house, a few feet from the west side of Macomb's Dam Road. The neighbors therefore do not consider it potable for their horses, and some horses are said to refuse it even when they are very thirsty.

The old house mentioned is said to have been built in 1782, and that date in iron figures reversed is on the side of the house.

EAST 174TH STREET AND WALTON AVENUE

Plate 66b

October 10, 1897. East of Jerome Avenue for several miles north of the Central Bridge, there is a wide strip of land that is practically without houses. Scattered along this avenue at intervals of a mile or more are half a dozen small hotels or road-houses,



PLATE 66A—MACOMB'S ROAD NEAR FEATHERBED LANE SEPTEMBER 15, 1897

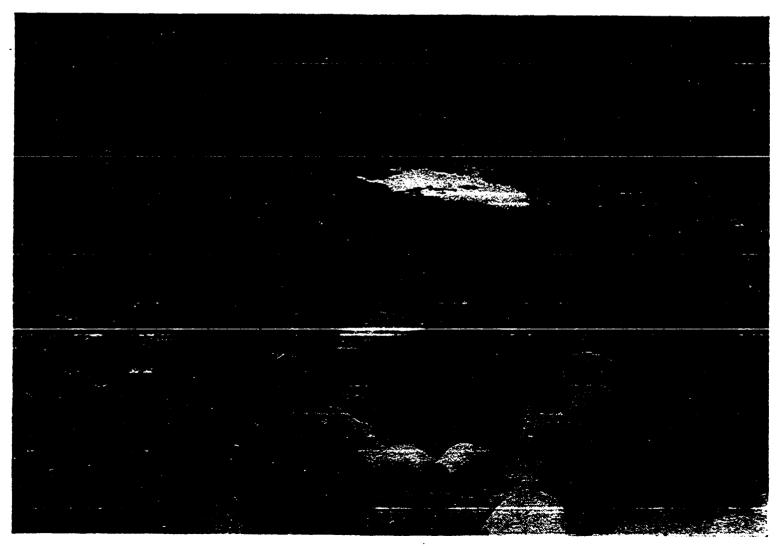


PLATE 66B—EAST 174TH STREET AND WALTON AVENUE OCTOBER 10, 1897

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of which the most prominent (from north to south) are The Highlands, The Kensington, Mount Hope Hotel [at East 177th Street] and Parish's. The ground is for the most part alternately rocky and woody. Some parts of it are under cultivation as market gardens. Other stretches are used for pasture. At the southern end of the tract there is a marsh that is loosely spoken of as being bottomless in some places. North of that marsh are numerous springs which feed Cromwell's Creek, that runs into the Harlem River near the Central Bridge. This tract is intersected by few roads as yet, although the city is beginning to open numbered streets in its lower section.

In what will be about 174th Street, some four hundred feet east of Jerome Avenue, there is a spring with an oval curbing, formed of loose stones, whose dimensions are three feet by two. It has a rocky flooring and the water is clear and cold. A few yards east of it there is a little barrel spring, and a few feet south of it are two small cylinders of concrete sunk in the ground over other springs that are used for the cattle and horses in the pasture round about. The overflow from these springs finds its way into the marsh which is about to be drained by a sewer now under construction.

A pretty avenue of trees runs alongside of these springs and curves to the eastward.

EAST 176TH STREET EAST OF JEROME AVENUE

Plate 67

October 10, 1897. There are two bubbling springs in the roadway of 176th Street, the first one hundred and fifty feet east of Jerome Avenue, and the second fifty feet further east. Their waters are clear and cold and have a steady outflow. They are now being assailed both in front and rear, and in a few weeks there will be no trace of them. From the west a body of workmen is approaching them, and from the east, a gang of sewer constructors is bearing down upon them. The picture [Plate 67] shows the advance



PLATE 67—EAST 176TH STREET EAST OF JEROME AVENUE OCTOBER 10, 1897

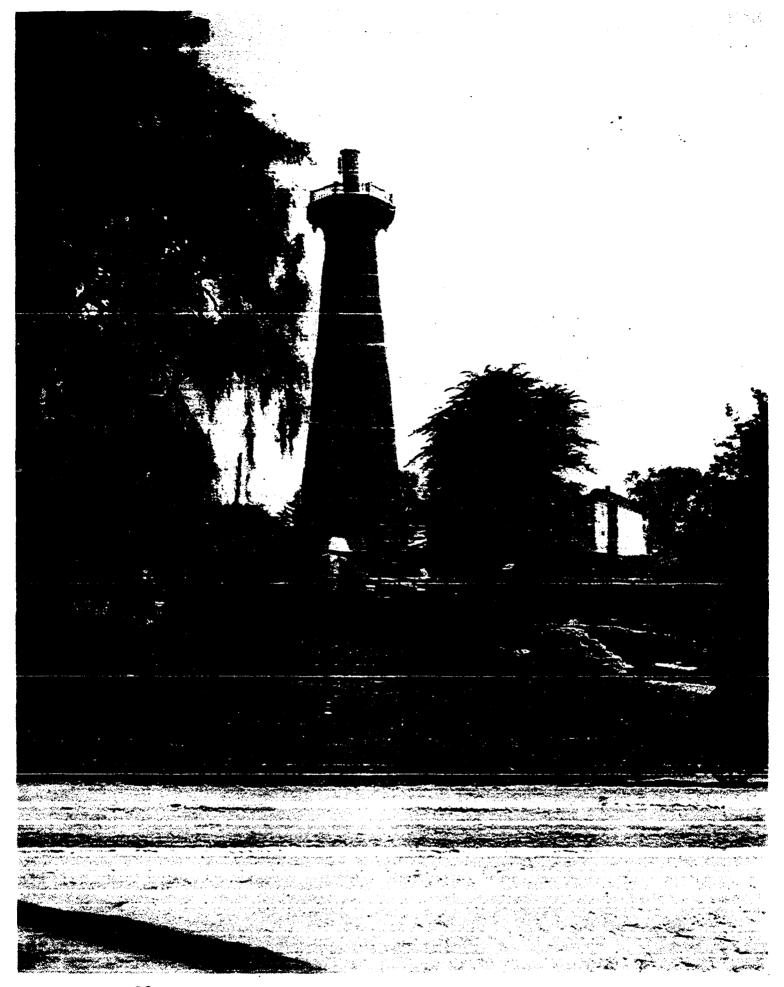


PLATE 68—THE MORRIS WATER TOWER AND WELL, SEDGWICK AVENUE JULY 7, 1898

of the new sewer from the east, which will in a few days engulf the two springs.

176th Street is the first street that the city has begun to make east of Jerome Avenue in this latitude.

JEROME AVENUE AND WEST 177TH STREET

October, 1898. Here on the west side of Jerome Avenue is "Snake Hill" where a German woman with four chained dogs has a market garden and what she calls a spring. She made much opposition before letting me look at the spring. It is cemented up and rubber pipes run from it into a shed where vegetables are washed. About thirty feet east of the so-called spring is apparently a sewer that seems to empty into this alleged spring.

The German woman says they use Croton water.

MACOMB'S ROAD AND WEST TREMONT AVENUE

[1897]. On the southeast corner of Macomb's Dam Road and Tremont Avenue there is a well some twenty feet deep. There is a ruin of a house on the place. Some Italians seem to live in the stable, and near-by there is a road lined with improvised griddles for cooking!

SEDGWICK AVENUE AND WEST TREMONT AVENUE (177TH STREET)

MORRIS WATER TOWER AND WELL

Plate 68

July 7, 1898. There is a well on the Morris estate near a tall tower that was used to secure the pressure needed to force the water to neighboring houses. The whole forms quite a waterworks, with considerable granite masonry, connected with the apparatus.

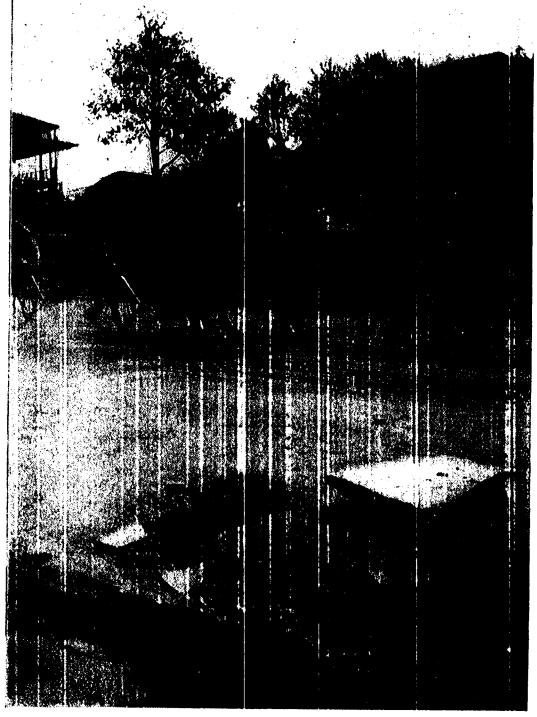


PLATE 69A—WEST BURNSIDE AVENUE NEAR OSBORNE PLACE LOOKING SOUTH TO BERKELEY OVAL AND THE CROTON AQUEDUCT GATEHOUSE, OCTOBER 7, 1898



PLATE 69B—WEST BURNSIDE AVENUE NEAR OSBORNE PLACE LOOKING NORTH, OCTOBER 7, 1898

WEST BURNSIDE AVENUE NEAR OSBORNE PLACE

Plates 69 and 70

November 12, 1898. Burnside Avenue is a well-traveled thoroughfare. Berkeley Oval touches its south side, and in the season of out-door sports residents of lower New York pass through it by thousands in their rush to and from the railway trains. Opposite the Oval, about three hundred and forty feet east of Sedgwick Avenue and a yard from the northern curb, a spring rises directly in the roadway. The water boils up through the sandy bottom of the roadway, and runs off into the gutter at its side. A policeman had a small section of earthenware drain pipe twelve inches in diameter sunk around the spring, and secured a piece of flagstone to be used as a cover, both to protect it from dust and to prevent accidents to passing horses. The old German who did the work is seen in the picture [Plate 69b]. He takes particular pride in recounting how it was done by "me and the Corporation," (the "Corporation" being the policeman). There is a Croton Aqueduct gatehouse almost opposite on the south side of Burnside Avenue [shown in Plates 69a and 70a], and city water has been laid in this neighborhood, but the spring is used by the neighbors in preference to the Croton water because it is colder and has a pleasanter taste. Children may be constantly seen making pilgrimages from the surrounding houses with pitchers, milk cans, and what not, to get their family's drinking supply.

This spring is almost a counterpart of the West 165th Street spring on Manhattan Island [Plate 30b]. Burnside Avenue, like the latter street, slopes down a considerable declivity in order to connect with Sedgwick Avenue. From the spring there is an extensive view westward across the Harlem River, of the long stretch of bluff that ends with the heights of Fort George [Plate 70b].

This is one of the so-called "traveling springs." Some years ago it was two hundred feet further up the hill and one hundred feet north of its present latitude in the field that is still a field along the upper side of Burnside Avenue. When the Aqueduct was built,



PLATE 70A—WEST BURNSIDE AVENUE NEAR OSBORNE PLACE LOOKING SOUTH OCTOBER 7, 1897



PLATE 70B—WEST BURNSIDE AVENUE NEAR OSBORNE PLACE LOOKING WEST OCTOBER 7, 1897

the spring disappeared but afterwards made its appearance in its present location.

A hundred feet above this spring and on the inner side of the walk there is another spring which also bubbles up from the bottom and would make a pretty pool if the "Corporation" had a fancy to order it cleared and cleaned.

Colonel E. T. Wood and former Mayor Franklin Edson own or owned the property on the north of Burnside Avenue at this point.

WEST BURNSIDE AVENUE NEAR HARRISON AVENUE

Plate 71a

October 10, 1897. In 18 [blank] Burnside Avenue was still in a formative state between Jerome Avenue and the old Croton Aqueduct. Its foundation was being laid in a more or less rough manner by dumping large irregular pieces of rock upon one another to the depth of several feet. Just east of the old aqueduct this mass came within six feet of a spring at the foot of a maple tree on the south side of the way. The water was cold and clear and had a fine taste. It rose through a rocky bottom and fed a brook that babbled noisily away among thickly-growing trees filled with twittering birds. A hundred yards lower down, down a declivity to the east, were the ruins of an enclosing wall that probably once penned an ice pond.

SEDGWICK AVENUE NORTH OF WEST BURNSIDE AVENUE

Plate 71b

October 3, 1897. A short distance south of the fortress-like structure of New York University, and some seven hundred feet

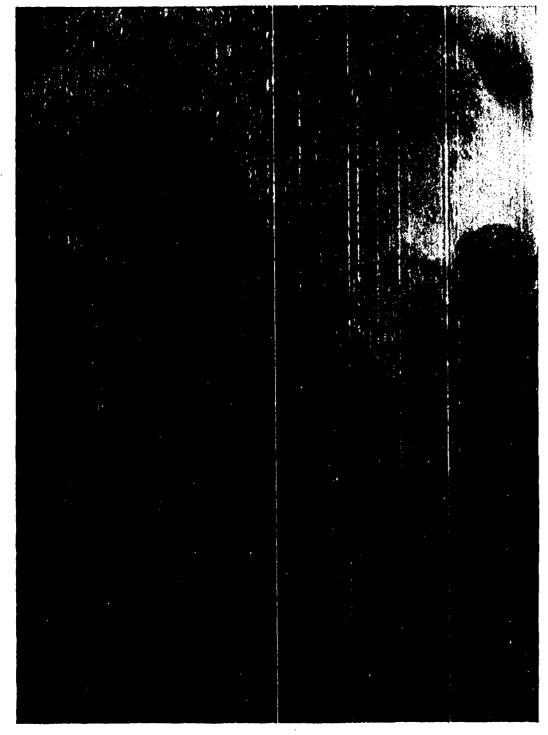


PLATE 71A—WEST BURNSIDE AVENUE NEAR HARRISON AVENUE, OCTOBER 10, 1897

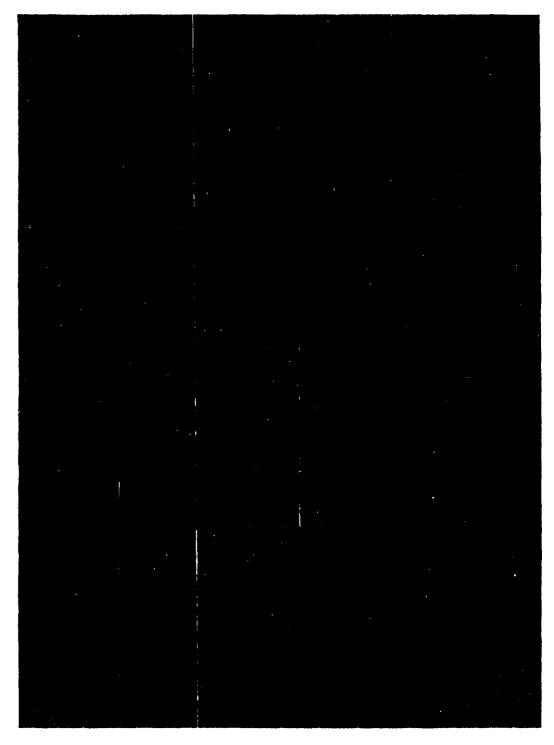


PLATE 71B—SEDGWICK AVENUE NORTH OF WEST BURNSIDE AVENUE, OCTOBER 3, 1897

above Burnside Avenue, there is a high ledge of rock along the east side of Sedgwick Avenue. At its base, there is a spring surrounded by a bed of goldenrod.

There are several houses on the opposite or western side of the Avenue, but none on the spring side in this vicinity.

WEST FORDHAM ROAD AND HAMPDEN PLACE

Plate 72a

October 3, 1897. Some five hundred feet west of Sedgwick Avenue and fifty feet south of the Fordham Landing Road is a fine spring with a reputation extending back into oblivion. Years ago a symmetrical trough was carefully constructed in a rock with blast and hammer. In a notch in the center of the front part of the trough is set a piece of iron pipe, a few inches long, through which the overflow is carried away.

It is immediately within the sidewalk line of a street that branches off southward from the Road—a marvellous street [Hampden Place] that, curbed and flagged, runs into a primitive forest and comes to a sudden stop in such a density of trees that two foot farers could hardly walk abreast within it. Cammann Street and Cedar Avenue are near-by, but if this street has a name it is known to no one in this part of the country.

Near-by on the southeast corner of Sedgwick Avenue and the Fordham Road is a ruinous graveyard so long neglected that it is now in a luxuriant forest that hides it from the view of travelers, although it actually borders upon the eastern side of the highway. The roots of some of the trees have been forced upward and, curving about, encircle a grave here and there. Other trees have grown up in such singular positions that the contiguous headstones would almost seem to refer to the trees themselves. Among the scarcely decipherable names on the crumbling markers may be traced Berrian, Baker, Valentine, and others whose descendants are still prominent in the surrounding settlement called Fordham. One



PLATE 72A—WEST FORDHAM ROAD AND HAMPDEN PLACE OCTOBER 3, 1897

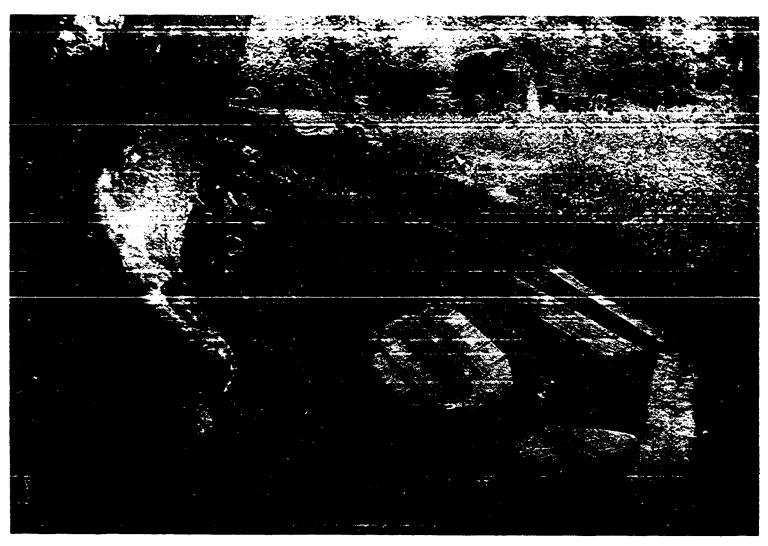


PLATE 72B—EAST OF SEDGWICK AVENUE (IN DEVOE PARK) OCTOBER 3, 1897

of the sleepers was born in 1736 and went to rest ninety-five years ago in 1810. Nearly every headstone has cut into it a four line epitaph in verse embellished with eerie emblems and anatomical horrors. At the southwestern edge of this cemetery stands in flourishing condition what is perhaps the largest willow tree to be seen in the United States. It has a circumference of nearly twenty feet.

EAST OF SEDGWICK AVENUE (DEVOE PARK)

Plate 72b

October 3, 1897. The only large and prominent building on the east bank of the Harlem River above 155th Street is the yellow-colored Webb Academy and Home for Aged Shipbuilders. It is just south of the projected Academy Street or 189th Street, and east of Sedgwick Avenue. In its extensive grounds to the south of it, and some four hundred feet east of Sedgwick Avenue, stands a small cottage surrounded by a fence and a parterre of flower beds. 188th Street [Webb Avenue] has been staked off eastward from Sedgwick Avenue and the extension of the stake line points directly through the parlor of the cottage. Behind the cottage, in a little depression in the land, there is a spring rising in a barrel. The water is about six inches deep in the barrel, and rises through a rocky bottom where a beautifully-groomed frog makes his home. There is no Croton water in the cottage and this spring supplies it with water for all purposes. It is kept carefully covered, is always clear and cold, it never goes dry, and has never been known to freeze. The barrel is at the foot of a large broken and twisted catalpa bean tree whose roots on one side, uncovered by the washing away of the earth, look like two legs which seem to be in the act of stepping into the spring. A brook meanders murmuringly along a few feet to the south of it on its way into the Harlem lower down, and to the southwest, there is a spreading willow.

The new 188th street will run seventy feet north of this spring.

July 7, 1898. The spring is still there, but the water is very low.

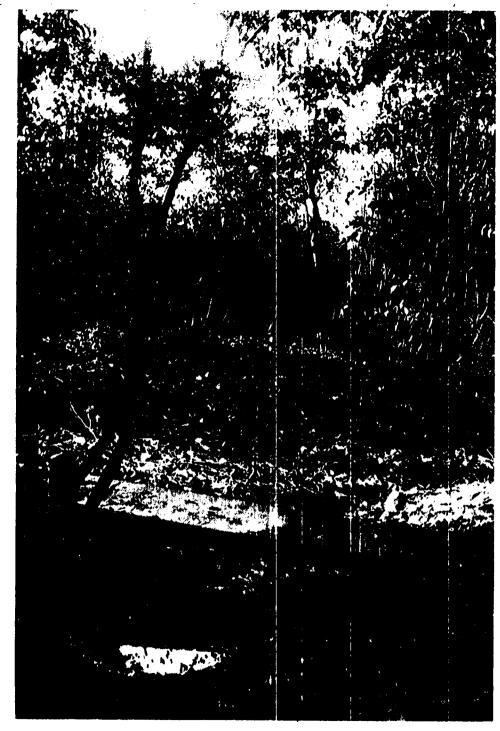


PLATE 73A—(FORDHAM) LANDING ROAD OCTOBER 13, 1897

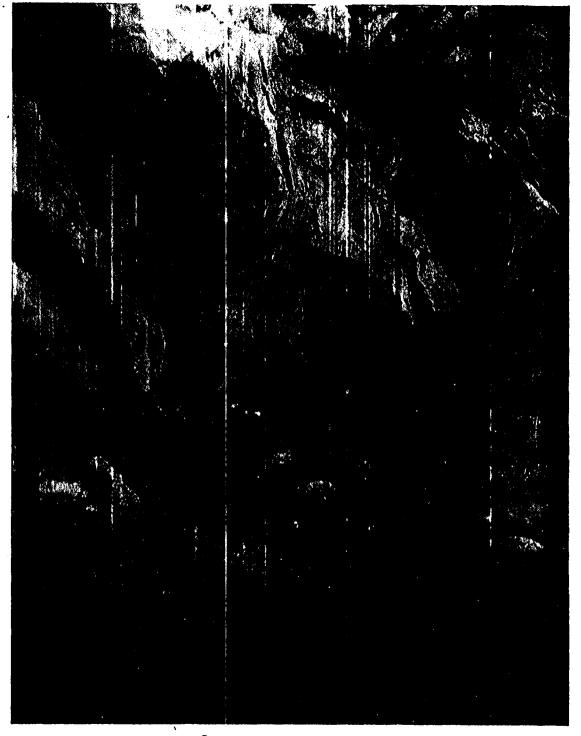


PLATE 73B—EAST 183RD STREET AND WALTON AVENUE OCTOBER 3, 1897

(FORDHAM) LANDING ROAD

Plate 73a

October 13, 1897. The Fordham Heights Station on the New York Central line is at the Fordham Road [Landing Road]. A hundred yards east from the station and a hundred feet from the Road there is a spring, in a thick, shady growth of woods. The water is cold, about five inches deep, and is covered with many-colored autumn leaves. The Webb Academy is about an eighth of a mile north. From the Fordham Road there is a broad stretch of view along the lowlands of the Harlem River, where the trains of the New York and Putnam Railroad and of the New York Central, running side by side, yield the excitement of racing in its most innocent form.

EAST 183RD STREET AND WALTON AVENUE

Plate 73b

October 3, 1897. On the south side of Hampden Street, some two hundred and fifty feet east of Jerome Avenue, there is a high scarp of rocks formed in making the cut that was necessary to open this street [East 183rd Street]. At the base of this scarp there is a little spring in a sandy-floored rock-surrounded basin. It is just inside of the sidewalk line, and might be made a unique ornament for the front grass plot of the house to be built behind it in the near future.

GRAND AVENUE AND NORTH STREET

Plate 74a

October 1, 1897. This spring is situated in the garden on the southwest corner of Grand Avenue and North Street. It is a bub-

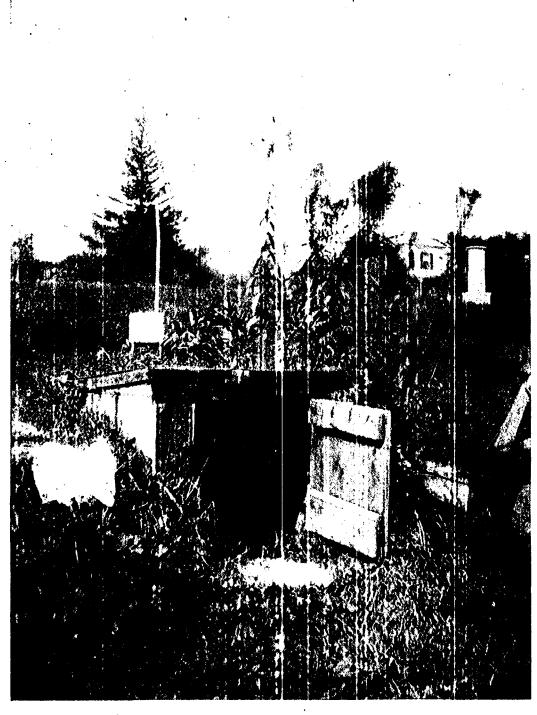


PLATE 74A-GRAND AVENUE AND NORTH STREET OCTOBER 1, 1897

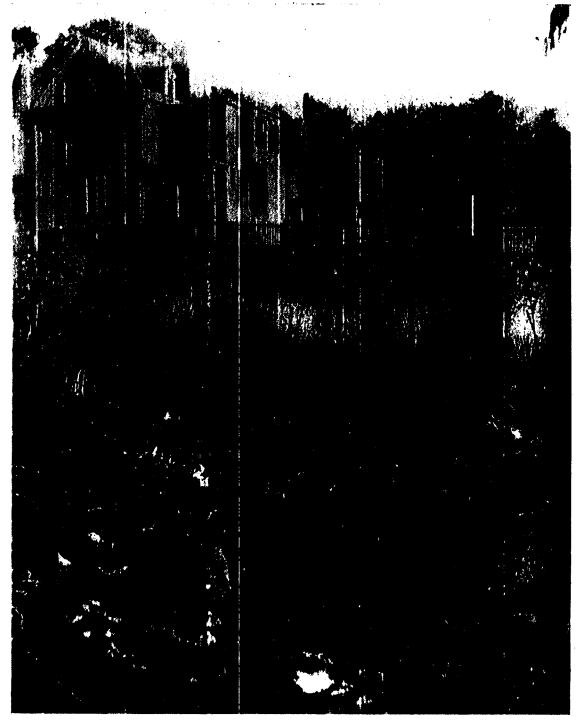


PLATE 74B—MORRIS AVENUE NORTH OF EAST 193RD STREET OCTOBER 10, 1897

bling spring and never freezes. The ground behind it is a couple of feet higher than in front, and into the face of this mound is built the spring house or box. It has a hinged door in front, and it enjoys the distinction of being the only spring house in all Greater New York with a shelf inside of it. This shelf is the family refrigerator. The advantage which its use gives over the customary practice of sinking butter and milk in the water is so apparent that it seems strange others have not availed themselves of it. It admits, besides, of using the spring to keep cool a great many larder objects that cannot be immersed without injury. The house to the northwest is supplied with city water, and the tenants as a rule make use of it instead of the spring water, because it is handier. The spring is fifty feet or more from the dwelling.

The sign behind the spring reads: "These 5 lots for sale. Apply to owner, Daniel Carroll, 52 W. 34th St."

Within a few inches of the boxed spring there is a twin spring which is used by the family's poultry, horse, and cow.

MORRIS AVENUE NORTH OF EAST 193RD STREET

Plate 74b

October 10, 1897. Kirkside Road [Morris Avenue], headed towards the north, starts at one of the many deflections of the Kingsbridge Road, a block east of Jerome Avenue. The southerly extension of Kirkside Road [Morris Avenue] is a foot path trodden in front of a row of greenhouses operated by George A. Schnaufer, a florist. On this path, beyond the last greenhouse, about a block south of Kingsbridge Road, there is a pretty spring, just north of an elm tree. The spring has a circular concrete curbing, two feet in diameter, whose margin is coincident with the grass that grows thickly around it. The water, two feet deep, is clear, cool, and pleasant to the taste. It is the refuge of very black frogs.

Near-by is an extensive pile of flower pots of all sizes, and the floor of the spring is strewn with little ones. This arises from the

prevailing local custom of sticking a finger or thumb in the hole at the bottom of a flower pot and using it as a cup. The earthenware adds a zest to the taste of the water, and the fresher and dryer the pot the more pronounced is the zest, so that each visitor selects a new pot.

There are quite a number of pretty cottages in this vicinity. Two of them, which front on Creston Avenue, are shown in the photograph [Plate 74b]. The neighborhood is still sufficiently rural, however, to number among its customary sounds the frequent cawing of the crows.

VALENTINE AVENUE NORTH OF EAST 194TH STREET VALENTINE SPRING

Plate 75a

October 1, 1897. Going east from Jerome Avenue on the Kingsbridge Road and turning into Lovers Lane brings one to the spring on the Valentine estate. Of all the city's springs, this is perhaps the most idyllic and suggestive of pleasing fancies. It is called the Valentine spring and its home is in Lovers Lane! The exact location of this spring is some fifty feet east of Lovers Lane (which is called officially, and only officially, Valentine Avenue) and some three hundred feet north of the Kingsbridge Road [East 194th Street].

The spring rises in a little barrel set flush with the rich green sod of a small meadow. Surrounding it is a luxuriant growth of different kinds of water grasses, and its overflow runs through an adjoining meadow in a narrow brooklet almost hidden by watercress and fragrant mint. A walk of boards set lengthwise in pairs leads from the rim of the barrel to a one-story white cottage twenty-five feet away. The cottage is the gardener's dwelling, and just beyond it, visible in the photograph [Plate 75a], is seen the Valentine homestead, itself also perfectly white. The homestead is a hundred years old, and during all of these hundred years the

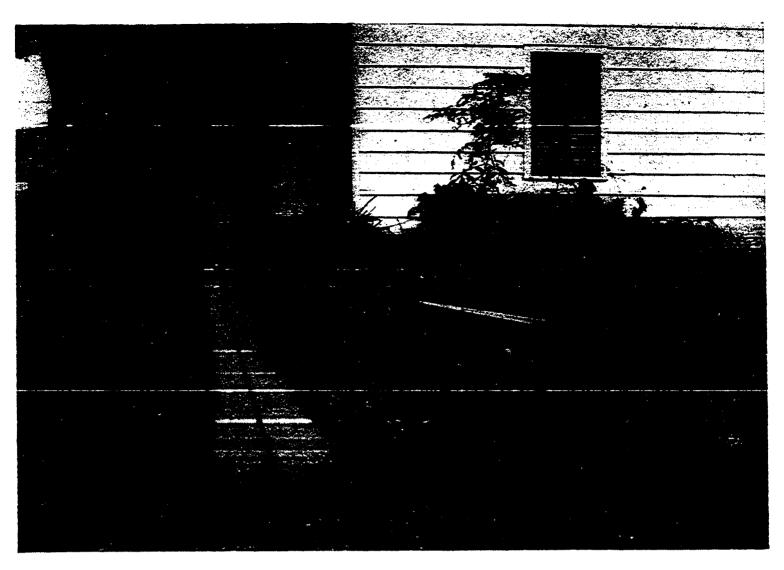


PLATE 75A—VALENTINE SPRING NEAR EAST 194TH STREET OCTOBER 1, 1897

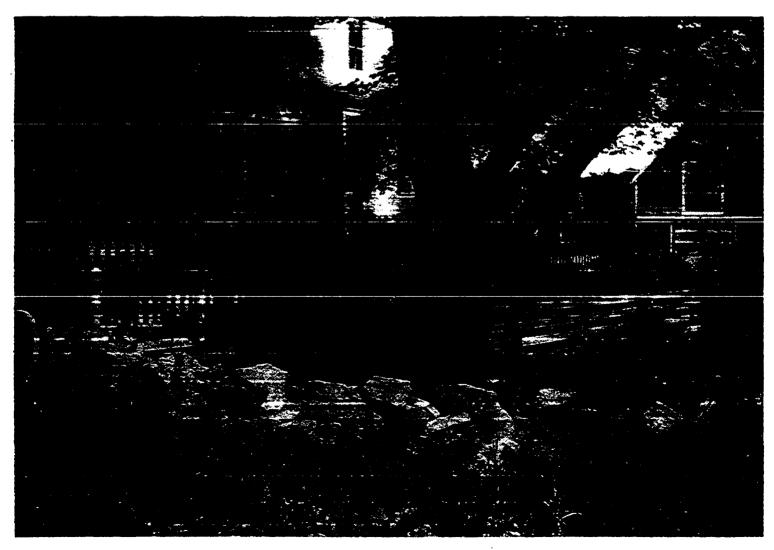


PLATE 75B—UNIVERSITY AVENUE SOUTH OF KINGSBRIDGE ROAD OCTOBER 10, 1897
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spring has supplied all of the water used on the place, for whatever purpose. There is no Croton water whatever on the Valentine place. A pipe runs from the spring to a pump in the house, which draws the family's supply. As there is also a goodly number of livestock to be cared for, a large quantity of water is consumed daily on the premises. The spring, however, has always been equal to every demand upon its resources, and it replenishes in a few minutes any quantity that may be drawn from its reservoir. Twice a year it is cleaned out and a frame of closely-woven wire netting is always kept in position over the top of the barrel when it is not in use.

There are, on the Valentine estate, several old-fashioned barns and outhouses whose deep rich brown color makes a pretty contrast with the white of the near-by dwellings.

UNIVERSITY AVENUE SOUTH OF KINGSBRIDGE ROAD

Plate 75b

October 10, 1897. This is the most difficult spring for a stranger to locate in all New York City. There are four or five little cottages within a stone's throw of it. One of them is separated from it by barely more than the width of a wooden fence almost hidden with flowers and blossoming vines. Yet all of these cottagers will solemnly declare they never heard of a spring near-by. It is in addition artfully and securely concealed by its position in the stone wall on the east side of Macomb's Dam Road [University Avenue] some two hundred and fifty feet south of the Kingsbridge Road. There is no sign of it visible from the road, and it is only to be seen by looking over the wall, which is built directly above and around it. The wall forms a little stone house, open on the eastern side, and fifteen inches high. It is twelve inches wide north and south, and two feet broad east and west. A small but beautifullyshaped live oak shades the spring and a row of maples borders the road to the north. Two hundred feet southeast, in a pasture, there is a large willow tree. The Croton Aqueduct is some two hundred feet away to the eastward.

The water of the spring is four inches deep, and the neighboring cottagers use it in summer "because it is so cool and has such a good taste" as one of the chief deniers of its existence afterwards explained. It may seem unaccountable that the neighbor and user of a spring should deny its existence and refuse the cup of cold water. There was, however, a branch of general graft that reached out thirstily to spring and wells and hydrants, and occasional inspectors were not averse to pocketing five or ten dollars for not reporting the location or use of a spring or well within the city limits. Sometimes one of these authorities, whose prey would not "do right" would, without reporting the water, scatter a green powder on its surface, and announce it to be poison. This was "putting a screw on" and when the water had been pumped out and cleared at some expense of money or time, the user would generally be disposed to "do right" in future. Neighbors, therefore, were apt to look with suspicion on all enquirers about springs or wells, refusing information and not balking even at mendacity.

BETWEEN SEDGWICK AVENUE AND KINGSBRIDGE TERRACE NORTH OF KINGSBRIDGE ROAD

Plate 76a

October 7, 1897. The crookedest street in New York is really that called the Kingsbridge Road. Near where it crosses Sedgwick Avenue, say, some two hundred feet north of the Road, and some two hundred feet west of Sedgwick Avenue, there is what in its prime was without doubt the most ornate spring in the city limits. It is two feet deep, in an iron basin three feet in diameter, with a gracefully carved and embossed ornamented rim. The water running around it is remarkably clear and there is a family of frogs in the basin. An octagonal-shaped iron work arbor stands at the side

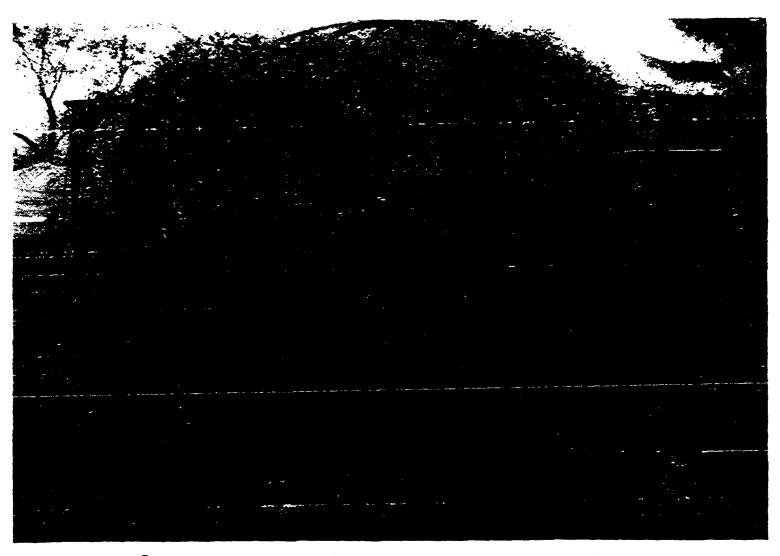


PLATE 76A—BETWEEN SEDGWICK AVENUE AND KINGSBRIDGE TERRACE OCTOBER 7, 1897



PLATE 76B—BETWEEN KINGSBRIDGE ROAD AND HEATH AVENUE OCTOBER 10, 1897

of the basin, and has an extension that covers the water. The arbor curves over at the top to form a peak which supports a fancy urn. The structure and the spring have been long uncared for. An untrimmed vine, trailing over the arbor and its extension, is woven together in matted overgrowth, and a dense jungle of tall weeds, nettles, thistles, briars and wild flowers literally fill up the arbor. On account of the surrounding jungle it is difficult to approach the arbor, which must have made a very pretty picture when it was kept in order by its original owner.

The spring is on the property of Mr. Richardson who is connected with Bradstreet's. The present tenant is Alfred Craven. Opposite, on the east side of Sedgwick Avenue, are the well-kept grounds of the Claflin place.

From this spring there is a magnificent view over the Harlem River. Inwood and Spuyten Duyvil, the Harlem Ship Canal, and a glimpse of the Hudson River and the Palisades beyond, through the western end of the valley below Riverdale.

BETWEEN KINGSBRIDGE ROAD AND HEATH AVENUE BAILEY SPRING

Plate 76b

October 10, 1897. After crossing Sedgwick Avenue, the lines of the Kingsbridge Road fall, toward the end of its career, in such stony places as befit one that has led so crooked and rambling an existence. The road plunges down a winding hill over a track composed in great part of loose rolling stones that forbid all travelers not driven by extreme urgency, from pursuing its course. The adventurous wayfarer, however, who follows Kingsbridge Road some five hundred feet northwest from Sedgwick Avenue, will find on the left hand side a path that leads twenty-five feet down a slope into a field, on the N. P. Bailey property. There he will see a very ancient and serviceable spring, nicely curbed with stones, covered with a large door, and fitted with a knob and lock that once did

duty on a dwelling. The spring is four feet in diameter, and eighteen inches deep. It bubbles up under the eastern edge of the curbing, and several wise-looking frogs blink their approval of the water's ceaseless motion. The spring water is clear and cold. As it stands at the foot of a tree on the hillside, and as the neighbors who visit it do not always replace the heavy cover, it contains a plentiful accumulation of leaves and twigs.

Pipes lead from it to the dwelling, to the barns, and to the market garden that was formerly under cultivation. The tenants on the property have no Croton water and are entirely dependent upon that of this spring. The present tenant has lived there since 1856, and during the entire period the spring has always flowed. It is one of the very few city springs that have not become too hard for washing purposes. The neighbors are constantly sending to it for water, and it speaks well for its purity that one of its best patrons is a near-by physician.

In this neighborhood there were formerly several springs. The grounds of at least one owner were ornamented with fountains fed entirely from such sources.



SPUYTEN DUYVIL RAILROAD STATION

Plate 77a

November 13, 1897. This spring, covered with a little wooden house, is east of the Spuyten Duyvil Depot, below the stone retaining wall of the Spuyten Duyvil Road.

SPUYTEN DUYVIL SPRING

Plates 77b and 78a

November 13, 1897. This is a large spring on the neck of land jutting south from Spuyten Duyvil east of and across the creek from Inwood Hill, and not far from the I. G. Johnson iron works. It is a giant fountain. Its dimensions may be calculated from the fact that a four-inch iron pipe running from it supplies several pumps, and finally at the end of an eighth of a mile runs into a factory where an indicator shows its pressure to be over thirty pounds, or nearly half that of the Croton water mains. This pressure is strong enough to force the water to the top of the factory where a reservoir is located and from which it is distributed to the boilers and throughout the building.

In order to secure this water in its utmost purity, its course was followed up some years ago through an old quarry that in the early part of the nineteenth century supplied the foundation stone for the Troy Court House and for many buildings in New York City. The course of the stream was covered in some places to a depth of ten feet with quarry chips and stone. The source was finally located at the base of a towering face of rock where the stream gushed out half an inch deep, and with a considerable width, from a longitudinal fissure at the base of the rock. Here a basin was made of concrete and covered with iron plates. A four-



PLATE 77A—SPUYTEN DUYVIL RAILROAD STATION NOVEMBER 13, 1897

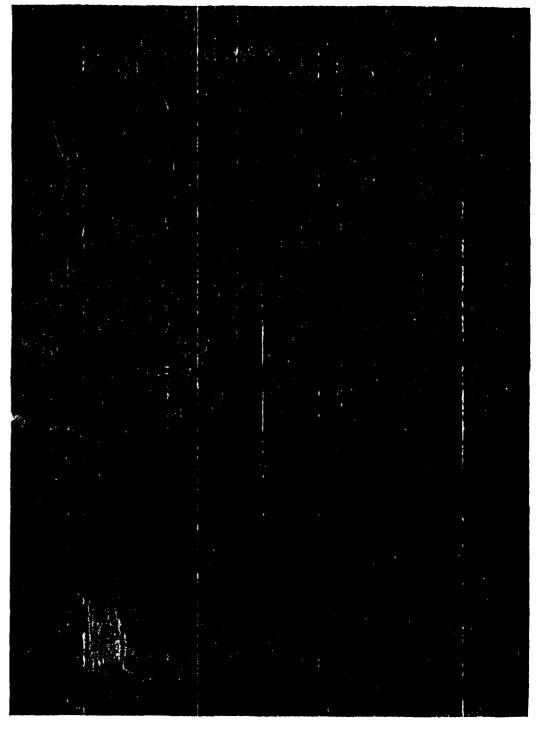


PLATE 77B--SPUYTEN DUYVIL SPRING MAY 21, 1898

inch pipe was laid southward at the bottom of the excavation that had been made in tracing the spring to its broad, rocky mouth.

Through the same quarry runs another iron pipe that in the 1860's tapped perhaps the same spring. It leads to a circular stone basin some fifteen feet in diameter from which water was drawn to supply a rolling mill and iron wire factory, still standing, though for many years idle, on the borders of Spuyten Duyvil Creek. Through this pipe a steady stream over three inches in circumference is still flowing at this day into the stone basin.

The volume of this spring today under nothing but its natural pressure supplies all the demands of the neighborhood, from villagers, foundry, and factory, and, scarcely feeling the drain, has a large surplus that runs to waste. Yet doubtless its sources have been weakened and at many points by the digging of wells and the opening of streets and sewers around and below Riverdale. In the days long before the quarry, the outburst of water with its original unweakened force must have presented a notable spectacle.

BETWEEN JOHNSON AVENUE AND SPUYTEN DUYVIL CREEK

Plate 78b

November 13, 1897. East of the Spuyten Duyvil Depot spring is the hotel spring, or Cox's or Franigan's well. The photograph [Plate 78b] shows the small houses on the hill above. fronting on Johnson Avenue.

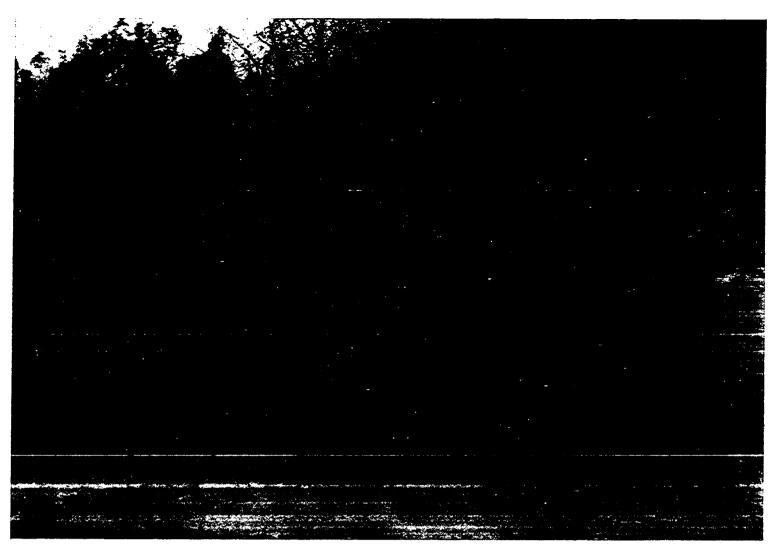


PLATE 78A—SPUYTEN DUYVIL SPRING NOVEMBER 13, 1897

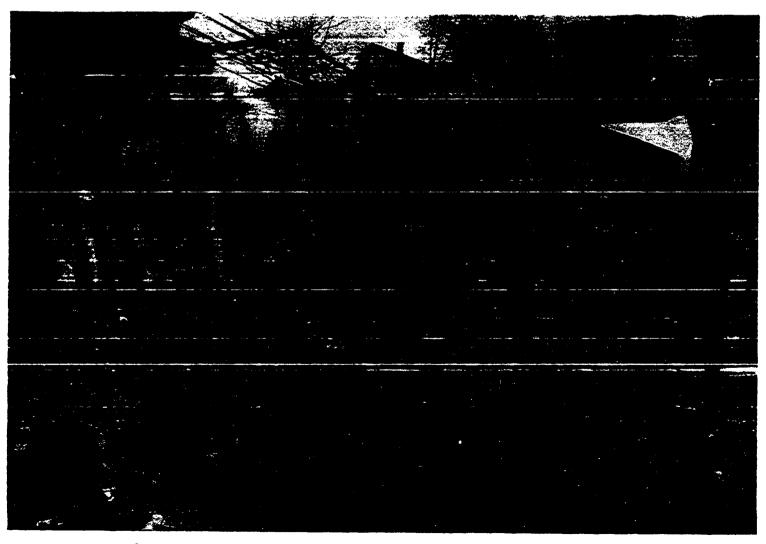


PLATE 78B—BETWEEN JOHNSON AVENUE AND SPUYTEN DUYVIL CREEK NOVEMBER 13, 1897

SPRINGS AND WELLS IN BRONX PARK AND VICINITY

VYSE AVENUE AND EAST 178TH STREET

May 26, 1899. In the yard of number 1975 Vyse Avenue, on the west side of the Avenue between Tremont Avenue and the proposed 178th Street (where a sewer is being put in), there is a spring. It is some four feet in diameter, circular, and curbed with large loose stones. It was dug twenty-six years ago by the father of the woman who now lives there. It was then swampy about here. The land has been filled in about three feet. The surface of the spring is about five feet below the surface of the ground, and the water goes down about six feet. The water tastes slightly salty, but it is as clear as crystal. There is an iron pump over the spring, but it is out of order, and they get water by dipping a tin pail into the spring and hauling it up with a piece of clothes line.

Number 2007 Vyse Avenue, on the west side of the avenue, the second house above what will be 178th Street, has a brass door plate with the name William Gill on it. In the yard there is a well with a little house over it. The base of the well-house is painted red, and above it is a green lattice with a red roof.

The whereabouts of this well, and of the Vyse Avenue spring, were told me by the Irish foreman of the Italians who are now building the sewer in 178th Street near the Southern Boulevard.

EAST BANK OF THE BRONX RIVER IN BRONX PARK

Plates 79a and 79b

October 4, 1897. Within the boundaries of the Bronx Park there are several springs. It probably contains more than all the other parks of Greater New York put together. The principal springs in the Bronx Park, as far as housing is concerned, are the two along the east bank of the Bronx River, above the massive stone Lorillard house. One of these riverside springs [Plate 79a]

is covered by a large trap door under which there is a flight of four stone steps leading down to the water. The water is enclosed in a wooden box, and contains a large society of frogs and tadpoles.

The other river side spring is the best spring in Bronx Park. It is covered by a low wooden structure with a sloping roof some five feet long. [Plate 79b]. The side facing the river is open, and from its northwest corner the overflow is carried to the river through a stone-paved, shallow trench.

Both springs are situated in a fine and gigantic grove of tulip, white oak, chestnut, and hemlock trees. Just across the Bronx River is what is said to be the finest collection of hemlocks that is to be seen in America.

BRONX PARK

Plate 79c

October 14, 1897. The road running into the Bronx Park, west of White Plains Avenue, after passing the Bronx Park hotel on the south of the road, crosses a construction railroad of the Jerome Park reservoir a little further west. There is a flagman's shanty at the crossing. A hundred feet south of it, there is an uncovered spring with four stone steps leading down into it. This spring is now dry, but last summer it furnished the flagman all the water he required.

There is a prety knoll above the spring covered with oak trees, and the spot is one of the most delightful in the park.

BRONX PARK THE "FEVER SPRING"

Plate 80a

October 19, 1897. About two hundred feet east of the line of Newell Avenue, and four blocks south of the line of Morris Street

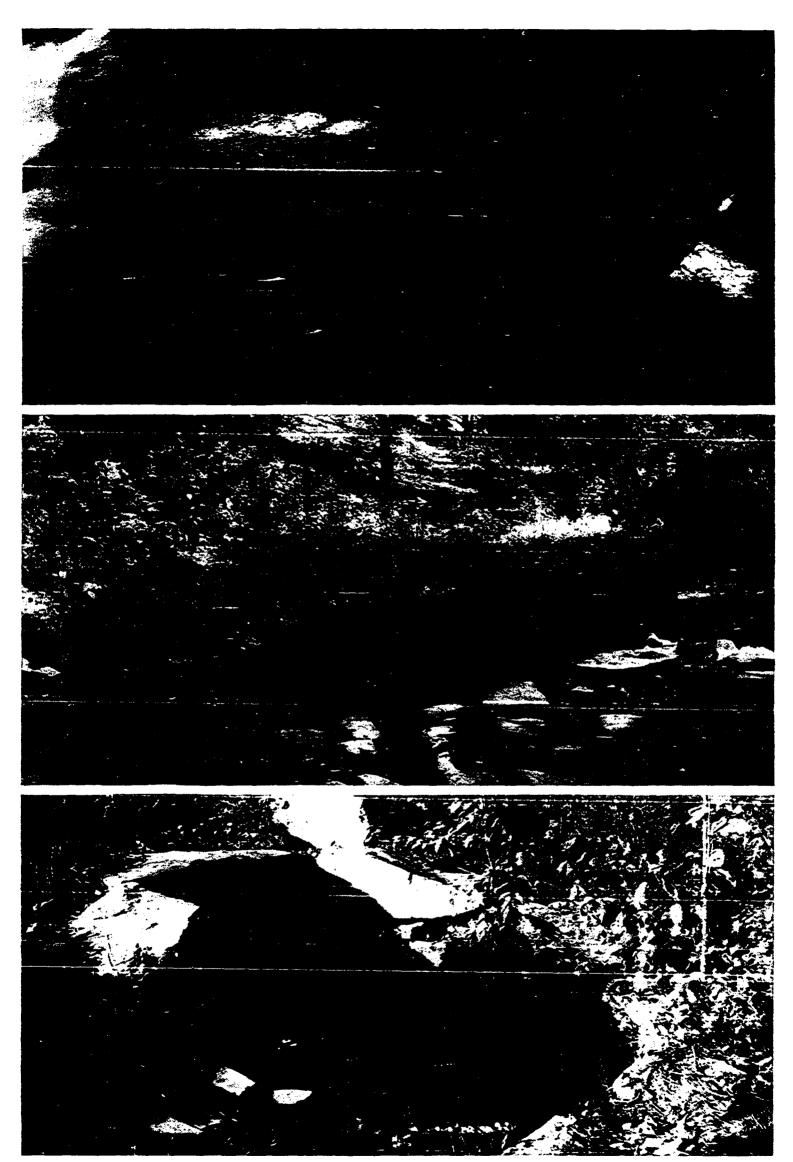


PLATE 79—BRONX PARK, OCTOBER, 1897
A. AND B. EAST BANK OF BRONX RIVER, C. "THE FLAGMAN'S SPRING"
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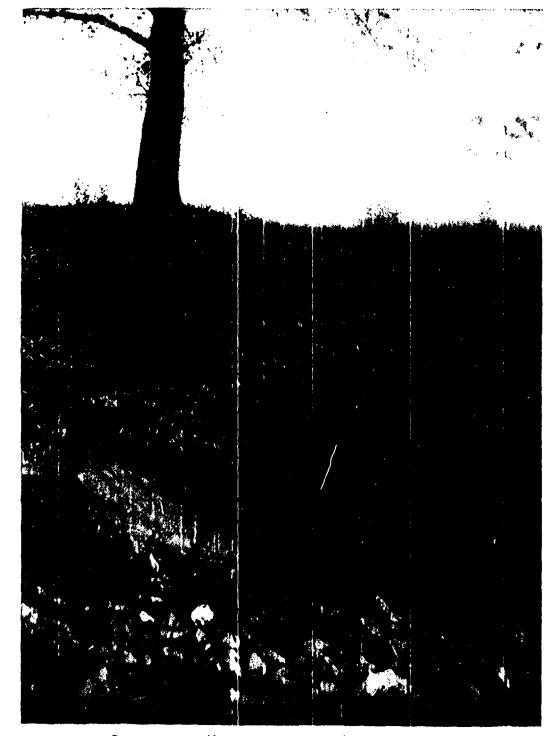


PLATE 80A—THE "FEVER SPRING" IN BRONX PARK OCTOBER 19, 1897



PLATE 80B—BOTANICAL GARDEN STATION, BRONX PARK OCTOBER 19, 1897

[Burke Avenue], there is a spring under a pretty maple tree near the top of a hill overlooking the grounds of the new Botanical Gardens. From it there is an extended view of the Bronx River, which here runs with many grotesque curves through a broad valley, its banks margined with numerous young willows. Duncomb Avenue would be cut through a few hundred feet north of the spring. About three hundred feet to the north there is a three-story frame house that is peculiar in having a stone chimney, not a brick one. The hill side north of the spring is open and treeless up to this house.

The basin of the spring is about four by two and a half feet, and has a sandy bottom towards the front. The water is seen running into it between the crevices of a rock behind it. The water is cold and about six inches deep. There is no evidence of moisture anywhere outside of the basin so the overflow evidently escapes through some underground channel. The basin is covered with leaves and there is a very small frog in it.

I call this the "fever spring" because all the Park employees who drank from it last year became sick with fever, which they attributed to its water.

The construction railway is about an eighth of a mile west of the spring.

BOTANICAL GARDEN STATION

Plate 80b

October 14, 1897. One of the loveliest springs in the city is a hundred feet east of the railroad tracks, some seven hundred feet north of the Bedford Park Railroad Station [the Botanical Garden Station on the Harlem Division of the New York Central]. It is at about East 201st Street, or Suburban Street, or perhaps near the projected Mosholu Parkway South, and at the end of a strip of land devoted by the Botanical department to the growing of young trees. The water boils and gushes up from under a stone and

through a gravelly bottom. It is very cold and has a pleasant taste, and is used by all of the workmen in preference to any of the neighboring springs in the park. It has a copious overflow which runs through a cattail marsh in the Botanical Gardens. It is surrounded by some clumps of red clover and wild flowers that make it as attractive as some of the near-by spots that are painstakingly planted with carefully-cultivated blossoms.

EAST MOSHOLU PARKWAY SOUTH

[1897]. Five feet west of Webster Avenue and one block above East 201st Street, there was a spring, but the making of the Mosholu Parkway here caused it to go dry.

SPRINGS AND WELLS IN VAN CORTLANDT PARK AND VICINITY

VAN CORTLANDT PARK

October 19, 1897. When the Van Cortlandt Park golf links were first opened in 1893, the course was a short one of nine holes. About four hundred feet east of the first tee (which is now the tenth) there was a spring that came up through a crevice in a rock at the back of it [Plate 81a]. It had a sandy bottom, and loose stones surrounded it. In it was a miniature frog less than an inch in length. This spring was half way up the hillside on the top of which ran the aqueduct over a stone embankment. A few yards north of the spring was a small frame house. The tenants who had lived there half a score of years obtained all of their drinking water from it, and it had never frozen during their tenancy.

About one hundred feet north of this golf course spring, there is a well some ten feet deep, which is used by the people in the near-by house. In June, 1897, the water was running over the curb, but it is now some four feet below the curbing. This is supposed to be caused by the building of a sewer east of the well, the pressure first causing the water to rise and afterwards partly cutting off the supply. The people near-by keep a pail in their house, with a six-foot rope attached, for drawing water from the well.

July 4, 1898. There is a spring just above the Superintendent's house near the gate-house. It has a brick basin some four feet deep, and three by two feet in diameter. There is an outlet into a smaller basin at its left. The water is brought by a pipe from the source some forty feet back in the woods, and the water comes into the brick basin at the southeast lower corner. The spring looks snowwhite and clear, although there is nothing to shield it from the sun's rays.

In the stable of the Superintendent, they pump water out of the old Aqueduct, which has not been used since last fall when they began building a gate-house in Jerome Park. This water is only what flows into the tunnel from springs, since the Croton water is all shut off.

November 12, 1898. One fifth of a mile north of the Gun Hill Road, running by the entrance to the drive to the Superintendent's house, and on the east side of the road over the Aqueduct leading to the Superintendent's house, there is a spring with a brick well.

One and three-quarters miles further on there is another spring, a little spring, over the fence on the east side of the Aqueduct, about twenty feet east of the fence in the woods. It is in a little box about twelve by nine inches, which has a wooden cover.

November 10, 1899. About three-quarters of a mile north of the Van Cortlandt Park Parade Ground road there is a box spring locked with a padlock. The mounted policeman says it belongs to the people who keep the hotel opposite and that they never use it.

August 9, 1900. There is a well about twenty-five feet deep on the east side of Broadway, three hundred and seventy feet south of where Mosholu Avenue comes into Broadway. The water is roily, and is cool, but not ice-cold. The well is kept locked with a padlock. Some Italians putting in a sewer near-by, or laying pipes for something, have a key and use the well.

EAST OF BROADWAY NORTH OF WEST 238TH STREET

Plate 81b

July 4, 1898. There is a beam well in Kingsbridge, some two hundred feet east of Broadway and about two hundred and fifty feet north of Fort Independence Avenue [West 238th Street]. It is on the truck farm of Mr. Hill, who dug the well in 1895 because of the laying out of Fort Independence Avenue, which now runs directly over the farm's original well, ten feet above the level

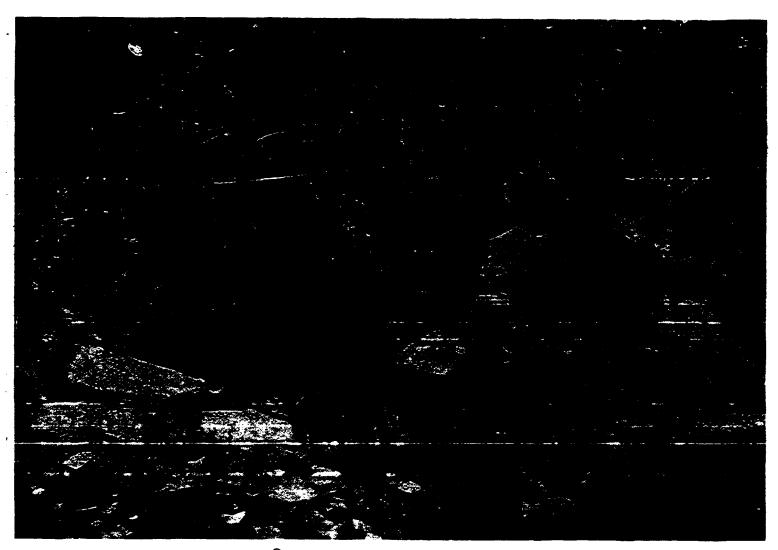


PLATE 81A—IN VAN CORTLANDT PARK OCTOBER 19, 1897

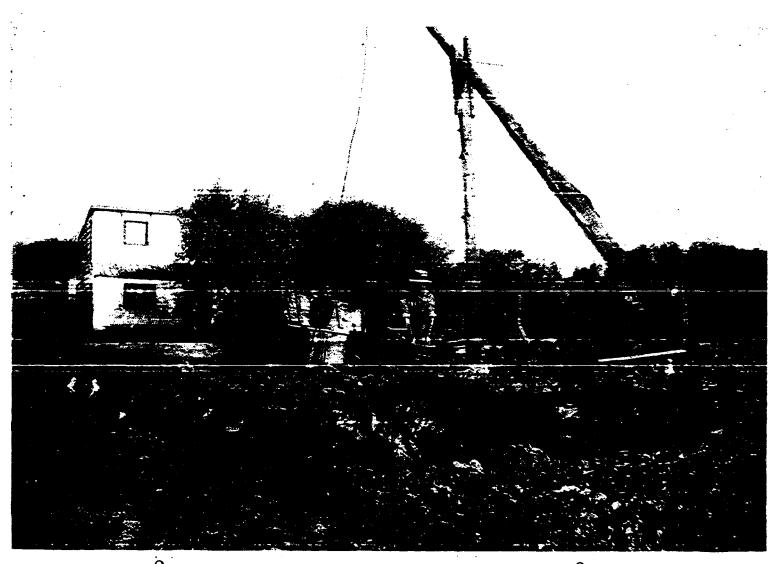


PLATE 81B—EAST OF BROADWAY NORTH OF WEST 238TH STREET JULY 7, 1898
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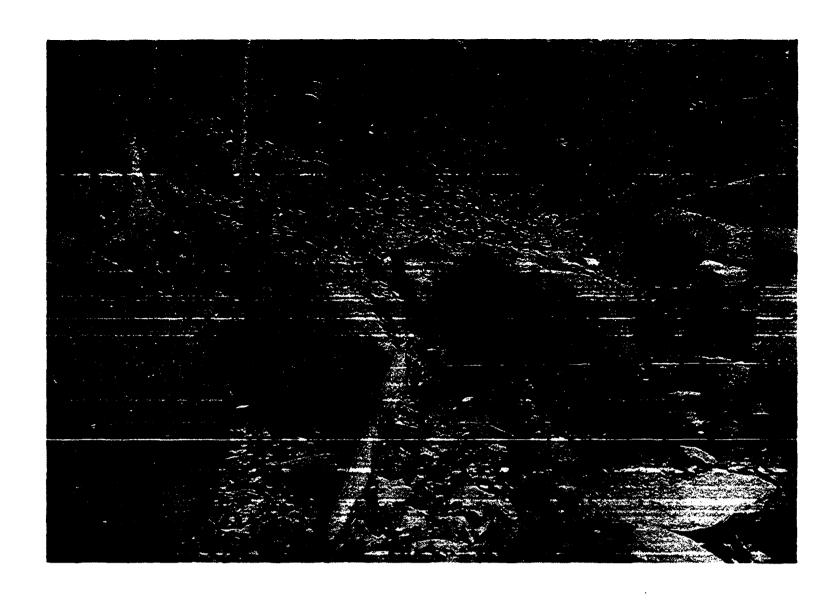




PLATE 82A AND B-VAN CORTLANDT PARK SOUTH OCTOBER 19, 1897

of his farm. He dug in several places before striking the water, which he thinks comes from a vein running down from the spring on Valentine's place on Oloff Hill. Mr. Hill got the idea of the beam rigging from an old picture. He first made use of a tree with a forked limb (the beam was then the limb of a tree and so was the drop) but this being green, became warped. He then substituted a more reliable telegraph pole and a rail, and used a piece of iron for the drop. A pump was put upon the well to force water through a hose to irrigate plants some distance away, but it proved to be the wrong kind of pump for such a purpose, and is therefore not used.

The well is sixteen feet deep and has eight feet of water in it. It gives thirty-two barrels of fifty-four gallon capacity a day, or 1,728 gallons in all, which is used in irrigating the vegetable farm. The water is always cold.

VAN CORTLANDT PARK SOUTH

Plates 82 and 83a

October 19, 1897. By a twist to the west near its most northerly part, Van Cortlandt Avenue escapes running into a brook flowing down what is called Oloff Park hill. Many a cyclist lacking dexterity near this point has been thrown and severely injured through inability to follow the sudden turns and plunges the Avenue makes in its efforts to dodge the brook, which at last dives under it, and flowing away, falls in with Tibbetts Brook and accompanies it in its tortuous journey to the Harlem River.

Along the course of this brook, in the space of eight hundred feet, there are three springs. One is opposite a point about four hundred feet below the first westerly turn of the Avenue. It supplies a few people living south of the Avenue, and is a fine, clear, cold, bubbling fountain. [Plate 82a].

Some fifty feet below this, on the north side of the fence of the property occupied by Mr. Livingston, a milkman, there is a



PLATE 83A—VAN CORTLANDT PARK SOUTH OCTOBER 19, 1897

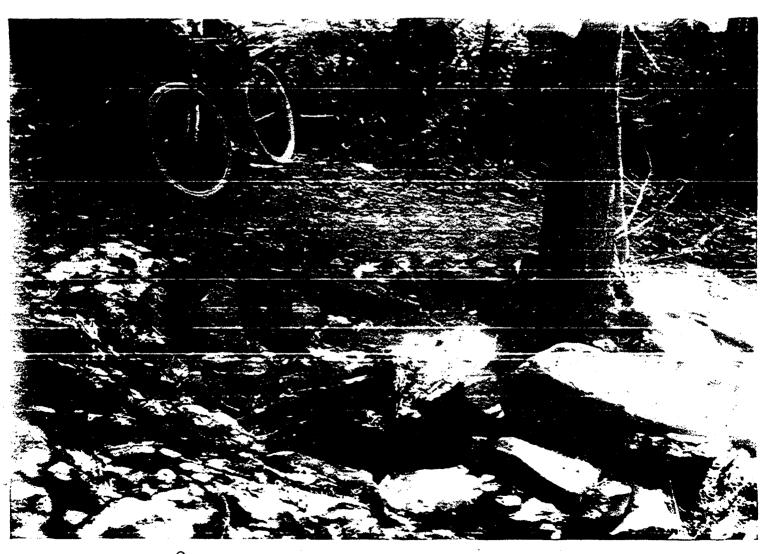


PLATE 83B—MOSHOLU PARKWAY NEAR SEDGWICK AVENUE SEPTEMBER 15, 1897

spring with a hinged cover [Plate 82b]. This is used by the Livingstons both for drinking and as a milk refrigerator.

The third spring [Plate 83a] is about four hundred feet lower down, and bubbles up within a few inches of the brook itself. This is near the foot of the Avenue by the turn northwesterly to the Van Cortlandt Park Railroad station.

WOODLAWN CEMETERY

May 9, 1902. There is a well in Woodlawn Cemetery, about three hundred feet north of the Jerome Avenue entrance, and not far from the office. It has a circular crank bucket pump over it, and the water is cold and sweet.

JEROME AVENUE AND EAST 213TH STREET

1897. There is a pump in the field opposite John Muller's Van Cortlandt Park Hotel, some five hundred feet south of the entrance to Woodlawn Cemetery on Jerome Avenue. On Muller's place there are two more pumps from which all his water is drawn.

MOSHOLU PARKWAY NEAR SEDGWICK AVENUE

Plate 83b

September 15, 1897. From Central Bridge, Jerome Avenue winds northerly through a succession of valleys formed by low hills, until it reaches Van Cortlandt Avenue. Opposite the latter there remained in 1896 a crumbling arch over the main entrance to the old Jerome Park race course. The arch once bore in large wooden figures the date 1866, to commemorate the opening of this formerly famous track. A wag by inverting the third figure,

and making it read 1896, gave a seemingly strange incongruity to the ruinous state of all the surroundings, where there was no sign of modernity save the excavating apparatus that was scooping an immense hole in the earth to the depth of forty feet. The site of the track is being converted by the city into a reservoir.

After passing the old racing grounds, in which there are said to have been several springs, the first road met with to the left of Jerome Avenue is a driveway of the Mosholu Park system. It is perfectly level for some seven hundred feet, and then comes abruptly to the brow of a dangerous hill down which more than one bicyclist has taken his last coast. A few hundred feet from the top the road makes a sharp turn to the left. Just at this turn, where there is a fine street, a little path starts off into the woods at the right, and brings one, at the end of one hundred and fifty feet, to a delightful and picturesque spring. It is some two feet deep, and walled in like a miniature well. Its waters, clear as crystal and deliciously cool, are presided over by two little frogs that never desert them. No bug or fly or insect will ever near the surface of this spring while these watchful guardians continue their faithful sentinelship. The few people in the neighborhood who are acquainted with this spring, declare that its cleanliness and attractiveness are due to the efforts of these sleek little frogs, who have for three years made their home on its margin. A little tin can, that once held petits pois verts, hangs on the branch of the tree that overshadows the spring and with its foliage partly protects it from the rays of the sun. So tame are the frogs that one may dip a tinful of the water from within six inches of them without their showing any fear.

GUN HILL ROAD WEST OF JEROME AVENUE "PRIME'S PRIVATE PICNIC GROUNDS"

Plate 84

September 15, 1897. This spring is to the left or west side of Jerome Avenue, some five hundred feet north of the Mosholu



PLATE 84—"PRIME'S PRIVATE PICNIC GROUNDS," GUN HILL ROAD WEST OF JEROME AVENUE, SEPTEMBER 15, 1897

Parkway, in "Prime's Private Picnic Grounds" near the Gun Hill Road. Along the north side of the picnic grounds runs a small brook, which, at a little distance in the grounds, is crossed by a small wooden bridge. In the center of the brook, just by this bridge, a barrel has been sunk, which is supposed to mark the site of the spring. The water is clear, but it is not very cool, perhaps because too much of the shallow water of the brook mixes with it. The banks of the brook are usually decorated with too many discarded clam shells to make it inviting to any but a very thirsty traveler, particularly when he may within three minutes reach the pure fountain near the Mosholu Parkway [Plate 83b] presided over by faithful little frogs.

GUN HILL ROAD, WILLIAMSBRIDGE

1897. Along the Gun Hill Road running through Williamsbridge there are numerous wells and pumps. One is in the yard of the Williamsbridge Hotel, opposite the Williamsbridge station of the New York and Harlem Railroad. This pump works with a chain running over an iron wheel. Others may be seen in the yards of the houses along the Gun Hill Road.

The Columbia Oval Athletic Ground is between Gun Hill Road and 211th Street, east of Woodlawn Road [Bainbridge Avenue]. There is a settlement of Italians with Italian stores and boarding houses.

South of the Gun Hill Road, at Putnam Place, there is a large reservoir of Croton water, the Williamsbridge Reservoir, but only the new houses have this water laid on, and people generally prefer their own wells for drinking and cooking. The Croton water they use only to wash with, as it makes better suds on account of its greater softness, though it is not so clear as their old standbys.

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