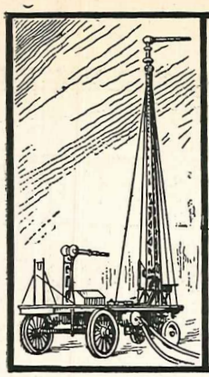
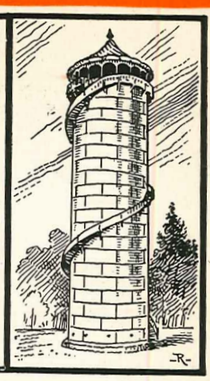


FIRE AND WATER ENGINEERING

·FIRE PROTECTION· ·FIRE PREVENTION· ·WATER SUPPLY·



Vol. LV. New York, March 18, 1914 No. 11

THE FIRE TRAGEDY AT ST. LOUIS

St. Louis is the latest city to shock the country with a holocaust. It comes, too, with all the revolting features incident to the most appalling disasters that have preceded it. The loss of more than thirty human lives is sufficiently terrible to render the property loss unworthy of mention. The scene of this awful tragedy was the Missouri Athletc Club Building, located on the corner of Washington avenue and Fourth street. The building is owned by the Boatmen's Bank, which occupied a part of the first floor. It was valued at $250,000 and was erected in 1890, being of especially heavy construction and intended to be of slow combustion. The walls for the first and second floors were constructed of heavy granite, leaning inward from the ground up, in fortress style. The walls of the upper five stories were of brick. The fire caused the brick wall on the Fourth street side to collapse above the third floor. The ceiling of the banking room was reinforced with heavy steel and concrete construction, intended to prevent the possibility of heavy pieces of hardware from falling through the ceiling from upper floors. The club occupied the seven floors and basement, with the exception of the banking room. The entrance to Boatmen's Bank was at the northwest corner of Fourth street and Washington avenue, and the main entrance to the Missouri Athletic Club was on Washington avenue, a few feet west of the bank entrance. The only other entrances to the club were in the rear, used by employes. The club used the basement for a swimming pool and bath, the first floor for lobbies and reception rooms, the second floor for pool and billiard rooms, the third floor for dining rooms and kitchens, the fourth floor for dancing rooms and officials' headquarters, the fifth and sixth floors for sleeping rooms and the seventh floor for a gymnasium. Guests were sleeping on the fifth and sixth floors when the fire alarm was sounded through the building by the ringing of telephone bells in their rooms and the cries of fire first called by the night clerk and later taken up and relayed by the guests.

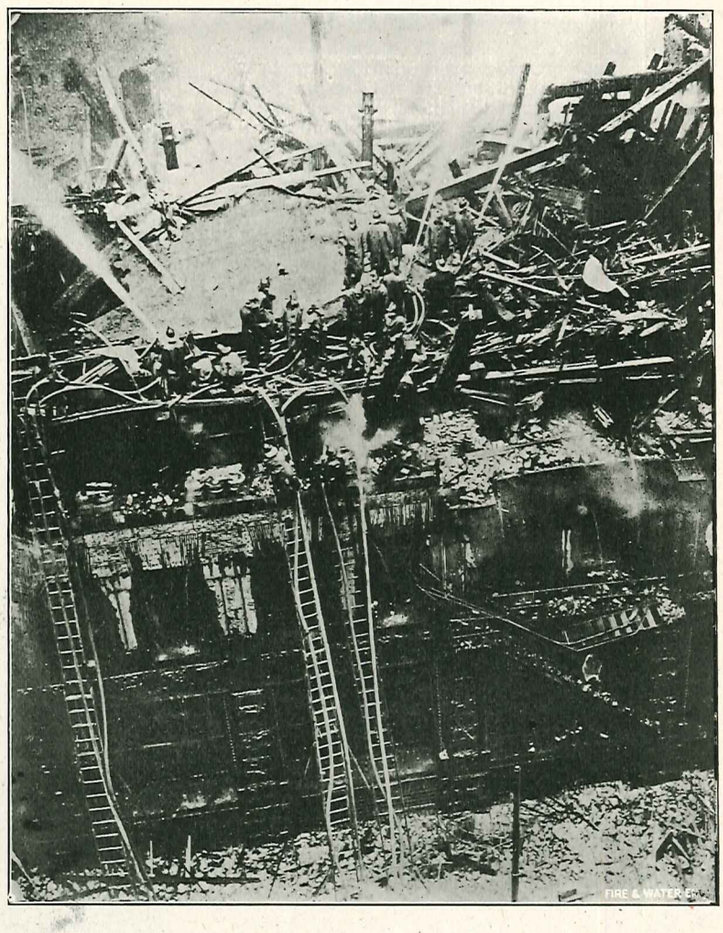
The first alarm was turned in at 1:58 A. M., by Charles Bauman, night watchman at the bank, who discovered the flames as he was ascending from the basement. As soon as the fire department arrived, squads were detailed for rescue work, while others began playing streams on the flames. Several explosions occurred soon after the fire got under headway, and although these are said to have been caused by gas, the night watchman believes they were caused by the steam heating plant going to pieces. A number of guests on the fifth and sixth floors, who apparently had found their egress by fire escape cut off, rushed into sleeping rooms on the west side of the building and leaped from the windows to the top of the adjoining four-story building occupied by the St. Louis Seed Co. It was in this leap that many were injured. Firemen, hearing the cries of the injured on the roof of the St. Louis Seed Co. building, forced an entrance into that building and ascended to the fourth floor on the elevator. They broke a skylight and trapdoor in the roof and raised ladders, on which they climbed on the roof, picking up the injured and carrying them back down the ladder into the seed company's building. There they were placed on the elevator and taken down to the first floor. W. T. Hawkins, engineer of the club, told the police he started the elevator for the upper floors of the club but the smoke and flames got so dense at the third floor that he had to reverse his lever and as he did so, the cable snapped and the cage fell into the basement. Hawkins said the fall of this cage might explain one of the noises the firemen heard, which were thought to have been explosions.

Four streams of water, in addition to two streams from fire towers, were played into the Club House from the Washington avenue side. On the Fourth street side there were five streams and on the Lucas avenue side were four streams, making thirteen in all. Steam engines, pumping pressure into each of these lines of hose, were scattered at fire plugs for blocks each way. Flames burst out of the third floor windows, cutting off the exit of a number of men who were running down the fire escape on the Fourth street side. Firemen turned streams of water on the fire escape at the third floor to check the flames issuing through the windows. Some men, clinging tenaciously to the fire escape railings, bravely responded to the firemen's call for them to continue down the escape. They walked through the water and were almost knocked over by the pressure. One of the first streams was played upon the Washington avenue fire escapes, which in places had become red-hot. Throughout the fire this stream was kept continuously playing on the fire escapes to keep them cool so they would be serviceable.

Chief Swingley massed his forces in the ruins of the Fourth street side, which offered the best means of reaching the bodies supposed to be buried in the debris. On the Washington avenue side the wall stood sheer almost the building's full length. A portion of the east wall of the club building fell at 2:10 P. M. A water tower, which had been standing opposite the wall on Fourth street, was broken when the wall fell and knocked it against the east wall of the Shapeligh hardware building.

(*Continued on Page* 172.)

ATTACKING MISSOURI ATHLETIC CLUB FIRE FROM FOURTH STREET.



RUINS OF MISSOURI ATHLETIC CLUB HOUSE FIRE, SHOWING FIREMEN SEARCHING FOR BODIES.

now being considered for the installation of sedimentation basins. At certain times of the year the preliminary filters are not in good condition, especially when we need them most, and we are obliged to use alum which takes out most of the turbidity.

Morris R. Sherrerd: The actual deaths from typhoid fever do not show very accurately the efficiency of the filtration system. Frequently seven or eight deaths are due to other causes than bad water supply. Taking this into account would raise the efficiency of the plant to 90 per cent.

Allen Hazen: I believe the Washington, D. C., plant is an exception in so far as preliminary filters are concerned. So good has been the operation that there is no reason for adopting chlorine. Several years ago I took the position that preliminary filters made relatively little difference in the final discharge. I believe that the small particles are the ones that give the trouble for they penetrate deeply into the filters.

Herman Rosenstreter, of the Newark, N. J. water department delivered a short talk on the Newark water works, illustrating it with numerous lantern slides. It proved to be an instructive and very interesting discourse.

Following is a list of members, associate members and guests present at the meeting of the New York Section of the American Water Works Association, held at the Hotel Manhattan, March 10:

V. E. Arnold, New York; Arthur G. Archibald, New York; J. L. Atwell, Brooklyn; M. N. Baker, New York; C. R. Bettes, Far Rockaway, N. Y.; Charles F. Breitzke, New York; W. W. Brush, New York; C. E. Buerger, New York; Irving C. Bull, New York; James M. Caird, Troy, N. Y.; James H. Caldwell, Troy, N. Y.; C. K. Corbin, Jersey City, N. J.; T. F. Cushing, Kennedy Valve Co., New York; Carleton E. Davis, Philadelphia, Pa.; J. M. Diven, Troy, N. Y.; J. M. Diven, Jr., Norwich, N. Y.; John E. Dowd, New York; C. F. Drake, Pittsburgh, Pa.; Wm. O. Drake, Corning, N. Y.; Martin A. Driscoll, Haverstraw, N. Y.; Fred. C. Dunlap, Philadelphia, Pa.; S. N. Durland, Far Rockaway, N. Y.; Wm. L. Edwards, New York; D. W. French, Hackensack, N. J.; Wm. B. Fuller, New York; J. W. Griffin, Philadelphia, Pa.; John H. Gregory, New York; Dr. J. Goslan, Newark, N. J.; Frank E. Hale, New York; Thomas F. Halpin, A. P. Smith Mfg. Co., East Orange, N. J.; O. R. Hanks, Trenton, N. J.; Allen Hazen, New York; Edward W. Henry, Jersey City, N. J.; S. D. Higley Thomson Meter Co., New York; J. S. Holbrook, New York; Edgar M. Hoopes, Jr., Wilmington, Del.; W. C. Hopper, Passaic, N. J.; Clinton Inglee, National Water Main Cleaning Co., New York; Thos. E. Irwin, New York; H. F. Jones, Elmira, N. Y.; C. H. Kennedy, New York; Geo. A. Johnson, New York; John Knickerbocker; Eddy Valve Co., Troy, N. Y.; John A. Kienle, New York; E. D. Kingsley,, Liquid Chlorine Co., New York; Francis E. Longley, New York; Wm. H. Lyon, White Plains, N. Y.; H. B. Machen, New York; Prof. Wm. P. Mason, Troy, N. Y.; Robert E. Milligan, New York; E. E. Miller, New York; Alex. Milne, St. Catherines, Ont.; Albrose Mundy. New York; Edward L. Peene, Yonkers. N. Y.; Charles E. Pratt, New York; A. S. Purce, New York; A. A. Reimer, East Orange, N. J.; Alfred E. Roberts, New York; H. R. Rosenstreter, Newark, N. J.; William Rosse, New York; E. T. Scott, New York; E. K. Severence, New York; Fred. Shepperd, FIRE AND WATER ENGINEERING. New York; M. R. Sherrerd, Newark, N. J.; W. C. Sherwood, Hersey Meter Co., New York; Joseph P. Siddons, Philadelphia, Pa.; J. Waldo Smith, New York; Geo. A. Soper, New York; G. R. Spalding, Hackensack. N. J.; H. P. Stearns, Far Rockaway, N. Y.; W. E. Titus, Reisert Co., New York; R. K. Tomlin, Jr., New York; Louis L. Tribus, New York; James H. Van Buren, New York; Lincoln Van Gilder, Atlantic City, N. J.; L. M. Van Loan, Philadelphia, Pa.; Wm. H. Van Winkle, New York; Wm. H. Van Winkle, Jr.. New York; Francis C. West. Philadelphia, Pa.; John D. White, Wm. M. White, Allen E. Whitman, Horace Wilson, Alan A. Wood. A. T. Wood, Thos. H. Wiggin, New York City.

St. Louis Fire Tragedy

(*Continued from Page* 168.)

"I am not going to send any living man in search of the dead while those walls remain as they are," said Chief Swingley. Thereupon he got fourteen plug streams at work on the Fourth street side, pouring the water into the burning pile through a rent in the wall and making an effort to tear the bricks away from the top of the wall by the pressure. A tower with four plug streams also played on this mass of wreckage. Two streams were in operation on Washington avenue, two on the west side and two at the Lucas avenue end. A correspondent writing to this journal says:

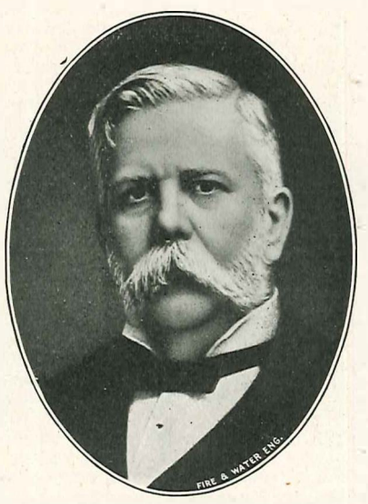
"When Engine 2 and Truck 6 reached the fire after a two-block run, the heat was so intense that it scorched the horses and the firemen on the apparatus. At that time men were at every window in the club house, while several had already jumped. We had no chance to get a net under them, and Engine 2's crew was compelled to keep wetting down the fire escape, which was so hot that no one could stand near it. There was delay as soon as the fire was discovered in pulling the hook. The manager of the Club must have tried to arouse every guest before he tried to pull the hook. Engine 2 and Truck 6 went on a "still," and on their arrival the building was a roaring furnace from top to bottom. When Truck 13 got there a ladder was raised to the fire escape, then a ladder was carried through the adjoining building, and the firemen tried to ascend to the roof, but the ladder was too short. It was then held on the firemen's shoulders while fifteen persons climbed down to safety. One man who climbed out of a window on the sixth floor was too far away to be rescued, and he dropped to the pavement when his clothing caught fire. Had it not been for the watchful eye of Chief Swingley many of his men would have gone into the building to rescue the victims, but he saw the walls crumbling and threatening to fall any moment."

Test of Nott Engine at Plainfield

The Plainfield, N. J., new Nott motor pumping engine was officially tested on March 14, under the supervision of the engineers of the National Board of Fire Underwriters, the test consisting of one hour duration through two 350 ft. lines of two and one-half-inch fire hose, using one and one-eighth-inch nozzle. At no time during the test of an hour's run was the water pressure below 150 pounds, and there was a continuous delivery of 617 gallons from an eight-foot lift. To show the engine's ability in throwing large streams, an Eastman Deluge Set was used, and with two 250-ft. lines of hose and one and one-half-inch nozzle, showing 85 pounds at the tip, the stream was thrown over 200 feet and at a height that surprised all the city officials as well as the visiting Chiefs, taking into consideration that the engine was only a four cylinder machine. The test was highly commented upon and the engine was immediately accepted and put into service. After the test the officials and all the visitors were invited by Senator Martine to participate in a banquet at the Hotel Waldorf given in honor of Chief T. O. Doane and a celebration of the first motor fire engine purchased by the City of Plainfield, as well as extending good cheer to the visiting officials. Mayor Stewart presided. Among those who honored Chief Doane with their presence were Chiefs Matthews, of Orange, N. J.; Williams, of Montclair, N. J.; Francis, of New Brunswick, N. J.; Decker, of Westfield, N. J.; McCollough, of North Plainfield, N. J.; Arnett, of Lambertville, N. J.; Davis, of Bayonne, N. J.; Brown, of Glen Ridge, N. J.; Black, of High Bridge, N. J.; Gerstung, of Elizabeth, N. J. Chief Charles Demarest of the New York Fire Department was also present, as well as Commissioner Patterson, of Elizabeth, N. J.. Also Mr. Hudson and Mr. Whitney, of the National Board of Fire Underwriters, under whose supervision the test was made in connection with Mr. D. A. Woodhouse, the general Eastern agent of the Nott Fire Engine Company, and Mr. R. C. Woodhouse, of Plainfield, N. J.

George Westinghouse

George Westinghouse the famous inventor and engineer died of heart disease at his New York City residence on Thursday, March 12. His health had been failing for some time and consequently his death, though a great shock to his thousands of friends and acquaintances all over the country, was nevertheless in a measure anticipated. The funeral was held Saturday afternoon at 2 o'clock, from the Fifth Avenue Presbyterian Church, New York City. The mental alertness and wonderful vitality that had so characterized his brilliant career remained with him to the end. Although actively associated with a large number of industries, he had during the last few years begun to transfer his responsibilities to the shoulders of his trusted lieutenants, the fortunate selection of which has always been one of the leading characteristics of his varied career. His demise therefore will not cause any material change in the policy or operation of the companies so indelibly linked with the name Westinghouse. George Westinghouse was born at Central Brirge, Schoharie County, N. Y., on the 6th of October,



GEORGE WESTINGHOUSE.

1846. The boy attended the public and high schools of the town, spending much of his leisure time, after studies, in his father's machine shop. Before he was fifteen he invented and made a rotary engine, and passed at an early age the examination for the position of Assistant Engineer in the United States Navy. In June, 1863, though barely seventeen, he enlisted in the Twelfth New York National Guard, and was discharged at the expiration of November of the same year, when he joined the Sixteenth New York Cavalry, being chosen corporal. He was honorably discharged in November of the following year, and a month later accepted an appointment as Third Assistant Engineer, United States Navy. He entered Union College, where he remained until the close of his sophomore year, and, obedient to his impulse toward experiment, abandoned his classical studies and entered upon active life, to find a wider scope for his inventive genius. Going to Troy, N. Y., one day, a delay caused by a collision between two freight trains suggested to Mr. Westinghouse the idea that a brake under the control of an engineer might have prevented the accident. The inventor began to think over the matter, and, after much further study and investigation, the use of compressed air impressed itself on him. The first patent was issued April 13, 1869, and the Westinghouse Air Brake Company was formed on the 20th of July following. The Westinghouse Companies employ 50,000 men on whom 150,000 persons are dependent. The total capitalization of all the companies is $200,000,000. Mr. Westinghouse was married August 8th, 1867, at Brooklyn, N. Y., to Marguerite Franklin Walker. They had one son, George, who is a graduate of Yale, and was recently married to the Honorable Evelyn Violet Brocklebank. His wife and son survive him.

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H. W. BRINGHURST, Fire Marshal } Editors.

Communications on all subjects relating to Fire Protection and Water Supply are solicited. The name of the author is necessary as a guarantee of good faith. The publisher does not hold himself responsible for the opinions of correspondents. All advertising copy should be received no later than the previous Thursday to insure insertion in the current number.

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New York, Wednesday, March 18, 1914

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STATEMENT OF OWNERSHIP.

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Name of — P. O. Address

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Sworn to and subscribed before me this 16th day of March, 1914. [L. S.] Samuel Trimble, Notary Public, Kings County.

Certificate filed in N. Y. County. Registered No. 5,076, N. Y. County.

FATAL FIRE IN ST. LOUIS.

The record of fires for the week is a very long and serious one. With the heavy loss of life in the Missouri Athletic Club fire in St. Louis and more than an average destruction of property throughout the country the result is sufficient to dispel the optimism of the most earnest advocate of fire prevention to be found in any part of this great community. The story told of the St. Louis horror is simply a repetition of the same story that unfortunately has been told so often before. A poorly constructed building for a hotel, apparently not well provided with proper means for fire prevention, was caught at a critical time when a large number of people were asleep resulting in the death of nearly four score of them and injury to many more. Gas explosion seems to have been the cause of the catastrophe where the fire occurred in the kitchen on the third floor. Morover, H. C. Henley, chief of the fire committee of the National Board of Fire Underwriters in St. Louis, who made an inspection of the cellar after the fire, reported that he found two gas meters fed from a six-inch main were disconnected and that the gas which escaped from them ignited, adding considerably to the flames and causing the explosions that were heard during the progress of the fire. It was at 1.50 a. m., on Monday morning the 10th instant, the fire was discovered, not until it had made considerable headway, so that when the firemen arrived the whole third story was involved and the flames were spreading to the upper floors. Fortunately a score or so of the guests were able to escape, but the bodies of the greater number of them was only recovered from the ruins after hard and hazardous work. Assistant Chief Rucker said the feature of the fire that presented the greatest difficulty in recovering the bodies was that when the upper floors collapsed they piled upon one another slanting in the centre toward the basement so that the streams playing upon the debris poured off the top tier of floors into the basement, leaving the fire still burning between the closely packed floors. The carrying away of the partition walls left the main walls without support and also retarded the work of recovering the bodies. This was so dangerous that Chief Swingley used good judgment when he refused to allow his men to attempt the search until the crumbling walls collapsed, thus avoiding a more appalling total in the loss of lives. It was certainly an arduous task that the chief and his brave and faithful men had to perform and it seems only just that they should be accorded a full measure of praise for the skill, courage and endurance they displayed during the ordeal.

NEW YORK FIREMEN'S PENSION SYSTEM.

The opposition of the uniformed firemen to any change in their pension system is only natural. Firemen are eligible for retirement on pension after twenty years of service, regardless of age, and they are subject to no assessment whatever for their pension fund. Their only expense of such a nature is the payment of an insurance premium averaging $18 a year, which entitles those dependent on each fireman to a sum of $1,000 in case of his death, this being in addition to participation in the relief fund. To raise the period of service required before retirement to twenty-five years, as suggested by Commissioner Adamson, and to impose an assessment to provide for the maintenance of the pension fund would render the position of firemen somewhat less desirable. But, on the other hand, Mr. Adamson states that the short term of required service results in the loss to the fire department by retirement of many men just at the most useful age, 45; and the city budget shows that the taxayers will have to contribute $149,000 to the firemen's pension fund directly this year in addition to the great amount that they contribute indirectly, with the prospect that this direct contribution must become annually larger. Originally the term of service required for policemen and firemen was the same, twenty years, but in 1898 the service period for members of the police force was raised to twenty-five years, with the added limitation that no policeman under 55 years of age might be pensioned except for physical disability. The only question at issue is whether or not the hazard of the fireman's life is sufficiently greater to justify the easier terms for him. Chief Kenlon says that the departmental surgeons inform him that few firemen pass twenty years in the service without showing physical disabilities, but the police surgeons would probably make a similar report regarding policemen.—New York "Sun."

AMERICAN WATER WORKS ASSOCIATION.

Of the one thousand and more members on the roll of the American Water Works Association, it is reasonable to expect that there will be a large delegation present at the thirty-fourth annual convention to be held in Philadelphia, May 11 to 15 next. There are several reasons why this should be one of the most successful meetings ever held by the Association. The pumping plants of the Philadelphia system alone will prove an interesting study, owing to their number and variety of methods employed to furnish water to the city. The new filtration plant, one of the largest and most expensive in the country, will prove another very attractive feature in the program. A proposed sail to Wilmington to inspect recent improvements made in the plant of that city and visits to big foundries in the neighborhood of Philadelphia will further increase the interest of those who may be fortunate enough to be present. Besides these attractions the local committee and the Water Works Manufacturers' Association have made ample arrangements for entertaining the delegates and their friends during the convention week, and as a fitting wind-up to the meeting it is proposed to make a trip to Atlantic City which must prove a great treat to those who have not before enjoyed an outing at one of the most delightful pleasure resorts on the Atlantic Coast. Mr. John M. Diven, Secretary of the Association, expects to add a large number of new names to the list of members, in which laudable endeavor he hopes to receive the valuable assistance of those interested in its success. Thursday will be superintendents day, when it is expected a number of practical questions will be discussed. These subjects have been printed in the advance program issued by the Secretary. Special arrangements have been made for transportation, particulars of which may be obtained from any member of the committee, namely: Mr. F. J. Bradley, of the National Meter Company, Chicago; Mr. T. E. Clifford, Pittsburgh Meter Company, Pittsburgh; Mr. H. M. Lofton, Columbian Iron Works, Chattanooga, Tenn.; Mr. T. E. Dwyer, Lead Lined Iron Pipe Company, Wakefield, Mass., or F. W. Shepperd, 154 Nassau street, New York City. It might be mentioned that it is proposed to have the exhibit of appliances the largest and most attractive ever made at any previous convention, so that those intending to show their goods should make early application to Mr. Fred Bates, chairman of the exhibit committee, to secure space.