

## PRECIPITATION OF SPRINKLER TANKS.

### Record of Past Disasters and Some Valuable Advice for the Prevention of Future Trouble.

Specially written for The Monetary Times.  
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There have come to the writer's attention during the past five years thirty-three precipitations of sprinkler tanks, which have resulted in the loss of three lives and in the injury to fifty-one persons, with an estimated property loss in fourteen cases of \$247,814, which would indicate an estimated average total loss of \$583,897. I do not claim these figures to be accurate as they are gathered in part from newspaper clippings, but I know that in one case the newspaper figures were underestimated by the assured in the proportion that two bears to ten, but they are sufficiently accurate and large enough to show the importance of sprinkler leakage insurance and inspections and for unusual care in the calculation of architects and builders.

The above figures do not include the consequential loss suffered, as a result of the accident, through the loss of customers, profits, use and occupancy of the buildings, nor those imposed by law on account of loss of life and for injury to persons, nor for damage to property of others in the adjoining buildings.

#### When the Tanks Fell.

The number of lives lost and the list of persons injured is small because many of the tanks fell on Sundays, holidays and at noon or night, when the buildings were practically deserted. In some cases no watchmen were employed; the owners depending on automatic alarms connected with the sprinkler systems to warn them of danger from fire or water.

I purposely use the word "precipitations" because it better describes the occurrence which may have been caused either by the fall of the tank on account of inadequate, rotted or corroded supports, or the collapse of the tank on account of too light or corroded band or rotting of the wood of same. I give herewith a list of the accidents and the supposed or actual cause of same.

J. Manz Engraving Company, Chicago, Ill.—On January 16th, 1905, the 7,000 gallon steel tank collapsed, flooding the entire building and causing a property damage of \$11,000.

American Clothing Company, Clothing Manufacturers, Louisville, Ky.—At night on March 18th, 1905, the 9,000 gallon tank collapsed on account of hoops bursting, causing a property damage of about \$6,000 in the risk, and also a small damage to property in the adjoining tobacco factory.

Parsons Theatre, Hartford, Conn.—On June 6th, 1905, the 5,000 gallon tank was precipitated. The cause given by the building inspector was as follows: "Settlement of brickwork supporting the framework on which tank rested and probably caused by action of the weather washing out the mortar between the brick and under wall coping, causing tank to be thrown out of plumb and allowing a greater weight on one particular support than it would stand. This unequal strain caused the support to give way and tank to fall."

#### Tank Fell Through Roof

Bovin & Wilson, Montreal, Can.—1905, tank collapsed.

Boggs & Buhl Dry Goods Company, Dry Goods, Allegheny, Pa.—1905 the 15,000 gallon tank fell through roof, killing one man and injuring two men. Property damage estimated, \$30,000.

J. & T. Cousins, Shoe Manufacturers, Brooklyn, N.Y.—September 20th, 1905. The tank fell through the building to the basement at night, wrecking part of same and causing a large property, also consequential damage, as 400 employees were employed and it was estimated that it would take two weeks to repair the damage.

Hawley, Folsom & Rouimus, Dry Goods, Boston, Mass.—Tank gave way.

D. E. Makepiece, Gold Plater, Attleboro, Vt.—Tank gave way.

Peerless Manufacturing Company, Mfg. Hose Supporters, North Bergen, N.J.—10,000 gallon tank gave way.

Adams Dry Goods Company, Department Store, New York City.—On May 26th, 1906, the 13,000 gallon sprinkler tank erected on roof of building collapsed on account of rusted flat hoops giving way. A property damage of about \$10,000 occurred and twenty-one persons were injured. The hoops and tank were freshly painted shortly before accident, so inspectors did not discover the corrosion which was on inside of bands. Hoops corroded so that they were no thicker than a sheet of paper.

Will & Baumer, Manufacturing Wax Candles, Syracuse, N.Y.—On July 16th, 1906, at night, the supports to the 5,000

gallon tank gave way, precipitating same through building. The amount of damage was not given. Watchman injured.

#### Twelve Thousand Gallon Tank Collapsed

H. Hielstein, Manufacturing Men's Clothing, Duluth, Minn.—On June 29th, 1906, the 12,000 gallon tank was precipitated, caused by rotten supports. A large loss resulted to contents and building.

Cumberland Manufacturing Company, Furniture Factory, Knoxville, Tenn.—On April 27th, 1906, the 15,000 gallon tank was precipitated; the supposed cause being a weak wall. One man killed and one injured.

Fite Building, Grocers, Boots and Wall Paper, Pittsburgh, Pa.—June 8th, 1906. The washing away of mortar from between the bricks caused the tank of 250 barrels capacity to list and crush the supports. The damage to building and stock of butter and eggs was \$5,000 and a further damage ensued to stock of wall paper and boots and shoes. Seven persons were injured in this accident.

Quinn & Boden, Printers & Bookbinders, Rahway, N.J.—November 17th, 1906. At noontime while employees were out to lunch, the hoops on the 15,000 gallon tank burst, precipitating same, which went through the third and second floors of the building, flooding same.

Penitentiary, Work Shops, Richmond, Va.—1909. No particulars.

Herman Wolff & Company, Dress Goods, Montreal, Can.—August 1907. Iron supports to tank on building walls gave way, throwing tank obliquely across an alley on to another building, occupied by a tea merchant. Estimated loss, \$50,000.

#### May Have Been Green Concrete

Geo. H. Hees Company, Window Shade Manufacturers, Toronto, Can.—November 1907—40,000 gallon tank erected on independent steel tower precipitated intact, caused by inadequate supports. Loss estimated at about \$25,000.

Tootle, Campbell Company, Dry Goods, Omaha, Neb.—November 1908—The 40,000 gallon steel and iron tank erected on new concrete and brick building, which was reinforced and supported from ground up, was precipitated, causing a damage of about \$9,000 and injury to one person. The supposed cause was either faulty tamping of or green concrete.

Joseph Thomas & Company, Woodworkers, Baltimore, Md.—On December 14th, 1908, while slight repairs were being made to the tank of 5,000 gallons capacity, same was precipitated, causing an estimated damage of \$5,000 and also resulting in the death of one man and injury to two others.

National Supply Company, Toledo, Ohio.—January 10th, 1908—25,000 gallon tank burst. One man injured. Loss \$25,000.

#### Hole Was Thirty Feet Square

Columbia Incandescent Lamp Company, St. Louis, Mo.—At noontime, while most of the employees were out to lunch, the huge tank erected on the roof was precipitated, tearing a hole thirty feet square and causing a loss estimated to be about \$5,000. Cause of fall not given.

Estates Stove Company, Stove Manufacturers, Hamilton, O.—During December, 1908, the 23,000 gallon tank collapsed on account of bands breaking. The weight of the water tore away roof and building, and plant was forced to suspend temporarily.

Nashville Feather & Pillow Company, Manufacturers of Bedding, Nashville, Tenn.—On May 30th, 1908, shortly after noon, the 15,000 gallon tank was precipitated, going through the building to the basement. Cause, inadequate supports.

J. C. Wilson Building, Several Tenants, Winnipeg, Can.—July 1909—One Sunday evening the 20,000 gallon tank erected above the building was precipitated on account of inadequate supports. Thirty-five feet of the building wall on side and twenty-four feet on rear was torn out along with all floors, except first. The property damage amounted to over \$30,000.

Keystone Curtain Manufacturing Company, Manufacturers Lace Curtains, Philadelphia, Pa.—On the evening of June 30th, 1909, the bottom of the sprinkler tank, which had rotted, broke and fell, precipitating the contents of same, which carried away the roof and two flights of stairs and partition walls separating stair tower from loft. The wall of water mashed up furniture and fixtures, moved a large iron safe and caused a damage to building and property of two tenants estimated at \$10,000.

#### Left An Air Space

Velie Motor Car Company, Manufacturing Automobiles, Moline, Ill.—1909—Tank was precipitated on account of faulty tamping which left an air space in the concrete post supporting the tank. Damage not given.

P. J. Margrane, Department Store, Lynn, Mass.—1909 Washington Mills Company, Saw Mill.—March, 1909—