Hoboken Dock Fire of 1900

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Accidents

Unintended, unwanted event.

“Not caused by human beings”.



The Heinrich 300-29-1 Model

American engineer William Heinrich - 300:29:1

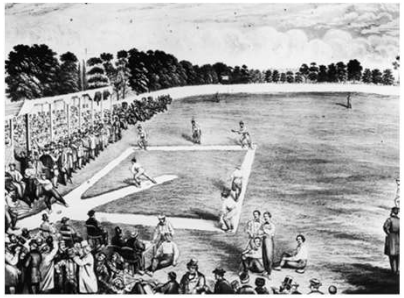
300 unsafe behaviours, 29 minor accidents, 1 serious accident

Hoboken, New Jersey

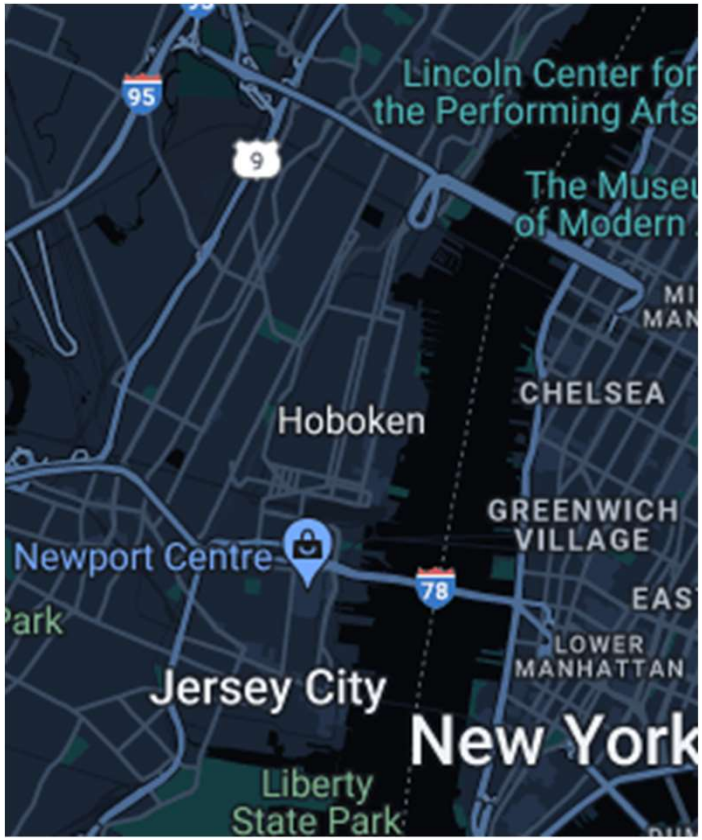
City in New Jersey on Hudson River.

Directly across from Manhattan.

Old Dutch ***Hoebuck***, meaning high bluff.







STEVENS
INSTITUTE OF TECHNOLOGY
1870

Fire Damage

On June 30, 1900 - a massive fire

Extensive damage to waterfront and industrial areas.

Particularly destructive because

- wooden piers,
- timber construction and
- buildings along Hudson water
- Jersey city, New York
- PEOPLE

New York Times



OVER 200 PERISH IN BURNING LINERS

Ocean Steamships Caught in Berths of Fire.

1,500 LIVES IMPERILED

Victims Imprisoned and Roasted in the Ships' Blazing Holds.

LOSS IS SIX MILLIONS

Calamity Overtakes North German Lloyd Line at Its Piers—The Saale, Bremen, and Main Wrecked—Kaiser Wilhelm der Grosse Suffers—Ships Aflame Float Helplessly—Immense Stores Are Burned—Fire Sweeps the Great Docks Without a Moment's Warning—Saale's Captain Lost.

A fire that started among the cotton stored on Pier 2 of the North German Lloyd Steamship Company, in Hoboken, at 4 o'clock yesterday afternoon, in less than fifteen minutes covered an area a quarter of a mile long, extending outward from the actual shore line to the bulkheads, from 600 to 1,000 feet away, and caught four great ocean liners and two dozen or more smaller harbor craft in its grasp, putting in peril at least 1,500 lives and property worth $10,000,000.

Line, with the pier of the Thingvalla Line, was ablaze before the officers and men aboard the vessels could move a hand to loosen the ships and get them out into the stream.

ONLY ONE SHIP ESCAPES.

The first ship to get clear of the burning piers was the Kaiser Wilhelm der Grosse, aboard which were many visitors, 175 cards having been issued during the day to persons who desired to inspect the vessel.

At the first cry of fire the visitors were hurried ashore by the officers of the steamship, and the crew, summoned to their posts, cut the boat loose, but there was not enough steam up to move the great vessel, and it was not until the tugs President and Sarah E. Easton made fast at the stern that the vessel began to move slowly out of its nest of fire, with its outer woodwork ablaze, and moved down stream perilously close to the other burning piers, with a barge of blazing cotton clinging to its prow.

The last man to escape from Pier 1 was Eric Sorenson, a seaman on the Kaiser Wilhelm der Grosse. A single steel hawser, overlooked in the excitement, held the vessel, and sliding down to the burning pier he loosened it and dashed to safety through a passageway of fire, amid the cheers of the firemen.

HELPLESS IN BERTHS OF FIRE.

The Saale and Bremen lay helpless in their berths of fire. Their crews, cut off from escape by way of the piers, rapidly threw off the lines that tied the vessels, and signaled for help, but there was confusion among the tugs, and no lines were thrown to the frantic seamen, who stood at their posts, the flames roaring about them, and eating rapidly in to the inner parts of the ships.

At last slowly they drifted out of the seething waters of the slips and floated helplessly into the North River, the flames gaining greater headway every instant, and many of the crews jumped from the blazing ships, trusting to be picked up by the tugs which had flocked about the scene of the fire.

The Main, lying furthest from the startling point of the fire, was the only one of the vessels which did not get loose from its pier. The officers and crew, said to number

turned on its tracks and directed its fury against the four large brick buildings known as the Campbell Stores, which were filled with merchandise, including many barrels of whisky.

Leaping up the sides of the building, the flames attacked the iron shutters, at first in vain, but at length the intense heat loosened some of the shutters, and the flames crept in here and there until the volumes of smoke issuing from underneath the closed shutters told of the fire raging within.

It was a long and stubborn fight to save the stores and the fires on the piers had burned themselves almost out and night had fallen before the flames were got under control, after two of the stores had been entirely destroyed and two partly gutted.

BONDED WAREHOUSE SAVED.

In turning upon the Campbell stores the fire executed a flank movement on the United States Bonded Warehouse at Third Street, and the large, low building, with its heavy iron shutters, was in much danger, but it was saved, as were also the residences on the west side of Water Street, which were bathed for two hours in the dense smoke that issued from the Campbell stores.

To the south of the Bremen Piers, within 150 feet of the cotton in which the blaze started, a large, broad shed of the Hamburg-American Line touched Pier 3, and the fire, sweeping down the pier, began to eat into this shed. A stout partition and the direction of the wind gave the firemen an advantage, and, while water was played on the approaching fire, men were set at work to chop a section out of the shed.

HAMBURG'S PIERS IN DANGER.

Driven back by the flames, the firemen laid their axes into the partition at another place, and soon cut a wide gap in the shed and staid the flames, saving the Hamburg Line piers from all damage, save the chopping down of some of its sheds. The Phoenicia and the Kaiser Friedrich lay in the berths untouched by the flames, not even a spark falling on them. Two lighters, however, were lost by the Hamburg-American Steamship Company.

Fifteen canalboats and twelve lighters, which were discharging their cargoes at the Bremen piers, were caught by the fire and destroyed. As many others floated away or were pulled off by tugs.

On some of the burned lighters and canalboats the crews were caught and many jumped and were pulled aboard the tugs which flocked about the scene of the fire.

SCENES OF RESCUE.

It was just as these rescues were thrilling the crowd which viewed the fire from the Hamburg pier that a man and woman jumped from one of the barges and were

there were at least two score of them, and perhaps twice that number. One woman and two small children perished with them.

Capt. Mirow, it is almost certain, either burned to death or was drowned.

Chief Officer Scheffer of the Saale said late last night:

"I believe that Capt. Mirow of our boat was lost. The last I saw of him he was standing at the main hatch and as he made headquarters here at the Hotel Meyer and would have shown up here if he had been saved, I am confident that he has lost his life along with the many others in our vessel."

At 4:10 P. M. the Saale began to drift from her moorings. The ropes that held her fast had been cut loose by the orders of her first officer, Herr Scheffer, and a long line had been cast from her bow in the hope that some tugs would take hold and tow her out. But no tugs came, and she was left to drift with the tide.

As she glided slowly from the dock the people who were aboard of her sent up piercing shrieks for help as they jumped overboard at every quarter or climbed down to the water's edge on ropes. Some of them sank, rose, and sank again, disappearing at last under the water. Some were picked up by lighters or tugs or rowboats, and others, fearful of the flames on land, swam for their lives toward the middle of the river.

Among the last were First Officer Scheffer, Second Officer Zander, and eight of the crew. They swam close to each other. One tug after another passed them by, but their cries for help at first were fruitless. At last they were hauled aboard the tug Petty, and were later transferred from her to the Kaiser Wilhelm der Grosse, which was by this time out of danger. In the meanwhile the doomed Saale was slowly drifting toward the New York shore.

FIRST OFFICER'S STORY.

First Officer Scheffer, who was among the last to leave his ship, told the story of the fire in the Saale last night.

"I was down in the fo'c'sle," he said. "A seaman rushed down and grasped my arm and shouted:

"'We're burning up.'

"Then I made for the lower deck. When I reached there I saw nothing but fire. It was raging everywhere—red, black, horrible. The smoke almost blinded me, but at last I shouted orders to cut loose the moorings. Second Officer Zander was with me, and we cut the extreme stern and bow moorings ourselves.

"By that time the fire was everywhere. It was getting too hot for us to stay aboard, so we jumped over the sides. I thought then that we had been preceded by everybody in the ship, but that was not the case, for after I was in the water I looked up and saw figures moving about.

"There were several visitors with us when the fire started, and some of them women. I don't know any of their names, nor what became of them. All of us did the best we could to the last, but the flames drove us over the sides. As we swam out toward the river we cried for assistance to several tugs, but they left us alone, and we were nearly spent when the Petty picked us up."

A HUNDRED IN THE HOLD.

When the Saale had drifted a quarter of the way across the river three tugs caught her and began to tow her to midstream. They were the Engine Grasselli, the M. Moran, and the De Witt C. Ivins. According to the Captains of these boats there was no one on the vessel's decks when they took her in tow, but they say that at least a hundred persons were

machinist. Another of the saved was a small boy, who had been among the visitors. His name was not learned before he was sent ashore. A fireman named Pels was rescued, and another fireman, who had been pulled out of the water after jumping overboard, died before he could reach land.

According to the various tug Captains several bodies were recovered. The Moran had two aboard, but no one identified them last night.

The Saale's officers were: Captain—J. Mirow. First Officer—H. Schaffer; Second Officer—R. Weidelmann; Third Officer—K. Grahn; Fourth Officer—H. Mienecking; First Engineer—J. Wehlau; Second Engineer—J. G. Bleynen; Third Engineers—G. C. Koptsky, E. Milentz. H. Topper, A. Lambsbach, and G. v. Beulwitz; Physician—J. Wittgenshinger; Purser—C. Ruben: Assistant Purser—W. Hasse; Steward—G. Gollerich; Assistant Steward—J. Stumpel: Chef—E. Sechehay; Assistant—A. Schultz and E. King. In the vessel were 760 men all told.

The Saale was to have sailed to-day for Boston, whence she was booked to sail on Tuesday with a section of Christian Endeavor Society delegates to the London convention.

CAPT. MIROW'S DEATH.

Edward Wortmann, who for the past twenty-seven years has been connected with the North German Lloyd Line in a confidential capacity, made a trip through the burned district late last night at the request of Gustave Schmit. Speaking of his experience, Mr. Wortmann said:

"The actual loss of life will not be known for days, and it may be weeks before we can get a full list of those who perished. One of the saddest deaths was that of brave Captain Mirrow of the Saale, who stood at his post and tried to get people off his ship. As to the financial loss I would not dare to make any positive statement. If I was writing it for a newspaper I would say that the loss to the company was between six and eight millions of dollars, and I think my estimate would be very conservative."

Parker Campbell, one of the proprietors of the Campbell Stores at Fourth and River Streets, which were totally destroyed by fire, himself aided in fighting the flames at that point. Late in the evening he estimated the loss on the contents of the stores conservatively at one million dollars. The loss on the building itself was forty thousand dollars, fully covered by insurance.

THE BREMEN DRIFTS TO RUIN.

Although the Bremen was lying further away from the pier on which the fire began, she was loosed from her moorings before the Saale. Capt. Nierlach was not on board, and Chief Officer Abborn commanded. As soon as the flames were wafted across his decks, which was in less than five minutes after the first alarm was turned in, he ordered the stay ropes to be cut.

More than 200 people were certainly on the vessel, but all of them left her in one way or another before she was well out into the river. The crew numbered 397, all told. Some of them were ashore, but there were many visitors on board, among them being four women. When the fire came on them and began to spread with a rapidity almost as great as it displayed on the Saale, every one either jumped to the pier before the ship began to drift or leaped into the water after the dock's stringpiece was too far separated from them to make it accessible.

Three of the women, whose names are not known, jumped into a small boat that some of the crew made ready to lower. But the

Schwebe, R. Frohlick, H. Horstmann, O. Nahbe, H. Kruger, P. Schmidt, and H. Krohn; physician, Dr. J. Muller; assistant physician, V. Iiensen; Purser A. Tiebnar; Assistant Pursers C. Cleff and C. Pehsenfeld; Chief Steward A. Rabben; Assistant Pursers F. Lauw, J. Vollers, J. Forquignon, and C. Rusche; Chef H. Nielsen; Assistant Chefs H. Funke, M. Meissner, E. Schmidt, E. Nico, P. Nielsen, A. Nohren, G. Schenelser, and J. Lang; Quartermaster A. Riess.

The sailing of the Kaiser Wilhelm der Grosse will not be delayed by the damages received. She will leave the Cunard Line's pier, No. 52 North River, at 10 A. M. on Tuesday.

NEW YORK SIDE MENACED.

Burning Vessels Drifting on the River Threatened Shipping—Firemen Stood Guard.

The burning steamers, lighters, and wreckage floating down the river furnished considerable excitement along the New York shore, and for a time it was feared that some of the piers on this side of the river might catch on fire, some of the lighters drifting alongside of them. To guard against this several alarms were sent in, and the Fire Department had engines stationed at all the principal piers, and at all points where it was thought a fire would be likely to break out.

They had their hose stretched along the docks and were ready for any emergency, while they were helped in their work by the employes of the different companies along the water front, who kept a sharp lookout for any drifting wreckage. In some cases these companies had tugs patrolling the water front with this same object in view.

The Bremen was the most formidable enemy that the firemen over here had to contend with. When she left her moorings with flames shooting from every part of her superstructure she was a sight that fascinated all beholders. As she neared the New York shore the people who had gazed on the scene with admiration began to think of their danger, for it was seen that she was bearing down on Pier 22, at the foot of Desbrosses Street.

FIREMEN READY FOR DANGER.

The firemen took up the post of danger, doing everything possible with the assistance of tugs to keep her from striking, but the burning ship, verging slightly from her course, rubbed up against the side of the pier, scorching it severely, as well as the piers below it, and the firemen playing their hose on the scorched portions of the piers immediately prevented a fire. By this time the tugs had succeeded in attaching lines to the steamer, and taking her in tow, brought her to midstream, where they left her, and she drifted down the river.

One lighter with flames shooting up from every portion banged into Baltimore and Ohio Pier 22, and before she could be towed out, succeeded in setting it on fire. The damage, however, was but slight, the firemen who were stationed near the pier having their hose playing on it before it succeeded in getting headway, putting it out in short order. At about the same time another lighter, also in flames, drifted across the river, and before her progress could be checked or diverted in some other direction, it crashed into a pier below the Baltimore and Ohio, this time doing no

Fatalities

At least 326 lives were lost to the fire

Over 10 million dollars in damage

No known personnel info

Unrecorded qualifications, experience and necessary certification

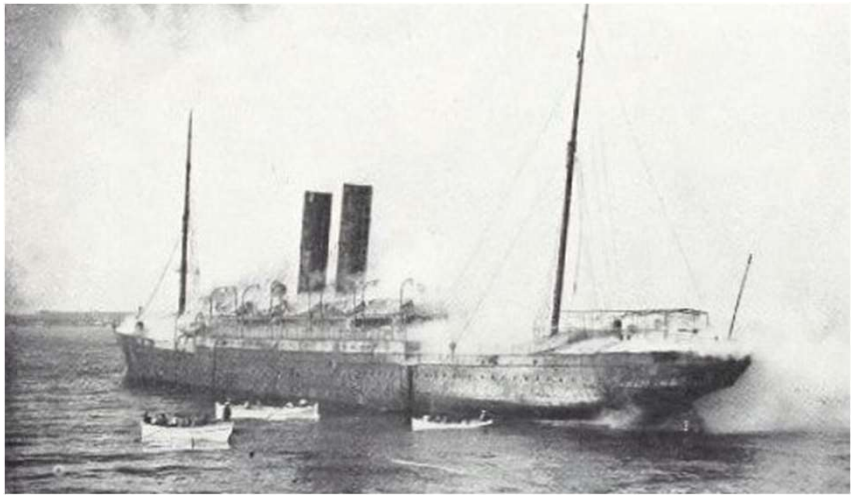


Hoboken Fire - Ships

Norddeutscher Lloyd Shipping Company Piers

German Company operating in the US

Hoboken, New Jersey, USA



S.S. Saale - Fairfield Shipbuilding & Engineering Co. Ltd., Glasgow 1886

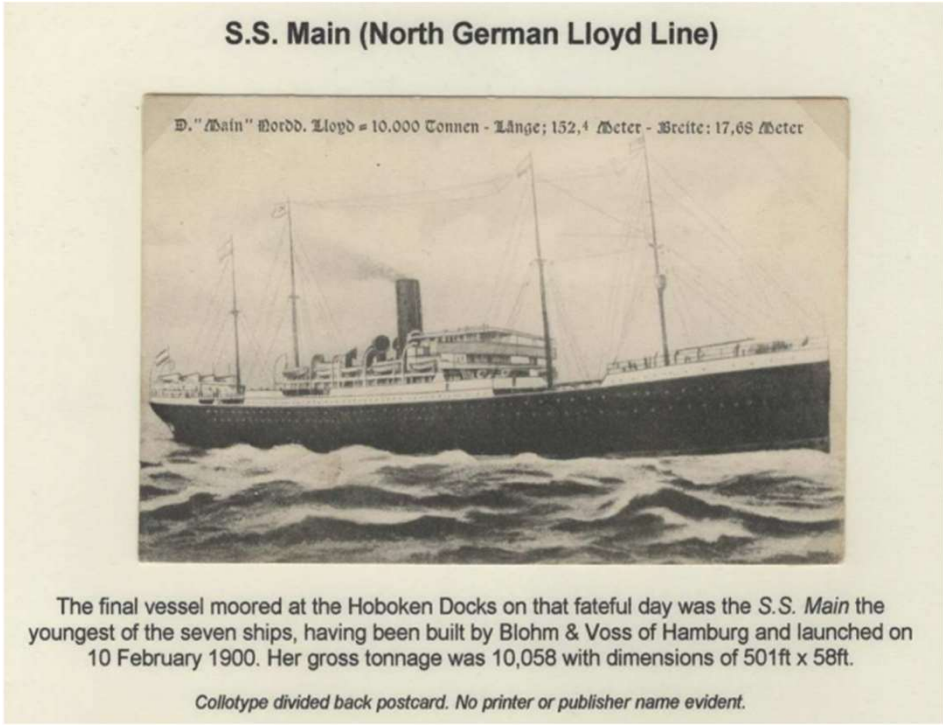
S.S. Main - Blohm & Voss A.G., Hamburg 1900

S.S. Bremen - Schichau-Werke, Danzig 1897

S.S. Kaiser Wilhelm der Grosse, A.G. Vulcan, Stettin 1897

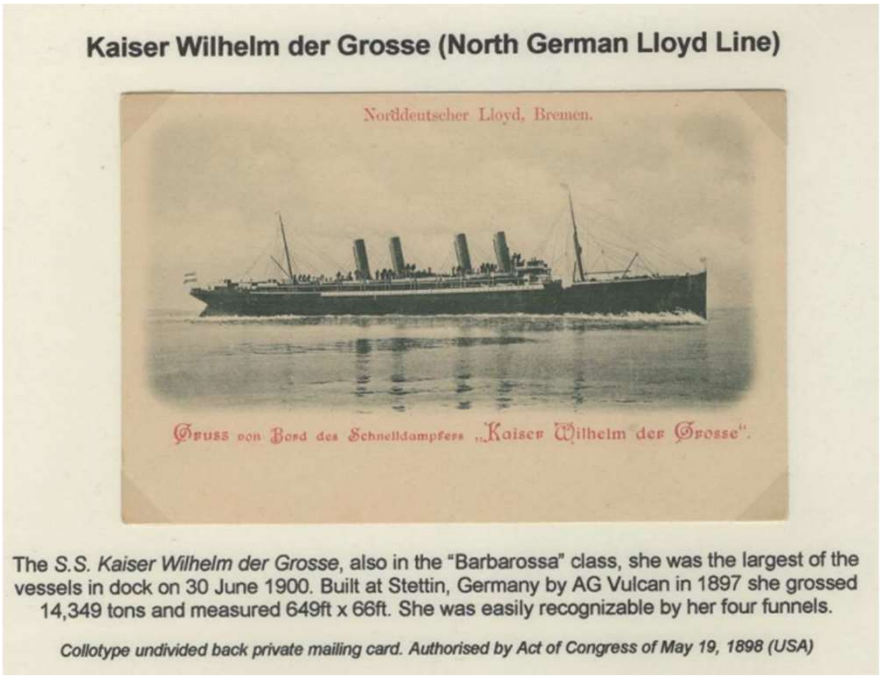
The S.S. Main - Pier 1

- The youngest vessel of the seven ships that were docked at Hoboken, built in 1900
- Flames took over and unfortunately
- Unable to loosen its mooring from the dock



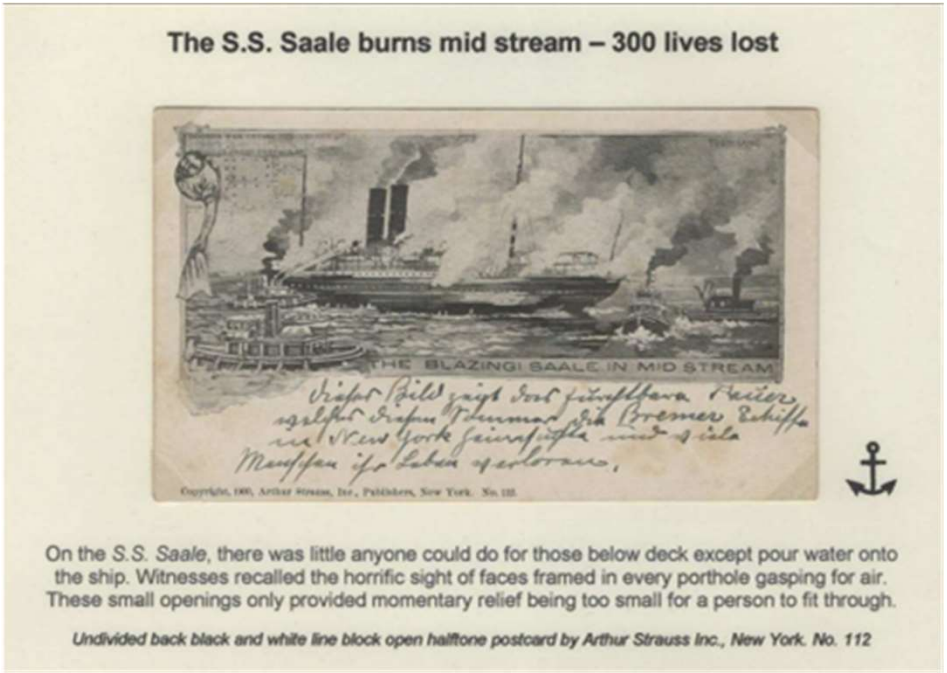
The S.S. Kaiser Whilhelm - Pier 1

- Largest vessel on dock built in 1897.
- The first ship to clear from the fire as it was towed into the river by the rescue tugs.
- Kaiser Whilhelm was the only ship to escape severe damage and the only ship with no deaths recorded.



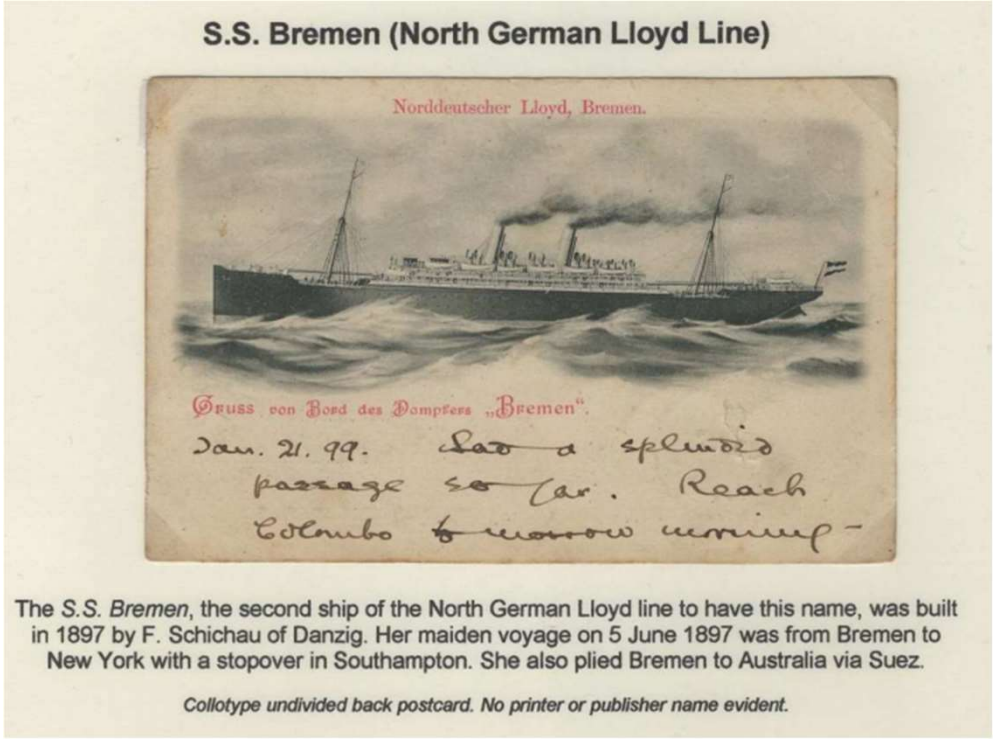
The S.S. Saale - Pier 2

- Passenger Steamship of the North German Lloyd Line - Trans Atlantic Passage, built 1886.
- 300 passengers trapped on board, those who jumped off the ship drowned.
- Would-be rescuers could only watch as the fire had gotten out of control.

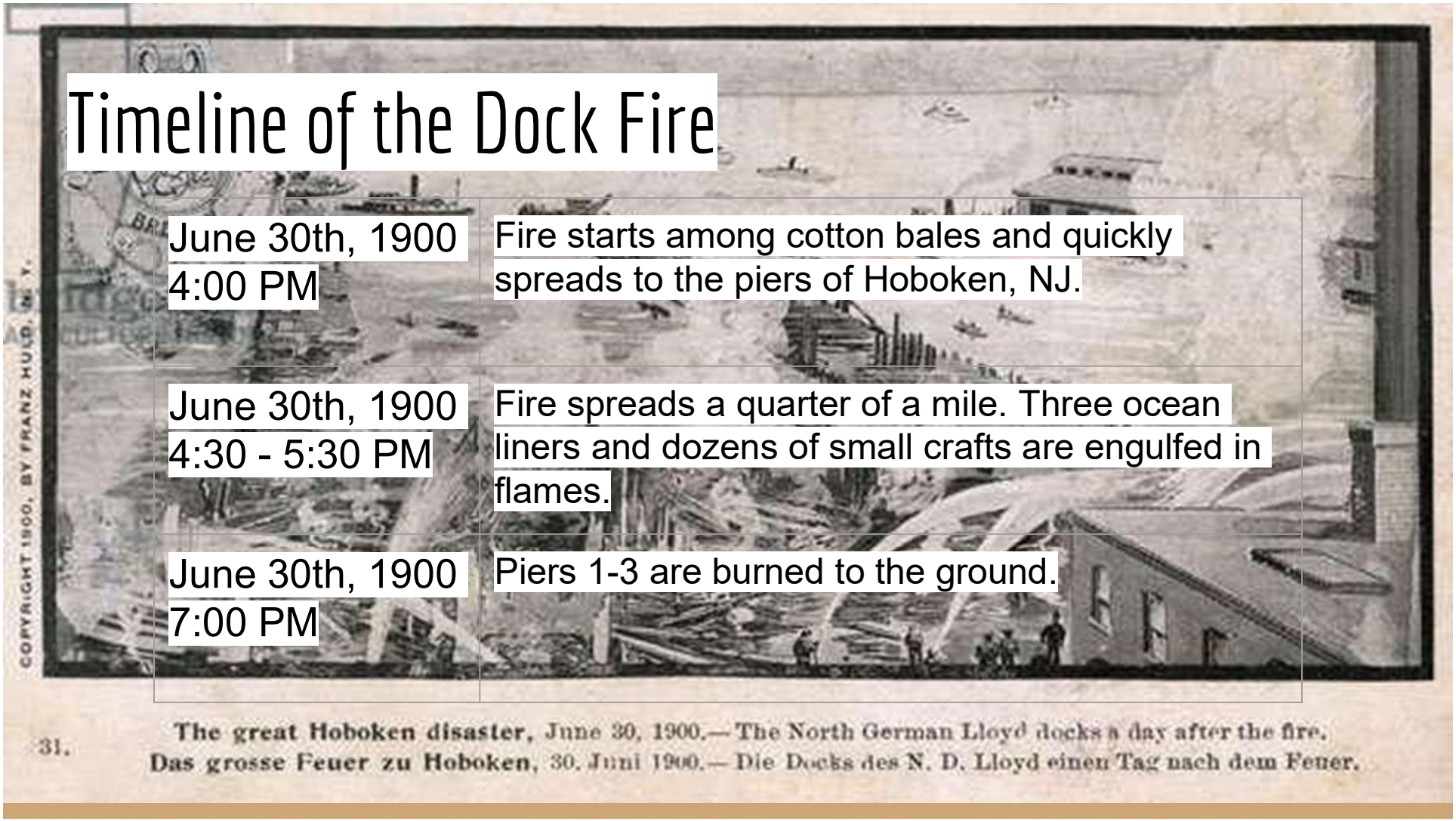


The S.S. Bremen - Pier 2

- Second ship of the North German Lloyd line built in 1897.
- Flames trapped crew members below deck which unfortunately took their lives as portholes were too small for escape.



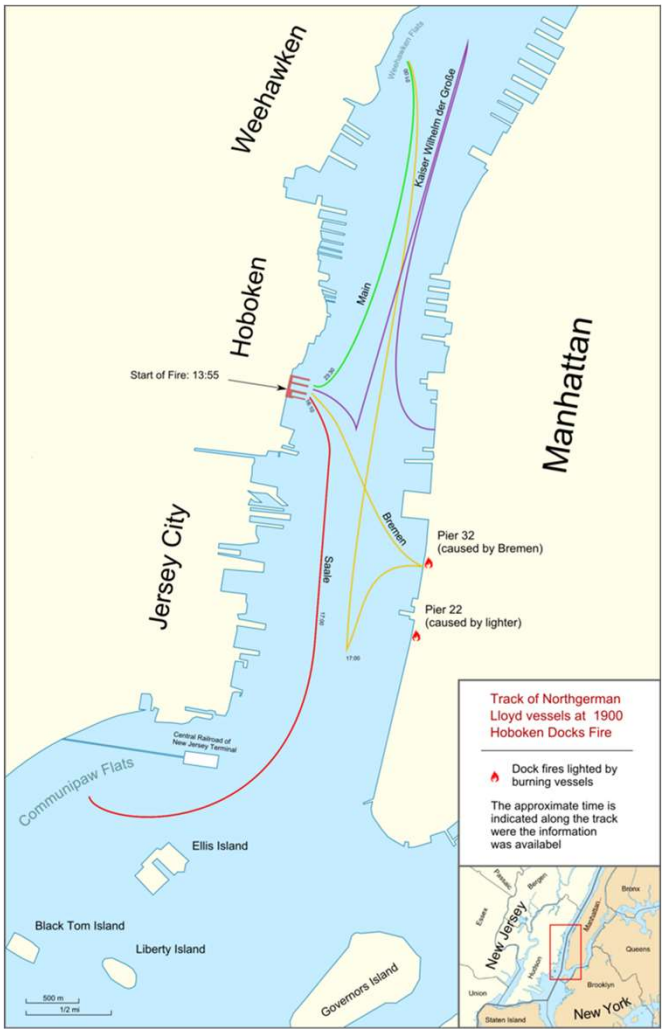
Timeline of the Dock Fire

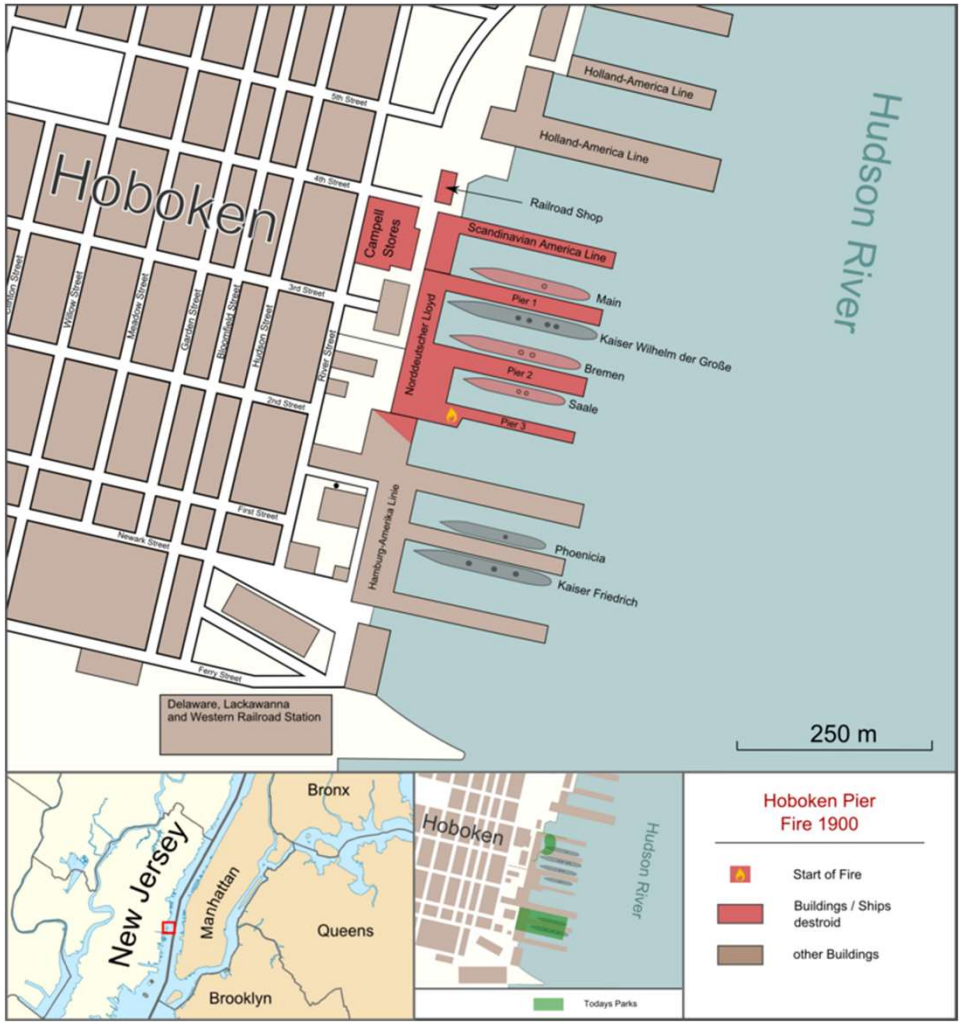


June 30th, 1900 4:00 PM	Fire starts among cotton bales and quickly spreads to the piers of Hoboken, NJ.
June 30th, 1900 4:30 - 5:30 PM	Fire spreads a quarter of a mile. Three ocean liners and dozens of small crafts are engulfed in flames.
June 30th, 1900 7:00 PM	Piers 1-3 are burned to the ground.

31.

The great Hoboken disaster, June 30, 1900.— The North German Lloyd docks a day after the fire.
Das grosse Feuer zu Hoboken, 30. Juni 1900.— Die Docks des N. D. Lloyd einen Tag nach dem Feuer.

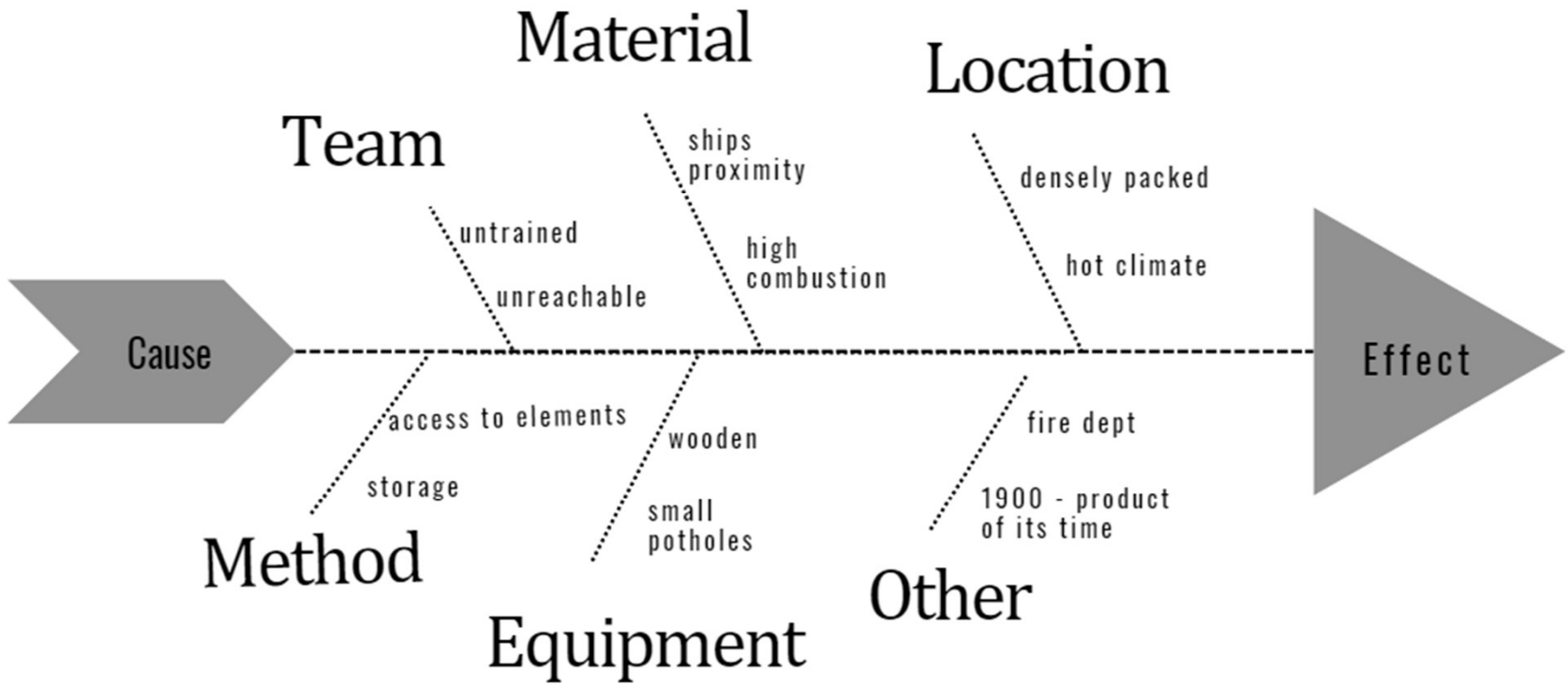

Weehawken
Hoboken
Jersey City
Manhattan
Start of Fire: 13:55
Kaiser Wilhelm der Große
Main
Saale
Bremen
Pier 32
(caused by Bremen)
Pier 22
(caused by lighter)
Communipaw Flats
Central Railroad of New Jersey Terminal
Ellis Island
Black Tom Island
Liberty Island
Governors Island
500 m
1/2 mi
Track of Northgerman Lloyd vessels at 1900 Hoboken Docks Fire
Dock fires lighted by burning vessels
The approximate time is indicated along the track were the information was availabel
New Jersey
New York
Bronx
Queens
Brooklyn
Staten Island


Hoboken
Hudson River
Holland-America Line
Holland-America Line
Railroad Shop
Campell Stores
Scandinavian America Line
Norddeutscher Lloyd
Pier 1
Main
Kaiser Wilhelm der Große
Pier 2
Bremen
Saale
Pier 3
Phoenicia
Kaiser Friedrich
Hamburg-Amerika Line
Delaware, Lackawanna and Western Railroad Station
250 m
Bronx
New Jersey
Manhattan
Queens
Brooklyn
Todays Parks
Hoboken Pier Fire 1900
Start of Fire
Buildings / Ships destroid
other Buildings

The Human Factors Analysis and Classification System

ORGANIZATIONAL INFLUENCES	UNSAFE SUPERVISION	PRECONDITIONS	UNSAFE ACTS
<u>Human Errors:</u> • Dropped match • Stray spark smouldering for hours or days <u>Environmental:</u> • Unpredictable wind flow • Crowded space	• Lack of dock supervision • No smoking protocols near flammable cargo	• Storage • Winds • Densely packed ships • Only pier 1 was non combustible, all other piers were highly combustible	• Design of portholes • Inability to reach personnel • June 30th 1900, was a saturday so fire dept took longer and some personnel were on holiday

RCA


Material
Location
Team
ships
proximity
densely packed
untrained
high
combustion
hot climate
unreachable
Cause
Effect
access to elements
wooden
fire dept
storage
small
potholes
1900 - product
of its time
Method
Equipment
Other

Later Developments for Safety

Hoboken Pier was rebuilt with steel and other less flammable materials.

Passenger ship design were debated, arguing that portholes should be big enough for a person to climb through and escape in case of emergencies.

Moral priorities, focus on saving people rather than salvaging the ships.





Safety Recommendations

- Personal floatation device
- Fire extinguishers
- Visual distress signal
- Sound producing device or alarm
- Ships after 1940 have gasoline engines - backfire flame control
- Safe storage for flammable materials : turpentine, oil, fuel
- Proper safety exits

Conclusions

Why did the cotton and turpentine catch on fire?

"A liquid accelerant ignited from the first floor was found to be the cause of this fire."

1900s - smoking, match, spark of metal, glass bottle in the sun.

Or

Arson - Vandalism, insurance fraud, fame, revenge or excitement.

Knowing the history of arson for the city of Hoboken sheds some light.



DISCLAIMER : Not a conspiracy theory!



1940 - Hoboken a “D” rating—the worst possible grade, city unworthy of investment.

60s - lost much of its shipping industry, Puerto Ricans

70 - Puerto Ricans doubled

72 - “rehabilitation,” “renaissance.”

75 - subsidized schools, rent control, poverty relief

76 - yuppies, manhattan workers got train to wall street

79 - arson for profit, displacement (130)

80 - professionals and management from 5.8% to 34%, fancy jobs from 1% to 10%

81 - so fancy rent increased, arson for profit, push puerto ricans out, fire to sell the building and it had to be "delivered vacant".

82 - more Puerto Ricans on fire, shocker!

Summary - fires to make room for wall street a-holes, They would meet over oysters and wine half a block away from a fire that killed 12 that day -

“I don’t want people to be burned, but I wouldn’t mind a nicer element of people here, if you know what I mean.”

Now sandwiches there cost 26$

Uphaar Cinema Fire

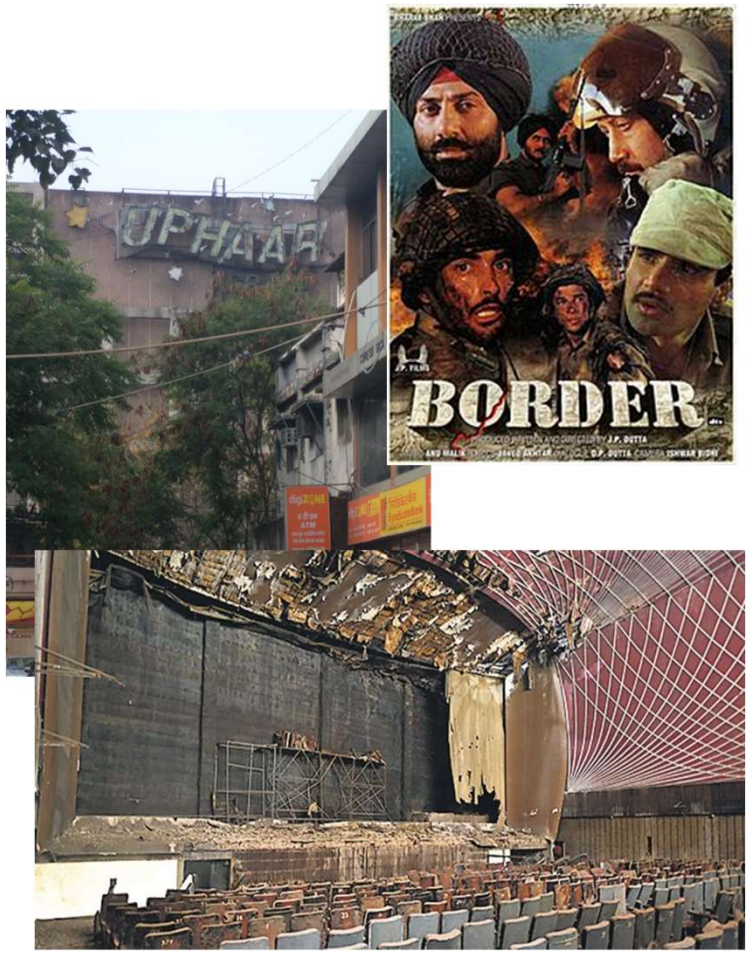
Worst fire tragedies in recent Indian history.

Friday, 13th. (June, 1997). Green Park, Delhi.

3:00 screening of the movie ***Border***.

59 died. 103 seriously injured in the stampede.

1. No functional public announcement system
2. No emergency lights, foot lights, exit lights
3. Blocked gangways / walkways
4. Blocked or locked exits
5. Unauthorised shops on the premises
6. No maintenance of the DVA transformer



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