

Boiler capacity too small.  
Pumping station not fireproof.  
Intake cribs of pumps not protected against ice.  
Poor arrangement of water mains—"dead ends," etc., not avoided.

Small water mains.  
Low water pressure.  
Water pressure reduced by throttling main supply pipes.

Lack of fireboats in cities situated on water fronts.

#### Public Fire Departments.

Influence of "politics" on general service and consequent lack of discipline.

Lack of training school for new firemen.  
Insufficient number of firemen.  
Insufficient number of fire companies.  
Lack of modern apparatus and equipment.  
Lack of modern fire alarm telegraph system.  
Lack of provision for "bringing in" proper apparatus to take place of that called out by second and third alarms, etc.

#### Handling Explosives.

Lack of ordinance governing handling and storing of explosives within city limits.

Lack of law prohibiting hazardous industries within city limits.

#### Electrical Hazards.

Lack of ordinance regarding safe electrical wiring.  
Overhead wires permitted in streets.

#### LIST OF FIRE COMPANIES THAT GAVE UP IN 1905.

The "Spectator" gives the following list and details of 34 fire insurance companies that withdrew from business in 1905:

NAME AND LOCATION OF COMPANY.	Assets.	Method of
<b>STOCK COMPANIES.</b>		
Blackhawk, Freeport Ill. ....	\$200,000	Retirement Merged with German.
Continental of Illinois, Chicago, Ill. ....	153,461	Re-insured.
Dominion, Fawcett, Va. ....	115,400	Re-insured.
Illinois Central, Chicago. ....	156,410	Retired.
International Fire, Alexandria, Va. ....	113,153	Failed.
International Fire of West Virginia. ....	.....	Edwin G. Adams, Receiver.
Jefferson F. and M., Richmond, Va. ....	90,245	Roscoe C. Nelson, Receiver.
Lumbermen's So. McAlester, I. T. ....	1,000	Retired.
Manufacturers and Mercantile, Chicago. ....	100,000	Retired.
National Assurance, Dublin. ....	585,928	Re-insured.
Philadelphia Fire Philadelphia. ....	162,857	Failed.
Powhatan Fire, Manchester, Va. ....	25,700	Retired.
Richmond Fire, Richmond, Va. ....	68,860	Retired.
Total, 12 stock companies. ....	\$1,762,920	

#### MUTUAL COMPANIES.

Blue Grass Ins. Co., Lexington, Ky. ....	\$ 799	Receiver.
Duquesne Mut. Fire, Pittsburgh, Pa. ....	51,334	Receiver.
Equitable Mut. Fire, St Paul, Minn. ....	30,711	Receiver.
Farmers Co-operative, Seattle, Wash. ....	....	Retired.
Far and Thresh, Mut. Fire, Paris, Ill. ....	15,038	Receiver.
Georgia Industrial, Atlanta. ....	51,935	Receiver.
German Amer. Fire, Hastings, Neb. ....	5,654	D. K. Faylor Receiver.
Home Fire, Seattle, Wash. ....	10,872	Re-insured.
Home Mutual Fire, Cleveland, O. ....	.....	Failed.
Kansas Fire, Topeka, Kas. ....	2,045	Receiver.
Lafayette Mutual Fire, Pittsburgh. ....	19,164	Receiver.
Mercantile Mutual Fire, St Paul. ....	17,236	Receiver.
Merchants Nat'l Mu. Fire, Indianapolis	.....	Receiver.

Merchants State Mutual, Fargo, N. D. ....	37,785	Re-insured.
Mountain Mutual Fire, Denver, Col. ....	5,892	License revoked.
No. American Mut. Fire, Pittsburg. ....	27,264	Receiver.
State Mutual Fire, St Paul, Minn. ....	.....	Receiver.
Trans-Miss. Mut. Fire Ass'n, Omaha. ....	67,006	Merged.
Total, 19 Mutual Companies. ....	\$315,865	

#### LLOYDS.

Chicago Fire Underwriters, Chicago. ....	.....	Ceased bus.
Reliance Fire Underwriters, Chicago. ....	.....	Ceased bus.
Seaboard Fire Underwriters, New York	\$7,046	Retired.
Totals, 3 Lloyds. ....	\$7,046	
Grand total, 34 companies. ....	\$2,115,831	

The loss in 30 years by conflagrations destroyed property valued at \$542,287,135. This only includes the fire waste caused by conflagrations involving losses of \$500,000 and over.

The National Board of Fire Underwriters composed of 126 leading fire companies has commenced a movement looking to better fire protection conditions. It decided to appoint a committee charged with the duty of organizing an engineering department composed of men standing high in their profession and through them to investigate existing conditions, stating them and making recommendations for improvements that would minimize the sweeping fire or conflagration hazard, especially in congested or heavy value districts. Accordingly, a staff of engineers has been organized, and to-day there are in the field four parties, each collecting data and making tests in the different cities, the work being carried on by men who have had experience in civil, mechanical, structural, hydraulic and electrical engineering.

The committee's report has the following remarks which the public in every city and town could study with advantage.

#### THE PEOPLE PAY FOR THE FIRE WASTE.

"A sweeping fire or conflagration is a terrible calamity, and, occurring in one of our greater cities, would wipe out several hundred million dollars of property values, causing financial panics, from which all of the people of the United States would suffer. It should be borne in mind that, while the insurance companies reimburse the actual sufferer by the fire, the people as a whole bear the burden, and unless the people pay enough to the companies to meet the claims for fire losses, the companies would soon be forced into bankruptcy.

"It is a mistaken idea that payment by fire insurance companies makes good the property loss, for property burned is just so much value destroyed, and the insurance companies merely distribute the loss by collecting in small sums premiums from all the property owners and paying in large sums to those who suffer loss by fire.

"Property burned is money wasted, and the people of the United States are in this respect the most