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IMPROVED FLOODWAY FOR WAREHOUSES.

It is frequently the case, when small conflagrations break out in buildings, that the water thrown in to extinguish the fire does more damage than the flames themselves. Percolating through flooring, it deluges the apartments and their contents below, ruining plastering and soaking goods and furniture, often despite the efforts of the insurance patrol to save the latter from injury. The same takes place when, through freezing or other causes, the water pipes burst, in case of an overflow of tanks, basins, etc., or when bad leaks occur in the roof, necessitating considerable outlays for repairs or to cover the losses.

The invention illustrated in the annexed engraving has for its object the prevention of this flooding. It consists of a metallic pipe, A, leading continuously from the top floor of the building to the street sewer or drain. Metallic water ways or collecting basins are sunk in each floor at the point where the pipe passes through, and these communicate with the pipe by a suitable opening in the latter, which is covered with wire gauze in order to prevent the entrance of obstacles. Each basin is provided with a grated cover, as shown in Fig. 2, which, being flush with the floor, will enable the whole floor space to be occupied. If desired, the leader from the roof may be turned inward and also connected with the pipe (avoiding the use of an outside leader), extending the full height of the building, and allowing the same to be built in the walls or otherwise, so as to be out of sight.

The use of the invention is graphically told by our large engraving. The water, instead of accumulating on the floor and finally making its way through, as is shown to be the case in the building on the right, runs into the basins and thence down the pipe. As many pipes as may be desired can be employed, suitable diagonal connections led across the cellar serving to attach their lower ends to the sewer conduit.

Fig. 3 illustrates a form of water way or basin which is provided with a swinging valve, A, to prevent back flow of air or water. The valve is rubber-lined at the edges.

The patentee, in his circular, gives the following information:

1. The object of this invention is to provide a means of preventing warehouses and other buildings from being flooded in case of fire, as is now commonly the case when a fire breaks out in any of the upper stories of a building and thereby to save a large amount of goods, which might otherwise be destroyed by water soaking through the floors to the rooms below, often, despite the efforts of the insurance patrol, exceeding the damage done by the fire itself, thereby reducing the risk to a considerable extent.

2. It is an auxiliary to the fire department, as firemen can more readily get at, handle, and safely dispose of goods and valuables, on the floor where the fire exists (without scuttling), at the same time rendering the covering of the goods, or the removal of the same from the floors below, in most cases entirely unnecessary, facilitating generally the saving of goods and valuables, as well as time and labor.

3. The invention also provides a means of escape for water

in case of pipes bursting from frost or otherwise, which, if not checked immediately, would cause great damage both to building and property contained therein. And furthermore, the leader from the eaves may be turned inward, so as to conduct the water from the roof into the pipe or pipes, and thereby utilize them and save the additional cost of a full length leader, as ordinarily applied to the outside of buildings.

4. It is always ready for use without any personal aid, and requires but little or no attention in any building, whether occupied or not. The arrangement is such that no impure air can enter the building from the main pipe.

5. It also affords protection to expensive ceilings, valuable furniture, and other property, in case of an overflow of basins, tanks, etc. It is also a protection in case of bad leaks occurring in roofs.

6. The apparatus is simple, complete, and effective, and can be applied to buildings of any description, old or new, in any part of the floors or walls, without the slightest injury, so that the whole can be occupied as though it did not exist. It simply has the appearance of a register, which can be made as ornamental as desired, at so small an expense, and with so little trouble, that property owners generally (both real and personal) should not fail to give it their immediate attention.

In short, it is the one thing substantially needed for the purposes herein set forth and described, principally in cases of fire. Architects, builders, insurance companies, and the public generally are respectfully invited to examine the same.

Patented through the Scientific American Patent Agency, July 6, 1875, by Mr. John H. Morrell. Patents have also been secured in Europe and Canada. For further particulars address or apply at The Morrell Storage and Safe Deposit Buildings, corner Fourth avenue and 32d street, New York city, where it can be seen in use.

Safety Valve Tests.

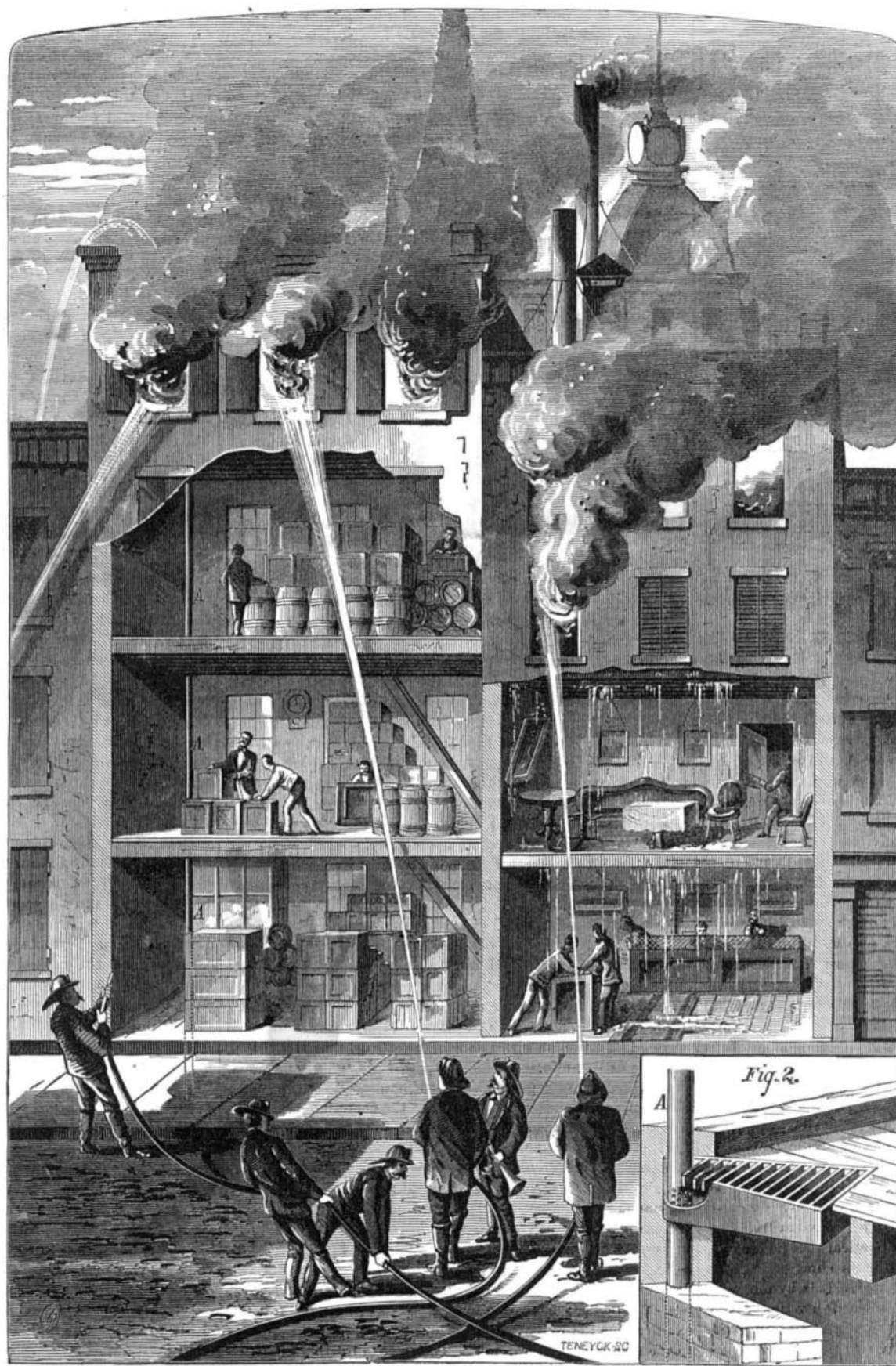
A committee appointed by the Board of Supervising Inspectors of Steam Vessels begin a test of steam boiler safety valves, at the Washington Navy Yard, on the 13th inst. All valves presented must have a uniform area of opening of five square inches, and will be submitted to the following trials (in competition):

1. Capability of discharging any excess of steam above a fixed working pressure.
2. The limits of pressure within which the valve will open and close.
3. Uniformity of action at different pressures.
4. Reliability of action under continued use.
5. Simplicity of arrangement and facility of management.

The valves will be tested at a pressure of not less than twenty nor more than eighty lbs. to the square inch, and are not required to be provided with an inclosing case. All

valves must be operated by the pressure of the steam, and the greatest diameter of opening for double seated valves will be the same as for single seated valves. The flange for attaching to boiler must be eight inches diameter—flat face, without bolt holes.

The French government is considering a project for constructing a canal, by which the vineyards of the Rhone may be flooded as a remedy for the phylloxera. The canal will cost twenty million dollars, but it will bring into fruitfulness 60,000 acres of vine lands, which will yield forty million dollars annually.



MORRELL'S FLOODWAY FOR WAREHOUSES

Fig. 3.

