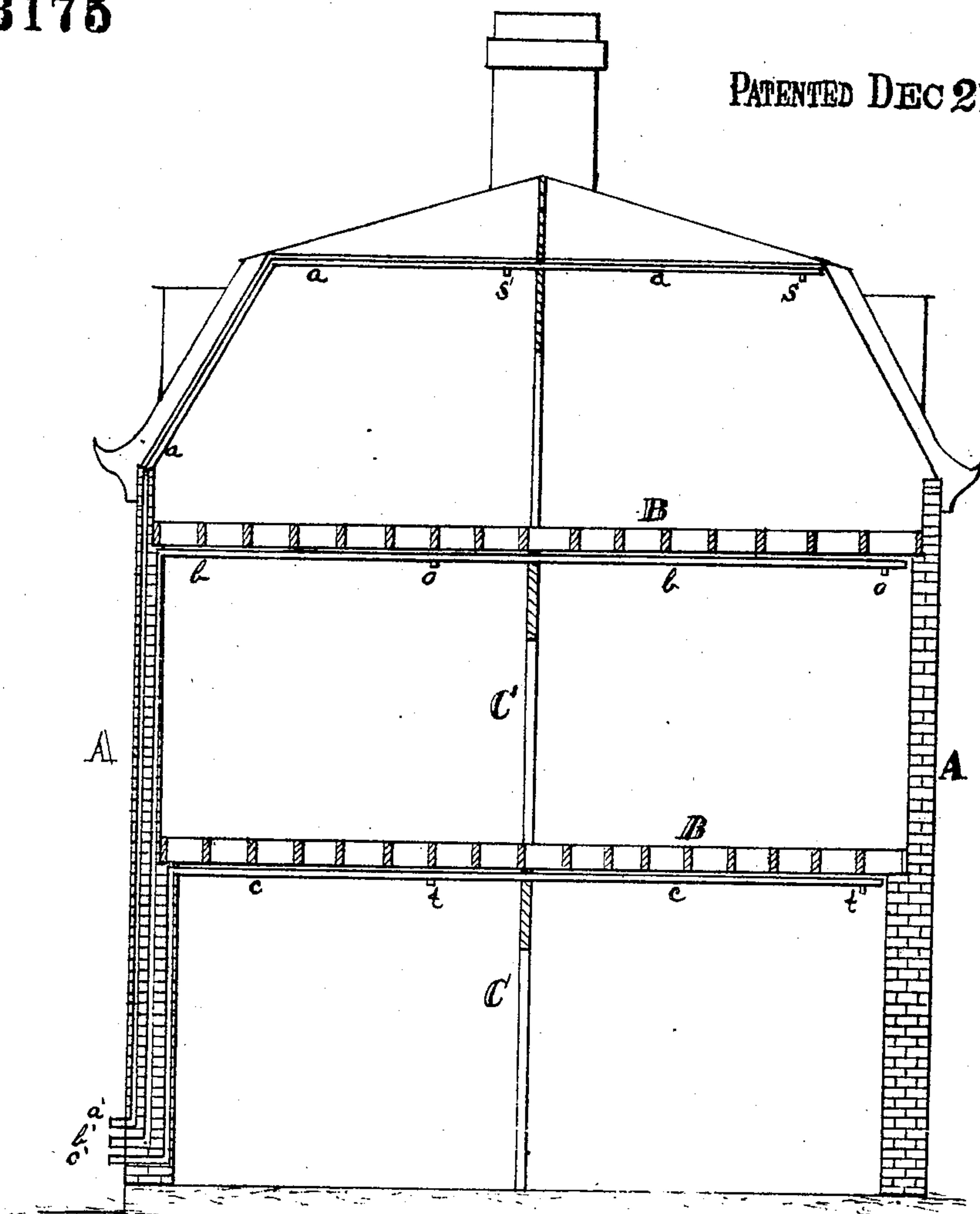


Orazio Lugo's Method of Extinguishing Fires.

98175

PATENTED DEC 21 1869



Witnesses

Benjamin Arnold

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IMPROVEMENT IN EXTINGUISHING FIRES IN BUILDINGS.

Specification forming part of Letters Patent No. **98,175**, dated December 21, 1869.

To all whom it may concern:

Be it known that I, ORAZIO LUGO, of the city and county of Baltimore, and State of Maryland, have invented new and useful Improvements in the Application of Steam to Extinguish Fires in Buildings, &c.; and do hereby declare the following to be a full and correct description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters and numbers of reference marked thereon, similar letters and numbers being used in all the figures to denote the same parts.

In these drawings, Figure 1 shows a section of a building, taken through from front to back.

The nature of my invention consists in so arranging pipes in buildings, and making their outlets easily accessible, that a connection can be quickly formed with the boiler of a steam fire-engine, or with a boiler made portable for that purpose, in case a fire should break out in the building, to extinguish it by means of steam.

That others may be enabled to understand and make use of my improvement, I will proceed to explain it.

A A are the walls of the building. B B are the floors, dividing the house into stories. C C are partition-walls between the rooms.

a is a pipe, suitable for conveying steam, extending from the outlet *a'* up in the wall to the upper story, where, if there is more than one room in the story, the pipe is carried across the building, and outlets *s s* are made in the pipe, one in each room. *b* is another pipe, extending, in like manner, from its outlet *b'* up through the wall to the second story, across which it runs, and outlets *o o* are made in it, as in the pipe before mentioned. *c* is a third pipe, having its outlet *c'* below the others, and extending up into the first story across the building, and having outlets *t t* like the

first and second pipes—that is, one for each room on that floor.

This order of arrangement for the outlets on the outside is adopted because it shows by their position to what part of the building the different pipes lead; but they may be differently arranged and numbered, or otherwise marked, to show which pipe leads to any particular story.

The pipes are shown as being built into the walls; but in applying the improvement to a building already erected, the pipes may be carried up in the corners of the rooms, or where they will be least in the way.

The operation is as follows: In case of the building getting on fire in any part of it, the steam fire-engine immediately upon its arrival has a connection formed between its boiler and the outlet of the pipe that leads to that story of the building in which the fire has started by means of a pipe and “union-joint,” so called, and, steam being turned on, that room or story will be filled at once, and the fire extinguished by the steam expelling the air, and without any risk of damage to the goods or premises that water generally produces. The steam will also penetrate into places between bales of merchandise, &c., where water cannot be applied.

I am aware that arrangements are sometimes made in manufactories using steam-power whereby steam could be turned into any part to extinguish fire; but

What I claim as my invention, and desire to secure by Letters Patent, is—

The arrangement of pipes and outlets to the same, substantially as herein set forth, in connection with the application of steam from a steam fire-engine or portable steam-boiler.

ORAZIO LUGO.

Witnesses:

JAMES E. ARNOLD,
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