No. 805,745. PATENTED NOV. 28, 1905.

F. N. PEASE.

WATERPROOFED MASONRY.

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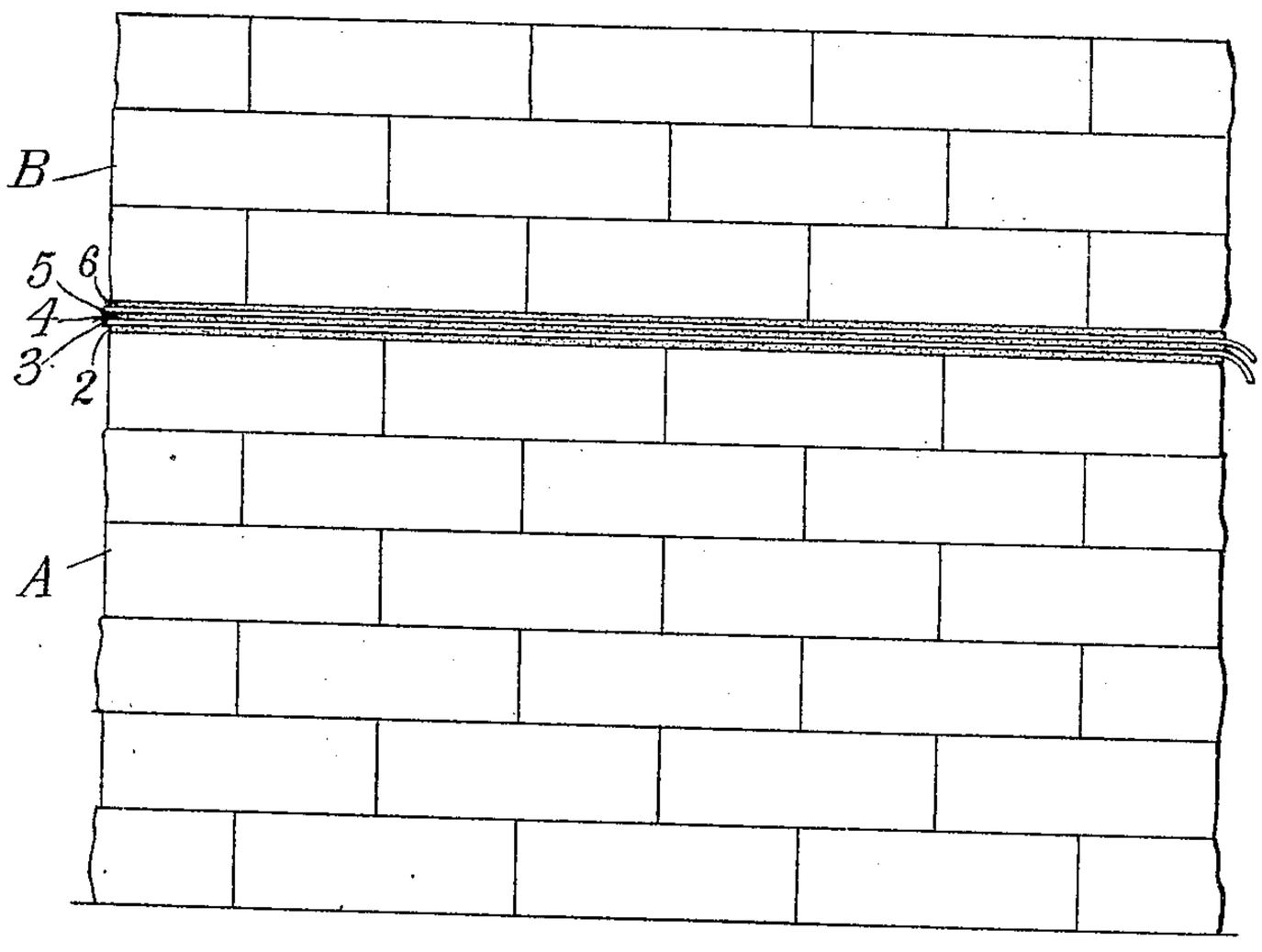

Witnesses
Raphael Netter
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UNITED STATES PATENT OFFICE.

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WATERPROOFED MASONRY.

No. 805,745. Specification of Letters Patent. Patented Nov. 28, 1905.

Application filed January 3, 1905. Serial No. 239,503.

To all whom it may concern:

Be it known that I, FREDERICK N. PEASE, a citizen of the United States, residing at No. 146 East Thirty-sixth street, borough of Manhattan, city, county, and State of New York, have invented new and useful Improvements in Waterproofed Masonry, of which the following is a specification.

My invention relates to improvements in waterproofed masonry, its object being to provide a waterproof layer or stratum in or upon the masonry which can be applied or put in place without the use of solvents or the application of heat to the cementing, binding, or sealing material; and it consists in the methods hereinafter set forth and the features of construction hereinafter described.

In the construction of masonry in a confined and limited space, such as the building of an arch of a tunnel through rock, where the working space is quite restricted both laterally and vertically and without free vent to the atmosphere, it is necessary to use materials which can be applied to the freshly-laid moist masonry and will properly adhere to the same and upon which other masonry can be immediately laid without resorting to the use of solvents or heat to soften or liquefy the pitch or other cementing and sealing material. The use of heat to liquefy coal-tar pitch ordinarily used in such work would cause it to throw off noxious fumes, and it would be impracticable to employ it in such locations because of the difficulty in heating and applying the same while hot to the work, even if it were not objectionable for the reason above stated. If solvents were used for softening and liquefying ordinary pitch or other cementing materials, the vaporized solvents would produce when mingled with the atmosphere in the confined space an explosive mixture which would be dangerous to workmen. I therefore prepare for this purpose a pitch produced by heating coal-tar to the temperature at which the vapors in the still are of a temperature of about 338° Fahrenheit, whereby the ammoniacal liquor and light oils are volatilized and carried off, leaving a residuum which when cold is plastic and easily handled with a trowel and which will adhere without being heated to cold moist surfaces. This plastic pitch is spread upon the surface of the freshly-laid masonry, and thereon is laid any suitable flexible waterproof material, such as paper or felt. To this is then applied another coating of the pitch, and thereon may similarly be placed one or more layers of the waterproof felt or paper, the whole mass being given a final coating of the pitch. Upon or outside of this may then be laid other masonry or other material.

The accompanying drawing, forming part of this specification, shows a combined waterproof layer or stratum of the character described in the masonry structure.

A represents the underlying masonry, and B the superposed. Upon the mass A rests the layer of pitch 2, and superposed thereon the layer 3 of felt, upon this a second layer 4 of pitch, another of felt 5, and a final coating 6 of pitch, upon which latter is laid the masonry B.

I claim—

1. In waterproof-masonry construction, the method of first heating coal-tar to about 338° Fahrenheit and allowing the same to cool, then laying a stratum of masonry, then applying thereto a coating of such prepared coal-tar without the use of solvents or heat, and then applying a stratum of masonry or other material thereon.

2. In waterproof-masonry construction, the method of first preparing a normally plastic pitch by heating coal-tar to about 338° Fahrenheit and allowing the same to cool, then applying a coat of such pitch without the use of solvents or heat to the freshly-laid masonry, then laying thereupon a flexible waterproof fabric, and then coating said fabric in like manner with such pitch.

3. In waterproof-masonry construction, the method of first preparing a normally plastic pitch by heating coal-tar to about 338° Fahrenheit and allowing the same to cool, then preparing a stratum of masonry, then applying thereto while still moist a coating of such pitch without the use of solvents or heat, then applying a waterproof fabric thereto, then coating the same with such pitch without solvents or heat, and then applying a covering of masonry thereon.

In witness whereof I have hereunto set my hand, at the city of New York, this 31st day of December, 1904.

FREDERICK N. PEASE.

Witnesses:

J. T. CRANE,

T. D. MERWIN.