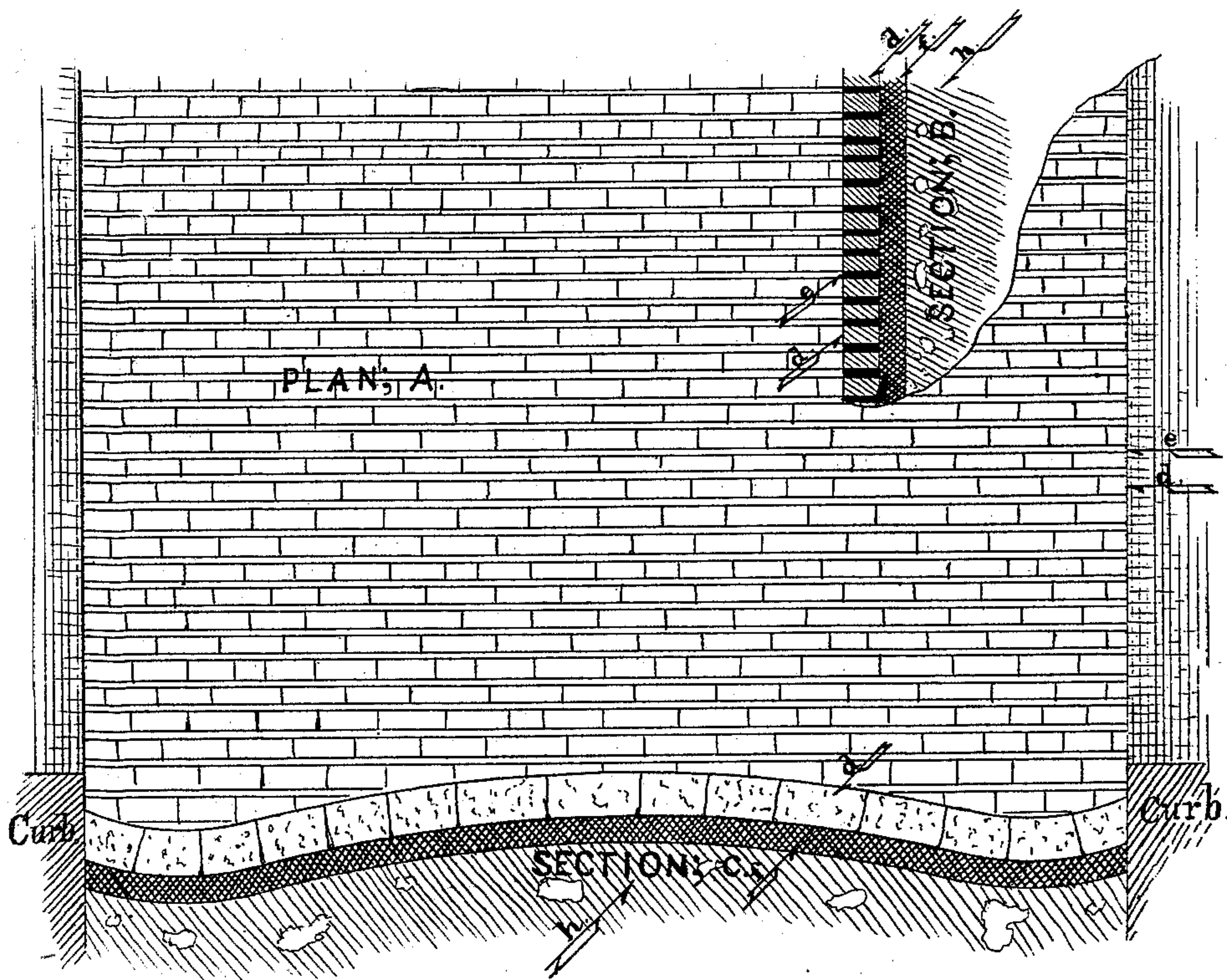


J. McBEAN.
STONE PAVEMENT.

No. 170,874.

Patented Dec. 7, 1875.



INVENTOR;—

John McBean

WITNESSES;—

John S. Whipple

Charles K. Offield

UNITED STATES PATENT OFFICE.

JOHN McBEAN, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN STONE PAVEMENTS.

Specification forming part of Letters Patent No. **170,874**, dated December 7, 1875; application filed August 16, 1875.

To all whom it may concern:

Be it known that I, JOHN McBEAN, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Street-Pavements; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to which it appertains to construct and use the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

A represents a plan view, showing a section of street covered with my improved pavement, without the finishing surface-gravel. B represents the same, with a part torn up to show the foundation and filling between the rows of blocks. C represents an unfinished end, showing the sides of the blocks and foundations.

My invention relates to stone-block pavement, and is intended to obviate the objections of noise and the slipping of horses on that class of pavement, and its liability to injure horses and vehicles. To that end it consists in the arrangement of parts and elements more fully understood by the following description and claim.

In the drawing, *f* represents a fine gravel or sand foundation. *d* represents blocks of stone; *e*, the filling between the rows of blocks, and *h* the road or street bed.

The road or street bed should be graded to the formation of a roadway, and then covered with about four inches of fine gravel or sand, which should be thoroughly tamped, with rammers or otherwise, so that the bed shall have an even surface and uniform bearing to receive the pavement. On this foundation I lay blocks of stone of a good hard quality, from three to four inches in thickness, by six to twelve inches in length, and six to eight inches in depth, dressed so as to form good end joints and an even surface. The stone blocks may be of any other desired size; but the depth should always be uniform, so as to have an equal bearing on the foundation. The stone blocks should be set in regular courses or rows across the street, on their edges, so as to break joints, as shown in letter A of the drawing, leaving a space of about

one inch between the rows, said spaces to be filled with clean pebble-gravel and a composition of coal-tar and pitch, in about the proportion of three gallons of tar to one of pitch, boiled down so as to form a hard but not brittle substance when cold. After the pebble-gravel is put in, not less than two gallons of the composition to each square yard of pavement should be poured into the interstices while hot. This is intended to fill the space between the rows of blocks up even with their upper surface, and unite with the pebble-gravel, to make a solid mass which will hold the stone blocks firmly in place.

The whole pavement, when thus laid, should be thoroughly rammed to a solid bearing and formation of street, and the gravel and composition in the spaces between the rows of blocks well packed with tamping-irons. The entire surface should then be covered with a top-dressing of gravel to a depth of about one inch, which may be swept off after a few weeks' use.

The principal objections to stone pavements are, the great noise made by the travel over it, and the slipping of horses and wagons or other vehicles thereon. Another objection is its liability to wear into ruts at the joints between the blocks, which makes it very racking to heavily-loaded vehicles. The noise is caused mainly by the stone being laid in close contact with each other. The closer the joints the greater will be the noise and the more slippery the street.

The method which I have set forth in this specification will obviate all the objections to stone pavements. The spaces between the blocks, filled as I propose, (the material being a non-conductor of sound,) will so diminish the noise that it will be hardly perceptible, as compared with that of the stone pavements at present in use, and will also give a firm footing to horses, and prevent the street from being cut up into ruts, as the compound put into the spaces is hard and tough, and will wear as long as the stone blocks themselves, and keep the street of a uniform surface, which will be a great saving to animals, as well as to vehicles, and make a pleasant roadway for carriages.

I am aware that pavements have been laid

which are composed of blocks of stone cut in various forms, and put down so as to leave interstices between the blocks; but such I do not claim, broadly; but

What I claim is—

In combination with pavement-blocks of stone, cut purposely to a uniform size and made smooth on both sides and edges, a bed

of sand and a filling composed of dry gravel and a compound of coal-tar and pitch, of about the proportions specified.

JOHN McBEAN.

Witnesses:

JNO. H. WHIPPLE,

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