

E.M. MULLEN.

Wooden Pavement.

116734

PATENTED JUL 4 1871

Fig 1

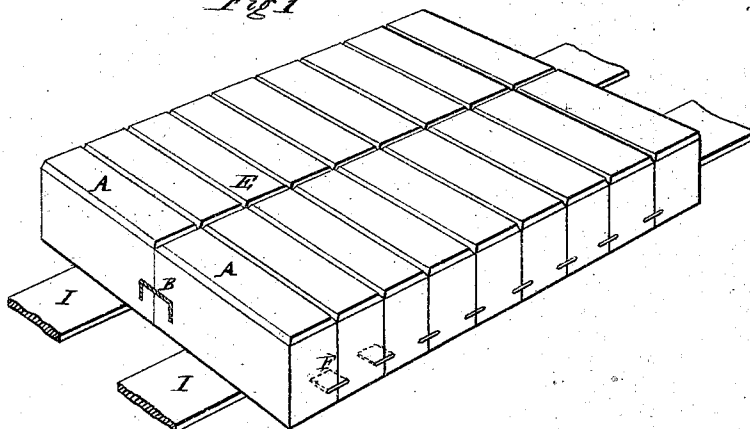


Fig 2

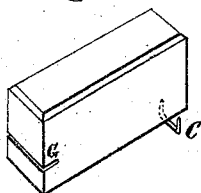


Fig 3

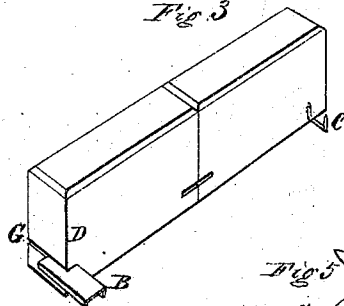
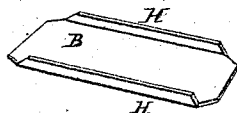


Fig 5

Fig 4



Witnesses

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UNITED STATES PATENT OFFICE.

EDGAR McMULLEN, OF MONTREAL, CANADA.

IMPROVEMENT IN WOOD PAVEMENTS.

Specification forming part of Letters Patent No. 116,734, dated July 4, 1871.

To all whom it may concern:

Be it known that I, EDGAR McMULLEN, of the city of Montreal, in the county of Montreal and Province of Quebec, Canada, have invented certain Improvements in Pavements, of which the following is a specification, reference being had to the accompanying drawing:

My invention relates to wood pavements; and consists in a novel method of forming the blocks into sections by means of iron keys, so constructed and arranged as to unite two consecutive blocks as well as several rows of blocks, so that they may be conveniently laid down and formed into a solid and compact pavement either with or without intervening spaces, and may also be taken up without injury when it becomes necessary to obtain access to the gas and water-pipes or to the sewers, &c.

In the drawing, Figure 1 is a perspective view of a section of my pavement complete. Fig. 2 is a perspective view of one of the blocks forming the same. Figs. 3, 4, and 5 are views of parts detached.

The sections for this pavement are made about two feet in width and three feet in length, and consist of blocks of wood, A, cut from three to four inches thick, and from six to twelve inches wide, and from five to seven inches deep in the direction of the grain of the wood, and are bound together by iron keys, as follows: In the edge of each block, about one and one-half to two and one-half inches from the bottom, a slot or saw-cut, G, from three-fourths of an inch to one and a quarter inch deep, is made, as shown in Fig. 2. The edges of two or more blocks are brought together by a clamp or other suitable device, so that the saw-cuts shall join each other evenly, when an iron key, B, from one and one-half to two and one-half inches wide, as may be deemed most desirable, and of suitable thickness to drive singly without bending, and slightly flattened and sharpened at each end, is inserted in the saw-cuts G and driven in so as to unite the blocks, as shown in Fig. 1. The shape of this iron key is shown in Fig. 4, in which it will be seen that besides having its ends flattened and sharpened it has flanges H H on its sides, so that when these keys are driven into the saw-cuts these flanges cut their own way into and through the wood on one side of the saw-cuts in each block so as to hold the blocks firmly and secure-

ly together, as shown in said Fig. 1. The size of this key should be such as to be of the same length as the thickness of the blocks and be driven only half-way through, as shown in Fig. 3.

In preparing and putting the blocks together the edge of the first row is cut only half-way through so that the key B will, when driven in, have a projection of half its length. The next row is then driven onto the projection of the keys by inserting the ends of the keys into the saw-cuts and driving the blocks together; then other keys are driven in until they meet the keys of the preceding row, and another row of blocks is driven onto the projecting ends of these keys, and so on until a solid compact section of about three feet in length is formed. If desired, before the blocks are thus formed into a section a saw-cut, similar to the one already described, is made on the inside corner of each block opposite the end prepared for the insertion of the key B, from three-fourths of an inch to one inch in width and about two inches in depth, so that when the blocks are framed together a straight key, F, may be driven into these saw-cuts, (or one having flanges like B may be used,) as shown in Fig. 1. While the keys F give no additional strength to the section, and are, therefore, not essential, yet they tend to prevent its springing or twisting while being handled. Once laid, the section would be as durable without as with the side keys F. Instead of the side keys F the section may be strengthened for the purposes of handling by means of iron staples C made of any suitable size and strength, and shaped as shown in Fig. 5. These staples when used are driven into the bottom of the blocks, each staple being so driven as to engage and bind together two of them. If desired, both the side keys F and staples C may be used. When it is desired to have the sections conform to the camber of the street a wedge-shaped strip may be cut from the outer edge of each block or of each section in its manufacture. The upper edges E of the blocks A should be beveled so as to make a foothold for horses or for the purpose of being filled with any suitable composition. After the street has been properly prepared, stringers I, or a flooring of wood from six to ten inches wide and about one inch in thickness, are to be laid lengthwise of the street, as shown in Fig. 1. They may be laid closely when the soil is of such a nature as not to admit drain-

age, or about three inches apart when drainage through the pavement is desirable. The sections are then arranged upon this bed from curb to curb. Another mode of constructing the sections is to have the keys B three-fourths of an inch longer than the thickness of the blocks A, so that a three-fourth-inch space may be left between each row. This space can be filled with gravel or other material, as may be desired, for any purpose; or the keys B, being made three-fourths of an inch longer than the thickness of the blocks, may be driven through each row; the rows in that case being from six to eight feet long and three to four inches thick, each row to form a section, the three-fourth-inch projection resting against the opposite row, keeping a fixed space of three-fourths of an inch between each row or section crossing the street and preserving a perfect alignment of the same. The spaces thus made between the rows may be filled with any material suitable for rendering the pavement solid and durable. The gutters are formed by placing next to the curb such sections as have the outer row of their blocks suitably shaped for the purpose.

A pavement thus constructed and laid, it will be seen, can be readily taken up in whole or in part when desired. As each section is made and laid independent of every other, it can be readily lifted from its bed without the slightest injury to any portion of the pavement, and can also be relaid without the necessity of repair or the employment of skilled labor.

Having thus described my invention, what I claim is—

1. The sections for wood pavement, consisting of the rectangular blocks A united by means of the flanged keys B, as herein described, for the purpose of producing a pavement the sections of which may be taken up and replaced when desired, as set forth.

2. The combination of the keys B and F or staples C with the blocks A, when constructed and arranged in rows and sections of pavement, substantially as herein described.

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Witnesses:

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