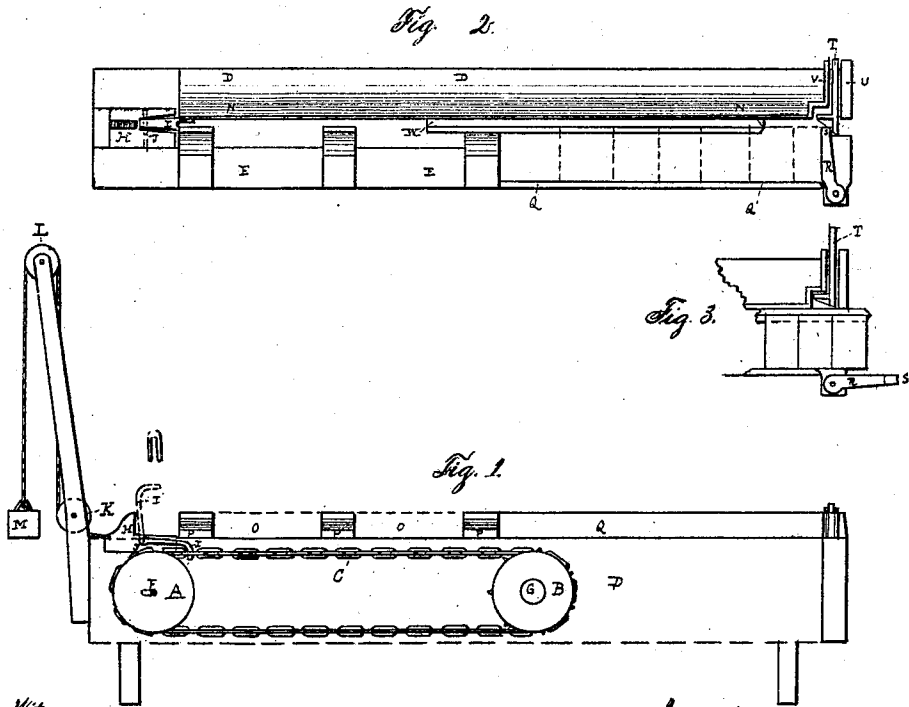


*P. J. Cummings,*

*Keying Paving Blocks.*

*No. 108,977.*

*Patented Nov. 8, 1870.*



*Witness*

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# United States Patent Office.

PERLEY D. CUMMINGS, OF PORTLAND, MAINE.

Letters Patent No. 108,977, dated November 8, 1870.

## IMPROVEMENT IN DEVICES FOR KEYING PAVING-BLOCKS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, PERLEY D. CUMMINGS, of Portland, in the county of Cumberland and State of Maine, have invented a new and useful Machine for Keying Wooden Pavements; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, in which—

Figure 1 is a side elevation, with the outside casing removed;

Figure 2 is a top plan; and

Figure 3 is a detail of the device for closing the end of the machine.

Same letters refer to like parts.

The frame of the machine consists of two horizontal beams, D and E, firmly bolted together at the extremities.

Two shafts, F and G, pass through the beams D and E. The shafts and their relative positions are shown in fig. 1.

On the shaft F, between D and E, is fixed a grooved wheel, A, while on the shaft G are two fixed wheels, one a grooved sprocket-wheel, B, between D and E, and the other outside the beam E, to which a band may be applied.

Over the wheels A and B passes an endless chain.

The frames or beams D and E are both provided with tongues on their inner and upper edges; and between these tongues runs the dog H, having on either side grooves, into which the tongues before named fit. The shape of the dog H is shown in fig. 1.

The dog is provided, at its inner end, with the movable claw, I, which is pivoted at J, and so made as to clasp the vertical links of the chain C.

To the other end of the dog is attached a band or rope, which passes under the wheel K and over the wheel L, after which a weight is attached to it.

On the beam D is a guide, N, having a smooth inner surface, O O.

On the beam E are keyed guides P P P, placed, as required, between the center of the machine and the wheel A, while from the center of the beam to the other end thereof is the guide, which is placed on the upper and outer edge of the beam.

Hinged at the extremity of the same is the gate R,

which has a notch or bifurcation (shown in dotted lines at S in fig. 3) at its inner end.

The gate, when closed, fills the opening between the guides N and Q, and is so held by the slide T, which moves between the guides or supports U and V.

The inner end of the slide T is beveled, and has two notches, into which the bifurcation of the gate R fits.

The object of the device is to key together the blocks of which wooden pavements are formed.

In the operation, the blocks are placed on the beam E, between the guides Q and N, with the end in which the key-way has been cut next to the guide N. The board on which the key has been placed is put between the guides P P and N, the key resting on supports on the inner surface of the guides P P. Power being applied to the shaft G, the chain is carried around the wheels A and B. This carries with it the dog H, the thin projection on which strikes the board W, fig. 2, and forces the key into the key-way of the blocks.

When the key has entered the last block the board W strikes the beveled edge of the slide T, forcing back the slide, and thus opening the gate R.

At the same time that the blocks are allowed to pass out, the claw of the dog is forced up by the sprocket of the wheel, or its hold is loosened by the incline of chain over the wheel B, and the dog runs back to the position shown in fig. 1.

It is evident the key-board may be kept stationary and the blocks forced thereon.

When the key-board is so short that the dog does not strike it, a piece of board may be placed between the dog and the key-board.

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

1. The method of keying blocks, for the manufacture of wooden pavements, as set forth herein, to wit, by means of the wheel A, sprocket-wheel B, the endless chain C, and the reciprocating dog H

2. The beveled slide T, operated by means of the key-board, and opening the end of the machine.

Witnesses:

P. D. CUMMINGS.

WM. FRANKLIN SEAVEY.

GEORGE E. BIRD.