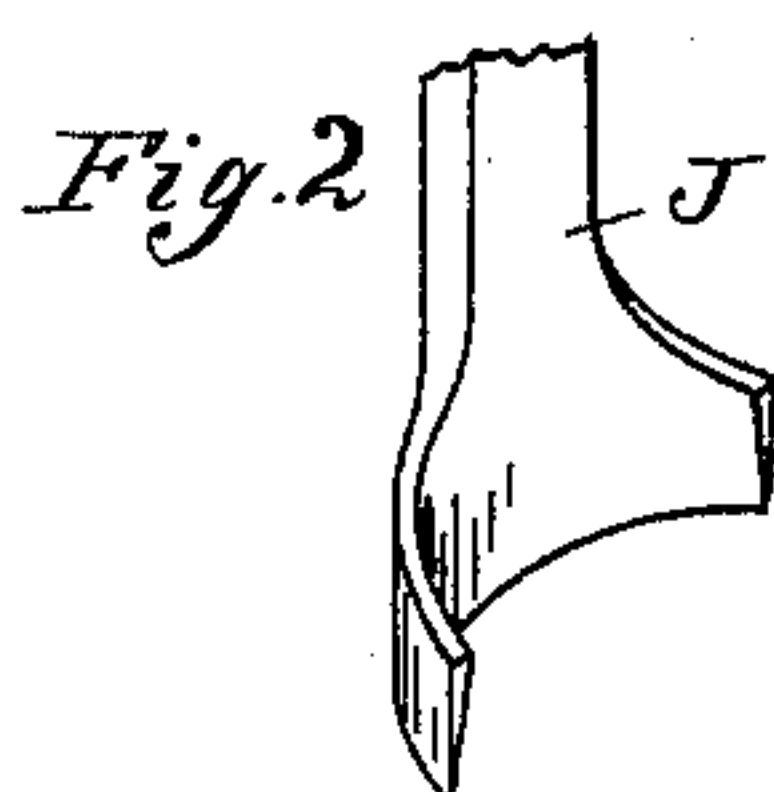
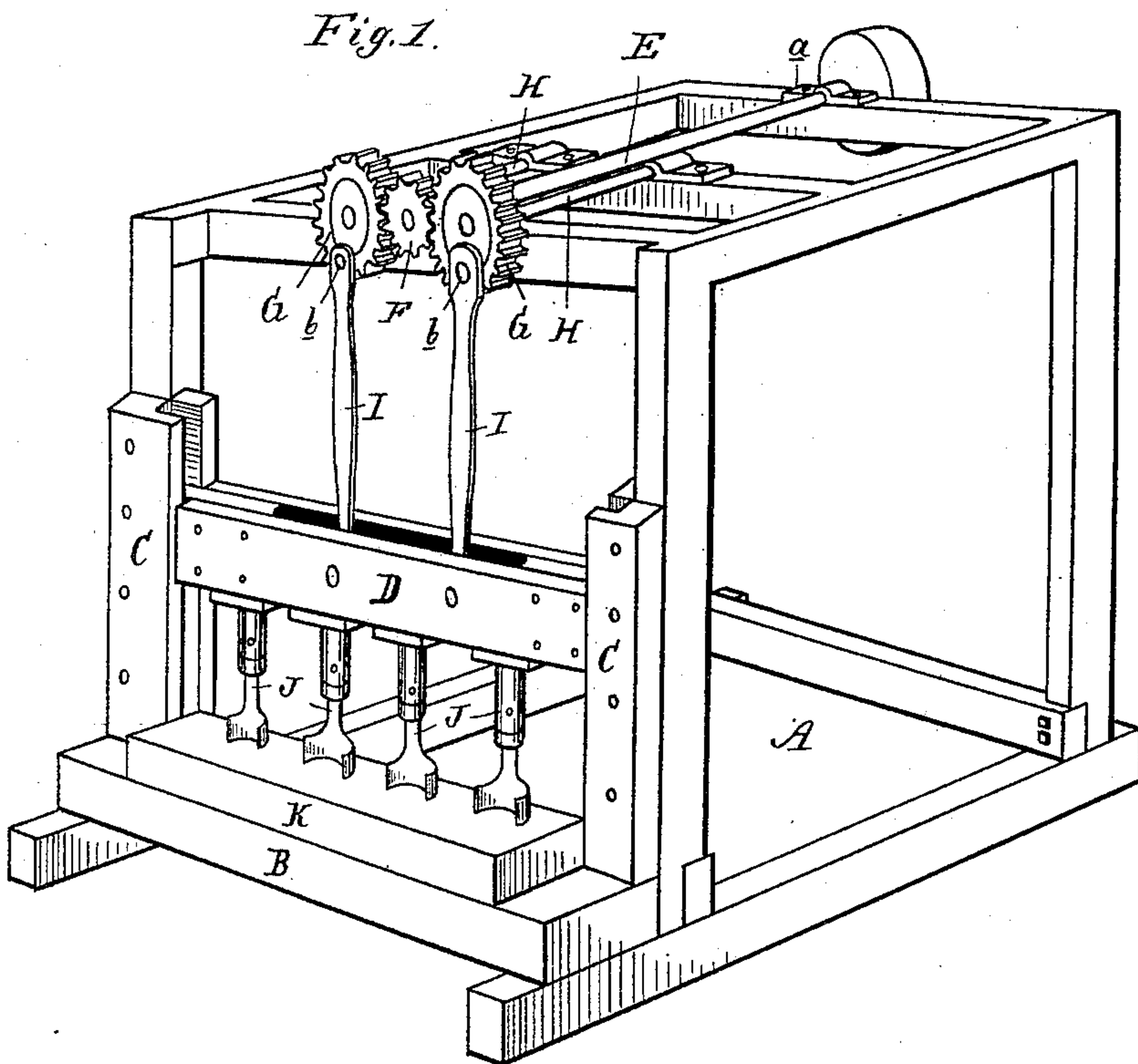


(No Model.)

D. G. ROSS.  
PAVING BLOCK MACHINE.

No. 339,015.

Patented Mar. 30, 1886.



*Attest:*  
*John Schuman.*  
*Charles J. Hunt.*

*Inventor:*  
*Donald G. Ross.*  
*by his Atty*  
*Phil S. Sprague*

# UNITED STATES PATENT OFFICE.

DONALD G. ROSS, OF HATTON, MICHIGAN.

## PAVING-BLOCK MACHINE.

SPECIFICATION forming part of Letters Patent No. 339,015, dated March 30, 1886.

Application filed December 17, 1885. Serial No. 185,933. (No model.)

*To all whom it may concern:*

Be it known that I, DONALD G. ROSS, of Hatton, in the county of Clare and State of Michigan, have invented new and useful Improvements in Paving-Block Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to certain new and novel improvements in machines especially designed for trimming paving-blocks.

The object of the invention is to produce a machine for the purpose named that will be cheap and simple in its construction, and by which the "sap" can easily be trimmed from paving-blocks designed for use in paving streets; and to that end the invention consists in the peculiar construction and operation of sectional curved cutters, in combination with means for operating the same, all as more fully hereinafter set forth.

Figure 1 is a perspective view of my improved device. Fig. 2 is a perspective of one of the cutters removed.

In the accompanying drawings, which form a part of this specification, A represents a suitable frame which supports the operating parts of the device. B is a bed-plate located near the lower ends of the vertical guide-posts C, in which the cross-head D has a vertically-reciprocating movement.

E is the main or driving shaft, properly journaled in bearings *a*, and upon its rear end is secured a pulley, to which motion is communicated from any convenient power. The front end of this shaft E carries a pinion, F, which meshes with the two gear-wheels G, properly secured upon the shafts H, and these gear-wheels are provided with wrist-pins *b*, which are connected to the cross-head D by the connecting rods or pitmen I, and by which in the rotation of the wheels G the cross-head is reciprocated in the guides.

J are a series of cutters rigidly secured to the cross-head D. These cutters are formed upon the segments of circles of different radii.

In practice the operator places a bed-block, K, upon the bed-piece, of suitable thickness, so that when the cutters are in their lowest positions they will come in close proximity to such block. The operator now places a

block under the cutter, whose size or curve approximates the nearest to the size of the block to be operated upon. The cutter descends and "chops" off a portion of the block within the scope or length of the cutter, and it will readily be seen that the sap can easily and quickly be removed, leaving the block nearly or quite cylindrical in shape.

I am aware that it is not new broadly to provide a reciprocating cross-head with a series of independent cutters, for such construction has long been used in machines for dressing stone, and such I do not claim.

I deem it important that the cutters be curved, as shown, and that they be formed upon the segments of circles of different radii.

By forming the cutters J upon segments of circles of different radii, so as to get a series of cutters of varying sizes, I am enabled to cut blocks from pieces of wood of varying sizes by simply placing the piece from which the block is to be formed under the cutter, whose size or curve approximates the nearest to the size of said piece, as will be readily understood.

What I claim as my invention is—

1. In a machine for the purpose described, a supporting-frame provided with guides, combined with a vertically-reciprocating cross-head and a series of independent cutters carried by said cross-head, said cutters being formed upon the segments of circles of different radii, substantially as and for the purpose specified.

2. In a machine for the purpose described, the combination, with the frame A, having guides C and bed-plate B, of the shaft E, journaled in bearings in said frame and carrying pinion F, shafts H, also journaled in said frame—one upon either side of the shaft E—the pinions G, carried by said shafts H and meshing with the pinion F, cross-head D, working in said guides, cutters J, carried thereby, and the pitmen I I, connecting said cross-head with wrist-pins on the pinions G, all substantially as and for the purpose specified.

DONALD G. ROSS.

Witnesses:

H. S. SPRAGUE,  
CHARLES J. HUNT.