

No. 725,301.

PATENTED APR. 14, 1903.

S. W. VINT.

STONE, GRANITE, OR MARBLE CUTTING MACHINERY.

APPLICATION FILED OCT. 7, 1902.

NO MODEL.

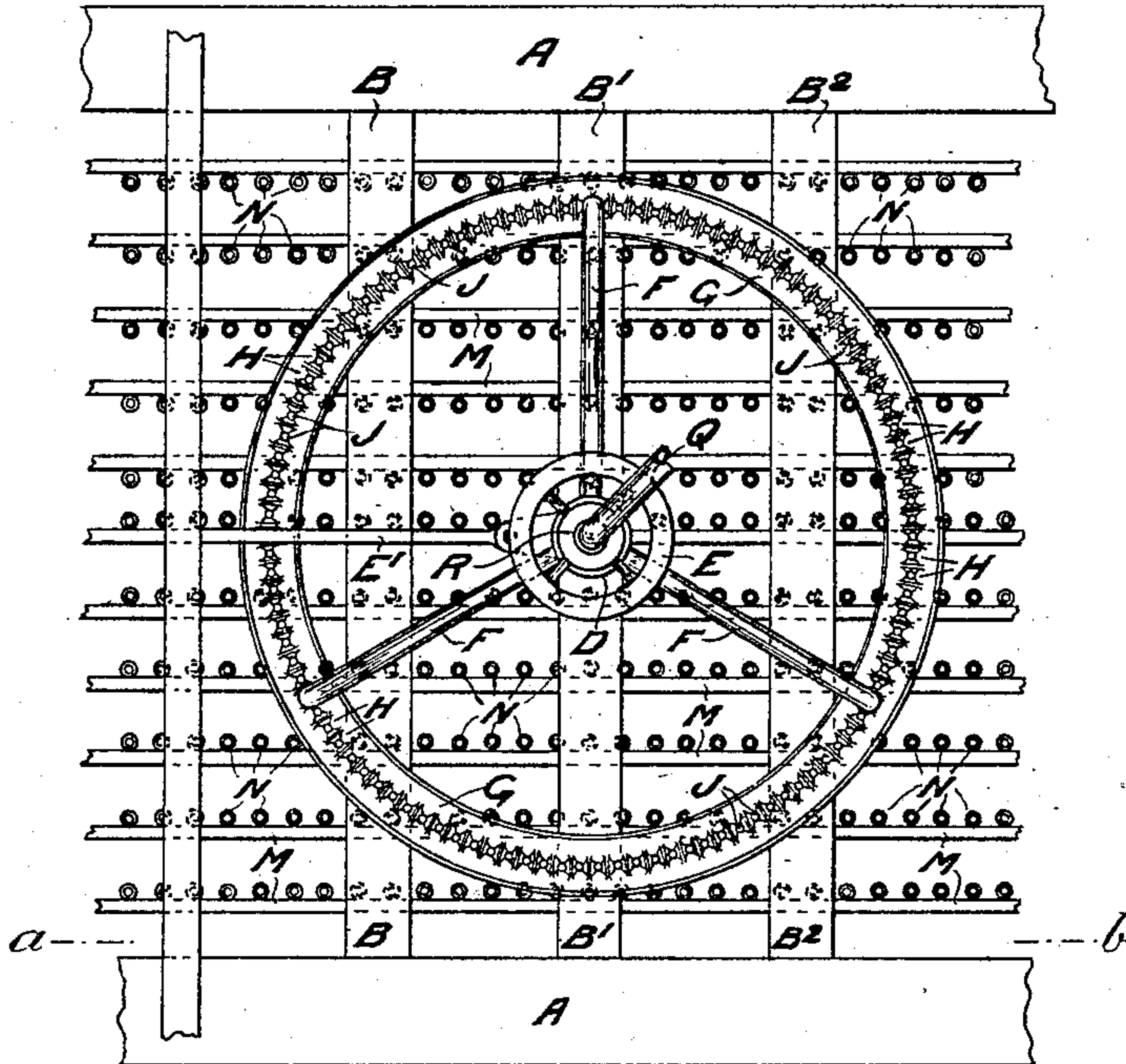


FIG. 1.

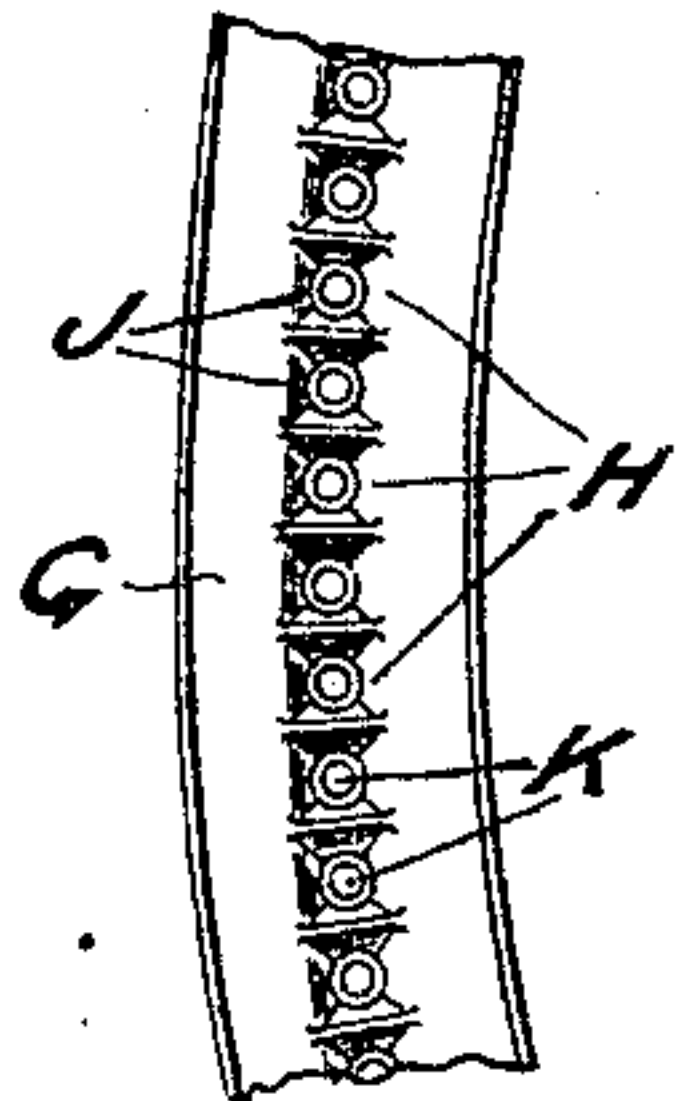


FIG. 3.

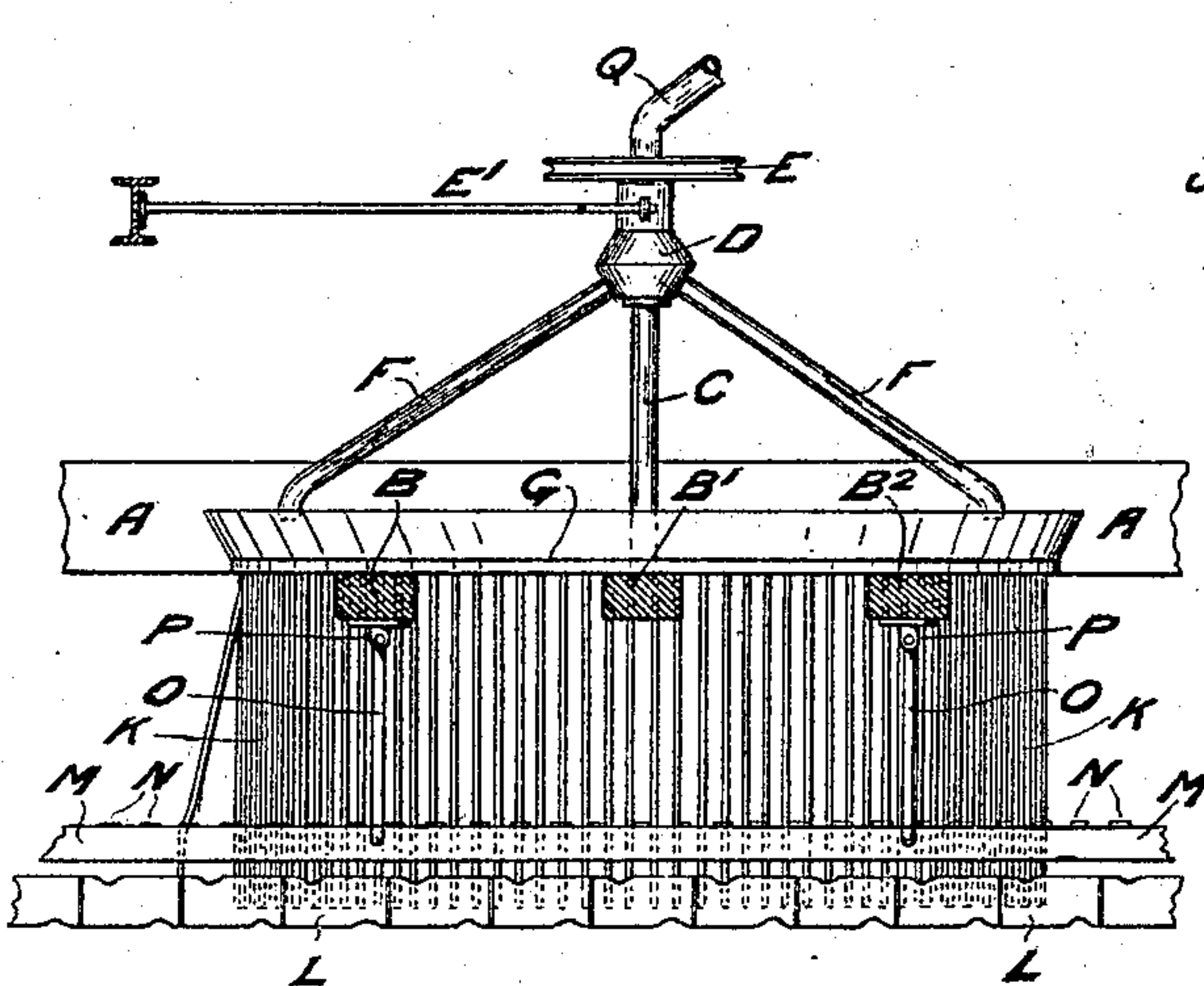


FIG. 2.

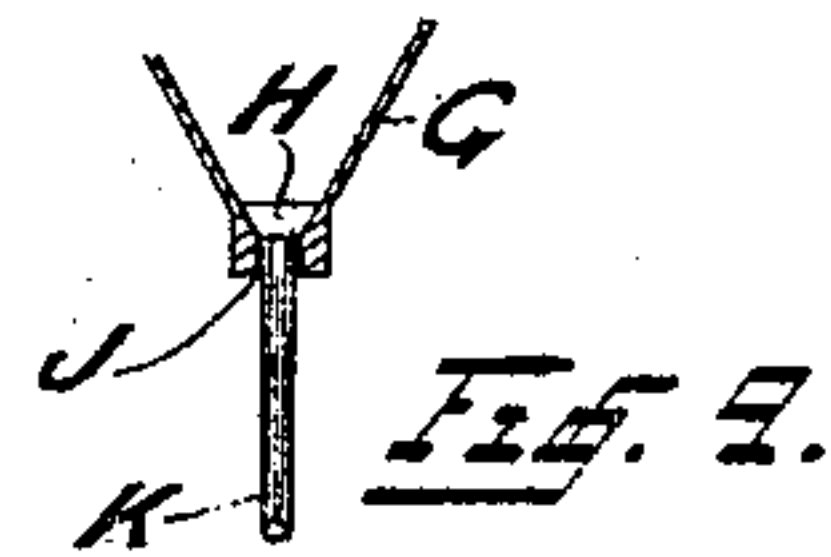


FIG. 4.

WITNESSES

H. M. Kuehne
J. M. Downing

INVENTOR

Samuel Walter Vint

By

Richardson

ATTORNEYS

UNITED STATES PATENT OFFICE.

SAMUEL W. VINT, OF BRADFORD, ENGLAND.

STONE, GRANITE, OR MARBLE CUTTING MACHINERY.

SPECIFICATION forming part of Letters Patent No. 725,301, dated April 14, 1903.

Application filed October 7, 1902. Serial No. 126,332. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL WALTER VINT, a subject of the King of Great Britain and Ireland, whose postal address is Ash Croft, Undercliffe, in the city of Bradford, England, have invented certain new and useful Improvements in Stone, Granite, or Marble Cutting Machinery, of which the following is a specification.

This invention relates to certain improvements in stone, granite, and marble cutting machinery, and has for its object the automatic feed and more even supply of sand and water or other material hitherto used in the "saw-gates," and thereby effect the cut with a smooth face and at a quicker rate than hitherto. The material used may also be collected and used again and again. Hitherto the water and sand or the like has been distributed by hand and sometimes by a pump to the saw-gates and is not fed constantly or evenly distributed, with the result that in many cases more water is used than is desirable, and the faces of the cuts are smooth in some places and rough in others. The water and sand once used is wasted.

In describing my invention in detail reference is made to the accompanying sheet of drawings, similar letters indicating similar parts where they appear, in which—

Figure 1 represents a plan of a portion of a stone-sawing machine with my improvement added thereto. Fig. 2 is a sectional elevation of the same on line *a b*. Fig. 3 is a detail of a portion of the wheel-rim in plan, and Fig. 4 is a section of the same.

In carrying out my invention, to the side frames A of an ordinary stone-cutting machine I attach in any convenient manner three cross-beams B, B', and B². Mounted on the upper side of the beam B' and about the center of the same is a vertical support or shaft C, at the top of which is mounted a circular or other convenient shaped vessel D, the whole being free to revolve. To the upper portion of the vessel D is attached a grooved pulley E of suitable diameter. The vessel, pulley, and shaft may be supported by a bracket or the like E' near the top, as may be found most convenient, in order to insure rigidity. Leading from the vessel D in an outward and downward direction are one or more pipes F

of convenient size. Mounted on the before-mentioned beams B, B', and B² and below the ends of the pipes F is what may be termed a "wheel-rim" G, which is of about the same diameter as the circle described by the pipes when in motion. The wheel-rim G on its upper surface is divided into small hoppers H for its entire surface, and the sides of the wheel-rim G are continued upward, forming one hopper for the total circumference of the same, as shown in Figs. 3 and 4. In the center of each hopper and at the bottom of the same is bored a hole J, leading from which is a flexible tube K of suitable length or other convenient means for conducting the water and sand or the like on to the saw-gates, which may be placed in the required position over the saw-gates and held in position by laths M, suspended horizontally over the stone, the said laths having bent wires or staples N on the upper side, through which the tubes K may be passed and be held in position.

In place of the laths M and the bent wires or staples N, I may use ordinary wire-netting of suitable mesh. The laths M are suspended from the beams B B² by rods or the like O, hinged at P. The said laths M may, if required, be driven in any convenient manner and given a backward-and-forward motion about the length of the stroke of the machine. On the saws L being put into operation the pulley E, attached to the before-mentioned vessel D, which, with the pipes F, revolves, may be driven in any convenient manner. The water and sand or the like passes through a pipe Q, through an orifice R in the pulley E to the vessel D, and down through the pipes F to the hoppers H. From there it is conducted to the saw-gates by the flexible tubes K and a constant even supply maintained. The material used after being fed to the saw-gates is collected below in any convenient manner and taken away by a drain to a sump and from there is elevated by an ordinary elevator and delivered through the pipe Q to the vessel, and so on to the saw-gates again.

Under the before-mentioned process the faces of the stone cut are uniformly smooth. The saw-blades last longer, as they do not come in contact with the stone sawed, the sand or the like being always between the

cutting edge of the saw-blade and the stone.
An even supply of water is given to the whole
length of each saw-blade.

What I claim as my invention is—

- 5 In stone, granite, and marble cutting machinery, a vertical support or shaft C, vessel D, pipes F, wheel-rim G, divided into hoppers H, flexible tubes K, laths M, with means for holding the tubes K in position, substantially

in the manner and for the purpose as herein- 10
before described and shown.

In witness whereof I have hereunto set my
hand in the presence of two witnesses.

SAMUEL W. VINT.

Witnesses:

CLIVE WAUGH,
JOSEPH P. KIRBY.