

No. 696,045.

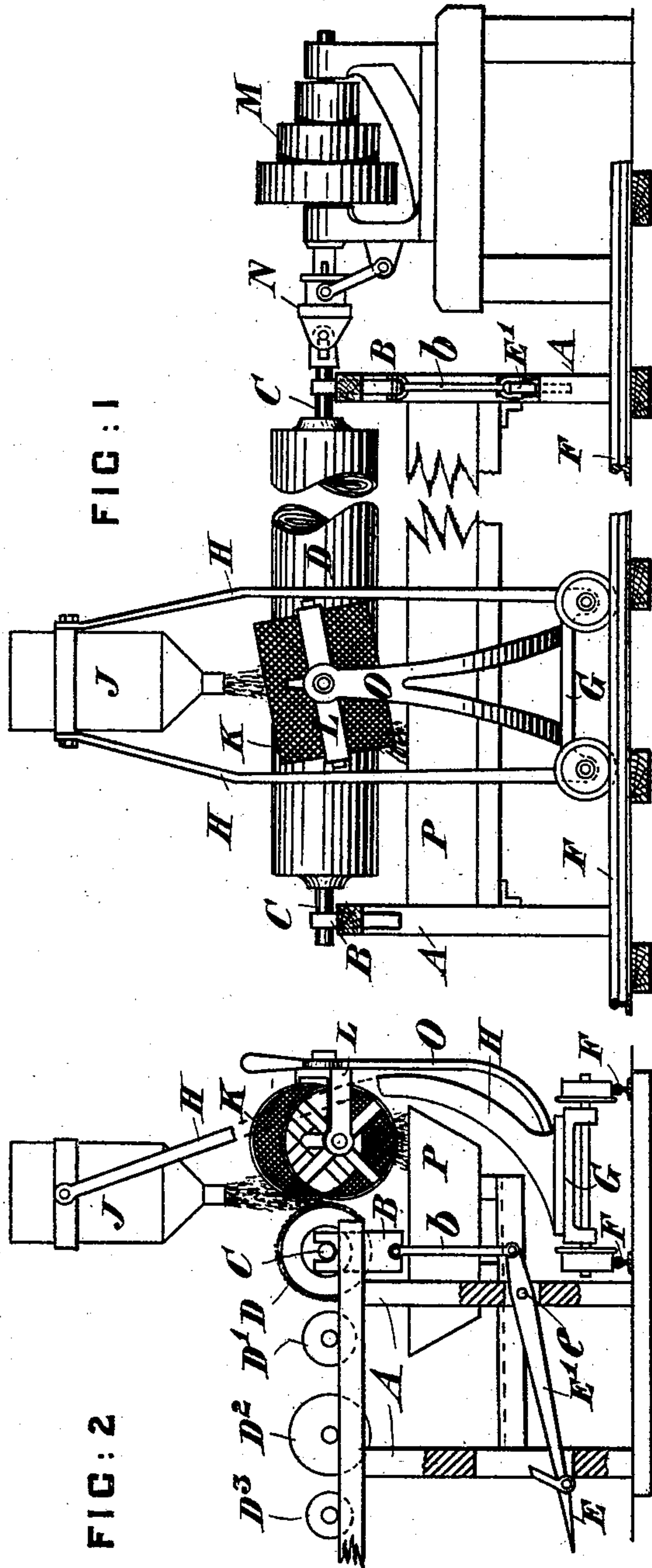
Patented Mar. 25, 1902.

G. J. HOSKINS.

MACHINE FOR MAKING CYLINDRICAL CORES FOR CASTINGS.

(Application filed Sept. 10, 1901.)

(No Model.)



WITNESSES:

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GEORGE J. HOSKINS, OF SYDNEY, NEW SOUTH WALES, AUSTRALIA.

MACHINE FOR MAKING CYLINDRICAL CORES FOR CASTINGS.

SPECIFICATION forming part of Letters Patent No. 696,045, dated March 25, 1902.

Application filed September 10, 1901. Serial No. 74,946. (No model.)

To all whom it may concern:

Be it known that I, GEORGE JOHN HOSKINS, a subject of the King of Great Britain and Ireland, and a resident of Sydney, in the State of New South Wales and Commonwealth of Australia, have invented a certain new and useful Machine for Making Cylindrical Cores for Castings, of which the following is a specification.

10 In this machine the core-barrel is supported on movable horizontal axes, parallel to which runs a truck or traveler, either overhead or otherwise, which supports a feed-hopper containing a mixture of mucilage and sawdust or
15 other suitable combustible material of such a nature that it will cohere together, but consume when subject to great heat. The truck or traveler also carries a gauze-wire cylinder on an adjustable oblique axis. The core-barrel is caused to rotate by means of pulleys,
20 which are provided with suitable clutches for running them in or out of gear. As the core-barrel rotates the mucilage-and-sawdust compound is fed on the core-barrel at the point where the gauze-wire cylinder impinges
25 against it. The wire cylinder is kept in contact with the core-barrel by means of a spring or weight; but in order that the invention may be thoroughly understood reference is
30 made to the accompanying drawings, in which—

Figure 1 is a front elevation of the apparatus. Fig. 2 is an end elevation of the same, the standards which support the hopper being partially cut away, so as not to cover the gauze cylinder.

35 A A are the end standards, provided with movable blocks B to carry the axes C C of the core-barrel D. The blocks B may be raised or lowered by means of pedal E and lever E', which is pivoted at e on standard A and connected by a pitman b to the block B.

40 F F are rails upon which run the truck or traveler G which is provided with standards H H, carries the feed-hopper J that is filled with a mixture of mucilage and sawdust which is allowed to drop upon the core-barrel in the manner to be hereinafter explained. The truck or traveler G also carries a gauze-wire cylinder K, which is arranged in a frame
50 L in such a way that a greater or lesser inclination can be given to its axis.

The core-barrel D is rotated by means of pulleys M, which are thrown in and out of gear with the core-barrel by means of the clutch N. The wire cylinder K is kept up to its work by means of a spring 6, which would insure that it shall lightly press against the surface of the composition on the core-barrel D. It is believed that the inclination of the wire cylinder resting against the core-barrel as it rotates will be sufficient to cause the truck to move forward; but the forward movement may be artificially stimulated.

The operation of the apparatus is as follows: A core-barrel, such as D, (of which there is a reserve supply, such as D' D² D³, laid on ways of the machine ready for use,) is dropped into the block B and is then caused to rotate by throwing the pulleys M into gear with the axis C. The mucilage and sawdust contained in the hopper J is then fed upon the core-barrel D at the point where the gauze cylinder K impinges against the periphery of the core-barrel D. The gauze-wire cylinder K is caused to rotate by frictional contact with the composition on the core-barrel, which composition through the instrumentality of the gauze-wire cylinder is caused to assume a perfectly cylindrical form upon the surface of the core-barrel D. The feeding of the mucilage and sawdust is continued until the whole of the surface of the core-barrel D is covered with a uniform thickness of the composition, which is fed onto it from the hopper J. The special function of the inclined gauze-wire cylinder is to render the surface of the composition which is laid upon the core-barrel D uniformly even and cylindrical. When the surface of the core-barrel D has been properly covered with the composition in the manner hereinbefore described, the block B will be depressed or lowered, so that the core-barrel D, with its covering of sawdust composition, may be readily removed by rolling it into an adjacent drying-stove, from whence it will be taken to the foundry, where it will be covered with the molding-loam in the usual way. Any surplusage of the composition which falls from the hopper J and liquid which is expressed by the contact of the gauze cylinder K will fall into the trough P below. It will be remarked that core-barrels of different diameters, such as D' D² D³, are placed

ready for insertion into the block B. Although these core-barrels are shown as of different diameters, no special adjustment of the gauze cylinder will be required.

5 Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

10 In a machine for making cylindrical cores for castings, the combination of a rotating core-barrel with a truck or traveler which carries a feed-hopper, and a gauze-wire cylinder on an inclined axis so disposed and ar-

ranged that the gauze-wire cylinder shall be caused to impinge against the periphery of the core-barrel or against the surface of the composition which is fed onto it from the hopper, as and for the purposes herein specified. 15

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

GEORGE J. HOSKINS.

Witnesses:

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A. R. W. MASSEY.