

No. 624,581.

Patented May 9, 1899.

A. TRAVAGLINI.
DIE FOR CUTTING MARBLE, GRANITE, &c.

(Application filed Aug. 25, 1898.)

(No Model.)

Fig. 1.

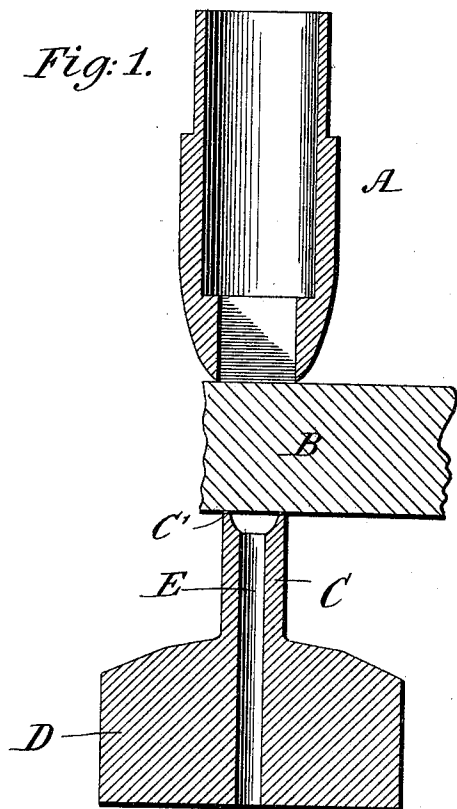


Fig. 2.

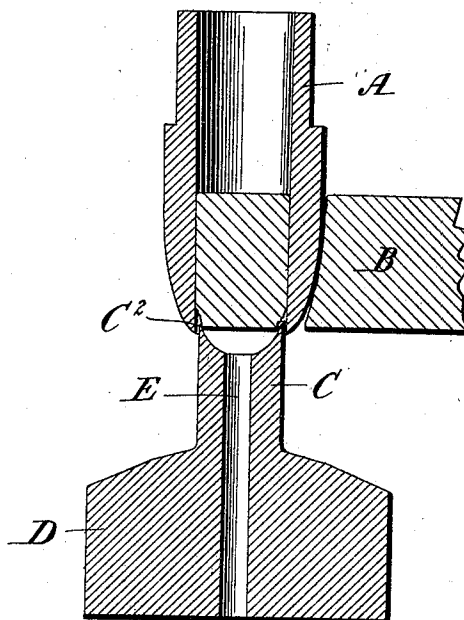


Fig. 3.

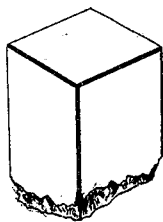
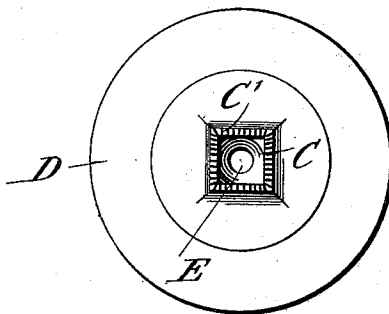


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

ANTONIO TRAVAGLINI, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO CAMILLO DE BENEDICTIS, OF SAME PLACE.

DIE FOR CUTTING MARBLE, GRANITE, &c.

SPECIFICATION forming part of Letters Patent No. 624,581, dated May 9, 1899.

Application filed August 25, 1898. Serial No. 689,484. (No model.)

To all whom it may concern:

Be it known that I, ANTONIO TRAVAGLINI, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Dies for Cutting Marble, Granite, &c., into Plain and Ornamental Patterns, of which the following is a specification.

My invention relates to improvements in dies for cutting marble, granite, &c., whereby the same are accurately cut into various forms or patterns for use in laying mosaic flooring, wainscoting, &c., or for other purposes of interior decoration, the object being to produce dies for this purpose which shall be simple and inexpensive in construction, effective in operation, and which will rapidly cut the material into uniform pieces, having their exterior perfectly smooth, so as to enable a close joint to be obtained when said pieces are in assembled position. Heretofore in the production of marble, granite, and other similar pieces used for this purpose it has been the custom to cut the slab into strips of the required width by the action of a shearing-knife similar to that used in paper-cutting machines and afterward dividing said strips by the same knife into proper lengths to form cubes or oblong sections. This method necessarily produces sections whose sides are irregular and rough, while the top and bottom of such sections are perfectly smooth. The irregularities referred to prevent a close joint between the sections, resulting in perceptibly-irregular lines, while the smoothness at the bottom prevents the adhesion thereto of the cement or other basic composition. A displacement or loosening of a single section, therefore, often results in the complete destruction of the flooring, wainscoting, &c., as will be apparent. Now, my invention is designed to produce these sections in such manner that the sides and top thereof will be preferably smooth, thus permitting of laying the same in a perfect and even line; but the lower end of each section will be roughened and broken away, so as to provide a substantial surface, whereon the cement or other basic composition will cling, and thus retain each of the sections firmly in position and independently of each other.

My invention consists in a female die made to conform to any desired pattern or contour and a male die adapted to coöperate therewith, said dies having means whereby the material is held against rotative movement or lateral displacement.

In order to more fully comprehend my invention, reference must be had to the accompanying drawings, whereon—

Figure 1 represents a longitudinal section of one form of my invention, showing a strip of marble in position ready to be operated upon. Fig. 2 represents a similar view of another form or pattern, showing a block or section severed from the strip of marble. Fig. 3 represents a perspective view of one of the marble or granite sections. Fig. 4 represents a plan view of the male die shown in Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates the female die, which is shown as square in contour, and in practice the same is held in a suitable support, (not shown,) said support being adapted to move said die A the required distance to penetrate the thickness of marble, granite, &c., B to be operated upon.

C designates the male die, which, of course, conforms to the shape of the female die and is mounted upon a base D, the latter in its turn being supported upon a suitable platform (not shown) in vertical alinement with the female die. The die C is provided with a central bore E, which extends therethrough, and thus affords an outlet for the fragments or chips which fall during the process of cutting the sections, and the upper edge of the die C is serrated or roughened, as shown at C', so that when the material to be cut is placed thereon and the female die is brought to bear upon it said material will be firmly held against rotative movement or lateral displacement, as will be obvious.

The relative sizes of the dies are such that when brought together in the act of cutting a sufficient space is left between them for any broken fragments to pass, and thus facilitate the cutting of the marble, granite, &c., as well as serving to break away the lower edges of the sections in an uneven manner, as shown in Fig. 3, to produce a desirable surface for

the cement or other basic composition to adhere to.

In Fig. 2 I have shown the upper end of the male die C as formed with a knife-edge C², so that when the pressure of the female die is brought to bear upon the material the sharp edge of the male die will impress the under surface of such material, and so assist in the severance of the block or section therefrom.

As will be observed, I have shown in the drawings dies made in the form of a square and a circle; but it is obvious that the shape or configuration may be altered at will, and it is also obvious that where it is desired to produce foliage or other fancy or ornamental patterns in the formation of a flooring, ceiling, or other place the dies may be made up in sections or groups, each group serving to produce the desired pattern.

It is also obvious that while I have shown the dies as made in one piece with their bases they may be also made separate in order that they may be readily removed and substituted by others having different configurations.

It will thus be seen that my invention provides extremely simple, inexpensive, and effective means for rapidly producing regular

and uniform sections from marble, granite, and the like and that any desired pattern other than those herein shown, as described, may be produced with equal facility—a result which has only been accomplished heretofore by hand, a necessarily tedious, costly, and unsatisfactory operation.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is as follows:

The herein-described means for cutting marble, granite, &c., into plain or ornamental sections consisting of a male and female die shaped to conform to any desired configuration, said female die having its exterior flared outwardly from its cutting edge and bored centrally therethrough, and said male die being slightly smaller than the female die so as to leave a clearance between both, and being provided with teeth or serrations adapted to impinge the marble, granite, &c., and to prevent rotation thereof during the process of cutting.

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