(No Model.)

F. F. INGRAM.

MOLD.

No. 481,952. Patented Sept. 6, 1892.

Fig. 1.

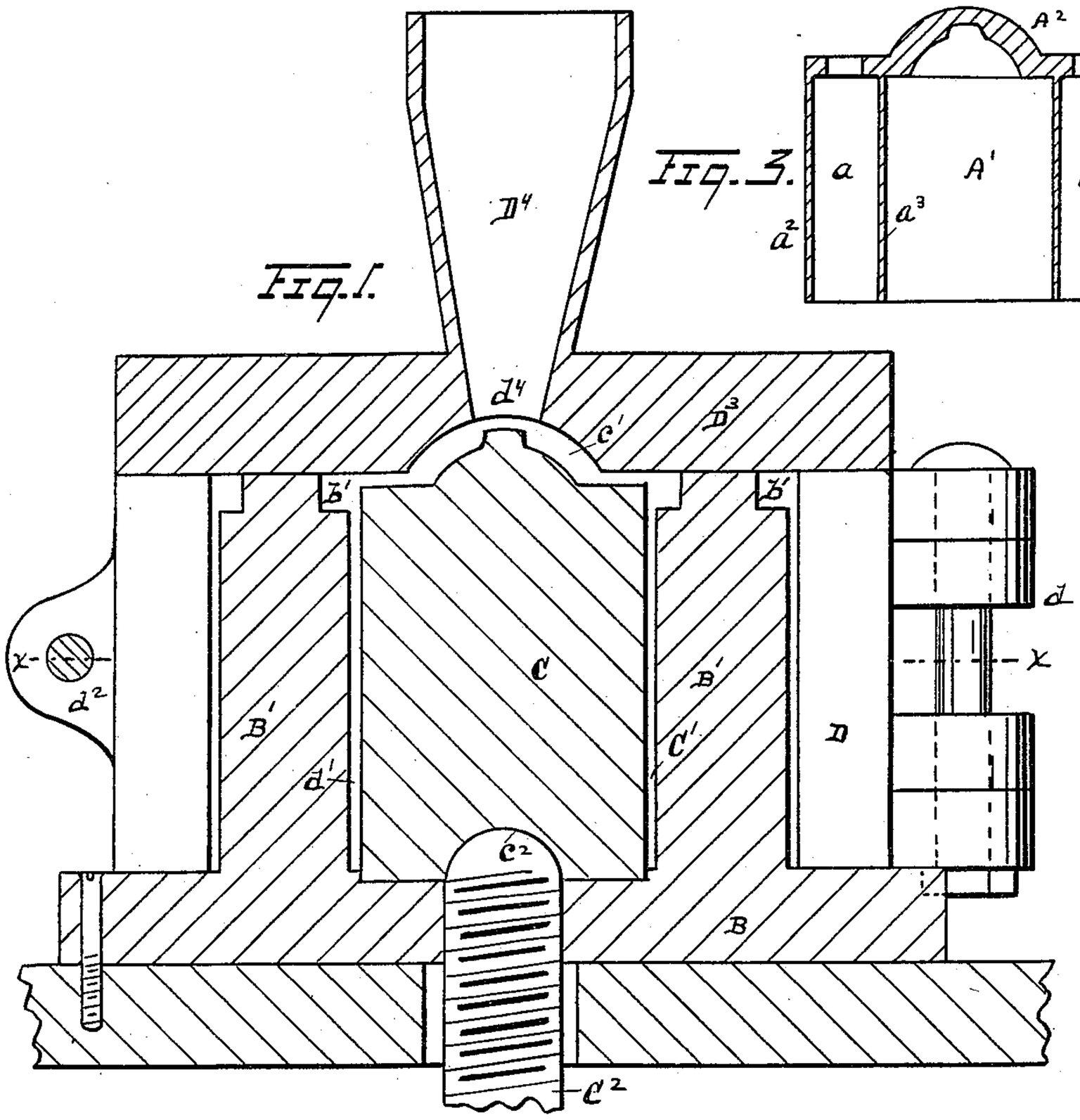


Fig. 3.

Fig. 2.

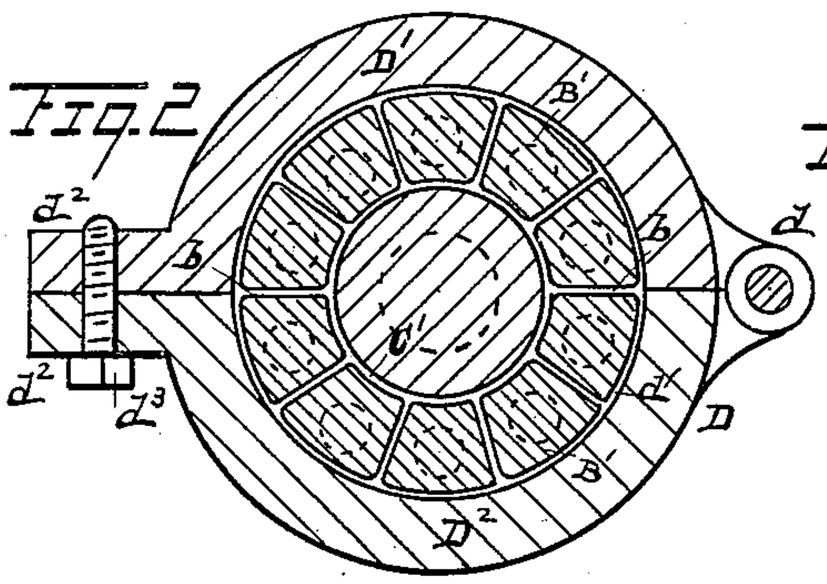
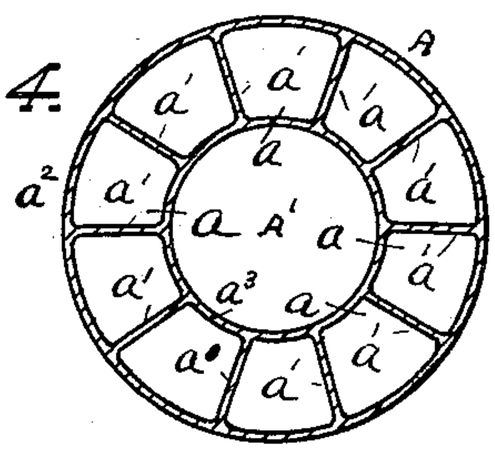


Fig. 4.



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MOLD.

SPECIFICATION forming part of Letters Patent No. 481,952, dated September 6, 1892.

Application filed March 12, 1892. Serial No. 424,667. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK F. INGRAM, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Molds; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to the construction of molds for casting a body provided with a series of receptacles or cells; and it consists of the devices and appliances, their construction, combination, and arrangement, hereinafter specified and claimed, and illustrated in the drawings submitted herewith, in which—

Figure 1 is a vertical section of a device embodying my invention, showing the jointed connection of the two parts D′ D² in elevation. Fig. 2 is a horizontal section on the line *x x*, Fig. 1. Fig. 3 is a view of the atomizer-casting in vertical section. Fig. 4 is a view of the same in horizontal section.

The object of my invention is to construct an article provided with a series of cells in an integral casting in a simple, economical, and efficient manner.

In order to the better understanding of the nature of the device to be formed by means of the mold, I have shown in Figs. 3 and 4 an article provided with a series of cells all constructed in an integral casting by means of my improved mold embodied herein, in which—

A represents a body or case formed with a series of cells *a*, separated from one another by partition-walls *a′* and having a common outer wall a^2 and inner wall a^3. The said article is also formed with a hollow chamber A′ in the center, the said chamber being oovered at the top, as shown at A^2.

The construction of the mold is carried out as follows: B represents the base of the mold, provided with a series of cores B′ to form the cells *a*, the cores having passages *b* between one another to form the partition-walls *a′* of the cells. These cores B′ may have a stationary engagement with the base B.

C represents a central vertically-movable core located within the line of the cores B′, which may conveniently be arranged in a circle upon the base B. The central core is separated from the cores B, so as to provide a passage therebetween, as at C′, for the flow of the metal to form the inner wall a^3 of the cells. This core C may be made vertically movable by any suitable means, as by a screw C^2, having a threaded engagement in the base B.

D denotes an inclosing mold-case constructed in two parts D′ D^2, jointedly connected, as shown at *d*. This case when in place surrounds the cores B′ and is spaced therefrom, as shown at *d′*, to form the outer wall a^2 of the cells. The two parts D′ D^2 of the case are provided each with a cover portion D^3, separated from the top of the core C, as shown at *c′*, to form the top A^2, covering the chamber A′. The hinged parts D′ D^2 may be secured together in operation in any suitable and well-known manner. Thus they may be formed with flanges d^2, united by a screw d^3. The cover portions D^3 are constructed with an orifice, as at d^4, through which the metal may be poured, a funnel D^4 being employed in connection therewith. The core C preferably has a detachable engagement with the screw C^2, as shown at c^2. The upper ends of the cores B′ are preferably constructed with reduced extremities, as shown at *b′*, whereby the cells *a* are formed with a corresponding neck.

The operation of the device is as follows: The case D being closed about the cores in a proper manner, the metal is poured into the mold, after which the two parts D′ D^2 of the case are opened. The central core C is then raised by means of the screw C^2, carrying therewith the article cast in the mold, the said article being thus lifted off from the cores B′. When said article is clear from the cores B′, the central core C may be lifted off from the screw C^2, when the said core C may also be removed from the casting. The screw C^2 is then run down, the core C dropped into place, and the case D closed and fastened, when the mold is ready for a repetition of the operation.

What I claim as my invention is—

1. In a mold, the combination of the base B,

the cores B′ thereupon, a central vertically-movable core, and an inclosing case, substantially as described.

2. In a mold, the combination of the base B, cores B′, central movable core C, screw C^2, having a threaded engagement with the base and carrying said movable core, and an inclosing case, said core having a detachable engagement with said screw, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

FREDERICK F. INGRAM.

Witnesses:

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