(No Model.)

3 Sheets—Sheet 1.

C. J. RIDENOUR.

FIRE KINDLER MOLD.

No. 263,725. Patented Sept. 5, 1882.

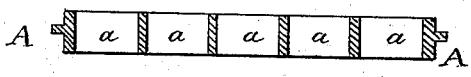

Fig. 1.

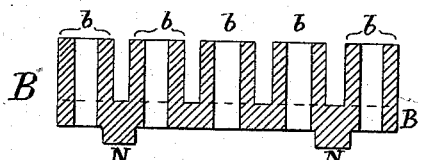

Fig. 2.

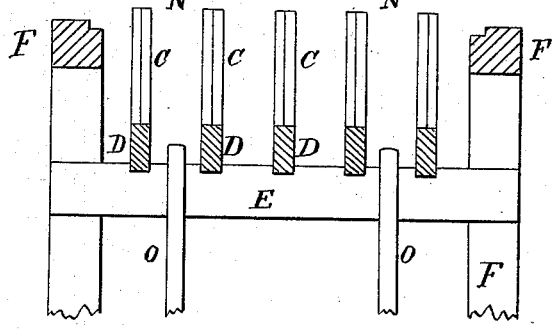

Fig. 3.

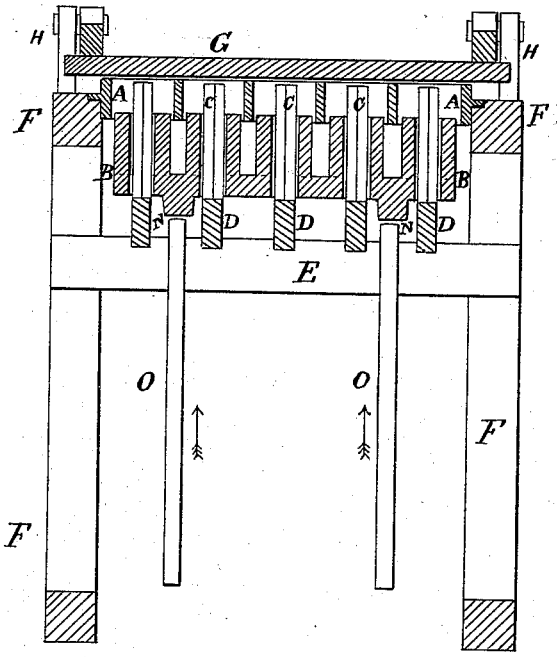

Fig. 4.

Attest

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(No Model.) 3 Sheets—Sheet 2.

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FIRE KINDLER MOLD.

No. 263,725. Patented Sept. 5, 1882.

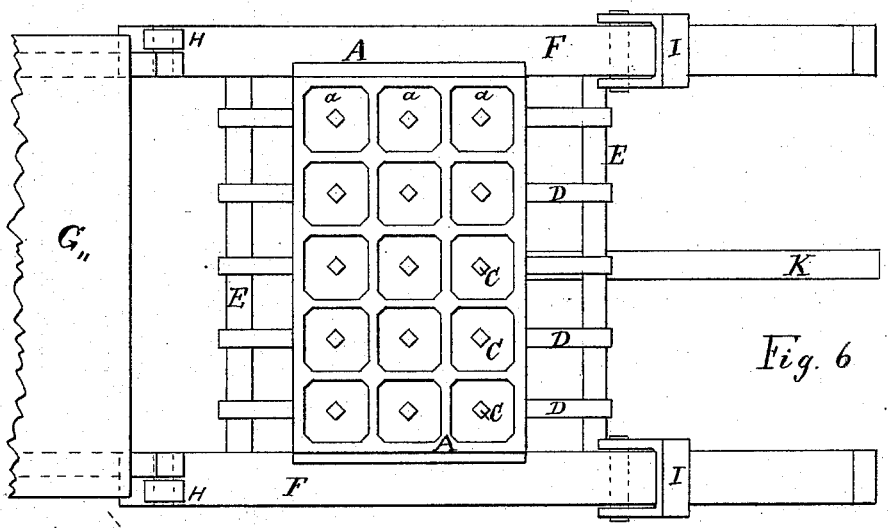

Fig. 6

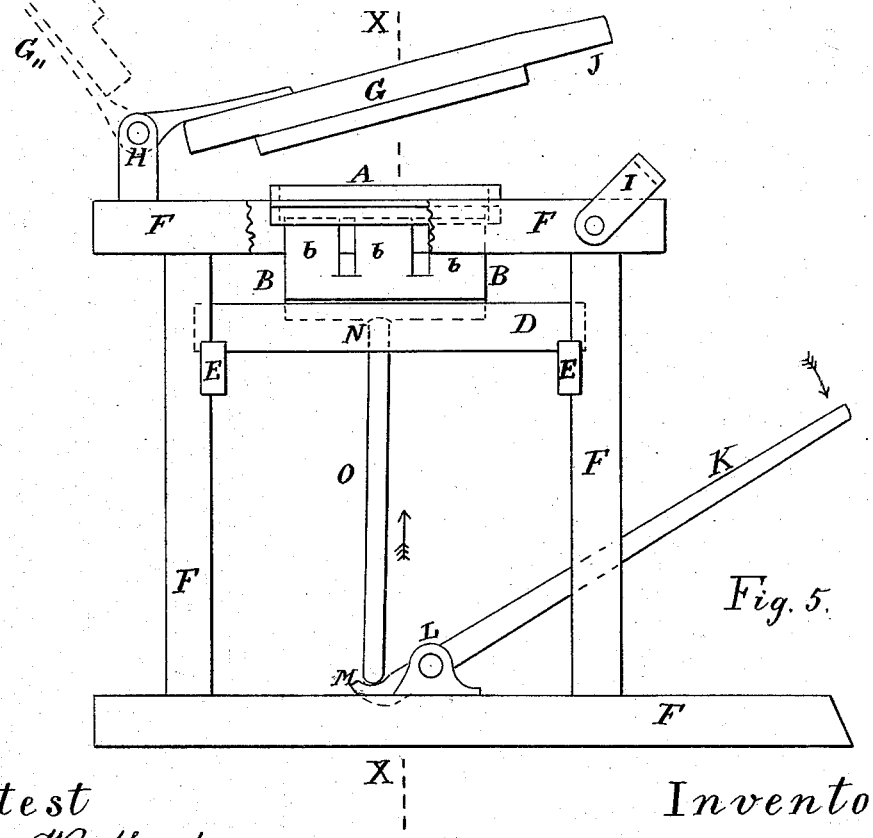

Fig. 5.

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Fig. 7

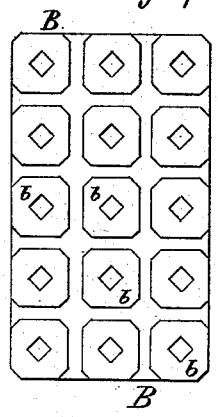


Fig. 8

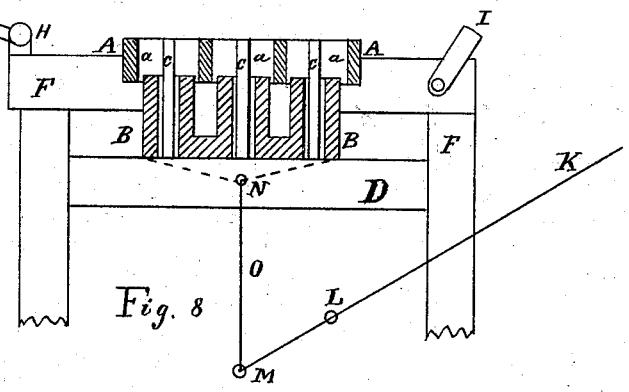


Fig. 9

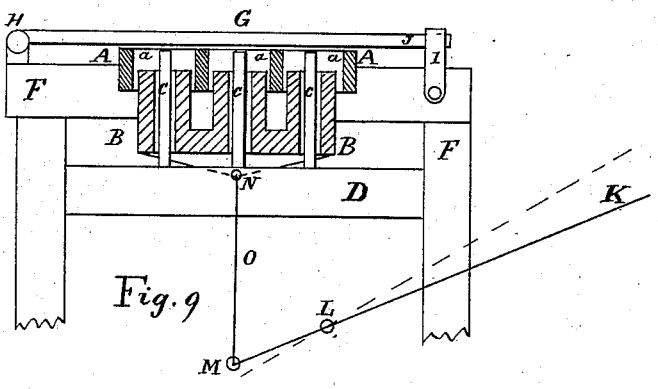
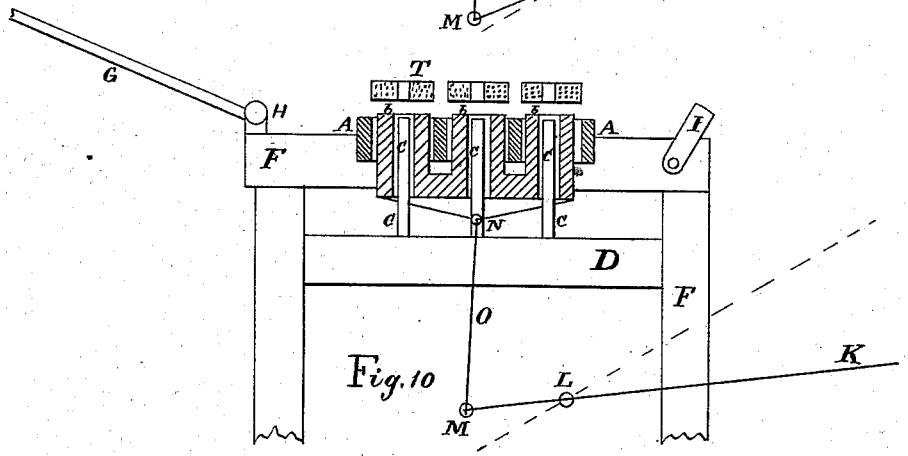


Fig. 10



Attest
Lewis Windhurst
James Mack

Inventor
Cyrus J. Ridenour

UNITED STATES PATENT OFFICE.

CYRUS J. RIDENOUR, OF SPRINGFIELD, OHIO, ASSIGNOR TO HIMSELF AND EUGENE J. WILLIAMS, OF SAME PLACE.

FIRE-KINDLER MOLD.

SPECIFICATION forming part of Letters Patent No. 263,725, dated September 5, 1882.

Application filed February 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, CYRUS J. RIDENOUR, of Springfield, county of Clarke, State of Ohio, have invented a new and useful Improvement in Fire-Kindler Molds, of which the following is a specification.

The object of my invention is to produce a mold for fire-kindlers or similar articles which requires less handling than usual, and from which the pressed articles can be quickly removed. I attain this object by an arrangement illustrated in the accompanying drawings, and of which—

Sheet No. 1 shows a vertical section of the mold taken apart in Figures 1, 2, and 3, and the same put together in the apparatus ready for use in Fig. 4, said section taken along the line X X, represented on Sheet No. 2, on which Fig. 5 represents a side elevation, and Fig. 6 a top view, of the same, in Fig. 6 the cover G being shown turned back into a position wherein it is designated by the letter G″. Sheet No. 3 represents in Fig. 7 a top view of the follower-block B B, and in Figs. 8, 9, and 10 diagrams illustrating the operation of the apparatus to be hereinafter further described.

In all the sheets, A A indicate the mold proper—a sort of rectangular frame, open above and below, and divided by partitions into a certain number of compartments, *a a*, corresponding to the number of articles to be produced at one pressing.

B B indicate the follower-block, being virtually the above number of single followers or dies *b b b*, united below by a common base and cast in one piece with the same. Each of these dies *b b b* has a central opening (best seen in Fig. 7) to allow the follower-block to pass over and to move up or down along the cores C, which are of a suitable shape to give a central opening to the pressed blocks of material, and which are fastened to and supported by the cross-pieces D D, which form a part of the press-frame E F F.

O O are two push-bars, (shown in Figs. 3, 4, and 5,) the upper end, N, of which bears against the lower part of B B, and the lower end of which, M, bears against a double-armed lever, M L K, (shown in Fig. 5 and partially in Fig. 6,) whose short arm M L is double or forked to meet the two push-bars O O—one for each side of the apparatus. When these are driven up by the lever or other suitable mechanical means, B B will be pressed upward in the mold A and against the press-board or cover G, which hinges on one side on the center H, and which can be held down on the other side by the clamp I being pushed over the projecting end J. (Best seen in Fig. 5.)

In these drawings the means of fastening the mold in the frame F (wedges, screws, or other means) are left out, as well as unnecessary repetitions of letters where they might produce overcrowding or confusion.

In order to explain the working of this arrangement, we must refer to Sheet No. 3, where Figs. 8, 9, and 10 represent a longitudinal vertical section through the center of the apparatus in three different positions, the lever and push-bar before mentioned being shown in single lines. Fig. 8 represents the whole ready for the mold A to be filled, in all its compartments, with the material to be pressed into perforated blocks, the cover G being thrown back and the follower-block B being at its lowest point, resting on the cross-pieces D as well as on the push-bars O. After the mold is filled the cover G is turned down and fastened over it by the clamp I, as represented in Fig. 9, where the lever end K is depressed and the block B moved up along the cores C, compressing the material between its upper face and the cover G. After this, as shown in Fig. 10, the cover is thrown up and back, the lever end K pressed down still further, and by this continued motion the dies *b b*, forming the upper part of the follower-block B, are still further raised, pushing the finished blocks of pressed material, T, out of the mold, so they can be swept off, making the mold ready for another charge without removing it from the apparatus and without needing a separate tool to empty it, whereas in other similar contrivances the mold has to be removed from the press, turned over, and with a separate tool the blocks of material have to be punched out, each block separately from each division of the mold.

I am aware that prior to my invention fire-kindler molds have been used, consisting of a rectangular frame divided into compartments

by cross-partitions, (but having the cores attached thereto, besides having a number of single detachable follower-blocks, one separately put in each compartment,) whereas in my invention the cores are separate and distinct from the mold, not attached thereto, and my follower-block is made all in one piece, not requiring to be removed from the press by hand after each pressing, but also serving to eject the material from the press; but

What I do claim, and intend to secure by Letters Patent, is—

1. The combination of a mold, A, as described, with cores C, separate and distinct therefrom, but attached to cross-pieces D as parts of the press-frame, so as to make the mold removable independently of the stationary cores, substantially as set forth.

2. The combination of the mold A, separate cores C, follower-block B, and cover G, arranged and operated as specified.

In testimony whereof I have hereunto set my hand this 10th day of February, 1882.

CYRUS J. RIDENOUR.

Witnesses:
LEWIS WINDHURST,
J. H. RABBITTS.