

(No Model.)

E. FABIAN.  
MOLDING DEVICE.

No. 590,039.

Patented Sept. 14, 1897.

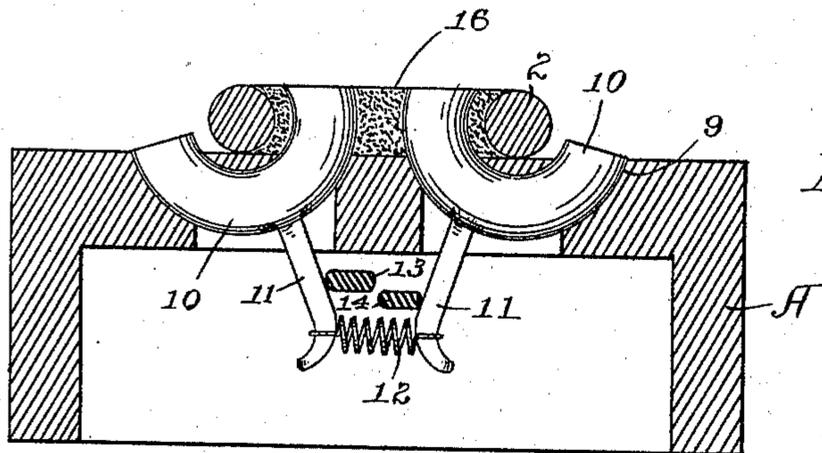


Fig. 2.

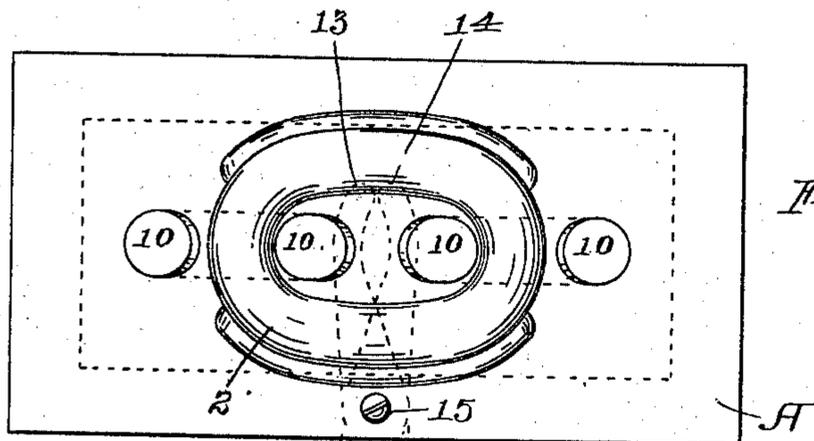


Fig. 1.

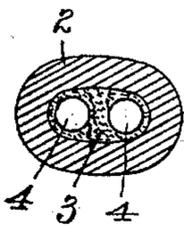


Fig. 4.

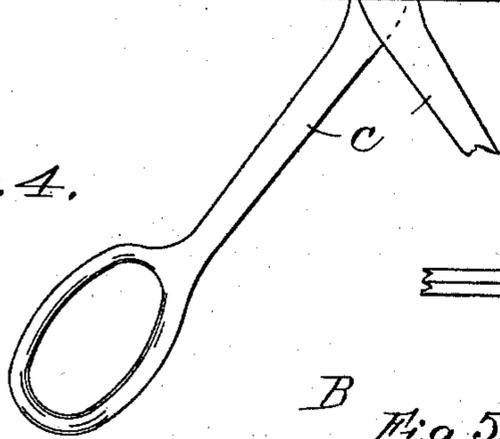


Fig. 5.

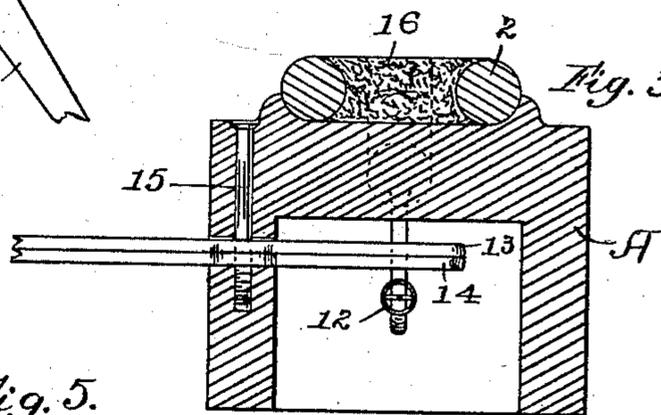
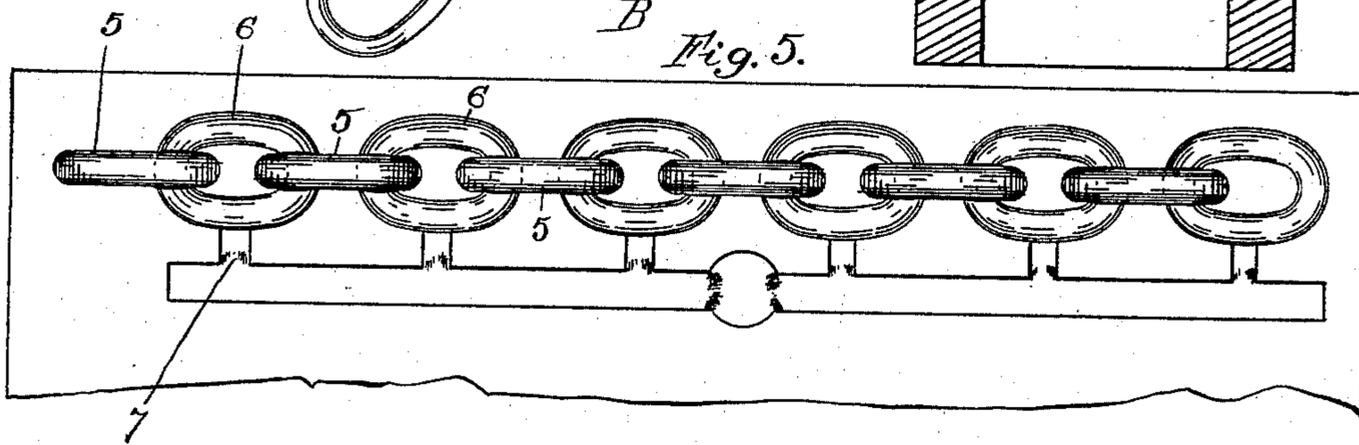


Fig. 3.



Witnesses:

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# UNITED STATES PATENT OFFICE.

EDWIN FABIAN, OF ST. PAUL, MINNESOTA.

## MOLDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 590,039, dated September 14, 1897.

Application filed January 7, 1897. Serial No. 618,220. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN FABIAN, of St. Paul, Ramsey county, Minnesota, have invented certain Improvements in Molding Devices, of which the following is a specification.

My invention relates to improvements in molding devices; and it consists of the features of construction hereinafter particularly described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of a molding-table and the patterns working therein. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a vertical cross-section of the same. Fig. 4 is a sectional detail of a link filled with a core to constitute a matrix, and Fig. 5 is a partial plan view of the drag of a molding-flask having the molds formed therein.

In the drawings, A represents the molding-table, adapted to receive a link 2, which is designed to be connected with a series of similar links to form the chain. Working through similar circularly-curved openings in the top of the table is the pair of similar patterns 10, oppositely disposed, as shown, so as to have their adjacent ends projected upward through the link 2, the patterns corresponding in curvature and dimensions to that of the connecting-links to be formed.

The patterns 10 are operated by means of their downwardly-projecting arms 11, which are connected together by the tension-spring 12, thus serving to hold the patterns with their adjacent ends upwardly projected, as shown in Fig. 2, in which position they stand approximately level with the top of the link 2.

Pivoted in the table A is the pair of operating-levers C, the fulcrum ends 13 and 14 of which stand between and in engagement with the arms 11. By the closing together of the handles of the levers the fulcrum ends are thrown apart, spreading the arms 11 and rotating the patterns 10, so as to draw the upwardly-projecting ends downward and out of the link 2.

The links 2, which are designed to be connected together in a chain, are successively placed upon the table A in the position shown in Fig. 2, with the patterns projecting there-through. The space within the link and around the patterns is then filled in with loam or sand, forming a core 16. The patterns are then withdrawn by operating the

lever C, leaving corresponding openings 55 through the core. When these matrix-links have thus been supplied with cores, they are placed in position in the cavities or pockets 5, previously formed in any suitable manner in the drag of the flask. These pockets are 60 connected by the channels 6, which conform in shape to that of the links to be formed. These channels are connected to the gate of the flask by means of ports 7. The cope of the flask has similar cavities or channels, so 65 that when the links are all in place in the pockets 5 and the cope is in position upon the drag the channels 6 constitute molds for the links to be formed, each having a port 7, the openings in the cores of the matrix-links be- 70 ing in line with the several link-molds. The molten metal then being poured into the flask fills the molds and connects the matrix-links by the links thus formed.

The flasks are all of such dimensions as to 75 make up any suitable lengths of chain-sections, the ends of which are connected together by filling the end links with cores and placing them in the flask to be similarly connected by new links. Thus a chain may be 80 built up of any desired length.

I claim—

For the manufacture of cast-metal chains, means for forming cores in the several links to be connected into a chain, consisting of a 85 suitable molding-table adapted to support a link in substantially horizontal position thereon, the pair of oppositely-disposed, similar, circular patterns working in a vertical plane through the top of said table, the dimensions 90 and curvatures of said patterns corresponding to those of the ends of the links to be formed, and being so disposed as to project their adjacent ends upward through the link laid upon said table, the depending arms upon 95 said patterns, the spring normally holding said arms drawn together so as to project the adjacent ends of the patterns upward, and the pivoted levers engaging said arms and adapted to withdraw said patterns from said 100 link.

In testimony whereof I affix my signature in presence of two witnesses.

EDWIN FABIAN.

Witnesses:

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MINNIE L. THAUWALD.