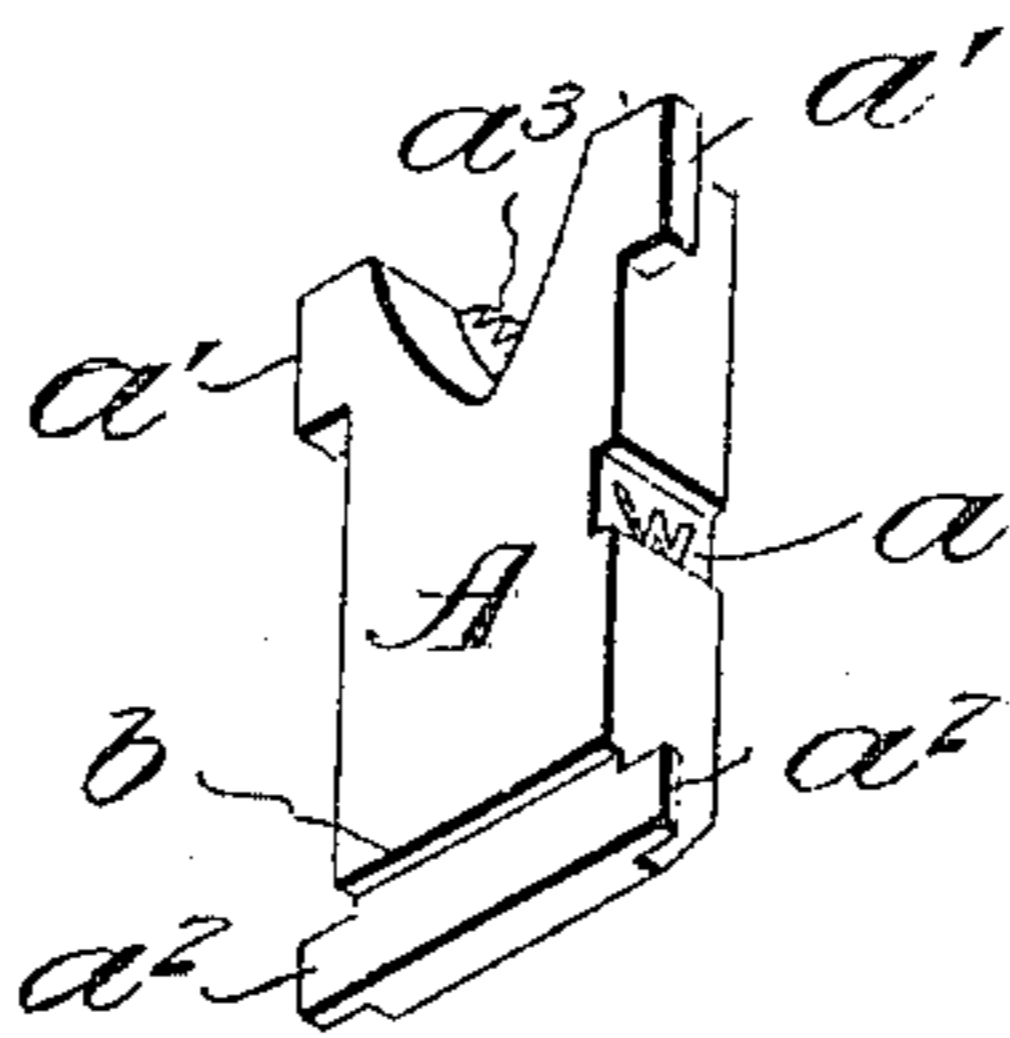


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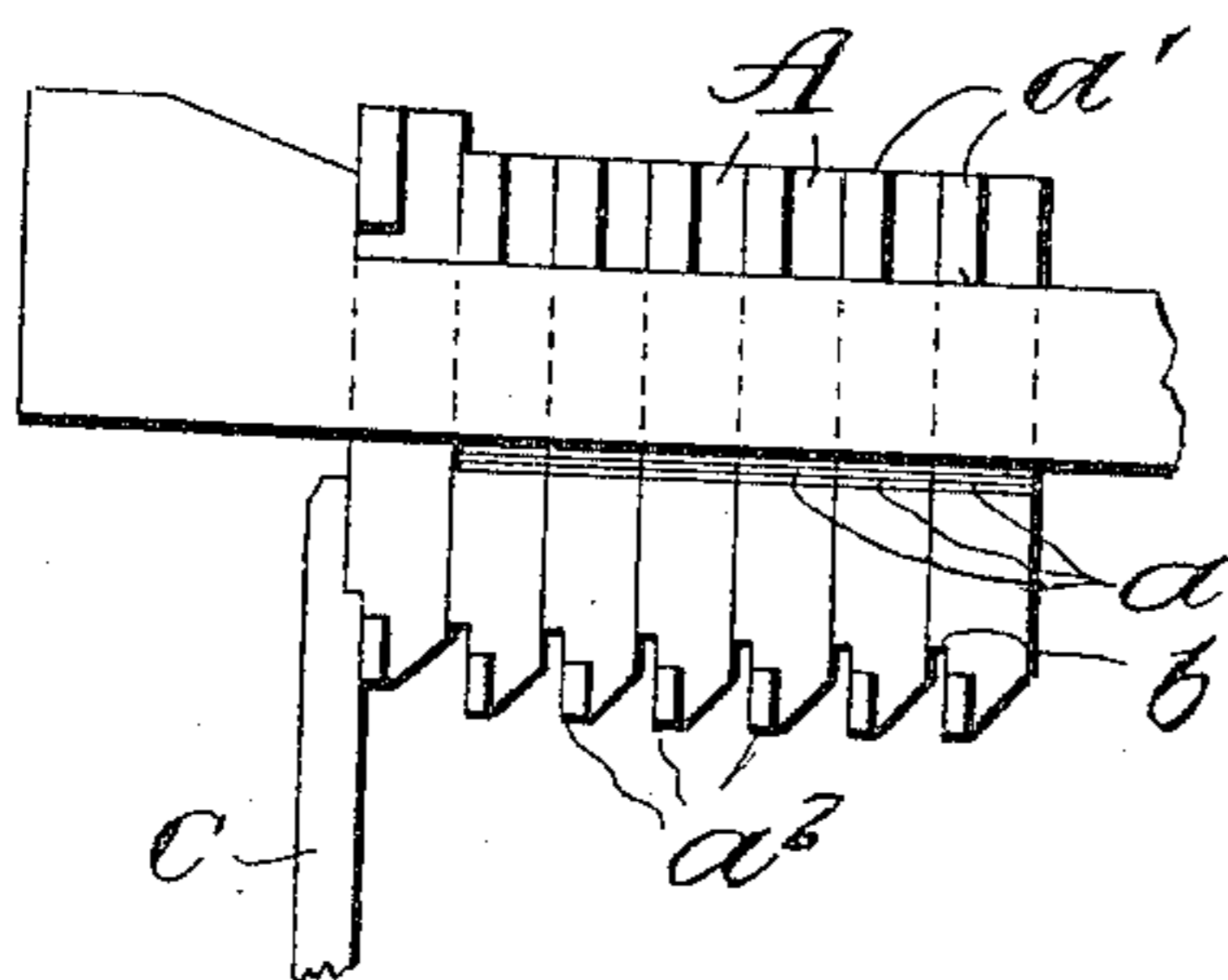
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MATRIX FOR LINE CASTING MACHINES.  
APPLICATION FILED MAY 4, 1909.

Patented Mar. 15, 1910.

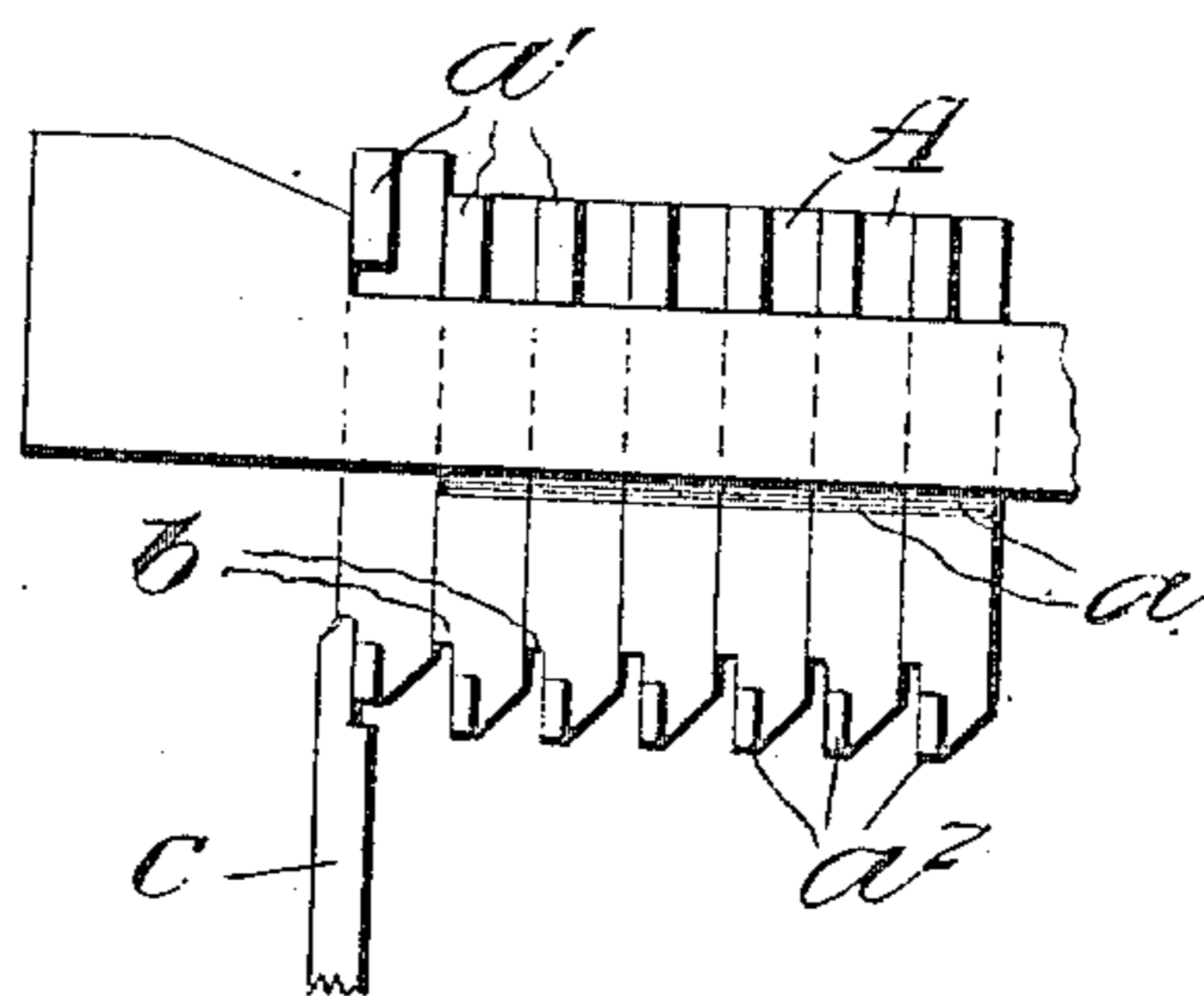
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN R. ROGERS, OF BROOKLYN, NEW YORK, ASSIGNOR TO MERGENTHALER LINO-  
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MATRIX FOR LINE-CASTING MACHINES.

951,968.

Specification of Letters Patent.

Patented Mar. 15, 1910.

Application filed May 4, 1909. Serial No. 493,803.

*To all whom it may concern:*

Be it known that I, JOHN R. ROGERS, of the borough of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in Matrices for Line-Casting Machines, of which the following is a specification.

My invention has reference to matrices intended more particularly for use in line casting machines of the Mergenthaler type, represented in Letters Patent of the United States 436,532.

The circulating matrices in each font or set are of various thicknesses, according to the width of the characters contained in their edges. They are held in a magazine in the machine, selected in the required order, assembled temporarily in line, the line presented momentarily to a mold and thereafter delivered to the distributing mechanism, by which the individual matrices are returned to their respective channels in the magazine. For reasons unnecessary to detail herein, it is desirable to feed the thin matrices to the distributing mechanism at shorter intervals than the thick matrices.

The object of the present invention is to produce thick matrices of such form that the mechanism for delivering them to the distributor will deliver them slowly, or at relatively long intervals, although the same mechanism will deliver the thin matrices, of ordinary form, at shorter intervals. With this end in view I construct my improved matrix with an additional shoulder or bearing surface adapted to be acted upon by the device which lifts the matrices one at a time from the composed line to the distributor.

In the drawings: Figure 1 represents, in perspective, a matrix of my improved form. Figs. 2 and 3 are edge views illustrating the manner in which this matrix coöperates with the lifting or feeding device.

Referring to the drawings, A represents the matrix consisting of a flat plate having one or more characters or matrices,  $a$ , in one edge and having also at opposite ends the ears  $a'$  and  $a^2$  projecting edgewise beyond the body of the matrix. At the upper end the matrix is formed with a V-shaped notch,  $a^3$ , provided with teeth to coöperate with the

distributor bar of the machine, the matrix at this point being reduced in thickness, so that the teeth are contained in the thin or reduced portion at one side of the body.

So far as described the matrix may be in all respects like those employed in the Mergenthaler machine.

The novel feature constituting the subject of my invention consists in the shoulder  $b$  lying horizontally across the matrix near the lower end and on the opposite side from that which carries the distributing teeth, that is to say on the side at which the ears  $a'$  and  $a^2$  are located, in position to be acted upon by a lifting finger, C, or any equivalent device for lifting matrices one at a time to the distributor. This shoulder may be modified in form. For example, instead of being extended entirely across the matrix from one edge to the other it may be centrally located. In short it may be of any suitable form, provided that the lifting device which is adapted to act against the lower end of the matrix body may first act against the lifting shoulder. The location of the distributing teeth on one side of the matrix and the shoulder  $b$  on the opposite side is necessary in order that they may co-operate with the various mechanisms of the line casting machine.

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

1. A matrix of the class described, having the laterally projecting ears  $a'$  and  $a^2$ , and having also, on the same side with the ears, a shoulder,  $b$ .

2. A matrix of the class described, having the toothed notch  $a^3$  at the upper end at one side, and a shoulder,  $b$ , at the lower end at the opposite side.

3. A matrix of the class described, having at the lower end the projecting ears,  $a^2$ , and a horizontal shoulder,  $b$ , located above the lower sides of the ears.

In testimony whereof I hereunto set my hand this twenty-ninth day of April, 1909, in the presence of two attesting witnesses.

JOHN R. ROGERS.

Witnesses:

LUCY E. SMITH,  
HAROLD A. BURT.