

(Model.)

2 Sheets—Sheet 1.

G. W. & J. R. CUMMINGS.

ELECTROTYPE SHELL AND BASE.

No. 313,812.

Patented Mar. 10, 1885.

Fig. 1.

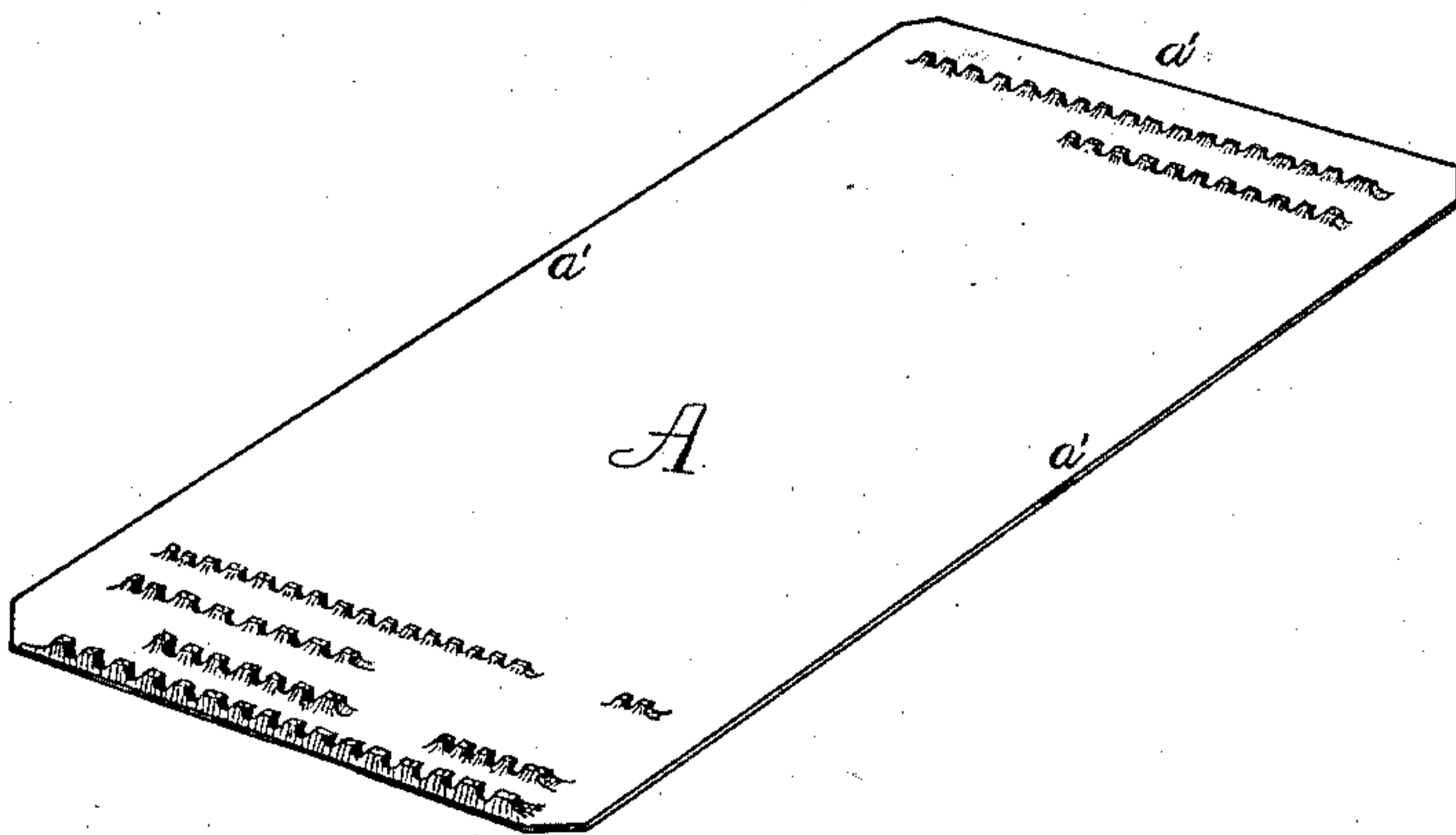


Fig. 2.



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(Model.)

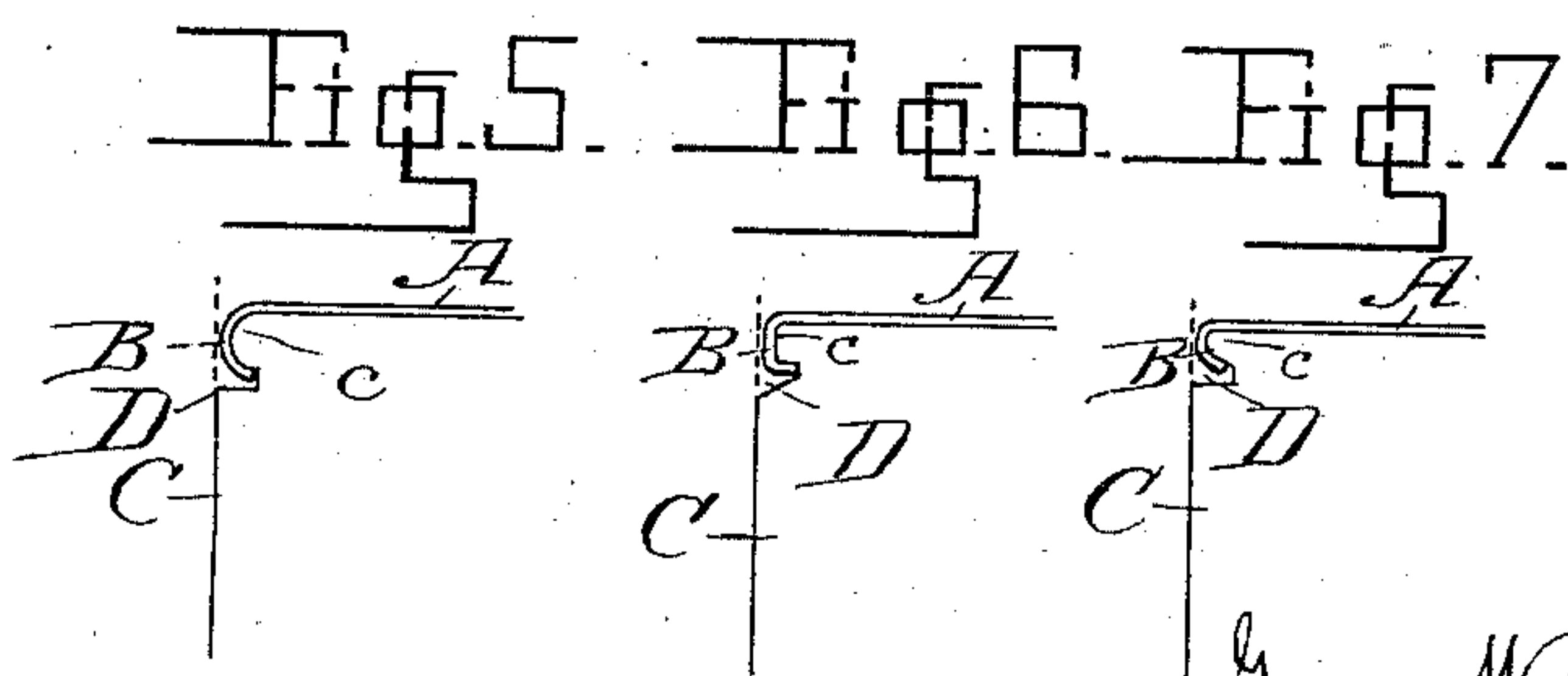
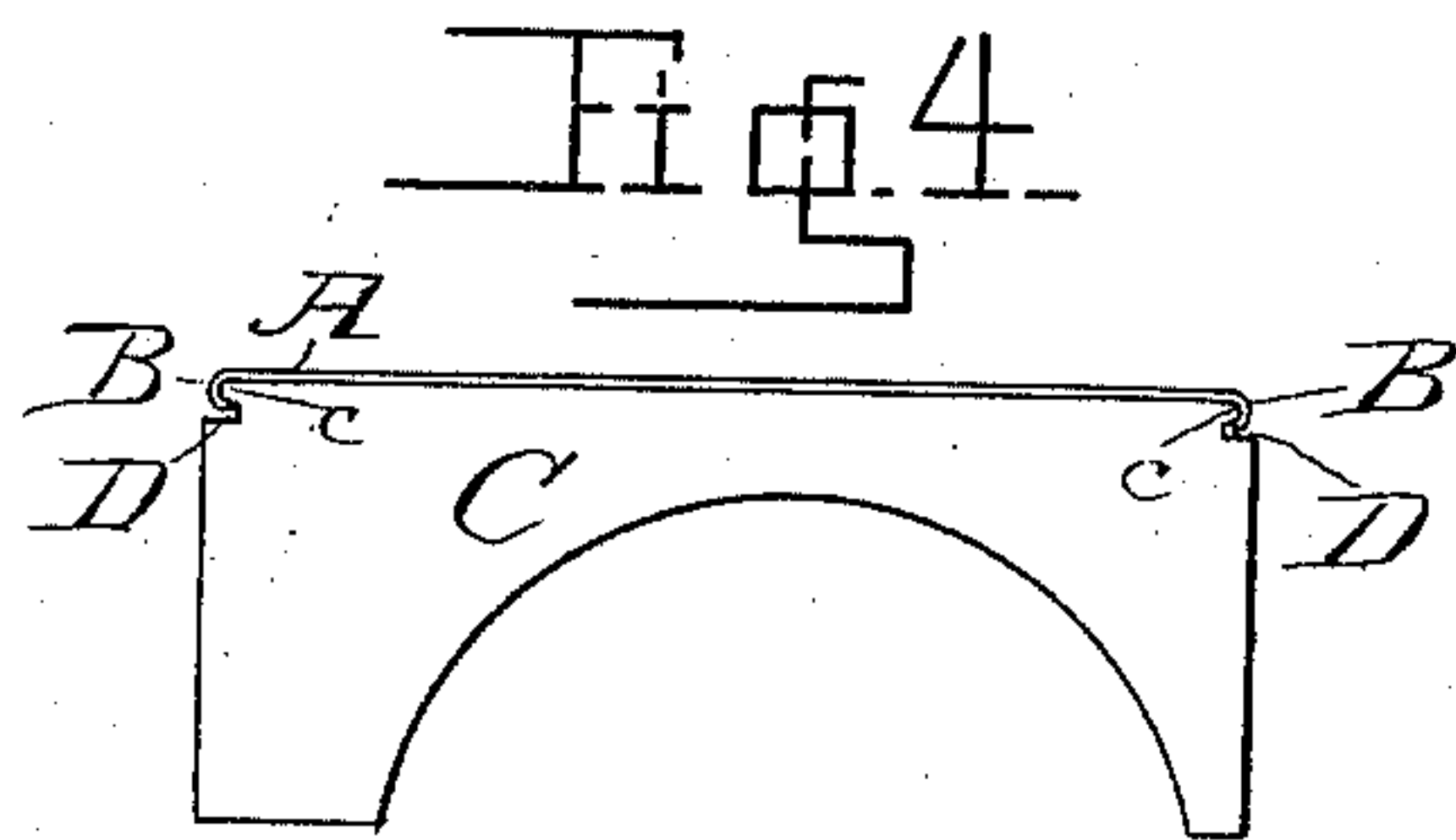
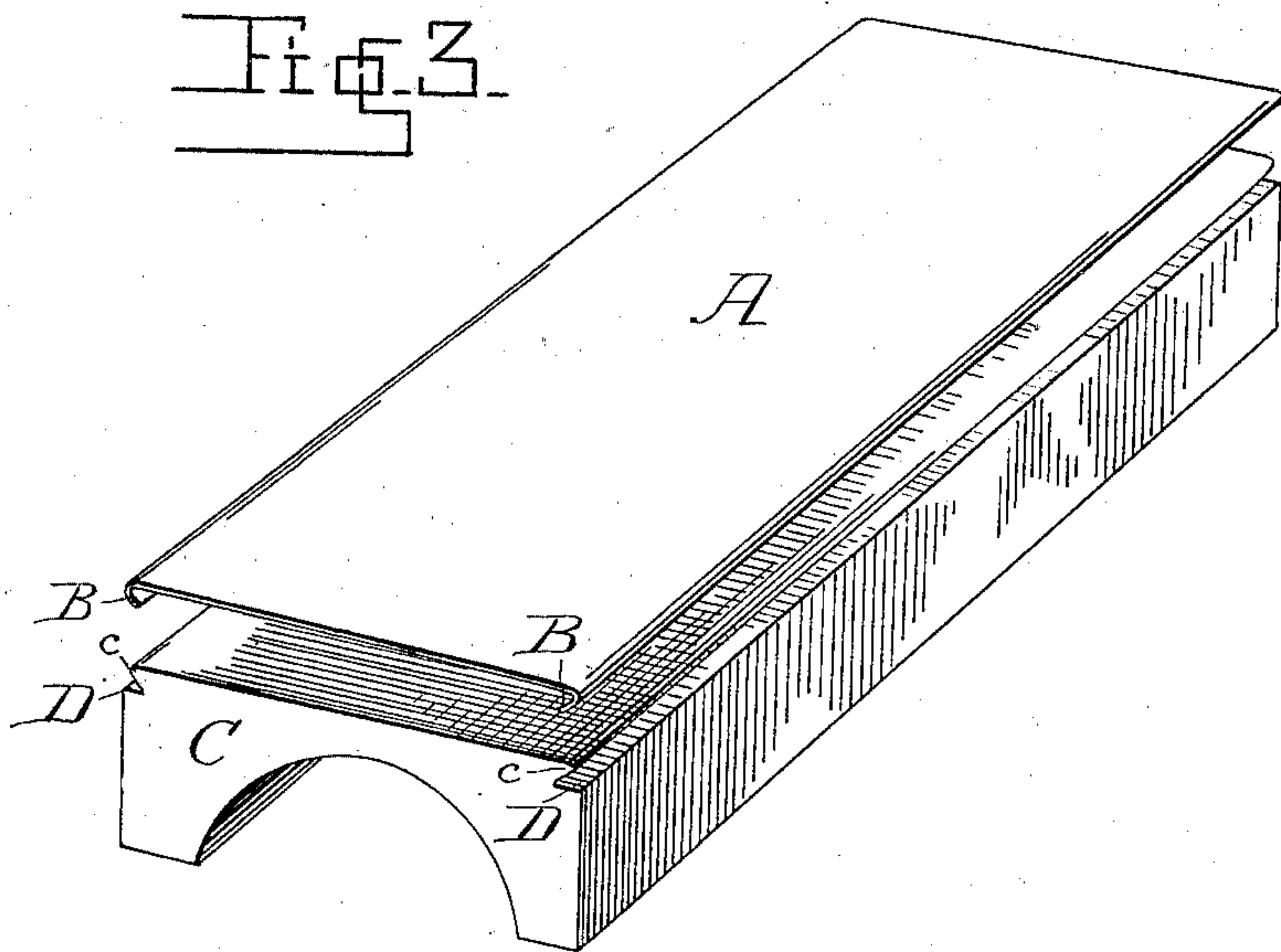
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# UNITED STATES PATENT OFFICE.

GEORGE W. CUMMINGS AND JOHN R. CUMMINGS, OF CHICAGO, ILLINOIS,  
ASSIGNORS TO THE AMERICAN PRESS ASSOCIATION, OF SAME PLACE.

## ELECTROTYPE SHELL AND BASE.

SPECIFICATION forming part of Letters Patent No. 313,812, dated March 10, 1885.

Application filed April 26, 1884. (Model.)

*To all whom it may concern:*

Be it known that we, GEO. W. CUMMINGS and JOHN R. CUMMINGS, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Electrotypes Shells and Bases; and we do hereby 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.

Our invention relates to the means for securing electrotypeshells to bases or blocks, and it is especially adapted for use in the publishing of newspapers which heretofore have had their printing-matter sent them from a distance in the form of stereotype-plates.

The character of the plate or shell to which our improvement is particularly applicable is an electro-shell having its edges extending out beyond the boundary of the printing-surface to form flanges adapted to be turned downward over the edges of the base or block, which form of shell is the invention of Albert W. Marshall, and forms the subject of a pending application by him for Letters Patent filed January 12, 1884, No. 117,233, and which invention, together with our own, has been assigned to THE AMERICAN PRESS ASSOCIATION.

Our improvement is illustrated in the accompanying drawings, in which Figure 1 is a perspective view of the shell; Fig. 2, an end view. Fig. 3 is a perspective view of the shell and block. Fig. 4 is an end view of the same; and Figs. 5, 6, and 7 show modified forms of the flanged portion of the shell and of the grooves in the base-blocks adapted to receive the same.

Reference being had to the drawings, A represents a thin electrotypeshell without backing—say of a column of newspaper-matter—with smooth edges *a'*, extended out beyond the side of the type a suitable distance, as shown in Fig. 1.

In adapting the shell to a block its edges are bent downward and inward to form flanges B B, as shown in Figs. 3 to 7. The shell A rests on the base-block C, whose upper surface is even and plain its entire length and

breadth. In the sides of this block C, parallel and contiguous to the upper edges, *c c*, are formed mortises or grooves D D, into which the flanges B B of the plate A are adapted to enter to secure the same in position.

In one form of our invention the top of the block C is made narrower than the portion of the block below the mortises D. The object of this construction is to prevent the column-rules, which press against the block below the groove or mortise, from pressing against the edges of the shell when the shell and block are locked in a form, and thus avoid the buckling or bending of the shell between the sides thereof. The shells being thin and elastic, they would bend upward in the middle and cause bad printing if made subject to the pressure of the column-rules.

There may be made various modifications of the grooves D in the sides of the base-block and correspondingly modified forms of the flanges of the shell, substantially as shown in Figs. 5, 6, and 7. For example, the grooves may be cut so as to form a bead which will describe a quadrant, a semicircle, or be square-cornered in cross-section.

In operation, taking a prepared plate, we put the flanged parts into a tinner's crimper or folder and bend them under at the proper angle; or they may be sent to the publisher flat, and he can bend them on a cheap clamp already made before he puts them on the base. In this case, or in any case where the clasps are bent before they are placed on the base, the plates may be slid on the block from the end.

If it is found preferable, the clasp, or at least one side, can be bent under after the plate is placed on the base. This enables the publisher to place it in the form at any point without sliding it on from the end of the base. The base is made either with an angled groove on both sides or with any form of mortise or groove which will give the necessary clasp for the flanges on the plate. The top and bottom edges of the electro-shell may be flanged and the ends of the blocks grooved to receive said flanges, which may be desirable in certain cases.

As is set forth in the Marshall application

above mentioned, to which our invention is especially adapted, the shell may be slightly backed to a degree not inconsistent with its perfect pliability, and by reason of its thin-  
5 ness and pliability may be used with all forms of printing-surfaces in which, of course, the relative arrangement of the edges of the block and the grooves can be maintained as herein claimed.

10 What we claim, and desire to secure by Letters Patent, is—

The block having the upper outer edges or

beads formed by grooves parallel and adjacent to the said upper edges, in combination with an electrotpe-shell having its edges turned 15 downward and inward past the edges or beads on the block to fit into said grooves, substantially as set forth.

In testimony whereof we affix our signatures.

GEORGE W. CUMMINGS.

JOHN R. CUMMINGS.

Witnesses:

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