

No. 614,785.

Patented Nov. 22, 1898.

W. E. BENNETT.

DEVICE FOR HOLDING BUTTONS FOR ENAMELING, &c.

(Application filed Dec. 30, 1897.)

(No Model.)

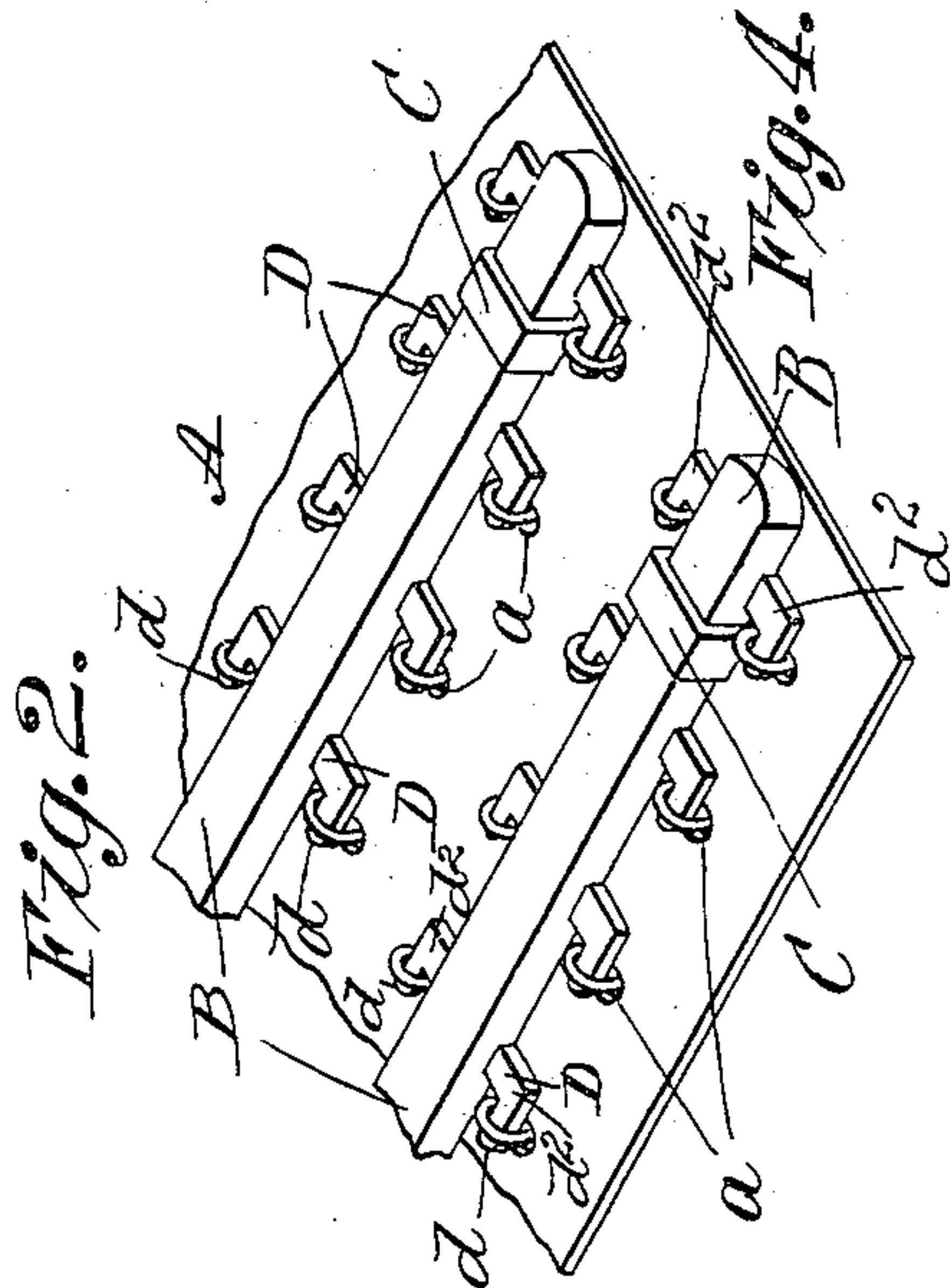
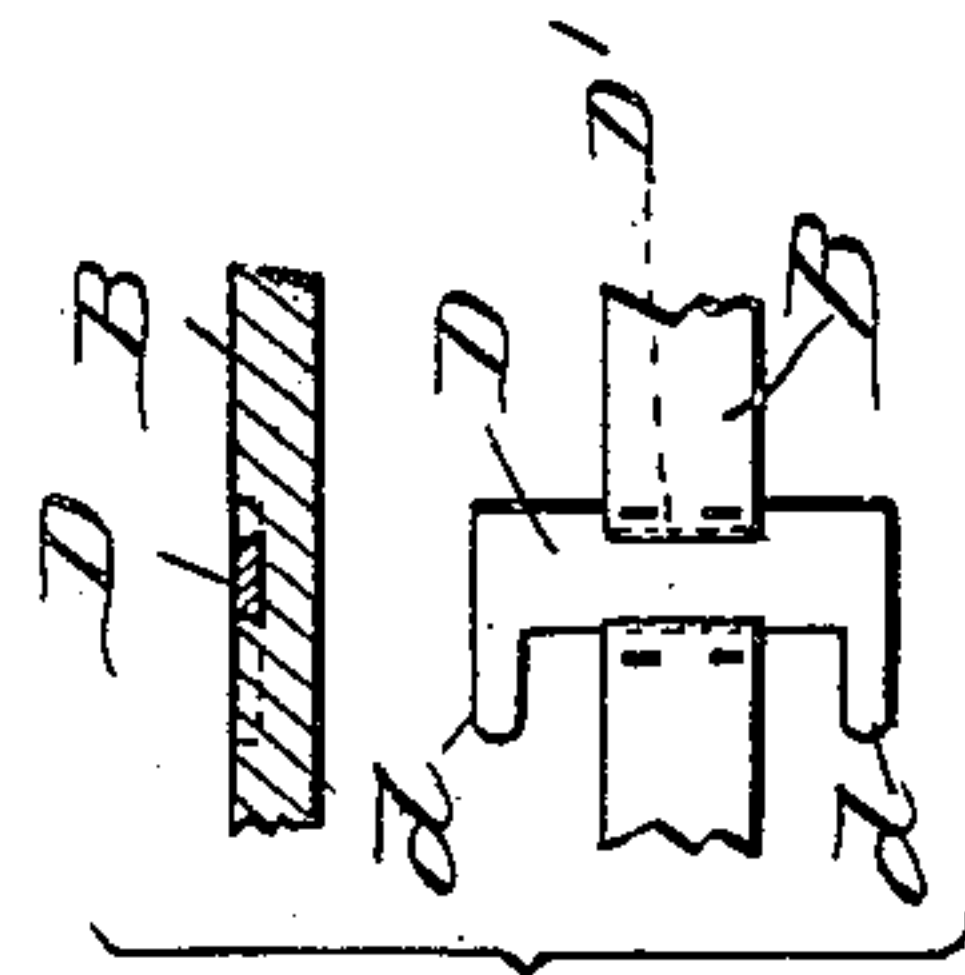
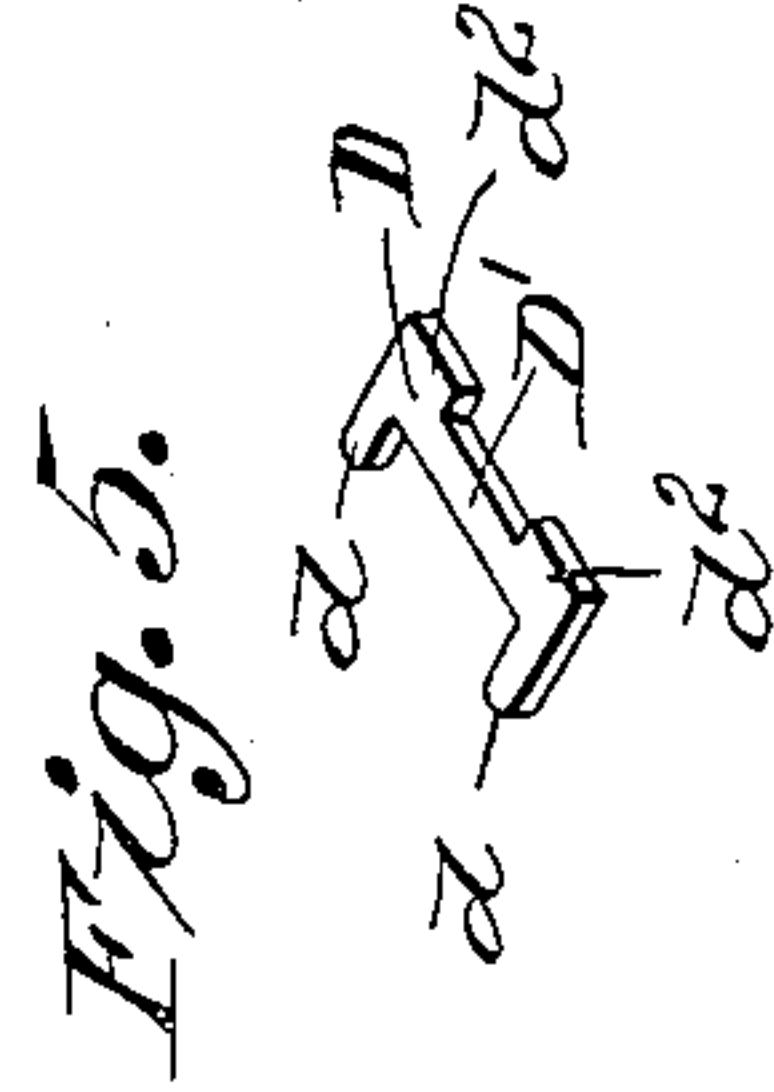
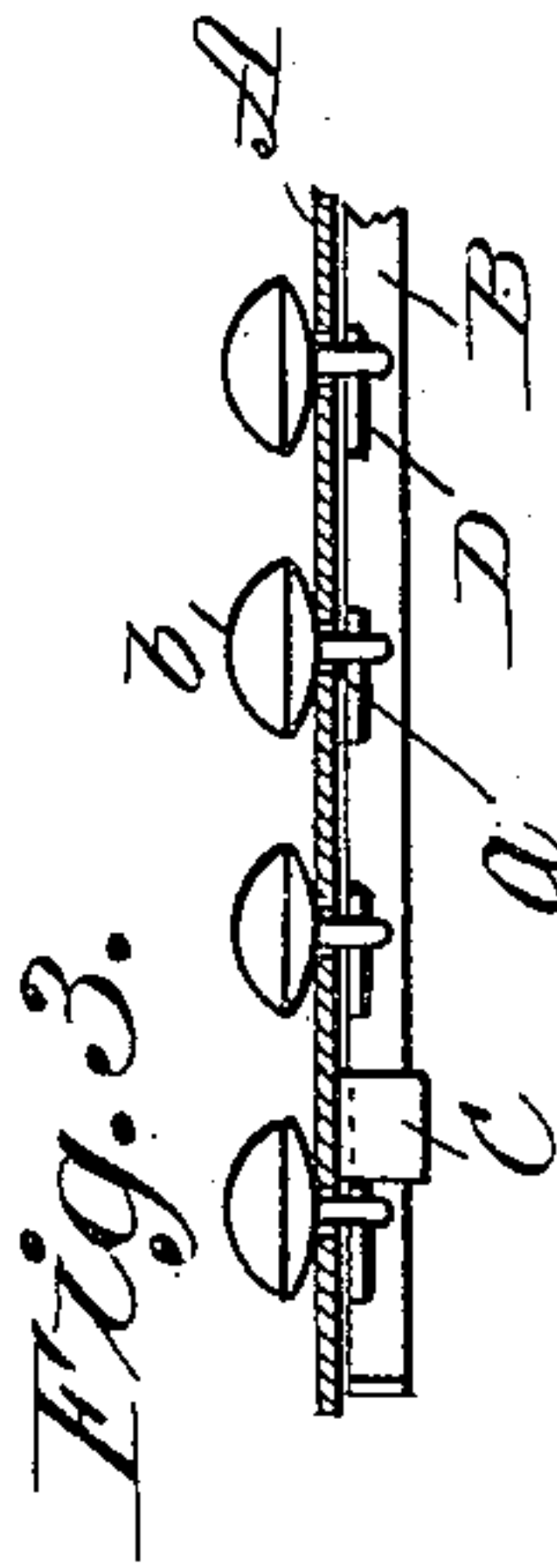
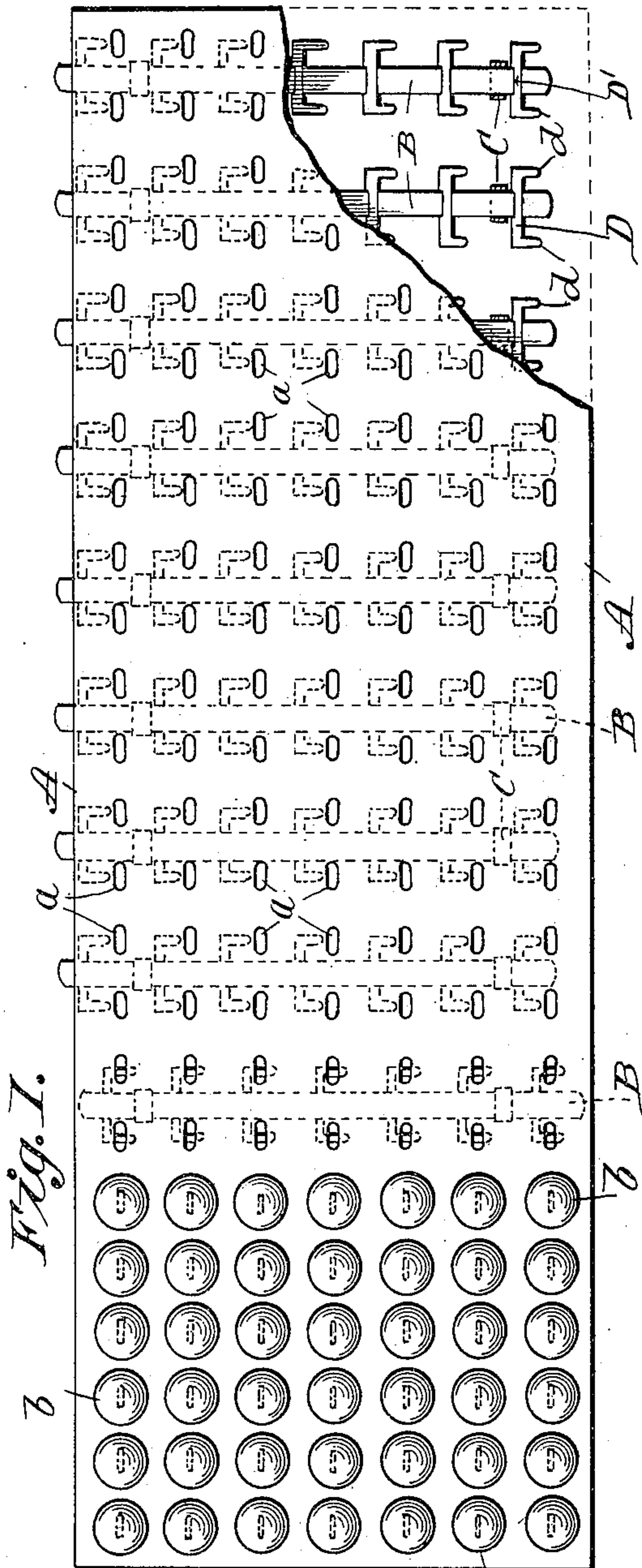


Fig. 4.

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UNITED STATES PATENT OFFICE.

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DEVICE FOR HOLDING BUTTONS FOR ENAMELING, &c.

SPECIFICATION forming part of Letters Patent No. 614,785, dated November 22, 1898.

Application filed December 30, 1897. Serial No. 664,618. (No model.)

To all whom it may concern:

Be it known that I, WALTER E. BENNETT, a citizen of the United States of America, residing at Portsmouth, in the county of Rockingham and State of New Hampshire, have invented new and useful Improvements in Button-Cards, of which the following is a specification.

This invention relates to the manufacture of shank-buttons, and has special reference to means for handling buttons of this class in the process of their manufacture, the object of the invention being the construction of trays or plates in which the buttons may be more advantageously handled than heretofore and in which they may be removably secured in positions which best adapt them to the processes to which they are to be subjected; and the invention consists in the construction as fully hereinafter described and claimed.

In the drawings forming part of this specification, Figure 1 is a plan view of a tray or plate, showing buttons secured to a portion thereof and showing a part thereof broken away, disclosing the means on the under side for securing said buttons to the tray or plate. Fig. 2 is a perspective view of the under side of a tray or plate on a larger scale than Fig. 1. Fig. 3 is a sectional elevation of a part of the tray or plate on a line transverse thereto. Fig. 4 is a plan and section of a part of one of the locking-bars on the under side of the tray or plate. Fig. 5 is a perspective view of one of the shank-engaging fingers of a locking-bar.

In the description of the invention the word "tray" will be used to indicate the body A, to which the buttons are secured. This is preferably made of thin flat metal and of such thickness as to give it the requisite stiffness to permit its being handled without bending when filled with buttons.

A series of perforations *a* are made in the tray, suitably spaced transversely and lengthwise thereof to best adapt said trays to the particular kind of buttons which are to be placed thereon. In the accompanying drawings the trays shown are adapted to the use of shoe-buttons, (indicated by *b*,) though they may be used with advantage in the manu-

facture of various other forms which are provided with shanks of such shape as will permit them to be placed on a tray and their shanks to be passed through suitable apertures therein and engaged by a locking-bar on the opposite side of said tray, substantially as shown and described herein. The said perforations *a* are of elongated shape and somewhat larger than the shank of the button to provide for the easy entrance of said shank therein. The buttons *b* are placed on said trays with their shanks in the perforations *a* and protruding beyond the under side of the plate far enough to be engaged by the fingers of the locking-bars B. The buttons are placed in position on the trays in any convenient manner, but preferably by mechanical means, and they are then secured to said tray A by imparting an endwise movement to the locking-bars B, supported for a sliding movement transversely to the looped shank of the buttons in said trays. A convenient means for supporting said locking-bars B is shown in the drawings, which consists in the metal loops C, having the form in cross-section of said locking-bars B and riveted or otherwise secured to the underside of the trays A in proper position. Located transversely of said locking-bars B at proper intervals are the metal fingers D, the ends *d* of which are disposed in lines parallel with the said locking-bars B and at right angles to the body of the metal fingers D. The latter are rigidly secured to that side of the locking-bars B lying next to the surface of the tray and in such position that the surface of the said locking-bars B and said metal fingers D are in the same plane, whereby when said locking-bars are in operative position on the trays A said metal fingers D will lie close to the surface thereof. When said locking-bars B are in position on the under side of the trays A, the distance between the ends *d* of said metal fingers D is such that when the locking-bars B are moved endwise the said ends *d* will move transversely across the perforations *a* in said trays and through the looped shank of a button protruding there-through, as seen in Figs. 3 and 4, and the said metal fingers D are so spaced along said bars that one of said fingers will engage two buttons on each of the longitudinal rows, across

which said bars move, all of which is clearly shown in Fig. 1 of the drawings.

Any suitable means for securing the metal fingers D to the locking-bars B may be employed; but I prefer to secure them as shown in Fig. 4, whereby they are very rigidly attached to the locking-bars and held at the same time against endwise movement. As shown in said Fig. 4, the locking-bars B are slotted transversely, the said slots being of rectangular shape in cross-section.

The fingers D are cut away, as at D', for a space equal to the width of the locking-bars B, whereby the shoulders d^2 are formed on said fingers, the narrowed part of the body thereof being on one side thereof of the same width as the slots in the locking-bars and tapered from that side to the opposite upper side, as shown in the sectional view, Fig. 4. Said metal fingers D are then placed in said slots and with a proper tool the metal along the sides of said rectangular slots is forced down against the beveled or tapered sides of said fingers, securing them rigidly to the bars, and the shoulders d^2 of said fingers, fitting closely against opposite sides of the locking-bars B, prevent any endwise movement of the said fingers in the slots in which they lie.

By the use of these trays the handling of the buttons in the various finishing processes of manufacture is greatly facilitated, especially in the process of applying and baking on the enamel with which they are covered,

said enamel being applied in a liquid state to the buttons on the trays and the latter then placed in racks in a suitable oven for baking and hardening.

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

1. A tray for the reception of shank-buttons consisting of a plate, a series of perforations therethrough for the reception of the shanks of buttons, means for securing said buttons to said tray consisting of a series of movable bars supported on the under side of said tray, and fingers on said bars having ends parallel with said bars for engaging the shanks of said buttons, when moved thereagainst, substantially as described.

2. A tray for the reception of shank-buttons consisting of a plate, a series of parallel rows of perforations therethrough for the reception of the shanks of said buttons, means for temporarily securing said buttons to said tray consisting of shank-engaging fingers, bars to which said fingers are secured, means for supporting said bars for a sliding movement on the under side of said tray, whereby said shank-engaging fingers are moved transversely across the apertures in said tray, substantially as described.

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