

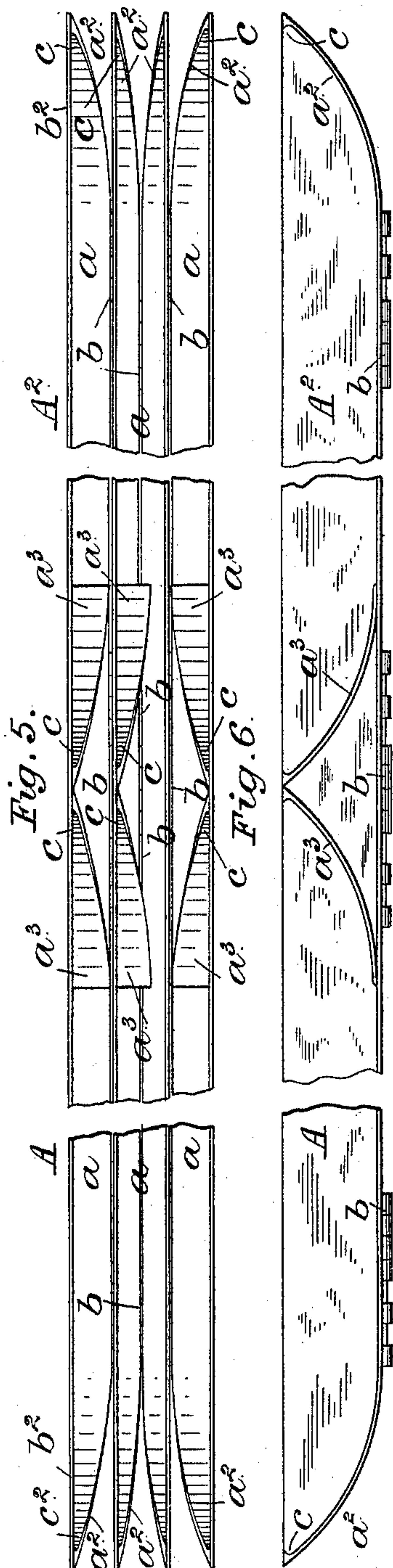
No. 613,137.

Patented Oct. 25, 1898.

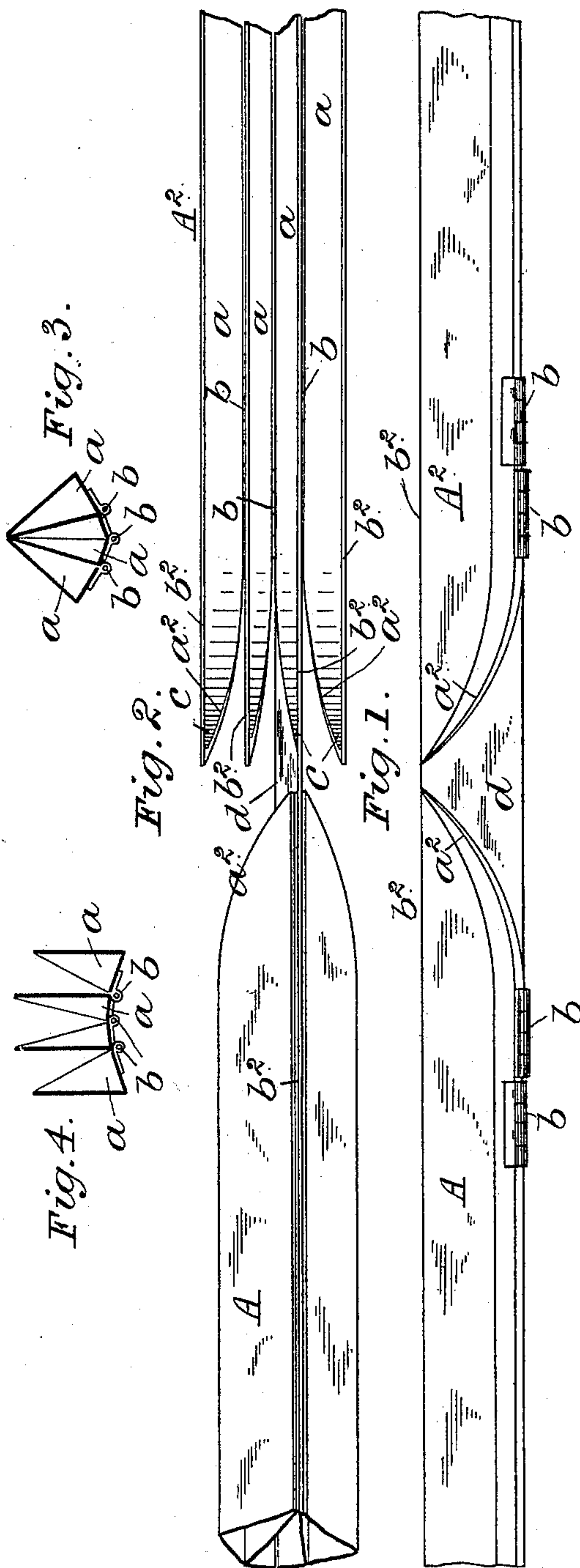
J. B. GARROD.
APPLIANCE FOR MAKING TRIMMINGS.

(Application filed Mar. 18, 1898.)

(No Model.)



WITNESSES:
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UNITED STATES PATENT OFFICE.

JAMES B. GARROD, OF LONDON, ENGLAND.

APPLIANCE FOR MAKING TRIMMINGS.

SPECIFICATION forming part of Letters Patent No. 613,137, dated October 25, 1898.

Application filed March 18, 1898. Serial No. 674,371. (No model.)

To all whom it may concern:

Be it known that I, JAMES B. GARROD, manufacturer, a subject of the Queen of Great Britain and Ireland, (trading, jointly with my wife, Rosa Garrod, as W. Warren,) residing at 99 Sandringham road, Dalston, London, England, have invented certain new or improved appliances for use in the manufacture of hat, cap, or bonnet fronts or frills and other analogous articles, (for which I have applied for a patent in Great Britain, No. 19,124, dated August 18, 1897,) of which the following is a specification.

The object of this invention is to provide an appliance for use in the manufacture of hat, cap, or bonnet fronts or frills and other analogous articles whereby the materials of which such articles are made can be connected together with rapidity, economy, and better effect than hitherto.

An appliance constructed according to this invention consists of a number of elongated boxes of triangular or approximately triangular shape in cross-section, several boxes being hinged together side by side, so that one side of one box constitutes the lid or closure of an adjacent box. The ends of each box are curved upward from the bottom to the top or apex and are somewhat rounded off inward, so as to deflect the ends of the projecting part of the material somewhat inward. The apexes of the boxes arranged side by side when the boxes are closed form one common apex to the whole of the said boxes viewed transversely. Two or more series of these boxes may be arranged end to end on a suitable holder, or several boxes may be formed end to end by forming one long box and dividing it into any desired number of shorter boxes by fixing upwardly-curved partitions to form the inner ends of the said shorter boxes.

Figure 1 of the accompanying drawings is a side elevation, Fig. 2 a plan, and Figs. 3 and 4 are transverse sections, of part of an apparatus or appliance constructed according to my invention for the purpose mentioned, the said apparatus being shown in its closed position in Figs. 1 and 3 and also in the left-hand end of Fig. 2, while the portion of the apparatus at the right-hand end of Fig. 2 and also in the transverse section, Fig. 4, is shown

in the open position to receive the material of which the cap front, frill, or other analogous article is to be made. Fig. 5 is a plan, and Fig. 6 a longitudinal section, of a modified construction of the apparatus.

A A² are two series or sets of boxes or chambers *a*, hinged together side by side at the bottom, as shown at *b*, the chambers when closed being of triangular shape in cross-section, as shown in Fig. 3. In the drawings I have shown three such boxes or chambers in each series; but each series may contain only two or more than three chambers, according to the number of strips of material to be connected together to form the cap-front or article to be made. The boxes are of a length corresponding to the length of the article to be made, and the two ends *a*² of each box or chamber are curved upward from the bottom to the top or apex *b*², so that the strips of material placed in the chambers will have their ends tapered or reduced in width. At the top or apex of each upwardly-curved end of the chambers the inner surface is rounded off inward, as shown at *c*, so as to deflect somewhat inward the ends of the material placed in the chambers. Two or more sets or series of boxes or chambers may be connected together end to end, as shown in Figs. 1 and 2, by the extensions *d* of one of the sides of the chambers, which are in a longitudinal line one with another. This arrangement admits of each series or sets of chambers being opened and closed independently of the other series or sets of chambers.

In the construction illustrated by Figs. 5 and 6 the series of chambers are formed by hinging together at the bottom at *b*, as hereinbefore described, triangular boxes each of a length to receive in line one with another two or more lengths of material, the two ends *a*² of each of these long boxes being curved upward and having their inner surfaces rounded off inward at *c*, as hereinbefore described. At suitable distances apart in each of these long boxes are fixed transverse partitions or divisions *a*³ of upwardly-curved shape corresponding to the shape of the ends *a*², so as to divide each long box into two or more short boxes or chambers of the length and shape required to receive the length of

material to form a cap-front frill or other analogous article to be made, the transverse partitions a^3 being in the same position in each of the long boxes, so that sets or series of shorter boxes arranged side by side are formed similar to those described with reference to Figs. 1 to 4; but in this construction the several series of boxes are simultaneously opened and closed.

The crimped, fluted, or goffered lace or material of which the cap fronts, frills, or the like are to be made being cut into suitable lengths, one or more than one length is placed in each or any desired number of the boxes of each set or series of boxes arranged side by side, the edges of the several lengths of lace or the like being made to project above the edges of the boxes and damped with starch or other suitable adhesive material, or, if previously starched, the said projecting edges may be damped with water. A strip or strips of stiffened or starched net or other suitable material may after damping be also placed in the boxes or one of the boxes, with one edge of the said strip or strips projecting outside the box or boxes when the boxes are closed. The projecting edges of the lace and the starched net or the like (when used) while still held in the boxes are subjected to the action of heat in any suitable chamber—for example, by what is known as a "gas-trapper"—whereby the damped or moistened portions of the material are dried and caused to adhere together. The cap front or frill is then removed from the boxes, and the parts thus connected may be further secured by stitching or binding the adhering edges thereof.

By curving the ends of the boxes upward, as hereinbefore described, the material of the article or articles made is caused to project from the boxes more at the ends than at the center, which surplus projecting material

may be cut off and thereby form tapered or reduced ends to the article being made.

By making the appliance with two or more series of boxes end to end, as described, a corresponding number of cap fronts, frills, or other analogous articles may be simultaneously made, or one or more of the series of boxes only may be used, if required.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I claim as my invention—

1. A device for use in the manufacture of hat or cap frills, &c., having a number of connected boxes of approximately triangular cross-section to contain the frills, ends to each box curving upward from the base toward the apex thereof, substantially as described.

2. A device for use in the manufacture of hat or cap frills, &c., having a number of connected boxes of approximately triangular cross-section to contain the frills, ends to each box curving upward from the base toward the apex, and an inwardly-curved or rounded part c at the apex at the ends of said boxes, substantially as described.

3. A device for use in the manufacture of hat or cap fronts or frills, &c., consisting of the combination of two or more elongated boxes or chambers of triangular shape in cross-section connected together side by side, two or more such sets or series of boxes connected together end to end and means whereby any one or more of the sets or series can be opened and closed independently of the other sets or series, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES B. GARROD.

Witnesses:

WILLIAM FREDERICK UPTON,
HENRY DENIS HOSKINS.