

No. 631,629.

Patented Aug. 22, 1899.

A. S. FERRIS.
DIAPER.

(Application filed May 20, 1899.)

(No Model.)

Fig. 1.



Fig. 2.

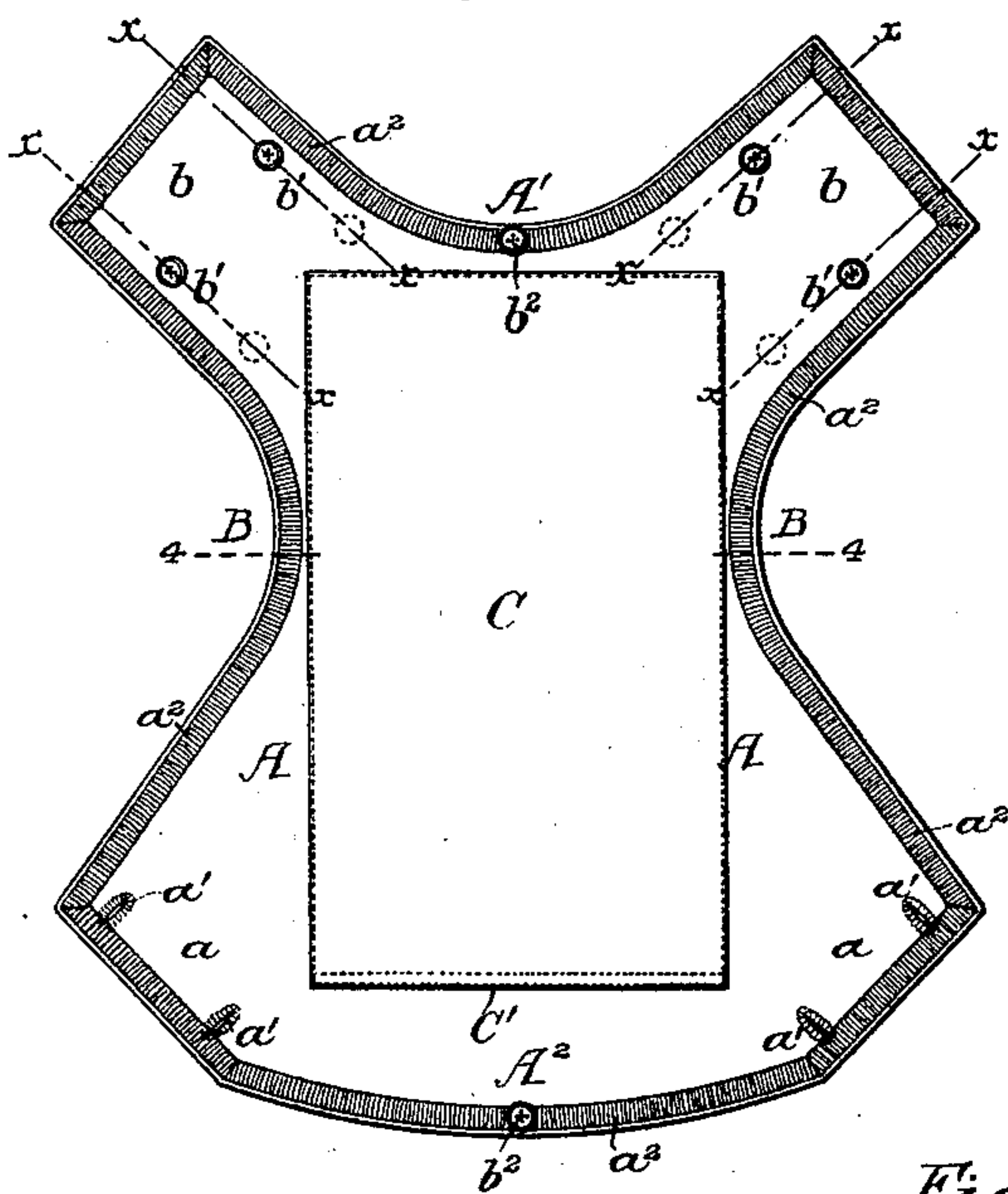


Fig. 3.

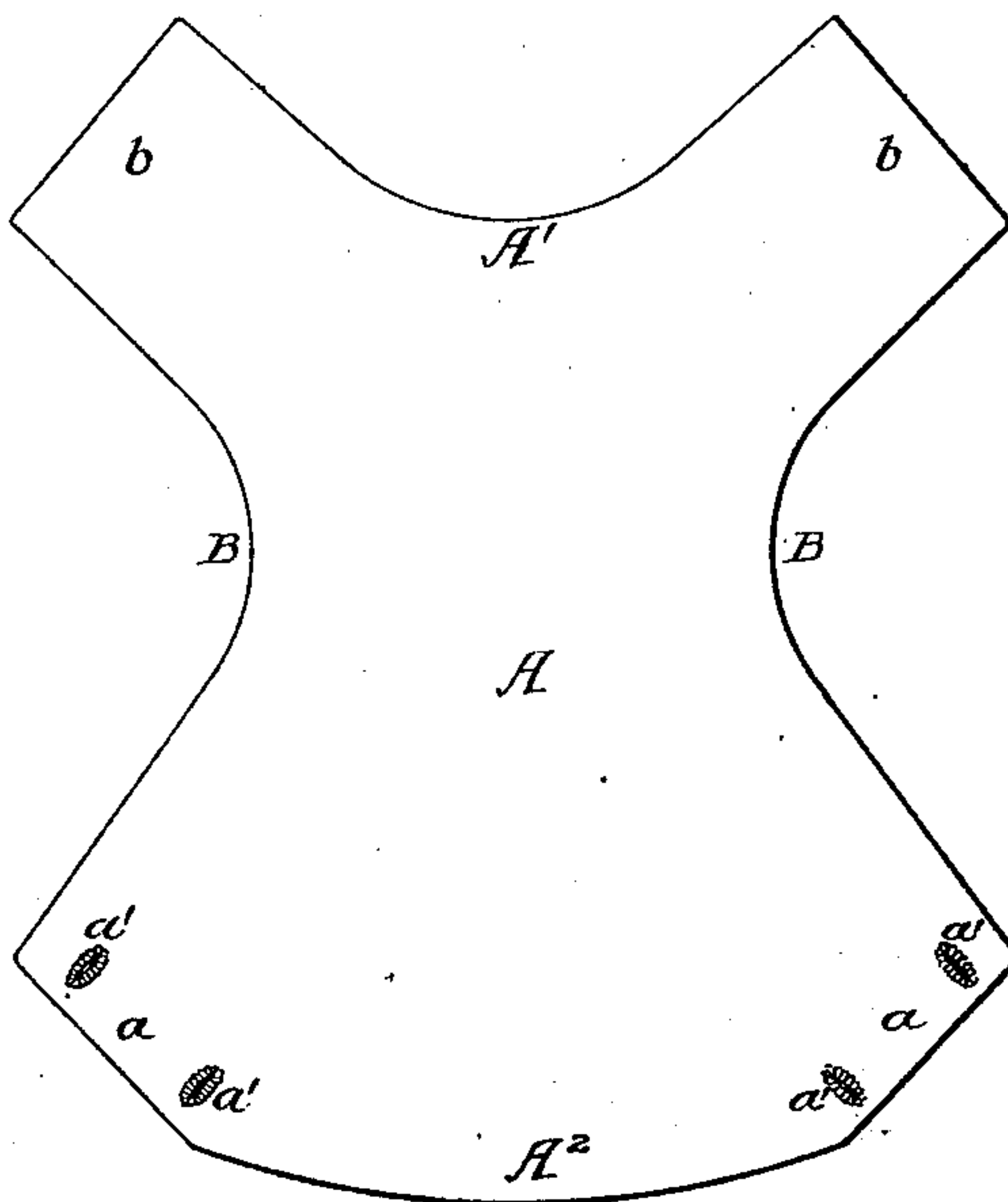
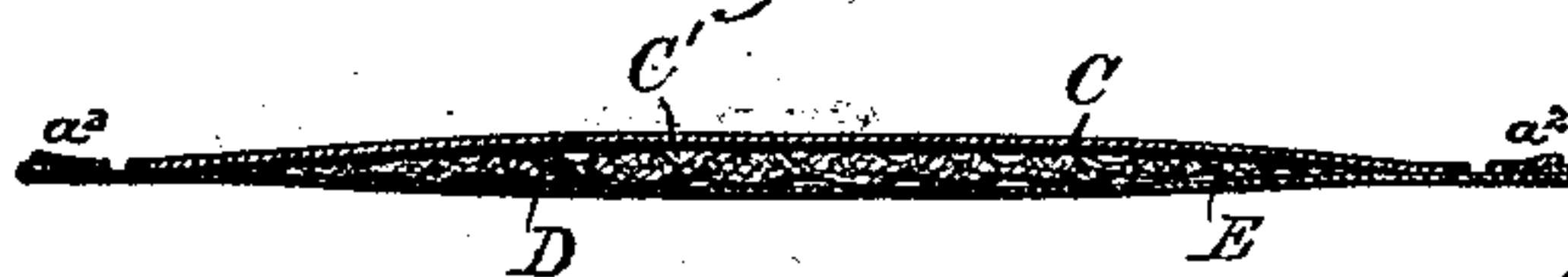


Fig. 4.



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UNITED STATES PATENT OFFICE.

ANNA S. FERRIS, OF JENKINTOWN, PENNSYLVANIA.

DIAPER.

SPECIFICATION forming part of Letters Patent No. 631,629, dated August 22, 1899.

Application filed May 20, 1899. Serial No. 717,661. (No model.)

To all whom it may concern:

Be it known that I, ANNA S. FERRIS, a citizen of the United States, and a resident of Jenkintown, Montgomery county, Pennsylvania, have invented certain Improvements in Diapers or Infants' Drawers, of which the following is a specification.

The object of my invention is to provide a diaper that shall contain all the advantages of the ordinary napkin-diaper now in common use and of such shape that it will fit the body of a child like a pair of drawers, but will be free from the usual objections to the special forms of diapers or infants' drawers as heretofore constructed.

In the accompanying drawings, Figure 1 is a view illustrating the application of my improved form of diaper to the body of a child. Fig. 2 is a plan view of the outer face of the diaper. Fig. 3 is a plan view of the inner face of the same, and Fig. 4 is a sectional view taken on the line 4 4, Fig. 2.

The ordinary linen or cotton napkin folded into triangular shape and applied to the infant by bringing the three points of the triangle together in front and fastening the same with a pin is unsatisfactory for several reasons. It makes a clumsy and inconvenient bunch at the point of fastening, it is difficult to keep in place and unless pinned to some other garment worn by the child there is constant danger of it falling off, it is deficient in absorbent capacity, and it fits so loosely around the child's limbs that it permits the escape of moisture and feces. Various attempts have been made to avoid these disadvantages by the use of some form of shaped or close-fitting drawers. As drawers made of ordinary material would manifestly not suffice to retain the child's excretions, these diaper-drawers have usually been made of or lined with rubber cloth or some other waterproof fabric. The disadvantage of this arrangement lies in the fact that the drawers are practically air-tight as well as waterproof, admit of no proper ventilation, and are highly injurious in their effects on the child. All garments of this class also exhibit the further serious defect that being constructed more nearly like regular drawers, with waistbands, seams, plaits, darts or gathers, they greatly obstruct the processes of washing and ironing

and present complicated surfaces, which, when soiled with fecal matter, are very difficult to properly cleanse.

The diaper forming the subject of my invention is preferably made of cotton-flannel, with the fleecy side arranged to be next the body of the child, is perfectly flat, and has no features whatever that will in the least hinder washing or drying.

Figs. 2 and 3 are plan views of the diaper, which is of the special shape shown. A is the body portion, having the upper and lower parts A' and A² curved in the same direction. The sides of the diaper are cut out at B, and this shaping of the diaper forms the short extensions or securing-flaps *a* and the longer extensions or securing-flaps *b*. The extensions *a* are provided with buttonholes *a'*, adapted to engage the buttons *b'* of the extensions or securing-flaps *b*. The extensions or securing-flaps *b* are elongated for the purpose of allowing the buttons to be changed, if necessary, to adjust the diaper to different-sized children. The adjustment of the buttons is made on the dotted lines *x x*, and I have shown two positions for the buttons to be changed; but it will be understood that they may be placed at any point where they will register with the buttonholes *a'* to insure the diaper fitting the child properly. The diaper is bound at the edges on one side with tape *a²* and has buttons *b²* at the center of both ends of the diaper. These buttons will come at the front and back of the child when the diaper is fitted in place and serve as a means for securing a waist or any other garment to the diaper to support the same.

When this diaper is applied to a child and the buttons are fastened, the securing-flaps *a* and *b* on the same side of the body of the diaper overlapping on a line extending from the waist downward on the outside of the leg, and hence the diaper takes the shape of a pair of drawers, fitting closely around the waist and around each leg. The openings at the side for the legs of the child, formed by fastening the extensions *a* to the extensions *b*, are adjustable, as explained, by shifting the position of the buttons to fit any-sized child. This adjustment and the compression involved in fastening the buttons are in the direction of the circumference of

the child's limbs, and when the buttons are placed at the proper distances the diaper fits snugly around each leg, effectually preventing the escape of moisture or fecal matter, but exercising no undue pressure.

On the outer surface of the diaper a reinforce C is secured in the shape of an oblong piece of material of which the diaper is made, and this reinforce is secured only at the sides and one end, forming a pocket C', the opening of the pocket being at the back of the child. If the two thicknesses of material are not considered sufficient to absorb the moisture, a pad D of wadded cotton may be inserted in this pocket, and when the diaper is arranged on the child this pad comes directly under the seat and over the front of the body. This extra pad, save in exceptional cases, will be amply sufficient to absorb all the moisture from the child's excretions and prevent the dampening or soiling of his other clothes or the clothes of his attendant. If even this should prove insufficient, I may use a loose sheet of rubber cloth E, arranged in the pocket C', between the pad D and the reinforce C, which will effectually prevent the moisture from going any farther, but which does not surround the limbs and body of the child so closely as to prevent ventilation or have any injurious effects.

The main advantages of my improved diaper are that when applied to the child it shapes itself to conform to the body in the same manner as a pair of drawers, fitting the limbs and body smoothly, fastens at the sides, and extends without opening over the front and back of the child, the hollowed-out portion A' coming at the front below the abdomen. The ordinary diaper is usually pinned up over the abdomen, and the waterproof drawers are also fastened over the same, such arrangement keeping the abdomen in a constant state of dampness whenever the diaper is wet. To prevent this objectionable and unhealthy condition, I cut my diaper low in the front and so curved as to fit the child just below the abdomen, permitting the abdomen to be covered by the dry shirt, and thereby protecting it from dampness.

My diaper while combining the features and advantages above described is perfectly flat when taken off the child, as may be seen on reference to Figs. 2 and 3, and it is capable of being washed as easily and as effectively

as the napkin-diapers of familiar use, whose only advantage is that they may be readily cleansed.

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

1. As a new article of manufacture, the herein-described diaper consisting of a body portion having its opposite sides cut out on curved lines forming securing-flaps or extensions, and shaped to fit the body and legs of the child, the said securing-flaps on the same side of the body portion being adapted to overlap on a line extending from the waist downward on the outside of the leg of the child and provided with fastening devices for securing said two flaps together on said line, substantially as described.

2. As a new article of manufacture, the herein-described diaper consisting of a body portion having its opposite ends cut out on curved lines, in the same direction, and its opposite sides cut out on curved lines in opposite directions to each other forming securing-flaps or extensions, constituting a diaper shaped to fit the body and legs of the child, the said securing-flaps on the same side of the body portion being adapted to overlap on a line extending from the waist downward on the outside of the leg of the child, and provided with fastening devices for securing said two flaps together on said line, substantially as described.

3. As a new article of manufacture, the herein-described diaper consisting of a body portion having its opposite sides cut out on curved lines forming securing-flaps and shaped to the body and legs of the child, the flaps on the same side of the body portion being adapted to overlap on a line from the waist downward on the outside of the leg of the child, with means for fastening said flaps on said line, and a reinforce-strip attached to the body portion of the diaper at the bottom and sides, forming a pocket thereon, open end upward, when the diaper is applied, substantially as described.

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

ANNA S. FERRIS.

Witnesses:

T. S. LEACH,

LUKE F. GRADY.