

March 17, 1942.

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2,276,612

FACE GUARD FOR INFANTS

Filed Aug. 11, 1941

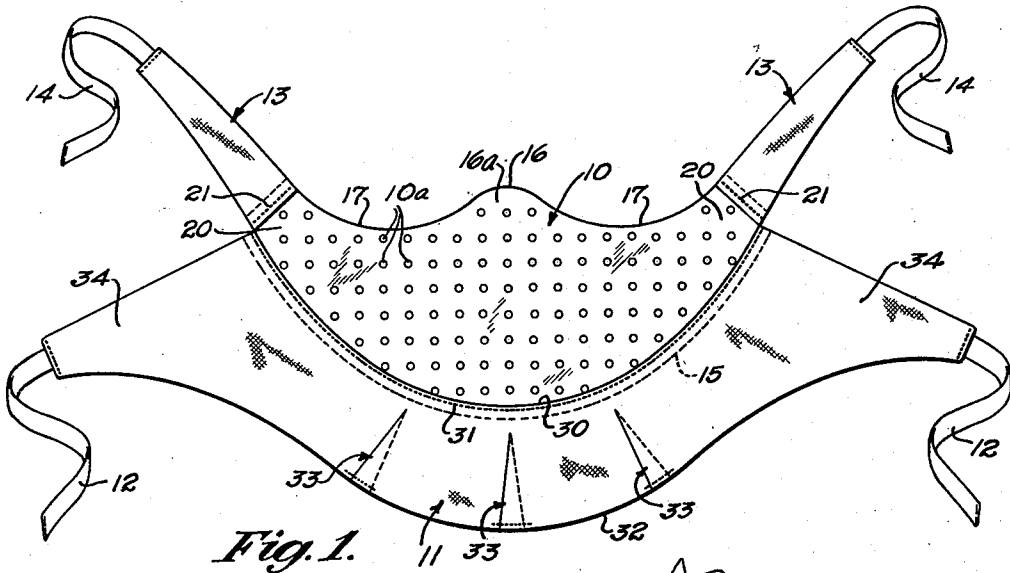


Fig. 1.

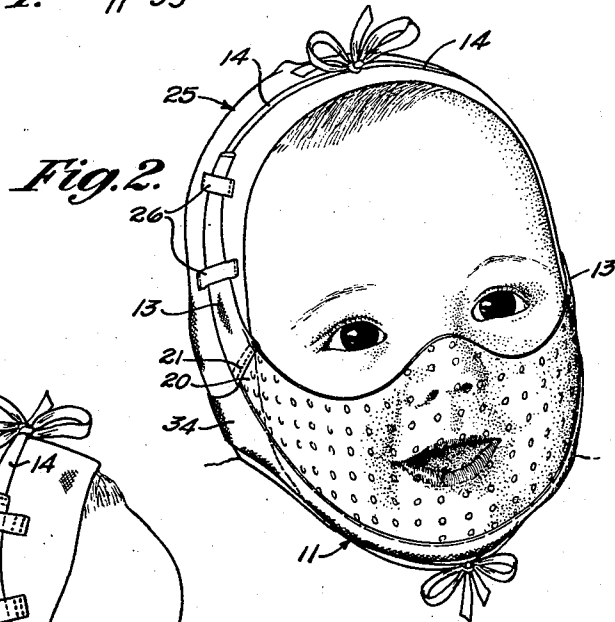
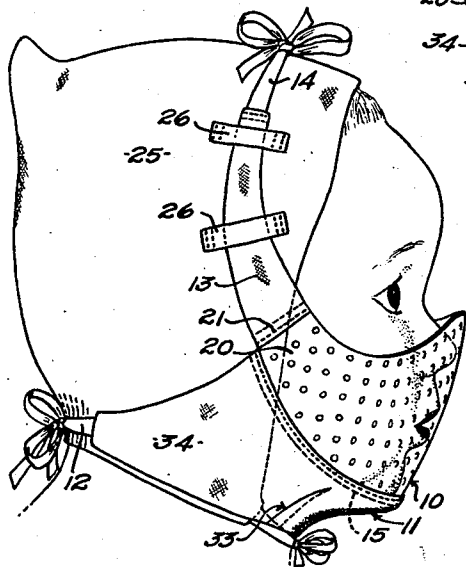


Fig. 2.

Fig. 3.



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UNITED STATES PATENT OFFICE

2,276,612

FACE GUARD FOR INFANTS

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Application August 11, 1941, Serial No. 406,315

3 Claims. (Cl. 128—146)

This invention has reference to face guards whose principal, although not exclusive, use is in protecting the faces of infants. Various types of guard devices have been proposed or used for similar purposes but, particularly and peculiarly with regard to infant's wear, all of the previous devices of which I am aware have serious shortcomings of one nature or another.

The general purposes of applying a protective mask or guard to an infant's face are well known and need no extended expositions. The purpose of any such guard is, generally speaking, to prevent the entrance of any foreign matter into the infant's mouth or nostrils, either by being sucked or drawn in or by being inserted by the infant's own action. Thumb-sucking is one of the commoner things which it is aimed to prevent; also the drawing in or sucking in of bed coverings, lint from blankets, etc.

With these general purposes in mind, the purpose and object of my present invention is to provide a mask or guard which will accomplish all of the desired purposes and which is superior in many respects to existing guards. Common types of existing guards are those in which the actual guard or mask piece is made either of fabric or of wire mesh or screen. The fabric guards have the general disadvantages that they are formless and shapeless and have too great flexibility, so that they can be drawn into the mouth or nostrils. They are also highly unsanitary as the usual fabric easily absorbs or adsorbs foreign matter, and must be sterilized by boiling or similar operations. The metal screen guards, on the other hand, have the general disadvantages of being very harsh on the infant's face, relatively inflexible, and unsightly in appearance. They are also difficult to clean thoroughly; and they must be more or less permanently shaped to the infant's face. This last disadvantage makes them bulky to pack and ship, and also necessitates the provision of numbers of different sizes in order to fit reasonably closely.

My present invention provides a mask or guard which overcomes all of these deficiencies and difficulties and provides a guard having many advantages over the known types but none of their disadvantages. My guard is made up principally of a main mask piece comprised of relatively soft and flexible transparent material, such as the plastic known commercially as Vinylite; and of a chin and neck piece preferably of a soft flexible fabric; together with supporting bands or strips which cross the temples to be secured above or around the head and which are secured behind

the neck. The main mask piece is normally flat and composed of a properly outlined sheet of the preferred plastic material. The preferred plastic material is one which is relatively soft and easily flexible and pliable but possesses little or no resilience, and thus easily adapts itself to the contours of the infant's face without any appreciable pressure on the face. It also has a relatively smooth surface which, in the usual manufactured form, is quite highly polished; so that the surface is relatively non-absorbent and does not catch dust, lint, etc.

The make-up of my whole device is such that it presents no hard surfaces or protuberances, and thus it does not and cannot apply any localized pressures to the infant's head during sleep. Further advantageous features of my invention will be gathered from the following particular description of a preferred form of the invention, reference for that purpose being had to the accompanying drawing in which

Fig. 1 is a plan of my preferred form of mask or guard as it appears when flattened out, and

Figs. 2 and 3 are front and side views showing the guard in use.

The drawing illustrates a mask or guard which is made up principally of a main mask piece 10, chin-and-neck piece 11 with fastening means 12, and cheek-and-temple straps 13 with fastening means 14.

The main mask piece 10 is, as I have indicated, preferably composed of a thin sheet of plastic material of the nature of Vinylite, having outline contours substantially as shown and perforated with distributed perforations 10a. The outline of the mask piece as shown has a lower curved edge 15 which may be substantially a circular arc, and an upper curved edge which comprises a central upwardly convex part 16 and symmetrically arranged laterally upwardly concave parts 17. The general shape of the mask piece may be described as being substantially crescent shaped with a central upward extension at 16a which is particularly designed to cover the infant's nose in the manner shown in Figs. 2 and 3. The upwardly concave edges at 17 provide clearance for the infant's eyes.

The sheet material of the mask piece 10 may preferably be about $\frac{1}{20}$ or $\frac{1}{32}$ of an inch thick or even thinner, and in its unflexed condition the mask piece is normally a flat but very flexible and pliable sheet. The preferred Vinylite material, in sheet form has a lateral flexibility which is about like that of a comparable sheet of soft leather. The material is substantially devoid of

resiliency and, under the very slight strains to which it is subjected in my device, is practically non-extensible. It is thus conformable to the general contours of the infant's face with the application of very small or negligible forces and pressures. Its surface is relatively soft but capable of taking a dull polish, and is available on the market in that form. It is capable of being washed or sterilized without absorption of any undue amount of moisture and, under ordinary conditions is relatively non-absorbent of body fluids and relatively non-adsorbent of foreign materials such as dust, lint, etc. Its surface texture is such that it can be easily cleaned by wiping.

To the relatively narrow cusp ends 20 of the crescent shaped mask piece I secure the cheek-and-temple strips 13, preferably by stitching as indicated at 21. These strips 13 are preferably composed of soft flexible fabric and are adapted to extend over the upper parts of the infant's cheeks and over the temples or sides of the head and are adapted to be fastened in place by a suitable fastening means. My preferred means of positioning and fastening the strips 13, so as to suspend the mask piece in its proper position, is shown in the drawing. Although the strips 13 or the fastenings 14 could be extended directly over the top of the head and there secured together, I prefer to secure the suspension strips in a more dependable manner.

Thus, I prefer to use a hood or cap 25 such for instance as the soft hoods in common use, and to provide the hood with one or more strap loops 26, positioned about as shown and through which the supporting strips 13 are passed so as to position the supporting strips with relation to the hood. Other means of relating or securing the supporting strips to the hood may be used, as for instance, by hooking, pinning or buttoning the supporting strips directly to the hood; but I prefer the general arrangement here shown, in which the supporting strips 13 are merely positioned by the strap loops 26 and are then supported against lengthwise movement by having the fastening ribbons 14 tied together on top of the head. Again, the securing of the ribbons 14 may be by other securing means such as soft rubber buttons; but my whole arrangement of positioning and supporting the straps 13 has the advantage over the use of even soft rubber buttons that no substantial protuberances are anywhere presented which might apply localized pressure to the infant's head during sleep.

The chin-and-neck cloth 11 is preferably of the general outline contour shown in Fig. 1. It has an upper concavely curved edge 30 which is secured, as for instance by stitching 31, along the lower curved edge 15 of mask piece 10. The central part of its lower edge may be curved as shown at 32 more or less concentrically with upper edge 30, and the central part of the cloth may be gathered, as indicated at 33, so that its lower edge will tend to lie up closely to the infant's chin and neck as shown in Figs. 2 and 3. The end portions of the chin-and-neck cloth are extended to form extensions or strips 34 which may be secured in their proper applied positions by any suitable means but are preferably secured by being provided with tie ribbons 12. Here again my preferred structure involves nothing but soft materials and involves no pressure producing protuberances.

The size and shape of mask piece 10 is such that the central upper portion 16 extends over

and preferably well up above the infant's nostrils, the narrow end cusps 20 are positioned well around at the sides of the cheeks well away from and above the nostrils and mouth, and the lower edge is located substantially at the point of the chin. These relative positionings have certain advantages, as will be pointed out; but the positionings are not necessarily so relatively precise as to necessitate the provision of a large variety of sizes of masks. One mask size will accommodate faces of quite varying sizes and proportions.

Due to the shape and positioning of the mask piece, all fabric elements of the face guard are well removed from the mouth and nostrils so that if any moisture from the mouth or nostrils reaches the fabric portions it is absorbed by them in a location remote. The mouth piece itself remains relatively clean at all times and under all conditions because of its non-absorptive or adsorptive quality.

It will be noted that the mask piece is of such conformation and is so supported as to be virtually suspended in proper place from the suspension strips 13. Consequently no substantial forces are necessary to hold it in proper position, and a very light constriction on the securing means 12 at the neck secures the mask piece positively in place and forms it to the facial contours, but without any appreciable pressures on the face.

The whole guard is easily cleaned and sterilized, when necessary as by ordinary washing or sterilizing process. The fabric portions may be easily removed and renewed from time to time if desired. Other forms of releasable fastenings between the fabric portion and the mask piece may be used if desired; but I prefer stitching because it presents smooth soft surfaces with no protuberances and is still easily removable and renewable if desired.

Finally, I call attention to the fact that my guard is highly sightly. It has none of the cumbersome appearance of prior guards which have involved metal parts; and its highly transparent and smooth surfaced mask piece give it an appearance of lightness and neatness which fabric or similar guards lack.

I claim:

1. A face guard for infants comprising a mask piece formed of a flat thin transparent sheet of material which is freely laterally pliable, substantially, non-resilient, and substantially non-absorbent and non-adsorbent of body fluids, the mask piece being perforated and having substantially the outline shape of a crescent with its concave edge upward, and being of such dimensions that when applied in flexed conformation to the face its medial wider portion overlies the mouth and nostrils with its lower edge at about the level of the chin and its narrow cusp ends lie approximately against the upper cheek surfaces, flexible means applicable to the head and attached to the cusp ends to support the mask piece, and a chin-and-neck piece of flexible fabric attached to and along the lower convex edge of the mask piece and extending laterally to form means whereby the chin-and-neck piece may be drawn back under the chin and the lower margin of the mask piece be held against the chin.

2. A face guard for infants comprising a mask piece formed of a flat thin transparent sheet of material which is freely laterally pliable, substantially non-resilient, and substantially non-absorbent and non-adsorbent of body fluids,

the mask piece being perforated and having substantially the outline shape of a crescent with its concave edge upward, said upper concave edge having a central upward projection, and the mask piece being of such dimensions that when applied in flexed conformation to the face with its lower convex edge at about the level of the chin its central wider portion overlies the mouth and nose and its narrow cusp ends lie approximately against the upper cheek surfaces, flexible fabric straps attached to the cusp ends of the mask piece and applicable to the head to support the mask piece, a chin-and-neck piece of flexible fabric attached to and along the lower convex edge of the mask piece, and fabric securing straps attached to the lateral ends of the chin-and-neck piece adapted to be drawn back and secured around the neck to draw the chin-and-neck piece back under the chin and the lower margin of the mask piece back against the chin.

3. In combination with an infant's hood having loop straps located at its upper side portions, a face guard comprising a mask piece

formed of a flat thin transparent sheet of material which is freely laterally pliable, substantially non-resilient, and substantially non-absorptive and non-adsorptive of body fluids, the mask piece being perforated and having substantially the outline shape of a crescent with its concave edge upward, and being of such dimensions that when applied in flexed conformation to the face its medial wider portion overlies the mouth and nostrils with its lower edge at about the level of the chin and its narrow cusp ends lie approximately against the upper cheek surfaces, flexible fabric straps attached to the cusp ends of the mask piece adapted to be passed upwardly through the loop straps of the hood and over the head and there secured together to support the mask piece, and a chin-and-neck piece of flexible fabric attached to and along the lower convex edge of the mask piece and extending laterally to form means whereby the chin-and-neck piece may be drawn back under the chin and the lower margin of the mask piece be held against the chin.

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