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SHIELD FOR PUSTULES FROM VACCINATION AGAINST SMALLPOX

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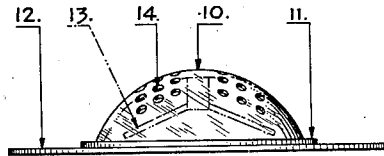


Fig. 1

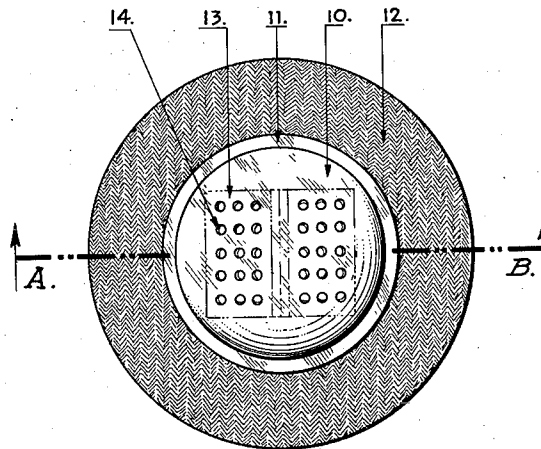


Fig. 2.

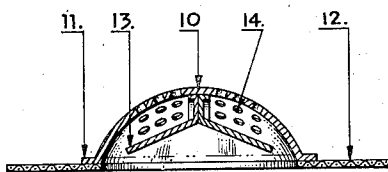


Fig. 3.

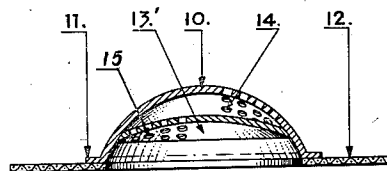


Fig. 4.

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UNITED STATES PATENT OFFICE

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SHIELD FOR PUSTULES FROM VACCINATION AGAINST SMALLPOX

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This invention refers, in general, to shield for vaccination pustules, and more particularly to certain useful improvements in such shields as used for pustules from vaccination against smallpox.

Heretofore conventional uses include transparent and colourless shields, provided with a sticky or adherent device to be attached to the skin over pustules from vaccination against smallpox. Such shields merely prevent rubbing of the clothes against the pustules from vaccination, which is troublesome, particularly when the vaccine lymph begins to act. My invention provides, as a new product, an improved shield which is principally characterized by the fact that the window or transparent dome of the shield is of red colour, thus preventing any outside natural light from reaching the vaccination pustules.

I have proven by careful research and many experiments that by using shields of a red colour which color prevents the admission of outside natural light, their use over the Jenner pustules from vaccination against smallpox prevents suppuration and has a perfect immunizing power, provided the shields are applied in due time. The vaccination pustules, under the action of this new protective red-coloured window, do not go through the same period as cerous pustules that rupture, but, on the contrary, soon get well, without leaving any "vaccinal scars." Vaccination pustules which are protected in this manner do not affect children's general condition or appetite, it being possible to wash them as usual and to take them out daily to enjoy fresh air, without the requirement of any dietetical precaution, in view of the fact they are not subject to suffer any diarrheal or other incidental and usual troubles.

In the use of my red shield it is possible to vaccinate children without danger of any complication, irrespective of their age, general condition (rickets, a delicate health, skin irritations, etc.) and regardless of the season of the year, as the warm weather has no ill effects at all. In short, by using the red protective window, the following well-known and usual troubles and dangers are avoided, without the vaccination losing any of its perfect immunizing powers whatsoever against smallpox:

1. Subjective signs, such as an intense itching and pains brought about by the inflammation in the inoculated zone, besides painful inflammation of regional glands.

2. The vaccinal fever that occurs about the

eight day, which in general fluctuates from 38° to 40° C., and which normally lasts three days.

3. Troubles in the general condition, which appear as agitation, lack of appetite, sleeplessness, irritability, depression, nausea, diarrhea, etc.

4. The contingent and dangerous anomalies accompanying the evolution of the vaccination pustules, such as the polymorphous vaccinal exanthema, secondary eruption, generalization of the vaccination pustules, etc.

5. The auto-inoculation of other regions of the organism by the vaccinated person, who infects his or her fingers, and who frequently inoculates his or her genital organs, eyes, etc.

6. The transmission of vaccination pustules to other persons through contaminated fingers.

7. The "vaccinal eczema," which is the most terrible complication.

8. Complications during the evolutionary process of vaccination pustules, through the infection of pustules by the nails, the result being ulcers, gangrene, erysipelas, etc.

9. Post-vaccinal encephalitis, which produces a death rate of 50%, the rest being frequently paralysis and other serious complications.

As above stated, my invention provides substantially and essentially a transparent shield, which is generally similar to those already known, but distinguishes therefrom in that it is made of red colour to prevent the passage of outside natural light to the vaccination pustules, thus securing the above-mentioned advantages and effects.

The features of the invention will be apparent from the following description in connection with the accompanying drawing, the same reference numerals being used to represent the same parts in the figures shown.

In the drawing:

Fig. 1 is a front view of the improved shield.

Fig. 2 is a plan view of the same.

Fig. 3 is a sectional view on the line A—B of Figure 2.

Fig. 4 is a vertical section of a modified construction to provide ventilation effect.

In the drawing, the shield proper 10 is shown as a convex sheet and of a material having transparent properties, it being, as previously emphasized, of a red colour which results in the effects already mentioned. The convex sheet 10 is secured at its base by means of flange 11 or the like, to a disk or washer 12 made of adhesive tape to facilitate its application to and rest on the skin, precisely over the vaccination

pustules to be protected by the red transparent convex portion 10; care being taken that the shield be centrally located over the pustules, as is conventional practice in shield application.

It is indispensable that the shield 10 be red and transparent, to preclude the entrance of natural light, and desirable ventilation may be provided for through a double bottom 13, secured to the inside of the convex sheet 10 by suitable means, said double bottom precisely underlying perforations 14 formed in the sheet 10 for the admission of air. The rays of light passing through the said perforations 14 is controlled as to color in passing through the double bottom 13, as the latter is made precisely of the same red and transparent material as the convex sheet 10.

Fig. 4 shows a slightly modified arrangement to provide desired ventilation. In this modification the double bottom 13' is in the form of a disk secured along its periphery to the interior portion of the convex sheet 10, the perforations 14 in the sheet 10 being restricted to one diametric side, while perforations 15 formed in the modified double bottom 13' are restricted to a portion of such double bottom out of alignment with perforations 14. In this way I secure the

necessary ventilation without the admission of outside natural light.

Having thus described the invention, what I consider as new and desire to secure by Letters Patents is:

1. A shield for smallpox-vaccination pustules constructed of red transparent material.
2. A shield for smallpox-vaccination pustules of two layers of red transparent material.
3. A smallpox-vaccination shield comprising a convex transparent formation of a red color.
4. A smallpox-vaccination shield comprising a convex transparent formation of a red color, and a sealing disc fixed to the shield.
5. A transparent smallpox-vaccination shield of convex form and of a red color, and a transparent disc of red color arranged within and spaced from the shield proper.
6. A transparent smallpox-vaccination shield of convex form and of a red color, and a transparent disc of red color arranged within and spaced from the shield proper, the shield proper and disc being perforated for ventilation, with the perforations arranged to prevent light rays passing directly through said perforations.

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