

June 11, 1940.

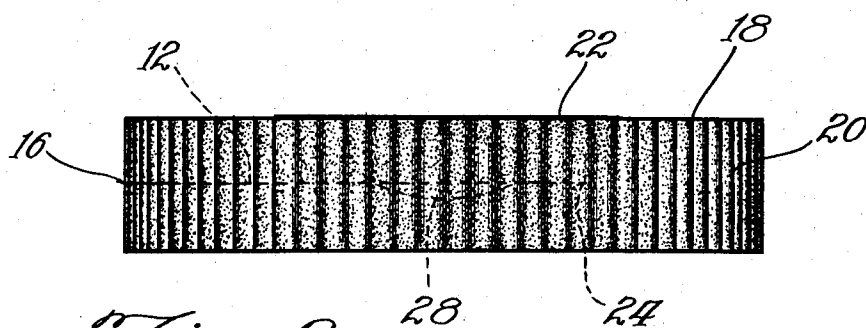
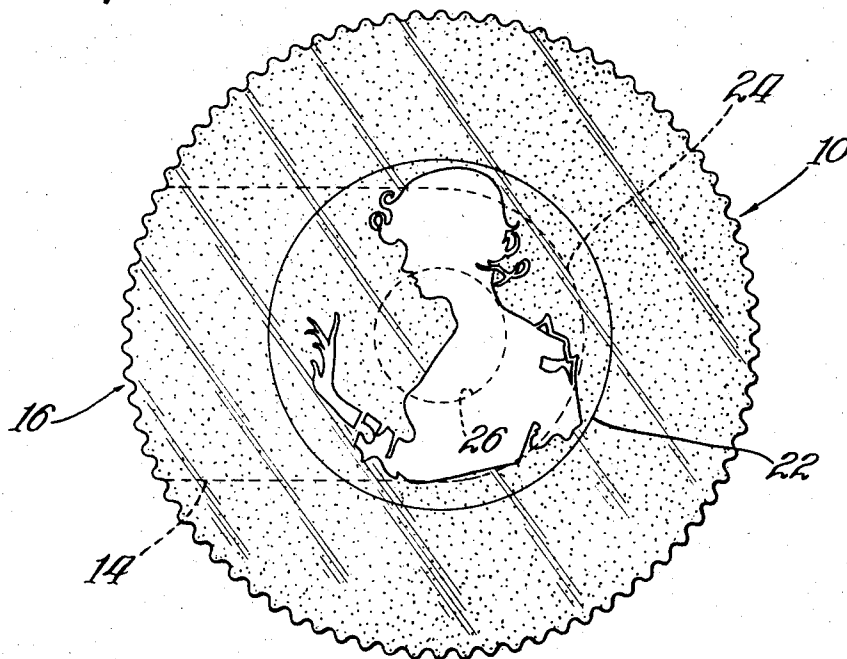
C. E. ZIMMERMAN

2,204,202

COSMETIC APPLICATOR

Filed Oct. 30, 1939

*Fig. 1.*



*Fig. 2.*

Inventor:  
Charles E. Zimmerman  
By: Freeman, Sweet, Albrecht & Woodman  
Attys.

## UNITED STATES PATENT OFFICE

2,204,202

## COSMETIC APPLICATOR

Charles E. Zimmerman, Chicago, Ill.

Application October 30, 1939, Serial No. 301,892

8 Claims. (Cl. 132—78.5)

The present invention relates generally to applicators for cosmetic powder. More particularly the invention relates to that type of cosmetic applicator which consists of a pad or disc-like body which is formed of porous latex rubber and has in addition to a skin on the top face thereof a slit or kerf leading into the interior of the body and forming a pocket for a charge of powder.

The primary object of the invention is to provide a cosmetic applicator of this type which is an improvement upon, and has certain advantages over, that which is disclosed in, and covered by, United States Reissue Letters Patent 21,399, granted to me March 12, 1940.

Another object of the invention is to provide a cosmetic applicator which is of new and improved construction and has on the skin side thereof an ornamental applique which assists the skin in preventing percolation of powder through the top face of the body in connection with use of the applicator.

Other objects of the invention and the various advantages and characteristics of the present cosmetic applicator will be apparent from a consideration of the following detailed description.

The invention consists in the several novel features which are hereinafter set forth and are more particularly defined by claims at the conclusion hereof.

In the drawing which accompanies and forms a part of the specification:

Figure 1 is a top or plan view of an ornamented applicator or compact, made in accordance with this invention; and

Figure 2 is a side elevation of the same.

In the embodiment selected for illustration there is shown a circular disc compact 10 having a diameter approximately five times the thickness of the disc. Substantially midway between its opposite faces the body of the compact is slitted by any suitable means to form an interior kerf 12 for the reception of a cosmetic powder or rouge, said kerf having substantially the contour indicated by the dotted line 14 (Figure 1). The kerf thus provided opens at 16 through the edge of the compact, and permits the insertion of the powder into the kerf, as described in my aforesaid patent.

The compact is made of sheet latex rubber substantially devoid of filler and of the type having a thin skin 18 and a body 20. The body has pores varying in size from microscopic to a maximum of the order of magnitude of 0.0750

inch. Occasional much larger pores in the nature of minor blemishes are not harmful if they are few enough and sufficiently separated not to affect the rate of percolation of powder through the body as a whole. The body has a density ranging from 0.0018 to 0.0060 pound per cubic inch, a density of 0.0040 having been found very satisfactory. Such a density provides the desired permeability to pulverulent materials as to permit a precisely controlled application of powder to the skin of the user when the compact is filled and applied as disclosed in my prior patent.

The body 20 is flexible and can even be folded sharply on itself through an angle of 180 degrees without permanent distortion, but it has sufficient mechanical strength to hold its shape under its own weight. Even when resting on its edge, a body one-half inch thick and substantially circular with a diameter of 2½ inches, which is one of the common sizes employed, does not flatten against its support through a contact subtending an angle of more than thirty degrees.

The skin 18 is of a thickness of the order of magnitude of five thousandths of an inch, although shown exaggerated in the drawing, and has relatively smaller pores than those of the body 20. Such smaller pores make the skin 18 relatively impervious to pulverulent material but pervious to liquids and gases, thus facilitating cleansing of the compact.

The difficulty of applying and retaining an ornamental coating or layer upon an elastic and porous surface has been overcome by applying the ornamentation in the form of an elastic and flexible layer 22 such as a layer of colored rubber mixtures, which layer will adhere to the porous latex skin and stretch with the latter without cracking or peeling. When the ornamentation is prepared and applied according to U. S. Patent 1,597,602, issued August 24, 1926, to Paul Klein, it is possible to have the ornamental coating so thin that many of the pores of the skin 18 are duplicated in the ornamentation without impairing the appearance of the design. Such duplication, or opening through of the pores, may occur at the time the ornamentation is applied, or afterward upon manipulation of the completed article.

Without attempting to state definitely the extent or time of such action, I can state that the finished article with the design in place on it, offers materially greater resistance to the exit of powder over the area where the design is, but can still be washed and cleaned readily.

As illustrated, the ornamentation covers the

skin side out to a distance from the center materially greater than the terminal portion 24 of the kerf 14. This provides additional resistance to the exit of the powder over the area where the tendency of the powder to work out through the body is greatest.

With the end of the kerf terminating short of the edge of the device by approximately one and one half times the thickness of the body, the rate at which powder will work out at the periphery of the body is relatively greater near the center, materially less on the flat face near the edge, and still less along the edge itself.

After the kerf 14 is cut, and either before or after the design is applied, I prefer to remove a small volume of the material at the center of the compact, as indicated by the dotted lines at 26 in Figure 1 and 28 in Figure 2. This very materially increases the storage capacity of the device and at the same time further concentrates the charge of powder.

I have illustrated the body 20 as having an annular series of vertically extending parallel flutes or grooves in its edge or peripheral portion. These flutes or grooves extend from the top face to the bottom face and cause the edge or peripheral portion to have an undulatory or corrugated contour. This not only contributes to the ornamental appearance of the device, but makes the edge an effective tool for distributing, or partially removing, powder previously applied with the flat face. The individual flute formed ribs along the edge are normally substantially devoid of powder and function as wipers when applied with the proper amount of pressure. Their effective employment for such purposes is easily and almost unconsciously mastered by the user after a short period of use.

It will be obvious that the disc need not be circular, but that a flat body of any edge configuration may be employed. Many of the advantages of the invention would be the same if the slit 12 opened through the periphery of the body elsewhere than through the edge.

Without further elaboration, the foregoing will so fully explain my invention that others may, by applying knowledge current at the time of application, readily adapt the same for use under various conditions of service.

I claim:

1. An ornamental cosmetic applicator comprising a pad-like body formed of porous rubber material having pores varying in sizes up to a maximum of the order of magnitude of 0.075 inch and having a density of approximately 0.0040 pound per cubic inch, said body having formed on one face thereof a skin having pores smaller than the pores in the remainder of said body so that it is relatively impervious to pulverulent materials but permeable to liquids and gases; and a thin design applique covering at least the central portion of said skin formed of colored flexible and elastic material which adheres to said skin but permits cleansing of said body.

2. An ornamental cosmetic applicator comprising a circular disc-like body formed of a porous latex rubber having pores varying in sizes up to a maximum of the order of magnitude of 0.075 inch and having a density of approximately 0.0040 pound per cubic inch, said body having formed on the top face thereof an integral skin having pores smaller than the pores in the remainder of said body so that it is relatively impervious to pulverulent materials but permeable

to liquids and gases; and a thin external film covering a portion of said skin and forming an applique, said film being formed of colored rubber mixtures adhering to said skin but permitting cleansing of said body.

3. An ornamental cosmetic applicator comprising a pad-like body of porous latex rubber having pores varying in sizes up to a maximum of the order of magnitude of 0.075 inch and having a density of approximately 0.004 pound per cubic inch, said body having a normally closed slit leading into its interior and forming in the central portion thereof a pocket for a charge of cosmetic powder, and also having a skin formed on one side face and with pores smaller than the pores in the remainder of said body so that it is relatively impervious to pulverulent materials but permeable to liquids and gases; and a thin ornamental film covering the central portion of said skin and formed of colored flexible and elastic material which adheres to said skin but permits cleansing of said body.

4. An ornamental cosmetic applicator comprising a disc-like body of porous latex rubber having pores varying in sizes up to a maximum of the order of magnitude of 0.075 inch and having a density of approximately 0.0040 pound per cubic inch, said body having a normally closed slit leading from its edge or peripheral portion into the central portion of the interior thereof and forming a pocket for a charge of cosmetic powder, and also having a skin formed on the top face thereof and with pores smaller than the pores in the remainder of said body so that it is relatively impervious to pulverulent materials but permeable to liquids and gases; and a thin ornamental film covering the central portion of said skin and formed of colored rubber mixtures which adhere to said skin but permit cleansing of said body.

5. An ornamental cosmetic applicator comprising a pad-like body formed of rubber material with minute communicating pores therein whereby it is pervious to pulverulent materials, said body having on the top face thereof an integral skin with relatively smaller pores than the remainder of the body so that it is impermeable to pulverulent materials but permeable to liquids and gases, and a thin ornamental film covering a portion of the skin and formed of colored flexible and elastic material which adheres to said skin but does not affect the permeability of the latter to liquids and gases.

6. An ornamental cosmetic applicator comprising a pad-like body formed of rubber material with minute communicating pores therein whereby it is pervious to pulverulent materials, said body having on the top face thereof an integral skin with relatively smaller pores than the remainder of the body so that it is impermeable to pulverulent materials but permeable to liquids and gases, and also having a normally closed slit leading into and terminating within the central portion of its interior and forming a pocket for a charge of cosmetic powder, and a thin ornamental film covering a portion of the skin and formed of colored flexible and elastic material which adheres to said skin but does not affect the permeability of the latter to liquids and gases.

7. As a new article of manufacture, an automatic compact designed for use in applying cosmetic powder, and comprising a pad-like body formed of rubber material with minute communicating pores therein, and embodying on one side face thereof but not the other an integral

5 skin substantially impermeable to powder but permeable to liquids and gases, said body also embodying a normally closed kerf leading into and terminating in its interior and being hollowed out substantially at its center by removal of material between the inner end of said kerf and the other or skinless side face in order to form a pocket for a charge of powder.

10 8. As a new article of manufacture, an applicator designed for use in applying cosmetic powder and comprising a pad-like body formed of

rubber material with minute communicating pores therein and having substantially flat top and bottom faces and a comparatively wide peripheral portion, said body embodying on the top face thereof an integral skin substantially impermeable to powder but permeable to liquids and gases and also having in its peripheral portion a series of closely spaced parallel grooves which extend to and between the top and bottom faces and form wiper type ribs therebetween. 10

CHARLES E. ZIMMERMAN.