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E. C. BATTEY

2,001,862

FACIAL TISSUE SUPPORT

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Fig. 1.



Fig. 2.

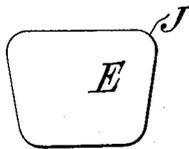


Fig. 3.

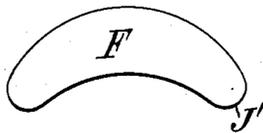


Fig. 4.

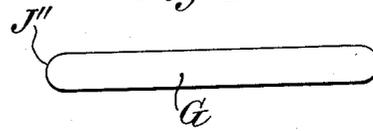


Fig. 5.

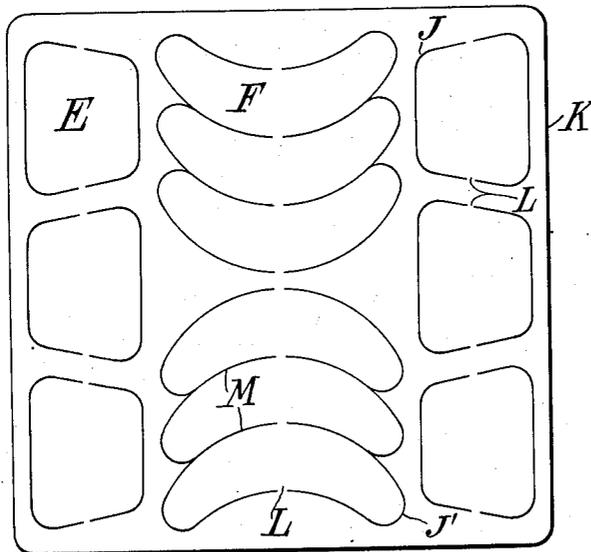
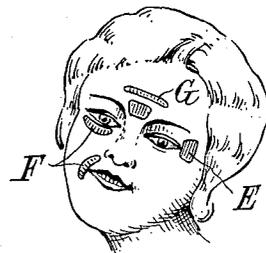


Fig. 6.



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# UNITED STATES PATENT OFFICE

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## FACIAL TISSUE SUPPORT

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Application February 26, 1931, Serial No. 518,340

### 1 Claim. (Cl. 128—76)

This invention relates to a method and means for supporting and applying suitable medication to facial tissues in the treatment of frowns, lines or wrinkles.

5 The invention has for its object to provide novel tissue supporting means having sufficient strength to hold wrinkled or lined facial tissues smooth and thus to reduce frowns, wrinkles and other facial lines by physically training the involved tissues to the desired smooth contour.

10 A further object of the invention is to provide an adhesive tissue support adapted to hold smooth the lined tissues and at the same time apply thereto any suitable medication which is carried by the support.

15 The invention further aims to provide an adhesive tissue-supporting plaque having a certain tendency to warp concavely, after being applied to the face in a moistened condition, so as to insure that the marginal portions be held in contact with the face and avoiding the difficulty commonly experienced with adhesive sheets used for various other purposes in which loss of the adhesive bond occurs as a result of the edges tending to curl away from the surface to which the sheet is applied.

20 The plaque according to the present invention is specially formed in such manner as to leave a minimum indication of its having been applied to the face, this indication disappearing shortly after removal of the plaque.

25 A further object is to provide a convenient and sanitary protective carrier for one or more of the aforesaid adhesive plaques, said carrier being formed integrally therewith but being readily detachable therefrom.

30 Other objects of the invention will be apparent from the following more detailed description, wherein reference is had to the accompanying drawing in which:

35 Figure 1 is a magnified cross-section of the material preferably employed in plaques according to the present invention.

40 Figs. 2, 3 and 4 show various forms of plaques adapted for treating lines in different parts of the face.

45 Fig. 5 shows a plurality of plaques mounted in a protective carrier.

50 Fig. 6 shows diagrammatically how various forms of plaques may be advantageously employed in the treatment of different types of facial lines.

55 As best seen in Fig. 1, the material of the adhesive plaque according to the present invention, is characterized by a base B having a sub-

stantial degree of rigidity. I prefer to use stiff, fibrous substance for the base, although a wide variety of materials may be satisfactorily employed. For example, various grades of cardboard, fibre or wood, are suitable, and even substantially non-porous substances, such as hard rubber or metal may be used for the base, although softer and more porous materials are preferred. A bleached fibre cardboard having a thickness of .02 inch has been found to possess ample rigidity and is, furthermore, well adapted to receive the adhesive and medicated coating as will hereinafter more fully appear.

5 The function of the base B is to afford a support having sufficient rigidity to effectively hold smooth the lined or distorted tissues which are to be anchored thereto by adhesion. Court plaster or surgical tape, for example, would be too flexible for the purpose. In order to eradicate facial lines it is necessary to stress the adjacent tissues and draw the creased portions smooth, such portions then adhering to the adhesive base and being effectively supported thereby in such manner as to train the tissues to the desired smooth contour. This requires that the base have a degree of rigidity sufficient to withstand the necessary forces of compression and flexure incident to the above described physical smoothing out of the tissues.

15 The second requisite is a strong adhesive by which the tissue-supporting base B is anchored to the face. For this I prefer to use a coating consisting of 6.5 parts of dextrine to 3.5 parts of water (35 Baumé at 85° Fahrenheit). When dry, this coating becomes quite firm and has been found to provide a very satisfactory bond with the human skin. The coating does not deteriorate over long periods and is instantly made ready for use by slight moistening. Obviously any other effective adhesive which is not injurious to the skin may be employed.

20 The dextrine coating may also serve as a carrier for medication that is indicated in the treatment of facial lines. Various so called skin tonics are known to be helpful in restoring normal tone to the tissues by stimulation and by other physiological processes. I have found that the incorporation of a certain amount of tincture of capsicum increases the effectiveness of the treatment according to the present invention. Alum, having the properties of an astringent and mild antiseptic, may also be advantageously employed. Various vegetable substances, such as olive oil, are known to have a certain value in nourishing weakened tissues, and may be availed of in com-

pounding the medication carried by the adhesive plaque. Only a limited amount of oily substance may be compounded with the other ingredients, however, without destroying the adhesive property requisite to successful use of the plaque as a physical support for holding the tissues smooth during treatment.

Thus it will be seen that the plaque according to the present invention may perform the dual function of physically supporting and smoothing the tissues and at the same time continuously applying remedial medication. A formula which has been found to give good results and which is set forth as illustrative of a wide variety of medications that may be advantageously employed to augment the effectiveness of what may be termed the physical supporting effect of the adhesive plaque according to my invention, is as follows:

	Grams
Tincture of capsicum.....	1.0
Powdered alum.....	1.0
Dextrine.....	63.5
Water.....	34.5

In Fig. 1 the medicated adhesive is indicated as a surface coating C. It will be understood, however, that where the base B is of a somewhat porous or absorbent character there will be a considerable absorption of the coating material, and this is advantageous in that it affords a reserve of medicated adhesive which makes practicable the repeated use of the plaque. After removal from the face the plaque need only be again slightly moistened and it is ready for further service.

An important advantage is attained in the adhesive plaque according to the present invention, by the provision of a waterproof or moisture-resisting coating D on the face of the porous base B opposite the adhesive coating C. A variety of mediums are suitable for the purpose. For example, clear or pigmented lacquer or varnish may be used, but it will be understood that a great number of other moisture-resisting coatings would be suitable. This waterproof coating has the effect of causing the moistened plaque to develop a slightly concave warp as it dries on the face, thus gently urging the edges of the plaque toward the surface to which it is applied and thereby eliminating the characteristic tendency of most adhesive applications to curl up at the edges or away from the surface to which applied. This moisture-resisting coating has the further advantage of increasing the strength of the absorbent base and preventing the latter from being over moistened and rendered too soft, even though the plaque be immersed in water for some time. Such practice is of no advantage since only a slight moistening of the adhesive is sufficient, but the aforesaid moisture-resisting coating affords a substantial measure of protection against inadvertent over moistening.

Various forms of plaques particularly adapted for the specialized treatment of different types of facial lines are shown in Figs. 2, 3 and 4, and the uses of these various forms are clearly indicated in Fig. 6. Form E is particularly suitable for treating frown lines between the eyes or the familiar crows-feet at the outer corners thereof. The crescent form F is designed for the treatment of wrinkled areas beneath the eyes or at the corners of the mouth. The elongated form G is most useful for the long horizontal lines creasing the forehead.

The method of using the various forms is fundamentally the same. The lined facial area to be treated should first be smoothed by manually stretching the involved tissues in a direction transverse to the deforming lines (crosswise of the frown, wrinkle or other lined condition). While thus holding the tissues smooth the moistened plaque is applied thereto preferably with considerable manual pressure, this not only facilitating adhesion, but insuring the engagement of the adhesive surface with the tissues which, prior to treatment, lie in the creased or indented depressions constituting the line or wrinkle. Such indented tissues are thus brought into the smooth plane of the plaque and securely anchored thereto, being thereafter physically held in the desired smooth contour for the duration of the treatment. While it has been found that a marked improvement in the lined condition may be effected in an hour's treatment, it is advantageous to leave the plaque in position for longer periods. Since no discomfort is experienced by the wearer, one or more of the plaques may be applied upon retiring and worn during sleep.

It will be noted that the various forms of plaques are designed so as to avoid sharp corners or acute angles. This has been found to be an important feature in that it avoids setting up excessive strains in the tissues which would otherwise occur. The rounded corners J, J', J' serve to distribute the stresses that would otherwise result from abrupt changes in the direction of the marginal line of support. With such rounded corners there will be found in the tissues only a slight imprint of the plaque when the latter is removed, and this quickly disappears, whereas if the plaque has square corners or acute angles the facial tissues at these points are found to be strained to the extent that the imprint of the corners of the plaque remain visible for a considerably longer period.

Another feature of the invention resides in the provision of a protective frame or carrier for the plaque, the said frame being formed integrally with the plaque but being readily detachable therefrom. The frame is adapted to carry one or more of the plaques and protects the edges thereof from being roughened, as well as providing sanitary means for handling the plaques prior to use, it being possible to pack and handle the framed plaques without any physical contact with the plaques themselves. One form of carrier is shown in Fig. 5. The card K containing twelve plaques for example, is stamped from a single sheet of the base material. The card and plaques are preferably cut out by a single die which is so formed as to cut completely through the material except at one or more small sections along the edges of the plaques, as indicated by the gaps L, at which points the die is slightly relieved so as to cut only part way through the material, thus leaving weakened anchorages or points of attachment by means of which the plaques are retained in the frame. The strength of these portions need be only slight so that the plaques are readily broken out of the carrier when required. Except to withstand rough handling, the aforesaid anchorages have been found unnecessary inasmuch as there is sufficient friction between the frame and the plaques to retain the latter in position if the cutting die employed has fine sharp edges.

Where several plaques are carried in a single frame, a considerable economy of material is effected by forming the plaques contiguously one

to another, as indicated at M. Thus, one may be said to form, at least in part, a carrier for another, in such manner that the edges of all are protected. Unless so protected, the edges become roughened so that an undesirable imprint is made when applied to the face. From the standpoint of avoiding direct handling of the plaques in manufacture and packing, the advantage of providing such sanitary carrier is apparent.

While the method and certain forms of my invention have been hereinbefore described and illustrated, it will be understood that the invention is not limited thereto but may be otherwise variously modified and embodied without departing from the spirit thereof, as set forth in the following claim.

What I claim is:

A tissue support for treating facial lines, comprising a tissue-supporting member adapted to exert opposing forces on opposite sides of a facial line whereby to hold the lined tissue in a stretched condition transversely of said line, an adhesive adapted to secure said member to the facial tissues, the member being formed of a moisture-absorbing material having a capacity for shrinkage upon drying, and a moisture-resisting coating on the outer surface of said member whereby upon loss of moisture incident to drying upon the wearer's face the said member is caused to warp concavely toward the face.

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