April 8, 1941. V. B. PADELFORD 2,237,971

TEMPERATURE CONTROLLING BAG

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FIG. 1.

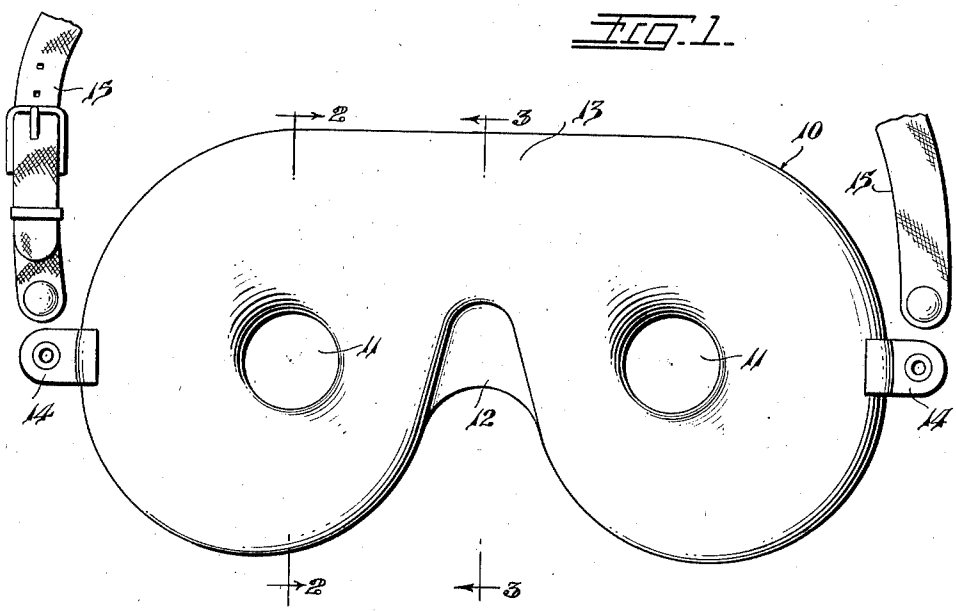


FIG. 2.

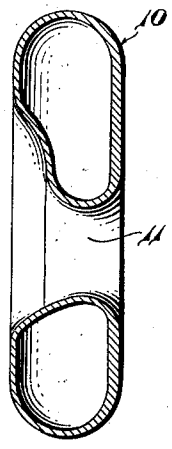
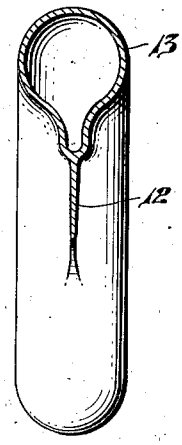


FIG. 3.



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FIG. 4.

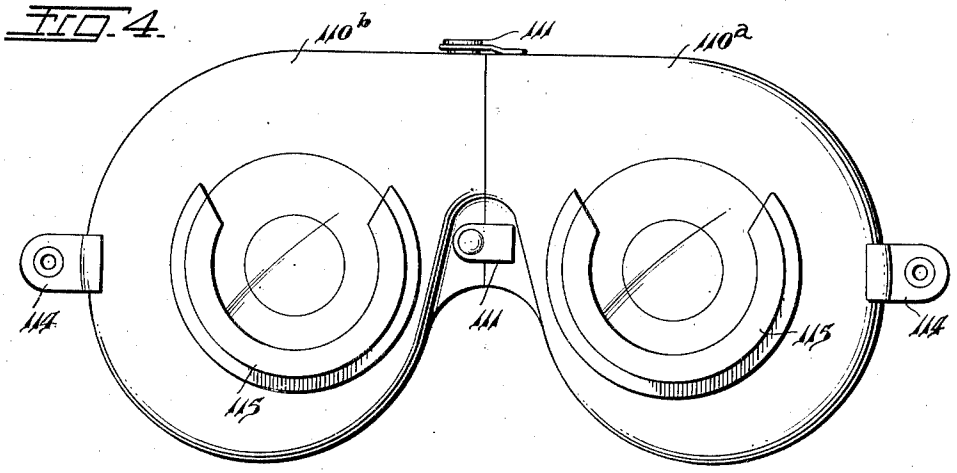


FIG. 5.

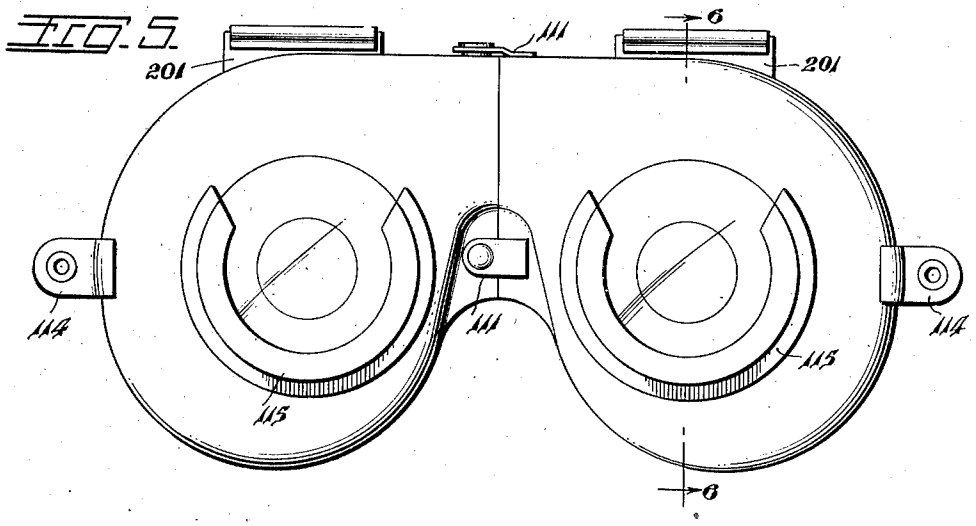
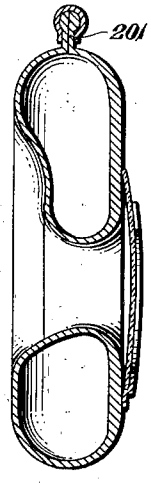


FIG. 6.



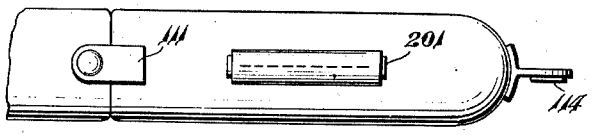


FIG. 7.

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TEMPERATURE CONTROLLING BAG

Valerie B. Padelford, Washington, D. C.

Application May 13, 1938, Serial No. 207,818

2 Claims. (Cl. 150—2.3)

This invention relates to temperature controlling bags for use in medical and surgical cases and has particular relation to a bag especially adapted for use on that portion of the head adjacent the eyes including that portion of the forehead directly above the nose.

Certain diseases and deformities of the head affect portions adjacent to the eyes and lower part of the forehead. In treating these cases, it is often necessary to place a hot or cold bag at the affected portions, for example, in the treatment of sinusitis, it is often desirable to place a cold compress or temperature controlling bag on the areas adjacent the eyes and particularly at the frontal bone above the nose. To do this with the ordinary bag it is necessary to cover up the eye or eyes and in addition the bag sometimes does not fit very closely to the irregular surfaces to which application of the bag is necessary.

In order to remove some of the difficulties in the treatment of the aforementioned cases, I have provided a bag which is described in my Patent No. 2,101,628. It is understood that the present invention is an improvement upon the invention therein described.

The primary object of this invention is the provision of an improved temperature controlling bag for use upon the face and adjacent the eyes of the patient.

Another object of the invention is the provision of a temperature controlling bag for application to the head adjacent the eyes without interfering with the use of the eyes, by applying the temperature controlling bag principally around the eyes as well as to the lower portion of the forehead.

A further object of the invention is the provision of a temperature control bag of the general shape of spectacles and having means for holding lenses in position over openings in the bag to provide for uninterrupted use of the eyes while the bag is applied to the face of the wearer.

Another and still further object of the invention is the provision of a pair of complementary temperature controlling bags which may be made to correspond to the contours of the right and left sides of the face and having means to secure the two bags together above the lower portion of the nose and also means to secure the bag in place at the desired position.

Other and further objects of the invention will be apparent to those skilled in the art from a reading of the complete specification and claims.

Referring to the drawings wherein I have illustrated an embodiment of my invention.

Fig. 1 is a front view of my invention showing both sides integral.

Fig. 2 is a cross section on the line 2—2 of Fig. 1.

Fig. 3 is a cross sectional view on the line 3—3 of Fig. 1.

Fig. 4 illustrates a modified form wherein the two halves are constructed separately but secured together in close proximity when in use.

Fig. 5 is a modified form of my invention showing closures for each half for the insertion of ice or water when these substances are used as the heat transfer medium.

Fig. 6 is a cross sectional view taken on the line 6—6 of Fig. 5.

Fig. 7 is a fragmental top plan view of the structure illustrated in Fig. 5.

Similar reference characters refer to the same or similar parts throughout the specification and drawings.

Referring particularly to Figs. 1, 2 and 3, 10 designates the main body of the temperature control bag. The bag 10 is provided with openings 11 in proper position to register with the eyes of the patient in order that the use of the eyes may be retained while the temperature control bag is in use. Adjacent the center of the bag as at 12, it will be noted, that the outer wall and inner wall are preferably secured together along the line of position of the bridge of the nose of the patient. This is to provide a bag which will fit the usual face and be comfortable to the wearer.

The upper portion of the bag, it will be noted, extends substantially straight from one section to the other in order to provide a heat transfer surface between the lower portion of the forehead and the bag. This portion is designated 13 on Fig. 1. At the sides of the bag are located snap fasteners 14 to which may be secured adjustable straps 15. The straps 15 pass around the head and hold the bag in place. It will be understood that while one strap is shown in the present invention, any number of straps and snap fasteners 14 may be used, as desired.

In the modification shown in Fig. 1, any suitable or well known chemical substance which slowly takes up or gives out heat, may be placed within the bag during manufacture after which the bag opening is sealed.

In Fig. 4, I have shown the bag made in two halves 110a, 110b. These are secured together by means of snap or other fasteners 111 which

hold the two halves together. It will be noted in this form of the invention that the snap fasteners 111 are preferably at the front and top. These, with the fasteners 114 and corresponding adjustable straps 15 will hold the two halves 110a, 110b in proper relation to each other and to the face in order that that portion adjacent the lower part of the forehead will be contacted by the bag.

Attached to one side of the bag I have shown on Fig. 4 a flange 115 of suitable size for the insertion of lenses of spectacles.

In use, the lenses are inserted behind the flanges 115 and the bag serves both as a temperature controlling bag and also as a spectacle frame. This feature of the invention is applicable to any of the various forms which may be made and also to the form of the invention described in the aforesaid patent.

In the form shown in Fig. 5, a thickened portion 201 is provided with a slit to the interior of the bag and is held with any suitable clamping means as also described in the aforesaid patent. This feature is used when the invention is applied to a temperature control bag using ice or water for cooling or heating the face at the contacted places.

In using the invention, the strap or straps 15 are adjusted to the proper length to fit the wearer's head when the bag is in place. After the bag is prepared for use by being placed in a hot or cold medium, the strap 15 is secured to the bag by the snap 14, the bag being so adjusted that the portion 12 is above the nose and the openings 11 for the eyes are in registry with the eyes of the patient.

In the case of a patient having only one side of the face affected, the form of the invention shown in Fig. 4 would perhaps be preferable. In this case, only one side of the bag need be prepared for application, the other one merely serving as a balance.

In case the wearer desires to read while the bag is in place, the lenses of the proper type may be slipped in place behind the holding means 115 as shown in Fig. 4. In this way, the bag may serve as a spectacle frame and additional provision made against the discomfort which might otherwise be suffered by the patient.

The material of which the bag is made would depend upon whether the bag is constructed for the use with ice and water or for use with a prepared chemical. It is believed that rubber and rubberized cloth are suitable materials for the construction. The front wall of the bag may be made slightly thicker in the vicinity of the opening for the eye in order to make a stable structure for the application of the lens-supporting means 115.

While I have described and illustrated my invention in detail, I desire to have it understood that modifications and changes may be made without departing from the spirit of the invention and within its scope as claimed.

Having described my invention, what I claim is:

1. A temperature controlling device comprising a chambered body of flexible material extending from one side of the face of the wearer to the other and having openings for the eyes, the lower edge being below but adjacent the eyes and having a portion of the chambered body at the lower edge of the forehead and the upper end of the nose bridge, the body having its upper portion in contact with the lower central portion of the forehead, the device being in separable symmetrical halves corresponding to the sides of the face with the heat conducting surfaces of the halves in close proximity to each other, the heat transfer surfaces of the halves coming together at the abutting line.

2. A temperature controlling device comprising a two-chambered body of flexible material extending from one side of the face of the wearer to the other and having openings for the eyes, the chambers being symmetrically separated by partition means, the upper portion of a chambered wall contacting with the lower portion of the forehead from points beyond the eyes on opposite sides of the face and being in contact with the upper part of the bridge of the nose and having chambered portions below the eyes extending to and ending adjacent the cheek bone and extending to and ending in positions adjacent to the opposite sides of the nose.

VALERIE B. PADELFORD.