ABSTRACT

A facemask for skiing, snowboarding, and other winter sports integrates with traditional goggles by use of a temple-trouch system that secures the goggle headband and places the goggle headband on top the facemask headband. Diffusing foam circumscribing voids at the cheek areas provides even ventilation and prevents over chilling of the cheeks. Foam at the perimeter of the mask and at the nose bridge area keep the mask off the user’s mouth and nose tip. The design at the jaw region allows movement of the head and the use of a jacket collar or scarf. In an alternative embodiment, a bridge-flare system at the nose area allows the mask to conform to a wide variety of nose sizes and shapes.
RIGID MASK FOR SKIING AND SNOWBOARDING

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present invention claims the benefit of U.S. provisional patent application No. 60/798,394 entitled “Rigid Snowboard/Ski Mask” filed on or about May 8, 2006, the contents of which are herein specifically incorporated by reference.

BACKGROUND OF THE INVENTION

[0002] (1) Field of the Invention

[0003] The invention relates generally to face masks suitable for winter sports such as snowboarding and skiing. More particularly, the invention relates to face masks with means of allowing the use of conventional goggles.

[0004] (2) Description of the Related Art

[0005] Several attempts to provide useful winter face masks are known in the related art. However, the related art fails to provide the advantages of the present invention. In the related art there are very few ski masks available for snowboarders and alpine skiers. Such masks include the Balalava mask, the Tri Hole mask, the Noreprene and Florence Face masks. The Balalava and Tri Hole ski masks are traditional masks made of a knit material and are pulled completely over the head. These masks are neither waterproof nor windproof. They also fit tightly against the skin causing discomfort when perspiring.

[0006] Neoprene and Florene masks are wind proof and waterproof to an extent; however, the user encounters the same discomfort as the Balalava and Tri Hole when using these masks. Neoprene and Florene fit tightly against the skin causing perspiration to be trapped against the skin unable to evaporate. Thus, there is a need in the art for a new mask that protects the user’s face, but provides ample ventilation.

BRIEF SUMMARY OF THE INVENTION

[0007] The present invention overcomes shortfalls in the related art by providing means and methods of protecting a user’s face from the elements while concurrently providing adequate airflow and comfort to the user. Unlike the related art, the structure of the disclosed mask is designed to suspend the lower portion of the mask off of the user’s face and nostril area. The unique design provides airflow, breathing room, and mobility at the nose and mouth. The unique configuration of suspending the mask at the nose bridge and cheekbone areas creates a “face gap” and keeps the body of the mask from contacting the sensitive skin areas of the user. The face gap and configuration of small openings at the mouth and high cheek areas provide airflow to prevent the generation of perspiration and skin irritation. The disclosed defusing foam placed around the circumference of the vent openings of the mask prevents undue chilling of the user’s face and contributes to uniform airflow within the mask.

[0008] The mask is secured upon the user’s face by a flexible band or headband that wraps around the back of the head similar to the method used to secure conventional ski goggles. The disclosed mask covers the facial portion of a user while leaving an opening in the eye area to allow the use of conventional goggles. When worn in conjunction with ski goggles, the disclosed mask completely blocks out wind, snow, sun and other natural elements.

[0009] The invention provides a unique temple-trouch system that integrates the strap of the goggles with the disclosed mask. The disclosed temple-trouch system minimizes the area of the user covered by straps. The headband or strap of the goggle overlaps the headband or strap of the facemask. A valley and two walls secure the goggle strap over the facemask strap.

[0010] These and other objects and advantages will be made apparent when considering the following detailed specification when taken in conjunction with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] FIG. 1 perspective view of the ski mask of the present invention secured on a human head.

[0012] FIG. 2 is a perspective view of the mask of the present invention secured on a human head with goggles placed over the top of the mask.

[0013] FIG. 3 is a top perspective view of the mask of the present invention with goggles secured by the temple-trouch system of the present invention.

[0014] FIG. 4 is a side view of the mask, with the disclosed mask being transparent to show the disclosed design and placement of foam around the temple and chin regions.

[0015] FIG. 5 is a side view of the disclosed mask with arrows drawn to indicate the location and direction of airflow entering the mask.

[0016] FIG. 6 is a top view of the disclosed mask with bi-directional arrows drawn to show adjustment directions and adjustment areas that allow the mask to be adjusted for different sized users.

[0017] FIG. 7 is a perspective view of an alternative embodiment of the invention sometimes called the “bridgeflare” system that allows the mask to fit a multitude of different users.

[0018] FIG. 8 is a back or inside view of the disclosed mask illustrating the disclosed defusing foam placed around the circumference of the vent openings.

DETAILED DESCRIPTION OF THE INVENTION

[0019] In the following description, for purposes of explanation, numerous specific details are set forth in order to provide a thorough understanding of the invention. It will be apparent, however, to one skilled in the art that the invention can be practiced without these specific details.

[0020] The reference in the specification to “one embodiment” or “an embodiment” means that a particular feature, structure, or characteristic described in connection with the embodiment is included in at least one embodiment of the invention. The appearances of the phrase “in one embodiment” in various places in the specification are not necessarily all referring to the same embodiment nor are separate alternative embodiments mutually exclusive of other embodiments.

[0021] In the following detailed description of embodiments of the invention, reference is made to the accompanying drawings in which like references indicate similar elements, and in which is shown by way of illustration specific embodiments in which the invention may be practiced. These embodiments are described in sufficient detail
to enable those skilled in the art to practice the invention, and it is to be understood that other embodiments may be utilized and that logical, mechanical, electrical, functional, and other changes may be made without departing from the scope of the present invention. The flowing detailed description is, therefore, not to be taken in a limiting sense, and the scope of the present invention is defined only by the appended claims.

[0022] The description, which follows, and the embodiments described therein, are provided by way of illustration of an example, or examples of particular embodiments of the principles of the present invention. These examples are provided for the purposes of explanation, and not of limitation, of those principles of the invention. In the description, which follows, like parts are marked throughout the specification and the drawings with the same respective reference numerals. The drawings are not necessarily to scale and in some instances, proportions may have been exaggerated in order to more clearly depict certain features of the invention.

[0023] The disclosed mask may be comprised of three main pieces or sections, the mask generally 100, the band 103, and the underlying foam padding 401 and 402. The mask has a visor section 101, around the eyes, which allows the individual wearing the mask to see. This visor section 101 is removed far enough from the eyes as to not impede the wearer’s peripheral vision. Above the visor section 101 is a portion of the mask that fits securely to the forehead 102. Furthermore, the mask has an opening 106 for the nose.

[0024] The mouth portion of the mask has vents 107 to allow airflow for breathing, speaking and other mouth functions. The vents are also used to help facilitate the evaporation of moisture as air moves 501 through the vents and into the mask. Vents holes 104 are placed on the cheek portion of the mask as to allow air to flow into the mask. This air 502 enters the mask chamber and helps evaporate moisture caused by condensation or the user’s perspiration.

[0025] The mask 100 may include the “temple-trough design” shown generally in FIG. 3 at 301 that allows conventional ski goggles 201 to be placed directly on top of the mask. The elastic band 203 of the ski goggles is placed directly on top of the mask’s elastic band 302. The mask has a temple-trough design 301 that securely holds the ski goggles straps 203 in place. Referring to FIG. 7, the temple-trough design 301 is comprised of two elements: the trough or valley section 304, and the two walls 305 on either side.

[0026] The perimeter of the visor 101 is of made thin so as to taper into the forehead 102, cheek 109, and temples 108, of the user. This design fits tight to the face to enable the user to wear ski goggles over the top of the mask without compromising the user’s peripheral vision.

[0027] The inside of the mask may have foam, much like the foam used in conventional ski goggles to suspend mask off and away from the face around the lower cheek 405, mouth 404, and tip of nose 403 regions. These cavities allow air to flow throughout the mask chamber enabling evaporation of moisture caused by condensation or the user’s perspiration. Foam around the bridge region 401, and jaw and chin region 402 suspends mask off the face.

[0028] In an alternative embodiment, shown in FIG. 7, the bridge of the nose 730 is comprised of a fit-structure that is designed to fit any type, size or shape nose. The design is comprised slits 720 that run vertically along side the nose. The slits can fan out or retract to accommodate different size and shape nose bridges.

[0029] The mask may have mouth foam 801, cheek foam 802, and nose foam 803 placed behind the mouth 107, cheek 104 vents and nose hole 106 that diffuse air as it enters the mask cavity. This air helps evaporate moisture caused by condensation or the user’s perspiration. The jaw 105 portion of the mask is cut so as to allow movement of the head from side to side and left and right without running into or getting in the way of a collar on a jacket.

[0030] The mask 100 is constructed of a plastic material that is both rigid and flexible, much like that of modern conventional ski goggles. The flexibility of this material allows the mask to conform to faces of various shapes by flexing 601 at either side. The mask is secured to the face and head by an adjustable elastic band 103 that wraps around the back of a head much like that of a conventional ski goggle.

What is claimed is:
1. A facemask for winter wear comprising:
   a) a semi-rigid face covering fitting over the forehead, encircling the eyes, covering the nose and mouth area with openings at the nose, mouth, and cheek areas;
   b) diffusing foam placed on the user side of the face covering and circumscribing the openings of the cheek areas;
   c) a temple-trough structure on either side of the face covering with each temple-trough structure having a valley section and two outer wall sections; and
   d) an elastic head band attached to either side of the face covering and attached adjacent to either temple-trough structure.

2. The facemask of claim 1 with foam attached to the nose bridge area so as to suspend the nose portion of the mask off of the tip of the nose.

3. The facemask of claim 2 with foam attached to the perimeter of the mask to create a gap between the mask and the user’s face.

4. The facemask of claim 3 with flexibility at the temple-trough structure area so as to allow the mask to flex and accommodate different head sizes.

5. The facemask of claim 4 with a bridge -flake configuration at the nose area to accommodate various sizes of nose bridges.

6. The facemask of claim 5 wherein the chin section of the mask stops short of covering the neck of the user.

7. A method of using goggles with a facemask comprising:
   a) attaching a facemask, such as the facemask of claim 1 to the head of the user by use of a flexible headband, wherein the headband is adjacent to a temple-trough structure on either side of the facemask;
   b) placing goggles over the eyes of the user and attaching the flexible headband of the goggles through the temple-trough structure and over the headband of the facemask.

8. The method of claim 7 wherein the area of the temple-trough structure on either side of the mask is flexed so as to accommodate the head size of the user.

9. The method of claim 8 using foam to create and maintain a gap between the user’s face and the mask.