Sept. 29, 1931. H. H. HECKMAN 1,825,615

GOGGLES ATTACHMENT

Filed Dec. 9, 1930

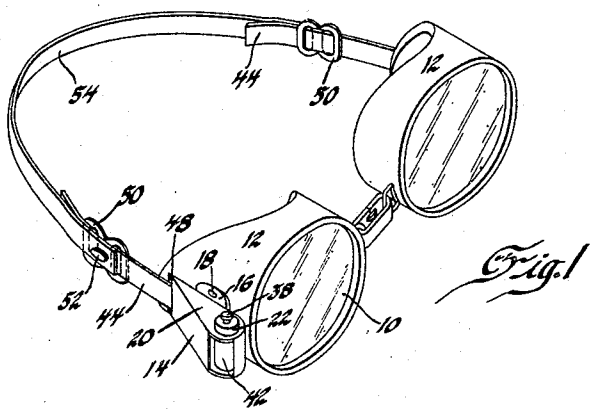


Fig. 1

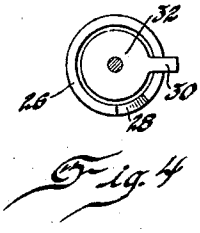


Fig. 4

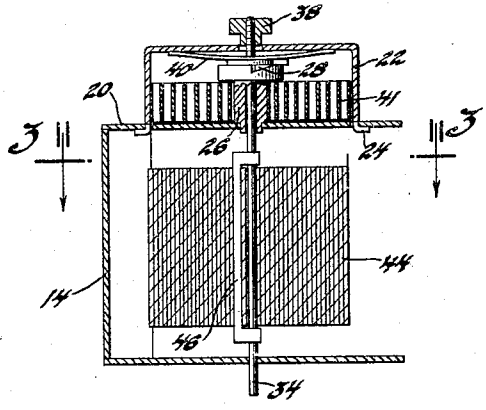


Fig. 2

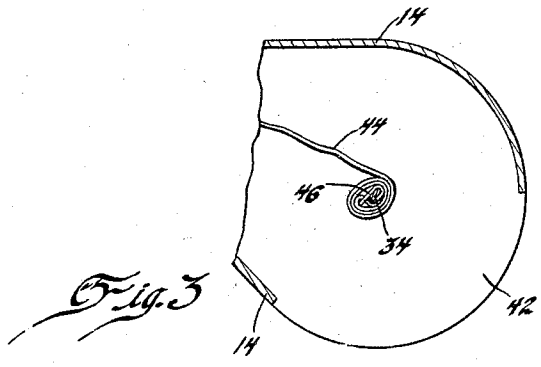


Fig. 3

INVENTOR
Homer H. Heckman
BY Frances D. Hardesty.
ATTORNEY

Patented Sept. 29, 1931

1,825,615

UNITED STATES PATENT OFFICE

HOMER H. HECKMAN, OF DETROIT, MICHIGAN, ASSIGNOR TO THEOPHILA HECKMAN, OF DETROIT, MICHIGAN

GOGGLES ATTACHMENT

Application filed December 9, 1930. Serial No. 501,062.

This invention relates to goggles and more particularly to variable length head loops for the same.

An object of the invention is a head loop device for goggles, including spring means to vary the effective length of the head band, the spring means and its associated parts being adjustable to vary the tension of the springs upon the loop proper.

Further objects are the specific forms of the means described in the foregoing.

Still further objects will readily occur to those skilled in the art upon reference to the following description and the accompanying drawings in which—

Fig. 1 is a perspective view of an embodiment.

Fig. 2 is a sectional view of parts forming the invention.

Fig. 3 is a section on line 3—3 of Fig. 2.

Fig. 4 is a plain view of certain clutch parts.

Referring to the drawings, and more particularly to Fig. 1 it will be seen that the goggles 10 are provided on each of their eye guards 12 with casings 14 having wings 16 thru which rivets 18 may be passed to secure the casing to the eye guard.

On top surface 20 of each casing there is secured a cup shaped element or auxiliary casing 22, the latter having outwardly bent portions 24 which serve as mutual securing means. Rotatably secured to the same top surface 20 is a hollow sleeve or bushing 26 having its upper surface formed to provide a clutch tooth 28, as indicated, which is adapted to engage a fin 30 formed as part of a second clutch element 32, fixedly secured to the shaft 34 which projects thru casing 14, auxiliary casing 22, and the sleeve 26, as indicated.

On the upper end of the shaft 34 outside of the auxiliary casing 22 is a knob or nut 38, provided with suitable threads cooperating with the similarly threaded portion of the shaft 34. Inside of the auxiliary casing is a spring 40 which may be of the spiral coiled form, or of the leaf form shown, and which serves to maintain clutch parts 26—28 and 30—32 in clutching engagement, the knob 38 serving as a means by which the shaft 34 may be raised against the influence of the spring 40, to disengage the clutch parts.

In each auxiliary casing 22, there is provided a coiled spring 41 of flat spring ribbon, one end of the spring being connected to the casing 22 and the other being connected to the bushing 26, by rivets (not shown) or by any other suitable means. The spring 41 serves to resist the pull upon the tape operating thru the clutch and the shaft 34 as will be seen.

Inside of the casing 14 which has a cut out portion 42, a tape or ribbon 44 is connected to the shaft 34 by means of a tape holder 46 connected to the shaft, one end of the tape being passed thru the slot or space between the shaft 34, the holder 46, and being wound around the shaft. The other end of the tape projects thru a slot 48 formed between converging side walls of the casing, and has slidably mounted thereon, a slide fastener 50 of more or less conventional construction, each fastener having a button 52 to which may be attached the leather strap 54 forming part of the head strap.

The operation of the construction described in the foregoing will now be briefly described. One end of each tape or ribbon 44 is threaded into the slot between the shaft 34 and the tape holder 46. The knobs 38 are then grasped manually and the shafts are withdrawn, separating the clutch members 26—28 and 30—32 from each other, after which the shafts are rotated a few turns or until the ribbons are wound around the shafts and held by the latter. Then the knobs are released and the clutch parts engage each other once more, the leaf spring 40 causing movement of the shaft for this purpose. The slidable fasteners 50 are then moved to near the free ends of the tapes and the leather loop 54 is attached to the buttons 52.

The goggles are then applied to the head of the operator, and if the spring tension on the loop is not great enough to hold the goggles on the head of the operator, he will hold the slidable fasteners with his fingers and will pull upon the free ends of the tapes, pulling them out against the increasing resistance of the springs 41. This is continued

until the spring tension is great enough to hold the goggles on the operator's head.

In the event that the spring tension on the tapes is too great, the fasteners are slid along the tapes towards the free ends of the same, decreasing the influence of the springs on the tapes.

It will be seen that the fasteners 50, besides serving as an adjustable fastening means between the leather loop 54, which is of fixed length, and the variable length tapes, also serve as stops to prevent the springs 41 from pulling the tapes into the casings 14 so far that their free ends are no longer available for grasping.

It will also be observed that while two castings, etc. are provided, one on each side of the goggle frame, only one, etc. need be provided, in which case one end of the strap 54 will be connected to a guard 12 directly.

Accordingly, it will be observed that there has been provided a pair of goggles having a head loop of variable length, one which will not become affected by heat or by constant use, as is true of head loops of rubber, or the like.

Further, it will also be observed that there has been provided a head loop for goggles, which is elastic in its nature, even tho no elastic material be used in its construction, the head loop being variable in its length to alter the spring tension, as desired.

Further, it will also be observed that the device shown is far more durable and satisfactory than similar devices employing rubber head bands or loops, there being no rubber to deteriorate due to the heat surrounding the one who wears the goggles.

Now having described the invention and the preferred embodiment thereof, it is to be understood that the said invention is to be limited, not to the specific details herein set forth, but only by the scope of the claims which follow.

I claim:

1. In combination, a pair of goggles and a head loop therefor, the latter including a strap of fixed length, and a tape of variable length, connecting an end of the strap with the frame of the goggles, the tape being connected to the goggles frame by a coiled spring, one end of the coiled spring being connected to the goggles frame and the other end being connected to the tape thru a releasable clutch.

2. In combination, a pair of goggles and a head loop therefor, the latter including a strap of fixed length, and a tape therefor, the latter including a strap of fixed length, and a tape of variable length, connecting an end of the strap with the frame of the goggles, the tape being connected to the goggles frame by a coiled spring, one end of the coiled spring being connected to the tape thru a releasable clutch, the means which connects a strap end to a tape end including a member adjustably slidable upon the tape and having means for engaging one end of the strap.

3. In combination, a pair of goggles, eye guards and a variable length head loop for the same, a main casing fixedly attached to an eye guard, a shaft revolvably mounted in said casing and to which one end of a head loop tape is attached, an auxiliary casing secured to said main casing, a bushing revolvably mounted in said auxiliary casing and surrounding said shaft, a coil spring in said auxiliary casing having one end secured to the latter and one end secured to said bushing, a clutch connecting said shaft and said bushing, means normally holding the clutch parts in clutching engagement and means by which disengagement of the clutch parts may be effected.

4. In combination, a pair of goggles, eye guards and a variable length head loop for the same, a main casing fixedly attached to an eye guard, a shaft revolvably mounted in said casing, an auxiliary casing secured to said main casing, a bushing revolvably mounted in said auxiliary casing and surrounding said shaft, a coil spring in said auxiliary casing having one end secured to the latter and one end secured to said bushing, a clutch connecting said shaft and said bushing, means normally holding the clutch parts in clutching engagement and means by which disengagement of the clutch parts may be effected, the head loop including a strap of fixed length and a tape, one of whose ends is adjustably connected to a strap end, and the other of whose ends is connected to said shaft.

5. In combination, a pair of goggles, eye guards and a variable length head loop for the same, a main casing fixedly attached to an eye guard, a shaft revolvably mounted in said casing, an auxiliary casing secured to said main casing, a bushing revolvably mounted in said auxiliary casing having one end secured to the latter and one end secured to said bushing, a clutch connecting said shaft and said bushing, means normally holding the clutch parts in clutching engagement and means by which disengagement of the clutch parts may be effected, the head loop including a strap of fixed length and a tape, one of whose ends is adjustably connected to a strap end and the other of whose ends is connected to said shaft, the means which connects a strap end to a tape end including a member adjustably slidable upon the tape and having means for engaging one end of the strap.

6. In combination, a pair of goggles, eye guards and a variable length head loop for the same, a main casing fixedly attached to an eye guard, a shaft revolvably mounted in said casing, an auxiliary casing secured to said main casing, a bushing revolvably mounted in said auxiliary casing having one

end secured to the latter and one end secured to said bushing, a clutch connecting said shaft and said bushing, means normally holding the clutch parts in clutching engagement and means by which disengagement of the clutch parts may be effected, the head loop including a strap of fixed length and a tape, one of whose ends is adjustably connected to a strap end and the other of whose ends is connected to said shaft, the means which connects a strap end to a tape end including a member adjustably slidable upon the tape and having means for engaging one end of the strap, the casing having a slot thru which an end of the tape may emerge, the slidable fastener serving as a stop to prevent the emerging end from being withdrawn into the casing.

7. In combination, a pair of goggles, eye guards and a variable length head loop for the same, a main casing fixedly attached to an eye guard, a shaft revolvably mounted in said casing, an auxiliary casing secured to said main casing, a bushing revolvably mounted in said auxiliary casing having one end secured to the latter and one end secured to said bushing, a clutch connecting said shaft and said bushing, means normally holding the clutch parts in clutching engagement and means by which disengagement of the clutch parts may be effected, the head loop including a strap of fixed length and a tape, one of whose ends is adjustably connected to a strap end and the other of whose ends is connected to said shaft, the means which connects a strap end to a tape end including a member adjustably slidable upon the tape and having means for engaging one end of the strap, the casing having a slot thru which an end of the tape may emerge, the slidable fastener serving as a stop to prevent the emerging end from being withdrawn too far into the casing.

8. In combination, a pair of goggles, eye guards and a variable length head loop for the same, a main casing fixedly attached to an eye guard, a shaft revolvably mounted in said casing and to which one end of a head loop tape is attached, an auxiliary casing secured to said main casing, a bushing revolvably mounted in said auxiliary casing and surrounding said shaft, a coil spring in said auxiliary casing having one end secured to the latter and one end secured to said bushing, a clutch connecting said shaft and said bushing, means normally holding the clutch parts in clutching engagement and means by which disengagement of the clutch parts may be effected, there being a pair of casings, auxiliary casings, bushings, shafts, coil springs, clutches, and tapes for each pair of goggles.

9. In combination, a pair of goggles and head loop therefor, the latter including means whereby its length may be varied, the ends of the head loop being connected to the frame of the goggles by a coiled spring, one end of the coiled spring being connected to the goggles frame and the other end being connected to the head loop thru a releasable clutch.

In testimony whereof, I sign this specification.

HOMER H. HECKMAN.