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DEAF AID APPARATUS

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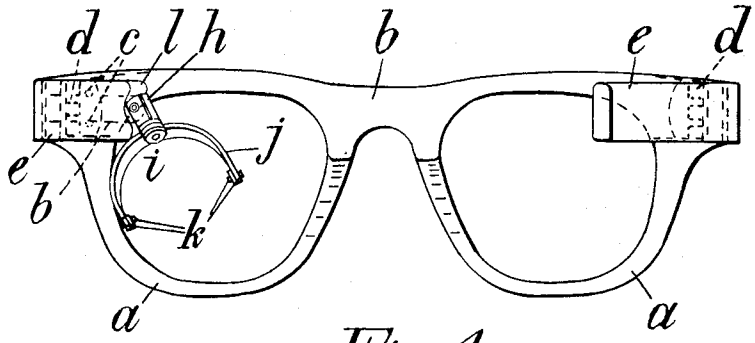


Fig. 1.

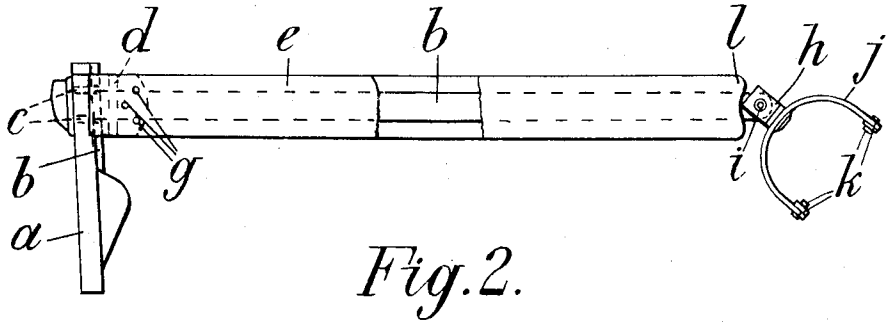


Fig. 2.

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DEAF AID APPARATUS

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4 Claims. (Cl. 179—156)

This invention relates to deaf aid apparatus and in particular to such apparatus having a bone conduction receiver.

Heretofore it has been the practice to provide deaf aid apparatus equipped with a bone conduction receiver with a head band to one end of which the receiver is pivotally connected, so that when the band is worn over the top of the head the receiver is firmly pressed against the head to the rear of the ear. This head band can prove inconvenient in use as it interferes with the arrangement of the hair and is unsightly.

The object of the present invention is to provide supporting means for a bone conduction receiver in a deaf aid apparatus without the disadvantages above referred to.

The invention consists in a spectacle frame characterised in having means for supporting a deaf aid receiver on the end or adjacent the end of at least one wing thereof.

In one mode of carrying the invention into effect the spectacle frame is provided with both front and wings reinforced with a suitable strip spring steel so that adequate pressure is applied between the ends of the wings where they pass over the ears. One end of the wings is provided with a gimbal-like saddle piece which is supported in a joint from the wing which is pivotable about two axes at right angles to one another. The pivot in one plane allows of rotation of the saddle piece about its axis of symmetry while the other allows of movement of the saddle piece in the plane of the wing and parallel to the surface of the head. The receiver is gripped between the arms of the saddle piece upon a pair of projections which engage in recesses in opposite sides of the former and allow of the tilting of the receiver in relation to the saddle piece. By this means the most suitable angle for the receiver can be obtained.

In order that adequate pressure be exerted by the receiver upon the head it is preferable that the front of the spectacles are sufficiently strong to stand the strain. One method of achieving this is to provide a shaped reinforcing strip of metal between the hinges of the wings and across the bridge of the front and behind the upper edges of the lens frame. Otherwise the spectacles are liable to fail at the bridge. If such reinforcement is provided the front can be made of tortoise-shell, synthetic resin or other suitable material to whatever design is desired.

The wings of the spectacles are preferably formed with a spring steel core covered with a synthetic resin to prevent contact of the metal with the skin.

The accompanying drawing shows, by way of example only, one construction in accordance with the invention in which:

Figure 1 is an elevation of the spectacles from the rear, and

Figure 2 is a side elevation of the same.

The front *a* of the spectacle frame is provided with a reinforcing shaped metal strip *b* attached at its ends by the screws *c* which also serve to attach the hinges *d* to the front as well as the metal strip. By this means a rigid construction is provided which allows of considerable expansion of the wings so as to tightly grip the head. Each wing *e* is provided with a strip spring steel core *f* which is securely fastened to the hinges by the rivets *g*.

The wing which is required to support the deaf aid receiver has a portion of the core *f* projecting beyond the free end, the core being embraced by a bifurcated short rod-like member *h* pivotable in the plane of the core about a rivet *i*. The bifurcated member is reduced in diameter at one end which serves as the bearing about which the saddle member *j* is rotatable. This latter member is slightly springy and embraces the receiver between the heads of the rivets *k* by means of shallow recesses in the same. Rotary movement is therefore provided about three axes.

The covering of the wing *e* is cut short at *l* to allow of the bifurcated member *h* to be turned to the required position, and if this cut away portion is provided to both edges of the wing the latter is adaptable for use with spectacles for carrying a receiver either to the right or left side of the user, thereby avoiding the necessity of making both right and left handed wings. It is normally intended that the spectacles in accordance with the invention be provided for persons whose sight is defective, but these spectacles can be provided with plain glass instead of lenses for those who wish to disguise the fact that they require to use a deaf aid apparatus.

If desired the reinforcement to the front of the spectacles may be formed as a core as is provided for the wings and other details for carrying the invention into effect may be varied without departing from the scope of the invention.

I claim:

1. Spectacle frame comprising a metallically reinforced non-metallic front, wings each constructed partly at least of a metallic spring formed as a core and supported by a hinge upon the front, and support means for supporting a deaf aid receiver upon the free end of at least one of the wings.

2. Spectacle frame comprising a metallically reinforced non-metallic front, wings each constructed partly at least of a metallic spring formed as a core and supported by a hinge upon the front and hinge support means for supporting a deaf aid receiver upon the free end of at least one of the wings hingeable alternatively to opposite sides of the longitudinal axis of the core.

3. Spectacle frame comprising a metallic reinforced front, wings each having a metallic core hinged to said front, and means for supporting a deaf aid receiver upon the free end of one of the wings comprising a symmetrical saddle member having two arms adapted to embrace the receiver and pivotally support the same upon a pair of coaxial pin like projections one on each arm of the saddle member and a bifurcated member which embraces the core and is rotatable about a pin which passes therethrough and is also rotatable about the axis of symmetry of the saddle member.

4. Spectacle frame as claimed in claim 3 in which the front is reinforced to the full extent between the wings and the wings are hingedly supported from said reinforcement.

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