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TEETH PROTECTOR

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2 Claims. (Cl. 128—136)

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This invention relates to a protective device to be inserted between the upper and lower teeth of a patient who is to be given an electric shock treatment. Treatments of this kind usually are accompanied by severe convulsive paroxysms including a clenching of the teeth with such force that it frequently happens that some of them are broken. As such seizures usually last for three to four minutes, it is desirable that the patient's breathing be uninterrupted during the treatment.

It is an object of the invention to provide an effective cushion between the upper and lower teeth without interfering with the breathing of the patient. For this purpose I may provide a molded member of resilient material such, for example, as soft vulcanized rubber, similar in some respects to the protector shown and described in my Patent No. 2,521,039. According to the present invention, the web which serves as a cushion between the teeth of the upper and lower jaws is of maximum thickness at its extremities, and a rigid tube extends through the web at its mid point to furnish a non-collapsible duct through which the patient can breathe during a treatment.

For a more complete understanding of the invention, reference may be had to the following description thereof and to the drawing, of which—

Figure 1 is a plan view of a protector embodying the invention;

Figure 2 is a side elevation of the same;

Figure 3 is a bottom plan view of the same;

Figure 4 is a section on the line 4—4 of Figure 2;

Figure 5 is a section on the line 5—5 of Figure 2;

Figure 6 is a section on the line 6—6 of Figure 1;

Figure 7 is a rear elevational view of the protector; and

Figure 8 is a section on the line 8—8 of Figure 1, showing the protector in a position for use.

The protector embodying the invention consists of two parts, that is, a molded body portion 10 through which projects a tube 12. The body portion is preferably a molded plastic member of suitable cushion material such, for example, as soft vulcanized rubber. The member 10 consists of a U-shaped web or cushion 14 which is adapted to be clamped between the teeth of the upper and lower jaws when the device is in place for use and is of sufficient length to underlie all the teeth of the upper jaw and to overlie all the teeth

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of the lower jaw. This web, as indicated in Figure 6, varies in thickness from a minimum at its midpoint to a maximum thickness at its extremities. Thus the rear portions of the web 14 are first engaged by the molars so as to hold the jaws separated and thus to prevent injury to the teeth by making it impossible for the teeth to strike together when the jaws are clenched by a convulsive paroxysm. To maintain the cushion or web 14 in its effective position between the upper and lower teeth, the web is provided with inner and outer flanges which extend upward and downward from the margins thereof to bear against the inner and outer surfaces of the teeth and adjacent gums. Thus from the inner margin of the web a flange 20 projects upward and a flange 22 projects downward. In like manner, from the outer margin of the web 14, a flange 24 projects upward and a flange 26 projects downward, all of these flanges being preferably molded integrally with the web itself.

The convulsive clenching of the teeth and jaws of a patient undergoing an electric shock treatment is usually of great intensity so that unreinforced air holes extending through the web from the inner face to the outer face thereof, as in the protector shown in my Patent No. 2,521,039, would be pinched shut or so nearly shut as to interfere with the breathing of the patient. According to the present invention, the rigid tube 12 is extended through the web 14 at the midpoint thereof, this tube being preferably of an oval cross section so as to provide sufficient capacity without excessive vertical diameter. The tube may be made of non-corrodible metal or other material of sufficient strength and stiffness to withstand considerable pressures without collapsing. As indicated in Figures 4, 5, and 8, the portion of the tube which is surrounded by the material of the member 10 may be flattened and widened slightly as at 32. Both ends of the tube are preferably open to permit free flow of air therethrough. In addition, one or more lateral holes 34 and 36 are provided in the tube near the inner end thereof so that if the inner end of one of the holes should be blocked by the tongue of the patient, air can readily flow through the unobstructed apertures. The inner portion of the tube 12 is preferably curved downward as indicated in Figure 8 and extends far enough in from the body member 10 to receive upon the tongue and assist in holding the tongue member down.

I claim:

1. A teeth protector comprising a molded soft rubber member adapted to be received between