

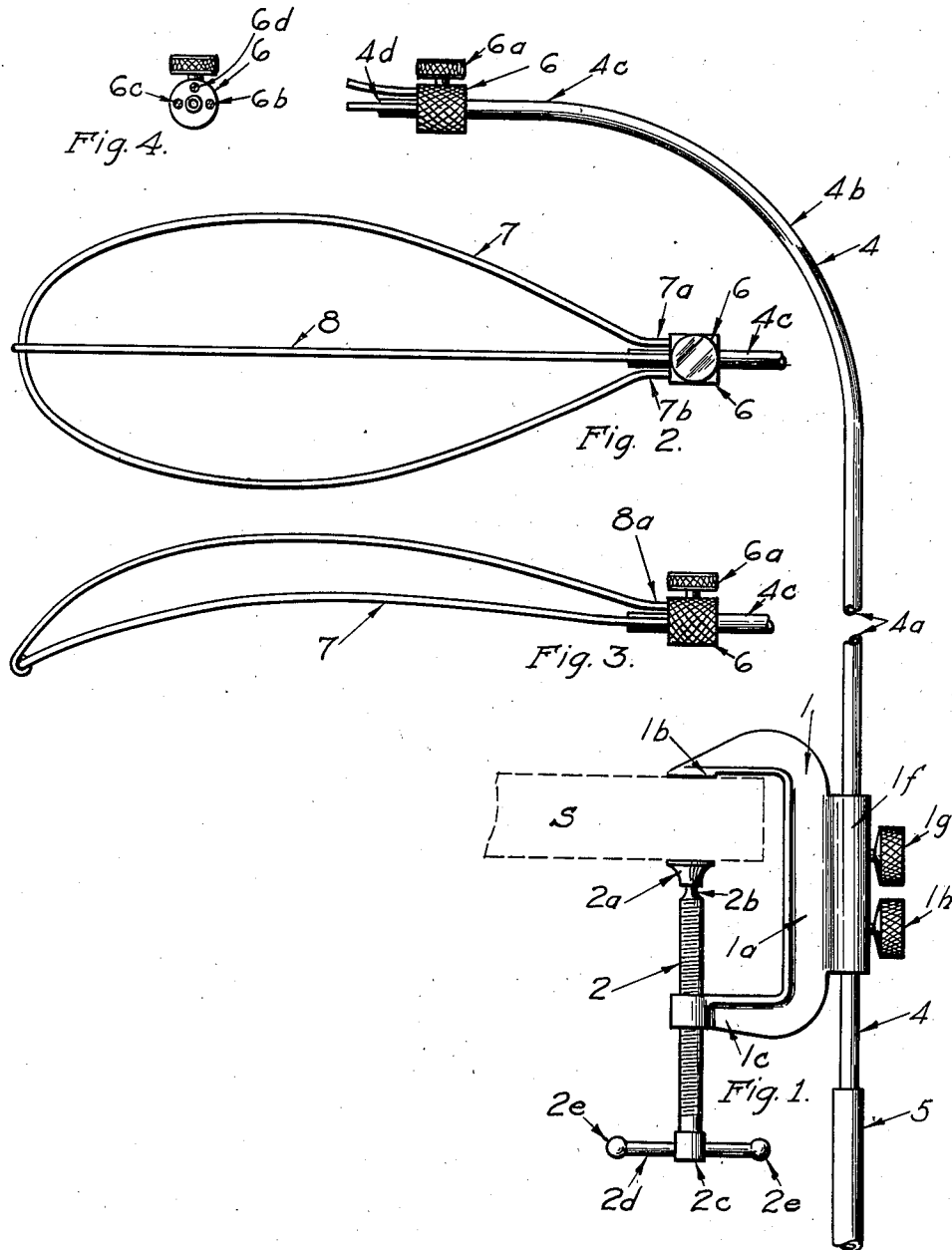
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EYE OPERATION MASK

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EYE OPERATION MASK

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5 Claims. (Cl. 128—205)

Our invention relates to a mask to be used for various kinds of operations on the eyes of individuals and the objects of our invention are:

First, to provide a mask which may be quickly and adjustably mounted on a table, chair or the like and shifted to variable positions for various operations on the eye;

Second, to provide a device of this class which is adjustable upwardly and downwardly and rotatably on both a vertical axis and on a horizontal axis;

Third, to provide a device of this class which is self-supporting in the various adjusted positions;

Fourth, to provide a device of this class which is very flexible for change of position for supporting a towel or other cover over the face and eyes of a patient;

Fifth, to provide a device of this class which permits easy breathing of the patient while undergoing an operation under local anaesthesia and also to permit the administration of oxygen, carbon-dioxide or other gases through the device during operations under local or intravenous anaesthetics; and

Sixth, to provide an eye operation mask of this class which is very simple and economical of construction, easy to operate, efficient in its action and which will not readily deteriorate or get out of order.

With these and other objects in view as will appear hereinafter, our invention consists of certain novel features of construction, combination and arrangement of parts and portions as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawing and to the characters of reference thereon which form a part of this application in which:

Figure 1 is a fragmentary side elevational view of our eye operating mask shown positioned on a table or shelf, as shown by dash lines; Fig. 2 is a side elevational view of the mask frame members and their clamping connection with the fluid conductor tubes shown fragmentarily and Fig. 3 is a side elevational view at right angles to that of Fig. 2; Fig. 4 is a side elevational view of the clamp member 6 showing its relation with the fluid conducting tube and the mask frame member.

Similar characters of reference refer to similar parts and portions throughout the several views of the drawings:

The clamp member 1 is partially a conventional clamp member including a shank portion

1a, an engaging member 1b and a screw-threaded extending portion 1c, the screw-threaded portion being in axial alignment with the engaging portion 1b. In this portion 1c is mounted a clamp member screw 2 upon which is mounted an engaging member 2a by means of a universal joint portion 2b and on the other end of this screw is provided a knob 2c in which is shiftably mounted a handle member 2d which is provided at its ends with knobs 2e, all of which are conventional and adapted to be clamped on the shelf S, as shown best in Fig. 1 of the drawing. The shank portion 1a, however, is provided with an extended cylindrical portion 1f which is provided with a hole longitudinally therein adapted to receive the fluid conducting tube 4, as shown best in Fig. 1 of the drawing. This member 1f is provided with screw-threaded holes therein extending to the hole in the member 1f in which are mounted the thumb screws 1g and 1h which are provided with knurled surfaces to facilitate their turning by hand.

It will be noted that the thumb screws 1g and 1h are provided to distribute the pressure on the tube 4 so that it will be held in position without bending this hollow tube portion.

Forced over the lower end of the tube 4 is the rubber or like hose 5 which is a supply hose for the fluid used during an operation. This tube 4 is provided with a hole 4a its full length for the conduct of the fluid. It is provided at its upper end with a substantially right-angle turn 4b which is on a relatively large radius, as shown in Fig. 1 of the drawing.

Mounted on the end of the horizontal portion 4c of the tube 4 is a mask adjustment clamp 6 which is provided with a hole therein adapted to receive the end of the tube 4c. This member 6 is a substantially cylindrical member and is provided with a thumb screw 6a which is screw-threaded in the holes in the member 6 adapted to rest against the tube 4c for securing the member 6 relatively to the tube portion 4c, as shown in the drawing. This clamp member 6 is provided with three holes 6b, 6c and 6d, as shown best in Fig. 4 of the drawing in which are mounted and secured extended ends 7a and 7b of the mask frame member 7, the ends 7a and 7b being substantially straight, as shown best in Fig. 2 of the drawing and then spreading into loop form, as shown best in Fig. 2 of the drawing. It will be noted that this member 7 is provided with a curve, as shown in Fig. 3 of the drawing so as to conform to a certain extent with the contour of the face or head of the patient when in use.

Mounted in the hole 6*d* is the one end 8*a* of the mask frame member 8. The mask frame member 8 curves therefrom and extends in curved spaced relation from the members 7 and 8, as shown best in Figs. 2 and 3 of the drawing and at its extended end is curved around the middle portion of the member 7, as shown best in Fig. 3 of the drawing. Thus it will be noted that the members 7 and 8 form a substantially open spoon-shaped frame, as shown best in Figs. 2 and 3 of the drawing, the member 8 being spaced backwardly some distance in curved form from the member 7 and positioned substantially midway between said members as shown in Fig. 2.

The operation of our eye operation mask is substantially as follows: The clamp is clamped on a shelf in a desirable position to the patient some distance below the patient's head. The fluid conductor hose communicates with a supply of oxygen or other operating fluid under pressure. The fluid exits at the end 4*d* of the tube 4. This tube 4 may be raised and lowered to the proper position to fit the face around the eyes of the patient. This tube 4 may be revolved in the member 1*f* and secured in the position desired by the screws 1*c* and 1*h*. Then the mask frame consisting of the members 7 and 8 may be shifted by revolution of the portions 1*d* to the desired position and then secured in position by the thumb screw 6*a* in the clamp member 6. A towel or other screen may be positioned over the frame consisting of the members 7 and 8. The members 7 and 8 will prevent the drawing of the towel or other member towards the nose of the patient while breathing and while inhaling the fluid coming through the tube 4.

Though we have shown and described a particular construction, combination and arrangement of parts and portions, we do not wish to be limited to this particular construction, combination and arrangement, but desire to include in the scope of our invention, the construction, combination and arrangement substantially as set forth in the appended claims.

Having thus described our invention what we

claim as new and desire to secure by Letters Patent is:

1. In an eye operation mask of the class described, the combination of a clamp member, a fluid conducting tube shiftably connected therewith and forming a support and a mask frame revolubly and longitudinally shiftable at the extended ends of said tube.

2. In an eye operation mask of the class described, the combination of a clamp member, a fluid conducting tube shiftably connected therewith and forming a support and a mask frame revolubly and longitudinally shiftable at the extended ends of said tube, said mask frame including a loop member in curved form and another member extending across the middle of said loop member in similarly curved form and spaced backwardly therefrom.

3. In an eye operation mask of the class described, a fluid conductor in rigid form to form a support and provided with a bend therein, means for adjustably supporting said conductor near one end and a mask frame adjustably mounted on the other end.

4. In an eye operation mask of the class described, a fluid conductor in rigid form to form a support and provided with a bend therein, means for adjustably supporting said conductor near one end and a mask frame adjustably mounted on the other end, said mask frame including a plurality of wire members interconnected and curved intermediate their ends.

5. In an eye operation mask of the class described, a fluid conductor in rigid form to form a support and provided with a bend therein, means for adjustably supporting said conductor near one end and a mask frame adjustably mounted on the other end, said mask frame including a plurality of wire members interconnected and curved intermediate their ends, said connecting means including a clamp member arranged for revoluble and longitudinal shifting on said tubular member.

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