

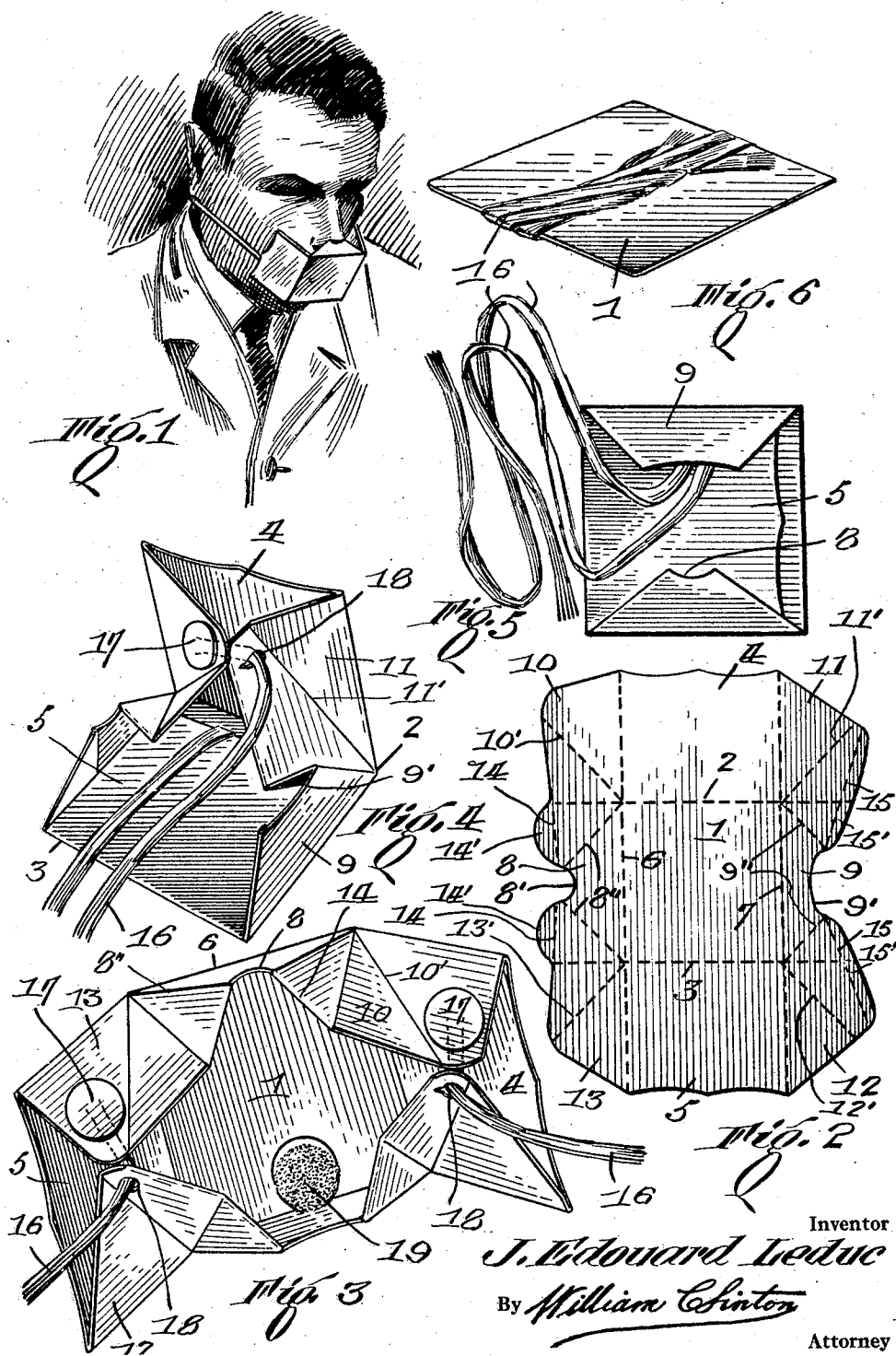
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J. E. LEDUC

FOLDABLE SANITARY MASK

Filed Jan. 18, 1924



UNITED STATES PATENT OFFICE.

JOSEPH EDOUARD LEDUC, OF MONTREAL, QUEBEC, CANADA.

FOLDABLE SANITARY MASK.

Application filed January 18, 1924. Serial No. 687,125.

To all whom it may concern:

Be it known that I, JOSEPH EDOUARD LEDUC, a subject of the King of Great Britain, residing at Montreal, Province of Quebec, Canada, have invented certain new and useful Improvements in Foldable Sanitary Masks; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention pertains to novel improvements in sanitary masks for surgeons, barbers, dentists or the like, the principal object being to provide a device of this character for the purpose of shielding the wearer from the breath of the patient, or vice versa. The device is so constructed as to prevent the breath of the wearer from impinging upon the person whom he is facing, thus obstructing the transmission of microbes or disease germs, at the same time allowing respiration to occur through spaces maintained between the sides of the mask and the cheeks of the wearer.

Hitherto there has been provided a sanitary mask consisting of comparatively rigid and non-foldable substance as disclosed in my United States Patent No. 1,377,710, May 10th, 1921, on which the present invention is an improvement. This mask was rendered expensive to manufacture because of the fact that it was required to be maintained in a rigid condition. The device constructed in accordance with the present invention is a paper object adapted to be folded flatly when not in use or when packed for shipping. It consists of a blank of paper folded in such a manner as to cover the nose and mouth of the wearer when in application.

The invention is fully disclosed in the following description and in the accompanying drawings in which:

Figure 1 is a perspective view illustrating the mask applied to the face of a user;

Figure 2 is a plan view of the blank from which the mask is formed;

Figure 3 is an inside perspective view of the mask, showing the latter in the position it assumes when applied to the face of the wearer;

Figure 4 is a perspective view of the mask partially closed;

Figure 5 is a rear elevation of the mask in folded condition; and,

Figure 6 is a perspective view of the mask folded and the strings wound around it.

Reference will now be had to these views by means of like characters which are employed to designate corresponding parts throughout.

The blank from which the mask is formed is in the nature of a flat sheet of paper which may be stamped or cut to the proper configuration shown in Figure 2. The blank comprises a face 1 having the shape of a rectangle, in this case a square. At a pair of opposite edges 2 and 3 are provided the side members 4 and 5 having the same width as the face. On the remaining edges 6 and 7 are provided a top or nose piece 8 and a bottom or chin piece 9. These parts are also of the same width as at 8' and 9' to conform to the curvature of the parts of the face to which they are applied.

The corners defined by the edges of the sides and the top and bottom pieces are filled with wings 10, 11, 12 and 13. These members are divided diagonally from the vertices of the face by the lines 10', 11', 12' and 13'. From the vertices of the face are also extended oblique lines or creases 8'' and 9'' which are directed substantially to the mid-points of the outer edges of the top and bottom pieces 8 and 9. From the outer ends of the lines 8'' and 9'', additional lines 14 and 15 are drawn towards the outer face of the diagonals 10', 11', 12' and 13', forming flaps 14' and 15'. The flaps 14 extend from the nose piece and are adapted to lie against the nose of the wearer to provide a more complete closure at the region of engagement. The flaps 15' extend from the members 9, 11 and 12 and serve a purpose similar to that of the flaps 14'.

In folding the blank for use, the sheet is folded along the boundaries 2, 3, 6 and 7 of the face and the continuations thereof, so that the side members, wings and top and bottom pieces tend to engage the same surface of the face as is shown in Figure 3. The wings are creased along the diagonals 10', 11', 12' and 13' in such a manner that the parts of the wings separated by these diagonals, in converging towards the diagonals, slope towards the same surface of the face. Creases are made on the line 8'' and 9'' in such a manner as to cause the portions of the top and bottom pieces separated thereby to slope outwardly or away from

the inner surface of the face, in converging towards the lines 8'' and 9''. The pieces 8 and 9 thus lie perpendicular to the plane of the face, the lines 8'' and 9'' consequently being also perpendicular to the face. The side pieces 4 and 5 are supported in an oblique relation to the face, as shown in Figure 3 which is the position the device assumes when applied to the face of the wearer. The wings 10 and 13 at one side have strings 16 secured thereto by means of discs 17 or similar devices. These strings are passed through aperture 18 cut in the wings 11 and 12 at the opposite side of the device, bringing the wings 10 and 13 into contact with the wings 11 and 12 respectively at the edges thereof. The outer edges of the wings and the top and bottom pieces, as well as the outer edges of the side members, engage the cheeks of the wearer in such a manner as to prevent the wearer's breath from coming in contact with the person whom he is facing. The inner surface of the face has applied thereto a small pad 19 which may be saturated with a suitable disinfecting agent.

The article is folded for packing or storage by continuing the folding operations described in connection with Figure 3, whereby all the parts surrounding the face are brought into engagement with the same surface thereof and lie thereagainst. It is observed, however, that the top and bottom pieces are the last members to be folded in-

wardly, and these overlie one of the side pieces as shown in Figure 5. The strings 16 are drawn beneath the top or the bottom piece, as shown in Figure 5, and are then wound together around the folded device as shown in Figure 6.

While a specific embodiment of the invention has been illustrated and described, it is to be understood that various alterations in the details of construction may be made without departing from the spirit of the invention as indicated by the appended claim.

Having thus fully described the invention, what I claim as new and desire to protect by Letters Patent is:—

A foldable mask comprising a substantially rectangular face, side pieces provided at opposite edges of said face, top and bottom pieces provided at the remaining edges of said face, said pieces being equal in width to the length of the face edges at which they are formed, wings provided in the corners defined by said top and bottom pieces, fastening elements adapted to unite opposed wings, said wings being folded on diagonals extending from the vertices of the face, and oblique creases extending along the top and bottom pieces from the vertices of the face to substantially the midpoints of the outer edges of said pieces.

In witness whereof I have hereunto set my hand.

JOSEPH EDOUARD LEDUC.