

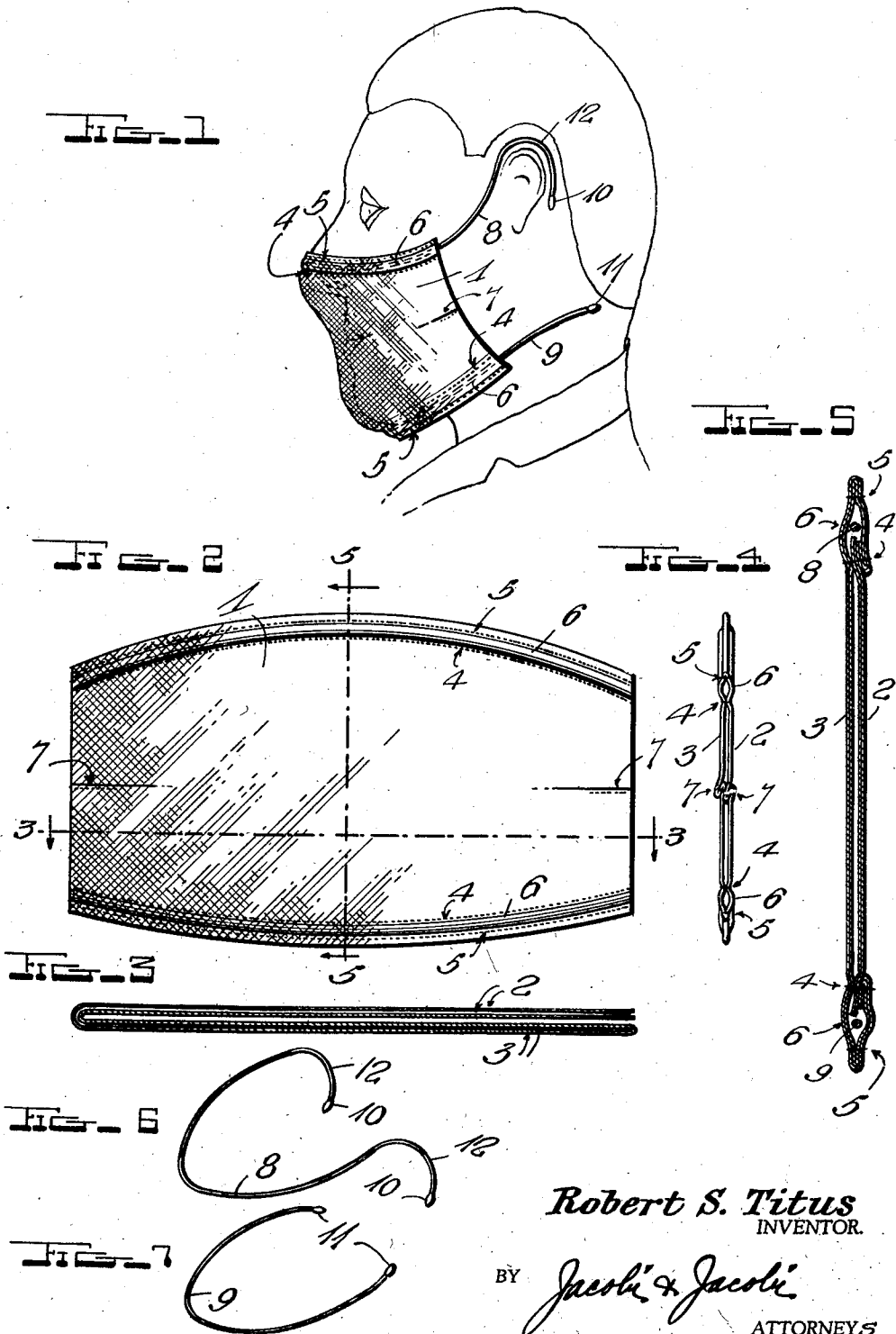
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FACE MASK

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FACE MASK

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This invention relates to a face mask and more particularly to a mask adapted to be worn in shielding relation to the nose and mouth to protect the wearer from inhaling or exhaling foreign or infectious matter.

One object of the invention is to provide a mask which will be simple and economical of construction, and thus capable of being manufactured and sold at a low cost.

Another object of the invention is to so form the mask that when in use it will fit closely against the face, conforming to the shape thereof, thus very effectively preventing the passage of foreign or infectious matter between the face and the marginal portions of the mask.

Another object of the invention is to provide the mask with improved strands, or bails, which are fitted through pockets or hems along upper and lower margins of the fabric body of the mask, and which strands or bails may be very easily and quickly inserted or removed, thus permitting the strands or bails to be transferred from one mask to another, and also permitting the mask and strands to be thoroughly cleansed and sterilized separately.

Another object of the invention is to provide strands or bails which may be easily bent to conform to the contour of the portions of the wearer's face along which margins of the mask extend, which strands or bails may also have portions which project from the ends of the mask in such manner that they may be bent to engage back of the wearer's ears and in gripping engagement with the wearer's neck below the jaw.

Another object of the invention is to so bend the projecting portions of the upper strand or bail that they will engage back of the wearer's ears and firmly hold the mask in place, without allowing the portions which bear against the wearer's face to interfere when glasses or spectacles are worn.

Another object of the invention is to provide a mask which will be durable in construction, and consequently economical to use.

Another object of the invention is to provide a mask which will be quick and easy to apply and to remove, as well as comfortable to wear.

Still another object of the invention is to provide a mask in which the strands or bails and the fabric parts will be interchangeable.

With these and numerous other objects in view, my invention consists in the novel features of construction, combination and arrangement of parts as will be hereinafter referred to and more particularly pointed out in the specification and claims.

The invention is illustrated in the accompanying drawing wherein:

Figure 1 is a perspective view showing the improved mask in use;

Figure 2 is a view looking at the mask with the strands, or bails, removed;

Figure 3 is a sectional view taken along the line 3—3 of Figure 2;

Figure 4 is an end view of the mask with the strands, or bails, removed;

Figure 5 is a sectional view taken along the line 5—5 of Figure 2;

Figure 6 is a perspective view of the upper strand; and

Figure 7 is a perspective view of the lower strand.

The mask 1 is formed of fabric and consists of a strip of gauze which is doubled intermediate its length to dispose its ends in registry with each other as shown in Figure 3 and then redoubled as shown in this figure. Therefore, the single length of gauze forms a mask having a plurality of plies which will be referred to as inner and outer plies and are designated by the numerals 2 and 3 in Figures 3 and 5. The portions of the strip of gauze forming the outer plies are of greater width than the portions forming the inner plies as is clearly shown in Figure 5 and the protruding upper and lower portions of the outer plies are folded inwardly in a rearward direction and disposed in overlying relation to upper and lower marginal portions of the inner plies where they are secured by stitching 4. Outer lines of stitching 5 are passed through the folds, thus defining hems 6 serving as retaining means and through which upper and lower strands or bails are to be passed. While it has been stated that the mask has four plies it will be obvious that this number may be varied and more or less plies provided if so desired. The fact that the mask may be formed of sterilized gauze produces a mask having antiseptic qualities which will protect the wearer from inhaling or exhaling foreign or infectious matter. It is desired to have the mask gradually reduced in width towards its ends and in order to accomplish this, portions of the inner and outer plies are folded and stitched to form pleats 7 at each end, which pleats reduce the width of the mask and cause it to taper towards its ends as shown in Figure 2. Therefore, when the mask is applied to the wearer's face with its upper marginal portion over the nose and its lower marginal portion under the chin the curvature of its upper and lower edges will cause it to fit properly against the wearer's face.

The upper and lower strands, or bails, 8 and 9, by means of which the mask is to be held in shielding relation to the wearer's face, are formed of pliable metal which may be very easily bent without likelihood of fracture. They may be made of any soft metal, but silver or chrome-plated copper are preferable, as they may be easily bent and at the same time are not subject to corrosion or rust. It should be clearly understood,

however, that for industrial purposes some other soft metal may be substituted. Ends of the strands, or balls, are thickened, or beaded, as shown at 10 and 11, to provide knobs which permit the strands to be easily passed through the hems 6 without catching in the gauze fabric and tearing the mask. These knobs, or beads, also serve to provide the strands with blunt ends and so prevent them from digging into the wearer's skin and causing discomfort when the mask is worn. The strands, or balls, as initially supplied with the mask are straight instead of being shaped as shown in Figures 1, 6 and 7. Therefore, when initially applying the mask, the strands or balls may be bent to conform to the contour of the wearer's face, and the marginal edges of the mask will fit closely against the nose and cheeks, also against the chin and jaw. The protruding end portions of the upper strand, or bail, resemble the bows of a pair of spectacles, and are formed with end hooks 12 to engage over and back of the wearer's ears, but instead of extending straight from the ends of the mask, they are bent so that they are bowed or curved longitudinally and merge into the curved or bowed upper edge portion of the mask. By so bending the upper strand, or bail, its projecting end portions will approach the ears at such an angle that they will not be in the way if glasses are worn, and there will be no danger of the upper strand or the upper marginal edge of the mask making contact with the glasses and dislodging them. The lower strand, or bail, has its projecting end portions bent to conform to the curvature of the wearer's neck in such manner as to form a U-shaped jaw which will grip the neck on opposite sides and hold the lower portion of the mask firmly in place.

After the mask has been adjusted and applied it may have additional adjustments made by bending the upper and lower strands until they fit snugly against the portions of the face and neck with which they come in contact, and the passage of foreign or infectious matter to or from the nose and mouth of the wearer will be prevented. It will be noted that the mask will also be worn by persons afflicted with contagious diseases communicable through respiration to prevent the discharge of such disease germs. After the mask has been removed it may be cleansed and sterilized either with or without the strands, or balls, in place, and then used over again, or the strands may be removed and the mask discarded, retaining the strands to be inserted in a new mask when desired. As masks for the prevention of the communication of disease are only used once before being sterilized again, it will be seen that the interchangeability of masks and strands is a most desirable feature. This mask is simple in construction, capable of being easily and quickly applied or removed, very comfortable for the wearer, may be easily and cheaply wrapped in air-tight, sterile packages, may be manufactured at a low cost and sold at a correspondingly low price, and will fit any wearer, regardless of shape of face. It will thus be seen that it has many desirable features.

From the foregoing description of the construction of my improved apparatus, the application of the same to use will be readily understood. It will be seen that I have provided a simple, inexpensive, and efficient means for carrying out the objects of the invention.

While I have particularly described the elements best adapted to perform the functions set

forth, it is obvious that various changes in form, proportion, and in the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the principles of the invention.

Having thus described the invention what is claimed is:

1. A mask comprising a fabric body having its upper and lower edges converging towards its ends to provide tapered end portions for the body, open-ended hems being formed along upper and lower margins of the body, and strands, or bails, of flexible metal passed through said hems with their end portions projecting from ends of the hems, the upper strand being of a length to permit its projecting end portions to be bent to form longitudinally curved bows terminating in hooks for engaging over and back of a person's ears, and the lower strand being of a length to permit its projecting end portions to form longitudinally curved jaws adapted to have gripping engagement with a person's neck from opposite sides thereof.

2. A mask comprising a fabric body having its upper and lower marginal portions formed with longitudinally extending open-ended hems, and upper and lower strands of soft flexible metal passed through said hems with their end portions projecting from ends of the body, the upper strand having its projecting end portions bent to form mounting bows having hooked ends for engaging over and back of a person's ears, and the lower strand having its projecting end portions bent to form jaws adapted to grip a person's neck from opposite sides and maintain the lower portion of the fabric body under a person's chin and jaw.

3. A mask comprising a body formed from a strip of fabric folded upon itself and then again folded upon itself to provide the body with inner and outer plies, the outer plies being of greater width than the inner plies and having upper and lower marginal portions projecting from the upper and lower margins of the inner plies and folded back upon themselves and secured in overlapping relation to the inner plies to provide the body with open-ended hems along its upper and lower margins, and strands of flexible metal extending through said hems with their end portions projecting from ends of the hems, the upper strand having its extended end portions bent to form supporting bows, and the lower strand having its extended end portions bent to form jaws adapted to grip a person's neck from opposite sides.

4. A mask comprising a body formed from a strip of fabric folded upon itself and then again folded upon itself to provide the body with inner and outer plies, the outer plies being of greater width than the inner plies and having upper and lower marginal portions projecting from the upper and lower margins of the inner plies and folded back upon themselves and secured in overlapping relation to the inner plies to provide the body with open-ended hems along its upper and lower margins, end portions of the inner and outer plies being folded longitudinally and secured to form pleats reducing the width of the end portions of the plies and causing the body to taper towards its ends and have longitudinally bowed upper and lower margins, and upper and lower strands of flexible metal passed through the upper and lower hems of the body with their end portions projecting from ends thereof, the projecting end portions of the upper strand being bent to form bowed portions merging into the bowed upper

margin of the body and having their free ends formed with ear engaging members, and the lower strand having its projecting portions bent to form jaws adapted to grip a person's neck from opposite sides.

5 5. A mask comprising a fabric body formed with open ended hems along its upper and lower margins, and strands of flexible metal passed through said hems with integral end portions projecting from the hems and bent to form upper and lower securing members adapted to hold the mask in place in covering relation to a person's nose and mouth, the strands being free from each other and being slidable longitudinally through the hems into and out of place whereby the strands may be removed and the strands and the fabric body cleaned and sterilized.

6. A mask comprising a fabric body having its upper and lower marginal portions provided with open-ended hems, and upper and lower strands of soft flexible metal passed through said hems with their end portions projecting from ends of the hems and beyond ends of the body, the upper strand having its projecting end portions bent to form temples and the lower strand having its projecting end portions bent to provide means for engaging a person's neck and holding the lower portion of the fabric body in place when the mask is worn.

7. A mask comprising a fabric body formed from a strip of fabric folded to provide the body with inner and outer plies, the plies being secured along upper and lower edges to provide the body with longitudinally extending hems, and strands of flexible metal extending through said hems with portions projecting from ends of the hems, the projecting portions of the upper strand being bent to form temples, and the projecting portions of the lower strand being bent to engage the neck of a person wearing the mask and hold the lower portion of the body in place.

8. A mask comprising a fabric body formed from a strip of fabric folded to provide the body with inner and outer plies, the plies being secured along upper and lower edges to provide the body with longitudinally extending hems, and strands of flexible metal extending through said hems with portions projecting from ends of the hems, the projecting portions of the upper strand being bent to form temples, and the portion of the upper strand within the same being bendable to hold the upper edge portion of the body in close contacting engagement with the nose and cheeks of a person wearing the mask, and the lower strand having its projecting portions bent to provide means for engaging the neck of a person wearing the mask and holding the lower portion of the mask under the chin and jaw in close fitting engagement therewith.

9. A mask comprising a fabric body provided with open-ended hems along its upper and lower margins, and strands of pliable metal passed through the hems with end portions projecting from the hems and opposite ends of the fabric body, the upper and lower strands being free from each other and having their portions within the seams adapted to be bent to dispose marginal portions of the body in close contacting engagement with portions of a person's face, and the projecting end portions of the strands being of a length adapting them to be bent to form securing means for holding the mask in place.

10. A mask comprising a fabric body, and separate strands of pliable metal removably mounted along upper and lower marginal portions of the body and free from each other, said strands being individually bendable to dispose marginal portions of the body in close contacting engagement with portions of a person's face, and end portions of the respective strands being bendable to provide means for holding the mask in place.

11. A face mask comprising a fabric body, and flexible supporting means formed separate from each other and removably carried by upper and lower portions of said body and being formed of pliable form-retaining metal adapting the supporting means to be individually bent and conform the mask to the contour of portions of the face of the wearer and provide members to retain the mask in position.

12. A face mask comprising a fabric body, and flexible supporting members free from each other and detachably carried by upper and lower portions of said body, said supporting members being each formed of pliable form-retaining metal adapting the supporting members to be respectively bent and conform marginal portions of the fabric body to the contour of portions of the face of the wearer and support the mask in position thereon.

13. A face mask comprising a fabric body provided adjacent marginal portions with open retaining means, and elongated supporting members formed of flexible form-retaining material, said supporting members being free from each other and having portions passing through said retaining means to removably mount the supporting members in operative relation to the body with end portions of the supporting members projecting from the body and adapted to be bent into position to retain the body in close fitting engagement with a person's face.

14. A face mask comprising a fabric body provided adjacent marginal portions with open retaining means, and elongated supporting members formed of flexible form-retaining material, said supporting members being entirely free from each other and having intermediate portions passed through said retaining means to removably mount the supporting members along marginal portions of the body with end portions of the supporting members projecting from opposite sides of the body and adapted to be bent into position to form anchoring members for maintaining the mask in front of a person's face.

15. A face mask comprising a fabric body of dimensions adapting it to cover the lower portion of a person's face, retaining means along the upper edge portion of the body, a strand of pliable form-retaining material extending along the upper edge portion of the body and removably held by the retaining means with its end portions projecting from said body, the intermediate portion of the strand being bendable to conform to the contour of the nose and side portions of a person's face and the extended end portions being of a length adapting them to be bent to form temples, and means carried by the lower edge portion of the body for securing the same close against portions of a person's face covered thereby.