Oct. 22, 1957 E. B. MASSEY 2,810,576

INFLATABLE ARTIFICIAL WING

Filed July 2, 1954 2 Sheets-Sheet 1

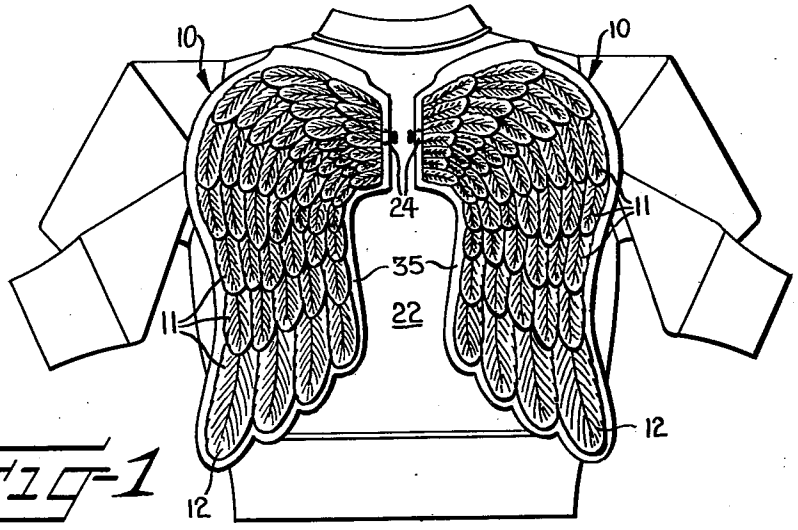


Fig-1

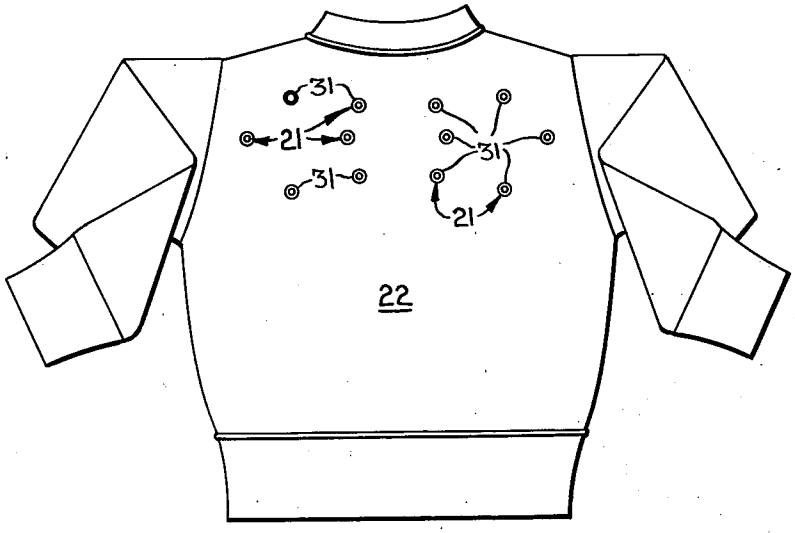


Fig-2

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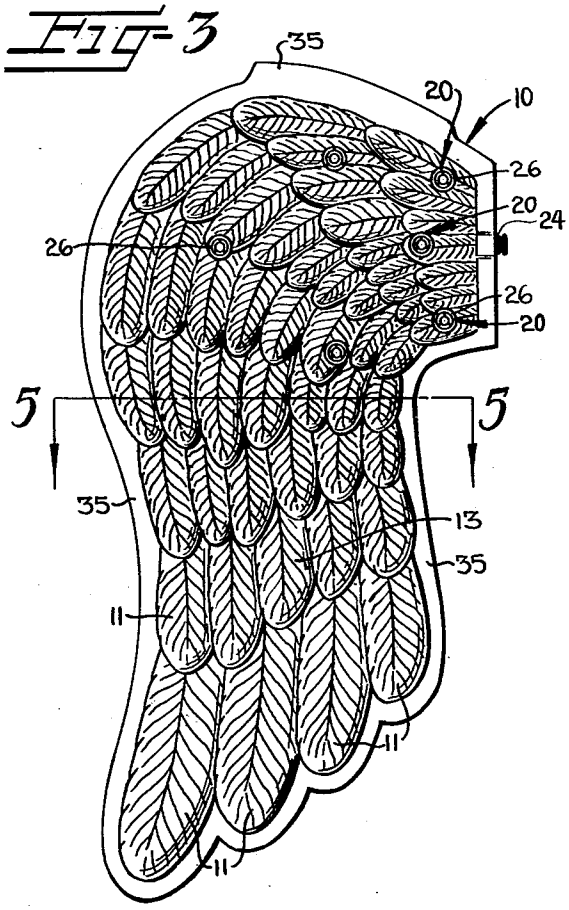
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INFLATABLE ARTIFICIAL WING

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Fig-3



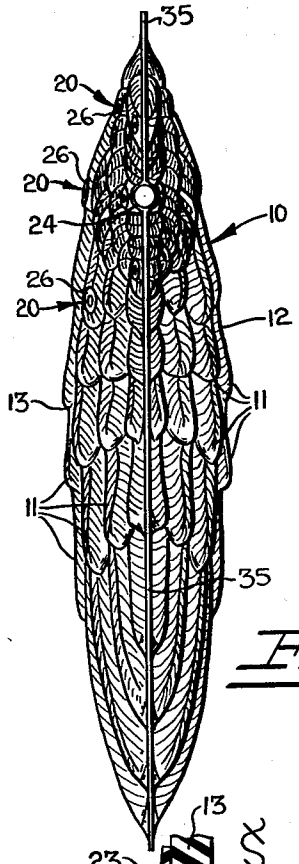


Fig-4

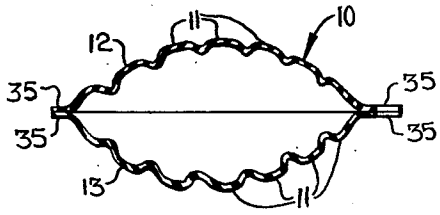


Fig-5

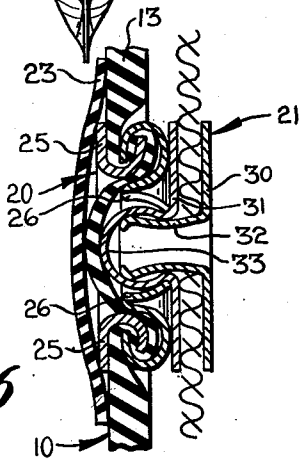


Fig-6

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INFLATABLE ARTIFICIAL WING

Emmette B. Massey, Charlotte, N. C.

Application July 2, 1954, Serial No. 440,884

3 Claims. (Cl. 272—25)

This invention relates to artificial wings and more particularly to artificial wings which are inflatable to present a realistic appearance and having means thereon for securing the same in proper position relative to the body of the wearer.

Many attempts have been made heretofore to provide artificial wings for use in plays and the like which will closely simulate the common conception of angels' wings and which will at the same time be of sufficient durability to withstand repeated uses and punishment. None of these prior attempts has been successful in combining these features and either resulted in wings which are durable but which did not present a realistic appearance, or in wings which presented a realistic appearance but which were fragile and unable to withstand abuse and repeated usage.

It is therefore an object of this invention to provide a pair of artificial wings which closely resemble angels' wings and which are so constructed as to enable them to withstand many uses and rather severe abuse, without in any way detracting from their realistic appearance and which are particularly adapted to be worn by children as part of a novel and ornamental garment.

It is another object of this invention to provide inflatable artificial wings having an irregular outer surface comprising a plurality of indentations and projections so arranged as to give the visual effect of a plurality of individual feathers which combine to make up the wing.

It is another object of this invention to provide inflatable artificial wings of the type described wherein means are provided on one surface of each wing for readily connecting the same to an article of wearing apparel such as a vest or jacket, which connecting means are secured to the wing in such a manner as to be invisible after the connection is made. The connecting means are secured to the wing in such a manner as to prevent the escape of air from within the inflated wing.

It is another object of this invention to provide inflatable artificial wings of the type described having a closable opening therein through which the wings may be inflated.

Some of the objects of the invention having been stated, other objects will appear as the description proceeds, when taken in connection with the accompanying drawings, in which—

Figure 1 is an elevation of the artificial wings attached to the back of a garment.

Figure 2 is a rear elevation of the garment shown in Figure 1 with the wings removed;

Figure 3 is an enlarged elevation of one of the pair of wings removed from the garment and looking at the opposite surface from that shown in Figure 1;

Figure 4 is an end elevation of the wing shown in Figure 3;

Figure 5 is a sectional plan view taken substantially along the line 5—5 in Figure 3;

Figure 6 is an enlarged fragmentary sectional view through a wing and associated garment showing the details of the connection between the wing and the garment.

Referring more specifically to the drawings, the numeral **10** broadly indicates an inflatable artificial wing, there being a pair of such wings shown in Figure 1, each of which is constructed in an identical manner except one is shaped as a right wing and the other as a left wing. The wing **10** is formed from raw rubber of any other suitable flexible mastic material which may be molded to provide an irregular surface thereon. In the preferred embodiment of the invention, each of the wings **10** is molded to provide a plurality of projections **11** thereon which combine to give the visual effect of a plurality of feathers as is most clearly seen in Figures 4 and 5.

The wing **10** may be formed in any desired manner, but is preferably formed from two separate sheets of plastic material **12** and **13** which are placed in a mold and cured in the usual manner by subjecting the mold to heat and pressure. Prior to placing the sheet **13** in the mold, a plurality of connection devices **20** are first secured to the plastic material comprising said sheet **13**. The connection devices **20** are adapted to mate with similar connection devices **21** secured to the outer surface of a garment **22** such as a jacket or vest whereby the wings **10** may be releasably connected to said garment **22**.

While it is possible to secure the connection devices **20** to the sheet **13** in the manner illustrated in Figure 6 without penetrating the sheet **13**, it is considered advisable to secure a patch **23** to the inner surface of the sheet adjacent each of the connection devices **20** in order to insure that the completed wing will remain air-tight in the event frequent manipulation of the connection devices **20** results in ruptures occurring in the sheet **13** adjacent the connection devices **20**. The patch **23** may be applied as by vulcanizing and the sheet **13** is then placed against one surface of a suitable mold, not shown, with the connection devices **20** adjacent the surface of the mold. The sheet **12** is positioned against the other surface of the mold which is then closed and subjected to heat and pressure to cure the plastic material and to form the wing **10**. The mold is so formed as to provide a closable opening **24** in the wing **10**, which opening is provided to permit air to be introduced into the wing **10** to inflate the same. If desired, suitable valve means may be positioned in the opening.

The connection devices **20** on the wings **10** which are employed for releasably connecting the wings **10** to the back of the garment **22** preferably comprise female snap fasteners each of which comprises a pair of interconnected parts **25** and **26**, the part **25** being positioned adjacent the inner surface of the sheet **13** and the part **26** being positioned adjacent the outer surface thereof. The two parts **25** and **26** are crimped together as shown in Figure 6 to form the female snap fastener **20**.

The connection devices **21** on the jacket **22** preferably comprise male snap fasteners adapted to mate with the female snap fasteners **20** on the wings **10**. Each of the male snap fasteners **21** comprises a pair of interconnected members **30** and **31**, the member **30** being positioned adjacent the inner surface of the fabric **22** and having a substantially right angular projection **32** formed integral therewith and penetrating the fabric **22**. The member **31** is positioned on the outer surface of the fabric **22** and has a hollow receptacle **33** whereby the members **30** and **31** may be clampingly secured together.

It is to be understood that the manner of forming the wings herein set forth is illustrative only and that the same may be formed in any desired manner without departing from the spirit of the invention. For example, the two sheets of plastic material may be molded separately and subsequently secured together adjacent their peripheral

edges. Also, the connection devices may be mounted on a separate piece of material and subsequently secured to the wings which have been previously formed. It is also contemplated that connection devices other than snap fasteners may be successfully employed for securing the wings to an associated garment, such as by securing a piece of material to the wing and stitching said material to the garment.

If desired, the wings **10** may be provided with peripheral edges **35**, the dimensions of which are not critical. A portion of the peripheral edges **35** may be extended as shown on the upper edges of the wings in Figures 1 and 3 so as to provide space for a desired written inscription. The peripheral edges may be eliminated entirely so that the outermost edges of the individual feather-like portions form the outermost tips of the wings.

It is thus seen that there is provided an artificial inflatable wing which may be combined in pairs to provide a realistic accessory for costumes and the like, and which wings are also suitable for use by small children inasmuch as they are extremely durable and may be used over and over without damaging their appearance.

In the drawings and specification there has been set forth a preferred embodiment of the invention and although specific terms are employed, they are used in a generic and descriptive sense only, and not for purpose of limitation, the scope of the invention being defined in the claims.

I claim:

1. In combination with an outer garment having a plurality of connection devices secured to the upper back portion thereof, a pair of artificial inflatable wings formed of plastic material, each of said wings comprising two sheets of molded plastic material secured together adjacent their peripheral edges, each of said sheets of plastic material having an irregularly shaped surface provided with a plurality of closely spaced upstanding projections extending over a major portion of the surface, each of said projections being so formed and spaced relative to the other of said projections as to give the visual effect of a feather, each of said wings having an opening therein communicating with the interior of the wing and with the atmosphere, closure means for said openings, and a second plurality of connection devices secured to the upper medial portion of one sheet of each of said wings and adapted to mate with the connection devices on said outer garment whereby said wings may be releasably connected to said garment in a concealed manner.

2. A structure according to claim 1 and at least one patch secured to the inner surface of the wing adjacent said second plurality of connection devices.

3. A structure according to claim 1 wherein said first and second pluralities of connection devices comprises mating snap fasteners.

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