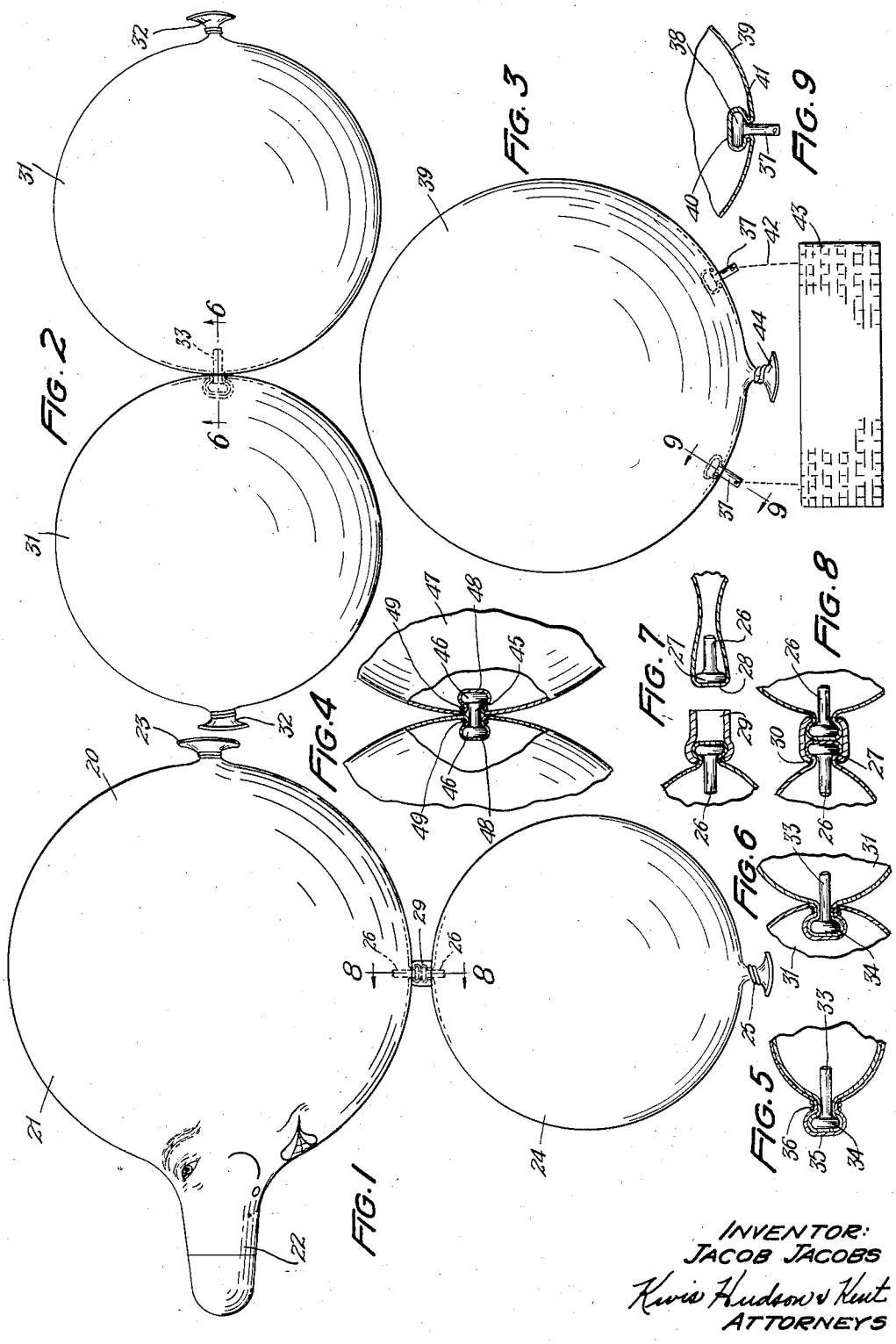
July 16, 1935. J. JACOBS 2,008,552

ATTACHING MEANS FOR INFLATABLE ARTICLES

Filed March 17, 1933



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Patented July 16, 1935

2,008,552

UNITED STATES PATENT OFFICE

2,008,552

ATTACHING MEANS FOR INFLATABLE ARTICLES

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Application March 17, 1933, Serial No. 661,291

8 Claims. (Cl. 46—53)

This invention relates to inflatable articles such as toy balloons and has for its primary object the provision of a new and novel manner of attaching balloons together.

Heretofore, it has been very difficult to attach balloons together efficiently or to make attachments to the exterior of balloons for supporting articles therefrom and the common method has been to use an adhesive, but this resulted in an impractical connection which also tended to weaken the rubber of the balloon adjacent the connection causing the balloon to burst in many instances.

A further object of the invention, therefore, is to provide a simple mechanical connection which in no manner causes injury to the rubber of the balloons and which permits attaching and detaching at will.

With the objects above indicated and other objects hereinafter explained in view the invention consists in the construction and combination of elements hereinafter described and claimed.

Referring to the drawing:—

Figure 1 is an illustration of two balloons representing a grotesque figure connected in the manner contemplated by the invention;

Fig. 2 is an illustration of two balloons connected together in a manner contemplated by the invention, but involving a modification thereof;

Fig. 3 is an illustration of a balloon and basket suspended therefrom, the connection to the exterior of the balloon involving the present invention;

Fig. 4 is a still further modification embodying the present invention of connecting two balloons together;

Fig. 5 illustrates the relationship of the balloons at the time of making the connection embodying the present invention;

Fig. 6 is a sectional view taken on line 6—6 of Fig. 2 and further showing the relationship of the balloons after inflation embodying the connection shown in Fig. 5;

Fig. 7 illustrates the relationship of the balloons at the time of making a modified connection embodying the invention;

Fig. 8 is a sectional view taken on line 8—8 of Fig. 1 and further showing the relationship of the balloons after inflation embodying the modified connection shown in Fig. 7, and

Fig. 9 is a sectional view taken on line 9—9 of Fig. 3.

In the drawing various modifications embodying the invention are illustrated and it is to be understood that any one of the connections may be employed in place of any of the others to accomplish the result for which the invention is intended.

In Fig. 1 a grotesque form, indicated generally by the numeral 20, consists of an upper inflatable head member 21 of the so-called balloon type which may have, if desired, the appearance of a face, as indicated at 22. Opposite to the face portion 22 is the usual inlet 23 through which the head may be inflated by the use of air or other suitable fluid. A lower inflatable member 24 provides the body portion of the form and consists of the usual rubber balloon provided with an inlet 25 through which the balloon may be inflated with air or other suitable fluid. It will be noted that the head portion 21 and the body portion 24 are composed of individual balloons having no communicating passageway therebetween so that it is a simple matter to inflate the head portion and body portion in any relationship desired. As already explained, considerable difficulty has been encountered in actual practice in suitably attaching or connecting the balloons together. The most common practice has been to attach the balloons together by means of a suitable adhesive, but, in the use of naptha to provide for a suitable connection, the rubber becomes weakened where the naptha has been applied and results in bursting of the balloon at that weakened location. Furthermore, when such connections have been made between two balloons it is impossible to temporarily detach the same without injuring the materials of the balloons.

The present invention, therefore, resides in providing what might be termed a mechanical connection between a pair of balloons which is detachable at will and which does not in any manner cause injury to the balloon at the point where the connection was made. In Fig. 1 the connection employed is more clearly illustrated in Figs. 7 and 8. The connection consists primarily of providing a pair of independent shank members 26 having enlarged heads 27 adjacent one end thereof. Portions 28 of the inflatable members are gathered or extended around the heads 27, as shown in Fig. 7 and are then forced within the opposite ends of a resilient sleeve 29 so that the head portions assume a relation as shown in Fig. 8, with the opposite ends 30 of the sleeve 29 tending to force the portions of the inflatable members tightly around the heads 27. This provides a simple and expedient con-

nection which will not be disturbed upon the later inflation of the balloons.

In Fig. 2 a pair of inflatable members 31 are shown which are in the form of rubber balloons having inlet openings 32 through which air or other suitable fluid may be introduced to inflate the balloons. The connection employed between the balloons 31, shown in this figure, is more clearly illustrated in Figs. 5 and 6, wherein a shanked member 33, which has an enlarged head 34, is employed in making the connection. The shank member 33 is placed inside of one of the balloons while the other balloon is turned inside out. In this relationship adjacent portions 35 of the balloons are extended or stretched around the head 34, as clearly shown in Fig. 5, and, while so disposed, are secured against accidental disengagement from the head 34 by an elastic band 36 wrapped around the extended portion and behind the head 34. Any other suitable retaining means may be employed, such as string or other material, which will function in the manner contemplated by the invention. The outer balloon is then turned right side out, as shown in Fig. 6, and the balloons may be subsequently inflated without disturbing the connection.

In many instances inflatable members are made to resemble dirigibles and basket balloons and as already stated considerable difficulty has been encountered in attaching devices such as baskets to the outer surface of the inflatable member. In Fig. 4 a simple connection has been illustrated which is more clearly shown in Fig. 9. In this instance the connection is similar to the connection illustrated in Fig. 5 with the exception that only a single balloon is employed. In this view the shank member 37 has an enlarged head 38 at one end thereof. The balloon 39 is first turned inside out and a portion 40 thereof is gathered or extended about the head 38 and secured against accidental disengagement from the head by an elastic band 41 placed behind the head 38, as clearly shown in Fig. 9. The balloon is then turned right side out which leaves the shank of the member 37 extending outwardly beyond the exterior of the balloon. As many of these shank members may be employed as is desired and from them may be supported by cords 42 a basket 43 or other element. This balloon 39 also has an inlet opening 44 through which air or other fluid may be introduced to inflate the balloon.

In Fig. 4 the connection is similar to that in Fig. 9 except that a member 45 is provided with a pair of heads 46 formed upon the opposite ends thereof. In this case the balloons 47 are turned inside out and adjacent portions 48 of the balloons 47 are extended about the heads 46 and secured against disengagement therefrom by means of resilient bands 49. The balloons are then turned right side out and may be inflated in the usual manner without interfering with the connection.

While the use of a headed shank member is disclosed as the preferred element employed in the connection embodying the invention, it is to be understood that merely a spherical member would function in a similar manner, as well as a resistable member formed upon the inside of one of the balloons so that the invention is not limited to the precise construction disclosed.

While I have described the preferred embodiment of the invention it is to be understood that I am not to be limited thereto inasmuch as changes and modifications may be resorted to without departing from the spirit of the invention as defined in the appended claims.

Having thus described my invention, I claim:

1. An article comprising an inflatable member provided with means for permitting inflation thereof, a member provided with a substantially rigid head connected to the imperforate side wall of said inflatable member by gathering a portion of said side wall about the head of said member, and means for retaining said side wall in gathered relation with the head of said member.

2. An article comprising a plurality of inflatable members provided with means for permitting inflation thereof, a substantially rigid member, a portion of the imperforate side wall of each of said inflatable members being gathered about said substantially rigid member, and means for retaining said side walls in gathered relation with said substantially rigid member.

3. An article comprising a plurality of inflatable members provided with individual means for permitting inflation thereof, a substantially rigid member, a portion of the side wall of each of said inflatable members spaced from the means for permitting inflation thereof being gathered about said substantially rigid member, and means for retaining said side walls in gathered relation with said substantially rigid member.

4. An article comprising a plurality of inflatable expansible members provided with means for permitting inflation thereof, a substantially rigid member connected to the imperforate side walls of said inflatable members by distending portions of said side walls about said member, and means for retaining said side walls in said distended relation with said member.

5. An article comprising a plurality of inflatable members provided with means permitting inflation thereof, a member provided with a plurality of rigid heads, a portion of the imperforate side wall of each of said inflatable members being gathered about one of said heads, and means for retaining said side walls in gathered relation with said member.

6. An article comprising a plurality of inflatable members provided with means for permitting inflation thereof, a member provided with a plurality of substantially rigid heads, a portion of the imperforate side wall of one of said inflatable members being gathered about one of said heads, a portion of the imperforate side wall of another of said members being gathered about another of said heads, and means for retaining the side walls of said inflatable members in gathered relation with said heads.

7. An article comprising a plurality of inflatable members provided with means for permitting inflation thereof, a substantially rigid member connected to the imperforate side wall of one of said inflatable members by gathering a portion of said side wall about said member, a second substantially rigid member connected to the imperforate side wall of another of said inflatable members by gathering a portion of said side wall about said second member, and common means for retaining said side walls in gathered relation with said substantially rigid members.

8. The method of connecting a plurality of inflatable members together at their imperforate side walls, which comprises gathering a portion of the imperforate side walls of the inflatable member about a substantially rigid member and securing said side walls in said gathered relationship about said member.

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