

Aug. 23, 1927.

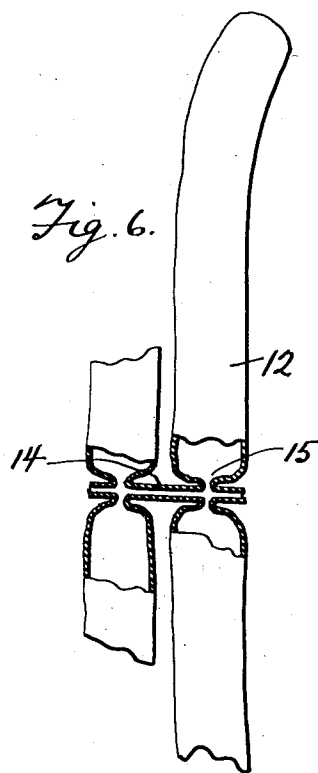
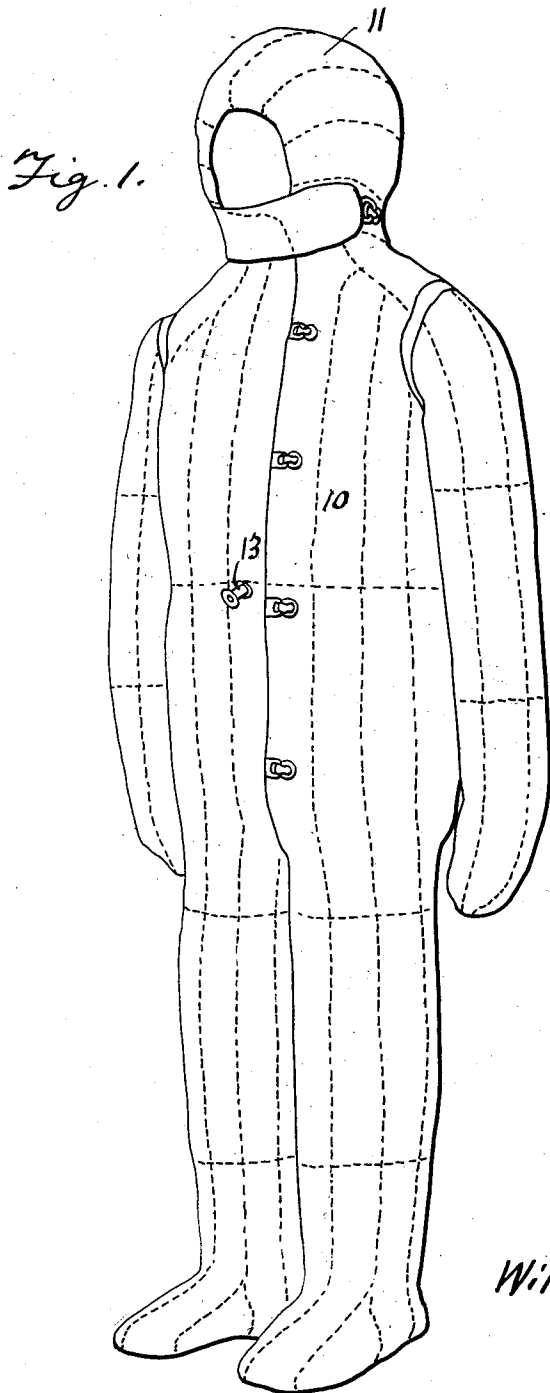
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W. R. FURMAN

AVIATOR'S SUIT

Filed March 6, 1926

3 Sheets-Sheet 1



William R. Furman

INVENTOR

BY *Victor J. Evans*

ATTORNEY

WITNESS:

Gerald Hennessy

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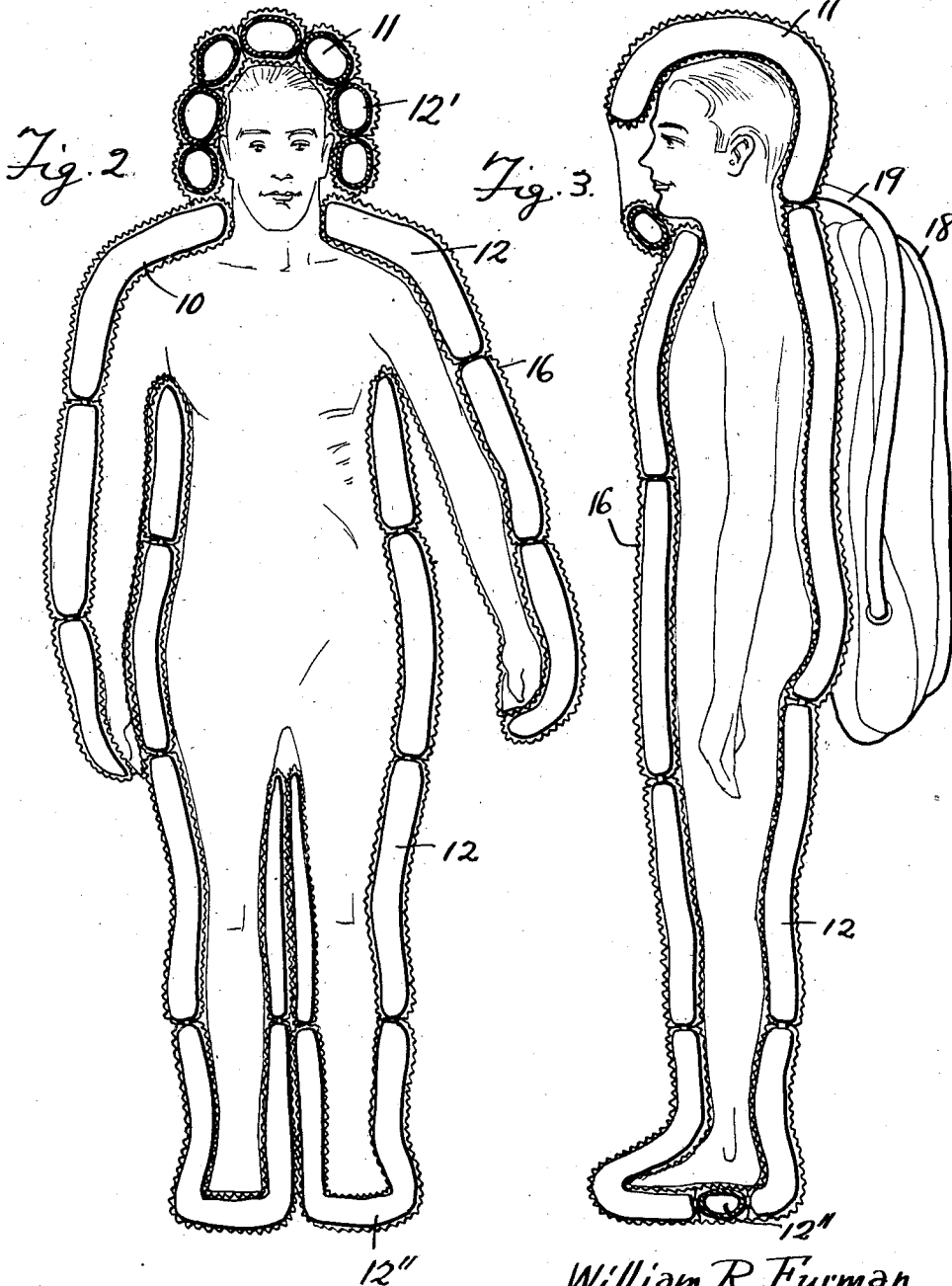
W. R. FURMAN

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William R. Furman

INVENTOR

BY Victor J. Evans

ATTORNEY

Gerald Hemmesy

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Fig. 4.

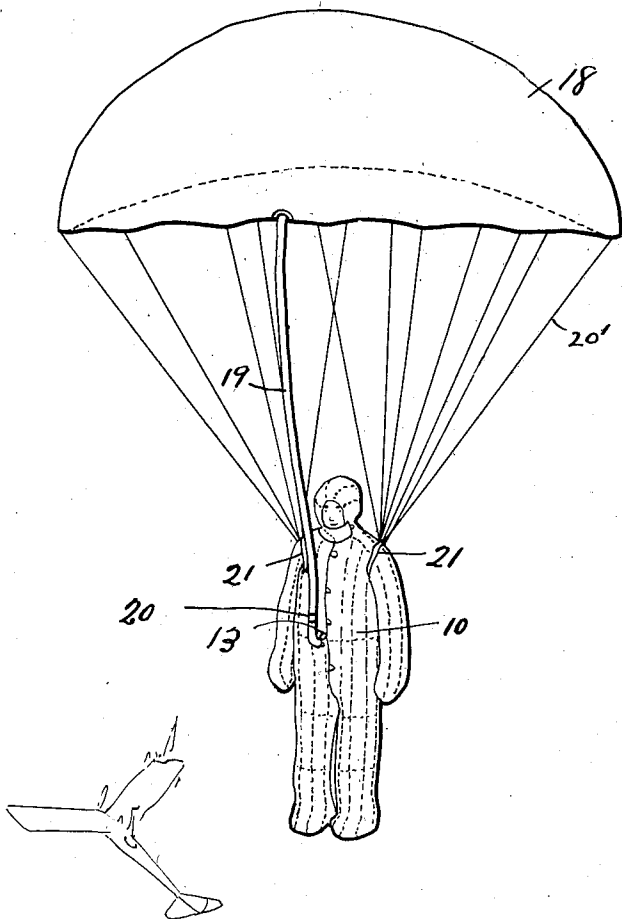
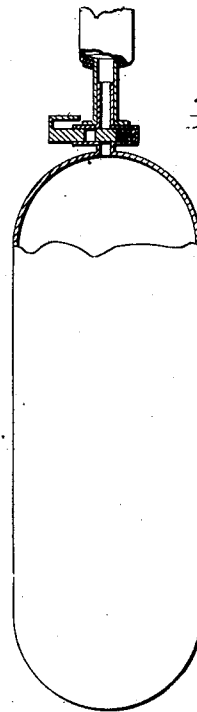


Fig. 5.



William R. Furman,

INVENTOR

BY Victor J. Evans

ATTORNEY

WITNESS Gerald Hermes

UNITED STATES PATENT OFFICE.

WILLIAM RUSSELL FURMAN, OF TROY MILLS, IOWA.

AVIATOR'S SUIT.

Application filed March 6, 1926. Serial No. 92,826.

- The object of this invention is to provide a suit comprising a number of air or gas cells connected with each other and adapted to be inflated by means of a hose or tube previously connected with the cells and extending to an air reservoir, or reservoir containing helium gas or the like, so that the moment an extremely dangerous situation arises the aviator may open a valve and inflate the cells for the purpose of retarding his descent and making a safe landing possible because of the cushioning effect provided by all portions of the suit thus constructed.
- A further object is to provide a special container which may constitute an inflated parachute, for use in connection with the suit.
- With the foregoing and other objects in view, the invention consists in the novel construction and arrangement of elements described, illustrated and claimed, it being understood that modifications may be made within the scope of the claim, without departing from the spirit of the invention.
- In the drawings forming part of this application,
- Figure 1 is an exterior view of the suit, showing in dotted lines the approximate arrangement of the individual tube or cells, forming the principal elements of the garment.
- Figure 2 is a view in vertical section, showing how individual tubes or cells are of sufficient size and length to permit of protecting the principal joints of the body, without seriously interfering with movement of the arms or limbs.
- Figure 3 is a view in vertical section from another angle.
- Figure 4 is a perspective view, showing the manner of using the suit in connection with a parachute.
- Figure 5 shows one of the air or gas containers, in vertical section and in elevation.
- Figure 6 is a detail view in section and elevation, showing portions of adjacent cells, and the manner of connecting them, to permit of inflation thru one inlet connection.
- A coverall suit designated 10 includes a body portion, leg members, and sleeves, and a hood or the like designated 11, is provided for the head of the wearer. The separate air cells are attached to the suit by vulcanizing, if the material employed is suitable for that purpose, or are attached in any practicable manner. The cells 12 are of different lengths, depending upon the part or parts of the body which they are designed to protect, and they are all connected and are in communication, so that they may be inflated with compressed air or may be inflated with helium or other gas, at one time. For this purpose, a filling connection is shown at 13, in Figure 1, and connections between the individual cells 12 are shown in the detail view of Figure 6, these connections being designated 14 and comprising flexible tubes vulcanized to the neck portions 15 of the individual cells.
- The several views illustrate, in dotted lines, or in full lines, as the case may be, an arrangement of cells which may be employed, it being understood that any reasonable variation may be made in the location, size, length, and in other details.
- A number of individual cells extend in the direction shown, with reference to the head portion of the suit, which includes the hood 11. These particular cells are designated 12', and in protecting the feet, short transverse cells such as 12'' may be employed, other flexible cells being deflected around the toe and heel portions, in the manner illustrated by way of example.
- If it is desired to afford further protection, and especially protection for the legs, an outer covering of canvas or other flexible material 16 may be provided.
- A special cell 18 which may be employed in the manner shown in Figure 3, has a separate inlet tube connection 19, and a valve 20, and this cell, container, or bag 18, has connected therewith cords 20' which in turn are connected with shoulder straps 21. This arrangement permits the user to employ cell 18 as a parachute, and to inflate it separately, by the control of the valve specified, it being assumed that under normal conditions, all of the cells will be deflated, and that when a dangerous situation arises, the aviator may open a valve, (not shown), but intended to have connection with a flexible tube or hose which leads to a compressed air tank, or gas tank. The cells of the suit may be first inflated, and then at the proper time the user may open the valve for inflating cell 18, the walls thereof expanding under pressure and taking substantially the form of Figure 4, if the cell is released. It is obvious that if it is desired to retain the cell 18 in the position of Figure 3, as an addi-

tional protection, a suitable retaining device may be provided for that purpose.

Having thus described the invention, what is claimed is:

- 5 In a device of the class described, a garment, individual air-tight containers affixed to said garment, and in communication with each other, and a separate container connected to the shoulder portions of the garment, means for separately inflating the con-
- 10

tainer last named, to permit it to rise above the head of the wearer, said separate container acting as a shoulder and back support when partly inflated for floating in water, and being proportioned to serve as a parachute when released to assume a position above the head. 15

In testimony whereof I affix my signature.

WILLIAM RUSSELL FURMAN.