

[54] JUMP SUIT WITH ADJUSTABLE TRUNK  
[75] Inventor: Joe N. Garcia, Wildomar, Calif.  
[73] Assignee: Marshall Yoakum, Los Angeles, Calif.  
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[52] U.S. Cl. .... 2/79, 2/DIG. 6  
[51] Int. Cl. .... A41d 13/02  
[58] Field of Search .... 2/79, DIG. 6, 78 R

[56] **References Cited**

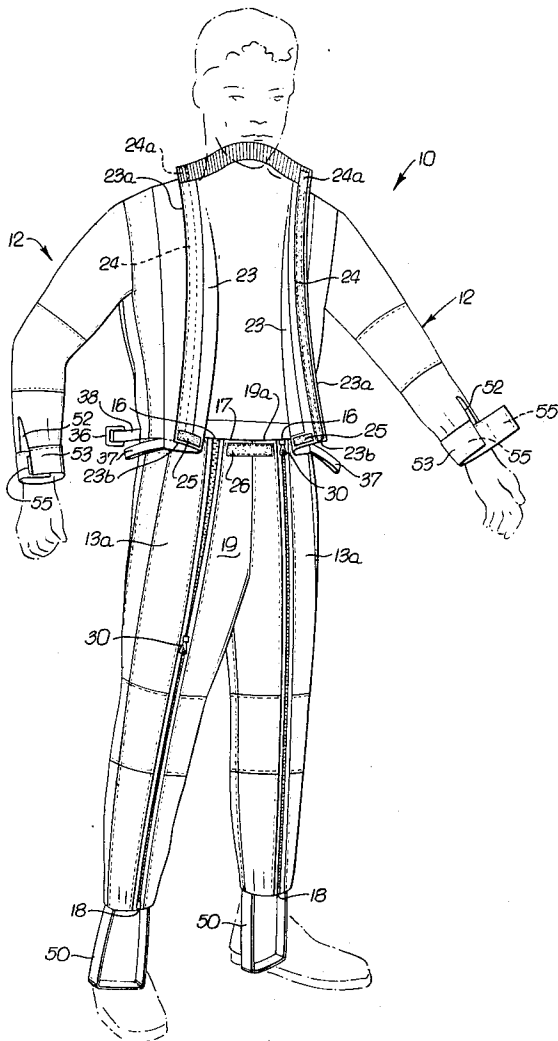
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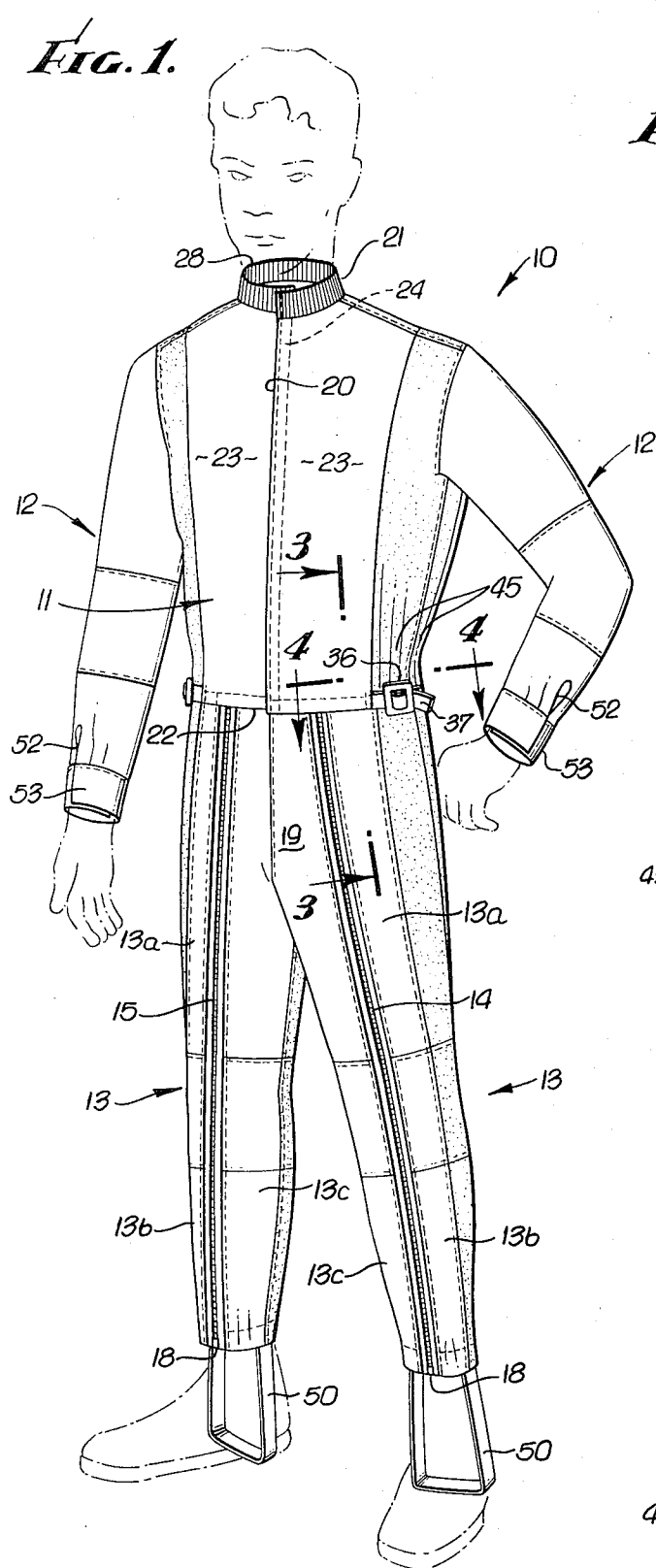
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Primary Examiner—H. Hampton Hunter  
Attorney, Agent, or Firm—William W. Haeffliger et al.

[57] **ABSTRACT**  
  
A parachutist's jump suit comprises, in combination,  
a. a trunk and arm and leg sleeves,  
b. the trunk having a vertical split at the front thereof between the neck and waist, and having a horizontal split at the waist front,  
c. structure to releasably fasten the trunk along said splits, and  
d. means accessible at the sides of the trunk to enlarge and diminish the encircling dimension of the trunk proximate the waist thereof.

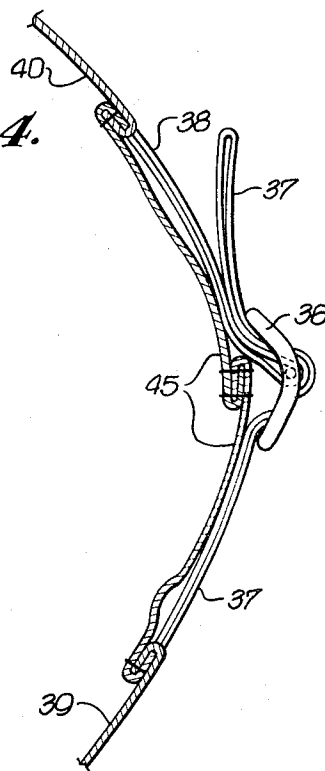
5 Claims, 5 Drawing Figures



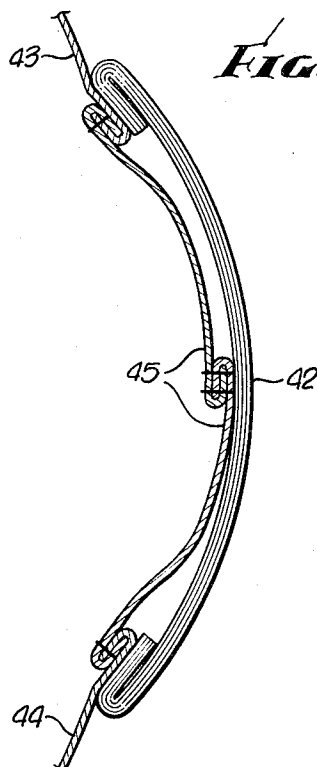
**FIG. 1.**



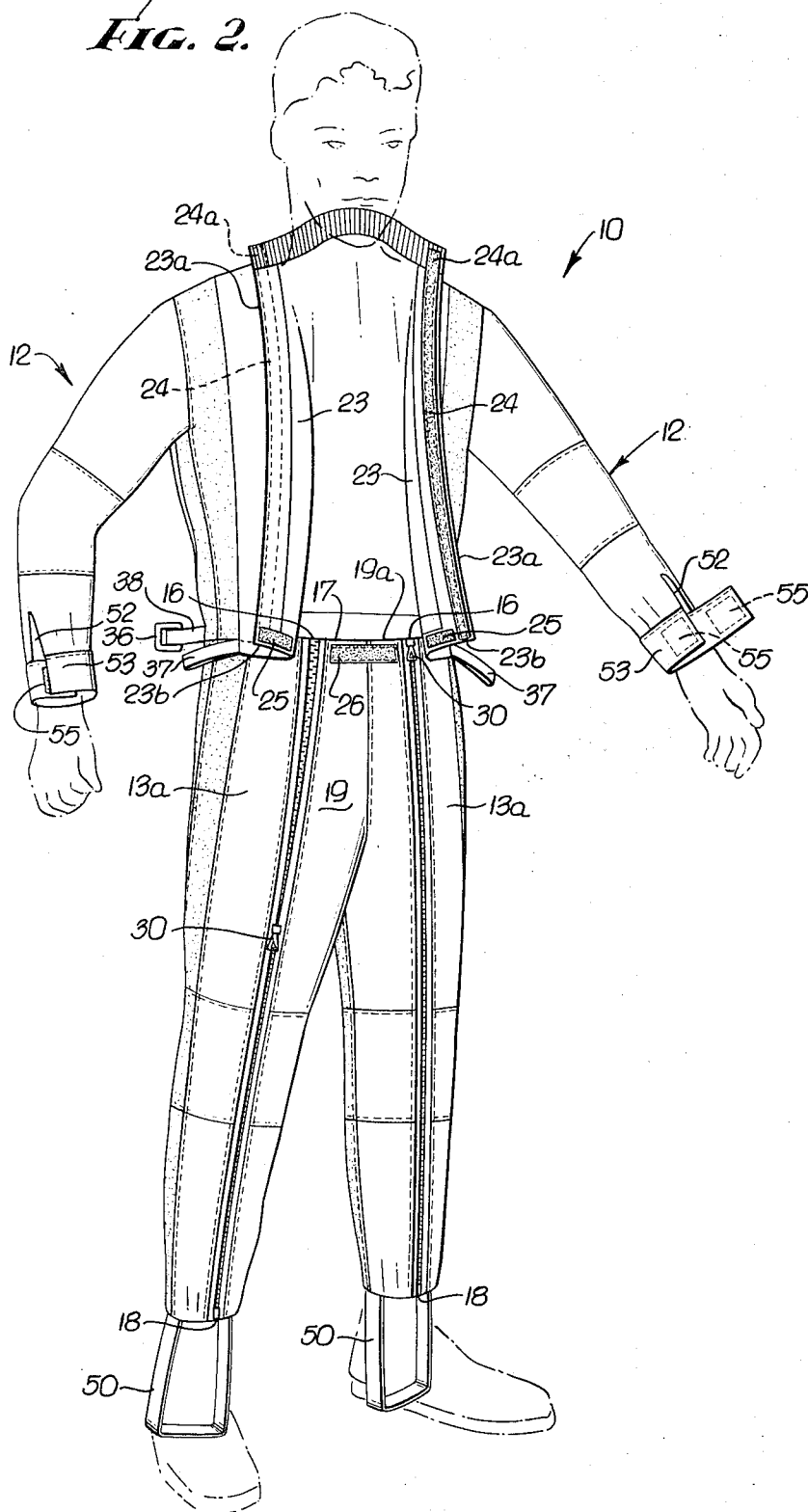
**FIG. 4.**



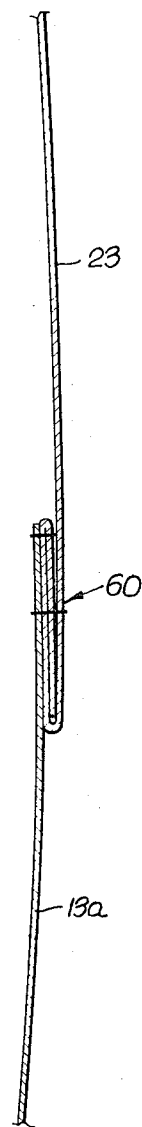
**FIG. 5.**



**FIG. 2.**



**FIG. 3.**



## JUMP SUIT WITH ADJUSTABLE TRUNK

## BACKGROUND OF THE INVENTION

This invention relates generally to what is commonly known as sky diving, and more particularly concerns the construction of jump suits worn by sky divers.

The sport of sky diving has recently gained widespread popularity, and the need for safe and useful sky diving equipment including jump suits has correspondingly likewise increased. There is particular need for jump suits which may be rapidly attached to the diver without requiring removal of boots, which may be quickly and closely fitted about the wearer's waist and chest, and which allow a high degree of arm freedom for maneuvering in the air.

## SUMMARY OF THE INVENTION

It is a major object of the invention to provide a jump suit construction meeting the needs as referred to above, and providing unusual advantages, as will appear. Basically, the invention is embodied in a suit that includes a trunk and arm and leg sleeves, the trunk having a vertical front split between the neck and waist, and a horizontal split at the waist front; structure to releasably fasten trunk panels along the splits; and means accessible at the sides of the trunk to enlarge and diminish the encircling dimension of the trunk proximate the waist. The suit may consist of heavy, wind resistant fabric material, and the trunk may have overlapping panel edge portions releasably fastened together by the referred to structure (as for example VELCRO or like pads) to extend in directly overlying relation to the upper terminals of zippers extending from the waist horizontal split to lower terminals of the leg sleeves. Accordingly, the wearer may quickly fit himself into the suit in a few seconds as by first zipping up the leg sleeves, and then applying pressure to the trunk splits, to achieve firmly attached suiting, affording maximum wind protection during a jump.

These and other objects and advantages of the invention, as well as the details of an illustrative embodiment, will be more fully understood from the following description and drawings, in which:

## DRAWING DESCRIPTION

FIG. 1 is an elevation showing a fitted jump suit;

FIG. 2 is an elevation showing the suit partly removed; and

FIGS. 3-4 are sections taken on lines 3-3 and 4-4 respectively, in FIG. 1; and

FIG. 5 is a view like FIG. 4 showing a modification.

## DETAILED DESCRIPTION

Referring first to FIGS. 1 and 2, the illustrated jump suit 10 includes a trunk 11 and arm and leg sleeves 12 and 13 respectively, the sleeves being closely fitting to prevent flapping. The leg sleeves are vertically split at the fronts thereof, and like zipper connections 14 and 15 extend as shown from between 16 at the horizontal top 17 of the waistline to the leg bottom portions at locations 18. As a result, the suit may as quickly applied to the wearer through manipulation of the zippers in relation to the front and side panels 19 and 13a of the trunk, and side panels 13b and 13c of the legs. When both zippers are completely disconnected, front panel

19 is disconnected from side panels 13a, and leg panels 13b from panels 13c, it being clear that panels 13c and 19 are integral.

The trunk has a vertical split 20 at the front thereof between the neck 21 and waist, as well as a horizontal split 22 at the waist. As a result, these splits are quickly openable as for example to the extent seen in FIG. 2, to enable quick removal of the suit. In addition, structure is provided to enable quick releasable fastening together of the trunk jacket section panels 23 adjacent the split 20 and directly above the split 22, such fastening being located along the splits. In this regard, such structure is, with unusual advantage, provided by pressure sensitive interengageable vertical pads 24 on edge portions 23a of the panels 23, and pressure sensitive horizontally extending pads 25 respectively on the lower edge portions 23b of panels 23 and which are interengageable with pressure sensitive horizontal pad 26 on the upper edge portion 19a of panel 19. When the suit has been fitted on the jumper, the split top or neck band 28 may be attached about the jumper's neck as by overlaying and pressing together upper extents 24a of the pads 24. The various pads referred to may consist of VELCRO layers which removably adhere or hook together when pressed together.

It will be noted that the upper terminals of the zippers, as for example may incorporate slides 30, are covered by the panel lower edge portions 23b in fastened position, as seen in FIG. 1. This protective overlying relationship prevents inadvertent unzipping during use of the suit, as during sky diving, i.e., the panels must be disconnected as seen in FIG. 2 to give access to the zipper slides.

A further feature of the suit is the provision of readily accessible means at the sides of the trunk to enlarge and diminish the waist encircling dimension of the trunk. Such means may be adjustable as afforded by buckles and straps 36-38 seen in FIGS. 1 and 4 as located at the general level of the front split 22, but at the sides of the waist. Straps 37 and 38, respectively attached to horizontally spaced extents 39 and 40 of the trunk, may be relatively tightened toward one another, as via adjustment of strap 37 in the buckle 36, to tighten the waist portion of the suit, without disturbing the splits 20 and 22 and their fastening and unfastening functions as described. FIG. 5 shows another such means in the form of an elastic strap 42 the opposite ends of which are attached to horizontally spaced extents 43 and 44 of the trunk. Trunk extents 45 may thus be collapsed or extended depending upon the waist size of the wearer.

The suit may for example consist of flexible fabric such as cotton duck, or other suitable material, and may be reinforced at knees and elbows, as shown. In this regard, the trunk may advantageously be loose or relatively full or enlarged at junctures with the arms 12 and at the undersides 45 thereof, to allow maximum arm freedom of movement in use of the suit, without jeopardizing the fit of the suit or its rapid assembly and disassembly to and from the wearer.

A U-shaped strap 50 is attached to the lower terminal portion of each leg sleeve 13, and is sized to extend under the jumper's boot, for retaining the leg sleeve against upward creep. Similarly, the inner forearms of the arm sleeves may be slit at 52 adjacent wrist portions 53, the latter being closely releasably retained about the wearer's wrist by overlapping and interconnection

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of pads 55. The latter may consist of VELCRO, as described above. FIG. 3 shows interconnection at 60 of panels 23 and 13a, at the laterally outer sides of the zippers.

I claim:

1. In a parachutist's jump suit, the combination comprising

- a. a trunk and arm and leg sleeves,
- b. the trunk having a vertical split at the front thereof between the neck and waist, and having a horizontal split at the waist front,
- c. structure to releasably fasten the trunk along said splits,
- d. means accessible at the sides of the trunk to enlarge and diminish the encircling dimension of the trunk proximate the waist thereof,
- e. the leg sleeves being split lengthwise thereof, and including zippers carried by the leg sleeves to open and close said splits, said zippers terminating upwardly proximate said horizontal split and being spaced from each other at the upper terminals, and
- f. said releasable structure including pressure sensitive pad means on the trunk between the zipper

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upper terminals, the trunk including upper panels, one panel on each side of and defining said vertical split, the lower portions of said upper panels overlapping the zipper upper terminals, and said releasable structure also including cooperating pressure sensitive pads on said lower portions of said upper panels and which overlap and releasably connect to said pad means on the trunk between the zipper upper terminals.

2. The combination of claim 1 wherein said accessible means are defined by interengaged and adjustable buckle and strap means adjacent said lower split but at the side of the trunk.

3. The combination of claim 1 wherein said suit consists of heavy fabric material.

4. The combination of claim 1 wherein said trunk is substantially enlarged at junctures with the suit arms and at the undersides of the arms.

5. The combination of claim 1 wherein said accessible means comprises an elastic strap adjacent said lower split but at the side of the trunk.

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