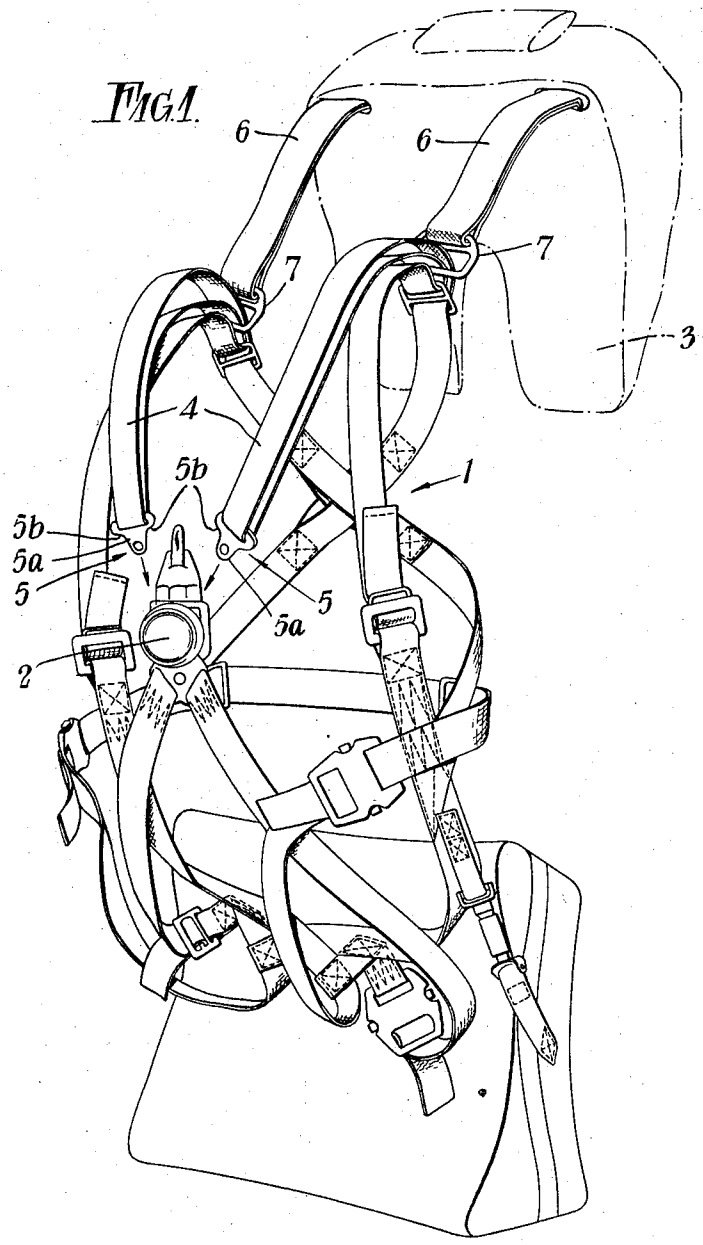
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HARNESS FOR AIRMEN

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FIG.1.



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HARNESS FOR AIRMEN

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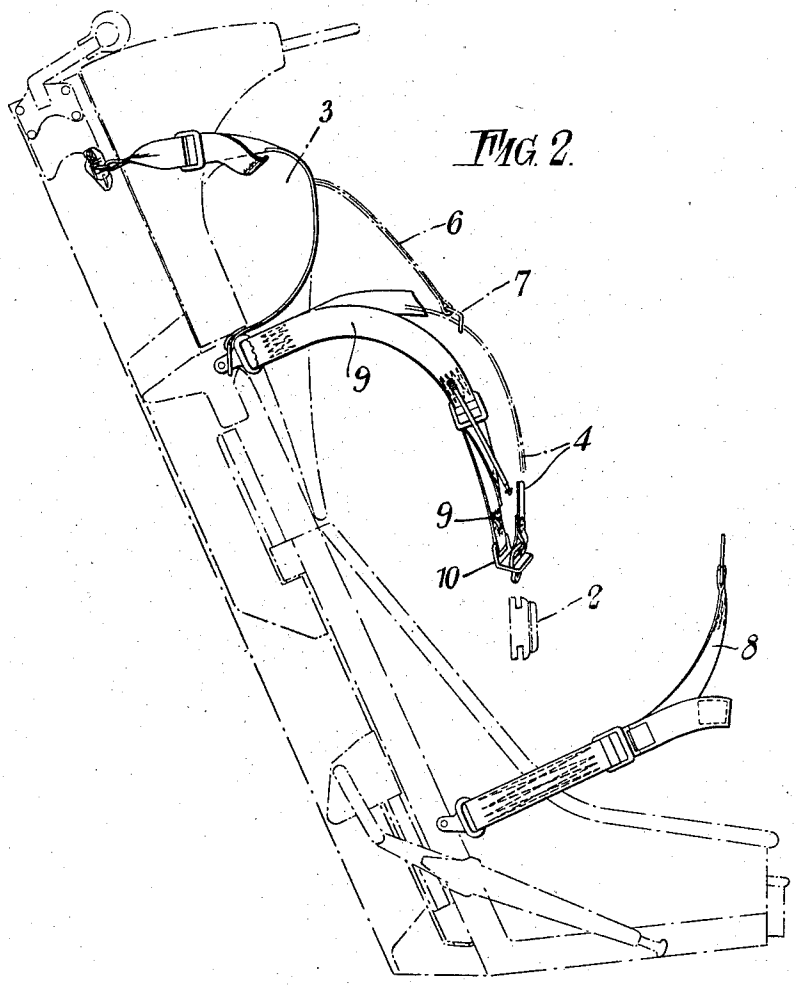


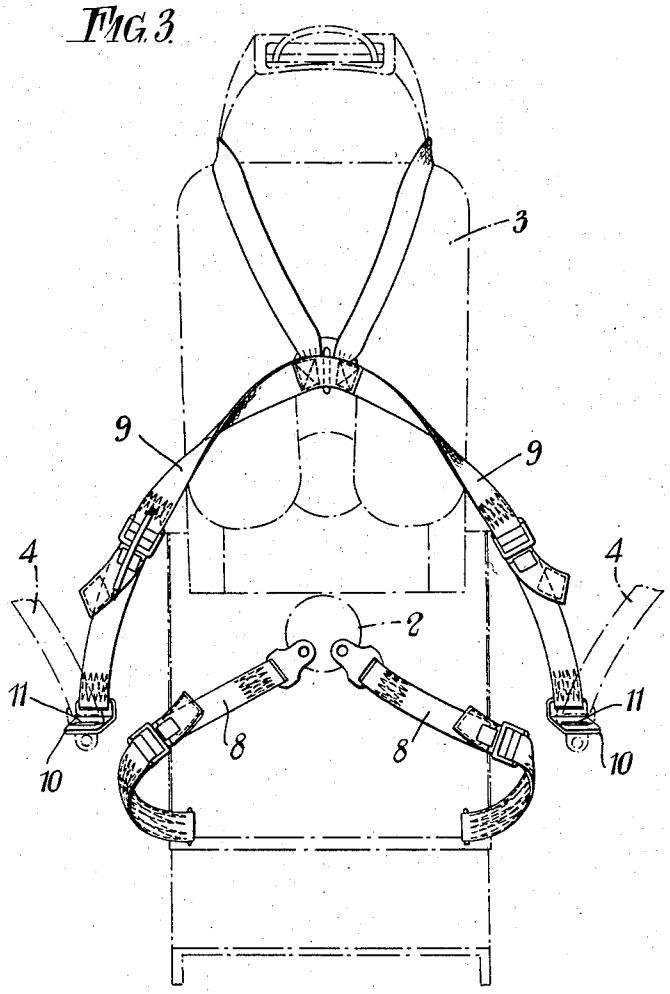
FIG. 2.

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FIG. 3



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HARNESS FOR AIRMEN

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4 Claims. (Cl. 244—151)

This invention relates to harness for airmen.

Moreover it relates particularly, although not essentially, to harness worn by airmen in ejection seats.

An aim of the invention is to provide improved harness for airmen which possesses important advantages over present day arrangements and is relatively easy of manipulation and efficient in use. To this end, it provides a method of quickly attaching or detaching the lift straps or webs of a parachute to a separate body harness. An additional feature is the combination therewith of a conventional, or substantially conventional, type of seat safety harness.

Preferred embodiments of the invention will now be particularly described, by way of example only, with reference to the accompanying drawings in which:

Figure 1 is a general view of a body harness in the form it assumes on the wearer immediately prior to the final securing of the harness risers, and showing the parachute lift webs attached according to the present invention;

Figure 2 is a side elevation of a seat harness showing the webs ready to be secured to the body harness on the wearer, and

Figure 3 is a front elevation of Figure 2.

Referring first to Figure 1, the body harness **1** is of conventional form, and whilst it may be incorporated in a garment such as a jerkin or overall, it is shown as the more normal arrangement of webbing. The harness has, upon the lower front of the wearer, a quick release box **2**, preferably of a conventional type. This is shown built in to the harness **1**, but it could be attached—for example by lugs or hooks adapted to take the load applied by the parachute **3**. The riser straps or webs **4** of the body harness **1** terminate in lugs **5** adapted to be engaged with the quick release box **2** in known manner.

From the parachute pack **3** emerge lift straps or webs **6** terminating in rectangular ringlike freerunning buckles **7**. The risers **4** are passed through these buckles prior to locking of the lugs **5** in the quick release box **2**.

To attach the harness **1** to the parachute **3**, it is necessary only, after entering the cockpit and seating oneself in the seat, to take each lift web **6** in turn and to pass the terminal lugs **5** on the body harness risers **4** through the freerunning buckles **7** and then to insert these lugs into the quick release box **2**. This operation thus effects a complete connection between the airman's harness **1** and the parachute **3**, yet in the event of the airman wishing to detach himself quickly from the parachute **3**—as when landing in a high wind, or descending into water, this can be done by operating the quick release box **2** which simultaneously frees the wearer from the body harness in the usual way.

With such an arrangement it becomes possible for an airman to put on the harness **1** (or the garment with

which it is incorporated) before entering an aircraft—for example, in the crew room—and subsequently to attach the parachute thereto after seating himself in the aircraft.

The harness components are adjustable to fit the individual wearer, and in consequence, no further adjustment thereof is needed after the airman has seated himself in the aircraft with a consequent saving of time.

Figures 2 and 3 show how the arrangement of body harness **1** and lift webs **6** above described can be combined with a conventional type of seat safety harness.

In this case the lower or lap straps **8** of the seat safety harness engage directly with the lower part of the quick release harness box **2**, and the upper or shoulder straps **9** terminate in L-shaped buckles **10** slotted at **11** in the free limb of the L (Fig. 3). Through each slot **11** passes a shank part **5***a* of the lug **5** on the respective riser **4** of the body harness, shoulders **5***b* at the top of this shank part serving as stops to prevent the L-shaped buckle **10** from running up the riser strap **4**. Hence, on insertion of the lugs **5** into the quick release box **2** the L-shaped buckles **10** of the shoulder straps **9** are effectively trapped, the various parts being so arranged and interconnected as to provide an effective restraint for the upper part of the trunk of the wearer—for example, in the case of an emergency such as a crash landing. In such an emergency, a harness arrangement according to the present invention enables the wearer to free himself not only from his body harness **1** but also from the parachute **3** and seat harness **8**, **9** by a single operation of the quick release box **2**.

It will be seen from Figure 2 of the drawings that each free running buckle **7** is angled as seen in side elevation. This permits the main attachment straps to overlie the respective riser straps of the body harness so as not to impede movement of the riser straps as they pass through the buckles **7** upon release of the riser straps from the quick release box.

It will be apparent that the invention can be modified and changed within the scope of the appended claims.

I claim:

1. In a harness arrangement for airmen, the combination of, body harness, main attachment straps for releasably securing said harness to any separate piece of equipment, said body harness comprising riser straps adapted to extend forwardly over the respective shoulders of a wearer of the harness, a quick-release box in which said riser straps are releasably secured at their respective forward ends, said main attachment straps being secured at one end thereof to said separate piece of equipment and at the opposite end thereof to one of said riser straps so that upon release of the riser straps from the quick-release box separation of each riser strap from the associated main attachment strap will take place.

2. The combination as claimed in claim 1, wherein the main attachment straps extend forwards from the piece of equipment at approximately shoulder height when an airman is sitting in a seat of an aircraft and each main attachment strap terminates at its forward end in a free-running buckle through which the corresponding riser strap of the body harness is passed before securing it in the quick release box.

3. The combination as claimed in claim 1, wherein a free-running buckle is provided on each main attachment strap at its forward end, the buckle being angled as seen in side elevation so that the main attachment strap can overlie the corresponding riser strap of the body harness so as not to impede movement of the riser strap as it

passes through the buckle upon release of the riser strap from the quick release box.

4. The combination as claimed in claim 1, wherein a shouldered lug adapted for insertion into the quick release box is provided on the forward end of each riser strap and an angled buckle is provided on each main attachment strap at the forward end thereof, the angled buckle including a forwardly projecting limb which is slotted to permit passage therethrough of the lug of the corresponding riser strap into the quick release box so as to trap the angled buckle between the quick release box and the shoulder of the shouldered lug on the corresponding riser strap.

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