

Patent Alert October 2026

Protective Clothing

This month's selection in brief

This month's patent alert highlights recent innovations in protective clothing and specifically firefighter clothing systems. Protective clothing is a rapidly evolving field that combines textile engineering with the search for ultimate properties combinations, such as comfort and protection against different hazards. Centexbel plays a key role in both the testing and certification of protective clothing.

Link with Centexbel activities:

- News: Protective clothing certification

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1. Protective clothing with safety belt

number: DE202026101613U1

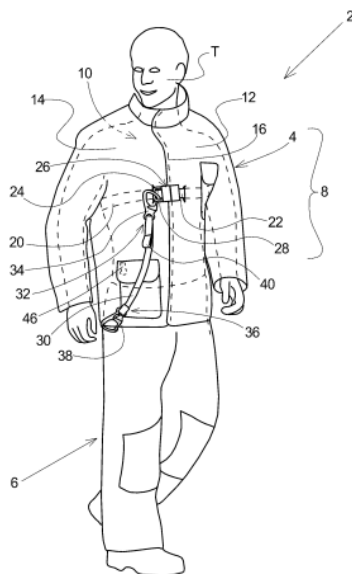
Publication date: 2026-05-21

Applicant(s): Altinger Tesimax (DE)

Inventor(s): Jost Wacker [DE]

Summary

Protective clothing (2) with a protective jacket (4), such as in particular a fire protection jacket, with a body section (8), which is essentially composed of a back-side jacket section (10) and a first front-side jacket section (12) and a second front-side jacket section (14), which can be connected to one another via a separable closure (16) in order to close the protective jacket (4), and with a rescue strap (20), which can be integrated into the protective jacket (4) and extends from the first front-side jacket section (12) via the back-side jacket section (10) to the second front-side jacket section (14), wherein the rescue strap (20) emerges from the protective jacket (4) with a first strap end (22) on the first front-side jacket section (12) and with a second strap end (24) on the second front-side jacket section (14), and with a connecting arrangement (26) to the protective jacket A releasable connection of the two strap ends (22, 24) of the rescue strap (20), on which holding means (28) for fastening a safety strap (30) are arranged, characterized in that the safety strap (30) has at one fastening end (32) a fastening carabiner (34) which can be fastened detachably to the holding means (28).



2. Emergency breathing apparatus for forest firefighters

Patent number: KR10-2931458B1

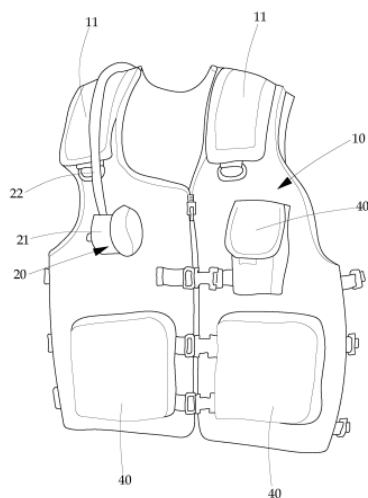
Publication date: 2026-02-26

Applicant(s): Hwang Ha Jun [KR]

Inventor(s): Hwang Ha Jun [KR]

Summary

The present invention relates to a lifesaving apparatus for extraordinary absorption of forest firefighting personnel and, more specifically, to a lifesaving apparatus for extraordinary absorption of forest firefighting personnel comprising: a first cover having the shape of a vest that is easy to wear for the forest firefighting personnel and capable of surrounding the upper body of the forest firefighting personnel; and a second cover capable of protecting the members by putting a lower body therein, wherein a protection sheet cover part is provided to protect the outside in a circular shape like a ball when the forest firefighting personnel are crouched, and the lifesaving apparatus waits for support of the forest firefighting personnel even when a movement is possible through support of an air supply part capable of stably breathing while being protected from forest fires, smoke, and gas within the protection sheet cover part, or is movable by the protection sheet cover part and the air supply part so as to increase the survival rate of the forest firefighting personnel.



3. Process Of Producing Firefighting Innerwear Material Having Excellent Comfortability

Patent number: KR10-2026-0118728 A

Publication date: 2026-07-31

Applicant(s): HAN IL ADVANCED MATERIAL [KR]

Inventor(s): HAN HUN [KR]

Summary

The present invention relates to a method for manufacturing an innerwear material for fire prevention, which not only increases physical activity convenience by adding high stretchability but also increases disaster prevention work efficiency in a pleasant state by providing a cooling sensation expression function.



4. Arc flash protective balaclava

Patent number: WO2026198899 A1

Publication date: 2026-09-24

Applicant(s): HONEYWELL [US]

Inventor(s): UDAKHE JAYANT [IN]

Summary

An arc flash protective balaclava is provided that is comprised of at least a cylindrical body of fabric having a front and a rear that is configured to cover at least a user's head, neck, and portion of the chest. The arc flash protective balaclava is configured to sit flush on a user's head. The arc flash protective balaclava comprises a plurality of features that provide a safe and inexpensive way to protect a user from arc flash while also providing comfort. For example, the arc flash protective balaclava may be comprised of a first seam, a second seam, and a third seam that connect a body panel of fabric and a top panel of fabric while also allowing the top panels of fabric to sit flush with a user's body.

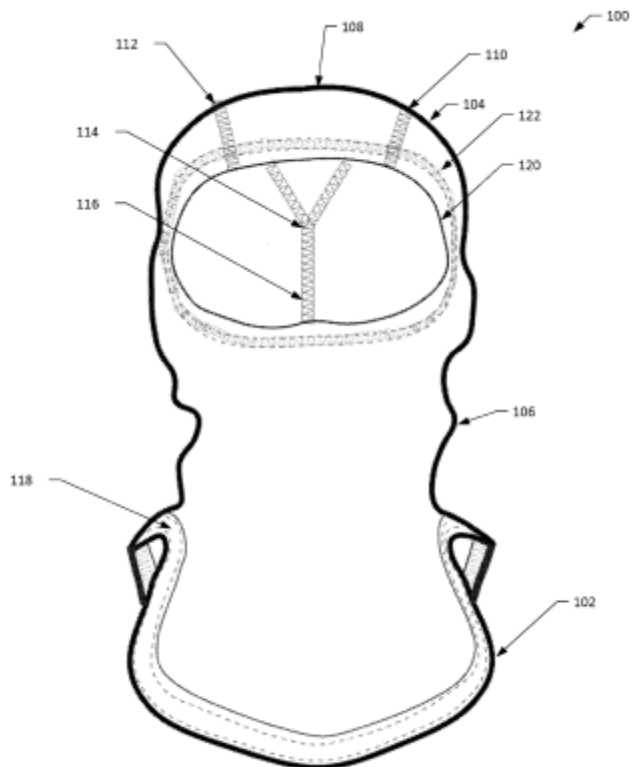


FIG. 1A

5. Fabric and use of the fabric in a protective garment for fire fighting

Patent number: EP4796685 A1

Publication date: 2026-08-26

Applicant(s): IBENA TEXTILWERKE [DE]

Inventor(s): SMEULDERS BRITTA [NL]

Summary

A woven fabric has a core yarn with a core which consists of 100% polyamide, and a sheath of synthetic cellulose FR, optionally aramid, in particular para-aramid, and optionally antistatic fibers, wherein the yarn optionally has a total of 1-12% aramid, in particular para-aramid, 52-70% synthetic cellulose FR, 26-35% polyamide, and optionally up to 2% antistatic fibers.

The invention also relates to the use of such a fabric in protective clothing for fire-fighting in open terrain and/or for technical rescue.

6. Flame resistant lining fabric with stretch properties

Patent number: US20260286581 A1

Publication date: 2026-09-24

Applicant(s): SAFETY COMPONENTS FABRIC TECHNOLOGY [US]

Inventor(s): CANTIN JACQUES [US]

Summary

A lining fabric for protective garments is disclosed. The lining fabric can be constructed to be flame resistant. The lining fabric is made from filament yarns and elastic spun yarns such that the resulting fabric has stretch in at least one direction.

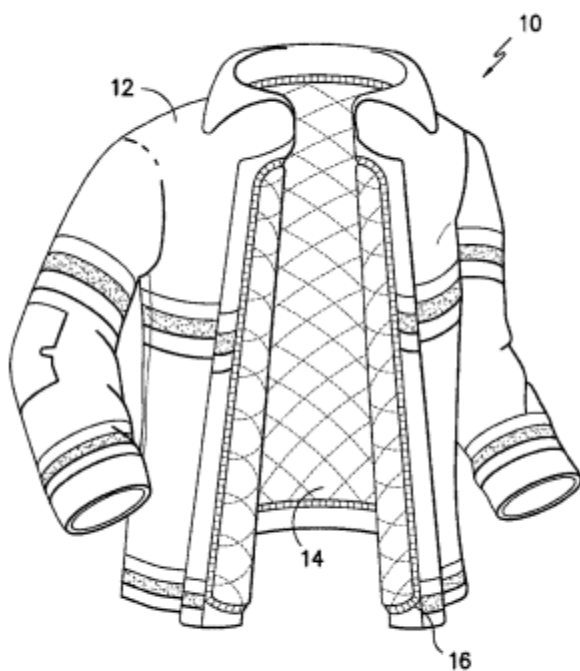


FIG. -1-

7. Firefighter glove assembly

Patent number: WO 2026102106 A1

Publication date: 2026-05-15

Applicant(s): DUPONT [US]

Inventor(s): XIANG JIAN [US]

Summary

A glove assembly comprising a flame and heat-resistant outer glove and a separable, flame and particulate-resistant glove insert; and the glove insert itself; the glove insert comprising a particulate-resistant barrier laminate comprising: a) an exterior layer of knit fabric having a basis weight of 33.9 to 101.7 g/m² and a tightness factor of 0.9 to 1.9; b) a middle layer comprising flame resistant nonwoven fabric comprising fibers having a diameter of less than 1000 nm, wherein the nonwoven fabric has stretch and recovery; and c) an interior layer of knit fabric having a basis weight of 33.9 to 101.7 g/m², wherein a), b) and c) are flame resistant, with a) and c) discontinuously attached to b) by adhesive, the total basis weight of the laminate being 93 to 294 g/m².

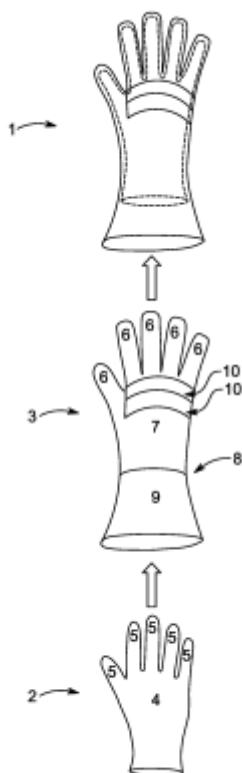


FIG. 1

8. Fire suit

Patent number: JP2026165533 A1

Publication date: 2026-10-14

Applicant(s): MORITA [JP]

Inventor(s): XIANG JIAN [US]

Summary

Provided is a fireproof clothing which has a high cooling effect on the body and is capable of effectively supporting a fire fighting activity. [Solution] The fireproof clothing is composed of a fireproof coat 10 and fireproof trousers 20, the fireproof coat 10 has a standing collar 11 covering around the neck of a wearer, and a plurality of mounting parts 12 for cooling modules are formed on the standing collar 11. A cooling module 40 is mounted and used to a mounting part 12 for the cooling module, and a pair of mounting parts 12S for the side cooling module are used as the mounting part 12 for the cooling module. The back cooling module mounting device has a back cooling module mounting part 12B, the pair of side cooling module mounting parts 12S are positioned on both side surfaces of the neck of the wearer, and the back cooling module mounting part 12B is positioned on the back of the neck of the wearer.

