

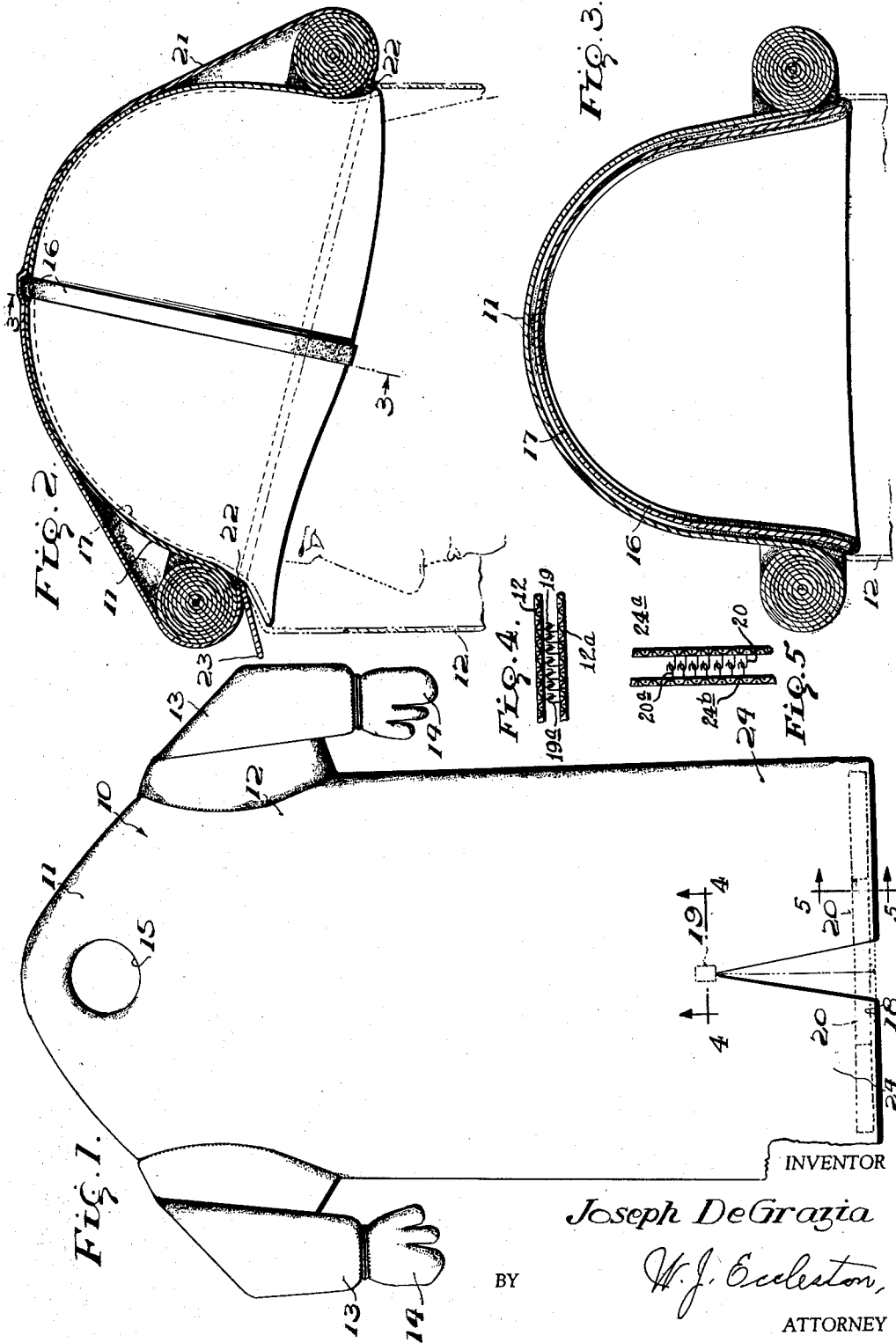
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FALLOUT PROTECTIVE GARMENT

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FALLOUT PROTECTIVE GARMENT

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This invention described herein, if patented, may be manufactured and used by or for the Government for governmental purposes, without the payment to me of any royalty thereon.

The invention relates to garments for protecting the wearer from radioactive fallout and/or burns resulting from atomic or nuclear explosions. As is well known simple lightweight protective garments will suffice if the user is sufficiently far from the center of burst. However, a major difficulty is that the user is likely to get little or no warning of such explosions whereby unless the garment can be donned in a split second, it may well be too late to escape the damage from a burn. It is realized that prior inventions have endeavored to solve this problem but insofar as I am aware, all such inventions require several seconds and a number of operations by the user or the user does not get full protection.

With the foregoing in view, it is an object of the invention to provide an improved garment of the class described.

A further object is to provide such a garment which, upon release of readily releasable means securing the garment in a stored position, is automatically operative to completely cover the user.

A further object is to provide such a protective garment which operates by gravity to cover the user upon release of means securing the garment in a stored position on the wearer's head or on a head covering.

Other objects and advantages reside in the particular structure of the garment, the structure of the several elements of the same, combinations and subcombinations of such elements with each other and/or a wearer's head or a head covering, as well as in the particular method or mode of operation, all of which will be readily apparent to those skilled in the art upon reference to the attached drawing in connection with the following specification wherein the invention is shown, described and claimed:

In the drawing:

FIGURE 1 is a front elevational view of the garment according to this invention;

FIGURE 2 is an enlarged vertical sectional view showing the garment in its stored position;

FIGURE 3 is a like view taken substantially on the plane of the line 3—3 of FIGURE 2;

FIGURE 4 is an enlarged fragmentary horizontal sectional view taken substantially on the plane of the line 4—4 of FIGURE 1; and

FIGURE 5 is an enlarged, fragmentary vertical sectional view taken substantially on the plane of the line 5—5 of FIGURE 1.

Referring specifically to the drawing wherein like reference characters have been used throughout to designate like parts, and referring at first to FIGURE 1, 10 designates the invention generally which comprises a shroud-like garment including a head or helmet covering portion 11 from which depends an integral skirt 12. Skirt 12 may include sleeves 13 which are readily accessible from within by a user and such sleeves preferably have closed lower ends 14 which preferably are in the form of integral gloves. The upper portion of the skirt may be formed with a face opening 15 which is preferably open. As best seen in FIGURE 2, the head or helmet covering portion

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11 includes any suitable means such as the flexible member 16 which extends beneath the helmet 17 to secure the head covering portion 11 in position. Likewise, the skirt 12 includes a free lower edge 18 which is bifurcated to provide short leg portions 24 which are secured in leg providing positions, FIGURE 1, by any suitable opposed separable fasteners 19, 20 which are adapted to be readily detachably connected together. Such fasteners may comprise complementary strips or patches of fastening material like those disclosed in the U.S. Patent to DeMestral, No. 2,717,437 which are marketed under the trademark Velcro. As best seen in FIGURE 4, the fasteners 19 may comprise a patch 19 of such cohesive material on the inner surface of the front of the skirt 12 and a complementary and opposed patch 19a of cohesive material on the inside of the back 12a of the skirt. Patches 19, 19a are simply pressed together to secure the front and rear portions of the skirt together between the wearer's legs. As seen in FIGURE 5, the free inner edges 24a and 24b of the leg portions 24 are overlapped to permit a strip 20 of cohesive material on the inner surface of the front portions 24a to interengage with a like strip 20a of cohesive material on the outer surface of the rear portion 24b. The fasteners 19, 19a and 20, 20a are readily pulled apart as desired in a well known manner. Obviously, other suitable fastening means will occur to those skilled in the art. However, when the fasteners 19, 20 are not secured, the lower edge 18 provides a simple, slitted skirt edge as suggested in broken lines, FIGURE 1.

In use, the skirt 12 is rolled upwardly from the lower edge 18 into a substantially annular roll which surrounds the head covering portion 11. The latter is now secured in place on the wearer's head or his helmet 17 by means of the flexible member 16 or other suitable securing means. Then, the rolled skirt 12 is readily detachably secured in this rolled or stored position by any suitable securing or anchoring means. In the embodiment illustrated, such securing means comprises a cover 21 which may be in the form of a cap which is sized to completely enclose the stored skirt 12 and head covering portion 11. Such cover 21 includes any suitable means for readily detachably securing it to the head of the wearer or to his helmet 17 so as to prevent the unrolling of the skirt 12. In the embodiment shown, this comprises forming the cover 21 with an adjustable or elastic lower edge 22 which engages the head or helmet below the rolled skirt 12. Obviously other forms of fastening means will occur to those skilled in the art. Tab 23 is secured to cover 21 in the region of the elastic lower edge 22 to provide a hand grip for removing cap.

With the parts in the stored position, upon hearing an alert or alarm or an actual nuclear explosion, the wearer need only to seize the hand grip 23 with one hand, and pull it outwardly and upwardly so as to snatch off the cover 21 which can be done in a fraction of a second. The rolled skirt immediately unrolls automatically by gravity until it reaches the ground. The wearer then falls to the ground in the approved face down manner and is fully protected against fallout or burns. In this connection, it is understood that the garment skirt 12 is long enough to reach below the feet of the wearer. Later, if it is desired to walk about, the wearer connects the separable fasteners 19 and 20 between his feet to secure the skirt high enough to permit movement. In this connection, it is understood that, he has previously slipped his arms into the sleeves 13 to get free use of his arms and hands.

The garment of the invention is particularly advantageous for use in the armed services where it may become an integral part of the uniform in danger areas and where constant drill in its use can make the actuation of

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the garment from the stored to the protective position little more than a reflex on the part of the wearer.

Also, while there has been shown and described what is now thought to be a preferred embodiment of the invention, it should be understood that the same is susceptible of other forms and expressions. Consequently, the invention is not considered to be limited to the exact structure shown and described hereinabove but only as hereinafter claimed.

I claim:

1. A fallout protective garment comprising a shroud-like garment including an integral head covering portion, means for securing said head covering portion atop a wearer's head, the remainder of said garment being normally disposed in a stored position achieved by rolling said garment upwardly to provide an annular formation surrounding said head covering portion, securing means for readily releasably securing said garment in said stored position, and said garment automatically unrolling by gravity to a body-covering operative position upon release of said securing means.

2. A fallout protective garment comprising a shroudlike garment including an integral head-covering portion, means securing said head covering portion to a wearer's head, the remainder of said garment being normally disposed in a stored position achieved by rolling the same upwardly to provide an annular formation surrounding said head covering portion, a readily removable cover enclosing said garment with the same in said stored position to retain the same in such position, and said garment automatically unrolling by gravity to a body-covering operative position upon removal of said cover.

3. A fallout protective garment according to claim 2, wherein said cover includes an adjustable lower edge disposed below said stored garment.

4. A fallout protective garment according to claim 2, wherein said cover includes an elastic lower edge disposed below said stored garment.

5. A fallout protective garment according to claim 1, wherein said garment includes an endless free lower edge, and separable fastener means for readily detachably securing at least portions of said free lower edge together.

6. A fallout protective garment according to claim 1, wherein said garment includes sleeves accessible from within said garment with the latter in said operative position, and said sleeves including closed lower ends.

7. The combination with a protective helmet or the like; of a fallout protective garment, said garment com-

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prising a helmet covering portion and an integral depending body-covering skirt, securing means for anchoring said helmet covering portion to said helmet, said skirt normally being disposed in a stored position, said stored position being achieved by rolling said skirt upwardly to provide an annular formation surrounding said helmet, securing means for readily releasably securing said skirt in said stored position, and said skirt automatically unrolling by gravity to a body covering operative position upon release of said securing means.

8. The combination with a protective helmet or the like; of a fallout protective garment, said garment comprising a helmet covering portion and an integral depending body-covering skirt, securing means for anchoring said helmet covering portion to said helmet, said skirt normally being disposed in a stored position, said stored position being achieved by rolling said skirt upwardly to provide an annular formation surrounding said helmet, a readily removable cover enclosing said garment with said skirt in said stored position, said cover including retaining means retaining said skirt in said stored position, said cover including a finger grip to provide means for one handed removal of said cover, and said skirt automatically unrolling by gravity to a body-covering operative position upon removal of said cover.

9. The combination of claim 8, wherein said retaining means comprises an elastic lower edge on said cover engaging said helmet below said rolled skirt.

10. The combination of claim 8, wherein said retaining means comprises means readily detachably connecting the same to said helmet below said rolled skirt.

11. The combination of claim 8, wherein said retaining means comprises a free lower edge on said cover, and said free lower edge including adjustable means readily detachably connecting the same to said helmet below said rolled skirt.

12. The combination of claim 8, wherein said skirt includes an endless free lower edge, and said free lower edge of said skirt including opposed separable fastener means for readily detachably securing together opposed portions of said free lower edge.

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