E. M. LOWY.

LIFE SAVING GARMENT.

APPLICATION FILED MAY 8, 1918.

1,289,839.

Patented Dec. 31, 1918.

4 SHEETS—SHEET 1.

FIG. 1.

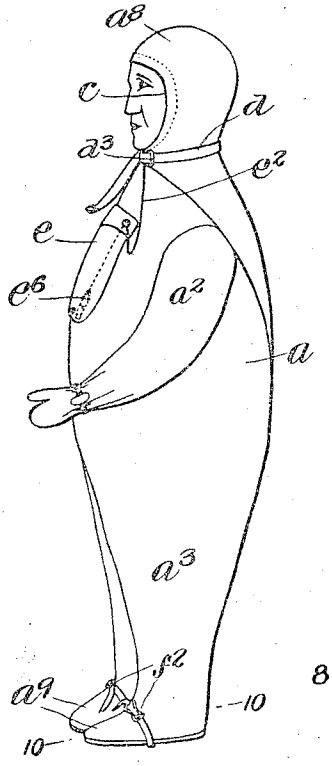


FIG. 2.

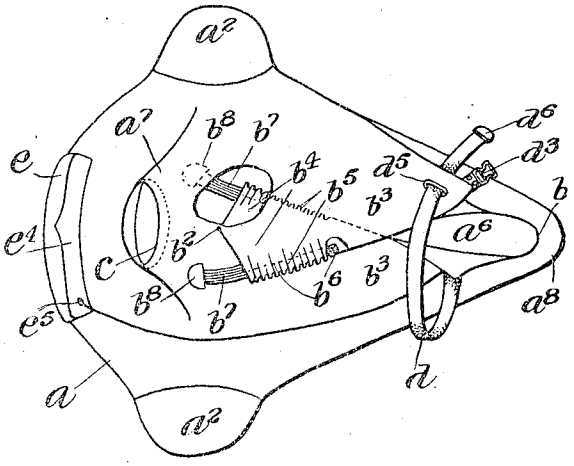


FIG. 3.

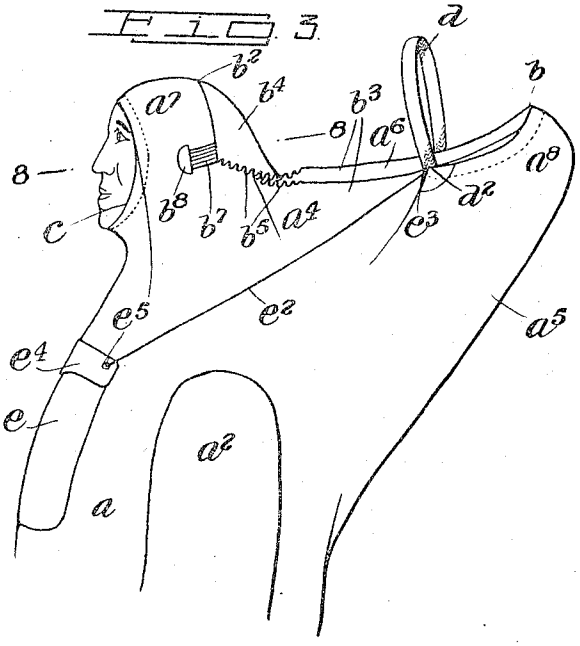
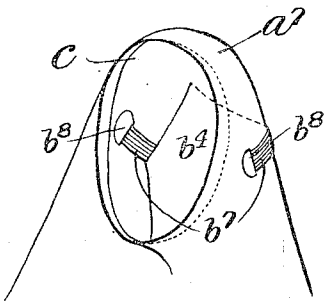


FIG. 4.



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4 SHEETS—SHEET 2.

FIG. 5.

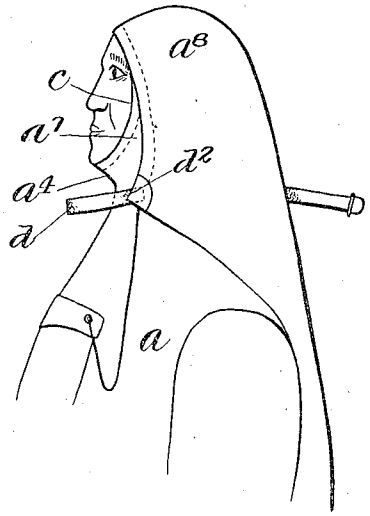


FIG. 6.

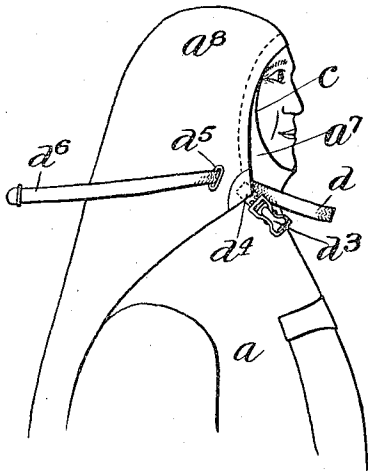


FIG. 7.

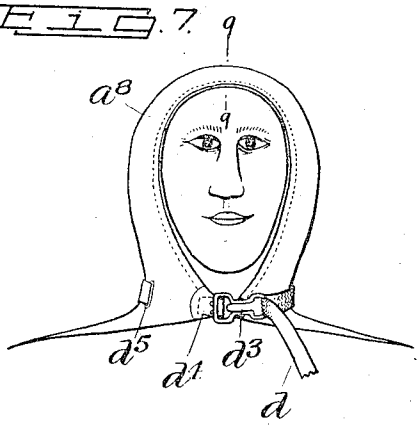


FIG. 8.

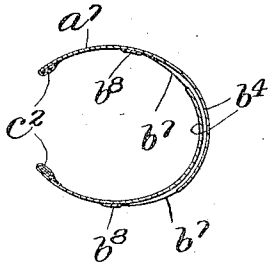


FIG. 9.

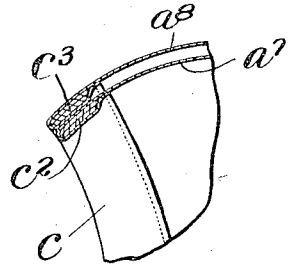
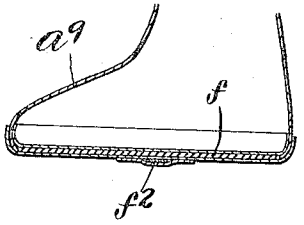


FIG. 10.



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4 SHEETS—SHEET 3.

FIG. 11.

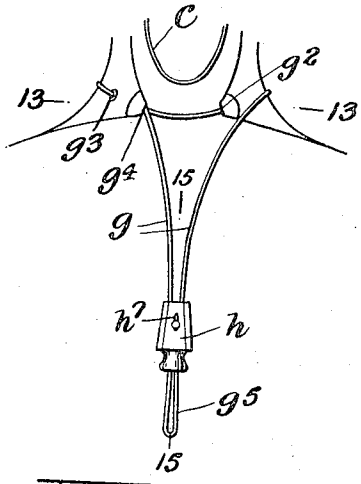


FIG. 12.

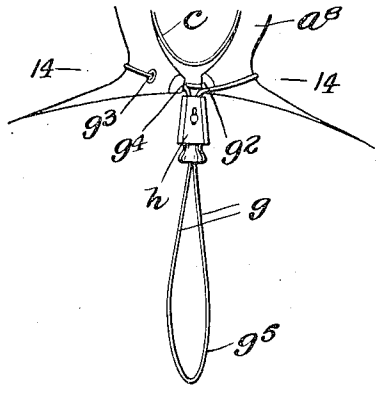


FIG. 13.

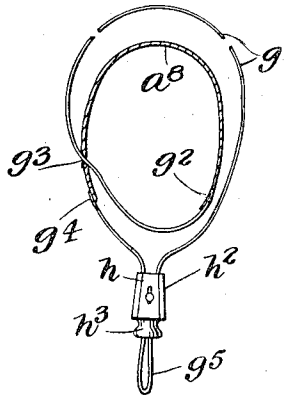


FIG. 14.

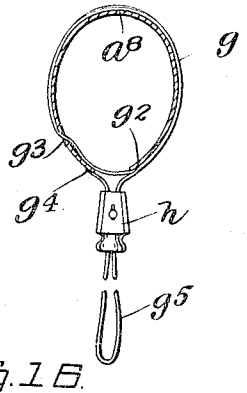


FIG. 15.

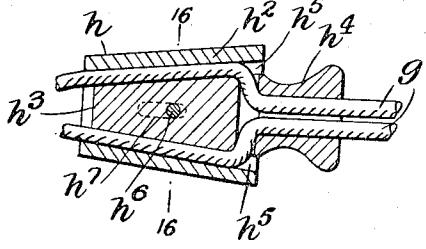
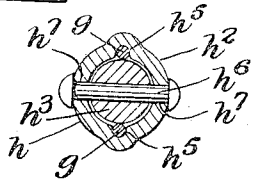


FIG. 16.



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APPLICATION FILED MAY 8, 1918.

1,289,839.

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4 SHEETS—SHEET 4.

FIG. 17.

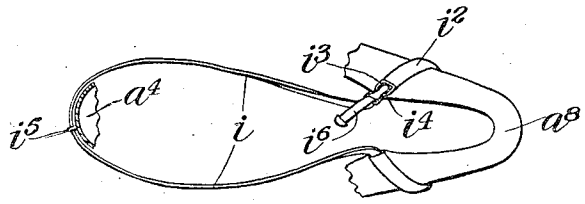


FIG. 18.

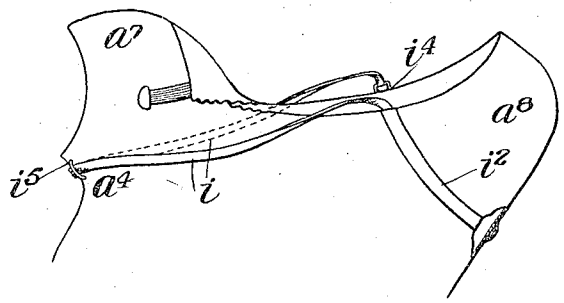


FIG. 19.

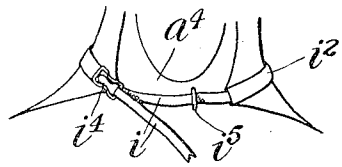


FIG. 20.

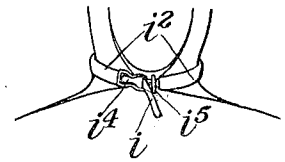


FIG. 21.

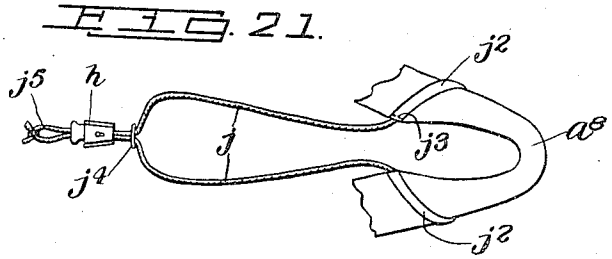
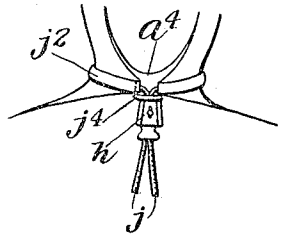


FIG. 22.



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UNITED STATES PATENT OFFICE.

EMIL M. LOWY, OF NEW YORK, N. Y., ASSIGNOR TO LOWY LIFE SAVING SUIT CORPORATION, A CORPORATION OF NEW YORK.

LIFE-SAVING GARMENT.

1,289,839. Specification of Letters Patent. Patented Dec. 31, 1918.

Application filed May 8, 1918. Serial No. 233,248.

To all whom it may concern:

Be it known that I, EMIL M. LOWY, a citizen of the United States, and residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Life-Saving Garments, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to what are known as union life saving garments composed of a body, arm sleeves, and leg portions and being constructed without openings or apertures, except at the top or neck portion which is enlarged and provided with a large entrance opening to permit of the garment being drawn on over the legs and the body of the wearer in the manner of a pair of trousers, and also to permit of the insertion of the arms into the arm sleeves; and the object of the invention is to provide a garment of the class specified, the enlarged neck portion of which in addition to being provided with the entrance opening is also provided with inner and outer or front and back hood members formed in connection with the neck portion of the garment and communicating therewith and adapted to be manipulated in such manner as to form a complete head inclosing hood entirely closed, except for a face opening at the front, the back hood member being adapted to inclose and to operate in connection with the front hood member, when the latter is in use, and to form in connection with said front hood member a complete head inclosing hood which is water and air tight, or approximately so; and with these and other objects in view the invention consists in a garment of the class specified, constructed and operating as hereinafter described and claimed.

The entire garment is composed of flexible waterproof material, it being understood that said garment includes rubber or other waterproof substances, such as a combination of rubber and fibrous material, and a particular feature of the invention resides in the form, construction and use of the separate hood members which are interdependent in construction and use, and which form when in use a complete head inclosing hood having a front face opening only, and which conforms to the shape of the head, face and neck of the wearer to form a water-tight closure for the entire garment.

The invention described and claimed herein is an improvement on that device described and claimed in an application for Letters Patent of the United States filed by me September 24, 1917, Serial No. 192,911; also in another application for Letters Patent of the United States filed by me March 14, 1918, Serial No. 222,443; also in another application for Letters Patent of the United States filed by me March 16, 1918, Serial No. 222,793; and said invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:—

Figure 1 is a side view showing my improved garment in use;

Fig. 2 a top view of the garment extended and showing it ready for use;

Fig. 3 a side view showing the garment partly applied with the parts in the position shown in Fig. 2;

Fig. 4 a front perspective view of the front hood member;

Fig. 5 a view similar to Fig. 3 showing the back hood member partly closed over the front hood member;

Fig. 6 a view similar to Fig. 5 but showing the opposite side;

Fig. 7 a front view of the device as shown in Fig. 5, but showing the method of closing the rear hood member around the neck;

Fig. 8 a section on the line 8—8 of Fig. 3;

Fig. 9 a partial section on the line 9—9 of Fig. 7;

Fig. 10 a longitudinal section through one foot portion of the garment taken on the line 10—10 of Fig. 1;

Fig. 11 a front view showing a part of the front hood member and modified means for closing the back hood member around the neck;

Fig. 12 a view similar to Fig. 11 but showing the parts in a different position;

Fig. 13 a partial section on the line 13—13 of Fig. 11;

Fig. 14 a partial section on the line 14—14 of Fig. 12;

Fig. 15 a section on the line 15—15 of Fig. 11 and on an enlarged scale;

Fig. 16 a section on the line 16—16 of Fig. 15;

Fig. 17 a view similar to Fig. 2, partly in section and showing only details of the construction, and showing a modified means for closing the back hood member around the neck;

Fig. 18 a view similar to Fig. 3 but showing the means for closing the back hood member around the neck as shown in Fig. 7;

Fig. 19 a view similar to Fig. 11 but showing the back hood closure means shown in Figs. 17 and 18;

Fig. 20 a view similar to Fig. 19 but showing the parts in a different position;

Fig. 21 a view similar to Fig. 17 but showing different means for closing the back hood member around the neck; and,

Fig. 22 a view similar to Fig. 20 but showing the back hood closure means employed in Fig. 21.

My improved life saving garment comprises a body portion a, having arm sleeves a^2, leg members a^3 and a neck portion a^4, and the neck portion a^4 is enlarged at the back to form a pouch-shaped structure a^5, and formed in the top of the enlarged neck portion and pouch-shaped structure a^5 is an entrance opening a^6. At the front of the entrance opening a^6 is a front hood member a^7 and at the back of the entrance opening a^6 is the back or rear hood member a^8 formed by the pouch-shaped structure a^5, and both of said hood members are open and communicate with the neck portion of the garment and with the entrance opening a^6, and said entrance opening extends from the point b in the back hood member a^8 to the point b^2 in the front hood member a^7.

The side walls b^3 of the entrance opening a^6 are provided at their front ends with overlapping flaps b^4 having crimped edges b^5 in which are secured elastics b^8 indicated in dotted and full lines in Fig. 2, and secured to the overlapping flaps b^4 are elastics b^7 which, when the flaps b^4 are overlapped so as to close the front end portion of the entrance opening a^6 as shown in Figs. 2 and 3, are secured to the opposite sides of the front hood member a^7, one on the inner side of said hood member and the other on the outer side of said hood member, as shown at b^8 in Figs. 2 and 8, and said overlapping flaps b^4 with their crimped and elastic edge portions b^5 are designed to aid in closing the back opening in the front hood member a^7, which operation is completed by the back hood member a^8 when drawn into the position shown in Fig. 1.

The front hood member a^7 is provided with a face opening c, the walls of which are padded as shown at c^2 in Fig. 9, and the walls of the rear end portion of the entrance opening a^6 in the hood member a^8 are also padded as shown at c^3 in said figure, and when the hood members a^7 and a^8 are drawn into their operative position as shown in Figs. 1 and 3, the face opening c is securely closed around that part of the face which is exposed and water cannot enter said opening.

The front hood member has no independent means for securing it around the neck but is so designed as to closely fit the front head portion of the wearer, and in order to complete the closure of the entrance opening a^6 by means of the rear hood member a^8, a strap d is secured to one of the side walls b^3 of the entrance opening a^6 at d^2, and the other side of the wall of the entrance opening a^6 opposite the point d^2 is provided with a clamp buckle device d^3 which is secured at d^4 and the side wall of the hood member a^8 to which the clamp buckle d^3 is secured, is provided rearwardly of said clamp buckle with an oblong eyelet d^5. The strap d is passed forwardly and around the front neck portion of the garment and through the eyelet d^5, and the end of said strap is provided with a knob or head d^6 which prevents it from being drawn backwardly through said eyelet, and inclosing the hood member a^8 over the head and over the hood member a^7 said hood member a^8 is drawn forwardly into the position shown in Figs. 1, 5, 6 and 7, after which the strap d is passed around the neck and through the clamp buckle d^3 and is pulled tight as indicated in Figs. 1 and 7. The rear hood member a^8 is thus made to entirely inclose the head of the wearer and the hood member a^7, except the face opening, and also to entirely close the entrance opening a^6 in the top of the garment, and prevent the entrance of water through the entrance opening or through the face opening in the front hood member, and in this way water is excluded from the garment.

The front breast portion of the garment is also preferably provided with a pocket e, and a cord e^2 is secured to one side wall of the rear hood member a^8 at e^3, and the top of the pocket e is provided with a closure flap e^4, and the cord e^2 is passed through an eyelet e^5 in said closure flap, and connected with the cord e^2 is a signal device e^6 indicated in Fig. 1. The cord e^2 may be of any desired length and may be used in the initial operation of pulling the rear hood member a^8 forwardly and the signal device e^6 may be used when necessary or desirable.

The foot members a^9 of the garment may be made in any desired manner but, in practice, I prefer to construct said foot members as shown in Fig. 10, in which the necessary weight or weights are placed in the bottom of the foot members as shown at f and inclosed by top and bottom layers of canvas, rubber and canvas or other suitable material, and straps f^2 are passed around said foot

members so as to cause them to fit closer to the feet, after the feet have been inserted thereinto and to hold the weights in contact with the bottom of the feet of the wearer of the garment.

In Figs. 11 to 16 inclusive, I have shown another means for closing the rear hood member over the head and around the neck, and in this construction I substitute for the strap d a cord g, the opposite ends of which are secured to the opposite sides of the rear hood member a^8 and at the point or points where the strap d is connected therewith. In this operation one end of said cord is first secured to one side of the hood member as shown at g^2 in Fig. 13, and then passed around in front of the neck and through the opposite side of said hood member as shown at g^3, and then passed around the back of the neck and secured to the last named side of said hood member at g^4, and this forms a loop g^5 in said cord.

Previous to securing the ends of the cord g as above described, and as shown in Fig. 13, the said ends are passed through a clamp device h shown in use in Figs. 11 to 14 inclusive, and in detailed section in Figs. 15 and 16. The clamp device h comprises a tapered shell h^2 in which is placed a longitudinally movable and tapered core h^3, and the core h^3 is provided at its larger end with a handle h^4, and the ends of the cord are passed through the handle h^4 and through the shell h^2 on the opposite sides of the core h^3. The inner walls of the shell h^2 are provided with longitudinal grooves h^5 in which the separate parts of the cord g fit and a pin h^6 is passed through longitudinal slots h^7 in the opposite sides of the shell h^2 and through the core h^3. When it is desired to secure the rear hood member a^8 around the neck as shown in Figs. 1 and 7, and in Figs. 12 and 14, the loop g^5 is held tight in the position shown in Fig. 11 and the shell h^2 of the clamp h is moved upwardly into the position shown in Fig. 12, and the cord is drawn tightly through said shell, after which the core h^3 is moved upwardly on the cord g and forced into the shell h^2 and this locks the cord in position to secure the sides of the rear hood member tightly around the neck.

In Figs. 17 to 20 inclusive, I have shown another method of closing the rear hood member a^8 over the head and around the neck, in which I employ a strap i and connect with the rear hood member an encircling keeper or pocket i^2 through which the strap i is passed. One end of the strap i is secured at one end i^3 of the keeper or pocket i^2 and there is also secured at said end of said keeper or pocket a clamp buckle i^4 similar to the clamp buckle d^3 shown in Figs. 1, 2, 6 and 7. The strap i or one end portion thereof which passes through the keeper or pocket i^2 is passed around the neck portion of the garment and through a keeper i^5 at the front of said neck portion of the garment and then around the other side portion of the neck of the garment and through the clamp buckle i^4. and in closing the rear hood member a^8 over the head and around the neck, all that is necessary is to pull on the end portion i^6 of the strap i and the result of this operation is shown in Fig. 20.

In Figs. 21 and 22, I have shown a method of using a cord j instead of the strap i shown in Figs. 17 to 20 inclusive for closing the rear hood member over the head and around the neck, and in this method of procedure the rear hood member a^8 is provided with an encircling keeper or pocket j^2 similar to the keeper or pocket i^2, and the cord j is passed through said keeper or pocket and is secured at one end thereof as indicated at j^3, and after the cord j has been passed through keeper or pocket j^2, the ends thereof are passed through a keeper j^4 similar to the keeper i^5 secured at the front of the neck of the garment, after which the clamp device h shown in Figs. 11 to 16 inclusive is employed in connection with said cord, the end portions of which are formed into a loop j^5. In securing the hood member a^8 around the neck, all that is necessary is to pull on the end or loop portion j^5 of said cord and force the shell portion h^2 of the clamp device h upwardly against the keeper j^4 and then move the core h^3 of said clamp device up into the shell portion and in operative position as shown in Fig. 22.

From the foregoing description it will be seen that the main characteristics of my improved garment are found in the enlarged neck portion thereof, in the large entrance opening, and in the hood members which are formed in connection with the neck portion, said neck portion and hood members being interdependent upon each other in the formation of the entrance opening and in the operation of forming a complete head hood for closing said entrance opening, and in this connection attention is called to the fact that the basic element of the improvement described and claimed herein as distinguished from that described and claimed in the applications, hereinbefore referred to, lies in the formation and construction of the front end portion of the entrance opening a^6 in the back of the front hood member, and involving the flaps b^4 which, when the garment is complete and ready for use, cover the front end portion of said entrance opening, which is also the opening in the back of the front hood member and extends from the point b^2 downwardly into the neck portion of the garment, and the elastic portions and attachments of the said flaps which permit of the opening up of the en-

trance opening so that the garment may be drawn on over the legs and body of the wearer; and in the simplified and effective means herein shown and described for drawing the rear hood member forwardly over the head and around the neck of the wearer and securing said rear hood member in position.

It will be understood that as in other garments of this class the upper part of the body portion of the garment including, if desired, the bottom part of the neck portion may be provided in the usual manner with any suitable buoyant material or padding, or my improved garment may be worn over or in connection with a vest or inner body garment made of buoyant material and such as is now used, and in this connection attention is called to the fact that the many advantages of a garment of the class specified, made in the manner herein shown and described are clearly set out in the applications hereinbefore referred to and need not be repeated herein.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A garment of the class described provided with an enlarged neck portion having front and back hood members and an entrance opening which extends through the back of the front hood member and the front of the back hood member, and means connected with the front hood member for closing that part of the entrance opening in the back thereof, the back hood member being adapted to be drawn forward over the head of the wearer and over the front hood member, and means for drawing the sides of the back hood member forward and around the neck of the wearer and securing them so as to form in connection with the front hood member a complete head and neck inclosing hood and closing the entrance opening.

2. A garment of the class described provided with an enlarged neck portion having front and back hood members and an entrance opening which extends through the back of the front hood member and the front of the back hood member, the side walls of the neck portion and the side walls of the hood member being continuous, and the side walls of the neck portion and of the front hood member being provided with flaps which overlap and cover the front end of the entrance opening in the back of the front hood member and are connected with the side walls of said front hood member.

3. A garment of the class described provided with an enlarged neck portion having front and back hood members and an entrance opening which extends through the back of the front hood member and the front of the back hood member, the side walls of the neck portion and the side walls of the hood member being continuous, and the side walls of the neck portion and of the front hood member being provided with flaps which overlap and cover the front end of the entrance opening in the back of the front hood member and are connected with the side walls of said front hood member by elastic devices.

4. A garment of the class described provided with an enlarged neck portion having front and back hood members and an entrance opening which extends through the back of the front hood member and the front of the back hood member, the side walls of the neck portion and the side walls of the hood member being continuous, and the side walls of the neck portion and of the front hood member being provided with flaps which overlap and cover the front end of the entrance opening in the back of the front hood member and are connected with the side walls of said front hood member by elastic devices and the edges of said flaps being crimped and provided with elastics.

5. A garment of the class described provided with an enlarged neck portion having front and back hood members and an entrance opening which extends through the back of the front hood member and the front of the back hood member, said back hood member being adapted to be drawn forwardly over the head of the wearer and over the front hood member, and means for drawing the sides of the back hood member forwardly and around the neck of the wearer and securing said back hood member in operative position consisting of an encircling pocket on the back of said hood member, a strap passed through said pocket and secured at one end thereof, a clamp buckle secured at said end of said pocket, and a keeper secured to the front of the neck of the garment, one end portion of said strap being passed forwardly and around the neck and through said keeper and adapted to be passed through said buckle.

6. A garment of the class described provided with an enlarged neck portion having two hood members and an entrance opening which extends into said hood members, means for closing that part of the entrance opening which extends into one of said hood members, the last named hood member being adapted to be drawn on over the head and being provided with a face opening, and means for drawing the other hood member over the head and over the last named hood member and for securing the sides thereof around the neck of the wearer.

7. A garment of the class described provided with front and back hood members, the front hood member being provided with front and back openings, and means connected with the sides of the front hood

member for closing the opening in the back thereof.

8. A garment of the class described provided with front and back hood members, the front hood member being provided with front and back openings, and overlapping flaps connected with the opposite sides of the front hood member for closing the back thereof.

9. A garment of the class described provided with front and back hood members, the front hood member being provided with front and back openings, overlapping flaps connected with the opposite sides of the front hood member for closing the back thereof, and means for drawing said flaps and said hood member tightly around the head of the wearer.

10. A garment of the class described provided with front and back hood members, the front hood member being provided with front and back openings, overlapping flaps connected with the opposite sides of the front hood member for closing the back thereof, and elastic devices for holding said flaps and said hood member tightly around the head of the wearer.

11. A garment of the class described provided at the top thereof with front and back hood members between which is an entrance opening, the front hood member being provided with a face opening, and means for padding the walls of said opening.

12. A garment of the class described provided at the top thereof with front and back hood members between which is an entrance opening, said hood members being each provided with face openings, and means for padding the walls of said openings.

13. A garment of the class described provided at the top thereof with front and back hood members between which the top portion of the garment is provided with an entrance opening, the side walls of said entrance opening being integral with the side walls of said hood members, and means in said side walls for increasing and decreasing the capacity of said entrance opening.

14. A garment of the class described provided with front and back hood members, the front hood member being provided with front and back openings, and overlapping flaps for closing the opening in the back of said hood member.

15. A garment of the class described provided at the top thereof with front and back hood members between which the top portion of the garment is provided with an entrance opening, the side walls of said entrance opening being integral with the side walls of said hood members, the opposite side walls of the front hood member being provided with overlapping flaps, and means connected with said flaps for drawing the same closely around the head of the wearer to cause said front hood member to closely fit the head of the wearer.

16. A garment of the class described provided at the top thereof with front and back hood members between which the top portion of the garment is provided with an entrance opening, the side walls of said entrance opening being integral with the side walls of said hood members, the opposite side walls of the front hood member being provided with overlapping flaps, means connected with said flaps for drawing the same closely around the head of the wearer to cause said front hood member to closely fit the head of the wearer, and means for drawing the rear hood member forwardly to inclose the front hood member and for securing the same so as to entirely inclose the head and neck of the wearer.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 30th day of April, 1918.

EMIL M. LOWY.

Witnesses:
C. E. MULREANY,
H. E. THOMPSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."