B. A. BITTAN.

WATERPROOF GARMENT.

APPLICATION FILED FEB. 1, 1918.

1,360,715. Patented Nov. 30, 1920.

2 SHEETS—SHEET 1.

Fig. 1.

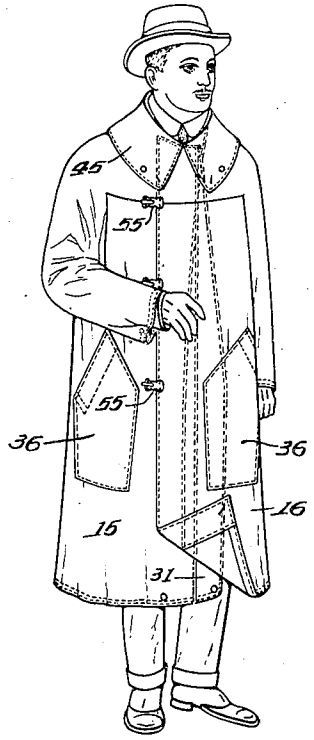


Fig. 2.

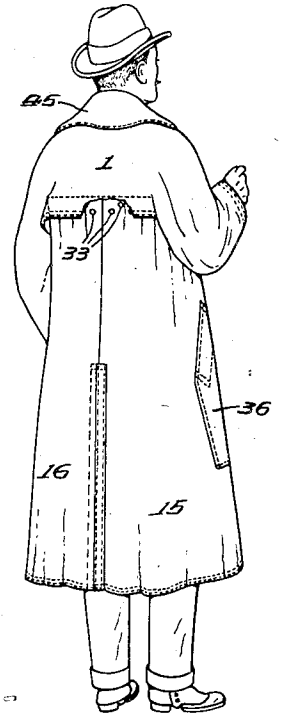
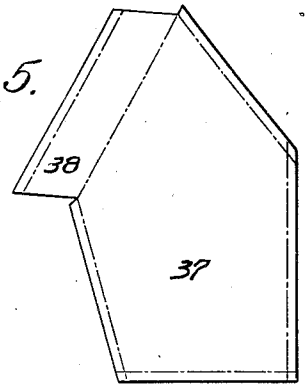


Fig. 5.



INVENTOR

Benjamin A. Bittan

WITNESS

F. J. Hartman.

BY Hutson & Blount

ATTORNEYS

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2 SHEETS—SHEET 2.

Fig. 3.

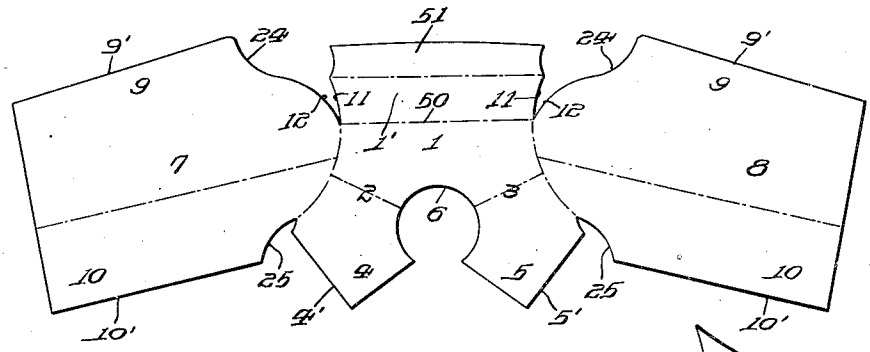


Fig. 4.

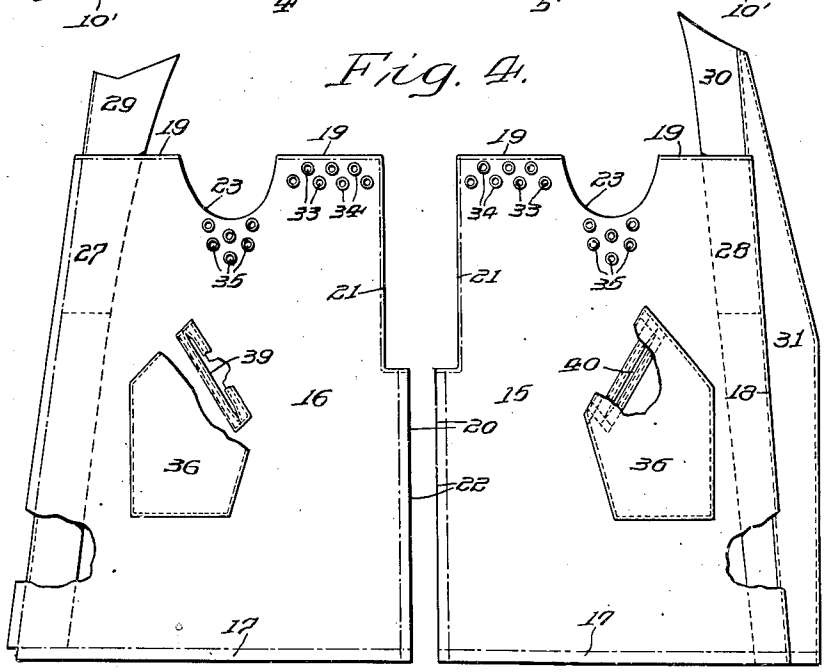
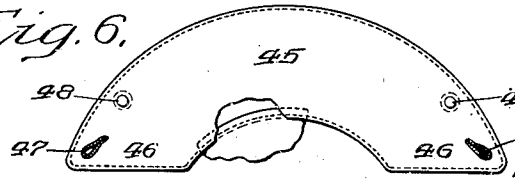


Fig. 6.



INVENTOR

Benjamin A. Bittan.

WITNESS

F. J. Hartman.

BY Keuton & Blount

ATTORNEYS

UNITED STATES PATENT OFFICE.

BENJAMIN A. BITTAN, OF PHILADELPHIA, PENNSYLVANIA.

WATERPROOF GARMENT.

1,360,715. Specification of Letters Patent. Patented Nov. 30, 1920.

Application filed February 1, 1918. Serial No. 214,974.

To all whom it may concern:

Be it known that I, BENJAMIN A. BITTAN, a citizen of the United States, and a resident of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Waterproof Garments, of which the following is a specification.

This invention relates to waterproof garments or raincoats adapted for use by persons in inclement weather, being of particular utility for persons necessarily exposed to the elements during the performance of their usual duties, such as, for example, soldiers, the garment being especially adapted for use in trench warfare.

The objects of this invention are to provide a coat of this character constructed from as few separate sections or pieces of fabric as is possible consistent with efficient manufacturing methods to thereby correspondingly limit the number of seams necessary in connecting the sections together to form the completed garment. By thus decreasing the number of seams, and by locating those used at the more unexposed portions of the garment, the cost of manufacture is decreased and the durability of the coat is substantially increased.

Further objects of this invention are to provide a coat of the character indicated in which each of the sections from which the finished product is made are constructed with the view in mind of saving material and labor and when built up provide an efficient waterproof garment having certain novel characteristics hereinafter referred to.

This invention also includes certain other novel features of arrangement of the various parts involving a predesigned construction of the several elements of the completed article so formed that the same properly interfit and, moreover, may be readily assembled.

To these ends this invention includes a completed waterproof coat made up of a sleeved cape or shoulder section and a body section each particularly designed so that when connected together there will be no seams over the more exposed portions of the garment, as over the shoulders, and, moreover, the number of seams used throughout is reduced to a minimum consistent with the most efficient method of manufacturing the completed article.

In the drawing forming a part of this application there is illustrated one means for carrying this invention into practice, but it is to be understood that the invention is not limited to the particular arrangement of elements disclosed nor to the details of construction set forth which are so shown as merely disclosing a more refined and complete garment of the character specified.

Figure 1 is a front view and Fig. 2 is a rear view of a garment constructed in accordance with my invention and shown, as worn, with certain parts broken away for the sake of clearness. Fig. 3 is a plan view of a pattern or blank from which the sleeved cape or shoulder section is composed, while Fig. 4 represents the body section, which, in this case, is illustrated as being composed of two parts, although it is to be understood that the same could be made of one part, if desired. Figs. 5 and 6 represent certain detailed parts of the construction having certain novel characteristics hereinafter more fully set forth, Fig. 5 showing a portion of fabric adapted to form a pocket, while Fig. 6 represents a suitable novel form of collar which may be used.

Broadly speaking this invention contemplates a coat made up of a shoulder section with no exposed seams and a body section secured thereto,—together with a novel construction incorporated in these sections whereby an efficient durable coat may be produced at a relatively low cost of manufacture and certain novel advantages are attained by the completed article, such as an efficient ventilation which adds to the comfort of the person using the coat together with means to protect the ventilating means as well as the various seams in the coat against the entrance of moisture which tends to decrease the efficiency and durability of the garment. A suitable pattern for constructing the shoulder section is illustrated in Fig. 3 wherein is shown a single piece of fabric having a central portion 1 adapted to form the back yoke of this section, a plurality of shoulder sections 2 and 3 and the front yoke sections 4 and 5. The neck opening 6, is suitably cut out of the shoulder and front yoke sections as shown. Extending laterally from each side of the shoulder sections are the integral sleeve portions 7 and 8. Each of these sleeve sections may be considered as having an undersleeve portion 9 and a top sleeve portion 10. The material between the under sleeve portions 9 and the

back yoke 1 may be cut away on the curved lines 11 and 12 to form a free yoke 1′ which may be made double, if desired, by folding the material on the line 51, the yoke 1′ being used, if desired, for the purpose hereinbelow noted. In this manner the shoulder section of the garment is made so as to have a proper fit when assembled to the body section and the completed sleeves shown in Figs. 1 and 2 are made by a single seam underneath the arm by joining the outside edges 9′ and 10′ of the under sleeve sections and top sleeve sections, as will be readily apparent from the pattern shown in Fig. 3. It will be further noted that there is no armhole seam over the top of the shoulder by reason of the fact that the sleeve sections are integral with the shoulder sections.

The body section of my improved type of raincoat is shown in Fig. 4 as being made of two substantially similar sections 15 and 16 with no side seams, although it is apparent that this section may be made of one single piece. Each of these sections is in the general form of an oblong piece of fabric having a bottom edge 17, a front edge 18, a top edge 19 and a back edge 20 cut away as at 21 so that the two sections 15 and 16 may be seamed along the edges 21, but leaving the overlapping edges 22 free and unattached to form the rear vent of the coat, as is well understood in coat construction. Along the upper edge 19 of each of the sections the armholes are cut out along the curved line 23, these edges 23 adapted to be seamed to certain portions 24 and 25 of the shoulder section shown in Fig. 3.

Each of the body sections 15 and 16 may be provided with facing strips 27 and 28 which may extend above the body sections 15 and 16 as at 29 and 30 to also act as a facing for the front yokes 4 and 5 of the shoulder section when the shoulder and body sections are seamed together, the sections 29 and 30 further acting as lapping strips over portions of the joint on the underside of the coat between the body and shoulder sections. If desired, along one of the edges 18 there may be provided an underlap or extension 31 for the purpose of forming an overlapping section at the front, open edge of the coat intended for use when the coat is worn by a horseman, mounted officer, or the like.

Along a portion of the upper edge 19 of each of the portions 15 and 16, I have provided a plurality of ventilating openings 33 surrounded by reinforcing eyelets 34 and it will be seen that these ventilating openings extend across the entire back of the coat when the parts are assembled. Furthermore, if desired, similar ventilating openings 35 may be provided underneath the armholes 23.

The manner in which the pockets 36 are formed also constitutes one of the novel features of my construction, these pockets being of the patch type made of a piece of material shaped as shown in Fig. 5, having the main pocket section 37 and an integral welt or reinforcing edge 38. By making the welt integral with the pocket piece 37 considerable saving of cloth as well as practically all the labor necessary in making a separate welt is accomplished. The manner in which the pocket pieces 37 are stitched on to the body portions 15 and 16 is clearly shown in Fig. 4. The sections 15 and 16 may be provided with slits 39 and 40 reinforced at the edges as shown, so that the wearer may have access through the coat into other pockets in his under garments, if desired.

A novel type of collar particularly useful in connection with the type of coat of the character disclosed herein is shown in Fig. 6, wherein the usual collar tab has been omitted and the collar itself so shaped as to form the tabs integral therewith. The collar piece 45 is therefore formed with extended pointed ends 46 and each may be provided with eyelet 47, if desired, although it is apparent that only one eyelet is necessary, while properly located buttons 48 are adapted to coöperate with the eyelet 47 on the opposite end of the collar so that the collar may be buttoned up around the wearer's neck without the use of the usual tab, and moreover, either the right hand edge of the collar or the left hand edge may be buttoned outermost.

The manner in which the seamless shoulder section and the body section are joined to form the combined sleeved cape and coat type of waterproof garment with the seams thereof located in the unexposed portions of the garment, there being no seams located over the shoulders, as has heretofore been customary in waterproof garments of this character, will be readily understood from the foregoing. The back section 1 of the shoulder section is seamed along the line 50 to the edges 19 of the body sections 15 and 16 just above the ventilating openings 33, if used. This leaves a free open back yoke 1′ shown in Fig. 2 and in the particular case shown as formed by doubling the material on itself at the line 51, the yoke 1′, overlying the ventilating openings 33, thus preventing the entrance of moisture through these openings underneath the body of the coat. Each of the sleeve sections 7 and 8 are seamed together along their edges 9′ and 10′, as is suggested above, while the curved cut edges 24 and 25 are seamed into the armholes 23 of each of the sections 15 and 16. Moreover, the edge 12 of the sleeve section is sewed down over the edge 11 of the yoke 1′ and on to the arm hole 23 of the body portion of the coat. The front yokes 4 and 5 of the shoulder section are secured

at their edges 4′ and 5′ to the front top edges 19 of each of the sections 15 and 16 and hence the sections 15 and 16 are seamed to the shoulder section along the entire top edges 19 thereof including the armholes 23, but it will be seen that these seams are located underneath the arm sections and protected at the back by the free yoke 1′ above referred to. The extensions 29 and 30 of each of the facing strips 27 and 28 are secured to the front yokes 4 and 5 as will appear from Fig. 1. In this manner the facing strips 27 and 28 act to more securely join the shoulder section and body section at the front portions of the coat by forming an underlapping piece therefor, and at the same time these strips afford a protection for the seam between the edges 4′ and 5′ of the yokes 4 and 5 and the front portions of the top edges 19 of the sections 15 and 16.

The coat may be provided with suitable buckles 55 properly located in any desired manner so that the coat may be buttoned on to the wearer in an efficient manner.

It will be noted that the several seams may be provided with protecting strips cemented thereto in the usual manner in constructing waterproof garments generally, and furthermore, the edges of each of the sections may be provided with hemmed over edges also suitably cemented, if desired. Attention is called to the fact that the body section is made of two parts to facilitate the manufacture of a coat from the usual widths of materials employed, it, of course, being evident, however, that the body section shown as made of two parts 15 and 16 may be made from one piece of material. In either case, the side seam usually present in garments of this kind extending downwardly from underneath the armholes has been eliminated, thus further reducing the number of seams used in the completed coat.

While this invention has been set forth in detail, it is to be understood that many variations and modifications of the various elements may be made without departing from the spirit and scope of my invention as set forth in the appended claims.

Having thus described my invention, I claim and desire to protect by Letters Patent of the United States:

1. As a new article of manufacture, a water proof garment including a one-piece shoulder section provided with integral sleeve sections, said sleeve sections being cut along curved lines of different lengths adjacent said shoulder section to form portions to be turned under and joined at the edges thereof to form the sleeves with seams located at the underneath unexposed portion thereof, said shoulder section provided with a cut-out portion to receive the neck, front yoke sections between said cut-out portions and said sleeve sections and a rear yoke provided with a flap portion, a body section adapted to be joined to said shoulder section on a line between said rear yoke section and said flap section, overlapping strips joined to said body section and said front yoke sections to protect the joint between said front yoke sections and a detachable collar adapted to be attached to said shoulder section adjacent said cut-out portion.

2. As a new article of manufacture, a waterproof garment, including a one piece shoulder section provided with an integral sleeve section, a body section, a facing strip thereon and extending therefrom to the shoulder section and attached thereto, said shoulder piece and said body portion being joined by a seam and said facing strip.

3. As a new article of manufacture, a waterproof garment, including a one piece shoulder section with an integral sleeve section, ventilating means attached to and passing through said body section below the yoke edge thereof at which said body section is joined to said shoulder section, a seam joining said sections, and a flap integral with said shoulder section and extending over said ventilating means and preventing the admission of moisture while admitting the passage of air through said garment.

4. As a new article of manufacture, a water proof garment including a one-piece shoulder section provided with an integral sleeve section and a body section, a facing strip attached to said body section and projecting beyond the upper edge thereof beneath said shoulder section, said projecting portion of said strip attached to said shoulder section, a seam between the upper edge of said body section and the front and rear edges of said shoulder section, a flap upon said shoulder section at the rear thereof extending from and beyond said seam and overlying the upper portion of said body section at the back thereof and ventilating means near the upper edge of said body section below said seam and disposed beneath said flap and protected thereby from exterior moisture.

5. As a new article of manufacture, a water proof garment, including integral shoulder and sleeve portions, a two-piece body section provided with a single longitudinal rear seam and attached at the upper edges thereof to said shoulder section, facing strips attached to the front portion of said body section, said facing strips extending beneath the shoulder section and attached thereto and a one-piece collar detachably secured to said shoulder section.

6. As a new article of manufacture, a water proof garment including a shoulder piece comprising integral front yoke sections, a rear yoke section and laterally extending sleeve sections, said sleeve sections being cut along curved lines of different

lengths adjacent said yoke sections whereby said sleeve sections extend from said shoulder piece between said front yoke and rear sections, the cuts between said sleeve sections and said rear yoke being of greater length than between said sleeve sections and said front yoke sections, said shoulder piece provided with a cut-out portion to receive the neck between said front yoke portions, said rear yoke provided with a flap section, a body portion comprising two side sections joined at the rear by a single longitudinal seam and adapted to be overlapped and secured at the front portions thereof, said body portion joined by seams at its upper edge to said front and rear yoke sections, said flap extending below the seam of said rear yoke section and said body portion and overlying vent perforations provided in said body sections near the rear upper edge thereof, facing strips attached to the front edges of said body sections and provided with lapping portions attached to said front yokes, one of said facing strips provided with an overlap extension and a detachable collar attached to said shoulder piece adjacent said cut-out portion.

In witness whereof, I have hereunto set my hand this 31st day of January, A. D. 1918.

BENJAMIN A. BITTAN.