

H. REILLY.
Bag.

No. 201,631.

Patented March 26, 1878.

Fig. 1.

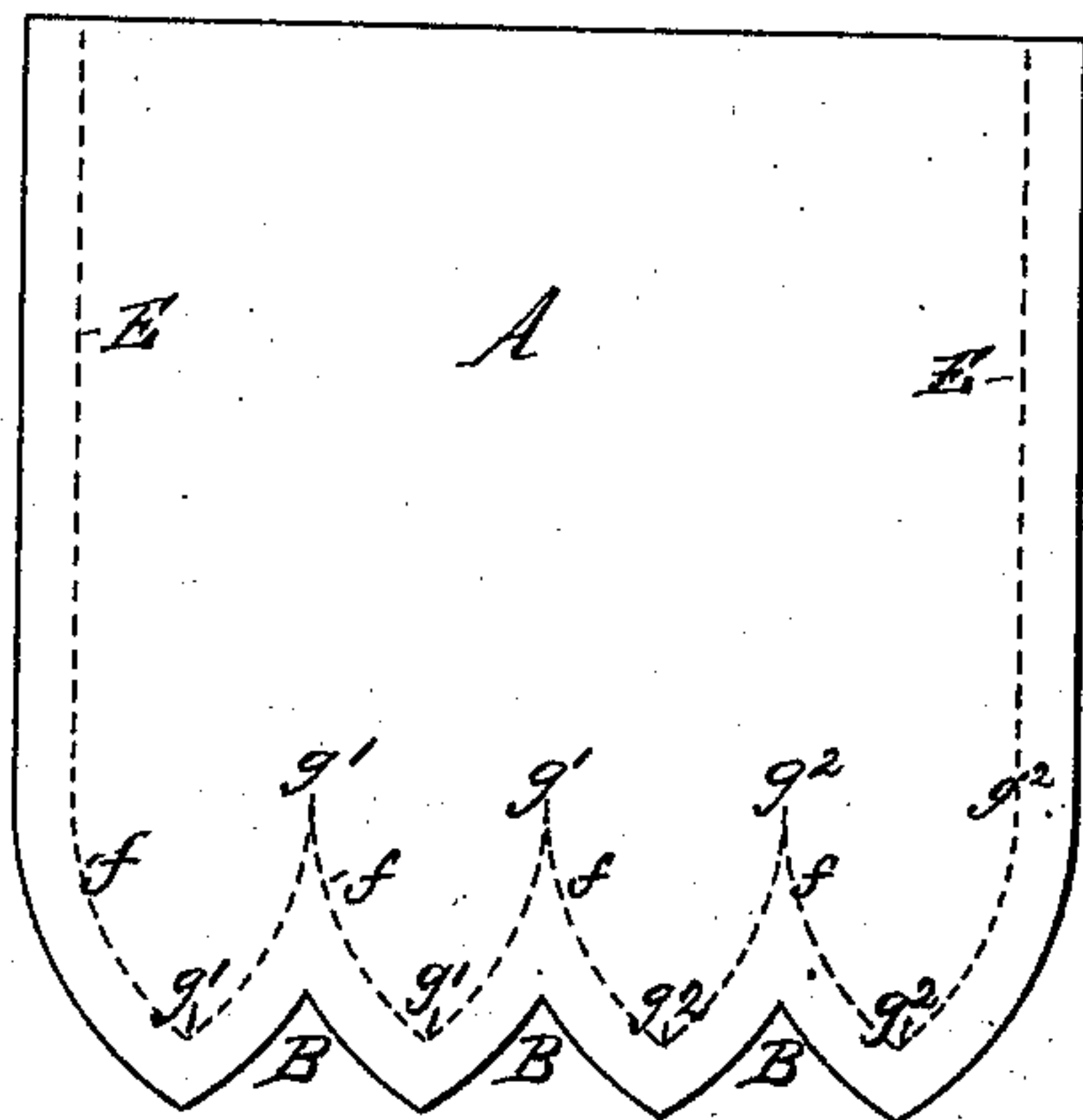


Fig. 3.

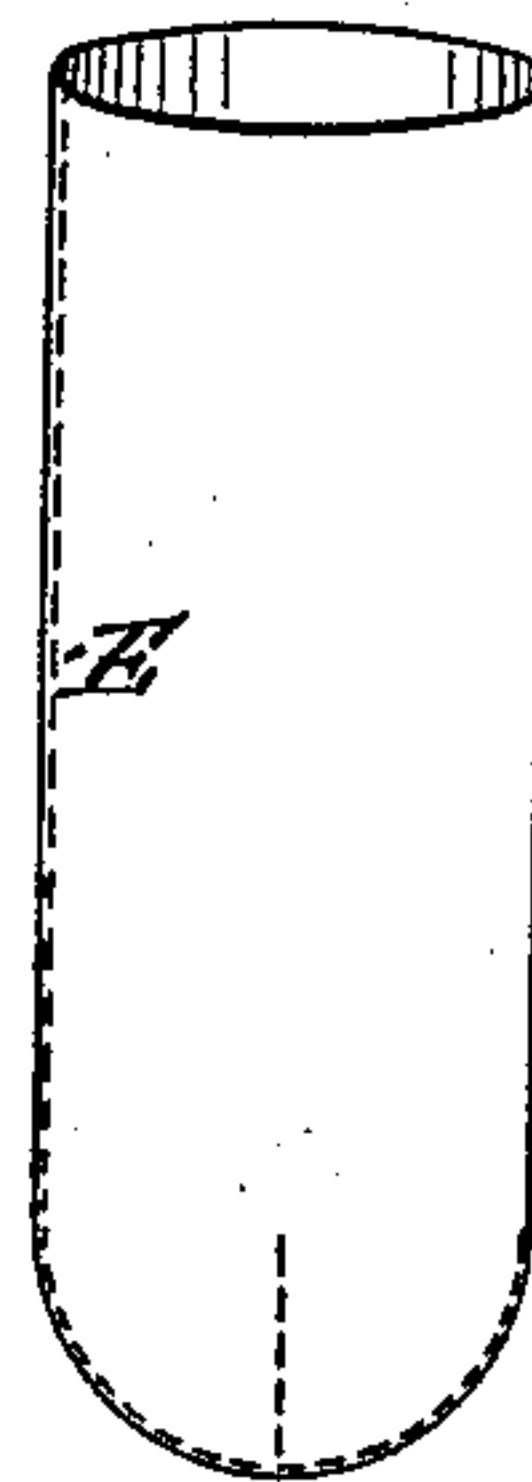


Fig. 2.

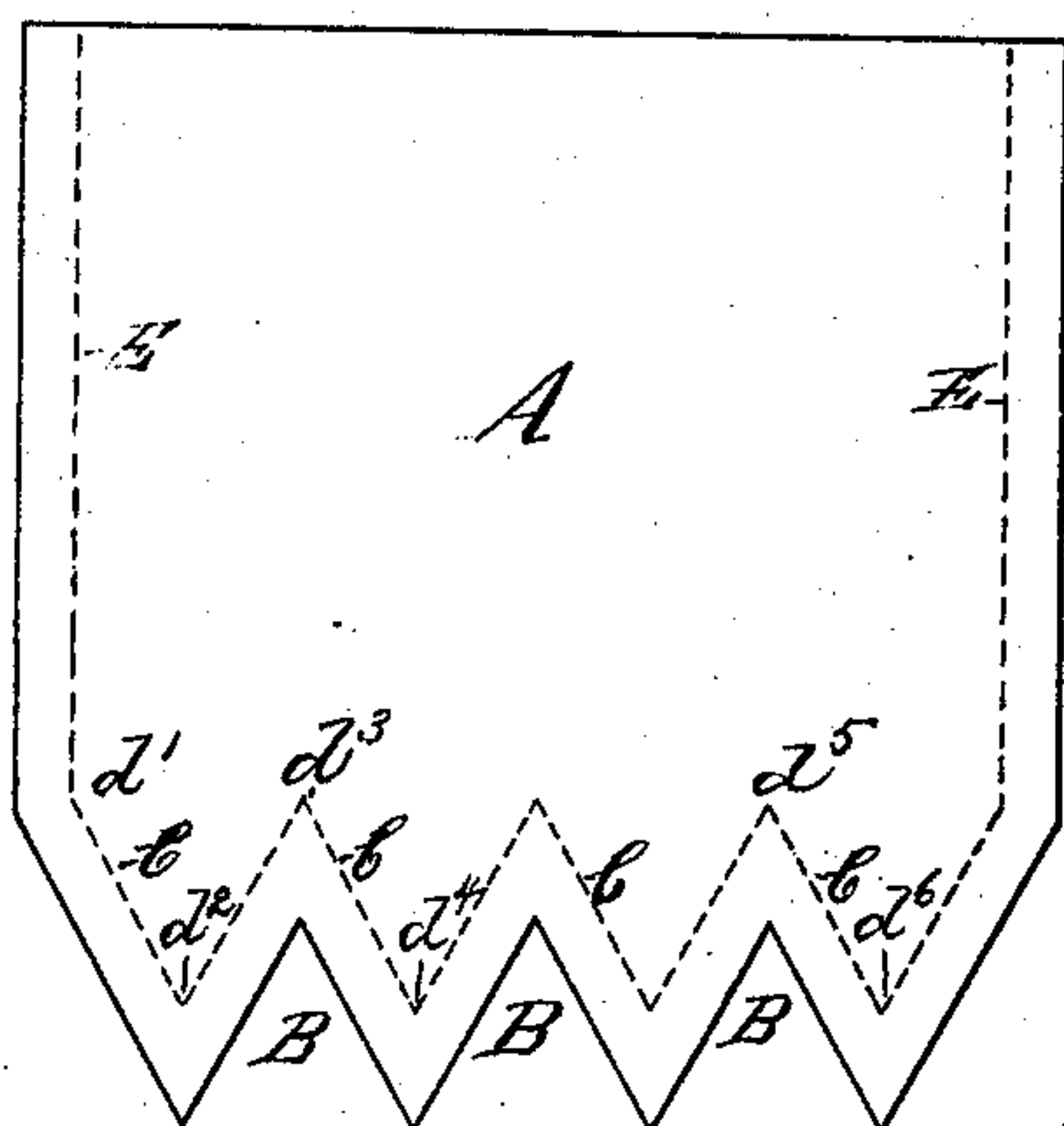
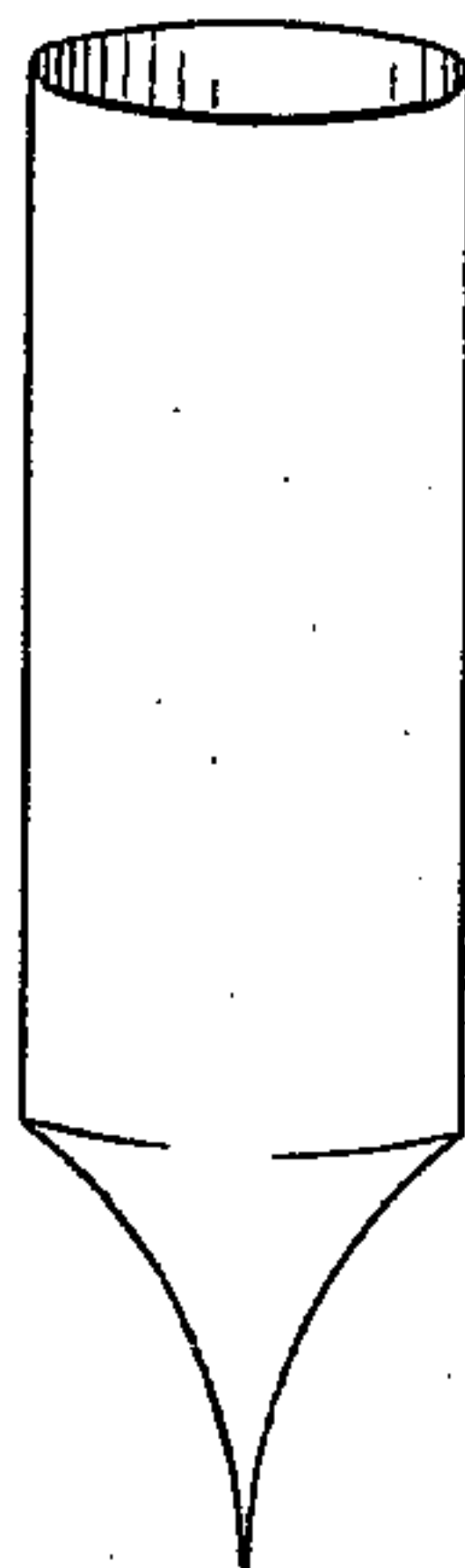


Fig. 4.



Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

HUGH REILLY, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN BAGS.

Specification forming part of Letters Patent No. **201,631**, dated March 26, 1878; application filed January 26, 1878.

To all whom it may concern:

Be it known that I, HUGH REILLY, of Brooklyn, in the State of New York, have invented a new and useful Improved Bag or Sack, and blank for the same; and declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figures 1 and 2 show the method of cutting and sewing my bag-blanks. Fig. 3 shows one form of my improved bag completed. Fig. 4 shows a form of tapered-bottom bag. Fig. 5 shows a form of concave-bottom bag.

Like letters indicate like parts in all the drawings.

My invention is particularly applicable to the construction of bags or sacks for holding powder used in ordnance, where it is desirable that the bag should be of a peculiar shape at one end, to fit, as exactly as may be, into the breech end of the bore of the piece; and it is for this purpose that I deem my invention particularly valuable, although it may be used to great advantage in other cases, and save the material of which the bags or sacks are composed, as well as the labor and time of sewing long seams.

The breech end of the bore of most pieces of cannon of the present day is of a semi-spherical, rounded, or conical form, the base of the cone being toward the muzzle of the piece. In loading these pieces it has been found desirable to have the powder composing the charge inclosed within a bag of some strong material which can be promptly and safely introduced into its place in the gun. These bags have been made in various ways to give the closed end the desired rounded or conical shape, as the case may be, to fit the breech end of the bore of the gun. Among these ways has been that of taking two or more pieces of the material of which the bag is to be formed, and after cutting that end of each piece which is to be at the closed and rounded or conical end of the bag into a half-round or pointed shape, then to sew these two or more pieces together in such manner that all the pieces together shall form a bag of the desired size, and with a rounded or conical bottom. This method is objectionable on the ground of the great number of long seams, which must be

sewed up firmly, so that no powder shall escape, which sewing is expensive and laborious; and, moreover, a bag so constructed is not as neat in appearance as my improved bag, because of the many thick folds of cloth caused by the seams running up its sides and across its bottom. Moreover, these seams require a large amount of material, from one to one and one-half inch for each seam.

My invention obviates these difficulties, and is as follows: To form my improved bag I take a piece of the material of which the bag is to be made, usually heavy flannel, (seen at A, Figs. 1 and 2,) extending in one direction somewhat more than the circumference of the bore of the gun which the bag is to fit, and in the other direction according to the length of the desired bag plus the material necessary to form the end and to close the mouth and to form the seams; and I cut or scallop out that edge thereof which is to be at the bottom of the completed bag in four points or projections, (seen at B, Figs. 1 and 2.) I say above that the dimensions are somewhat more than the circumference of the bore, &c., because I must allow material for the seam up the side of the bag, the amount of which depends upon the material used, but is usually from about one-half to three-fourths of an inch for each edge, making from one to one and one-half inch for the entire seam. The cloth must therefore be cut the desired dimensions plus the amount used for the seam.

After the piece of material has been cut as above it is sewed as follows: When I desire to make a flat-bottomed bag, I stitch the cloth together, as shown by the dotted lines C C C, &c., Fig. 2, and I make the length of the line of stitches from $d^1 d^2 d^3 d^4 d^5 d^6$, and so on through all the seams of the points, equal to the radius of the completed bag. I also sew up the one long seam where the edges of the cloth come together, (seen at E E, Figs. 1, 2, and 3,) thus making a complete bag with only one long seam from top to bottom, and with a flat bottom composed of four triangular-shaped pieces, the bottom seams forming right angles with one another.

If I desire the bottom of the bag to be semi-spherical in shape, I stitch the points not in a straight line, as in Fig. 2, but in a curved

line, (shown at *ffff*, Fig. 1,) and I make the length of the line of stitches from g^1 to g^1 and from g^2 to g^2 , and so all through all the seams of the points, equal in length to one-quarter the circumference of the completed bag. I also sew up the one long seam where the edges of the cloth come together, (seen at E, Fig. 1, as also in Figs. 2 and 3,) as before, thus forming a complete bag with but one long seam from top to bottom, and with a semi-spherical bottom composed of four pieces, each of which has a surface area of an eighth of a sphere.

If I desire a bag with an elliptically-shaped end, I increase the length of the line of stitches seen at $g^1 g^1 g^2 g^2$, &c., Fig. 1, and if I desire a rounded end of less than a semi-spherical form, I make the said line of stitches shorter than the said line Fig. 1; but in both these last instances I curve the line of stitches outwardly sufficiently to produce the rounded convex form; for if the line of stitches be made straight in the last two instances, the form of the bag will be like that shown in two forms in Fig. 4, and if it be not curved outwardly, but inwardly, then the shape of the bag will be like that shown in Fig. 5.

In all these instances I have referred merely to the use of four projections or scallops; and when only four are used, the distance from one another of the points of union of the lines of stitches at both the base and point of the projections should be equal to one-fourth of the entire circumference of the bag—that is to say, if the blank from which the bag was to be

formed were to lie flat upon a table, a line indicating the location of stitches should be as stated.

I do not, however, confine myself to four projections; but I use two, three, five, six, and more. When I use these various numbers I stitch the pieces as before; and when I use two, each projection should be for a flat-bottom bag of semicircular form, the radius of each circle being the radius of the desired bag, and for a rounded-bottom bag they should be elliptical in form; and there being but two projections, the distance from their extremities, one to the other, should be half the circumference of the bag. When three projections are used, the distance should be one-third the circumference; when five, one-fifth, and so on.

Having thus fully described my said invention, what I claim, and desire to secure by Letters Patent, as a new article of manufacture, is—

1. A sewed bag made of one piece of material, with but one long seam, and with the bottom formed by uniting the edges of two or more projections extending from the piece of material, substantially as described.

2. A blank for a bag made of one piece of material, and with two or more projections from one side of the material, as and for the purposes set forth.

HUGH REILLY.

Witnesses:

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