Aug. 30, 1932. S. E. BERNSTEIN 1,874,864

HANDKERCHIEF

Filed April 11, 1927

Fig 1

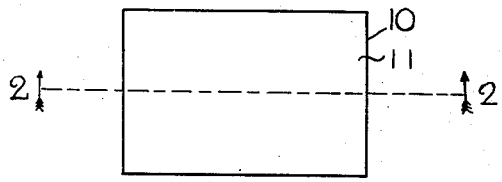


Fig 2

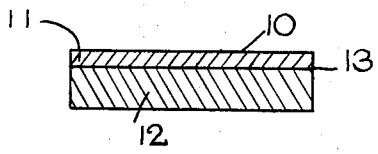


Fig 3

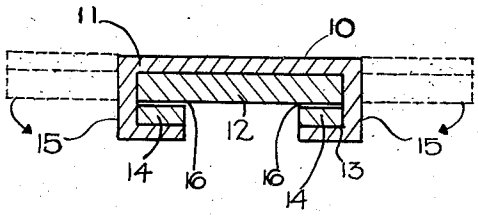


Fig 4

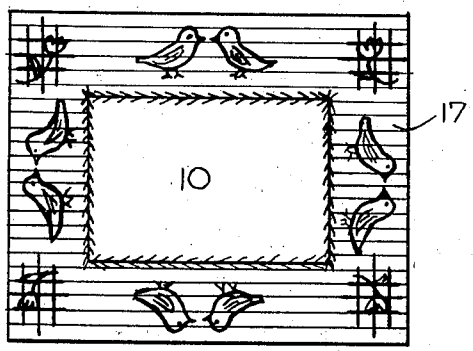


Fig 5

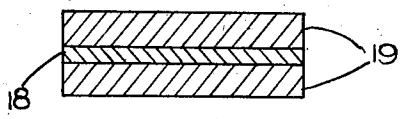


Fig 6

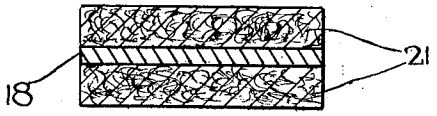


Fig 7

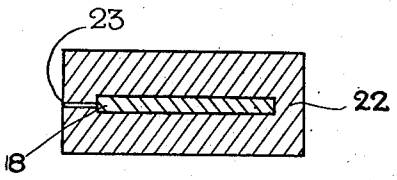
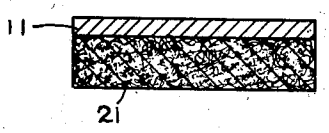


Fig 8



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UNITED STATES PATENT OFFICE

SARAH EDITH BERNSTEIN, OF WASHINGTON, DISTRICT OF COLUMBIA

HANDKERCHIEF

Application filed April 11, 1927. Serial No. 182,971.

My present invention relates to handkerchiefs and more particularly to a type of handkerchief designed to prevent the spread of disease.

The present day handkerchief of the type universally used, the texile or fabric type, is a spreader and breeder of disease germs due to the very nature of the handkerchief and its prevailing mode of utilization.

It is one of the objects of my invention to provide a new type of handkerchief subject to none of the disadvantages of the conventional everyday handkerchief, while at the same time offering hitherto unavailable advantages.

As is well known, at the present time, persons having coughs, colds, or similar diseases, as well as those having other contagious diseases, are accustomed to using fabric or textile handkerchiefs a number of times, meanwhile keeping the same in the pocket, purse, or elsewhere, and then sending them to the laundry. The results of such a custom necessarily and obviously are that the microorganisms excreted by the persons abovementioned become scattered to the four quarters of the globe. While the handkerchief remains on the person of the user, the microorganisms exist and multiply in the folds of the handkerchief, unavoidably spreading to the clothing and hands due to contact with the former and handling by the latter. Then the clothes or hands come into contact with those of other persons such as in public buildings, places, and conveyances, or even in semiprivate or private buildings, places, and conveyances. The dissemination of the microorganisms follows with the usual deleterious results to public health and welfare. After that, the clothing, or handkerchiefs, or even the very person are sent or taken to cleaners, to laundries, or to such places as gymnasiums or swimming pools, where the micro-organisms have abundant chances to disseminate or scatter still further with the consequent inevitable results.

At all these and many other points, insufficient or ineffective means are used in the attempt to combat, limit, or prevent this. The incontrovertible evidence of such ineffectiveness is the epidemics or plagues which ravish localities and even countries from time to time. It is evident that the ordinary handkerchief of fabric or textile material is useless to prevent this due to the nature of the handkerchief which permits mucous or other matter deposited thereon and carrying the microorganisms to pass through the handkerchief unhindered.

It is therefore a further object of my invention to provide a type of handkerchief through which such matter cannot pass and therefore a type of handkerchief which will eliminate the serious problems above stated.

Another object of my invention is to provide a handkerchief of the above mentioned type which, while preventing the dissemination of disease, will be as soft, flexible, and readily utilizable as conventional handkerchiefs, and, in fact, as will appear more clearly hereinafter, in some instances if not all is much more pleasant and agreeable to use.

Another object of my invention is to provide a handkerchief of such a nature that, in addition to the advantages already named, it will be so inexpensive and economical that it can be used only once and then discarded, and it is therefore a further object of my invention to provide the public with a handkerchief that may be used once and then discarded without undue expense so as to effectuate my present invention.

In addition to providing a type of handkerchief through which matter does not pass, I may, as desired or required, medicate or sterilize or antisepticize the handkerchief by impregnating therein or dusting or incorporating thereon or therewith, either during the manufacture of the paper or after the formation thereof, or at any other stage, some suitable medicament or antiseptic material, which kills or has a tendency to kill the micro-organic life, or other life of similar or like nature.

An important object of my invention is the provision of a handkerchief of novel construction, arrangement, and disposition of the constituent portions.

For the attainment of the foregoing objects and such other objects as may hereinafter

appear or be pointed out, I have illustrated embodiments of my invention in the accompanying drawing wherein:

Figure 1 is a plan view of a handkerchief embodying my invention;

Figure 2 is a section on an enlarged scale on line 2—2 of Figure 1, looking in the direction of the arrows;

Figure 3 is an enlarged sectional view similar to Figure 2, showing a handkerchief provided with a rolled edge;

Figure 4 is a plan view of a handkerchief illustrating the use of color and ornamentation to provide a fancy handkerchief;

Figure 5 is a sectional view similar to Figure 2 of a modification;

Figure 6 is a sectional view similar to Figure 5 of another form of my handkerchief;

Figure 7 is a sectional view of another form of handkerchief; and

Figure 8 is a sectional view similar to Figure 2 of a still further modification.

Similar numerals refer to similar parts throughout the several views.

Upon referring to Figure 1 of the drawing, it will be seen that the handkerchief 10 of my invention consists of paper or other fibrous material of predetermined convenient size, shape, and appearance. I may predeterminedly form this handkerchief of any desired or preferred size, such as sizes appropriate for ladies and gentlemen, or I may provide them for general use of one size only, large enough to serve the purposes for which they are intended but yet not so large as to be cumbersome or unduly waste the material of which they are made. These handkerchiefs I contemplate selling in packets or groups of suitable numbers to provide a sufficient supply for the individual needs for a desired time. The nature of my handkerchiefs is such as to enable them to be retailed to the consumer for a very nominal or small sum. The shape of the handkerchiefs is preferably rectangular although, of course, I may make them of any configuration or shape desired to enhance the utility or beauty, or both. Again, I may make them of any color or combination of colors and with any preferred or desired borders or edges, thus providing fancy handkerchiefs.

One form of my handkerchief may consist of paper having portions thereof of different natures or characteristics. It will be observed from Figure 2 that the handkerchief 10 has the portions 11 and 12 of different natures for purposes that will clearly appear. The numeral 13 indicates the boundary between the portions 11 and 12 and is the approximate dividing line between the less absorbent portion 11 and the more absorbent portion 12. The portion 11 is, as already stated, less absorbent than the portion 12 and is so for the purpose of preventing the passage therethrough of matter deposited by the user on the more absorbent portion 12. Such matter is the aforesaid matter containing micro-organisms or bacterial life, or the like, most often in the form of mucous or other matter excreted, forcefully or otherwise, from the nose, mouth, throat, etc., of the user or from any other portion or portions of the body of said user. The more absorbent portion 12 receives the matter and holds it firmly therein while the less absorbent portion 11 prevents the passage of the matter through the handkerchief with a consequent contamination of anything with which it comes into contact. Said portion 11 may be made less absorbent or substantially non-porous by waxing the same, or by oiling, greasing, glazing, bonding, calendering, filling, or waterproofing or otherwise treating or acting upon it so as to render it substantially non-porous, and such portion treated in any of the foregoing or any other ways may be of any preferred or desired area, shape, or extent.

The portion 12 may be left in the natural state of the material used or may be rendered even more absorbent by shredding, abrading, or otherwise treating the fibrous material so as to make the fibers less matted, or the fibers may be separated somewhat or made to stand up or apart, thereby rendering the portion 12 softer and fluffier. The type of paper used may be any one of a number available but I may use a kind of tissue or creped paper or any other form lending itself to the practice of my invention as herein set forth. I may, however, use paper especially made to yield the results hereof most effectively, which may be of any preferred or desired thickness or texture or which may possess predetermined characteristics, such as those obtainable by adding any special material to the paper or fibrous pulp or by incorporating any substance with the already formed web.

Whatever size, shape, appearance, or modification I may use in my invention, the paper or fibers thereof may be medicated, sterilized, or antisepticized, if desired, and such may be done either during the manufacture of the paper, during the formation of the handkerchief therefrom, or at any other suitable point in the chain of steps leading from raw materials to ultimate consumption by the user. Such may for example be done by adding a suitable ingredient to the pulp before the paper is formed therefrom, or may later be done by impregnating and drying the handkerchief with the appropriate substance, or by dusting thereon or incorporating therewith some medicating, sterilizing, or antiseptic material hostile to the presence of the aforesaid micro-organisms, bacterial life, or the like.

The handkerchief, in whatever form the user receives it, is preferably used once and then discarded such as by burning or flush-

ing down toilets. Having discharged the matter onto the more absorbent portion of the handkerchief, the user should then crumple or otherwise fold or bend the remaining portions of the handkerchief thereover, so that the less absorbent portion will surround the more absorbent portion and the matter thereon. The whole should then be burned or flushed down a toilet, for example, or otherwise discarded or disposed of in a manner cooperative of the principles herein discussed or other principles of sanitation and common sense. To aid in a disposal of the whole the paper may be made say water soluble. It is clear now that the material of the handkerchief may be said to be fibrous in nature.

As clearly shown in Figure 3, I may provide the handkerchief 10 with what I term a rolled or folded edge. This may be formed on any or all of the edges of the handkerchief, of whatever number of such edges there be, depending on the shape of the handkerchief. I do this by bending or folding the desired edges of the handkerchief so as to bring the portions of greater absorbency into contact or superposition for a short distance as is clearly illustrated in Figure 3. Although I may so fold the edges that the less absorbent portions contact, nevertheless, I have found that the handkerchief is kept in perfect shape by superposing the more absorbent portions, which are, moreover, more easily united as is apparent from the structure. The points of contact are indicated at 16—16 (Figure 3) and it will be evident that the edges 14—14 are bent around as shown by the directive arrows forming rolled or folded edges 15—15 which are secured at 16 in any suitable manner such as by mucilaginous material.

From Figure 4 it will be seen that I may provide my handkerchief 10 with a border or design 17 of any predetermined pleasing configuration or hue. The form shown in Figure 4 shows a lace-like design 17 of blue. It is clear that within the scope of my invention I may use any configuration of border or borders and may color it or them with any desired colors or combination of colors. Likewise, I contemplate decorating, ornamenting, or designing the body portion of the handkerchief itself, although from a consideration of the foregoing, I preferably limit myself to such decorating, ornamenting, or designing on the less absorbent portion of the handkerchief. I may also provide initials, designs, or any desired ornamentations or configurations by means of perforations passing through the whole handkerchief at any chosen places.

The modification of Figure 5 illustrates a handkerchief of three portions, which might be called laminated. In this form of the invention, the middle or intermediate portion 18 is the portion less absorbent than the other or outer portions 19—19. This form of handkerchief presents the added advantage that it can be used indiscriminately on either side and the matter deposited thereon cannot pass through the portion 18 which may be of any of the forms mentioned in respect to the portion 11. Either this or any other form of the invention can be medicated, sterilized, or antisepticized as hereinabove provided, if desired.

Figure 6 illustrates a further embodiment of the invention wherein the portion 18 is like the portion 18 of Figure 5 and the portions 21—21 are of softened or fluffened texture. Such portions 21—21 may consist of paper shredded, abraded, roughened, or otherwise treated as explained above, to render it more absorbent, fluffy, and soft. The portions may be made separate and then suitably united, or the opposite portions of a unitary piece of material, treated to make its center less absorbent, may be shredded, abraded, or otherwise treated as stated at its outer surfaces to obtain the effects above-noted.

In Figure 7, I illustrate another form of the invention wherein the portion 18 is of a nature now familiar; that is, it is like the less absorbent portions already discussed. The outer portion 22, corresponding generally to portions 19—19 of Figure 5, is formed by wrapping a more absorbent portion around the less absorbent portion 18. Where I wrap a flat sheet around portion 18, I unite its ends at 23 or at any other point. I may, however, slide portion 18 into a flattened tube of the more absorbent material and then there will of course be no ends. By making the portion 22 only a little larger than the portion 18, it is obvious that I may so wrap it about portion 18 that each edge may be bent or folded around or upon and fastened or secured onto portion 18 giving the folded or rolled edge effect ascribed to the form illustrated in Figure 3.

A still further modification is illustrated in Figure 8. In this figure, the portion 11 may be like portion 11 of Figure 2, or it may be like portion 18 of Figures 5, 6, and 7, also. The portion 21 may similarly be like portions 21 of Figure 6 or may be like the portions 12 or 19 already described. The import and advantages of this form of the invention will therefore be readily appreciated from the nature of the materials thereof taken in connection with the foregoing explanations.

I have therefore provided a peculiarly efficient structure admirably adapted to effectuate the many and important functions hereinabove set forth. The folded or rolled edge feature which may be used on any modification in the manner of Figures 3 or 7 will keep the handkerchief 10 in shape, preventing tearing, fraying, or the like thereof.

The sale of these handkerchiefs may be in any convenient amount, quantity, or form and they may be sold either in a package or container to keep them clean, dry, and sterile or without such package or container and in bulk, whichever is found necessary or desirable.

Although my disclosure chiefly contemplates the embodiment of my invention in the form of a handkerchief, it is entirely within the scope of my invention to apply the foregoing principles as I see fit, and in that connection may take the form of towels, napkins, toilet tissue, or the like, wherever the considerations stated above may be advantageously applied.

I intend all the above matters to be illustrative and not limitative, so that I in no wise limit myself except as stated in the subjoined claim.

I may also if I desire perfume the handkerchiefs for the pleasant odor that will thereby be associated with them and for the further effect that the alcohol contained in the perfume will have a distinct tendency to kill micro-organic life of the natures hereinabove stated.

Although for the sake of simplicity and clearness, I have shown the edges of the paper of the handkerchiefs by smooth lines, it will be evident that such might well be wavy or non-smooth or fibrous-like, depending on the kind of paper used and the nature of the means used to cut the individual handkerchiefs from the sheets or rolls.

It is further within the scope of my invention to use gelatine either alone or with some other substance, and in either case with or without the use of heat, as the means to render one portion of the handkerchief substantially impervious or non-porous or less absorbent.

Having thus described my invention and illustrated its use, what I claim as new and desire to secure by Letters Patent of the United States is:

A paper sanitary handkerchief to be used only once, comprising a compressed sheet of tissue or creped paper, the outer surface of which has been shredded to render the same fluffy and less matted than the compressed part, the compressed part being substantially waterproof and said fluffier and less matted part being several times the thickness of the compressed part.

In testimony whereof I hereunto set my hand this 11th day of April, 1927.

SARAH EDITH BERNSTEIN.