G. S. BERMAN.

EMERGENCY UMBRELLA.

APPLICATION FILED FEB. 12, 1919.

1,325,072. Patented Dec. 16, 1919.

Fig:1.

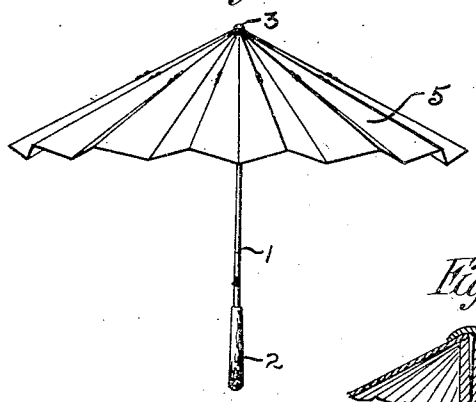


Fig:2.

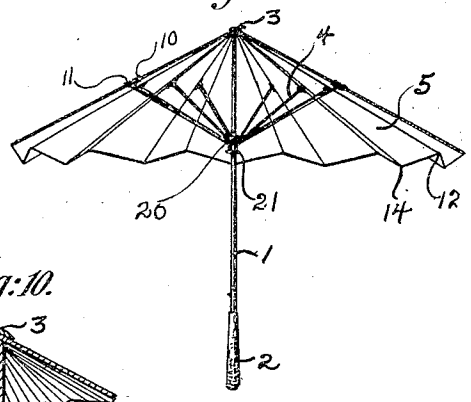


Fig:10.

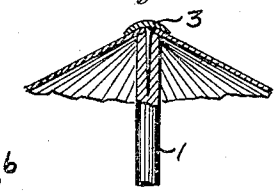


Fig:3.

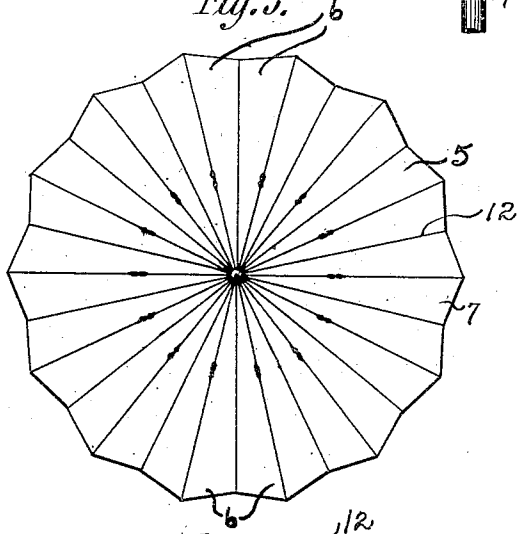


Fig:4.

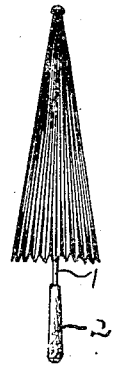


Fig:5.

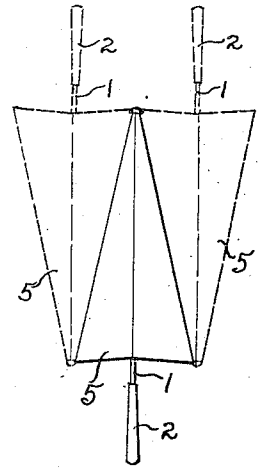


Fig:7.

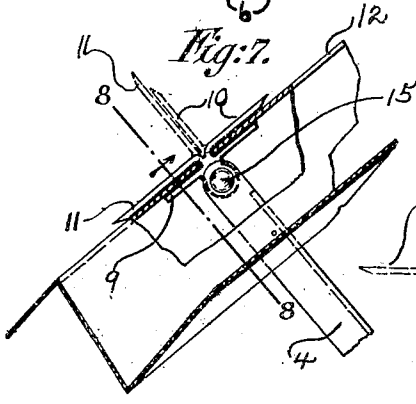


Fig:9.

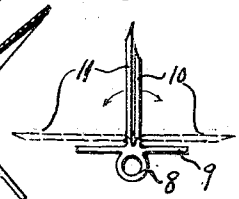


Fig:8.

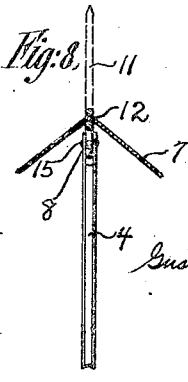
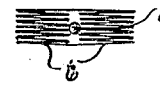


Fig:6.



INVENTOR

Gustave Stanley Berman

BY Mock & Blum

ATTORNEYS.

UNITED STATES PATENT OFFICE.

GUSTAVE SHANLEY BERMAN, OF NEW YORK, N. Y.

EMERGENCY-UMBRELLA.

1,325,072. Specification of Letters Patent. Patented Dec. 16, 1919.

Application filed February 12, 1919. Serial No. 276,499.

To all whom it may concern:

Be it known that I, GUSTAVE SHANLEY BERMAN, a citizen of the United States, residing at 860 Riverside Drive, New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Emergency-Umbrellas, of which the following is a specification.

My invention relates to what may be termed an emergency umbrella, that is, an umbrella which can be cheaply manufactured so as to be retailed at a low price on news-stands, drug stores, and other conveniently located points, to be used once by persons caught in a sudden rain, and then discarded.

For this purpose it is necessary to have an umbrella which will be sufficiently durable to withstand the elements, and which can be very quickly and cheaply manufactured so as to be sold at a low cost.

Numerous structures have already been suggested for this purpose but they have all been open to the objection that they could not be quickly and cheaply manufactured so that their cost was far above the amount which would be offered for an emergency umbrella of the kind above described.

According to my invention a simple, cheap and efficient combination of parts is secured which enables a durable umbrella to be produced at a low cost by adapting well-known mechanical elements to coöperate with new elements of simple construction.

Other objects of my invention will be disclosed in the following description and drawings which illustrate a preferred embodiment thereof.

Figure 1 is a perspective view of the umbrella in its open condition.

Fig. 2 is the same as Fig. 1 but shows the connection between the cover and the stick of the umbrella.

Fig. 3 is a plan view of the cover for the umbrella.

Fig. 4 is a perspective view of the umbrella in its closed condition.

Fig. 5 is an elevation of three umbrellas showing how they would be packed for shipping purposes.

Fig. 6 is a horizontal section of the umbrella in the closed condition.

Fig. 7 is a section showing the connection between the spokes and the cover.

Fig. 8 is a section along line 8—8 of Fig. 7.

Fig. 9 is an elevation of the fastener which secures each spoke to the cover.

Fig. 10 is a section showing the connection between the stick and the cover.

The cover 5 of the umbrella is made of waterproof paper which is fluted so as to present a series of upper or rib-folds 12, which alternate with lower or depressed folds 14. The cover 5 is made of stiff paper which requires no supplemental stiffening means to maintain it in its open position.

The four end plaits 6 are made wider than the intermediate plaits 7. It is preferred that these end plaits 6 be about twenty-five per cent. wider than the intermediate plaits 7 so that when the cover 5 is folded, then as shown in Fig. 6, the inner ends of the plaits have sufficient space between them to allow room for the stick 1 of the umbrella.

As shown in Figs. 5 and 6, when the umbrella is collapsed or folded the end plaits 6 at the front and at the rear of the umbrella respectively, assume a position in the same plane, so that the front and the rear of the umbrella present flat surfaces and the general contour of the umbrella is that of a pyramid having a rectangular base, which makes it convenient to ship and store these umbrellas, for which purpose the umbrellas can be assembled as shown in Fig. 5 in sets of three the ends of the base of each umbrella each being adjacent an apex of another umbrella.

A runner 20 of the type well-known in ordinary cloth umbrellas is mounted so as to freely slide up and down on the stick 1, to which a handle 2 of any ordinary type may be connected. The runner 20 has a series of spokes 4 of the ordinary type connected thereto in the ordinary manner. The spokes 4 may be made of metal, and the construction of the spokes 4 and the runner 20, and the connection between the spokes 4 and the runners 20 require no further illustration or explanation, as the spokes 4 are hinged to the runner 20 in the ordinary and well-known manner long known in the art of embrella making and my invention is neither directed nor limited to this particular feature.

The outer ends of the spokes 4 are secured to the rib folds 12 by fasteners 8. Each fastener 8 has an inclosed ring-like head,

which flares out into a shield 9 and bendable prongs 10 and 11. The prong 11 is somewhat longer than the prong 10 and both are formed with piercing points so that they can be readily forced through the rib folds 12, and then be bent parallel to the shield 9 so as to tightly clamp the material between the prongs 10 and 11 and the shield 9, and thereby securely hold the material of the cover. This tight clamping of the material of the cover 5 at the rib folds 12, firmly holds the material between the prongs 10 and 11 and the shield 9 so that there is no danger of shifting the fasteners when the umbrella is opened or closed and there is no danger of enlarging the hole which is formed when the prongs 10 and 11 are first thrust from the material of the cover 5. This is an important consideration as otherwise metal eyelets would be necessary to protect the holes through which the prongs 10 and 11 are first thrust and which would greatly add to the expense of making the umbrella. Such eyelets may be used.

If desired the fasteners could be used with open rings 8, in which case these open rings could be closed with a drop of solder placed on these openings, which would be adjacent the shields 9, thereby giving the closed ring construction shown in Fig. 9, which is necessary to secure the desired strength. The cover 5 is secured to the stick 1 by a thumb tack 3 which preferably has a concaved head provided with a sharp periphery so as to tightly clamp the cover to the periphery of the stick 1.

The spokes 4 are connected in a hinge-like manner to rings 8 by means of rivet-like members 15, which allow the spokes 4 to revolve freely with respect to the fasteners.

The shield 9 is preferably circular. An ordinary latch 21 may be provided to hold the runner 20 in its upper position.

By means of this construction the stick and cover can be very rapidly and cheaply assembled and the entire cost of the umbrella is kept so low as to render it suitable for the purpose before mentioned.

I have described a preferred embodiment of my invention but it is clear that numerous changes and omissions could be made without departing from its spirit, and I do not wish to be limited to its details.

I claim:

1. In an umbrella, a stick, a plaited cover made of foldable waterproof material fluted so as to present a series of rib folds and depressed folds when the said cover is opened, a runner on the said stick, spokes hingedly connected to the said runner, and means for hingedly connecting the said spokes to the said cover at the said rib folds thereof, the said connecting means having securing means passing through the said rib folds to the outer side of the cover, and serving to hold the said connecting means to the said cover and having inner means to close the openings formed in the said cover to permit the passage of the said securing means.

2. In an umbrella, the combination of a stick, a cover of waterproof paper which has been plaited so as to present a series of rib folds and a series of depressed folds, means for securing the top of the said cover to the top of the said stick, a runner mounted on the said stick and having a series of spokes hinged thereto, and a series of fastening means connecting the outer ends of the said spokes in a hinge-like manner to the said rib folds, each fastening means comprising a closed ring having prongs and a shield radiating from substantially the same part of the said ring, the said prongs being adapted to be forced through the said rib folds and then be bent so as to be parallel to the said shield and tightly clamp the said rib folds against it, and pintles connecting the outer ends of the said spokes to the said closed rings in a hinge-like manner.

3. In an umbrella, a stick, a plaited cover made of bendable waterproof material and secured to the said stick and means connecting the said cover to the said stick, so as to permit the opening and closing of the said cover, the two front plaits and the two rear plaits of the said cover being wider than the intermediate plaits, the said cover being adapted to be collapsed so that the two front plaits are in the same plane and the two rear plaits are in another plane parallel to the first mentioned plane and the general contour of the said cover in its collapsed position is that of a rectangular pyramid.

4. In an umbrella, a stick, a plaited cover made of bendable material, and fastening means for fastening the top of said umbrella having a concaved head which is adapted to force the said cover against the periphery of the said stick, said fastening means serving to secure the said cover to the said stick, and means for opening and closing the said cover.

In testimony whereof I hereunto affix my signature.

GUSTAVE SHANLEY BERMAN.