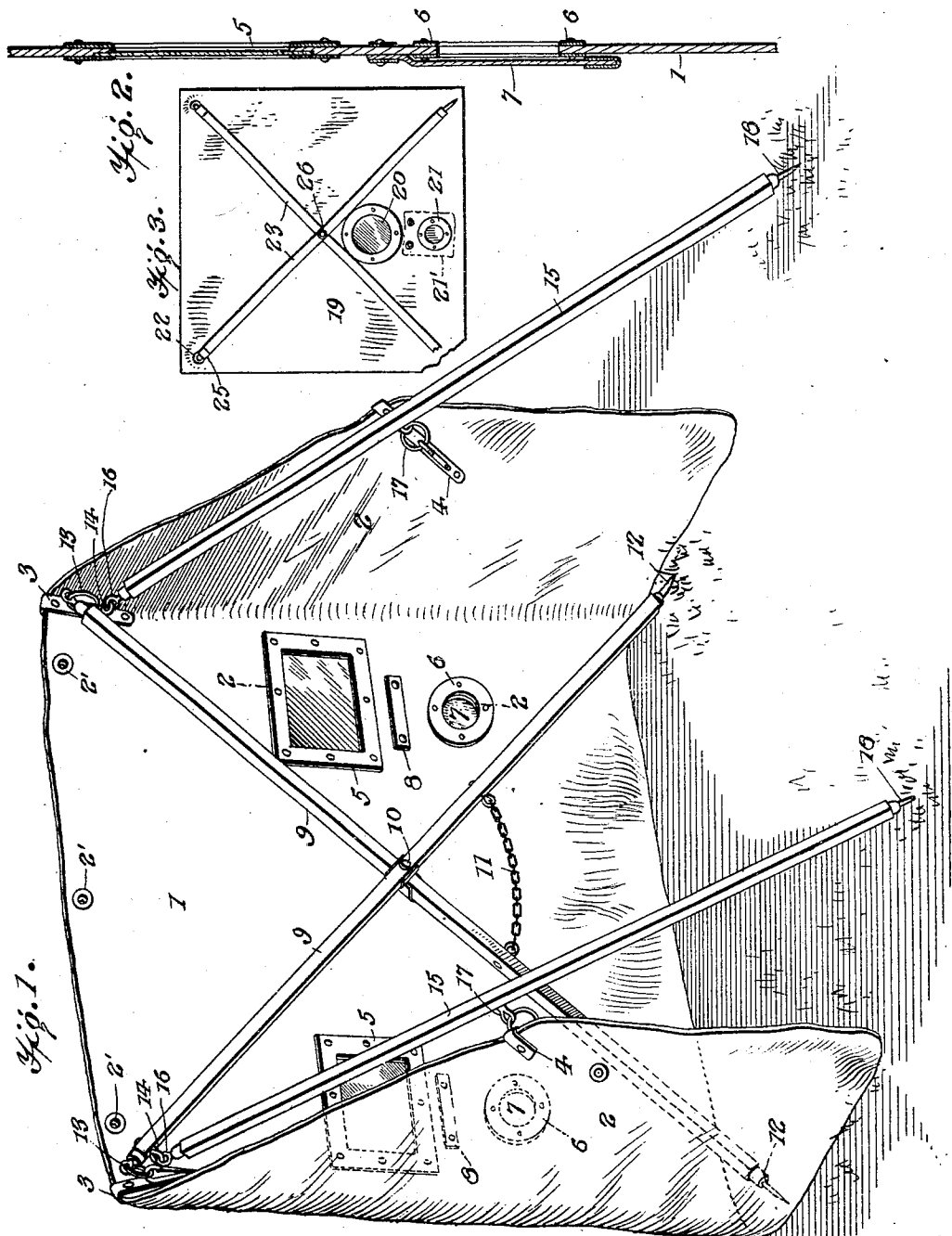


J. A. DENNIS.
 COLLAPSIBLE FIRE SHIELD.
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935,248.

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COLLAPSIBLE FIRE-SHIELD.

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To all whom it may concern:

Be it known that I, JAMES A. DENNIS, a citizen of the United States, residing at Henderson, in the county of Henderson and State of Kentucky, have invented certain new and useful Improvements in Collapsible Fire-Shields, of which the following is a specification.

This invention relates to a collapsible fire shield designed for use particularly where it is desirable to carry on the fire-fighting operations in close proximity to the flames, as for instance in approaching a door or window from which flames are issuing.

The main object of the invention is the provision of a shield, impervious to fire and heat, which shall be adapted to afford effective protection to firemen while operating and at the same time permit unobstructed vision of the fire and unrestricted use of a hose for directing a stream of water or chemicals where such will be most effective.

Another object is to provide a shield which shall be adapted for efficient use in scaling in instances where the fire is located in the upper part of a building and entrance from a lower floor is undesirable.

Another object is to provide a shield of few parts of simple construction which can be quickly and easily adjusted to stable operative position and as readily folded in compact form such as to adapt it to be conveniently carried upon the ladder wagon or truck of the fire company in such situation as not to interfere with any of the apparatus usually carried by such vehicles, and yet adapted for ready access and disengagement from said wagon for use when described.

Another object is to provide means whereby a number of the shields, by slight manipulation, can be quickly detachably connected and spread or hung upon unprotected property situated in dangerous proximity to a fire.

With these and other objects in view, the invention will now be described in the following specification, taken in connection with the accompanying drawings, and then more specifically pointed out in the claims.

In the drawings, Figure 1 is a perspective of my fire shield in operative position, looking from the rear. Fig. 2 is an enlarged vertical section taken on line 2—2 and partly broken away. Fig. 3 is a rear elevation of a slight modification.

Referring now to the drawings, wherein

is shown the preferred embodiment of the details of my invention, and wherein like reference numerals refer to like parts throughout the several views, 1 denotes the front wall of the shield proper, formed of course of fire-proof material, such as asbestos provided on the inner side with a coating of water-proof material and embracing duplicate side walls 2 constructed integral with wall 1 and designed to be positioned, when in operative situation, at an appropriate angle to said wall as shown in Fig. 1, for a purpose to be later explained, or, should occasion demand, to extend in the same plane as said wall when the shield is being used for other than its primary function. A series of metal bound apertures 2' are provided in wall 1 near the top edge thereof and are designed, where a number of the shields can be used as covering to protect property in dangerous proximity to a fire, to furnish a means whereby said shields can be quickly and securely attached together. Connecting members 3, preferably in the form of snap-hooks, as shown, are positioned on the inner face near the upper edge of front wall 1, being securely attached to or formed integral with attaching plates of metal passing over the edge and riveted through the material of the shield, similar members 4, designed for similar use being provided on side walls 2 of the shield.

5 denotes a plurality of metal frames securely riveted at appropriate heights in the front wall 1 and adapted to support and retain in desired relative position plates of transparent material impervious to heat, such as mica or the like, and adapted to permit unobstructed vision of the firemen through the screen to ascertain where to direct the stream from the hose, when desired.

6 indicates a plurality of metal bound nozzle openings formed in the front wall 1 of the shield and are adapted to permit insertion of the hose nozzle and permit free play of the latter therein that the firemen may direct the stream of water or chemicals where most needed. Each of said nozzle-openings is provided with a metal bound swinging curtain 7 riveted at its upper edge through plate 8 to the outer face of wall 1 and normally hanging in close proximity to said face in front of its respective nozzle-opening and preventing passage therethrough of flame and heat and adapted to be easily

swung outward by the hose nozzle when inserted through said opening for playing a stream upon the fire.

9 denotes a pair of supporting rods, preferably formed of metal or other fire proof material, pivotally connected at approximately their central point through the medium of pivot-bolt 10 and of such length as to extend when in operative position diagonally across the rear face of wall 1 of the shield, as shown in Fig. 1, a stay chain 11, securely attached to rods 9 in any desired manner, being designed to prevent undesired spreading of said rods, being supplemented in this function by prongs 12 adapted for screw connection with said rods and designed to contact with the ground and assist in retaining the shield in appropriate stable position. Ring members 13 adapted for free movement in all directions and for ready engagement with and disconnection from members 3 are attached to the upper ends of rods 9, ring connections 14 being positioned closely contiguous to said ring members 13 and designed for a purpose later set forth.

15 indicates a pair of brace rods formed of fire proof material and provided on their upper ends with connecting hooks 16 designed for engagement with ring connections 14 of rods 9 in the adjustment of the shield to operative position, and at approximately their middle points with connecting members 17 adapted for ready engagement with members 4 of the side walls 2 and to hold said side walls in adjusted angular relation to the front wall 1 when said brace rods are in correct inclined position, as shown in Fig. 1, holding prongs 18, formed on the lower ends of rods 15 being adapted to enter the ground and retain the structure in desired stable situation.

In Fig. 3 is shown a slightly modified form of shield designed for use in conjunction with scaling ladders and adapted to be placed before a window or door in the upper part of a burning building from which flames are issuing in order to permit inspection of the interior thereof and operation of the hose while fighting the fire, or to cut off a fire-increasing draft. Said modification embraces a sheet of asbestos or the like 19 provided, as in the preferred form, with inspection aperture 20 and curtain 21 covering a nozzle-opening 21, and with metal bound openings 22, designed to receive connecting hooks 25 formed on the upper ends of supporting rods 23, pivotally connected at 26, the lower ends of said rods being provided with holding prongs or with connections similar to those on the upper ends, as desired.

In assembling the apparatus for use ring members 13 are made to engage members 3, rods 9 separated the extent of chain 11 and

prongs 12 forced into the ground, thus extending the front wall 1 of the shield to full operative position. Connecting members 17 are then made to engage members 4 and rods 15 inclined rearwardly, and positioning side walls 2 in correct angular relation to wall 1, when prongs 18 are forced into the ground and hold the structure in stable adjusted situation, it being understood that the engagement of members 14 and 16 is permanent. In disconnection the frame from the shield proper, connections 13 and 17 are disengaged from their cooperating connecting members on the shield, which can then be rolled in small compass, while rods 9 are folded together on pivot-bolt 10 and rods 15 folded lengthwise rods 9.

It is evident from the foregoing that I have provided a fire shield which, while affording effective protection to firemen while operating in such proximity to a fire as to insure the best results will, at the same time, permit full inspection of the fire and use of the hose to properly direct a stream of water where most needed. It is also evident that the apparatus can be quickly adjusted to position and readily disassembled and folded in compact form for transportation.

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

1. A shield for firemen formed of a single strip of flexible material comprising a central wall, side walls adapted to be disposed at various angles to the central wall, a foldable frame removably attached to the shield and adapted to support the latter in pendent position, said frame being connected only to the shield and to the ground.

2. A fire-shield comprising a strip of fire-proof material, pivotally-connected cross bars, means carried by the shield to removably engage one end of each cross bar, a brace bar movably connected with each cross bar, and means carried by each end of the shield for detachably engaging the brace bars.

3. A collapsible fire shield comprising a central wall, side walls formed integral therewith and disposed in angular relation thereto and means comprising pivotally connected cross bars and brace bars loosely connected thereto to maintain said walls in said relation.

4. A collapsible fire shield comprising a central wall, side walls formed integral therewith and adapted to be disposed in angular relation thereto, and means, comprising cross bars and brace bars loosely connected thereto to maintain said walls in said relation, said cross bars and brace bars being adapted for holding connection with the ground.

5. A fire shield comprising a foldable supporting frame and a single strip of flexible

material removably connected thereto in pendent relation, the ends of said strip being adapted to be adjusted in various angular relations to the central portion thereof.

5 6. A collapsible shield for firemen formed of a single strip of flexible material comprising a central wall, side walls adapted to be disposed in various angular relations thereto after the shield is in shielding position, and a foldable frame detachably connected to said shield and to the ground to solely support the shield in adjusted position.

15 7. A fire shield comprising a strip of fire-proof material, pivotally-connected cross bars, attaching hooks carried by the strip to removably engage one end of each cross bar, a brace bar movably connected with each cross bar and hooks carried by each end of the shield for detachably engaging the brace bars.

20 8. A collapsible fire shield comprising a

central wall, side walls formed integral therewith and disposed at an angle thereto, sight openings formed in the central wall, 25 nozzle openings disposed beneath the sight openings, and means to maintain the shield in pendent position.

9. A fire shield comprising a single strip of flexible fire-proof material, sight open- 30 ings formed in said material and closed by transparent refractory material, nozzle openings arranged below the sight openings, pendent fire-proof curtains movable in front of the nozzle openings, and means, detach- 35 ably connected to the strip for supporting the latter in pendent position.

In testimony whereof, I affix my signature in presence of two witnesses.

JAMES A. DENNIS.

Witnesses:

JOHN S. DENNIS,
AL. J. FINK.