

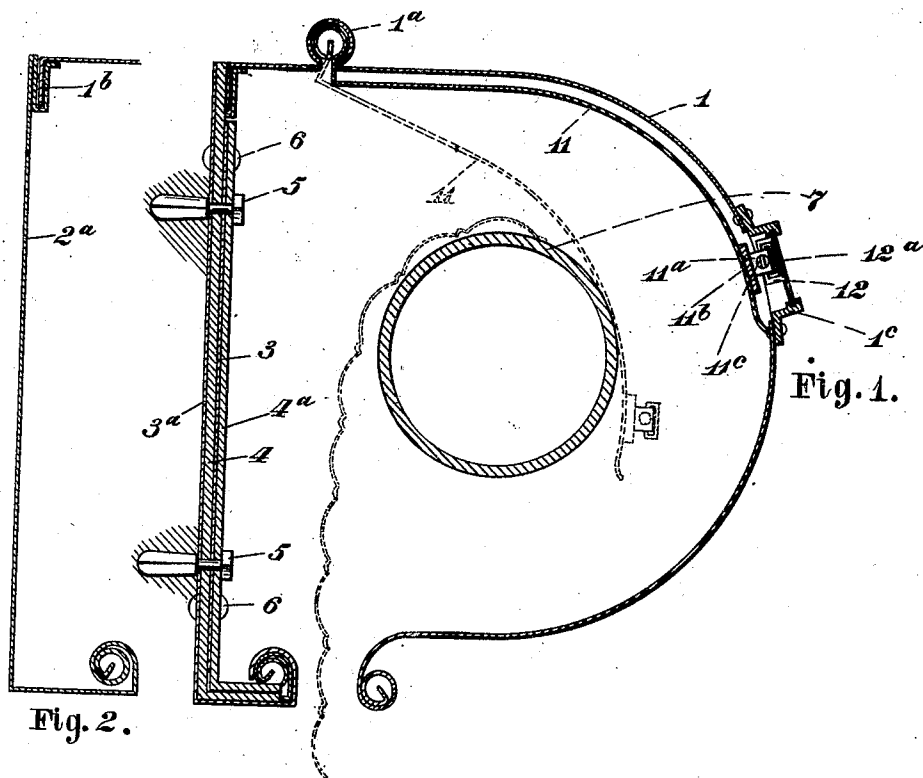
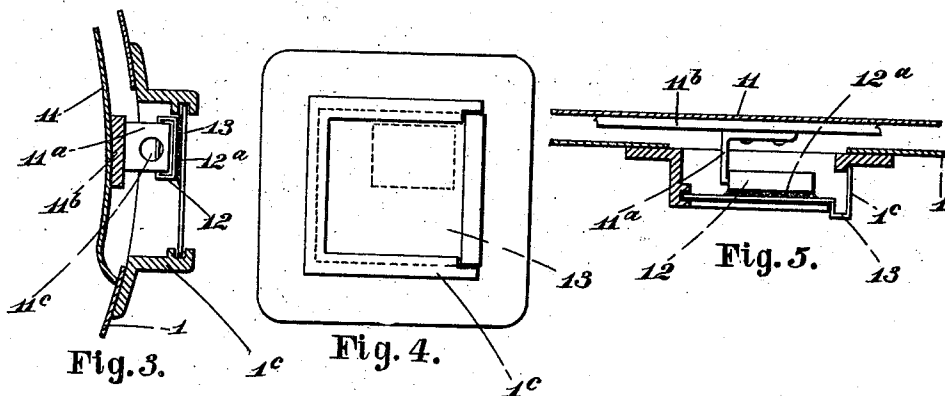
No. 842,968.

PATENTED FEB. 5, 1907.

E. H. McCLOUD.
HOOD FOR ROLLING FIRE RESISTING CURTAINS.

APPLICATION FILED FEB. 2, 1906.

2 SHEETS—SHEET 1.



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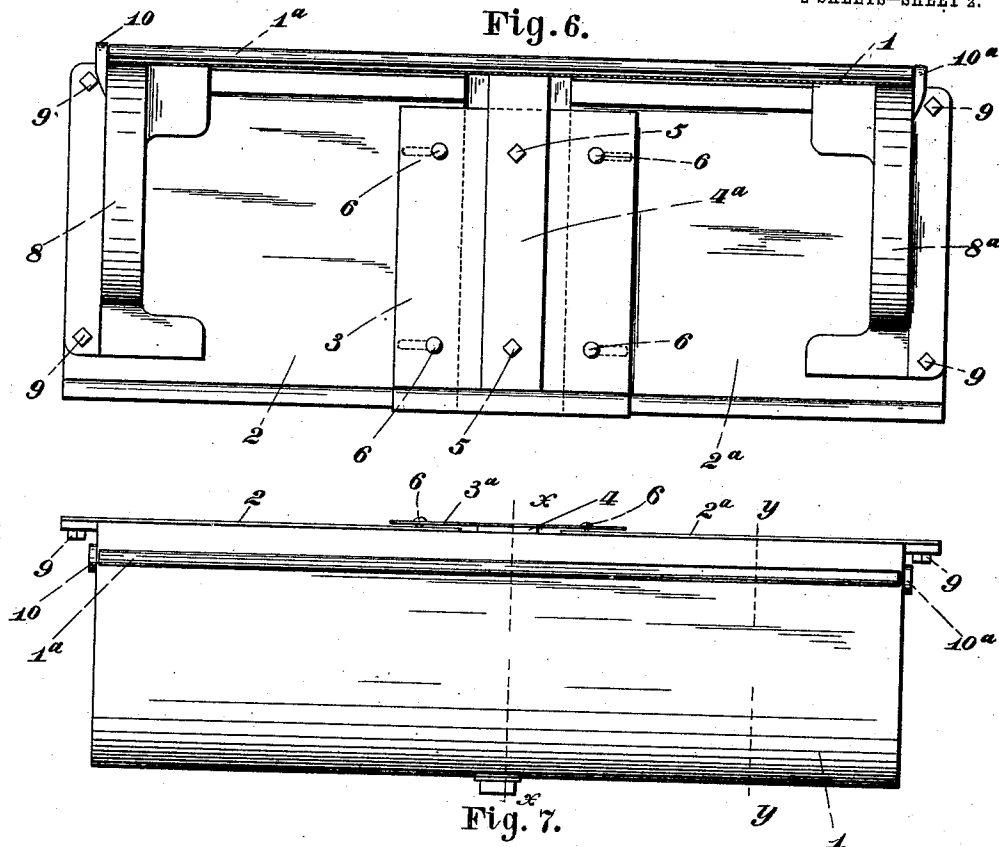
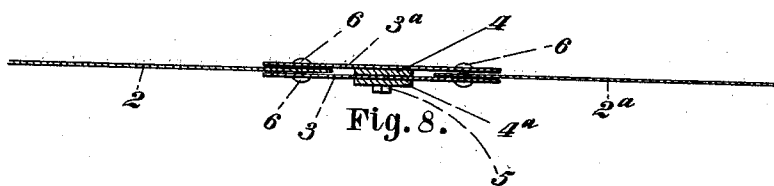
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

EDWARD H. McCLOUD, OF COLUMBUS, OHIO, ASSIGNOR TO THE KINNEAR MANUFACTURING COMPANY, OF COLUMBUS, OHIO, A CORPORATION OF WEST VIRGINIA.

HOOD FOR ROLLING FIRE-RESISTING CURTAINS.

No. 842,968.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed February 2, 1906. Serial No. 299,219.

To all whom it may concern:

Be it known that I, EDWARD H. McCLOUD, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Hoods for Rolling Fire-Resisting Curtains; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of this invention, generally stated, is to provide an improved construction of hood for use in connection with rolling fire-resisting curtains for closing door, window, and other openings whereby sparks and flame are in a large measure or wholly precluded from passage through or around the hood.

The invention is embodied, generally speaking, in a supplemental hood or shield connected with the hood proper and adapted to lie on or in close proximity to the curtain or roller to close the passage or opening between the curtain or its roller and the hood and means whereby such supplemental hood is held up away from the curtain or roller and automatically liberated on the occurrence of nearby fire.

The invention also embodies means whereby buckling of the hood at its back where it fits against the wall is prevented; but the scope of the invention and the particular features sought to be protected are to be ascertained from the claims appended hereto.

In the accompanying drawings, Figure 1 is a vertical section on the line *x x*, Fig. 7, but on a larger scale and through the center of the hood. Fig. 2 is a section of one of the back portions alone on the line *y y*, Fig. 7, also on a larger scale. Fig. 3 is a sectional view, on a larger scale than seen in Fig. 1, of the device for holding up the supplemental shield. Fig. 4 is an exterior view of the device for holding up the supplemental shield. Fig. 5 is a detail, partially in section, of the means whereby the supplemental shield is held up. Fig. 6 is an elevation of the inner side of the back of the hood. Fig. 7 is a top plan view of the hood, and Fig. 8 is a horizontal sectional fractional detail of the back.

In the several views, 1 designates the outer or exposed part of the hood. This hood is of semicylindric form and is preferably made of sheet metal and bent along its upper side to form a bead 1^a, adapted to receive a beaded edge of the supplemental shield, as hereinafter described, the two beads constituting a hinge. At its lower edge the metal of this hood is curled and bent to form a strengthening-bead, that also constitutes one side of the opening through which the curtain is passed.

The back of the hood where it fits against the wall includes two pieces 2 and 2^a of sheet metal, provided with grooves at their upper edges, into which fits a flange 1^b of the outer portion 1. The back portions 2 and 2^a at their lower portions are bent to stand outward from the wall, and their edges are formed with strengthening-beads, which also constitute one side of the opening to the hood through which the curtain passes. These back portions 2 and 2^a are secured at their outer ends to the wall and are separated at their inner ends by a space ample to permit the free expansion of such portions due to rise in temperature.

The space between the inner ends of the portions or sections 2 and 2^a of the back is closed by two plates 3 and 3^a of metal fitting on opposite sides of said portions. These plates are held apart by a strip of metal 4, bent at its lower end to conform generally to the bend of the lower edges of the portions 2 and 2^a. The strip 4 can be supplemented by a further strengthening-strip 4^a of the same kind and form, fitting on the outer side of the plate 3^a, and bolts 5 are passed through round holes in the plates 3 and 3^a and strips 4 and 4^a to secure them all rigidly to the wall. At their inner ends near the space between them the back portions 2 and 2^a are made with elongated openings, (indicated by broken lines Fig. 6,) and through these, as well as the plates 4 and 4^a, rivets 6 are passed to secure said parts together, but not so as to prevent the expansion of the back portions and the plates due to a rise of temperature. At its lower end the plate 3^a is shown to be bent and rolled to embrace the beads on the portions 2 and 2^a. The object of this construction of the back wall is to prevent the buckling of

the hood where it fits against the building, thereby preventing the formation of openings through which flame and sparks might pass.

The roller 7, upon which the curtain is wound, is supported in the usual end brackets 8 and 8^a, which are fastened to the wall by means of bolts 9. The same bolts 9 can be used to fasten up the back portions 2 and 2^a. The end brackets are provided with lugs or projections 10 and 10^a (conveniently cast with the end brackets) to stand opposite the ends of the hinge and prevent the endwise movement of the supplemental shield and close said ends where they are open.

11 designates the supplemental or interior shield. This shield is shown to be bent and provided at one edge with a bead adapted to enter the bead 1^a at the upper side of the hood proper and be capable of a rocking or hinge-like movement therein. Other forms of hinge can be employed; but that shown and described presents no openings along its outer side and is therefore advantageous in preventing the access of dust, water, &c., at such openings. In the form of hinge shown the shield is retained in place by reason of the fact that the opening to the bead 1^a on the hood proper is made smaller than the bead on the shield, and the connection of the shield with the hood is effected by sliding endwise the bead of the shield into the bead of the hood before the hood is secured in place on the wall. The shield can have its free edge weighted and braced by means of a bar at its edge, as indicated at 11^b.

Where the curtain is frequently rolled and unrolled, it is not so desirable that the shield shall rest continually on the curtain. Hence I provide means for holding the shield up, said means being adapted to effect the liberation of the shield upon a dangerous rise of temperature. For this purpose the shield is provided with a hook 11^a, secured thereto, and the hood with catch 12, adapted to engage said hook, said catch being attached by a solder adapted to fuse on a dangerous rise of temperature, and so release the hook and shield. To make the hook accessible to lift the shield after the hood has been mounted in place, I provide the hood with an opening walled by a small frame 1^c, and through this opening a bent instrument can be inserted to engage a hole 11^c in the back of the hook 11^a. The catch 12 is preferably soldered, as indicated at 12^a, to the inner side to a slide 13, adapted to close the opening of the hood, the frame 1^c being provided with grooves to receive the edges of the slide. To connect the said catch with the hook of the shield, the latter is held up by the aforementioned bent instrument until the catch is slid partially onto the hook and in shield-holding engagement therewith, after which said instrument can be removed and the slide further moved

to close the opening. Room is of course left in the wall of the frame 1^c to permit the catch to pass horizontally inward, and the opening thus provided in said wall can be closed by a suitable flange, as shown, bent inward at the end of the sliding cover.

What I claim, and desire to secure by Letters Patent, is—

1. In a hood for rolling fire-resisting curtains, the combination with the hood proper, of a supplemental shield within the hood to rest movably in proximity to the curtain or roller to close the space between said curtain or roller and the hood proper.

2. In a hood for rolling fire-resisting curtains, the combination with the hood proper, of a supplemental shield hinged within the hood and adapted to rest in proximity to the curtain or roller to close the space between said curtain or roller and the hood proper.

3. In a hood for rolling fire-resisting curtains, the combination with the hood proper, of a supplemental shield hinged to the hood and adapted to rest in proximity to the curtain or roller to close the space between said curtain or roller and the hood proper.

4. In a hood for rolling fire-resisting curtains, the combination with the hood proper, of a supplemental shield hinged to and within the hood and adapted to rest in proximity to the curtain or roller to close the space between said curtain or roller and the hood proper.

5. In a hood for rolling fire-resisting curtains, the combination with the hood proper having a grooved bead, of a supplemental shield within the hood beaded at one edge to fit hingedly within the bead of the hood and adapted at its other edge to rest in proximity to the curtain or roller to close the space between the curtain or roller and the hood.

6. In a hood for rolling fire-resisting curtains, the combination with the hood proper, of a supplemental shield adapted to rest in proximity to the curtain or roller to close the opening between said curtain or roller and the hood proper and means for holding said shield away from the curtain or roller adapted to be operated by the occurrence of near-by fire to release the shield.

7. In a hood for rolling fire-resisting curtains, the combination with the hood proper, of a supplemental shield adapted to rest in proximity to the curtain or roller to close the opening between said curtain or roller and the hood, and means for holding said shield away from the curtain or roller comprising devices held by fusible solder adapted to be fused by a dangerous rise of temperature to release the shield.

8. In a hood for rolling fire-resisting curtains, the combination with the hood proper, said hood having an opening, of a supple-

mental shield adapted to rest in proximity to the curtain or roller to close the opening between said curtain or roller and the hood, and means for holding said shield away from the curtain or roller comprising a hook on one part and a catch on the other and said hook and catch being arranged to be connected through the opening in the hood and means for closing said opening.

9. In a hood for rolling fire-resisting curtains, the combination with the hood proper, said hood having an opening and a movable cover therefor, of a supplemental shield adapted to rest in proximity to the curtain or roller to close the opening between said curtain or roller and the hood, and means for holding said shield away from said curtain or roller comprising a hook and a catch, one of said parts being on the shield and the other on the movable cover for said opening.

10. In a hood for rolling fire-resisting curtains, the combination with the hood proper, said hood having an opening and a movable cover therefor, of a supplemental shield adapted to rest in proximity to the curtain or roller to close the opening between the curtain or roller and the hood, and means for holding said shield away from said curtain or roller comprising a hook and a catch, one of said parts being on the shield and the other soldered with fusible solder to the movable cover for said opening.

11. In a hood for rolling fire-resisting curtains, the combination with the hood proper, said hood having an opening and a movable cover therefor, of a supplemental shield adapted to rest in proximity to the curtain or roller to close the opening between the curtain or roller and the hood, and means for holding said shield away from the curtain or roller comprising a hook and a catch, one of said parts being on the shield and the other soldered with a fusible solder to the movable cover, said cover and the part attached to it being adapted to effect the connection of said hook and catch to hold the shield prior to the complete closing of the opening.

12. A hood for rolling fire-resisting curtains, comprising in combination, an outer part and a back therefor, and means for securing the parts together whereby they are held normally in fixed relation but movable relatively to prevent buckling due to expansion when subjected to abnormal heat.

13. A hood for rolling fire-resisting curtains comprising in combination, an outer part and a back therefor comprising sections, and means for securing the parts together whereby they are held normally in fixed relation but movable relatively to prevent buckling due to expansion when subjected to abnormal heat.

14. A hood for rolling fire-resisting curtains comprising in combination, an outer part, and back part therefor comprising two sections placed with ends toward each other but separated by a space, a plate covering said space, and means for connecting said plate and sections in fixed relation normally but so as to be relatively movable when subjected to abnormal heat.

15. A hood for rolling fire-resisting curtains comprising, in combination, an outer part, and a back therefor comprising two sections placed with ends toward each other but separated by a space, a plate at each side of said space, and an intervening separating-strip between said plates whereby the ends of the sections are free to expand between said plates.

16. A hood for rolling fire-resisting curtains comprising, in combination, an outer part, and a back therefor comprising two sections grooved at their upper edges to receive the rear edge of the outer part of the hood and placed with their ends toward each other but separated by a space, a plate at each side of said space and an intervening separating-strip between said plates whereby the ends of the sections are free to expand between said plates.

17. A hood for rolling fire-resisting curtains comprising, in combination, an outer part, and a back therefor comprising two sections having their lower portions bent toward the lower portion of the outer part and placed with ends toward each other but separated by a space, and a plate closing the space between said sections but permitting the expansion of said sections, said plate being bent at its lower portion to embrace the bent portions of the sections.

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

EDWARD H. McCLOUD.

Witnesses:

ULYSSES R. PETERS,
BENJ. FINCKEL.