Oct. 27, 1925.

1,559,261

A. R. KONSALIK

SKYLIGHT

Filed Aug. 7, 1925

2 Sheets-Sheet 1

Fig. 1.

ON LINE 1-1. FIG. 4

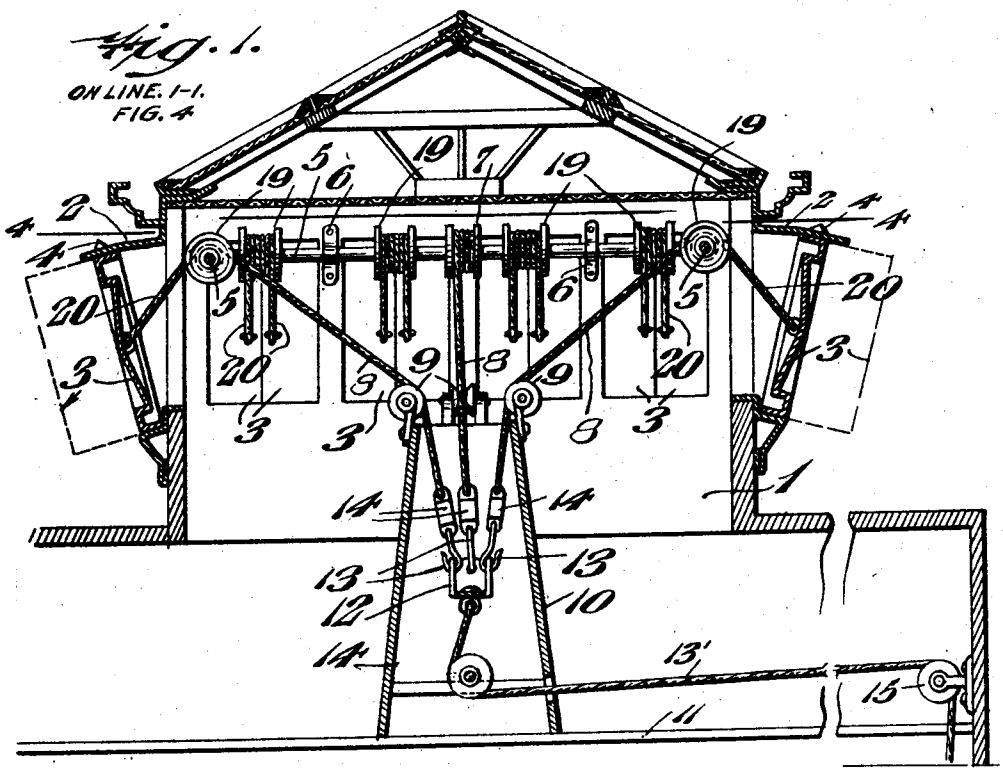


Fig. 2.

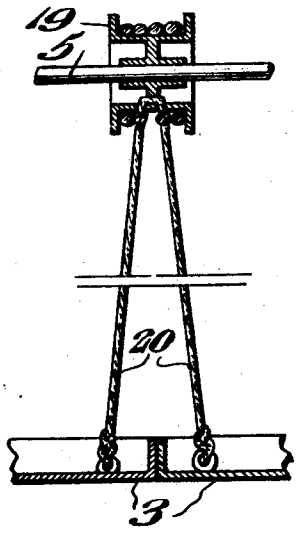
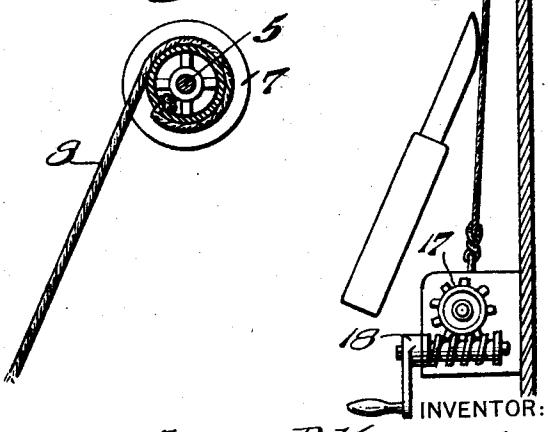


Fig. 3.



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Fig. 4.

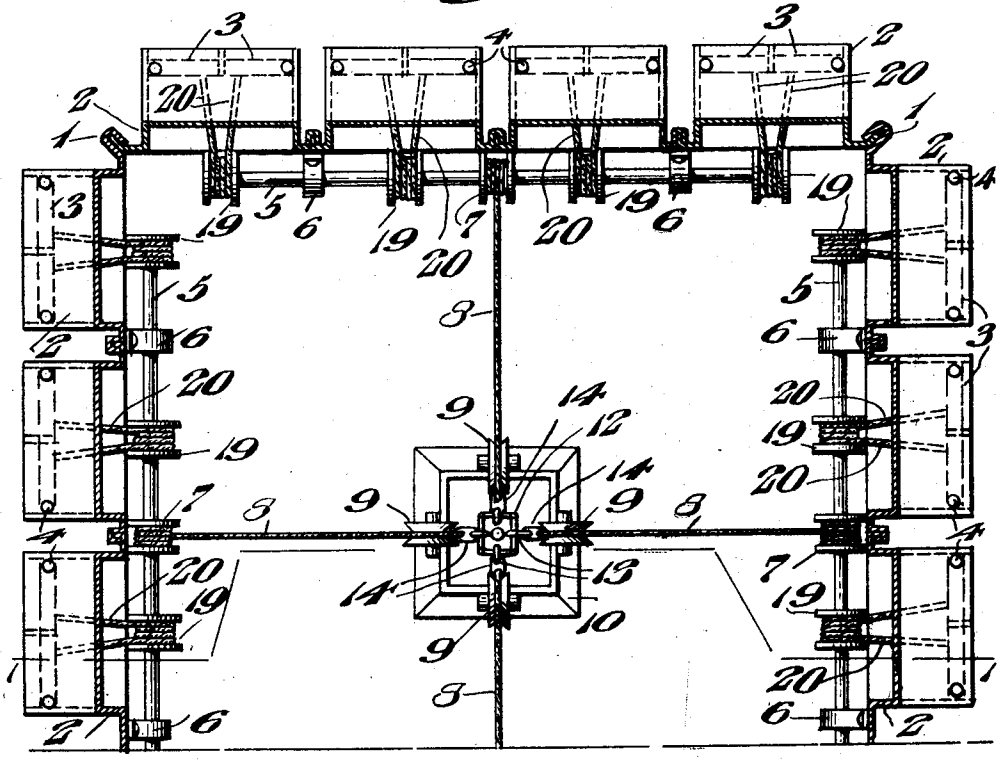
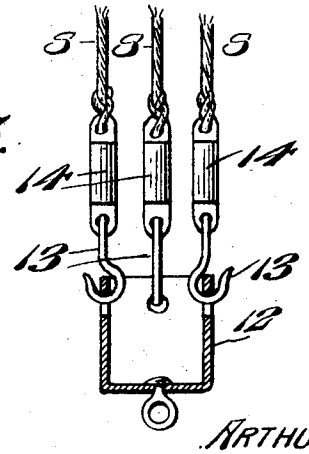


Fig. 5.



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UNITED STATES PATENT OFFICE.

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SKYLIGHT.

Application filed August 7, 1925. Serial No. 48,705.

To all whom it may concern:

Be it known that I, ARTHUR R. KONSALIK, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Skylight, of which the following is a specification.

In my Patent No. 1,500,678, dated July 8, 1924, I have shown and described a skylight for building structures such as theatres, factories and the like which while efficient for the purpose designed nevertheless in practice has developed certain cumbersome constructions.

The leading object of the present invention is to overcome these cumbersome constructions and provide a novel skylight for building structures such as theatres, factories and the like possessed of simplicity, efficiency and more practical apparatus than is shown and described in my aforesaid patent.

A further object of the present invention resides in the provision of general details of construction, arrangement, and combination of parts for attaining the results sought by the leading object.

Other and further objects of the present invention not at this time more especially pointed out will be hereinafter more specifically referred to.

The invention consists of the novel construction hereinafter described and finally claimed.

The nature, characteristic features and scope of the invention will be more fully understood from the following description taken in connection with the accompanying drawings forming part hereof, and in which:

Fig. 1, is a view in section of a roof structure provided with a skylight construction embodying the present invention and taken upon the line 1—1 of Fig. 4.

Fig. 2, is a fragmentary view, principally in section, of certain of the parts shown in Fig. 1 and hereinafter more specifically referred to.

Fig. 3, is a fragmentary view in section of certain of the parts shown in Fig. 1 hereinafter more specifically referred to. Fig. 4, is a view in plan, principally sectioned, taken upon the line 4—4 of Fig. 1; and

Fig. 5, is a fragmentary view, principally in section, of certain parts hereinafter to be more specifically referred to.

For the purpose of illustrating my invention I have shown in the accompanying drawings one form thereof which is at present preferred by me since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of the instrumentalities as herein shown and described.

Referring to the drawings in detail, the reference numeral 1 designates the main or supporting frame of a skylight which as shown in the drawings is of rectangular configuration. This frame 1 is provided upon all four sides with a plurality of inclined jambs 2 the upper of which may be increased or diminished as practice may dictate. The covers or doors as applied to these jambs 2 are designated 3 and are adapted to open outwardly in shutter-like fashion. In other words, the two wings of each cover are hingedly secured to a jamb by means of inclined pins or pintles 4 which are at such an angle to the horizontal plane as to tend to open the skylight openings by friction of the weight of the covers only. This general construction is disclosed in my aforementioned patent. However, in my aforesaid patent each shutter or cover was individually connected with a fusible link by a multiplicity of cords or cables. In accordance with the present invention I have dispensed with this construction thereby eliminating a net-work of overhead cables or cords which not only reduce expense; reduces the tendency to non-working of parts; but in addition provides for simplicity, cheapness of construction, and efficiency in operation. According to the present invention I provide upon each side of the skylight in parallelism with the side walls of said structure 1, shafts designated 5 of which there are four, one for each side of the skylight, which shafts 5 are freely rotatable in bearings 6 secured to the frame 1. Fixed to each shaft 5 is a drum 7, best seen in Figs. 2 and 3. Coiled around these drums 7 in each instance is a rope or cable 8 each guided over a pulley 9, journalled upon a central frame 10, carried by the roof structure 11 of a building so that flames, heated air, and vapors must pass upwardly through the fun-

nel-like structure as provided by frame 10. The ropes or cables 8, therefore, are detachably connected to a member 12 located within frame 10, for instance by hooks 13, a fusible connection 14 being interposed between each hook 13 and a rope or cable 8. The member 12 in turn is connected by means of a cable 13 passing over pulleys 14 and 15 with winding mechanism (not shown in the drawing) or operated by means of a worm-gear 16 meshing with a worm 17 supported by, for instance, the side walls of a building. Each drum 7 is also connected with a central cover or shutter 3 by means of a continuous rope or cable 18, best seen in Fig. 2. Each shaft 5 has also fixed thereto a plurality of drums 19, one for each pair of covers or shutters 3. Each drum 19 is connected with a pair of covers or shutters 3 by means of ropes or cables 20, best seen in Figs. 1 and 4.

In the event of fire in a theatre, factory or other building equipped with my novel skylight, flames contacting with cable 13 or fuses 14 will free cables 8 thus permitting shafts 5 to rotate due to the force of gravity exerted by the central covers or shutters. Obviously, the moment the central covers or shutters commence to open outwardly, all of the remaining covers or shutters simultaneously open outwardly due to the release of shafts 5 which have been previously held against rotation by the parts 16—17. On the other hand, should an attendant in charge in a theatre, factory or the like discover that a fire has started he may immediately sever the cable 13 which usually extends to the first floor of the theatre, factory or other building to which the skylight parts of the present invention form a part. Thus, not only is the apparatus above described automatic in character but it may be mechanically-released as desired. Obviously, the apparatus above described may through the intervention of parts 16 and 17 be manually closed or opened as desired provided the cables 8, 18, and 13 are intact.

I claim—

1. A skylight construction of the character stated, comprising a supporting structure, outwardly opening, laterally movable cover sections for said structure, a freely rotatable shaft paralleling said structure, a drum fixed to said shaft, a cable connecting said drum and cover sections, and means operatively connected with said shaft for the release thereof to permit automatic opening of said cover sections.

2. A skylight construction of the character stated, comprising a supporting structure, outwardly opening, laterally movable cover sections for said structure, a freely rotatable shaft paralleling said structure, a drum fixed to said shaft, a cable connecting said drum and cover sections, means as drums fixed to said shaft, a cable connecting each of said means with said cover sections, and independent means operatively connected with said shaft for the release thereof to permit automatic opening of said cover sections.

3. A skylight construction of the character stated, comprising a supporting structure, outwardly opening, laterally movable cover sections for said structure, a freely rotatable shaft paralleling a wall upon each skylight side, a plurality of drums fixed to each of said shafts, a fuse centrally arranged with respect to said skylight, cables diametrically arranged connecting one drum upon each shaft with said fuse and independent cables connecting the other of said drums with said cover sections to permit automatic opening of said cover sections.

4. A skylight construction of the character stated, comprising a supporting structure, outwardly opening, laterally movable cover sections for said structure, a freely rotatable shaft paralleling a wall of said section upon each skylight side, a plurality of drums fixed to each of said shafts, a fuse centrally arranged with respect to said skylight, cables diametrically arranged connecting one drum upon each shaft with said fuse, independent cables connecting the other of said drums with said cover sections to permit automatic opening of said cover sections, and manually operable means connecting with said fuse for opening said cover sections independently of any automatic movement.

ARTHUR R. KONSALIK.