No. 814,472. PATENTED MAR. 6, 1906.

A. S. NOONAN.

FIRE ESCAPE.

APPLICATION FILED APR. 13, 1904.

Fig. 1.

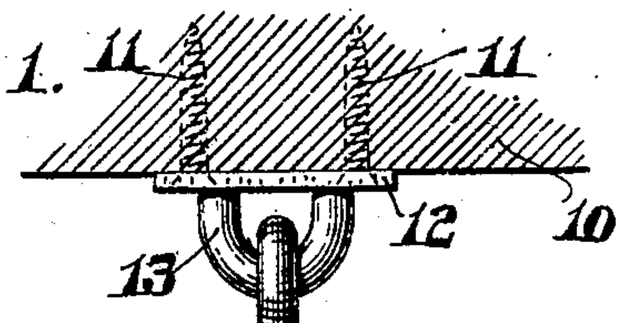


Fig. 2.

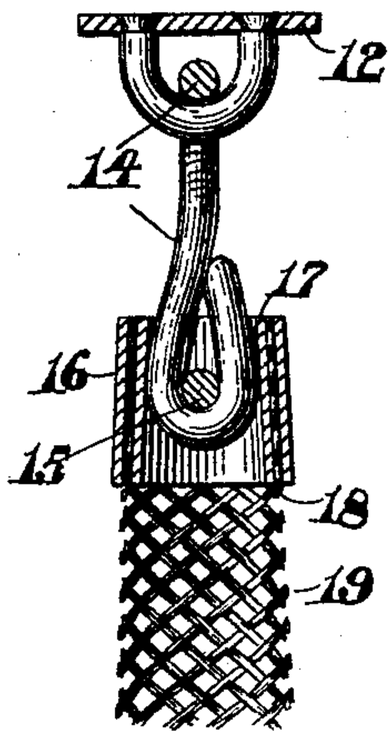


Fig. 3.

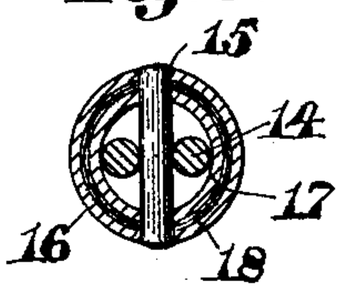


Fig. 4.

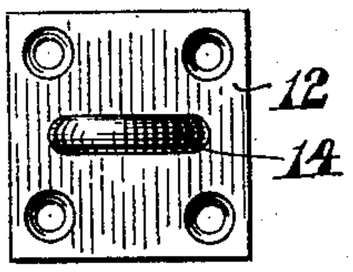


Fig. 5.

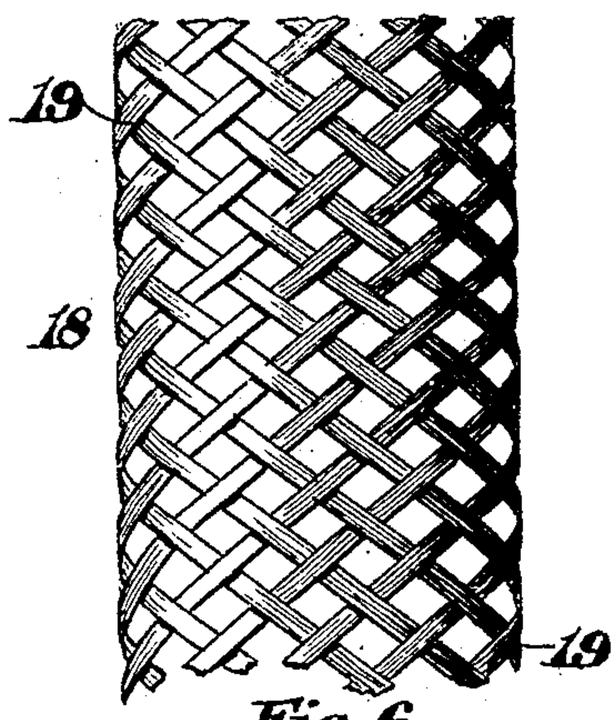
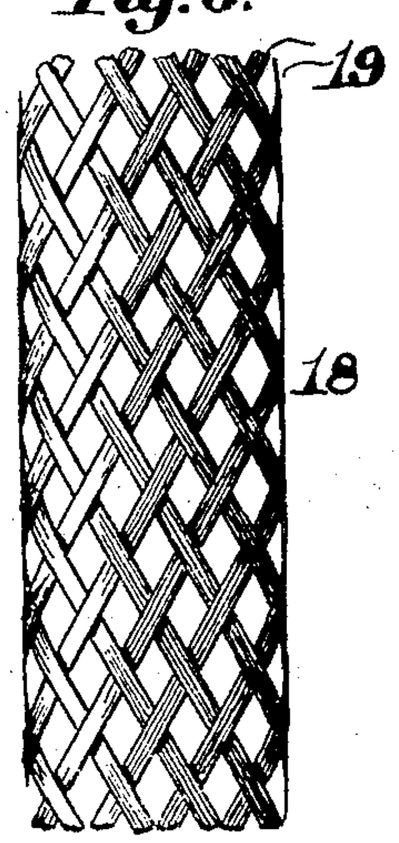


Fig. 6.



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UNITED STATES PATENT OFFICE.

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FIRE-ESCAPE.

No. 814,472. Specification of Letters Patent. Patented March 6, 1906.

Application filed April 13, 1904. Serial No. 202,927.

To all whom it may concern:

Be it known that I, ALBERT S. NOONAN, a citizen of the United States of America, and a resident of Rome, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification.

This invention relates to fire-escapes, and has for its object the production of a device to be used in the upper rooms of buildings for the purpose of escape from fires; and it consists in a hollow extensible and compressible tube composed of a plurality of flat strips of non-combustible material braided together, said tube being secured at one end to a stationary part of the building and adapted to be thrown out of the window and extend in its normal condition to a point considerably removed from the ground, so that the lower end thereof cannot be reached by a person standing on the ground. Said tube, however, is adapted under the weight of a user to extend to such a length as to permit the party using the same to pass hand over hand down the tube or to slide down said tube until he reaches a safe landing.

It consists, further, in several novel features of construction and arrangement of parts, which will be readily understood by reference to the description of the drawings and to the claims to be hereinafter given.

Of the drawings, Figure 1 represents an elevation of a fire-escape embodying the features of this invention. Fig. 2 represents a sectional elevation of the securing means therefor. Fig. 3 represents a cross-section on line 3 3 on Fig. 1. Fig. 4 represents an inverted plan view of the fastening-plate by which said escape is secured to a stationary part of the building. Fig. 5 represents an elevation of a section of the tube contracted in length, and Fig. 6 represents a similar section extended.

Similar characters designate like parts throughout the several figures of the drawings.

In the drawings, 10 represents a stationary part of the building for which it is desired to provide suitable means of escape in case of fire. To this stationary part 10 is secured by suitable screws 11 a fastening-plate 12, provided with an eye 13. A link 14 connects this eye 13 with a pin 15, extending transversely of the socket 16 and the inner collar 17, the members 16 and 17 being tapered and having clamped between them the tube 18, composed of a plurality of flat strips of metal or other non-combustible material 19. The opposite end of the tube 18 is provided with a thimble 20 to prevent the unbraiding of the strips 19. The upper ends of the strips 19 are rigidly clamped between the members 16 and 17 and soldered therein. The strips 19 are braided loosely, so as they can readily move on each other to permit the tube being extended lengthwise, thereby decreasing the diameter or being shortened with an increasing diameter, as indicated, respectively, in Figs. 5 and 6. The strips 19 are galvanized and are prevented thereby from rusting or deteriorating and the tube being hollow and the strips being narrow and at some distance apart makes the device very light, while at the same time it is sufficiently strong to sustain the weight of any individual which might be located within the room for which it is provided. At all times a current of air is passing between the various strips through the tube itself, and it is thereby prevented from undue heating in case of fire in the building or adjacent thereto.

A person in using the fire-escape when the tube is passed out through a window grasps the tube 18 and slides down the same, allowing the hands to slip over the tube, the strips 19 being flat and leaving the tube just sufficiently rough to permit of an easy grip thereon, while the surface is not uneven enough to injure the hands of the person using the same. The speed with which a party descends may be regulated readily by the grip upon the tube, as by a firm pressure of the hands it will cause the tube to be compressed to such an extent as to form a shoulder and prevent the hands passing too quickly over the surface of the tube.

By making the tube compressible in the manner set forth and only extending it full length when in use it will occupy when not in use a much smaller space than an ordinary rope capable of accomplishing the same object would occupy. It would be much more durable than the rope and being composed of non-combustible material it would always be ready for use, while being made of an open-work structure and hollow a current of air would always pass through the same to keep it as cool as possible under the circumstances.

When not in use, it is intended to have the tube pass around a cornice of a room out of

sight, but where it can be readily secured to be thrown out of the window when required for use.

It is believed that with this explanation the device will be readily understood without further description.

Having thus described my invention, I claim—

1. In a fire-escape, the combination of a braided tube of non-combustible material, a collar inserted in one end thereof, a clamping-collar surrounding said end, means for securing the two collars together, a supporting member, a rigid connector between said member and said clamping device, and means for securing said supporting member to a stationary part.

2. In a fire-escape, the combination of a braided tube of non-combustible material, a collar inserted in one end thereof, a clamping-collar surrounding said end, means for securing the two collars together, a supporting-plate, an eye riveted thereto, a rigid connector between said eye and said clamping device, and means for securing said supporting-plate to a stationary part.

3. In a fire-escape, the combination of a braided tube of non-combustible material, a collar inserted in the end thereof, a clamping-collar surrounding said end, means for securing the two collars together, a fastening-plate, and a rigid link connecting said plate and clamping device.

4. In a fire-escape, the combination of a tube composed of a plurality of strands of non-combustible material braided together, a supporting-plate, an eye riveted thereto, a socket secured to one end of said tube, and a rigid link interposed between said socket and said eye.

5. In a fire-escape, the combination of a tube composed of a plurality of flat strands of non-combustible material braided together, a socket on one end thereof, a supporting-plate, an eye riveted to said plate, and a rigid link interposed between said socket and said eye.

6. In a fire-escape, the combination of a braided tube of non-combustible material, a collar inserted in one end thereof, a clamping-collar surrounding said end, a pin extending diametrically through said clamping-collar, a supporting member secured to a stationary part, and a connector between said pin and said supporting member.

7. In a fire-escape, the combination of a rope, a socket consisting of a collar inserted in one end of said rope, a clamping-collar surrounding said end, and means for securing the two collars together, and supporting means for said socket.

8. In a fire-escape, the combination of a rope, a collar inserted in one end thereof, a clamping-collar surrounding said end, a pin extending diametrically through said collars, a supporting member, and a connector between said pin and supporting member.

9. In a fire-escape, the combination of a rope, a socket consisting of a member inserted in the end of said rope and a second member adapted to clamp said end between it and said inserted member, and supporting means for said socket.

10. In a fire-escape, the combination of a rope, a socket consisting of a member inserted in the end of said rope, a member for clamping said end thereto and means for securing said clamping member to said inner member, and supporting means for said socket.

11. In a fire-escape, the combination of a rope, a socket consisting of a member inserted in one end thereof, a clamping-collar surrounding said end and means for securing said collar to said inner member, a supporting member, and a connector between said socket and said supporting member.

Signed by me at Rome, New York, this 8th day of April, 1904.

ALBERT S. NOONAN.

Witnesses:
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