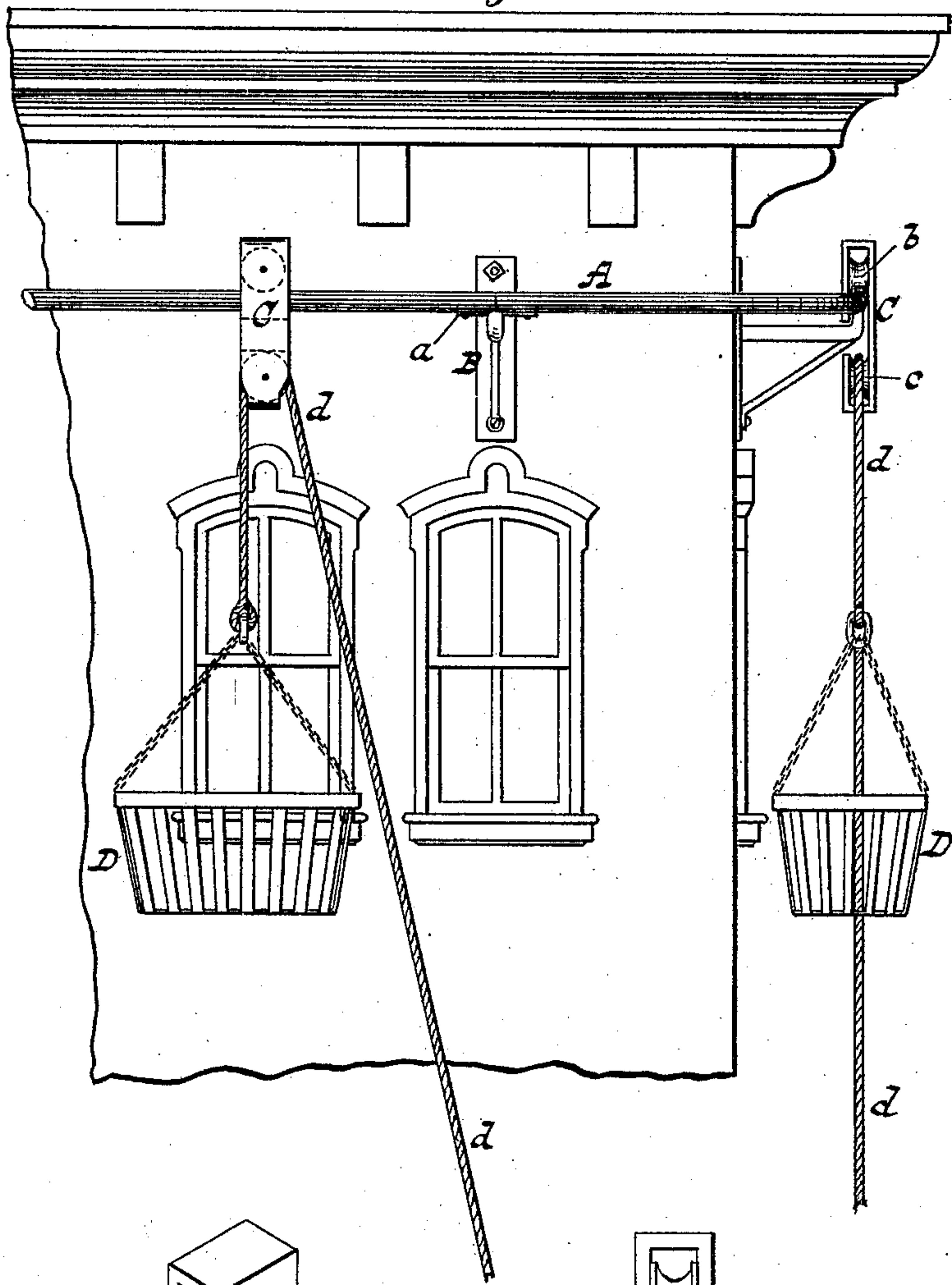


J. KERR.  
Fire-Escape.

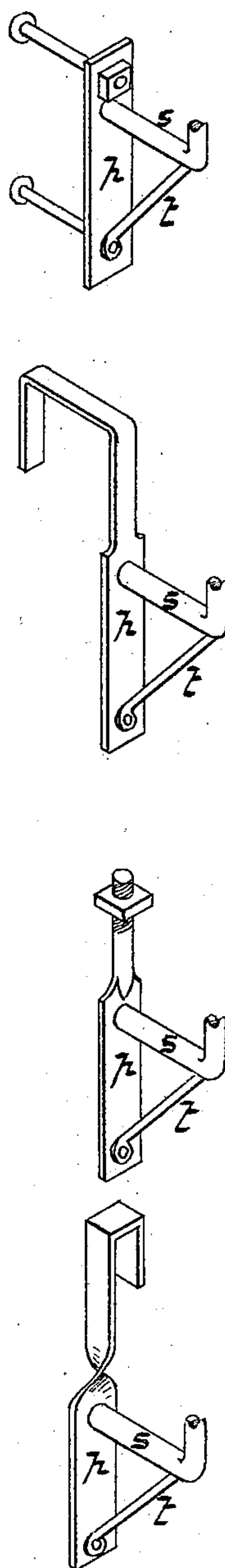
No. 210,539.

Patented Dec. 3, 1878.

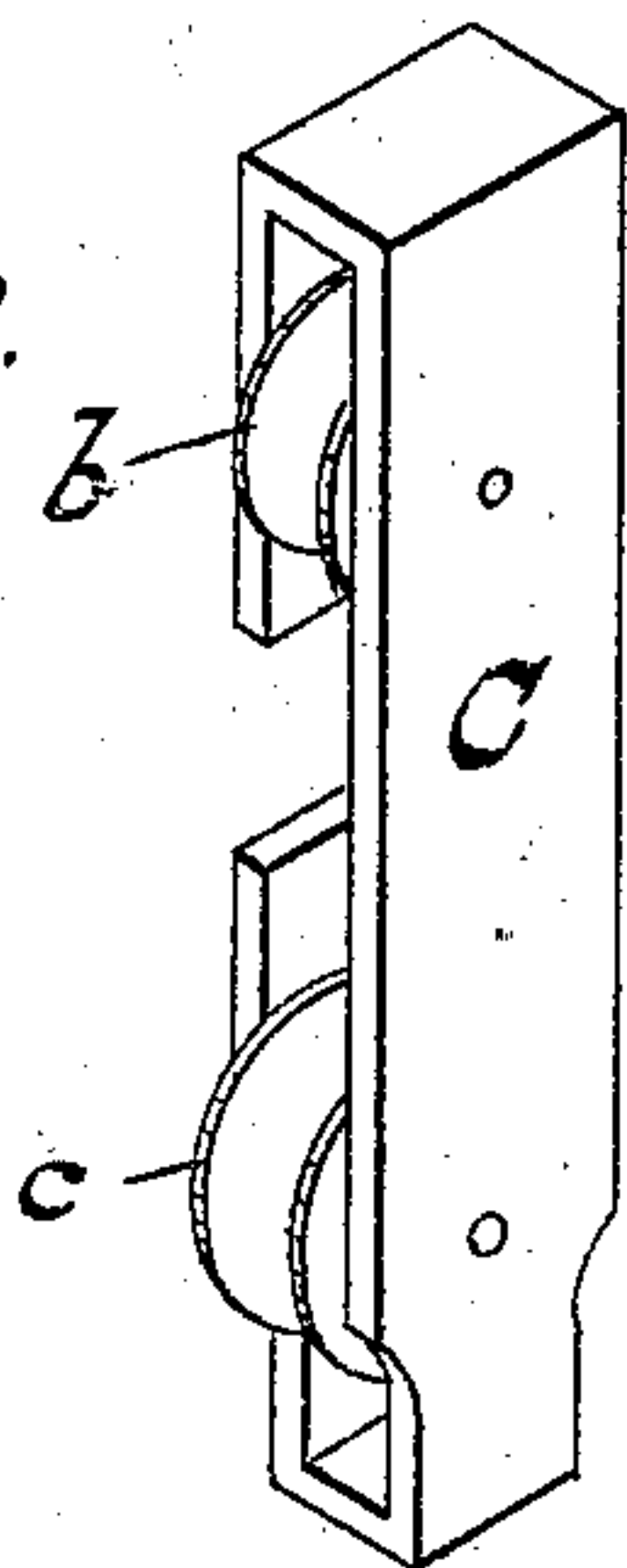
*Fig. 1.*



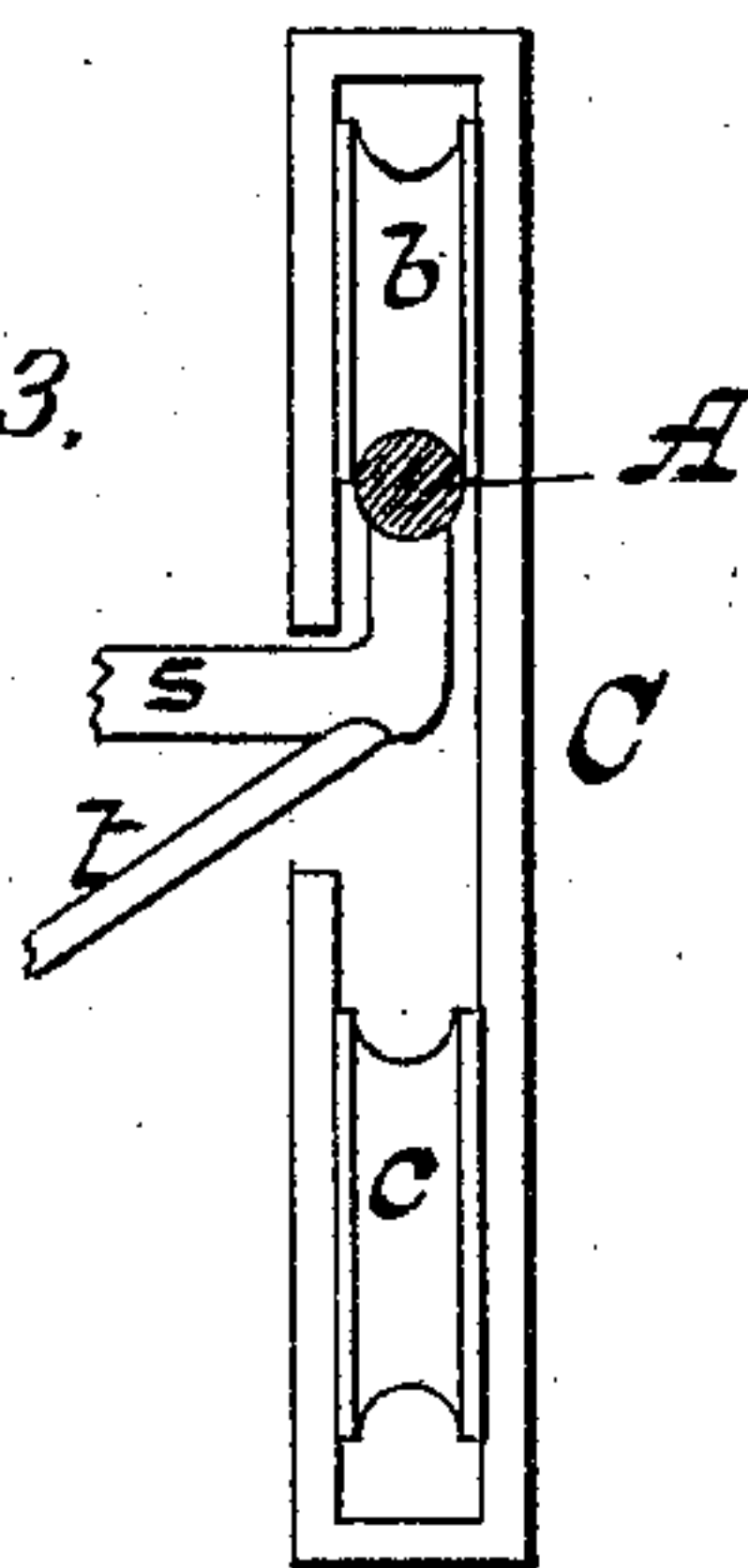
*Fig. 4.*



*Fig. 2.*



*Fig. 3.*



Witnesses

*J. B. Connolly*  
*D. P. Lowe*

By

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*Connolly & Wright*  
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# UNITED STATES PATENT OFFICE.

JAMES KERR, OF PITTSBURG, PENNSYLVANIA.

## IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **210,539**, dated December 3, 1878; application filed July 21, 1877.

*To all whom it may concern:*

Be it known that I, JAMES KERR, of Pittsburg, county of Allegheny, and State of Pennsylvania, have invented certain new and useful Improvements in Fire-Escape Apparatus; 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 pertains to make and use it, reference being had to the drawings which form a part hereof, in which—

Figure 1 is a view of a portion of a building with my apparatus ready for use. Fig. 2 is a detail view of the traversing hanger; Fig. 3, an elevation of same. Fig. 4 illustrates various forms of brace for attaching the rail.

This invention relates to fire-escape apparatus as applied to buildings; and consists in the construction and combination of parts, as hereinafter described and claimed.

Fires are often of such a nature that the flames get possession of the entire front of a lower story before the occupants of an upper story have had time to escape. In such cases, though means may be at hand, it is impossible to descend safely through the fire below, and it becomes absolutely necessary to descend on some other side of the building, while at the same time interior communication may be blockaded or impossible, so that, if at all, the escape from any one room must be made through its windows. This being premised, the advantages of my invention will be readily perceived.

Under the eaves or cornice, or at least above the tops of all windows on the top floor, I attach a projecting or overhanging rail or track, A, running horizontally and parallel with the walls, curving around the corners and angles, and traversing continuously all sides where windows or openings exist. This rail is made heavy and strong, so as to bear considerable weight, and is supported at suitable intervals by brackets B, of novel design.

The building being so large as to necessitate joints in the rail, the following plan is adopted: The rod is jointed by screw-threading, and underneath is supported by a curved fish-plate, *a*, bolted underneath to the rail, and this at its middle point rests firmly in the concaved end of bracket B. In practice I would

have these plates *a* about ten (10) inches in length. By this means, and by the peculiar form of the brackets, the top of the rail is clear and unobstructed.

Traveling on the rail A is a hanger, C, formed of a long plate doubled back on itself at both ends, leaving an open space or slot at the middle for attachment on the rail, and to permit its passing the brackets freely. In the upper bend is journaled a grooved wheel, *b*, or runner, to travel on rail A, and in the lower bend is journaled a grooved pulley or sheave, *c*, for the fire-proof rope or chain *d*, one end of which extends to the ground, and the other is hooked to a fire-proof basket or receptacle, D, for persons and baggage. The ends of the hanger lap the wheel and pulley far enough to form guides for the rail and rope, which latter, if desired, may be prevented from displacement by a cross-pin above the pulley *c*. The operating rope or chain *d* serves also to drag the hanger to any desired position. The hanger C, traveling upon but one wheel, *b*, will readily pass round the curves of the rail at the corners or angles of the building without any tendency to jump the track.

The basket D may be provided with guys, if desired, and may also have an anchor to hold it close to a window while being loaded.

The rope or chain may be of any incombustible material.

The manner of using would be as follows: The rail and its fastenings will be permanent, as also one hanger and its chain. The building would be provided with several sets of hangers, chains, and baskets. If generally adopted, the fire department also could be supplied. The permanent hanger would be left on the rail, with its chain accessible from below. Then, if a fire break out requiring the use of the apparatus, the basket would be instantly attached to the chain, and one man getting into it, with several sets of extra hangers and chains, could be hoisted up and all of them placed on the rail. Then, with baskets attached, they could be run to any portion of the building on the continuous rail, and the delivery of all occupants speedily and safely effected.

The brackets B are of various forms, depending on the construction of the building,

&c. They consist, essentially, of a wall-plate, *p*, to rest against the wall, the upturned sole-piece *s*, concaved at its end for the rail, and the brace or web *t*, and is attached by bolting through the wall, hung over its top, or hung or bolted upon a projecting rafter. These forms will be readily understood from inspection of the drawings.

I claim as my invention—

1. The jointed rail *A*, for the reception of the traveling hangers *C* of a fire-escape, in combination with the coupling-plates *a* and brackets *B*, said plates being secured to said rail at its joints and resting upon the bracket-rods *s*, substantially as shown and described.

2. In combination with rail *A*, jointed and supported by plate *a*, and bracket *B*, as described, the basket *D*, rope *d*, and traveling hanger *C*, as shown, and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of July, 1877.

JAMES KERR.

Witnesses:

ALFRED KERR,  
T. J. MCTIGHE.