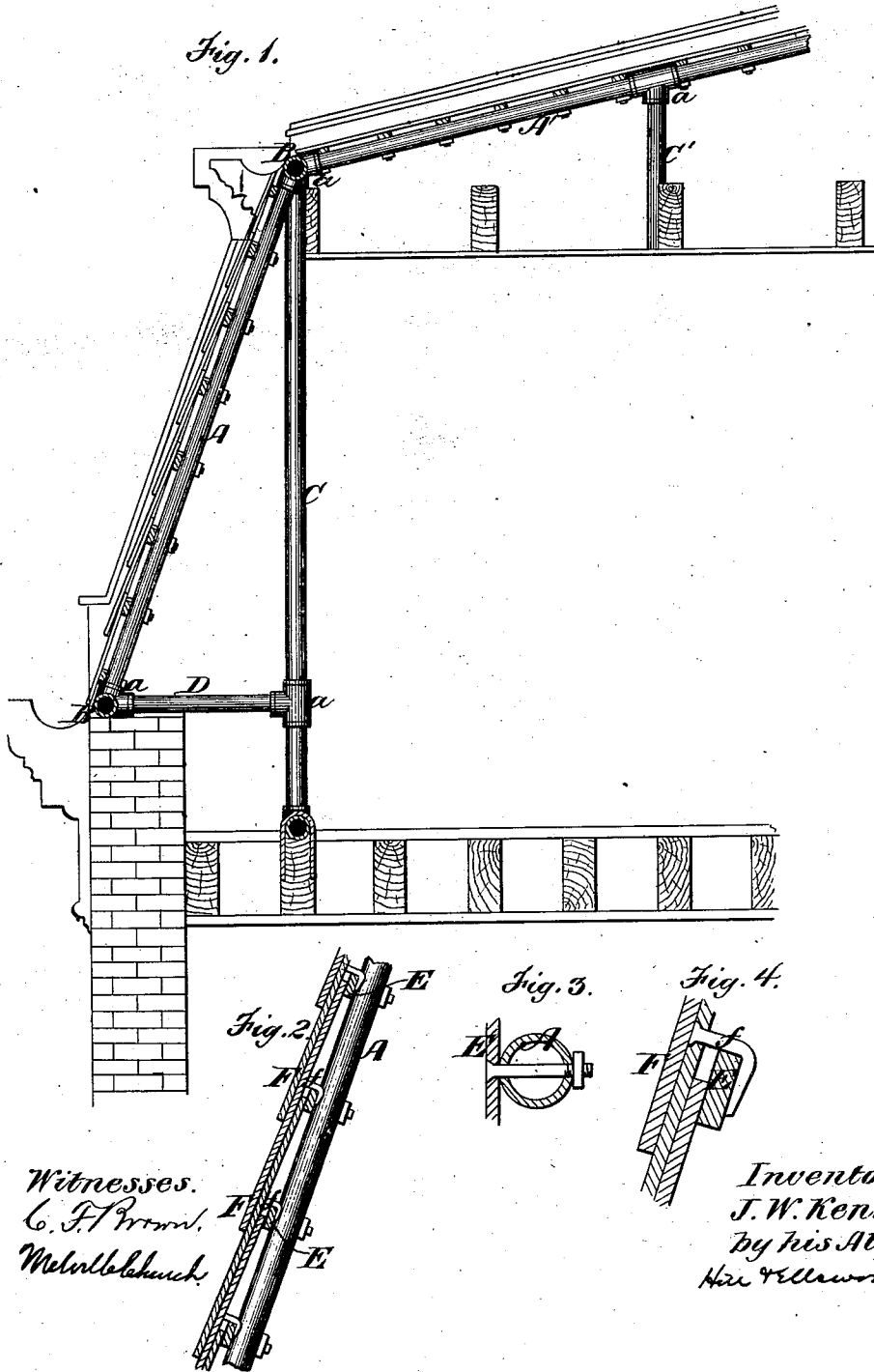


J. W. KENNEDY.
Fire-Proof Mansard-Roofs.

No. 142,793.

Patented September 16, 1873.



Witnesses.
C. F. Brown.
Melville Church.

Inventor.
J. W. Kennedy.
by his Attys.
H. V. Ellsworth

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Fig. 5.

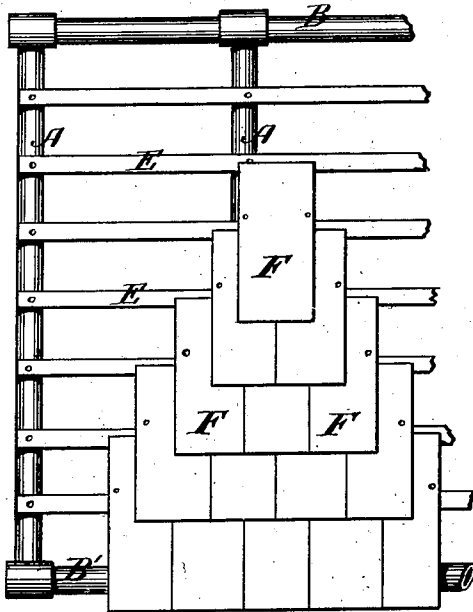


Fig. 6.

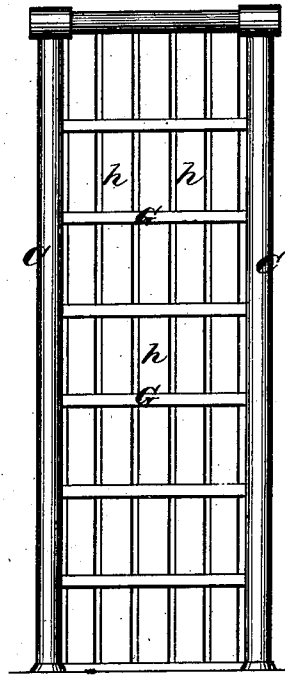


Fig. 7.

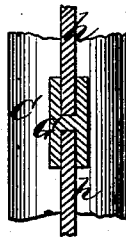


Fig. 8.

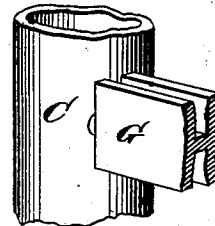
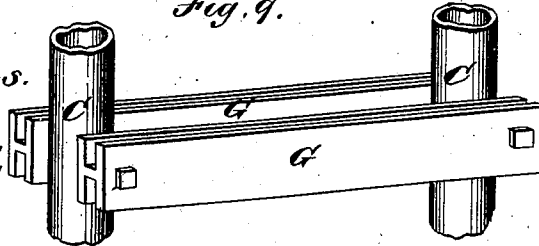


Fig. 9.



Witnesses.
C. F. I. Merr.
Melville Church

Inventor.
J. W. Kennedy.
by his Attys.
Allen & Ellsworth

UNITED STATES PATENT OFFICE.

JOSIAH W. KENNEDY, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN FIRE-PROOF MANSARD ROOFS.

Specification forming part of Letters Patent No. **142,793**, dated September 16, 1873; application filed December 4, 1872.

To all whom it may concern:

Be it known that I, JOSIAH W. KENNEDY, of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and useful Improvement in the Construction of Mansard Roofs; and I do hereby declare the following to be a full, and exact description of the same, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1 is a vertical section through the upper part of the building; Figs. 2, 3, 4, and 5, detached views, representing the method of securing the tiles to the slating-bars; Fig. 6, an elevation, showing the method of constructing the inside partitions; and Figs. 7, 8, and 9, detached views, representing the details of construction of the partitions.

Similar letters of reference in the accompanying drawings denote the same parts.

The object of my invention is to provide for the public an improved mode of constructing French roofs, so as to render them fire-proof without adding to their cost or detracting from their lightness and strength; to which end the invention consists, first, in the improved method of constructing such roofs of common gas-pipes connected by sockets; and, secondly, in the details of construction, as hereinafter more specifically set forth and claimed.

In the drawings, A A' represent the rafters, which may be straight or curved, according to the design selected for the roof; B B', the horizontal pieces corresponding to the pole-plates, purlins, and ridge-pieces; C C', uprights to support the structure; and D D', tie-beams to secure the various parts in their proper position. All the parts are constructed of common iron gas-pipe or similar tubing, connected by screw-sockets *a a* in the manner usually employed by plumbers and gas-fitters, as clearly shown in Figs. 1 and 5. The framework of the roof being thus constructed, iron slating-bars E E are attached to the rafters and secured in position by means of bolts with countersunk heads, as represented in Fig. 3. The tiles F are attached to the bars E, preferably, by means of hooks *f* catching around the upper edge of the slating-bars, in the man-

ner shown in Figs. 1, 2, 4, 5. When metallic tiles are employed the hooks may, if preferred, be cast or formed as a part of the tile itself.

In order to render the upper part of the building as nearly as possible indestructible by fire, I construct the partitions by attaching grooved iron supporting-bars G to the sides of the uprights C C, as shown in Figs. 6, 7, 8, 9, and placing tiles *h* upright in the grooves. Spaces are left between the tiles, and the whole is then plastered over. Figs. 7 and 8 represent a single partition, and Fig. 9 a double partition, thus constructed. The same mode of constructing the partitions may be adopted in any part of the building.

It will be observed that my improved mode of constructing this class of roofs requires no special adaptation of the materials to the purpose, except such as can be made on the spot by any gas-fitter with the ordinary tools of his trade. The materials, too, are all in common use, and are, therefore, abundant, convenient, and cheap, so that my new mode of construction involves no additional delay or expense. If desired, a water-pipe may be connected to the tubular frame A A', and the latter may be perforated, so as to throw sheets or streams of water upon the roof in case of fire.

I claim as my invention—

1. The arrangement of the inclined or curved tubes A A', when provided with slating-bars E, in combination with horizontal tubes B B', upright tubes C C', tie-tubes D, and coupling-piece *a*, as and for the purpose set forth.

2. The improved manner of securing the slating to the slating-bar E by means of the headed hook *f*, which passes through an orifice in the slate, and is curved so as to catch over and around the slating-bar E, substantially as and for the purpose set forth.

3. The fire-proof partition constructed substantially as shown in Fig. 6, and covered with plaster or other suitable covering, substantially as described, for the purposes specified.

JOSIAH W. KENNEDY.

Witnesses:

MELVILLE CHURCH,
GEO. E. BROWN.