

(No Model.)

F. B. LIVINGSTON.
MOVABLE ROOF FOR BRICK YARDS, &c.

No. 435,146.

Patented Aug. 26, 1890.

Fig. 1

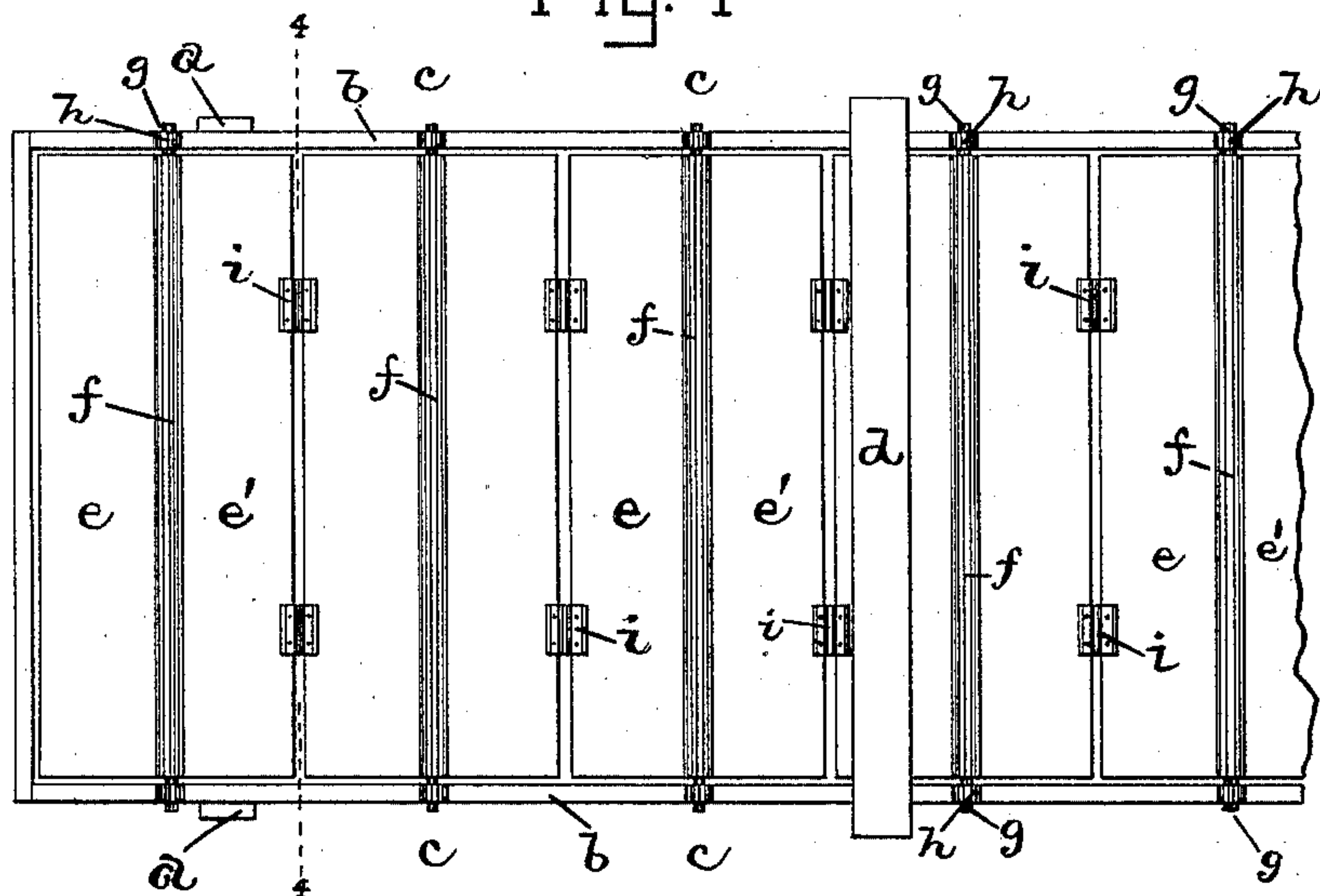


Fig. 2

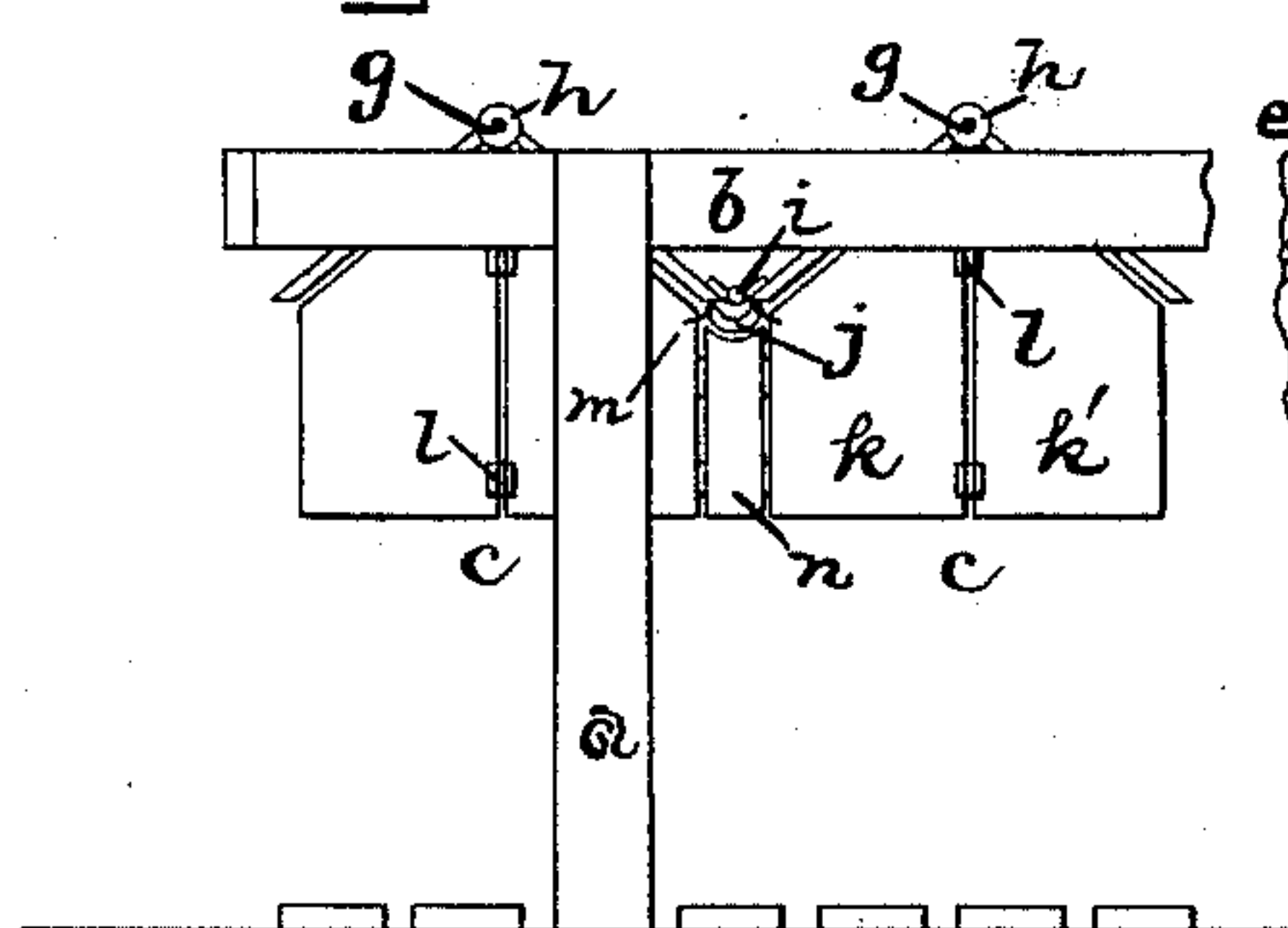


Fig. 3

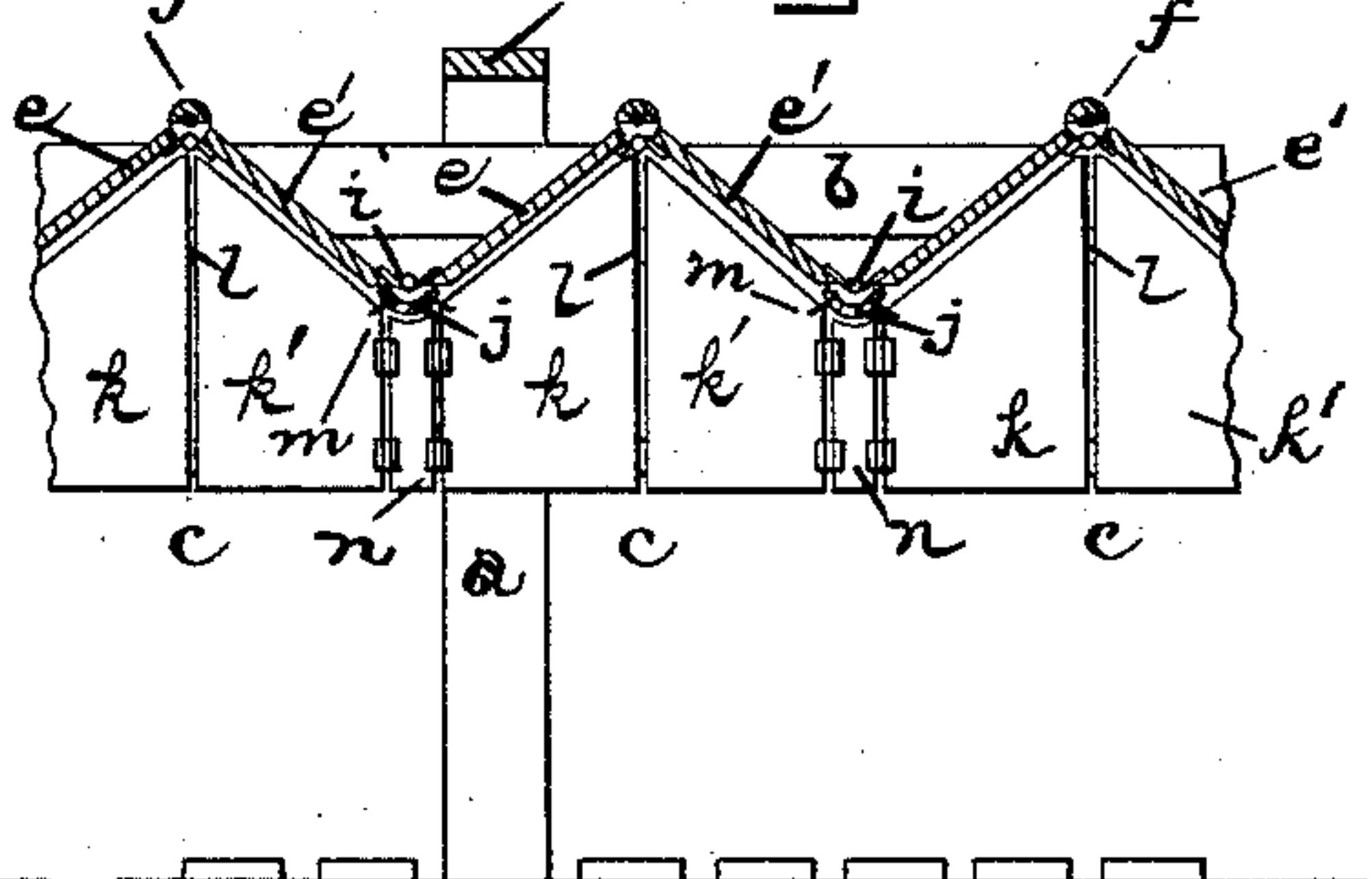


Fig. 4.

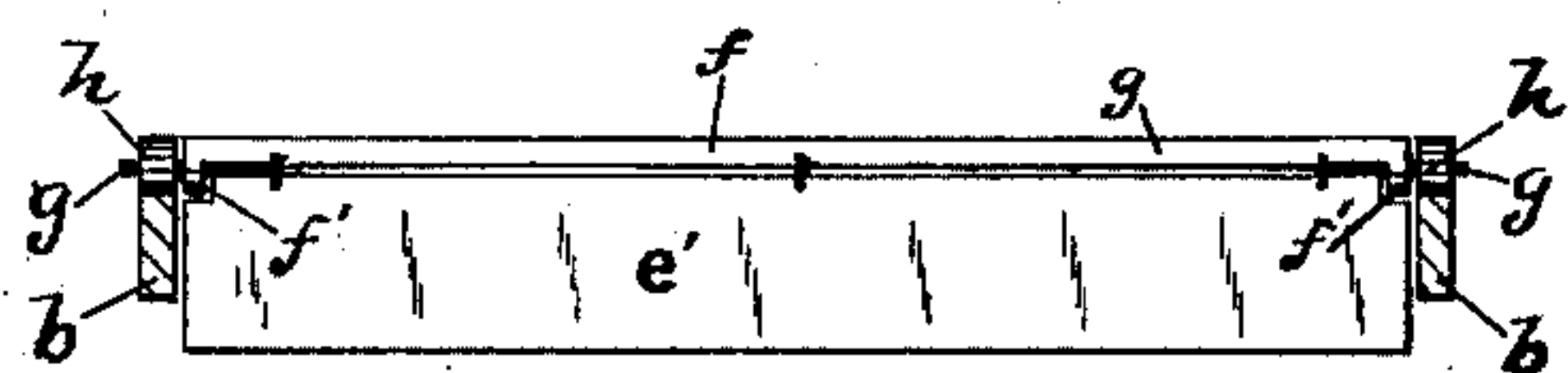
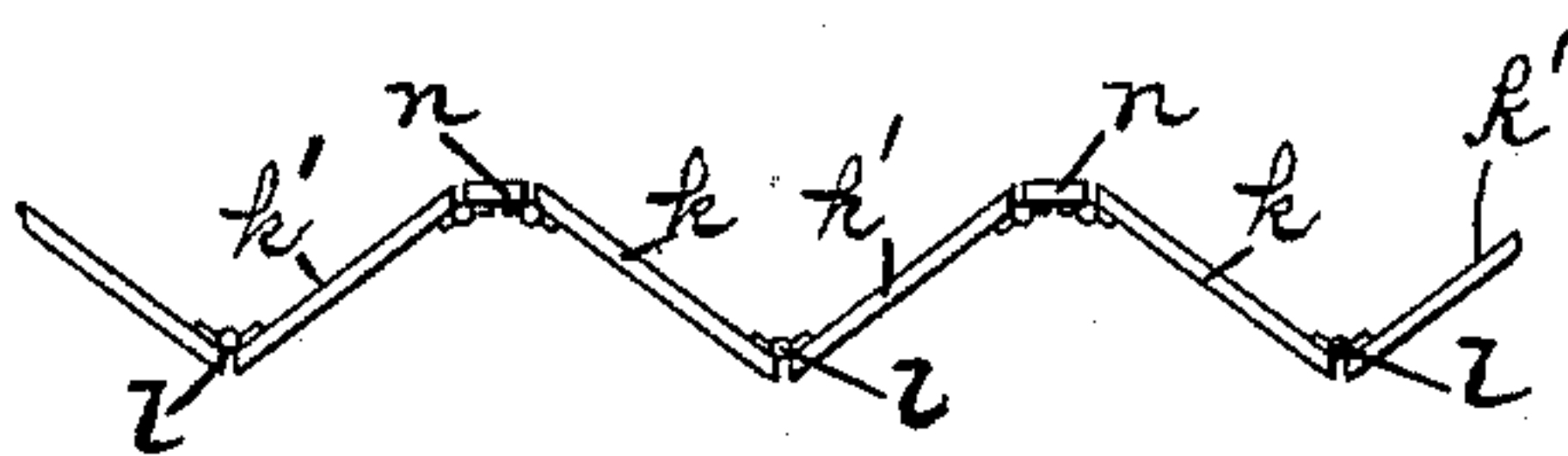


Fig. 5.



WITNESSES:

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FREDERICK B. LIVINGSTON, OF PHILADELPHIA, PENNSYLVANIA.

MOVABLE ROOF FOR BRICK-YARDS, &c.

SPECIFICATION forming part of Letters Patent No. 435,146, dated August 26, 1890.

Application filed May 8, 1890. Serial No. 351,070. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK B. LIVINGSTON, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Movable Roofs for Brick-Yards, Kilns, &c., of which the following is a specification.

My invention relates to a movable roof for brick-yards, kilns, and other purposes, the object being to provide an adjustable roof to allow of contraction or extension, as desired, like the bellows of an accordion, or removed entirely or put in place in a short time. In brick-yards there are times when it is better to have the roof off to allow the bricks to get the full benefit of the sun and wind, the means all brick-makers use for drying where artificial heat is not used. At other times—such as during rainy and stormy weather—it would be advantageous to have the roof extended in place to shelter the workmen and allow the work to continue and also to protect the bricks from damage.

The construction and combination whereby the desired result is accomplished will be described in connection with the accompanying drawings, in which—

Figure 1 is a plan or top view of the roof. Fig. 2 is an elevation view of part of the side. Fig. 3 is a sectional view of same. Fig. 4 is a view of one of the roof shafts and rollers. Fig. 5 is a plan or edge view of one of the jointed sides.

The letter *a* designates the supporting-posts; *b*, the track-rail on each side extending from post to post; *c*, the sections of the roof, and *d* beams extending across the tracks from one side to the other. The roof-sections consist of two inclined boards *e e'*, placed together and forming when extended an angle like a letter *A*. The two inclined boards *e e'* of each section at their apex are jointed together, as follows: An overlapping rounded bar *f* extends across and covers the apex and has at each end a boss *f'*, and a rod or shaft *g* extends longitudinally of the overlapping bar, and the ends of the said shaft *g* project through the bosses *f'* on the overlapping bar. The two boards have suitable loops, staples, or rings, which connect with the said cross

rod or shaft *g*, and thus form a joint or hinge. At each of the projecting ends of the shaft is a roller *h*, which rests upon the track-rail *b*, and thereby support the sections, which hang pendent between the two track-rails. The lower edges of the inclined boards of two adjoining sections are united by a suitable hinged joint *i*. It will thus be seen that a series of two jointed sections are hinged together, and thus a flexible board roof is made. This joint has a gutter-strip *j*, which underlaps the lower edges of the inclined boards. The roof-sections have pendent side walls, which consist of section-pieces *k k'*, hinged together at *l*, forming a central vertical joint directly under the overlapping bar *f*. Each section-piece *k* is connected by a loose link *m* to the gutter-strip *j*, and each of the other section-pieces *k'* is connected in like manner to the other roof-board *e'*. The adjoining pieces of the wall-sections are united by an intermediate jointed strip *n*, which forms a vertical joint under the gutter-strip *j*. When the roof is contracted, folded, or collapsed, the central joint *l* of the side wall-sections will fold inward. The entire roof may be moved by the rollers *h* traversing the track-rails *b*.

Having described my invention, I claim—

1. In a roof, the combination of two elevated track-rails, rods or shafts having at each end a roller resting on said track-rails, and a flexible roof consisting of a series of sections *e e'*, jointed together so as to collapse or expand, each pair of said sections supported from one of the rods or shafts and hanging pendent between the track-rails.

2. In a roof, the combination of two elevated track-rails, rods or shafts having at each end a roller resting on said track-rails, a flexible roof consisting of a series of sections *e e'*, jointed together so as to collapse or expand, each pair of said sections supported from one of the rods or shafts and hanging pendent between the track-rails, an overlapping bar *f*, covering the apex of each pair of sections, and a gutter at the lower edge of the adjoining sections.

3. In a roof, the combination of two elevated track-rails, rods or shafts having at each end a roller resting on said track-rails, a flexible roof consisting of a series of sections *e e'*,

jointed together so as to collapse or expand, each pair of said sections supported from one of the rods or shafts and hanging pendent between the track-rails, and hinged sectional side walls pendent from the jointed roof-sections.

4. In a roof, the combination of two elevated track-rails, rods or shafts having at each end a roller resting on said track-rails, a flexible roof consisting of a series of sections *e e'*, jointed together so as to collapse or expand, each pair of said sections supported from

one of the rods or shafts and hanging pendent between the track-rails, and hinged sectional side walls pendent from the jointed roof-sections, the pieces of the adjoining wall-sections being united by an intermediate vertical joint-strip *n*.

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

FREDERICK B. LIVINGSTON.

Witnesses:

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