

C. F. & M. STEWART.  
Elevators.

No. 146,847.

Patented Jan. 27, 1874.

Fig. 1.

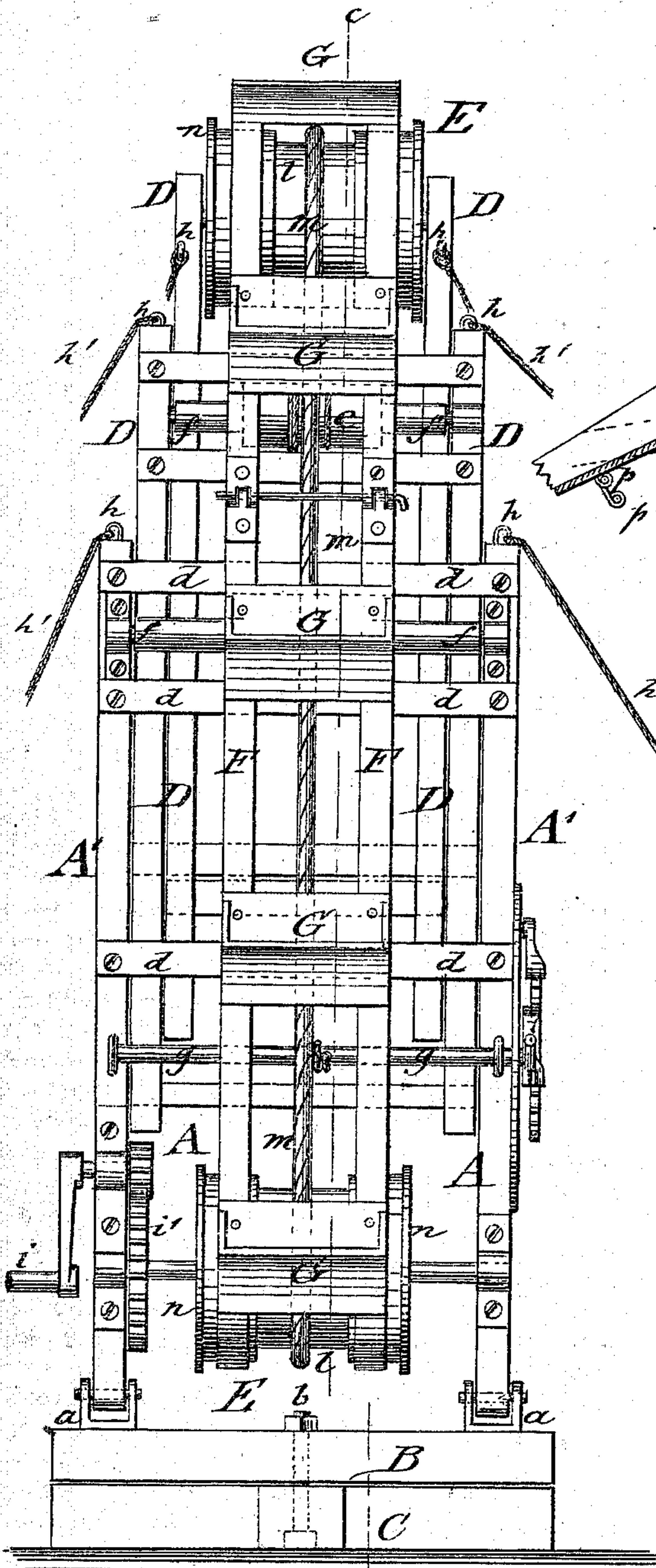
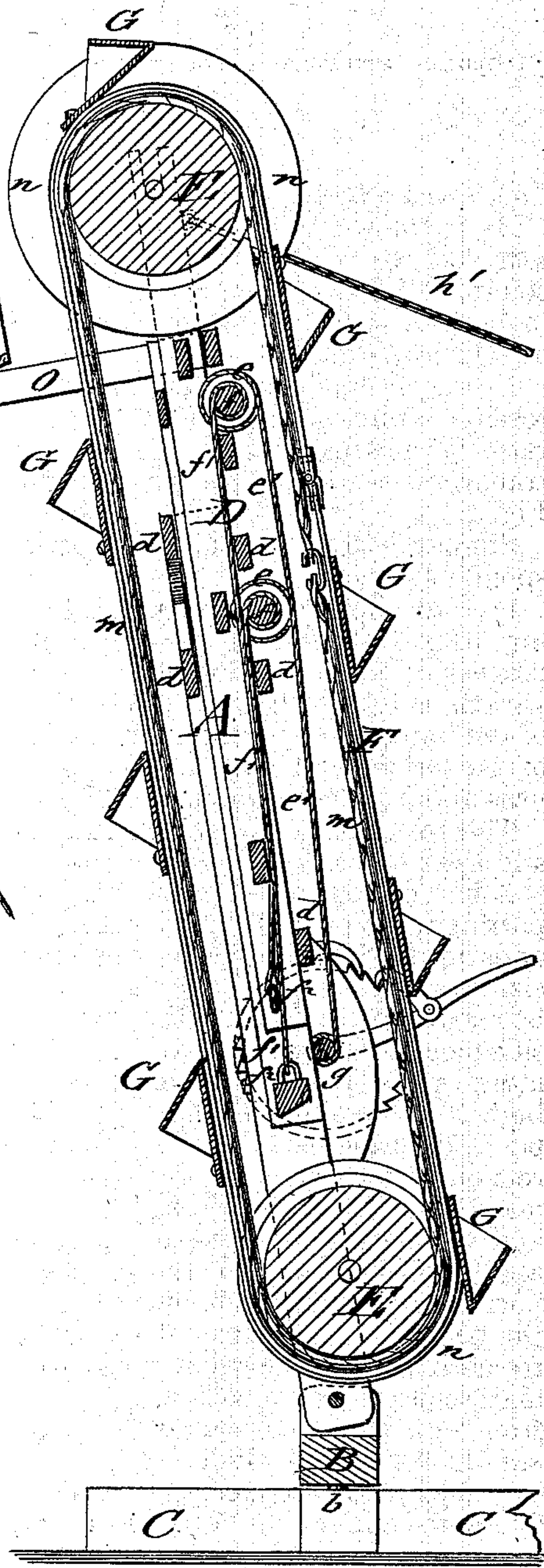


Fig. 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

CHARLES F. STEWART AND MILTON STEWART, OF MUNCIE, INDIANA.

## IMPROVEMENT IN ELEVATORS.

Specification forming part of Letters Patent No. 146,847, dated January 27, 1874; application filed November 22, 1873.

*To all whom it may concern:*

Be it known that we, CHARLES F. STEWART and MILTON STEWART, of Muncie, in the county of Delaware and State of Indiana, have invented a new and Improved Brick-Elevator, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a front elevation of our improved apparatus for hoisting bricks; and Fig. 2, a vertical transverse section of the same on the line *c c*, Fig. 1.

Similar letters of reference indicate corresponding parts.

Our invention relates to apparatus for hoisting bricks to different parts of a building in process of erection, which may be adjusted to various heights and easily applied to the sides of the building, carrying the bricks for the use of the bricklayers with rapidity and promptness and a reduced number of hands.

The invention will first be fully described, and then pointed out in the claims.

A in the drawing represents the main or supporting frame of the brick-elevating or hoisting apparatus, which is made of timber of suitable size and strength, according to the height to be reached by the same. The lower ends of the side pieces *A'* are pivoted to shoes *a* of a strong lateral piece, B, which again turns by a central bolt, *b*, in a stable base part, C, of strong timber. The base part C rests on the ground and remains firmly in position thereon, while the main frame A may be swung into any direction and inclination required, by means of bolt *b* and pivot-shoes *a*. For the purpose of transporting the elevator from one place to another, the base part C and piece B are brought under frame A, so that the whole takes up less space and requires no detaching of parts. Main frame A is extended to different heights by the sliding frames D, which are guided between the side pieces *A'* and the lateral pieces *d*. The extension-frames D are of different widths, one being narrower than the other, the wider one forming the support and guide for the narrower. The main frame A and extension-frames D, with the exception of the innermost, carry at their upper ends rollers *e*, which turn in bearings of the side timbers. The middle parts of the rollers *e* are of larger diameter than the end parts *f*, and are connected by

ropes *e'* with a roller, *g*, of the lower part of the main frame, while the end parts *f* are connected by ropes *f'* to staples *f''* at the lower end of the corresponding frame D. When the lower roller *g* is turned by a crank with ratchet-wheel and pawl, ropes *e'* are wound around the same, turning the rollers *e* and causing the winding up of ropes *f'* in opposite directions on the end parts *f*. The extension-frames D are thereby hoisted to the height required by the state of the building. The upper ends of main frame A and extension-frames D are provided with hooks or staples *h*, for attaching the bracing-ropes *h'*, by which the apparatus is firmly retained in the inclined position for work. The bracing-ropes *h'* are applied to stakes driven into the ground sidewise and in front of the apparatus, so that the requisite stability of the apparatus is obtained. A drum, E, is applied at the lower part of main frame A, and rotated by means of a hand-crank, *i*, and cog-wheels *i'*. A central recess, *l*, of drum E guides a twisted driving-belt, *m*, which connects with a second drum, E, at the upper end of the narrowest innermost extension-frame D. Both drums E have projecting end flanges *n*, which guide the endless chain or belt F, to which the buckets G are applied. The belt F is stretched tightly over the drums, and is carried around with them without interfering with driving-belt *m*. The buckets G are, by preference, of a size large enough to take up one brick at a time. The bricks are put in by an attendant, carried up and deposited on a chute, H, which is pivoted to arms *o* at the upper rear end of frame D, below drum E. The front end of chute H is supported on a rod, *p*, adjustable in hangers *p'* of arms *o*, so that a suitable inclination of the chute is obtained for imparting sufficient impetus to the bricks to be carried by an extension of the chute to the place of work, where they are taken up by the workman. The driving-belt *m*, as well as endless belt F, is lengthened by inserting extension-pieces, according to the height to which the frames have to be extended, the pieces on the driving-belt being connected by hooks and eyes, those of the endless belt by hinge-joints and cross-bolts. The distance of the buckets on the extension-pieces of the endless belt is the same as those on the main part of the belt,



so that a regular supply of bricks may be kept up.

The hoisting apparatus is easily placed in position, readily turned from one part of the building to the other, when employed at the inside of the building, and operated with a saving of time and labor.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination, with fixed base C and piece B, connected by a pivot-bolt, *b*, and having the shoes *a a*, of the frame A, having its

side pieces A' pivoted to piece B, as and for the purpose described.

2. The combination, in an elevator-frame, A, of the pivoted sides A' A' and intermediate slides D of different width, the narrower guided between the wider, in the manner and for the purpose specified.

CHARLES F. STEWART.

MILTON <sup>his</sup> × STEWART.  
mark.

Witnesses:

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