

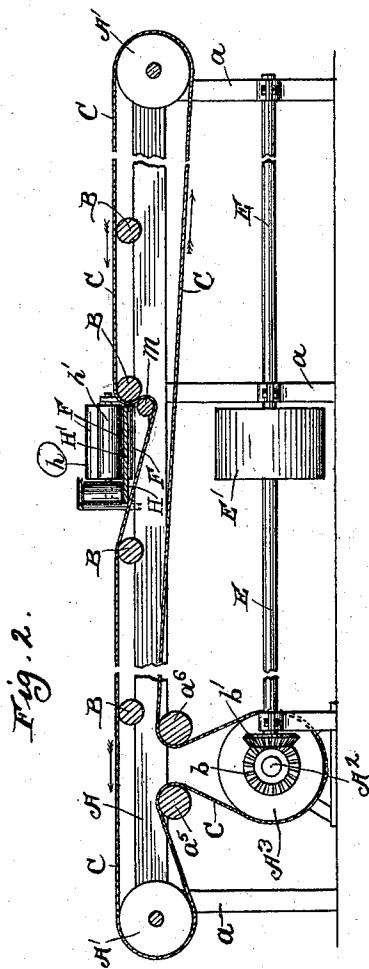
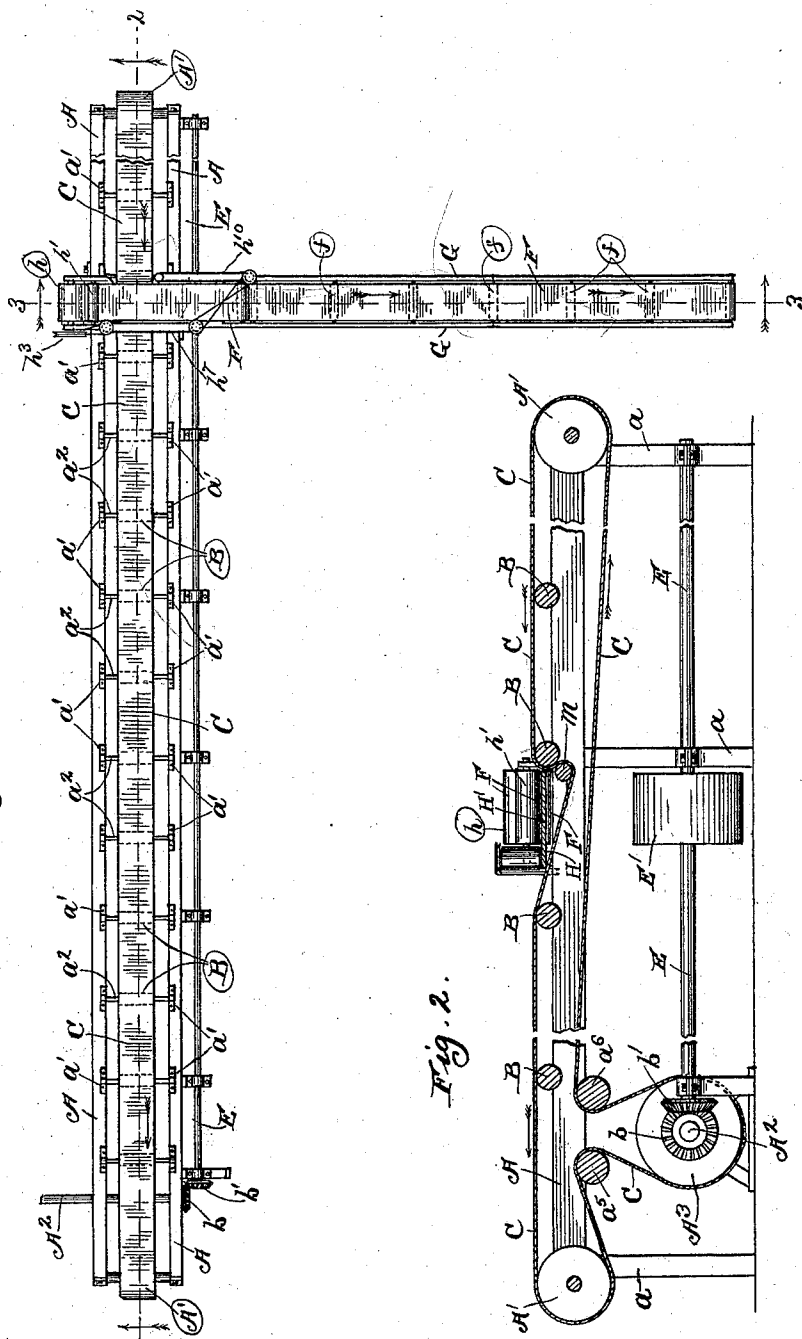
(No Model.)

2 Sheets—Sheet 1.

G. A. CHALLMAN.
BRICK CONVEYER.

No. 550,744.

Patented Dec. 3, 1895.



Witnesses:

R. J. Jackiv.
C. A. Duggan.

Inventor:

Gustafve A. Challman.

By

By Chas. C. Tiltman Atty.

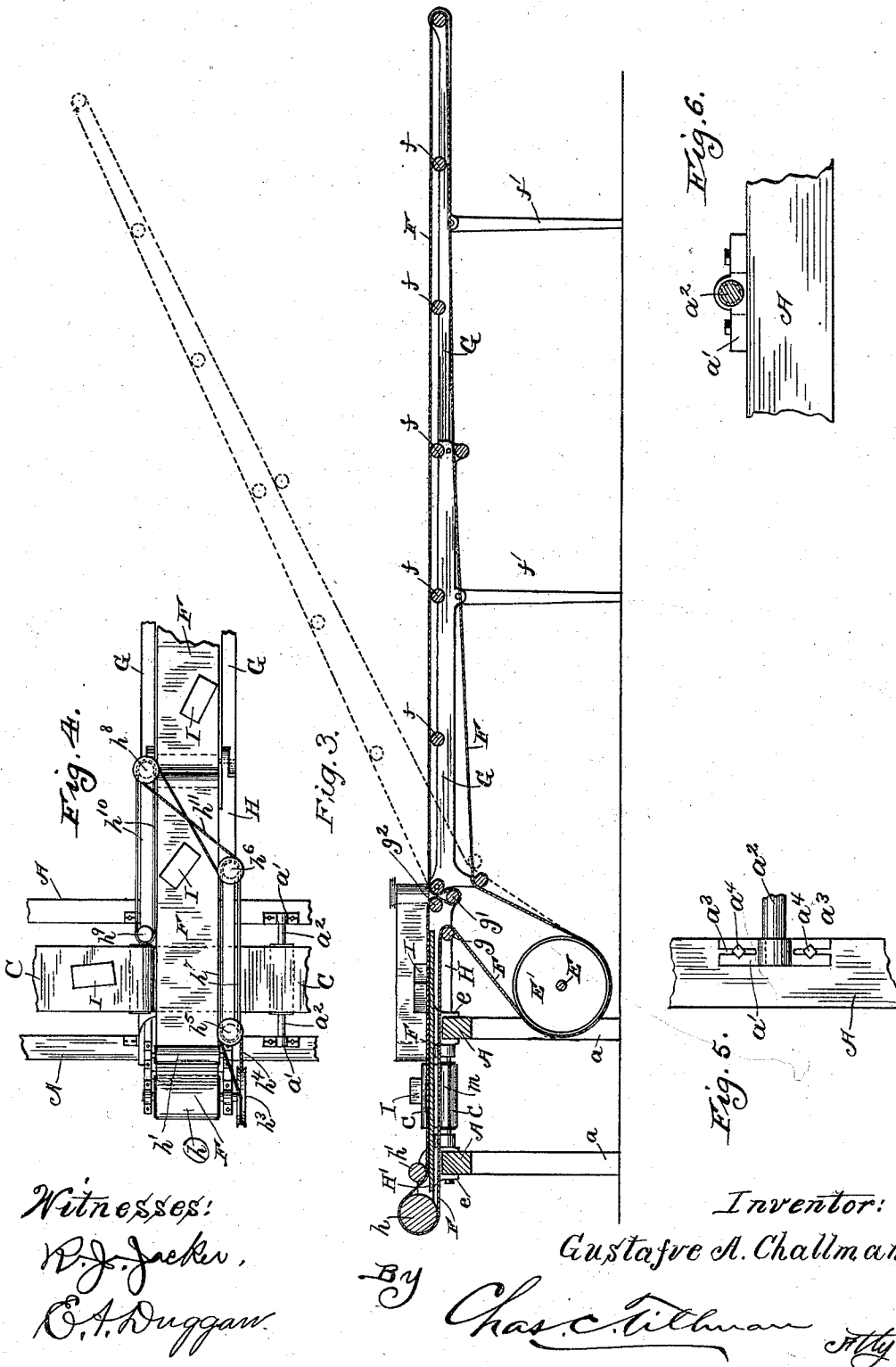
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UNITED STATES PATENT OFFICE.

GUSTAFVE A. CHALLMAN, OF LANSING, ILLINOIS.

BRICK-CONVEYER.

SPECIFICATION forming part of Letters Patent No. 550,744, dated December 3, 1895.

Application filed April 5, 1895. Serial No. 544,567. (No model.)

To all whom it may concern:

Be it known that I, GUSTAFVE A. CHALLMAN, a citizen of the United States, residing at Lansing, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Brick-Conveyers, of which the following is a specification.

This invention relates to improvements in a machine to be used in brick-yards for conveying or transferring brick from one portion of the yard to another, or from the brick-press or molding-machine to the drying-yard, or from thence to the kilns; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The objects of my invention are, first, to provide a brick-conveyer which shall be simple and inexpensive in construction; strong and durable, and effective in operation; second, such a conveyer by means of which the brick may be transferred from one direction to another, the whole being driven by the same power, and, third, a brick-conveyer the parts of which may be so adjusted as to elevate the brick as the kilns are being built up or may be adjusted so as to deposit the brick at desired points to the side of the frame or track of the conveyer.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a plan view of my conveyer, showing it foreshortened for the convenience of illustration. Fig. 2 is a longitudinal sectional view showing the frame foreshortened and taken on line 2 2 of Fig. 1. Fig. 3 is a cross-sectional view taken on line 3 3 of Fig. 1. Fig. 4 is an enlarged plan view of a portion of the main track or frame of the conveyer and a part of the adjustable or transferring frame or carrier. Fig. 5 is a plan view in detail of a portion of the track or frame, showing the manner of adjustably securing the rollers or pulleys thereto; and Fig. 6 is a side view, partly in section, thereof.

Similar letters refer to like parts throughout the different views of the drawings.

A represents the rails of the main or sta-

tionary frame. These rails are of any desired length and are secured at a suitable distance apart upon legs or uprights *a*, which support the rails at a convenient height, in order to allow the brick to be taken from the conveyer by the workmen as they stand on the ground. Each of the rails A is provided on its upper surfaces with bearings *a'* for the reception of the axles or shafts *a*² of the rollers B, which rollers are for the support of the main carrying-belt C. The bearings *a'* for the shafts *a*² are formed at each of their ends with open slots *a*³, through which are passed suitable bolts *a*⁴ to secure said bearings to the rails of the frame or track. This construction of the bearings enables them to be adjusted by being moved back and forth, as is obvious, thus affording accurate or true operation of the rollers and preventing the belt from being thrown off.

At each end of the rails A of the main frame is journaled a pulley A', over which the carrying-belt C passes and operates. Near one end of the frame and on the lower surface of the rails thereof are journaled two rollers *a*⁵ and *a*⁶, and beneath them, mounted on the driving-shaft A², is another pulley A³, on each of which the belt C operates, as is shown in Fig. 2 of the drawings. The driving-shaft A² is suitably mounted and receives its power from any desired source, and is provided with a gear *b* on one of its ends, which meshes with a gear *b'* on the end of the auxiliary shaft E, which shaft is journaled in suitable bearings on the supports or legs *a* of the main frame. Upon the shaft E is adjustably mounted a sheave E' for the operation of the transferring-belt F, which belt, as indicated by the arrows in the drawings, is adapted to travel at a right angle from the belt C or main carrying-belt. The transverse or transferring belt F passes over suitable rollers *f*, journaled in the rails G of the transverse frame, which rails are supported by means of legs *f'* at a suitable height, and are pivotally connected at their inner portions to a movable frame H, which frame is provided on its lower surface with ears or clamps *e* to engage the rails A of the main frame. The upper part of the frame H is provided with a flat board or piece H', over which the belt F passes. One end of the frame H is provided with a large pulley *h* and a

smaller one h' , the latter-named pulley being employed to hold the belt down on the board H' or platform. The end of the frame H adjacent to the inner ends of the rails G is provided with rollers g , g' , and g^2 , upon each of which the belt operates, as illustrated in Fig. 3 of the drawings.

The transverse frame or rails G are pivotally secured to the frame H , in order that the said rails may be elevated, as shown by dotted lines in Fig. 3 of the drawings, when it is desired to convey the brick to the kilns as they are built up. On one end of the shaft h^2 , upon which the roller h is mounted, is a grooved pulley h^3 , over which is passed a cord or belt h^4 , which passes around the pulley h^5 , which is located on the frame H and stands vertically, as shown in Figs. 2 and 4 of the drawings. The pulley h^5 is located near one end of the frame H , and on one side thereof and near the other end of said frame is vertically journaled a pulley h^6 , around which and the pulley h^5 passes a belt h^7 , which is designed to turn the brick I as they pass from the belt C onto the belt F in the position indicated by the arrow. On the opposite side of the frame H are vertically journaled two other pulleys or rollers h^8 and h^9 , around which operates a belt h^{10} , which travels near the edge of the belt F and in the direction thereof and prevents the brick falling off on said side. The pulleys h^8 and h^9 are connected by means of a cross-belt h^{11} , which causes the belts h^7 and h^{10} to move in the same direction, as is obvious.

From the foregoing and by reference to the drawings it will be seen and readily understood that the belt C is an endless one and is driven by the main shaft A^2 , which, as before stated, may receive its power from any suitable source. This belt, as well as the main frame, may be of any desired length, and the auxiliary shaft E should be of substantially the same length as the frame, in order that the pulley E' may be located at any desired point thereon. The frame H is placed transversely on the main frame at any desired point and crosswise of the belt C , which will be held a slight distance from the frame H by means of the roller m , which is journaled on the lower surface of the frame H in such a manner that it will extend crosswise of said belt. When in this position it is apparent that the belt C may travel over its respective pulleys and rollers and pass underneath the frame H without obstruction, carrying the brick thereto and depositing them on the transverse

belt F , which is driven by the pulley E' on the shaft E and is likewise endless. The belt F imparts motion to the roller h , which in its turn rotates and gives movement to the belts h^7 and h^{10} through the pulleys h^5 , h^6 , h^8 , and h^9 and their respective connections or belts. It will therefore be understood that my machine is operated by the same power and that the transverse frame and belt can be so adjusted as to convey brick to different parts of the yard or to various heights of the kiln.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the main frame A , with a series of rollers journaled thereon, a belt C , passing over said rollers, a driving shaft having a pulley thereon to engage said belt and to drive the same, a cogged gear mounted on said shaft, an auxiliary shaft having on its end a gear to engage the gear on the driving shaft, the movable frame H , having the roller m , journaled longitudinally thereon to rest on the belt C , and to cause it to pass under the frame H , which is located cross-wise of the main frame, a series of rollers journaled in the frame H , a belt to operate on said rollers and a pulley on the auxiliary shaft to engage said belt and drive the same, substantially as described.

2. The combination of the main frame A , with a series of rollers journaled thereon, a belt C , passing over said rollers, a driving shaft having a pulley thereon to engage said belt and to drive the same, a cogged gear mounted on said shaft, an auxiliary shaft having on its end a gear to engage the gear on the driving shaft, the movable frame H , having the roller m , journaled longitudinally thereon to rest on the belt C , and to cause it to pass under the frame H , which is located cross-wise of the main frame, the rollers g' , g^2 , journaled transversely on the frame H , and one above the other, the vertically adjustable frame G , pivotally secured to the frame H , a series of rollers f , journaled in said frame and in the adjustable frame G , a belt to operate on said frames and over said rollers and roller g^2 , and under the roller g' , to allow of the vertical adjustment of the frame G , and a pulley on the auxiliary shaft to engage said belt and drive the same, substantially as described.

GUSTAFVE A. CHALLMAN.

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E. A. DUGGAN.