No. 809,763. PATENTED JAN. 9, 1906.

A. TOMKINS.

CONVEYER.

APPLICATION FILED JAN. 28, 1905.

2 SHEETS—SHEET 1.

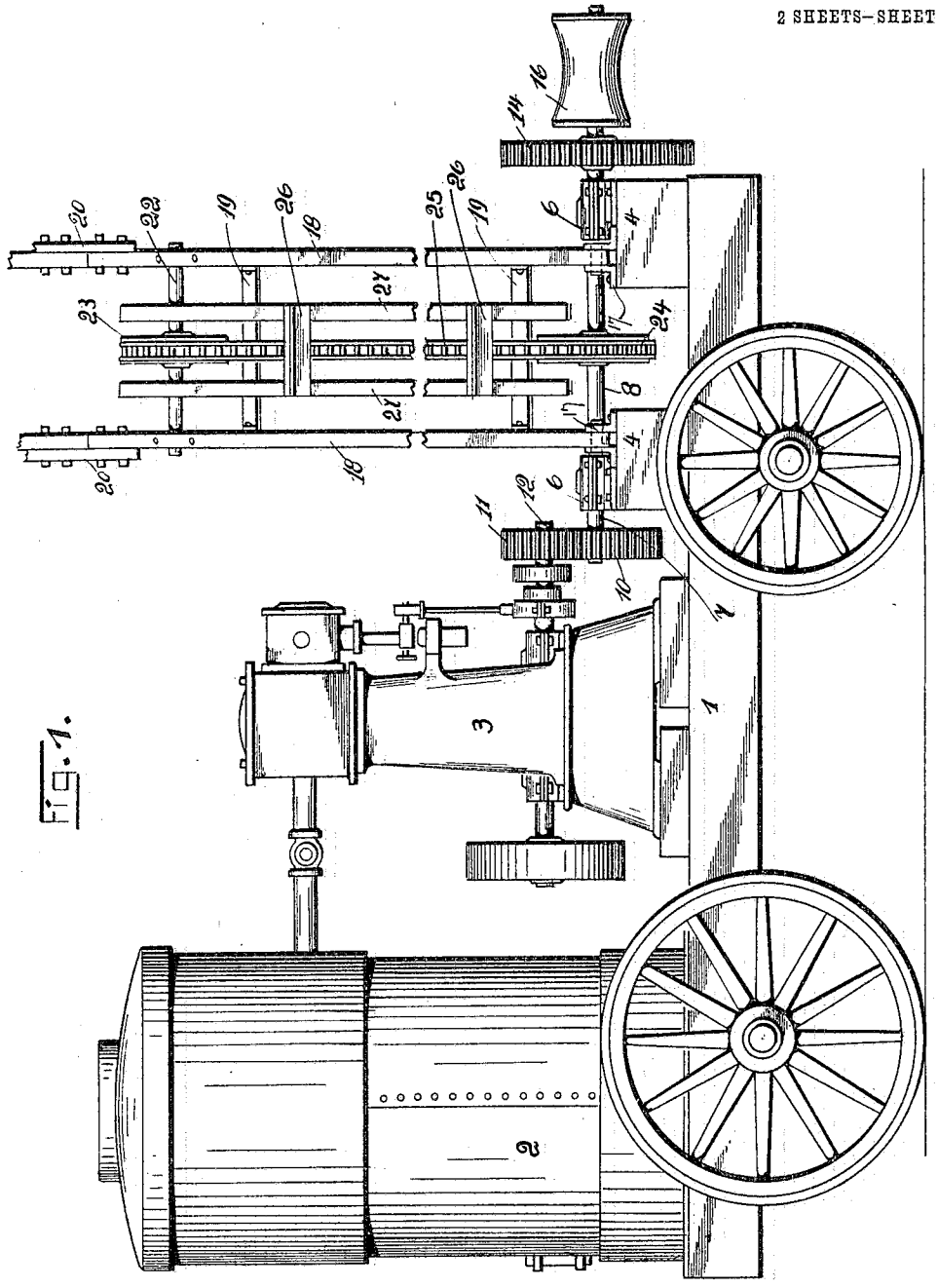

Fig. 1.

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2 SHEETS—SHEET 2.

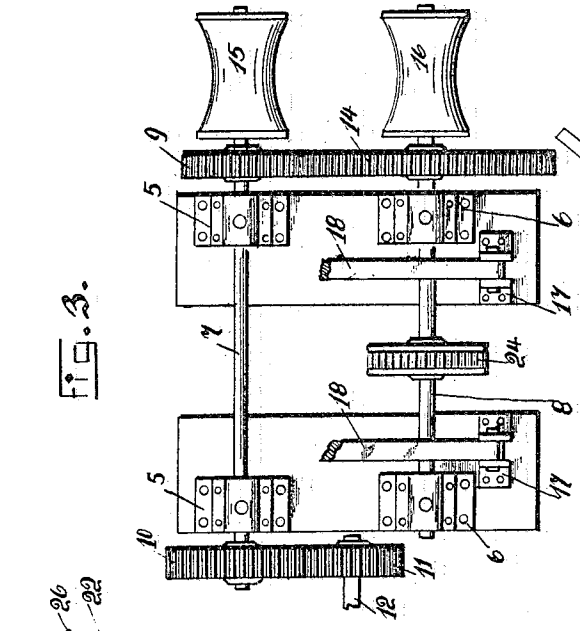

Fig. 3.

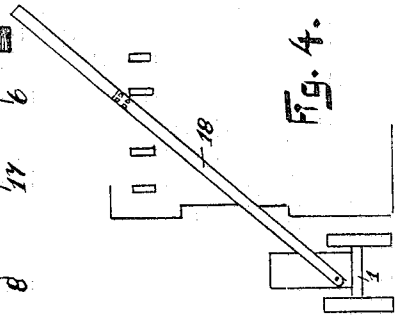

Fig. 4.

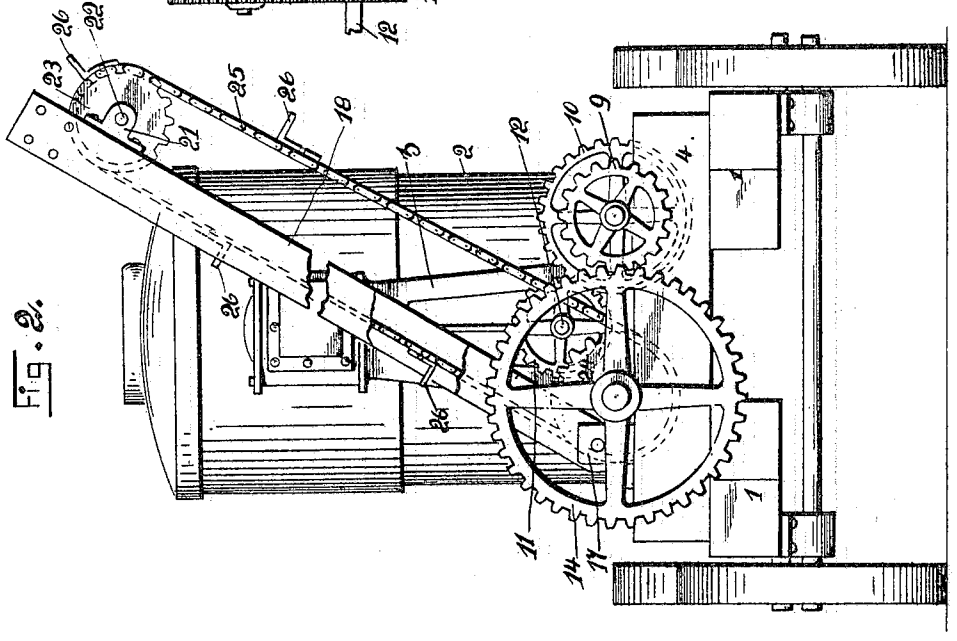

Fig. 2.

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UNITED STATES PATENT OFFICE.

ALFRED TOMKINS, OF PITTSBURG, PENNSYLVANIA.

CONVEYER.

No. 809,763. Specification of Letters Patent. Patented Jan. 9, 1906.

Application filed January 28, 1905. Serial No. 243,040.

To all whom it may concern:

Be it known that I, ALFRED TOMKINS, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Conveyers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in conveyers, and more particularly to that type of conveyer employed for carrying structural material to be used in connection with buildings.

The primary object of this invention is to provide a portable conveyer which can be moved from one position to another during the construction of a building, and the conveyer is particularly adapted for carrying bricks, terra-cotta, and the like articles to the different stories or floors of the building during the erection of the same.

With the above and other objects in view the invention finally consists in the novel construction, combination, and arrangement of parts, which will be hereinafter more fully described and then specifically pointed out in the claims, and, referring to the drawings accompanying this application, like numerals of reference designate corresponding parts throughout the several views, in which—

Figure 1 is a side elevation of my improved conveyer partly broken away. Fig. 2 is an end view of the conveyer. Fig. 3 is a top plan view of a portion of the conveyer, and Fig. 4 is a diagrammatic view illustrating the use of my improved conveyer in connection with a building.

To put my invention into practice, I employ a suitable wagon or vehicle having a bed or platform 1, and upon this bed or platform I employ a boiler 2 and a vertical engine 3. The boiler and engine are of an ordinary type, and the detail construction need not be further described, as I may employ any desired type of boiler and engine. The one end of the platform 1 is provided with bed-plates 4, upon which are mounted bearing-boxes 5 and 6, and in these boxes are journaled shafts 7 and 8. The ends of the shaft 7 are provided with pinions 9 and 10, the pinion 10 being adapted to mesh with the pinion 11, mounted upon the end of the power-shaft 12 of the engine 3. The pinion 9 is adapted to mesh with a large pinion 14, mounted upon the shaft 8. The ends of the shafts 7 and 8 are provided with pulleys 15 and 16, which are employed for hoisting purposes.

The bed-plates 4 4 are provided with suitable brackets 17 17, and in these brackets are pivotally mounted side rails 18 18 of my improved conveyer. These side rails are of a considerable length and approximately correspond to the height of a floor of a building. The side rails are suitably braced by transverse frames 19 19, and the upper ends of said rails are provided with splice-bars 20, whereby additional sections of the conveyer can be readily attached, as will be presently described. The lower edges of the side rails 18 18 are provided with bearing-boxes 21 21, and in these brackets is journaled a shaft 22, upon which is mounted a sprocket-wheel 23. The shaft 8 is provided with a sprocket-wheel 24, and over this sprocket-wheel and the sprocket-wheel 23 travels an endless sprocket-chain 25, carrying a plurality of equally-spaced carriers 26. These carriers are attached to the links 25 and may be of any desired form for conveying material. In the present illustration I have illustrated the carriers as particularly adapted for bricks, and such they will be hereinafter referred to. The transverse frames 19 19 are provided with guideways 27 27, upon which the ends of the carriers 26 bear and travel during their forward movement.

The conveyer as constructed by me is particularly adapted for carrying bricks from the ground to the different stories of a building during the erection of the same, and the conveyer aims to dispense with manual labor heretofore used for carrying bricks. The conveyer can be readily moved about the building during the construction of the same, and it is to be positioned in close proximity to the building, whereby the side rails of the conveyer can protrude upwardly through a window-opening and rest upon the floor-joists of the second floor of a building. In Fig. 4 of the drawings a diagrammatic view illustrating the use of my improved conveyer is shown. It will be observed that the side rails rest upon one of the joists, and it may be necessary to move one of said joists in order that an opening of a sufficient size will be formed to permit the carriers to pass between the joists.

When the apparatus has been placed in position and the engine started, a rotary motion is transmitted to the endless sprocket-chain 25 through the medium of the pinions 10, 11,

9, and 14, and as the chain is carried around upon its circuitous path the carriers 26 travel upwardly and are adapted to deposit their contents upon a suitable platform built upon the joists of a building. Each carrier is adapted to convey a plurality of bricks, and by employing numerous carriers the capacity of the conveyer is such as to deliver at the proper point a greater number of bricks than could be conveyed by numerous brick-carriers. As the structure being built progresses and additional floors are added the side rails 18 18 are provided with additional rails, which will extend upwardly within the building to the floors desired. For each additional floor I preferably add another section of rail and lengthen the sprocket-chain, and I may in some instances erect the conveyer vertically within the building after that portion of the conveyer carried by the vehicle or wagon has entered said building. This construction is advisable where the buildings are of a considerable height and it is impossible to properly incline the conveyers in order that the top of the same may reach the uppermost floor or story of the building.

My improved apparatus can also be used as a "donkey-engine" in connection with a building, the pulleys 15 and 16 being used to wind cables or ropes which are utilized for hoisting building materials by block and tackles. The engine which is used in connection with my improved apparatus can also be used for numerous purposes in connection with buildings, and for this reason I have provided the power-shaft of the engine with a suitable pulley-wheel whereby rotary motion can be transmitted to a suitable machine or apparatus used in connection with the building.

While I have herein illustrated the preferred manner of constructing my improved conveyer, it will be noted that the general arrangement of the boiler, the engine, and the conveyer upon the wagon or vehicle may be changed, and various other slight changes may be made without departing from the general spirit and scope of the invention.

What I claim, and desire to secure by Letters Patent, is—

1. The combination with a vehicle, and an engine mounted on the vehicle, of a conveyer-frame pivotally mounted on the vehicle and composed of separable sections, transverse frames and longitudinally-disposed guide-rails carried by said frames, a shaft extending longitudinally of the vehicle, a winding-drum on the outer end of said shaft, a sprocket-wheel carried by said shaft between the said guide-rails, a second shaft carried by the conveyer-frame, a sprocket-wheel carried by said second shaft, an endless chain passing over said sprocket-wheels, carriers attached to said chain and traveling on said guide-rails, a second shaft arranged parallel to said first shaft, means for imparting motion from said engine to said second shaft, and for imparting motion from said second shaft to said first-named shaft, and a winding-drum carried by said second shaft.

2. In an apparatus of the type described, the combination with a vehicle, of a conveyer pivotally mounted upon said vehicle, said conveyer consisting of a plurality of sections, an endless chain mounted upon said conveyer, carriers mounted upon said chain, means carried by said vehicle to operate said chains comprising an engine, a plurality of shafts having intermeshing gear-wheels, and winding-pulleys carried by said shafts, substantially as described.

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

ALFRED TOMKINS.

Witnesses:
K. H. BUTLER,
JAS. V. MCMASTER.