

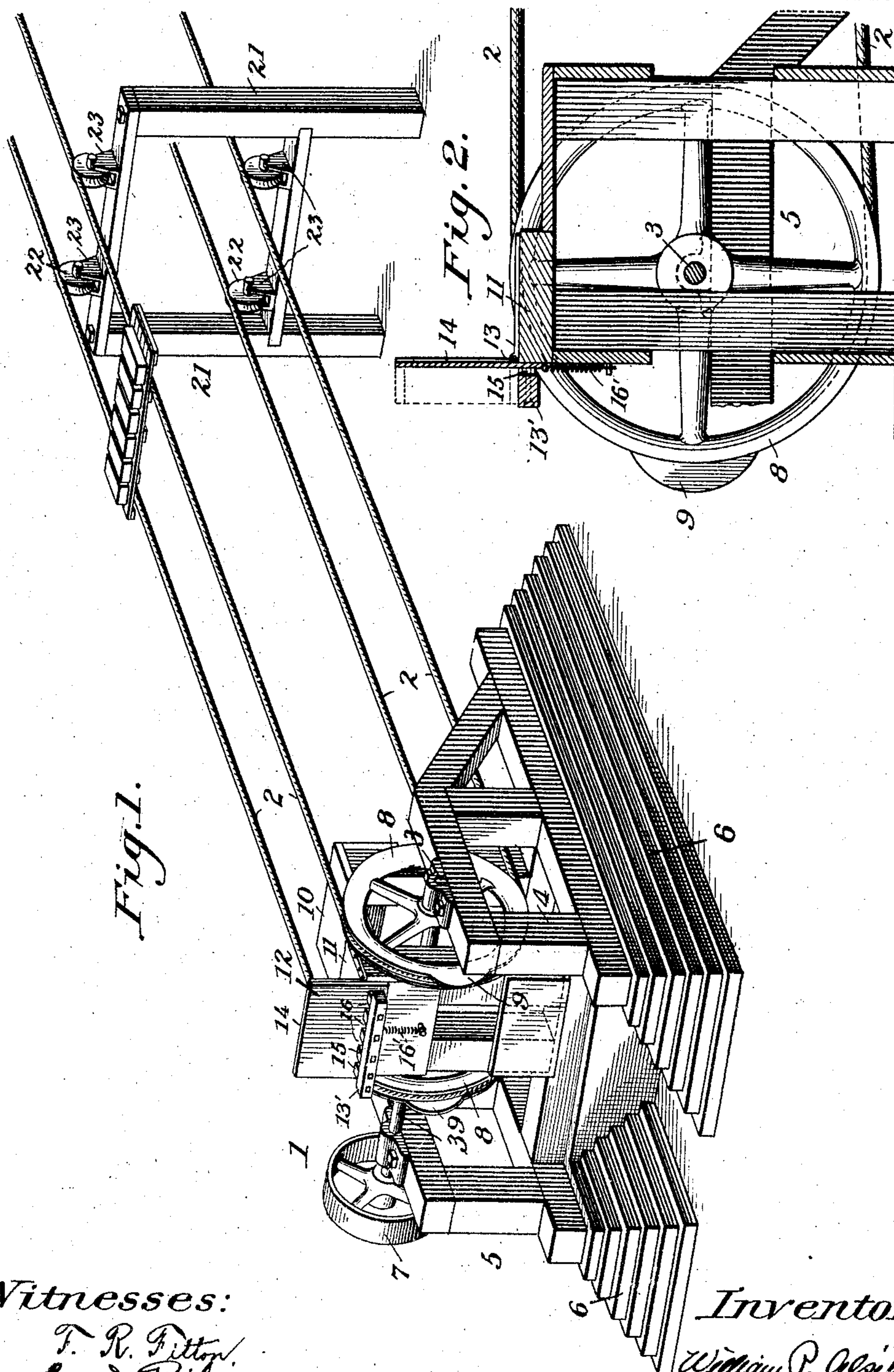
No. 781,120.

PATENTED JAN. 31, 1905.

W. P. ALSIP.
BRICK CONVEYER.

APPLICATION FILED MAY 16, 1904.

2 SHEETS—SHEET 1.

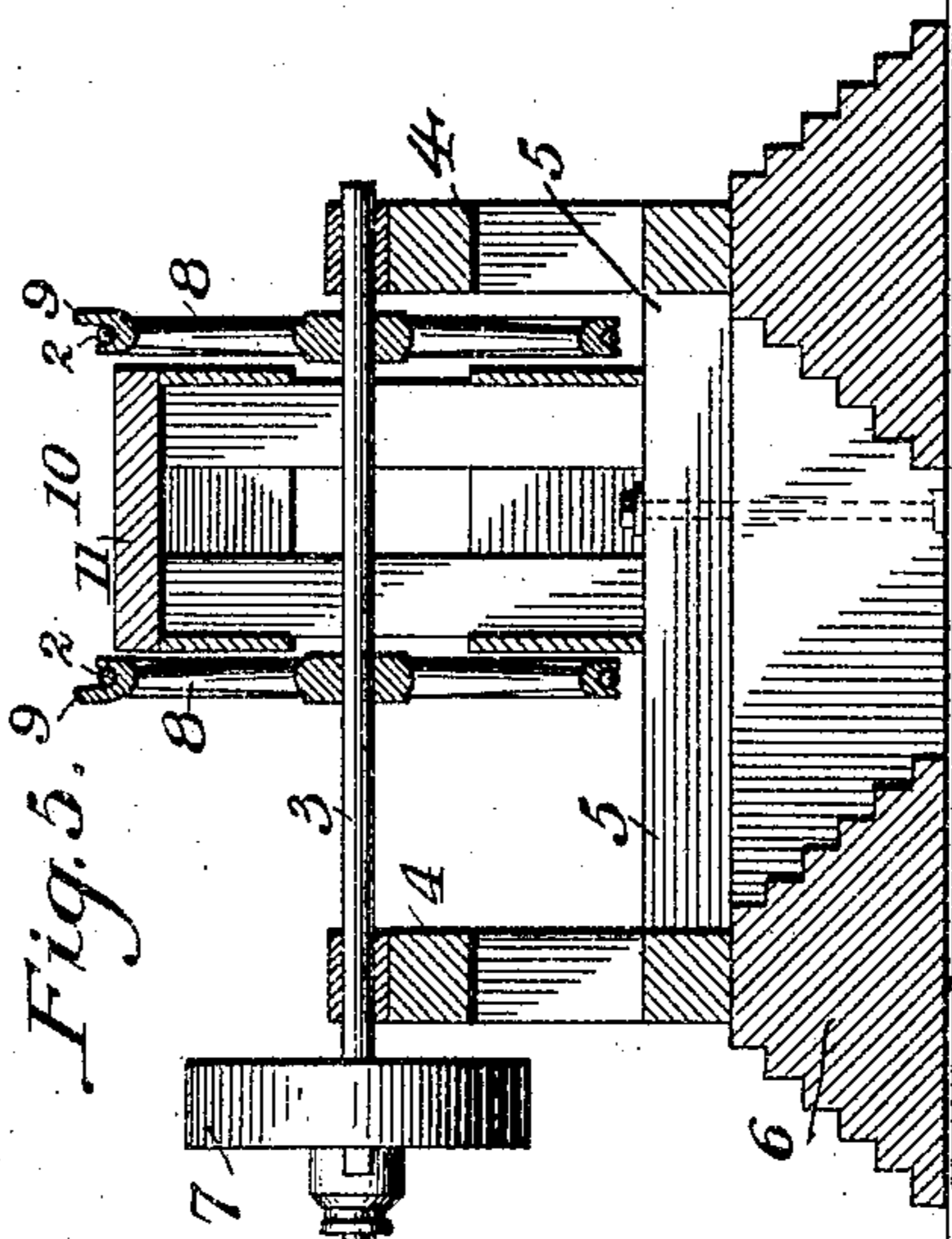
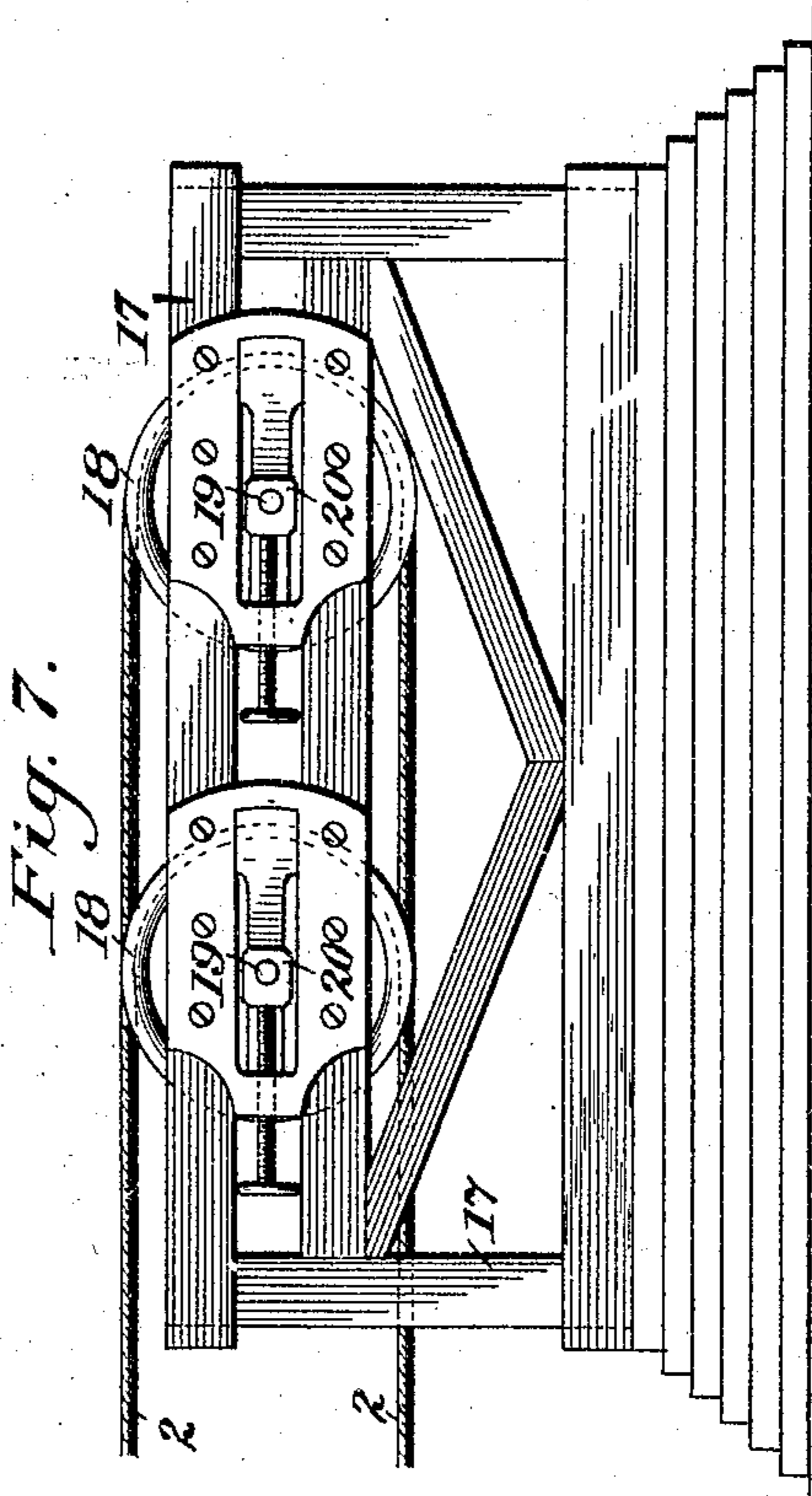
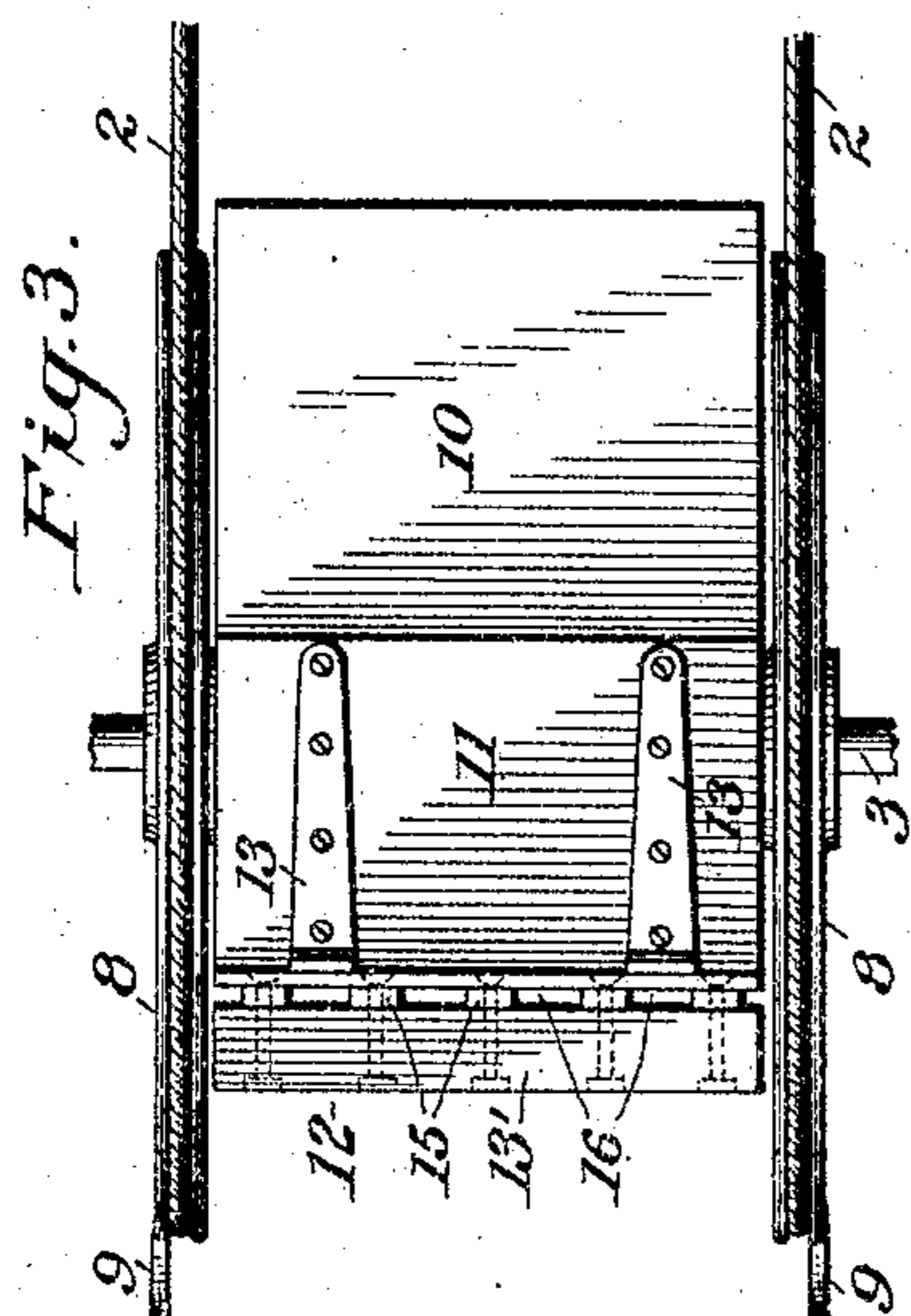
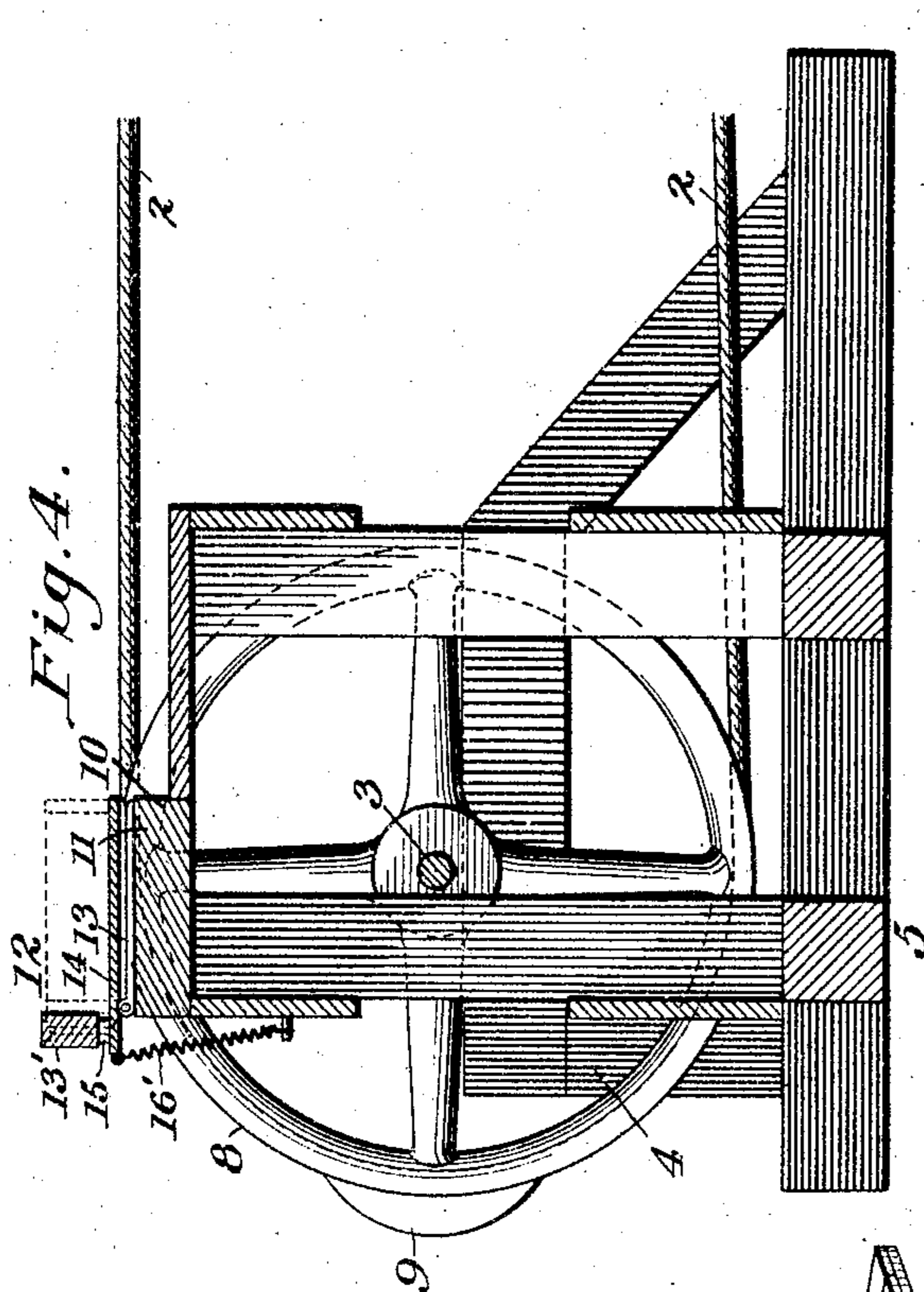


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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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BRICK-CONVEYER.

SPECIFICATION forming part of Letters Patent No. 781,120, dated January 31, 1905.

Application filed May 16, 1904. Serial No. 208,153.

To all whom it may concern:

Be it known that I, WILLIAM P. ALSIP, a citizen of the United States, and a resident of Grand Forks, in the county of Grand Forks and State of North Dakota, have invented certain new and useful Improvements in Brick-Conveyers, of which the following is a specification.

My invention relates to an apparatus for facilitating the transportation of molded brick or the like from a molding-machine or brick-press to the drying-yard or other desired point; and the object thereof is to provide an apparatus which is particularly simple in construction and highly efficient in use.

To this end the invention includes the combination and arrangement of component parts to be hereinafter described, and particularly pointed out in the claims.

While the invention is susceptible of various embodiments, the accompanying drawings illustrate, and I shall hereinafter describe in connection therewith, what is now conceived to be a preferred embodiment of the same.

In the drawings, Figure 1 is a perspective view, with parts broken away, of a section of the apparatus. Fig. 2 is a transverse sectional view of a portion of the apparatus with parts thereof in one position. Fig. 3 is a plan view of the same. Fig. 4 is a similar view of Fig. 2 with the parts in a different position. Fig. 5 is a transverse sectional view of a portion of the apparatus. Fig. 6 is a perspective view of a pallet, and Fig. 7 is a side elevation of one of the outer supporting and guiding devices for the conveyer-cables.

The invention includes generally an endless conveyer running from a point adjacent the molding-machine or brick-press to and through the drying-yard or to any point to which the molded bricks are to be conveyed, a carrying-pallet for supporting the bricks on the conveyer, and a loading-station at one end of the carrier having means located at the same for accurately placing the bricks on the carrying-pallet and positioning the latter, and means for transporting the loaded pallet onto the conveyer.

In the illustrated embodiment of my invention the conveyer is designated by 1, and preferably

comprises two parallel endless cables 2, spaced a suitable distance apart and having means associated therewith for supporting and driving the same.

The loading-station is preferably located at the end of the conveyer adjacent the brick-press or molding-machine, and at this point means are preferably arranged for driving the conveyer, as well as means for loading the bricks thereon, said driving means being preferably combined with the loading means. The embodiment of the driving and loading means disclosed in the present exemplification of my invention includes a driving-shaft 3, journaled in supports 4, rising from a framework 5, supported upon a suitable foundation 6. A driving-pulley 7 is secured to one end of the shaft 3, and a pair of guiding and driving sheaves 8 is secured to the intermediate portion of the shaft 3, which have peripheral transferring projections 9 associated with the same.

A loading platform or table 10 is supported from the framework 5 and is provided with an upper supporting-surface 11, arranged between the sheaves 8 and disposed at such an elevation in relation to the latter that the pallet supported thereon will be held above and out of engagement with the conveyer.

A centering or positioning member 12 is pivotally connected to the upper outer edge of the platform and is designed to occupy one position for alining the pallet and bricks in relation thereto and to be moved into a second position for placing the pallet, with the bricks thereon, upon the platform in position to be transferred onto the conveyer, for which purpose automatic means, as projections 9, are provided.

The member 12 preferably includes a plate pivotally mounted a short distance above one longitudinal edge to the platform at the outer longitudinal edge of the surface 11 by hinges 13, secured to the plate and platform, respectively, and a lateral extension or section 13', projecting from said plate contiguous to said longitudinal edge thereof. The section 13' is preferably formed by a strip bolted to the plate 14, and space-blocks 15, constituting a part of said extension, are interposed between

the strip and the plate 14, so as to provide a plurality of openings 16, through which any sand and the like which may fall from the pallets may pass, so that proper alining of the latter and the bricks in reference thereto may not be interfered with. The plate 14 is normally held in a perpendicular position by means of a spring 16', interposed between the same and the platform.

At the outer end of the conveyer a suitable frame 17 is arranged, in which two guiding-sheaves 18 are suitably mounted. Each of these sheaves is carried by a shaft 19, journaled at its opposite ends in boxes 20 shiftable in the frame, so that the tensions of the cables may be readily adjusted.

For supporting and guiding the cables intermediate of the ends of the conveyer suitable frames 21 are provided, having sheaves 22 journaled in the same, over which the cables run. Each frame 21 includes a pair of vertical standards provided with upper and lower connecting-bars, to which brackets 23, providing bearings for the sheaves 22, are bolted.

In the operation of my apparatus the bricks are transferred from the press in a suitable mold and placed on a pallet, which preferably consists of a light support of rectangular shape formed by a plurality of laths secured together, with their longitudinal edges abutting against one another, and the pallet, with the bricks arranged thereon, is carried by the conveyer from the loading-station adjacent the brick-press to its destination, preferably to the drying-yard, where the pallet, with its contents, is lifted from the conveyer by a workman located along the path of the latter and then placed in position for the drying of the bricks. In loading a pallet upon the conveyer the former is first placed on the member 12 with its under face resting against the upper and outer face of plate 14 while the latter is in its initial position and with its lower edge resting against the extension 13' or the space-blocks 15, constituting a part thereof. The mold containing the formed bricks is then placed in the member 12 with one face against the positioned pallet and its under longitudinal side face against the extension 13'. The member 12 is then thrown over to rest upon the surface 11 and the mold thereupon removed, leaving the bricks properly positioned on the pallet and the latter supported on the plate 14, which in turn rests upon the surface 11 and holds the pallet in a position directly above the conveyer out of contact therewith and with the ends of the pallet overhanging the same.

As before premised, my invention contemplates means for automatically transferring the pallet, with its load, onto the conveyer, and for this purpose the sheaves 8 are provided with the peripheral offsets or lugs 9, before referred to, which are arranged in axial align-

ment and as the sheaves rotate are brought into engagement with opposite ends of the pallet, lift the same from the platform, and carry it in advance thereof and onto the conveyer, which then carries the pallet, with its load, to its destination. As soon as the plate 14 is relieved from the weight of the pallet it immediately returns under the influence of the spring 16 to its initial position.

The construction and operation of my invention will be readily understood upon reference to the foregoing description and accompanying drawings, and it will be appreciated that the parts and combinations recited may be varied within a wide range without departing from the spirit and scope thereof.

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

1. In an apparatus of the class described, a pallet, an endless conveyer, means for supporting and guiding the conveyer at its outer end and at intermediate points, means for loading a pallet and supporting the same above the conveyer, and means arranged at one end of the conveyer for driving the same and for automatically transferring the tray from its position above the conveyer onto the conveyer, substantially as described.

2. In an apparatus of the class described, a pallet, a conveyer, a frame arranged at one end of the same having guide-sheaves mounted therein, and a loading-station at the opposite end of the conveyer having means located thereat for positioning the pallet and centering the molded bricks thereon and for transferring the pallet loaded with said bricks onto the conveyer, substantially as described.

3. In an apparatus of the class described, a pallet, a conveyer, a frame arranged at one end of the same having guide-sheaves mounted therein, and a loading-station at the opposite end of the conveyer, and means located at said station for positioning the pallet, centering the molded bricks thereon and moving the loaded pallet to a position at rest above the conveyer and out of engagement with the same, and means for automatically transferring the loaded pallet onto the conveyer, substantially as described.

4. In an apparatus of the class described, a pallet, a conveyer, a frame arranged at one end of the same having guide-sheaves mounted therein, driving and guiding sheaves at the opposite end of the conveyer, a platform located between the latter sheaves, a member pivotally secured to the platform for positioning the pallet and centering the molded bricks in reference thereto, and means for transferring the loaded pallet from the platform onto the conveyer, substantially as described.

5. In an apparatus of the class described, a pallet, a conveyer, a frame arranged at one end of the same having guide-sheaves mounted therein, driving and guiding sheaves at the

opposite end of the conveyer, a platform located between the latter sheaves, a member pivotally secured to the platform for positioning the pallet and centering the molded bricks in reference thereto, and means carried by the driving and guiding sheaves for transferring the loaded pallet from the platform onto the conveyer, substantially as described.

6. In an apparatus of the type described, a pallet, a conveyer comprising two cables running in parallelism, means at the outer end of the conveyer for supporting and guiding the cables, driving and guiding sheaves for the cables, a platform located between said sheaves having a supporting-surface arranged to hold the pallet supported thereon above the path of movement of the conveyer, a positioning member pivoted to the platform, and offsets on said sheaves for transferring the loaded pallet onto the conveyer, substantially as described.

7. In an apparatus of the type described, a pallet, a conveyer comprising two cables running in parallelism, means at the outer end of the conveyer for supporting and guiding the cables, driving and guiding sheaves for the conveyer, a platform located between said sheaves having a surface arranged to hold the pallet supported thereon above the path of movement of the conveyer, a positioning member comprising a plate pivoted to one edge of the supporting-surface, a lateral extension at one edge of said plate, a spring connection be-

tween the plate and platform, and offsets on the sheaves for transferring the loaded pallet onto the conveyer, substantially as described.

8. In an apparatus of the class described, a pallet, a conveyer comprising two cables running in parallelism, a frame arranged at one end of the conveyer, guiding-sheaves for the cable adjustably mounted therein, a frame arranged at the other end of the conveyer, a driving-shaft journaled in the same, driving-sheaves secured to said shaft, a platform arranged between said sheaves and having a supporting-surface, an initial receiving member for the pallet and bricks including a plate and a lateral extension having openings therein adjacent the plate, hinges for pivotally connecting the plate to the supporting-surface of the platform, peripheral offsets on the driving-sheaves for transferring the loaded pallet onto the conveyer, and intermediate supports for the cables comprising frames having guiding-sheaves supported therein, substantially as described.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Grand Forks, in the county of Grand Forks and State of North Dakota, this 11th day of May, 1904.

WILLIAM P. ALSIP.

Witnesses:

WILLIAM TAYLOR,
JOHN W. OGREN.