

(No Model.)

H. W. GAINES.  
ELEVATOR AND CARRIER.

No. 598,145.

Patented Feb. 1, 1898.

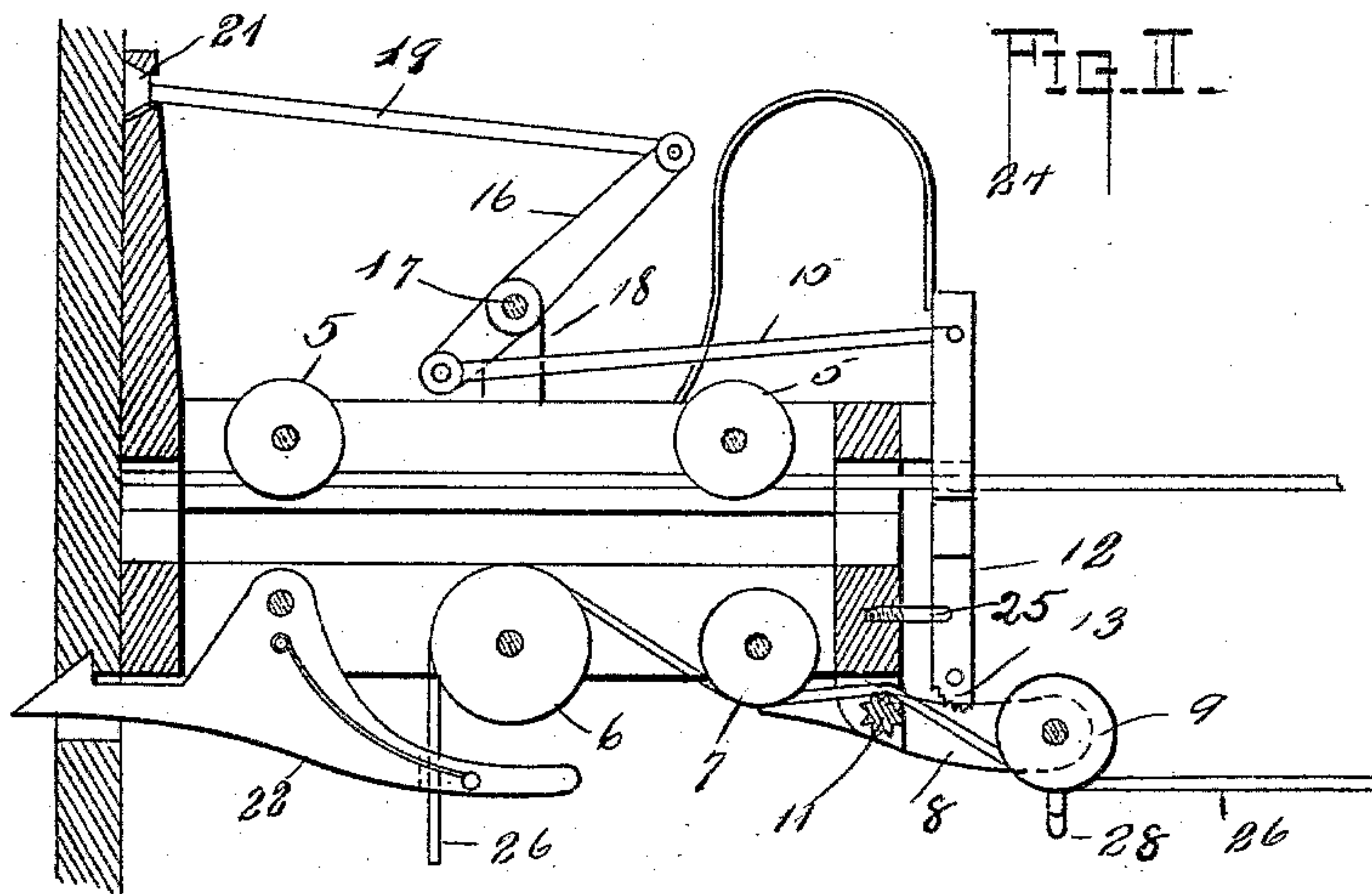
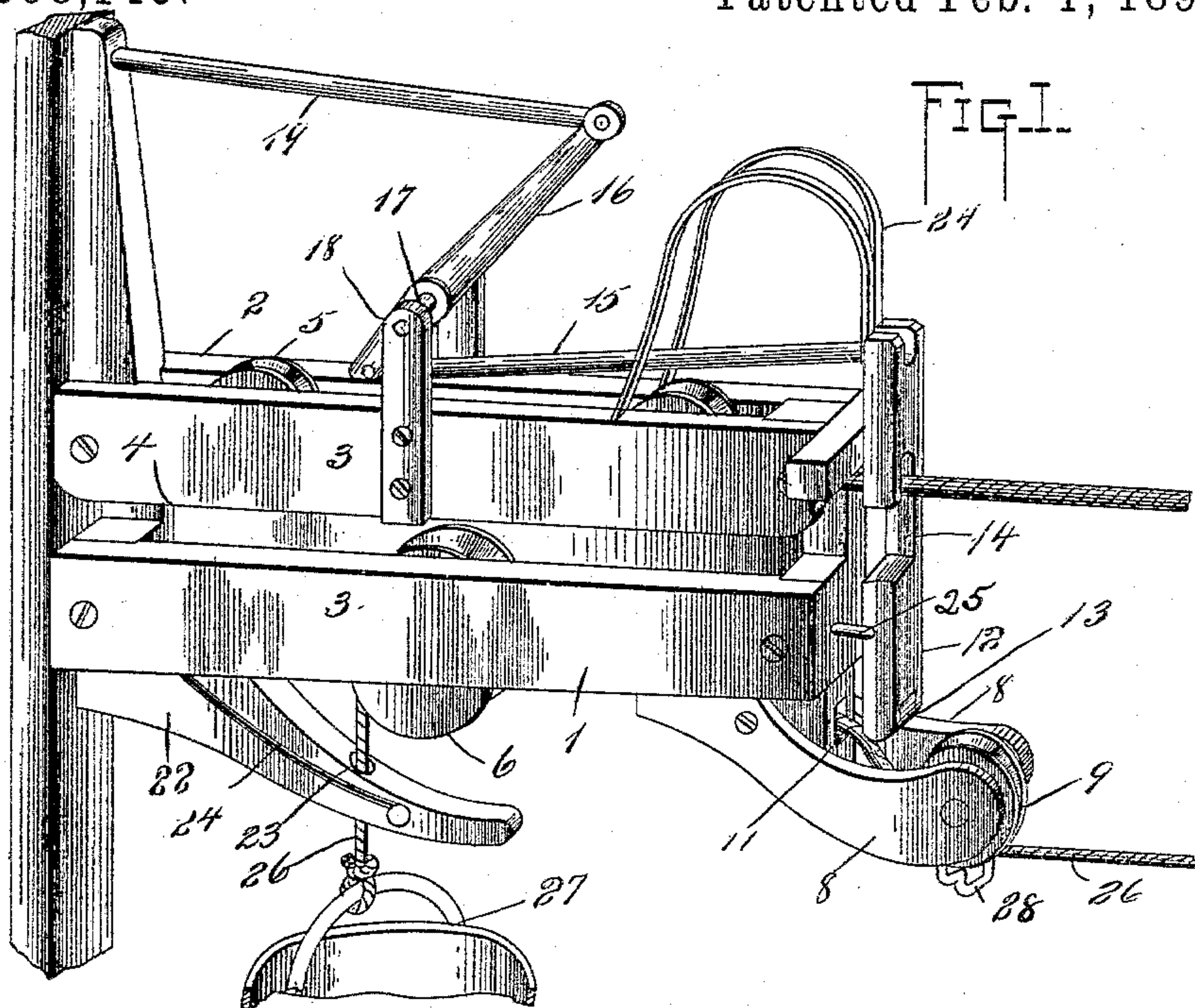
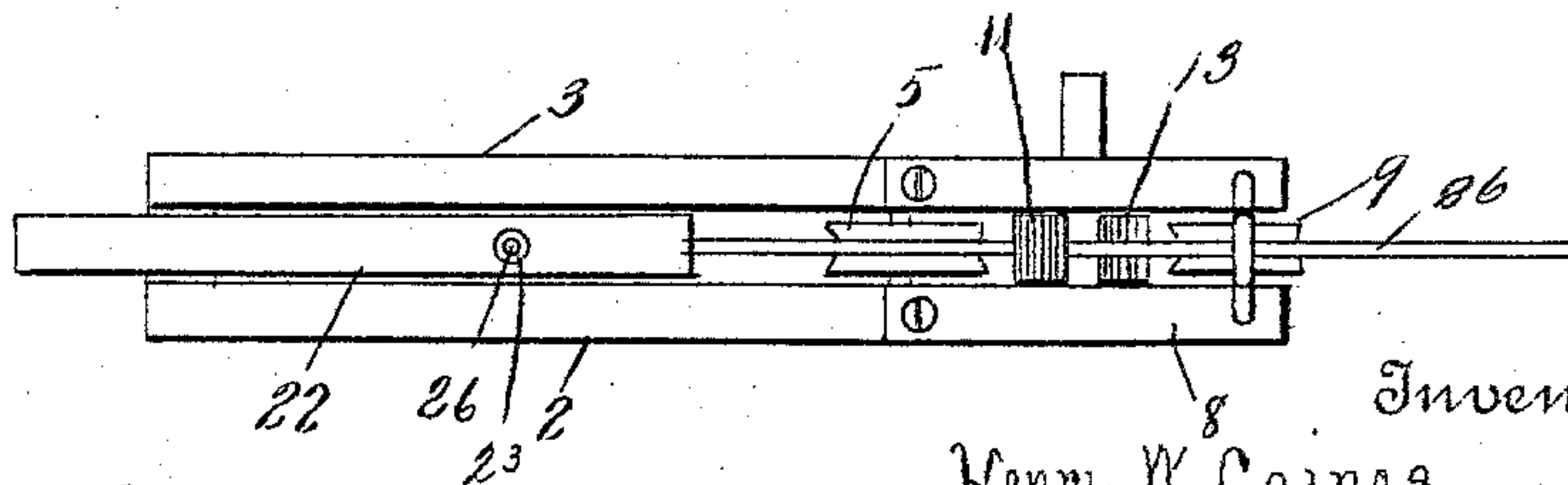


FIG. III.



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# UNITED STATES PATENT OFFICE.

HENRY WILSON GAINES, OF POLKVILLE, KENTUCKY.

## ELEVATOR AND CARRIER.

SPECIFICATION forming part of Letters Patent No. 598,145, dated February 1, 1898.

Application filed July 23, 1897. Serial No. 645,704. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY WILSON GAINES, of Polkville, in the county of Warren and State of Kentucky, have invented certain new and useful Improvements in Elevators and Carriers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to elevators and carriers; and it consists of a frame provided with certain automatically-operating devices, together with wheels adapted to move or travel over a wire or track and coacting with a specific arrangement and construction of parts, which will be more fully hereinafter described and claimed.

The object of the invention is to save time and labor in drawing water from a suitable source of supply and delivering it at a distance from the point where it is obtained.

In the drawings, Figure 1 is a perspective view of a portion of a track-wire and support therefor, showing the improved device mounted thereon. Fig. 2 is a central longitudinal vertical section through Fig. 1. Fig. 3 is a bottom plan view of the improved device.

Referring to the drawings, wherein similar numerals of reference are employed to indicate corresponding parts in the several views, the numeral 1 designates a frame, which is adapted to be constructed of suitable material, and consists, essentially, of a closed side 2 and oppositely-situated cross-bars 3, which are spaced apart to provide a longitudinal slot 4, and are held in said position by suitable means. Within the upper portion of the frame, between the upper bar 3 and the closed side, are grooved wheels 5, which are adapted to travel on a wire, cable, or other suitable track device. In the lower part of the frame, between the lowermost bar 3 and the adjacent portion of the closed side 2, is mounted a sheave or pulley 6, and adjacent thereto is a second pulley 7, of smaller dimension, which coacts with the pulley 6. On the bottom of the frame, at one end thereof and projecting therefrom, are a pair of arms 8, which have an open space between them and at their outer ends embrace a pulley 9. At the edge of the frame and closing the bot-

tom portion of a slot 10 is a biting-wheel 11, and coacting therewith is a dog 12, whose lower end is formed with a series of teeth or serrations 13. The said dog 12 has an open-sided slot 14 therein alining with the longitudinal slot or space 4 between the bars 3 and other similar slots extending through the ends of the device, and to the top of said dog is attached a link-rod 15, which is secured at its opposite end to an arm 16, rigidly attached to a rock-shaft 17, supported in oppositely-disposed journals carried by upwardly-projecting arms 18. To the upper end of the arm 16 is movably secured one end of a push-rod 19, which passes through an opening in a standard 20 and has on its outer end an enlarged head 21. At the opposite end of the frame to which the arms 8 are secured is pivotally mounted a latch 22, which is spring-actuated and has an opening 23 therein. The nose of said latch 22 projects some distance beyond the front end of the frame, for a purpose which will be presently described. The dog 12 is also held in a normal adjusted position by springs 24, the said dog being pivotally attached to the adjacent end of the frame by a stationary loop 25. Passing through the opening 23 in the latch 22 is a rope, cable, or chain 26, which is adapted to have connected to the lower end thereof a pail or bucket 27, and is kept in proper position relatively to the pulley 9 by the guard 28. The said rope, cable, or chain passes up over the pulley 6 and under the pulley 7 and downwardly over the toothed or biting wheel 11, and is held against the teeth by the lower serrated or toothed end of the dog 12. It then passes out and under the sheave or pulley 9, carried by the arms 8, and depends from this point for convenient operation. The elevator and carrier is placed upon a wire or other suitable track through the medium of the longitudinal slot 4, and is movable from one point to another either through a stationarily-arranged incline or an adjustment of the track at either end through the medium of well-known means.

In operation the elevator and carrier is run toward the source of supply, where an upright post will be stationarily fixed and will be engaged by the enlarged head or end 21 of the push-rod 19. This will cause a backward mo-



tion of the said push-rod, and through the medium of the arm 16 and the link-rod 15 will be operated to draw the dog 12 outwardly and disengage its lower biting end from the biting-wheel 11, allowing the rope, cable, or chain to run slack thereover. The weight of the bucket or pail will be such as to draw the rope, cable, or chain downward and enter the well or source of supply and become filled with water or other material. By the time that the outer end 21 of the arm 19 strikes the fixed support the latch 22 will engage a suitable stop in said support and hold the elevator and carrier in fixed position until the bucket or pail is raised to the limit of its elevation, when it will strike the free end of said latch 22 and release it from engagement with its catch.

The device as set forth is especially convenient in its operation, and at one end for insuring continual engagement of the rope, cable, or chain is the wheel 9 with a loop 28.

It is obviously apparent that many minor changes in the construction and arrangement of the several parts might be made and substituted for those shown and described without in the least departing from the nature or spirit of the invention.

Having thus described the invention, what is claimed as new is—

1. In an elevator and carrier, the combination of a frame having suitable track-wheels therein and a slot at one side thereof, a dog with a lower biting edge, an adjacently-situated biting-wheel, a link-rod attached to the upper end of said dog, a rock-shaft having an arm to which said link-rod is attached, a push-rod attached to the opposite arm of said rock-shaft, a lower latch with an opening therein, lower pulleys or sheaves, and a rope, cable or chain having a bucket attached thereto and which passes through an opening in the latch and over the lower pulleys or sheaves and engages the said biting-wheel and the said dog, substantially as described.

2. In an elevator and carrier, the combination of a frame with wheels and pulleys for coaction with a track, of a rope, cable or chain, a vertically-disposed dog, an adjacently-situated biting-wheel, and a pulley beneath which the rope passes and between which and the biting-wheel the biting end of the dog is disposed, substantially as shown and described.

3. In an elevator and carrier, the combination of a frame having wheels and pulleys therein coacting with a track, and a rope, cable or chain with a bucket or pail attached thereto, a dog having a lower biting end and an adjacently-situated biting-wheel coacting therewith, said rope, cable or chain passing between the said dog and biting-wheel and normally held in elevated position thereby, a push-rod attached to an arm carried by a rock-shaft, and a link-rod attached to said dog and the other arm of said rock-shaft, substantially as described.

4. In an elevator and carrier, the combination of a latch, a rope, cable or chain passed through said latch, and a bucket or pail adapted to be drawn against a portion of said latch, to release the same, and a rope-biting dog and biting-wheel mounted to act upon said rope, substantially as described.

5. In an elevator and carrier, the combination with the frame and suitable operating mechanism, of a dog having an open-sided slot therein and a lower biting end, a biting-wheel coacting with the lower biting end of said dog, and a rope, cable or chain passing through and adapted to be engaged by the said biting-wheel and the adjacent end of said dog, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

HENRY WILSON GAINES.

Witnesses:

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