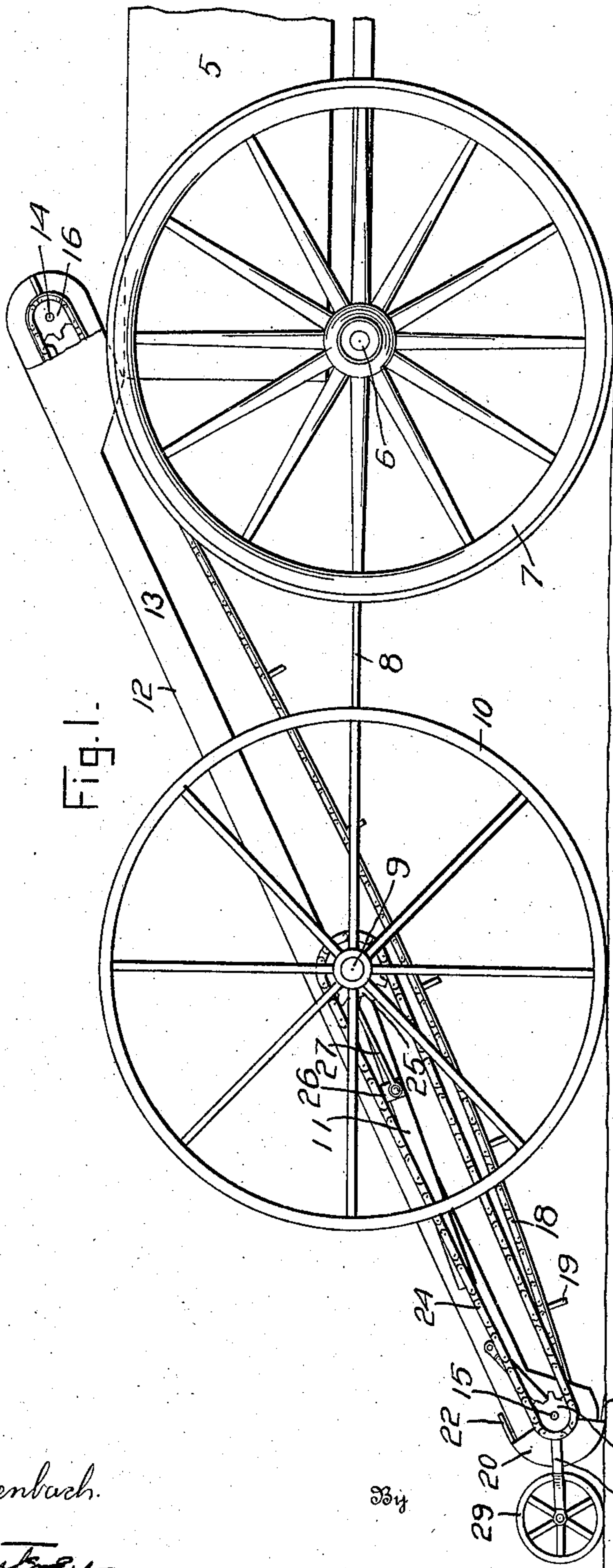


No. 881,741.

E. A. STROSCHEIN. PATENTED MAR. 10, 1908.
GRAVEL LOADER.

APPLICATION FILED MAR. 25, 1907.

3 SHEETS—SHEET 1.



Witnesses

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No. 881,741.

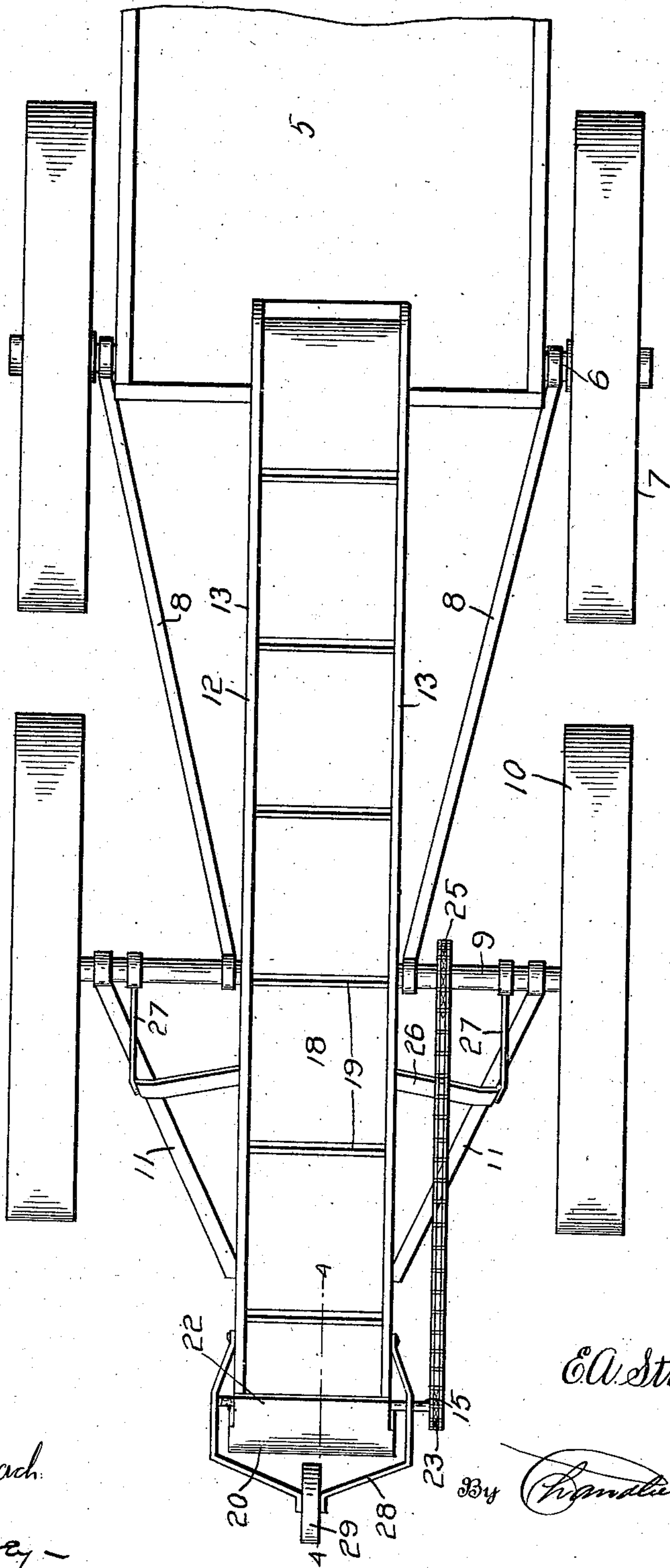
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3 SHEETS—SHEET 2.

Fig. 2.



Witnesses

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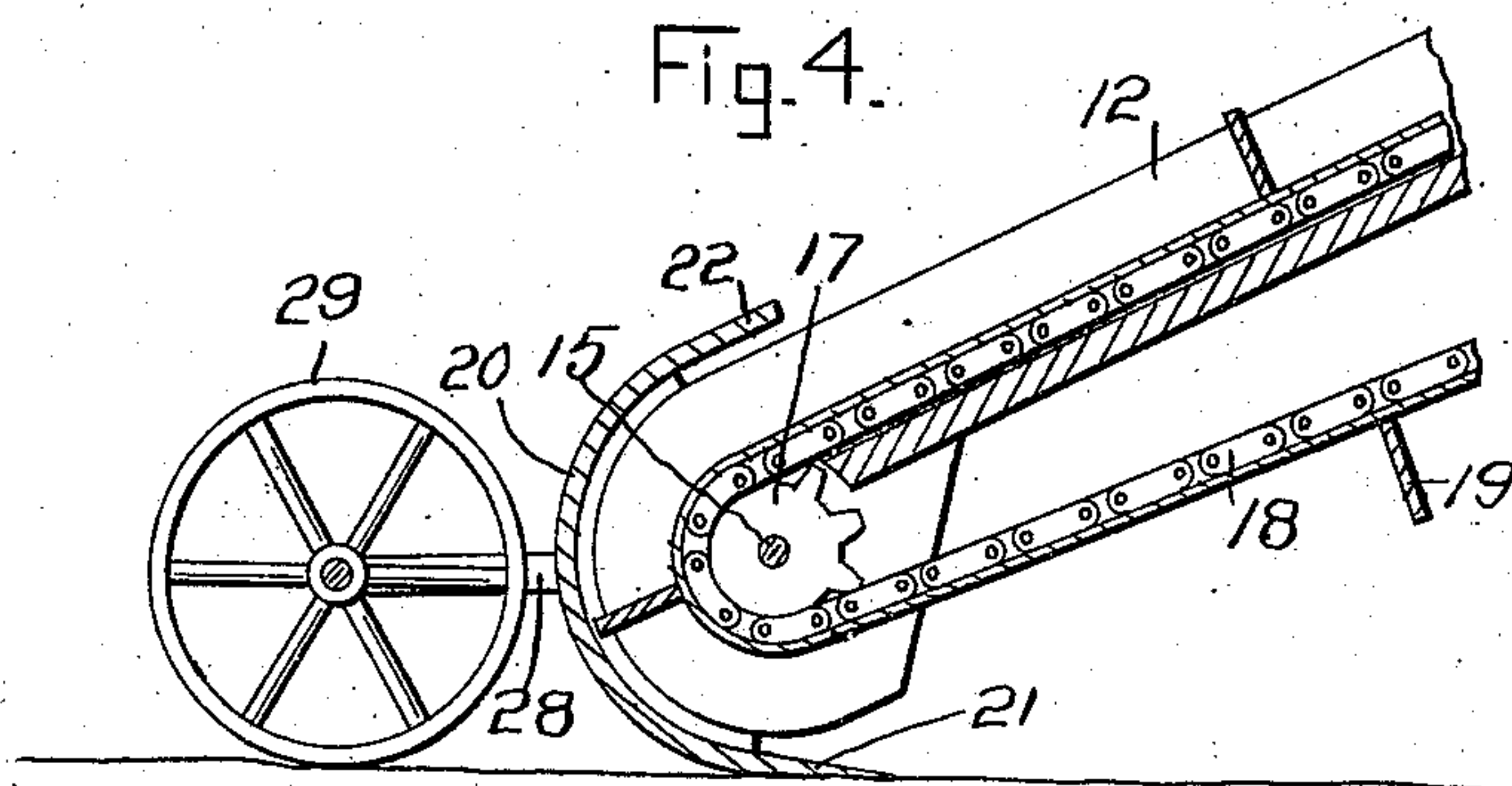
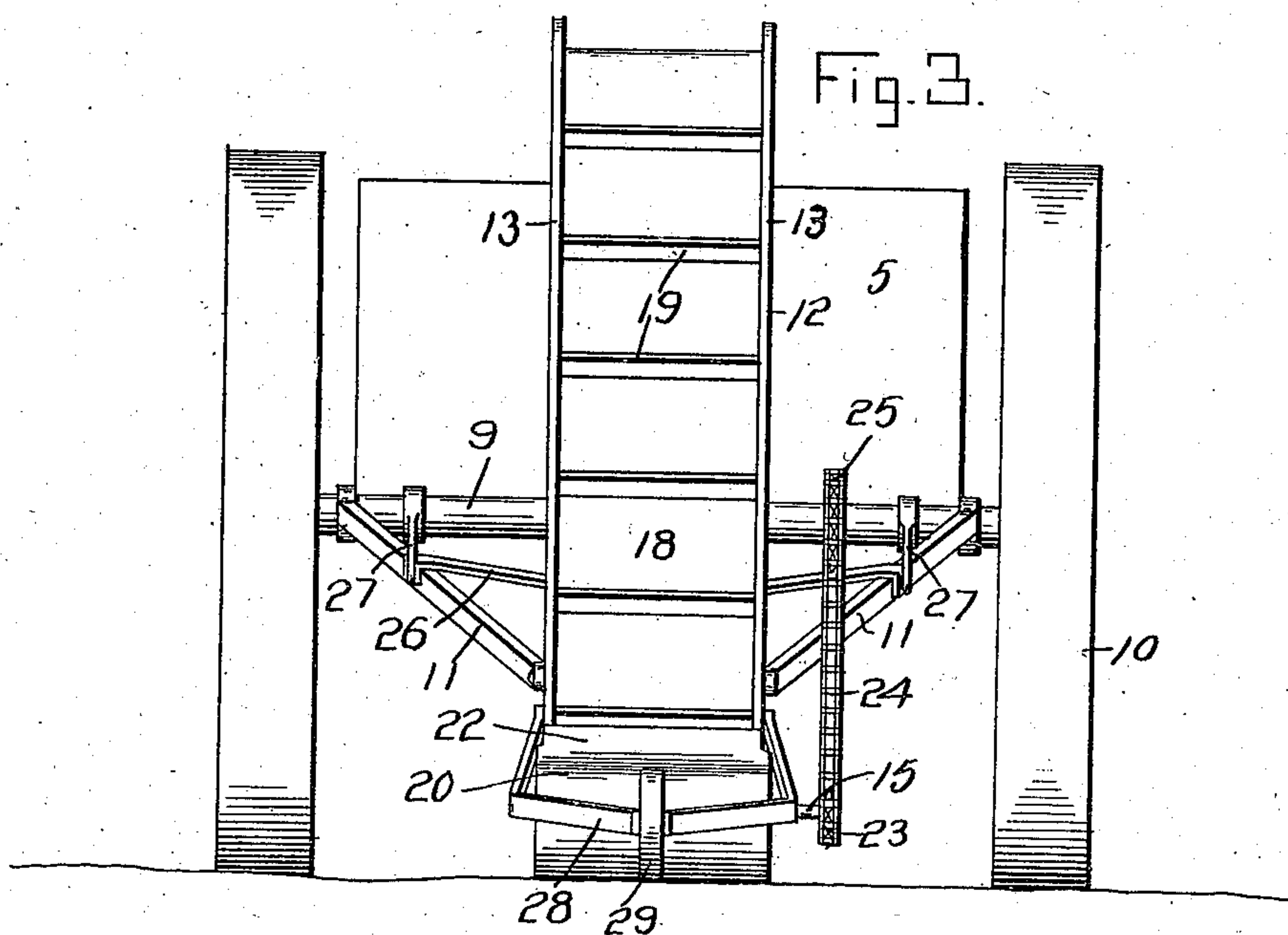
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

EDWARD A. STROSCHIN, OF COTTONWOOD, MINNESOTA.

GRAVEL-LOADER.

No. 881,741.

Specification of Letters Patent.

Patented March 10, 1908.

Application filed March 25, 1907. Serial No. 364,275.

To all whom it may concern:

Be it known that I, EDWARD A. STROSCHIN, a citizen of the United States, residing at Cottonwood, in the county of Lyon, State of Minnesota, have invented certain new and useful Improvements in Gravel-Loaders; 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.

The present invention relates to improvements in gravel loaders, and it aims to provide a simple, as well as highly efficient machine of that nature, which may be readily attached to a wagon of any ordinary type, and which is adapted, when attached, to scoop up and accurately deliver the gravel thereinto.

To this end, the invention briefly described comprises a supplemental axle connected with the rear axle of the wagon and provided with a pair of ground wheels, an upwardly inclined elevator partly inclosed by a carriage supported from the supplemental axle and terminating at its rear end in a scoop plate, and driving connections between the supplemental axle and the elevator, whereby the latter is adapted to receive the gravel scooped up by the plate and discharge it into the body of the wagon.

The invention further consists in the construction, combination, and arrangement of parts, all as hereinafter fully described, specifically claimed, and illustrated in the accompanying drawings, in which like parts are designated by corresponding reference numerals in the several views.

Of the said drawings, Figure 1 is a side elevation of the improved loader attached to a wagon. Fig. 2 is a top plan view of Fig. 1. Fig. 3 is an end elevation of the loader. Fig. 4 is a longitudinal section on the line 4—4 of Fig. 2.

Referring more particularly to the drawings, the numeral 5 designates generally the wagon into which the gravel is to be loaded, and which is of any ordinary construction, including the rear axle 6 provided with ground wheels 7, as shown. The above designated axle is connected by a pair of rearwardly extending converging braces 8 with a supplemental axle 9, which latter with its ground wheels 10 forms the main support for the loading mechanism of the attachment, being, for this purpose, pro-

vided with a pair of rearwardly extending diagonal braces 11, which are arranged upon opposite sides of an elevator carriage 12, and are pivotally connected at one end to the axle 9 and at the other end to the corresponding sides of the carriage. This carriage, as shown, is in the form of an open rectangular frame whose front end projects directly over the rear end of the wagon 5, while its rear end extends some distance rearwardly of the axle 9, thus inclining the carriage upwardly and forwardly. At its upper and lower ends the carriage is provided with the transverse shafts 14 and 15 provided with the sprocket wheels 16 and 17 respectively, the sprocket wheels being disposed between the side members of the carriage frame. The lower or rear shaft 15 extends at opposite ends beyond the corresponding sides of the frame, as shown in Fig. 2. The sprocket wheels are connected by a conveyer, generally designated 18, which consists of a heavy belt of any preferred material, secured to an ordinary sprocket chain, and provided upon its outer face with a series of vertically extending transversely arranged carrier plates 19. The belt may be of any desired width, and it travels between the side members of the carriage which are arranged comparatively close thereto.

The member 20, which connects the lower ends of the sides, and forms the rear end of the carriage, is bent approximately concentric with the sprocket wheel 17. Said member is provided at its lower edge with a scoop plate 21, and at its upper edge with an extension 22, the curve of said scoop-plate and extension following that of the member 20, which, in its entirety, thus acts as a hood or shield during the passage of the plates 19 around said sprocket, which plates are forced into, and carry the gravel collected by the scoop plate upwards and forwards, discharging it finally into the wagon.

The shaft 15 carries upon one of its projecting ends a sprocket wheel 23 which is connected by a chain 24 with a sprocket wheel 25 mounted upon the supplemental axle 9. Rotation of said axle will therefore effect the movement of the conveyer.

The diagonal braces 11 which are connected to the side members of the carriage are themselves connected by a brace 26 which is disposed approximately parallel with the axle 9, and serves as a support upon

which the carriage rests towards its lower end, as shown in Fig. 2. The opposite ends of the brace 26 are slightly bent, so as to extend partway around the corresponding
5 braces 11 which last-mentioned braces are further strengthened by a pair of braces 27 which are pivoted at their rear ends to the bolts which fasten the braces 11 and 26 together, and at their front ends to the axle 9.

10 It will thus be apparent that the supporting frame formed by the braces 11, 26, and 27 is capable of a swinging movement with respect to the axle 9, to adjust the lower end of the carriage to any unevenness
15 in the ground over which the machine travels.

The lower extremity of the carriage is further supported by a roller or ground wheel 29 which is carried by a U-shaped
20 bracket 28 at the bight portion thereof, the free ends of the arms of said bracket being connected with the projecting ends of the shaft 15.

It will be apparent, from the foregoing,
25 that when the wagon 5 is drawn across a field, or along a road, the revolution of the ground wheels 10 of the loading attachment will effect the movement of the conveyer as above described, the scoop-plates 21 will collect the gravel therein, as the machine moves
30 forward, and the carrier plates secured to the

conveyer belt will be forced through the gravel so collected, and will carry it forward, and finally discharge it into the wagon.

The wagon may be provided with a tongue 35 and whiffletrees for the attachment of the draft animals, or may be motor propelled, but as the means for effecting such propulsion forms no part of this invention, further description and illustration thereof is deemed
40 unnecessary.

The field or road from which the gravel is to be collected is preferably plowed or harrowed to loosen the dirt and gravel prior to the passage of the wagon and loading at-
45 tachment thereover.

What is claimed is:

A loading attachment for wagons and the like consisting of a supplemental truck; means for coupling said truck with a wagon; 50 an inclined conveyer mounted on the truck, to discharge into the wagon-box; a scoop located at the lower end of the conveyer frame; and a roller located in the rear of the scoop, for supporting the same and the rear
55 end of the conveyer.

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

EDWARD A. STROSCHEIN.

Witnesses:

CHAS. CATLIN,
E. T. BEHM.