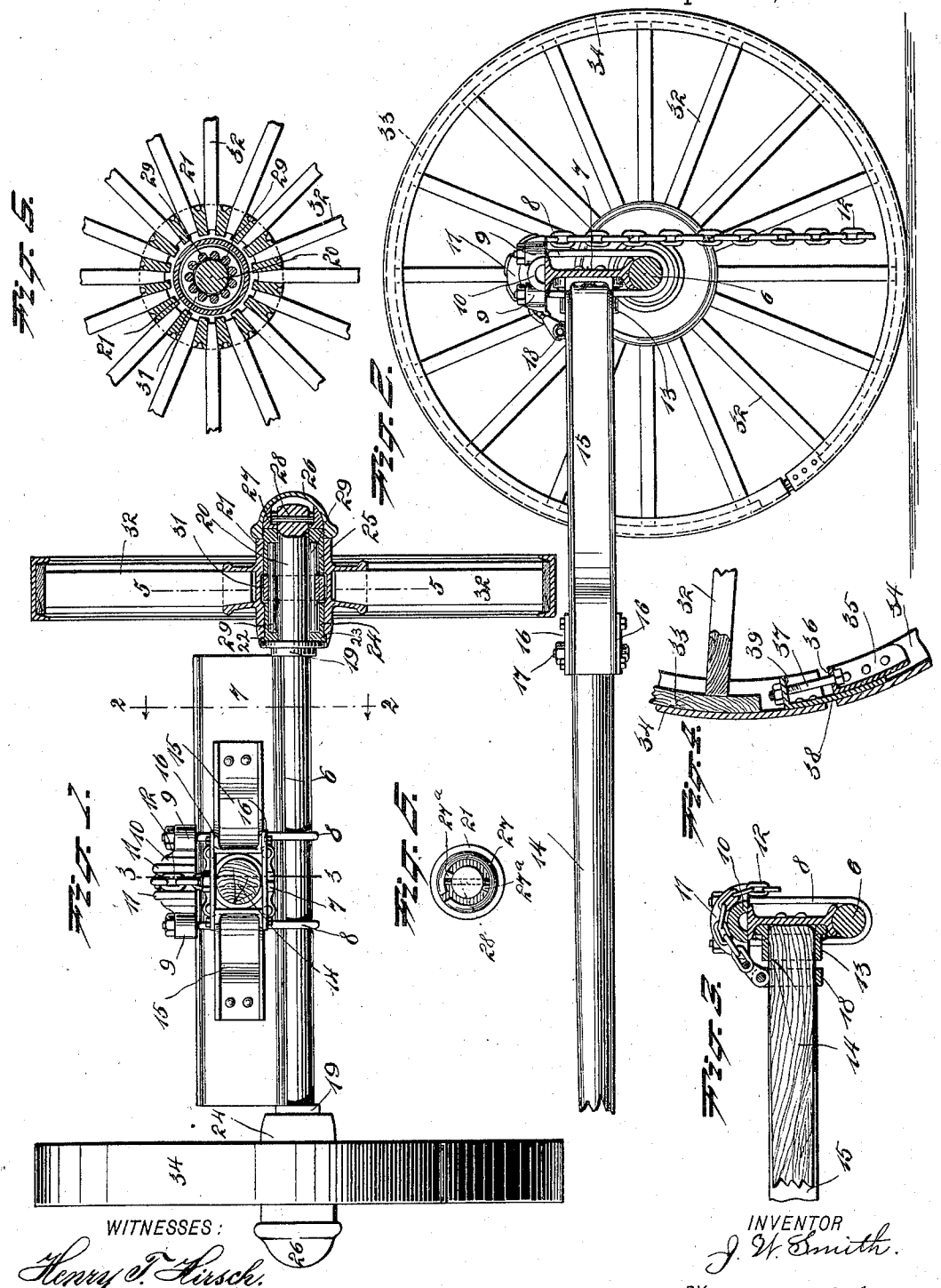
(No Model.)

# J. W. SMITH.

## LOGGING TRUCK.

No. 590,119. Patented Sept. 14, 1897.



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# UNITED STATES PATENT OFFICE.

JOHN W. SMITH, OF COLUMBIA, FLORIDA.

## LOGGING-TRUCK.

SPECIFICATION forming part of Letters Patent No. 590,119, dated September 14, 1897.

Application filed March 16, 1897. Serial No. 627,791. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. SMITH, of Columbia, in the county of Columbia and State of Florida, have invented a new and Improved Logging-Truck, of which the following is a full, clear, and exact description.

This invention relates to an improved truck whereon logs may be conveyed; and it consists in such features of construction and combinations as will be fully described hereinafter and defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation and partial section of my invention. Fig. 2 is a sectional view on the line 2 2 of Fig. 1. Fig. 3 is a detail view on the line 3 3 of Fig. 1. Fig. 4 is a detail section of the tire of the wheel. Fig. 5 is a detail section on the line 5 5 of Fig. 1, and Fig. 6 is a detail view of the wheel-securing device.

The axle 6 is constructed of metal and has mounted thereon a metallic I-beam 7, the lower flange of which is curved to lie snugly against the curved side of the axle. The I-beam 7 is held on the axle 6 by means of two yokes 8, which pass under the axle and have their arms respectively extending up the sides of the I-beam. The upper ends of the arms of the yokes 8 are passed through orificed ears 9, forming part of the chain-block 10. The chain-block 10 is rested firmly on the upper flange of the I-beam 7 and has two parallel and longitudinally-extending ribs 11, forming a channel through which the chain 12 may pass. By these means the parts 6 and 7 are bolted firmly to each other and independent movement of the two rendered impossible.

Rigidly secured to the front face of the web of the I-beam 7 is a collar 13, in which the rear end of the pole 14 is fitted. The pole 14 is braced on the I-beam 7 by means of two channel-irons 15, the rear ends of which are respectively fixed to the front face of the web of the I-beam 7 and the front ends of which extend forwardly and inwardly and have plates 16 fastened on their upper and lower edges. The plates 16 and the front ends of the channel-irons 15 embrace the pole 14, while the bolts 17, passing vertically through the plates 16, serve to rigidly connect these parts with each other. Encircling the rear end of the pole 14 is a band 18, to which the front end of the chain 12 is permanently attached. The chain 12 passes from the pole 14 upward over the chain-block 10. The chain 12 hangs from the chain-block below the axle and serves to have a log attached thereto, as will be understood.

Each end of the axle 6 is formed with a journal 20, one of which is shown in Fig. 1, and fastened on the axle 6 at the inner end of each journal is a collar 19. Turning on each journal is a wheel, the hub 21 of which is provided with a rabbet-groove 22, receiving the collar 19, and also receiving an annular flange 23, formed on the inner tubular roller-boxes 24, whereby the roller-boxes are prevented from moving out of their places. The roller-boxes 24 are held within the inner portions of the hubs 21 and encircle the respective journals 20. The outer portion of each hub contains an outer roller-box 25, encircling the outer portion of each journal. The outer ends of the outer roller-boxes 25 are threaded to receive the caps 26. Inclosed by each cap 26 is a flanged disk 27, coacting with pins 28, which pass through the respective ends of the journals 20 to hold the hubs on the journals. The flange of each disk 27 is formed with an opening through which the pins 28 may respectively pass, and each disk 27 has two lugs $27^a$, adapted to be engaged by the ends of the respective pins, whereby to hold the disks with the openings in the flanges out of alinement with the pins 28. The roller-boxes 24 and 25 carry a series of rollers 29. The rollers 29 bear against the journals 20, and by these means the wheels are mounted to turn freely on the axle. The space between each roller-box 24 and 25 is filled with an annular roller guide or band 31. The guides or bands 31 have recesses bored therein, whereby to carry the rollers. These devices serve to hold the rollers evenly in place and cause the parts to run evenly around the journals.

The spokes 32 of the wheel are fixed to the hub 21 in the usual manner and bear at their outer ends against a band 33, forming the felly of the vehicle-wheel. The band 33 of each

wheel is inclosed by an annular channel-iron 34, forming the tire, the flanges of the channel-irons projecting inwardly and past the edges of the bands or fellies 33. The contiguous ends of each channel-iron 34 are joined to each other by means of bracket-plates 35, having side flanges, respectively riveted to the inner faces of the side flanges of the channel-irons 34. Each bracket-plate 35 has a flange 36 at its outer end. In the flanges 36 the bolts 37 are respectively held. The second contiguous end of each channel-iron 34 is provided with a rigidly-attached plate 38, one end of which projects beyond the end of the tire which carries the plate 38, and is held to slide freely between the body portion of the contiguous end of the channel-iron and between the body portion of the bracket-plate 35 thereof. Each plate 38 has an inwardly-extending flange 39, respectively receiving the bolts 37. Upon the adjustment of the nuts on the bolts 37 the toothed ends of each channel-iron 34 may be drawn toward and from each other, so that the tension of the tire formed by the channel-iron 34 may be regulated.

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

1. A truck having an axle, an I-beam, one flange of which is held against the axle, a chain-block rested on the opposite flange of the I-beam, and a yoke encircling the axle and having its terminals connected with the chain-block, substantially as described.

2. A truck having an axle, an I-beam one flange of which is rested against the axle, a yoke embracing the axle and I-beam, a chain-block rested on the I-beam and holding the ends of the yoke, and a pole attached to the web of the I-beam, substantially as described.

3. A logging-truck having an axle, an I-beam rested on the top of the axle, a yoke encircling the I-beam and axle, a chain-block rested on the upper edge of the I-beam and holding the ends of the yoke, a pole attached to the web of the I-beam, and two channel-irons attached to the web of the I-beam and to the pole and serving to brace the pole, substantially as described.

4. A wheel having a hub with an interior bore of uniform size, two cylindrical roller-boxes slidably fitted within the bore and one roller-box having its outer end engaged with one end of the hub, rollers carried by the roller-boxes, and a cap screwing on the outer end of the second roller-box whereby to hold the roller-boxes in place, substantially as described.

5. A wheel having a hub, two roller-boxes fitted within the hub and one roller-box having its outer end engaged with one end of the hub, means removably engaging the outer end of the remaining roller-box and engaging the corresponding end of the hub, and rollers held by the roller-boxes, substantially as described.

6. A truck having an axle, an I-beam one web of which is channel-shaped or curved to receive the axle, and means for holding the I-beam seated firmly on the axle.

7. A wheel having a hub, two roller-boxes held within the hub one of the roller-boxes engaging one end of the hub, means at the other end of the hub for engaging the other roller-box, rollers confined by the roller-boxes, and a guide-band encircling the rollers and interposed between the roller-boxes.

8. A wheel having a hub, two roller-boxes held within the hub, rollers inclosed by the roller-boxes, and a guide-band encircling the rollers and interposed between the roller-boxes.

9. A wheel having a felly, a tire encircling the felly, a bracket-plate attached to the tire and arranged with a space intervening the bracket-plate and tire, such bracket-plate being located adjacent to one end of the tire, a second plate attached to the contiguous end of the tire and having a part movable between the bracket-plate and the tire, and a bolt in connection with the two plates whereby to draw said plates together.

10. A truck having a straight axle, an integral I-beam having one of its flanges mounted and secured longitudinally on said axle, and a pole attached to the web of said I-beam between the flanges thereof.

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