

No. 668,606.

Patented Feb. 19, 1901.

J. R. SHEEHY.
STAKE FOR LOGGING VEHICLES.

(Application filed Mar. 26, 1900.)

(No Model.)

Fig. 1.

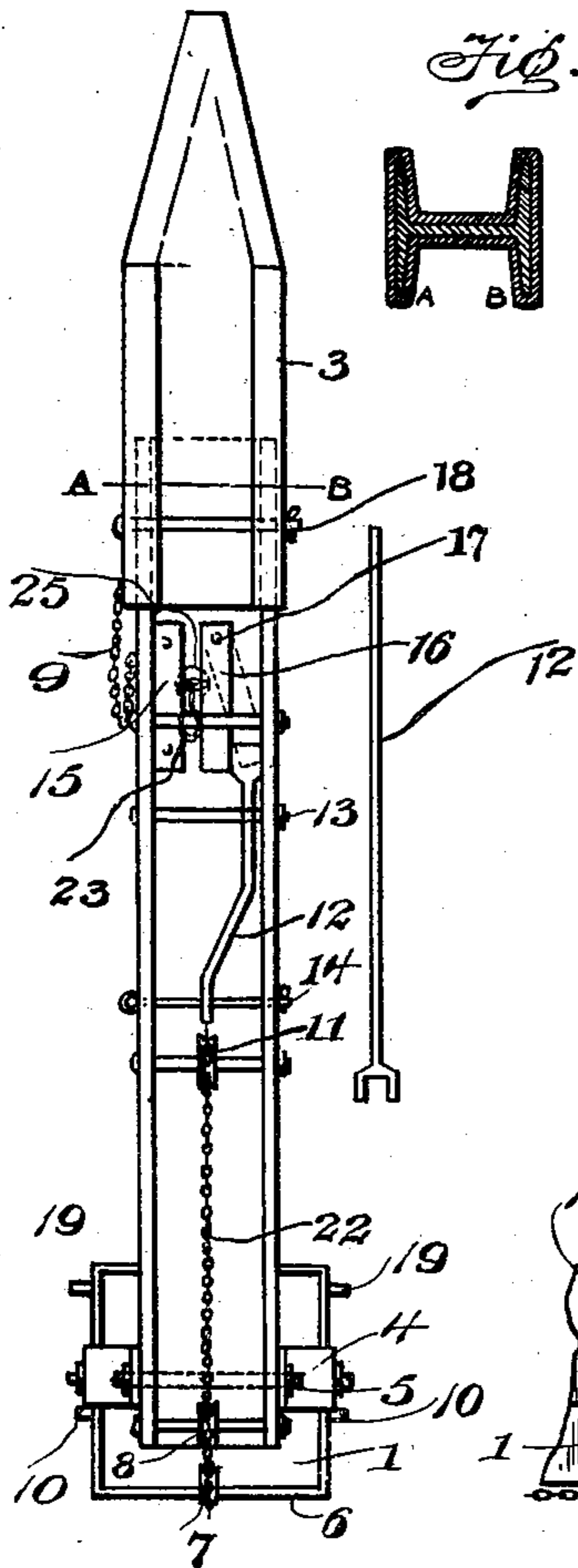


Fig. 5.

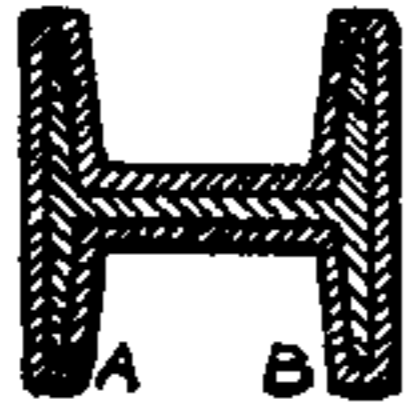


Fig. 2.

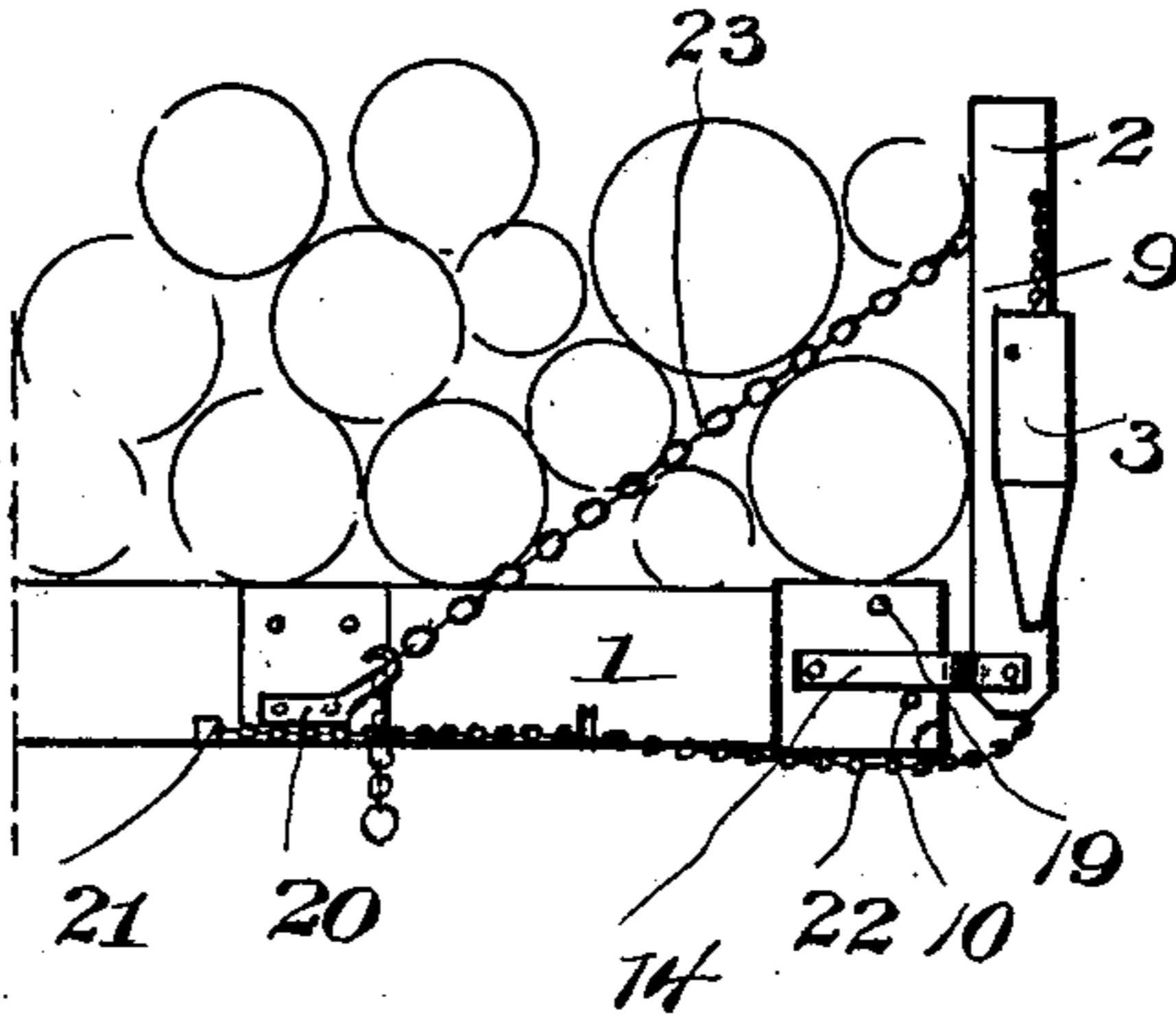


Fig. 1^a.

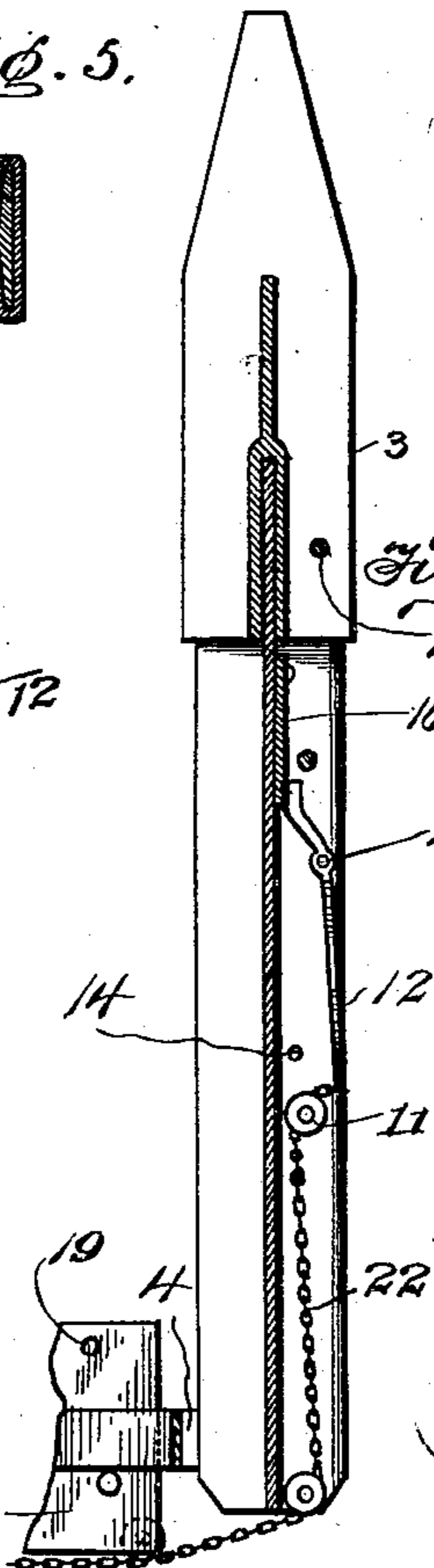


Fig. 3.

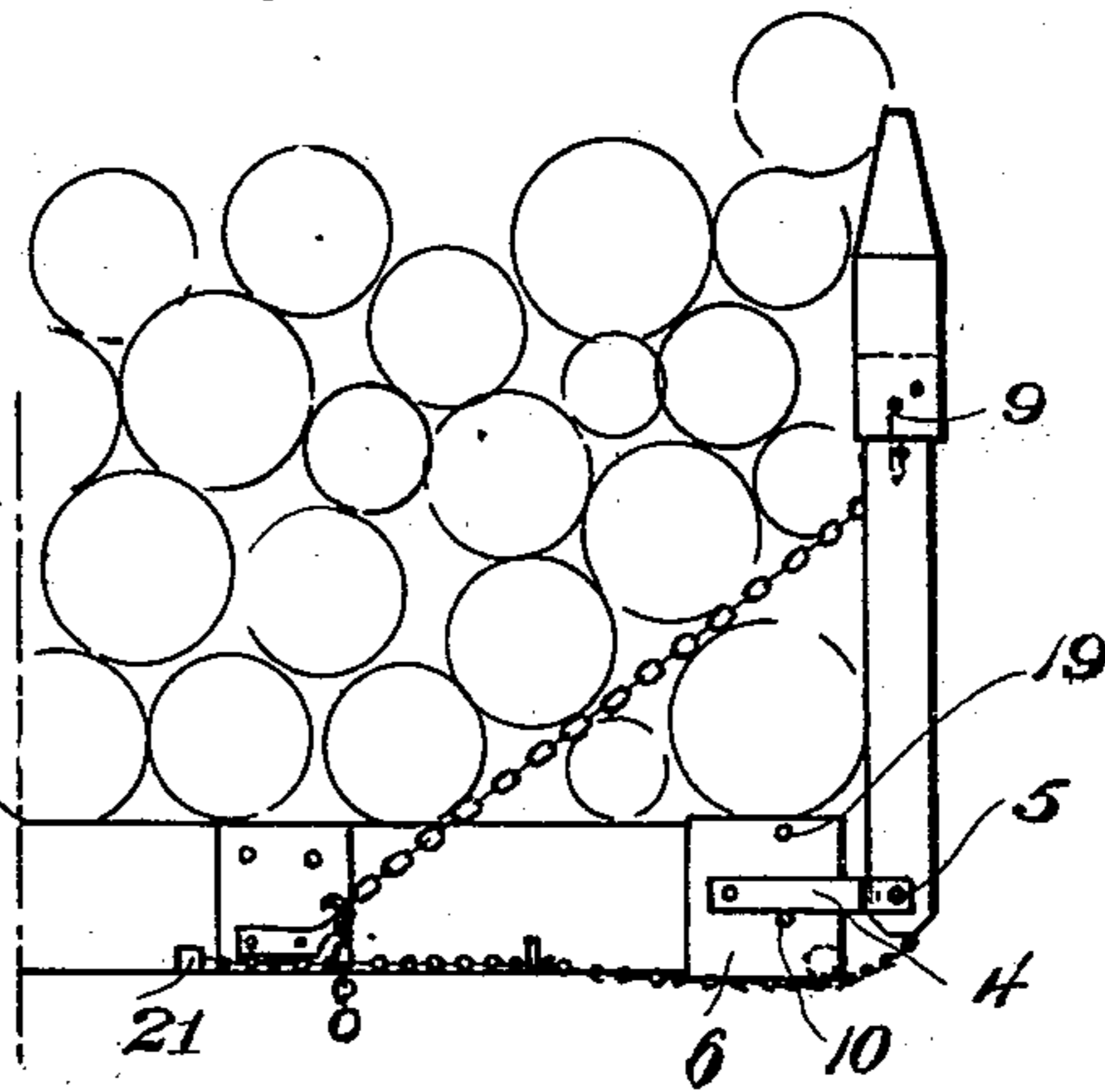


Fig. 4.

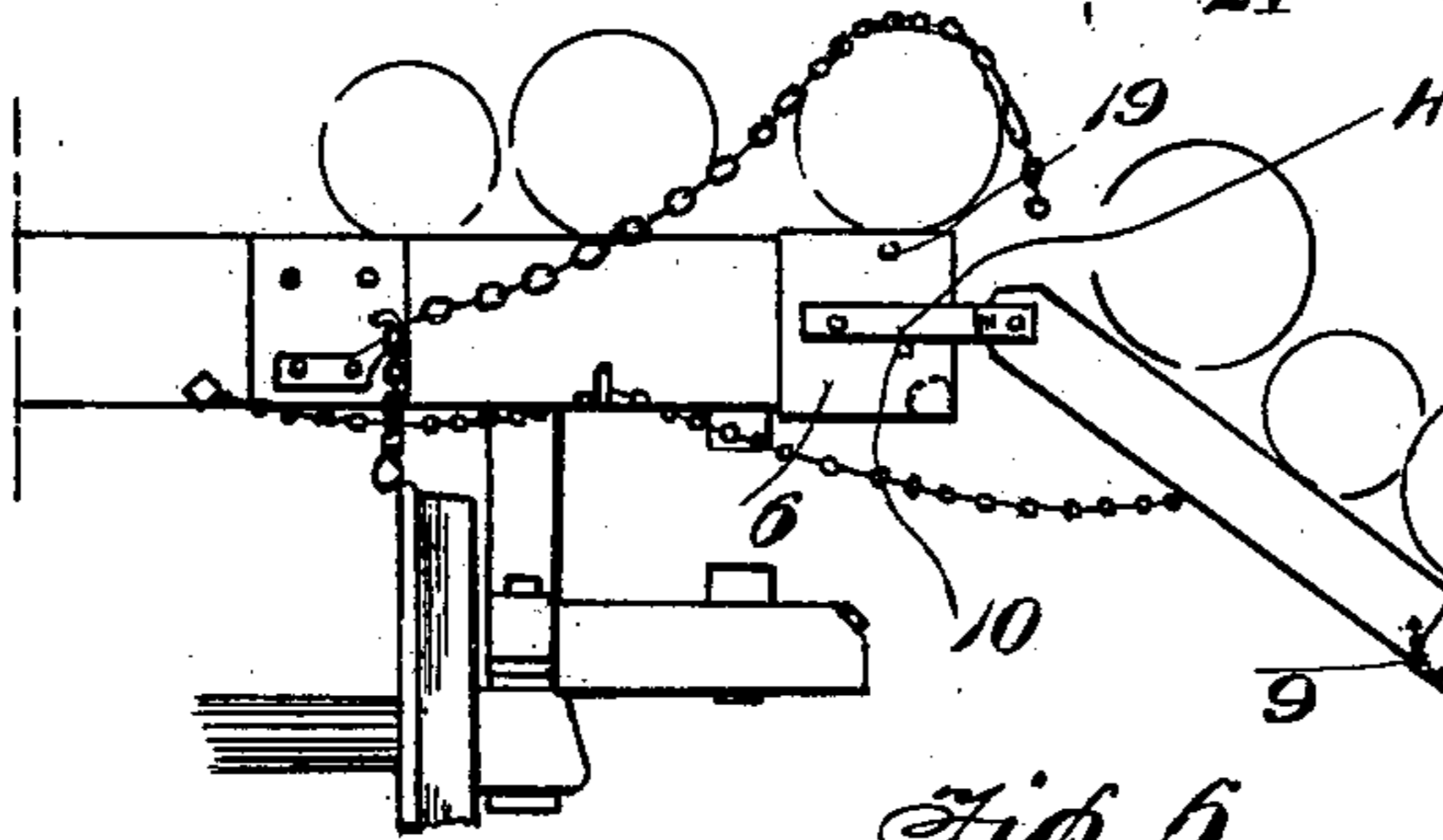
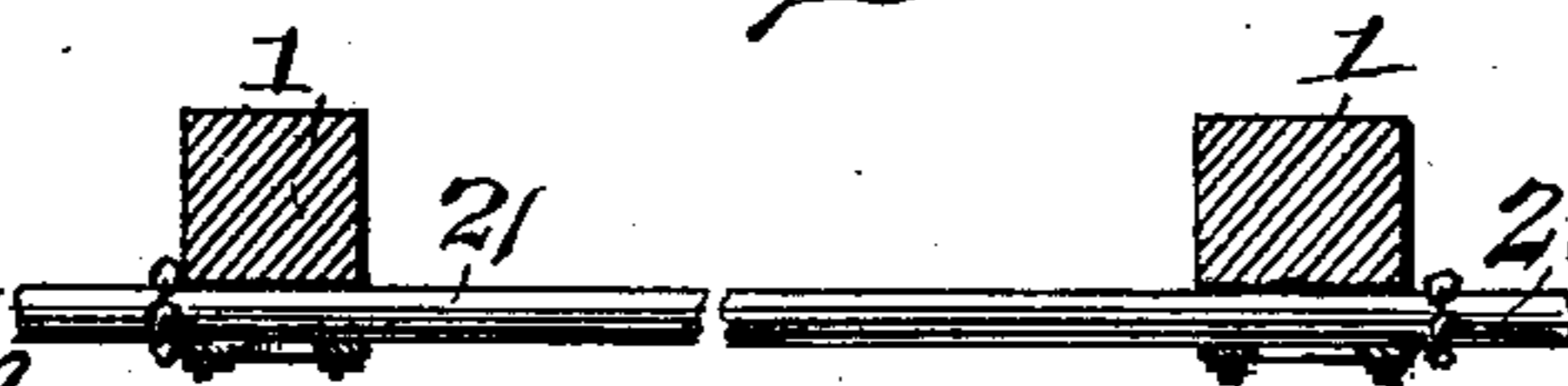


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOSEPH R. SHEEHY, OF DULUTH, MINNESOTA.

STAKE FOR LOGGING-VEHICLES.

SPECIFICATION forming part of Letters Patent No. 668,606, dated February 19, 1901.

Application filed March 26, 1900. Serial No. 10,256. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH R. SHEEHY, a citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Stakes for Logging-Vehicles; 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.

My invention relates to improvements in stakes or standards for holding loads upon vehicles, and is particularly adapted for use in connection with logging-cars.

It consists in a stake or standard comprising a lower section pivoted to the bunk or bolster of a vehicle and adjustably held in a vertical position, the said stake having an upper removable section, which may be applied upon the upper end of the lower section, so as to hold larger loads upon the vehicle.

My invention also consists in a stake or standard for logging-cars comprising upper and lower sections, a draft or load chain for holding the lower section in a vertical position, a trip mechanism securing the said draft-chain to the standard, and a chain for operating the trip mechanism, the construction being such that when it is desired to release the load supported by the standard it is only necessary to exert a pull upon the trip-chain, when the draft-chain will be released and the standard be permitted to fall to one side.

It also consists in certain other novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described, illustrated in the drawings, and specifically claimed.

In the accompanying drawings, Figure 1 represents a side elevation of a standard or stake applied to the end of the bunk or bolster of a logging-car. Fig. 1^a represents a vertical sectional view through the said stake. Fig. 2 represents a fragmentary view of one end of a logging-car, showing my improved stake applied thereto, the upper section of the stake hanging loosely in a disengaged position. Fig. 3 represents a similar view, but showing the upper section of the stake applied in position for holding a higher pile of logs in position upon the car. Fig. 4 represents

an end view of a portion of a logging-car, showing the stake released, so that the load can be removed from the car. Fig. 5 represents a detail horizontal sectional view upon the line A B of Fig. 1. Fig. 6 represents a detail cross-section through the bolsters or bunks of a car, showing a shaft for operating the trip-chain.

My improved stake or standard is designed for use upon logging-cars or other vehicles where it is desirable in loading the same to not have to lift the bulk of the load over high standards, and yet where it is also desirable to extend the standards as the load is piled higher, so that a comparatively high or large load may be carried.

I have illustrated my improved stake as applied to a logging-car, as it is particularly well adapted for use upon the same.

The stake comprises a lower hinged section 2, which is pivotally mounted upon the end of a bunk 1 of a logging-car, the stake being also provided with an upper adjustable or removable section 3. The end of the bunk 1 is preferably reinforced by means of a band, as 6, which incloses the said end. A clevis, as 4, is pivoted upon each side of the bunk to the said band 6, the said clevis extending around the end of the bunk and receiving between its outer free ends the lower end of the stake 2. A bolt is passed through the clevis and the flanges of the stake 2, so that the said stake is pivotally mounted in the clevis.

While I contemplate making the stake of any suitable material, yet it is preferably constructed of channel or I beams, as illustrated in the drawings, the flanges and web portion of the said beams affording a good opportunity for mounting the operative parts which control the position of the stake. The upper section 3 of the stake is preferably formed with a hollow lower end portion, which is so shaped as to inclose the upper end of the stake 2. This will appear by reference to Fig. 5 of the drawings. When it is desired to use the upper section 3, it is merely necessary to set it upon the upper end of the lower section 2, the end of said section extending into the recess or socket formed in the upper section 3. It is preferably locked in place upon the lower section by means of a locking pin or bolt 18, which extends through

the flanges of the lower section 2. In order that the upper section may not be misplaced when out of use, I preferably connect it with the lower section 2 by means of a slack chain, as 9, so that the said section 3 will always be attached to the section 2 and cannot be entirely separated therefrom. The use of this upper section forms an important feature of my invention, as it facilitates the loading of the car.

As will be seen by reference to Fig. 2 of the drawings, the lower section of the stake may be first set up and the logs placed in position on the car until the load is as high as the top of the lower section. This prevents the necessity of lifting the ends of the lower logs over the extended stake. When it is desired to place more logs upon the load, the upper section 3 is put in position and additional logs are piled upon the top of the load to the desired extent. The section 2 is held in position upon the bunk by means of the clevis 4 and also by means of a draft or load chain, as 23. The clevis 4 is limited in its downward movement by means of laterally-projecting pins, as 10, secured to the bands 6, while the upward movement of the said clevis is limited by laterally-projecting pins 19, also secured to the bands 6. The draft-chain 23 is of ordinary type and is secured at its upper end to the lower stake 2 near its upper end, while the other end of said chain is secured to a hook, as 20, which is rigidly fastened to the side of the bunk 1. The chain can of course be lengthened at this end by placing different links of the chain over the hook 20. The upper end of the load-chain 23 is preferably passed through an aperture, as 25, in the web of the beam forming the lower section. Its upper end is then passed between gripping-plates 15 and 16. The plate 15 is preferably rigidly secured to the standard 2, while the plate 16 is pivoted, as at 17, to the said standard. The inner meeting adjacent edges of the plates 15 and 16 are provided with oppositely-disposed notches to engage the links of the chain 23. When the plate 16 is held parallel with the plate 15, it is in position to lock the chain 23 in place. When the said plate 16 is moved to one side, it will release the chain 23. In order to hold the plate 16 in position to secure the chain, I preferably mount a trigger, as 12, upon the stake 2, the said trigger comprising a bar having a bifurcated upper end and pivoted to the said standard by means of a bolt or pin 13, passed through the flanges thereof. The lower end of the trigger 12 is secured to a trigger-chain 22, which passes downwardly around the lower end of the stake and beneath a portion of the bunk 1. A locking-pin 14 is inserted through apertures in the flanges of the standard 2, so as to engage the lower end of the trigger 12 and hold it in position to secure the plate 16 in its locking position. When it is desired to release the plate 16, the trigger 12 is first unlocked by remov-

ing the pin 14, when a pull upon the trigger-chain 22 will move the trigger upon its pivotal pin, carrying the upper bifurcated end thereof forward and out of the path of the swinging end of the plate 16. The trigger-chain 22 preferably passes behind a pulley 11, journaled upon the standard 26, downwardly and around a pulley 8, journaled at the lower end of said standard, from whence it passes around a pulley 7, journaled at the end of the bunk 1 in the band 6. From this point the chain is preferably passed along one side of the bunk 1 and secured at its inner end to a revoluble shaft 21. The shaft 21 is preferably journaled beneath the bunk 1 and is usually extended, so as to pass beneath two adjacent bunks of the car, so that it may be connected with the trip-chains of stakes upon each of the said bunks. The end of the said shaft 21 may be squared or otherwise shaped to receive a handle or wrench, by which it may be turned. By connecting two or more of the standards of two or more bunks with the shaft 21 the standards may be released simultaneously upon all the bunks. When the trip-chain is pulled by rotating the shaft 21, the trigger 12 will be released, and the draft-chain 23 being loosened from the standard the said standard will fall to one side, as seen in Fig. 4 of the drawings, permitting the logs or other load to be easily removed from that side of the car.

Since the clevis 4 is pivoted to the bunk, it will rest upon the limiting-pins 10 when the standard or stake is in an upright position; but when there is no load upon the car and the stake is not in use it may be folded inwardly upon the top of the bunk 1, the pivoted clevis moving upwardly against the limiting-pins 19 to accommodate the stake in this position. Thus the stake may be placed so as to be out of the way when not in use.

It will be evident from the above description that my improved stake for logging-cars is particularly well adapted for use upon the same and for loading and unloading logs. It is also of comparatively simple structure and easy of manipulation.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. A stake for load-carrying vehicles, comprising a lower pivoted main section, an upper removable auxiliary section adapted to be secured on the lower section, means for locking the lower section in a position to hold an ordinary load upon the vehicle, and means for releasing the same, whereby the load may be discharged from the vehicle.

2. A stake for load-carrying vehicles, comprising a lower main load-supporting section pivoted to the bunk or bolster of the said vehicle, a removable upper auxiliary section adapted to fit upon the upper end of the lower section, a draft-chain for holding the lower section approximately upright, means for removably securing the upper end of said

draft-chain to the stake, and trip mechanism for releasing the same, whereby the stake may be permitted to fall to one side for discharging the load of the vehicle.

5 3. A stake for logging-cars, comprising upper and lower sections, a clevis pivoted to the bunk of the car and pivotally supporting the lower section of the stake, a draft-chain secured to the bunk at one end and adjust- 10 ably secured to the stake at the other end, a tripping mechanism for holding the upper end of the chain in engagement with the stake, a trip-chain connected with the said mechanism, and means for exerting a pull 15 upon the said chain for releasing the said mechanism, whereby the stake may fall to one side and the loaded car be discharged.

4. A stake for logging-cars, comprising a lower section pivoted to the bunk of the car, 20 an upper section adapted to inclose at its lower end the upper end of the lower section so that it is removably held in place upon the same, a slack chain for securing the sections together so that the upper section will 25 not be removed when not in use, a pin for locking the upper section in position when in use, and means for holding the stake approximately upright, the structure being such that the lower stake may be used first in loading 30 the car, and after the load has reached the height of the lower section the upper section may be put in place for holding a still higher load.

5. A stake for logging-cars, comprising a 35 pivoted standard, a draft-chain for holding the same approximately upright, a hook upon the bunk of the car for holding the lower end of the chain, gripping-plates upon the stake for holding the upper end of the draft-chain, 40 one of said gripping-plates being pivoted to the stake, a trigger for holding the plates together so as to secure the draft-chain to the stake, means for locking the trigger in position, and means for releasing the trigger from 45 its engagement with the gripping-plates, whereby the draft-chain may be released and the stake be permitted to fall outwardly, substantially as described.

6. A stake for logging-cars, comprising a 50 pivoted standard, a clevis pivoted to the end of a car-bunk, pins for limiting the upward-and-downward movement of the clevis, the said standard being pivoted between the outer free ends of the clevis, a strengthening-

band upon the end of the bunk and support- 55 ing the said clevis, and limiting-pins, a pulley mounted upon the strengthening-band, pulleys mounted upon the standard of the stake, a draft-chain for holding the stake in an approximately upright position, a grip- 60 ping device mounted upon the stake, a tripping device for operating the same, and a tripping-chain connected with the tripping device and passing over the pulleys upon the stake and the strengthening-band, and a shaft 65 for exerting a pull upon the tripping-chain, whereby the gripping device may be released to permit the stake to fall to one side for discharging the load of the car.

7. A stake for logging-cars, comprising a 70 pivoted standard, a draft-chain for holding the standard upright, one end of said chain engaging the hook upon the car-bunk, gripping-plates on the stake for engaging the other end of the chain, one of said plates be- 75 ing pivoted to the stake, a trigger pivoted upon the stake and having one end adapted to be brought into the path of the pivoted gripping-plate, a tripping-chain connected with the said trigger, pulleys upon the stand- 80 ard and bunk for guiding the tripping-chain, a revoluble shaft mounted upon the bunk of the car, whereby upon rotating the said shaft the tripping-chain will be wound upon the same and the trigger will be caused to release 85 the pivoted gripping-plate so as to disconnect the draft-chain from the standard and permit the same to fall outwardly, substantially as described.

8. A stake for logging-cars, comprising a 90 pivoted section, a clevis pivoted to the bunk of the car for supporting the said stake, limiting-pins for determining the movement of the clevis, whereby the said stake may be placed in an upright position for holding a 95 load upon a car, or may be folded inwardly upon the bunk of a car when not in use, a draft-chain for holding the stake in a vertical position, and means for releasing the said chain when it is desired to discharge the load- 100 ed car, substantially as described.

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

JOSEPH R. SHEEHY.

Witnesses:

JAMES T. WATSON,
PHINEAS AYER.