

B. T. HARROP.

HOOK.

APPLICATION FILED MAY 5, 1908.

Patented Dec. 22, 1908.

2 SHEETS—SHEET 1.

907,495.

FIG. 1

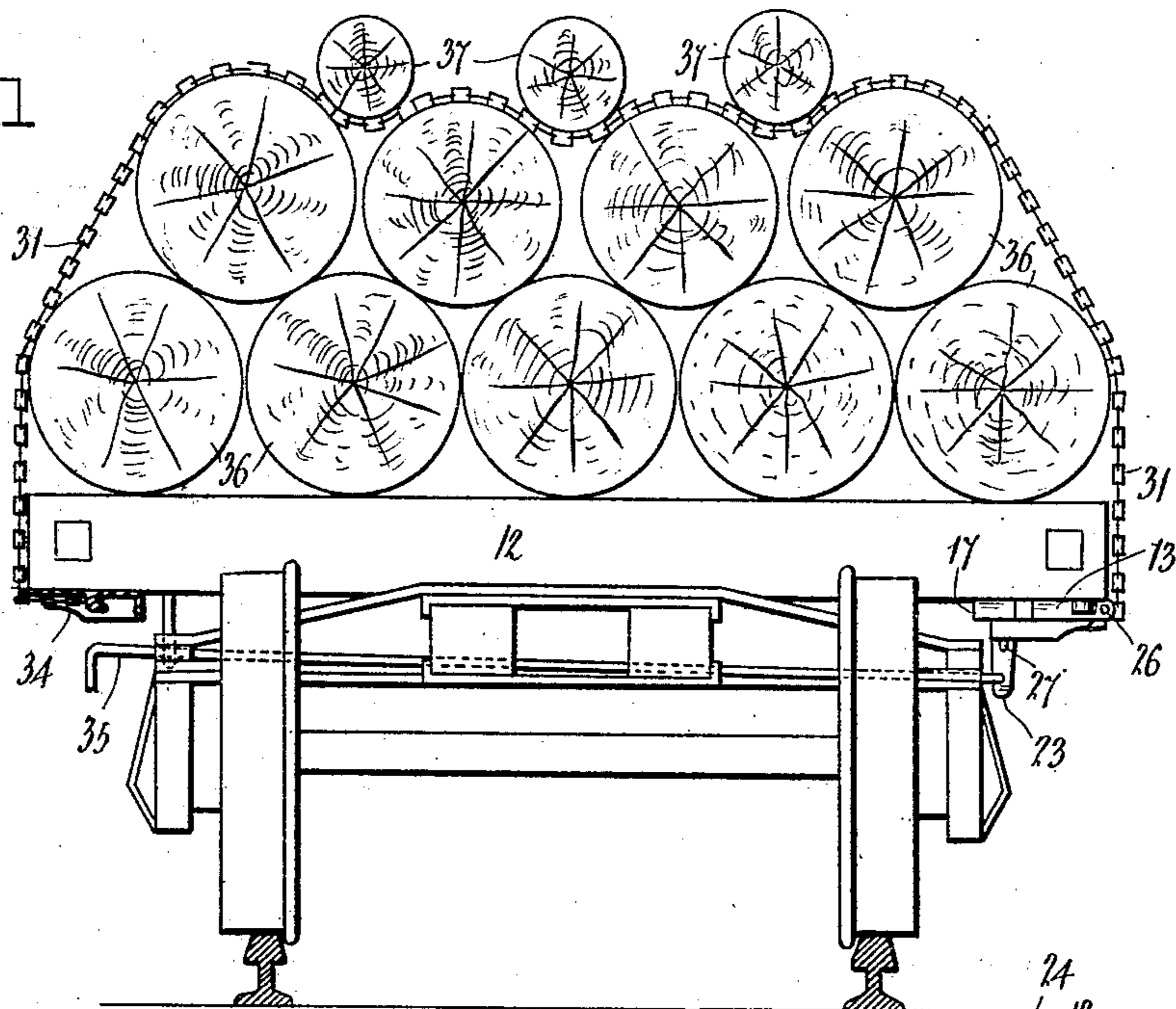
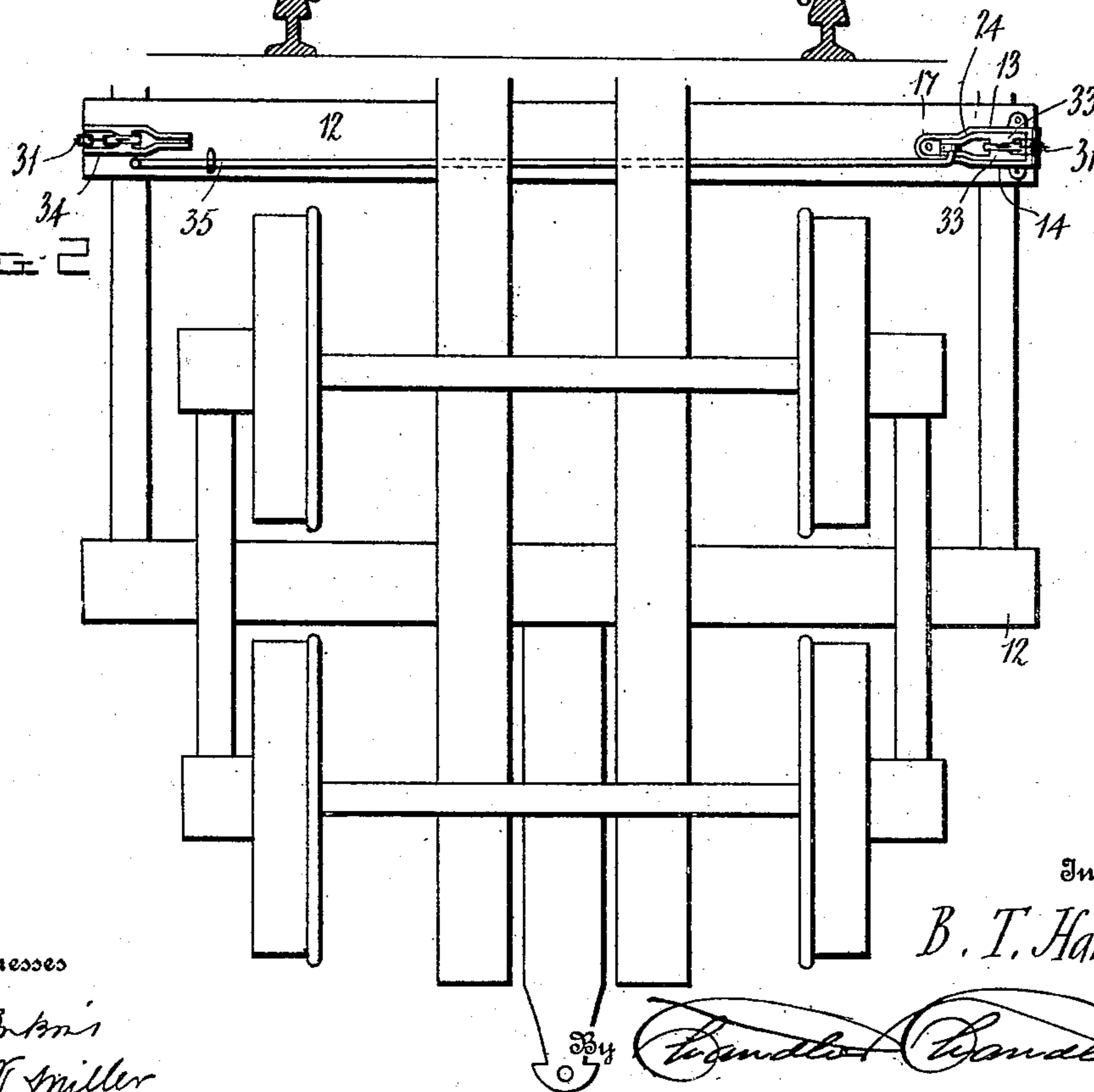


FIG. 2



Witnesses

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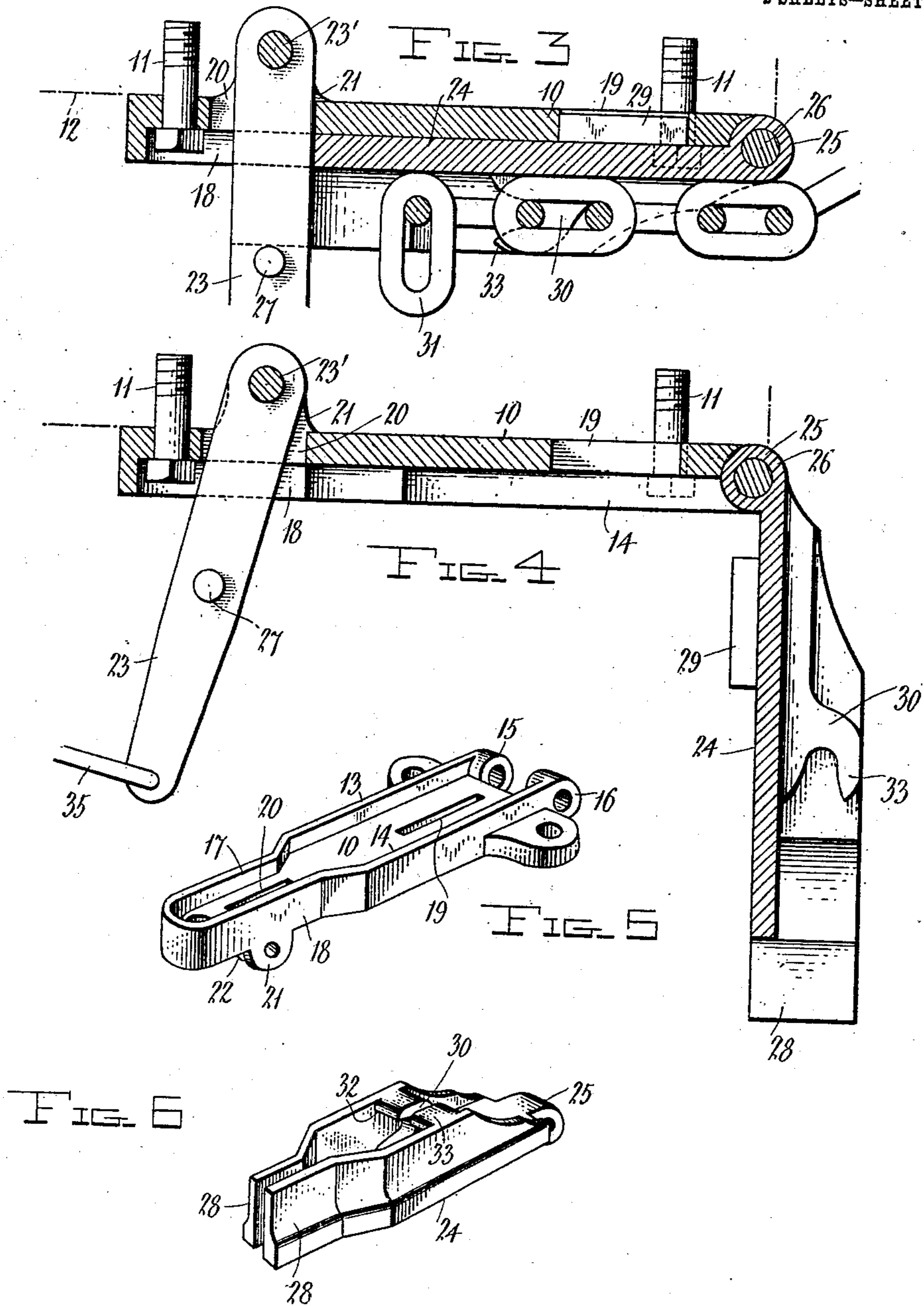
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UNITED STATES PATENT OFFICE.

BENJAMINE T. HARROP, OF STABLES, LOUISIANA.

HOOK.

No. 907,495.

Specification of Letters Patent.

Patented Dec. 22, 1908.

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To all whom it may concern:

Be it known that I, BENJAMINE T. HARROP, a citizen of the United States, residing at Stables, in the parish of Vernon, State of Louisiana, have invented certain new and useful Improvements in Hooks; 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 invention relates to devices employed for holding logs upon cars and like structures, and commonly known as "toggle hooks," and has for one of its objects to simplify and improve the construction and increase the efficiency and utility of devices of this character.

In logging operations the logs are frequently loaded upon cars and generally unloaded therefrom by rolling the logs from one side only, and this unloading generally takes place from a bridge, trestle or like structure, into the water, where the logs are formed into rafts. The logs are generally confined in place upon the cars by chains, and when the load is to be discharged, one end of the chain is released and the logs permitted to roll from the car. The loosening of these chains under ordinary conditions is a dangerous proceeding, and often results in serious accidents.

The object of the present invention is to provide a simply constructed device whereby the chains are securely held in place and from which they may be released by means operative from the side of the car opposite to that from which the load is discharged, so that the operator will not be exposed to danger from the falling logs.

The improved device comprises in general a base member adapted to be attached to the underside of the car at the side from which the load is to be discharged, a member swinging from the base member and adapted to engage the binding chain, a trip device adapted to hold the swinging member in closed position, and a releasing element operative from the side of the car opposite to the side from which the load is discharged.

In the drawings illustrating the embodiment of the invention is shown the preferred form of such embodiment, and in the drawings thus employed, and in which corresponding parts are denoted by like designating characters, Figure 1 is a transverse section of

a conventional log car with the improvement applied. Fig. 2, is a plan view of the same from beneath. Fig. 3, is an enlarged sectional side view of the improved device with the swinging member in closed position. Fig. 4, is a similar view with the swinging member in open position. Fig. 5, is a perspective view from beneath, of the base member of the device. Fig. 6, is a perspective view from above of the swinging member of the improved device.

The improved device comprises a base member 10, adapted to be secured by bolts 11, or other suitable means to the underside of a car platform, represented at 12, at the edge from which the load is to be discharged, or if preferred the devices may be attached at both sides of the car body, so that the load may be discharged from either side, but as the devices are precisely alike it is not deemed necessary to illustrate the different positions which they occupy on the car. The base member is formed with spaced side flanges 13—14, merging into hinge members 15—16 at one end and with their opposite ends converging as at 17—18, to form a contracted socket, the object to be hereinafter described.

Formed in the bottom of the base 10, near the hinge members 15—16, is a recess 19, while an aperture 20 is formed in the base within the socket or between the flange portions 17—18, and extending from the upper face of the base at opposite sides of the recess are spaced ears 21—22, between which a trip lever 23, is pivoted at 23', the trip lever having a transverse pin 27. The swinging member is represented as a whole at 24, and is formed with a hinge member 25, fitting between the hinge members 15—16 of the base member and connected thereto by a pintle 26, the body of the member 24, conforming to and fitting between the spaced sides 13—14 of the base member and with a contracted portion at 28, to fit into the socket between the flange portions 17 and 18.

The body of the swinging member 24, is formed with a projection 29, which engages the recess 19, when the swinging member is closed in position, the projection designed to receive the strain and relieve the hinge pin-
tle from most of the strain, as will be obvious.

The interior of the swinging member is provided with an intermediate recess 30, to receive one of the links of a chain when set

edgewise, and with hooks 32—33 at the sides of the recess to receive the next link of the chain when set flatwise, as shown, the overhang of the hooks preventing the chain from dropping from the swinging member when the latter is closed and strain thereby applied to the chain, as hereafter explained.

The car platform is provided at one side with a stationary hook as shown at 34, to receive one end of the chain and the trip lever 23, is provided with a pull rod 35, or other suitable device, leading to the side of the car opposite to that from which the load is to be discharged, so that the operator can manipulate the trip lever from a safe position.

In localities where rafts are being regularly constructed, the tracks at the points where the logs are discharged are movably arranged so that one side or one rail can be elevated to tilt the cars sufficiently to roll off from the car platform, and the improved device operates effectually upon cars thus manipulated, but as this tilting track forms no part of the present invention, it is not deemed necessary to illustrate it.

With the car thus equipped the operation is as follows: The logs represented at 36, except the cap logs, 37, being loaded upon the car 12, the chains 31 are first coupled to the stationary hook 34 and then carried over the hook and coupled by one of its links to the swinging members 24, where the latter are in open position by inserting one of the links of the chain when the swinging member is in vertical position, in the recess 30, and with the next link in flatwise position beneath the overhanging hook portions 32—33. The swinging member 24, is then closed against the base 10, and between its flanges 13—14, and with its contracted portions 28, in the socket formed by the contracted flange portions 17—18, and the trip lever disposed between the parts 28, and with its pin 27, beneath the same, thus locking the swinging member to the base member and retaining the strain upon the chains. The action of closing the swinging members against the base members applies strains upon the chains, and these strains may be increased or decreased as will be obvious by adjusting the links of the chains relative to the swinging members. Thus the chains may be quickly adapted to the number or sizes of the logs upon the car, as will be obvious. The cap logs 37 are then disposed upon the other logs 36 outside the chains, in the usual manner and thus impart an additional strain to the chains, and firmly bind the load. If surplus portions of the chains remain they can be readily disposed of by looping them to hooks, or other stationary portions of the car. When the load is to be discharged, the operator simply pulls upon the rod 35, which actuates the trip lever and thus releases the swinging member and permits the chains to

automatically free themselves from the hooks 32—33, and allow the logs to roll from the car without endangering the operator.

The device is simple in construction, can be inexpensively manufactured, and applied to all the various forms of cars employed.

As many of the devices may be employed upon each car as required and located any required distance apart.

What is claimed is:—

1. In a device of the class described, the combination with a car body, of a chain connected at one end to the said car body, a base member carried by the car body, a member swinging at one end from said base member, means for connecting said chain to said swinging member, a trip lever swinging from said base member and provided with lateral projections arranged to extend into the path of the swinging member when disposed in one position, and means operative from the opposite side of the car for actuating said trip lever.

2. In a device of the class described, a base member adapted to be connected to a car body, a member swinging from said base member, means for detachably connecting a chain to said swinging member, a trip lever swinging from said base member and having pins projecting into the path of said swinging member, and means for actuating said trip lever to release said swinging member.

3. In a device of the class described, a base member adapted to be attached to a car and with hinge elements at one end and guard flanges at the sides, a member having a hinge element at one end and coacting with the hinge elements of said base member and swinging therefrom and foldable between the guard flanges of the base member, means carried by said swinging member for detachably coupling a chain thereto, and a trip device carried by said base member and operating to connect the free end of said swinging member to said base member.

4. In a device of the class described, a base member adapted to be attached to a car and with hinge elements at one end and guard flanges at the sides, a member having a hinge element at one end and coacting with the hinge elements of said base member and swinging therefrom and foldable between the guard flanges of the base member, spaced overhanging hooks carried by said swinging member and adapted to engage a chain link, and a trip device carried by said base member and operating to connect the free end of said swinging member to said base member.

5. In a device of the class described, a base member adapted to be attached to a car and with hinge elements at one end and guard flanges at the sides and with a recess between the flanges, a member having a hinge element coacting with the hinge elements of said base member and swinging therefrom

and foldable between the guard flanges of the base member, said swinging member having a projection entering the recess of said base member, means carried by said swinging member for detachably coupling a chain thereto, and a trip device carried by said base member and operating to connect the free end of said swinging member to said base member.

10 6. In a device of the class described, a base member adapted to be attached to a car and with guard flanges at the sides contracted at one end to form a socket, a member swinging at one end from said base member and fold-
15 able between said guard flanges and contracted at the outer end to enter said socket, means carried by said swinging member for detachably supporting a chain, and a trip device carried by said base member and en-
20 gaging the swinging member at its contracted end.

7. In a device of the class described, a base member adapted to be attached to a car and with guard flanges at the sides contracted at
25 one end to form a socket and with an aperture within said socket, a member swinging

at one end from said base member and foldable between said guard flanges and contracted at the other end to enter said socket, means carried by said swinging member for
30 detachably supporting a chain, and a trip lever operating through said aperture and detachably engaging the swinging member.

8. In a device of the class described, a car body having a stationary chain hook at one
35 side, a chain connected to said stationary hook, a base member connected to the car body at the opposite side, a member swinging from said base member, means for connecting said chain detachably to said swing-
40 ing member, a trip device for connecting said swinging member to said base member, and means operative from the side of the car body having the stationary hook for operat-
45 ing said trip.

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

B. T. HARROP.

Witnesses:

FRANK PIERCE,
LEWIS POLETTE.