

Aug. 14, 1945.

F. W. CHRISWELL

2,382,002

LOG BUNK

Filed Jan. 14, 1942

2 Sheets-Sheet 1

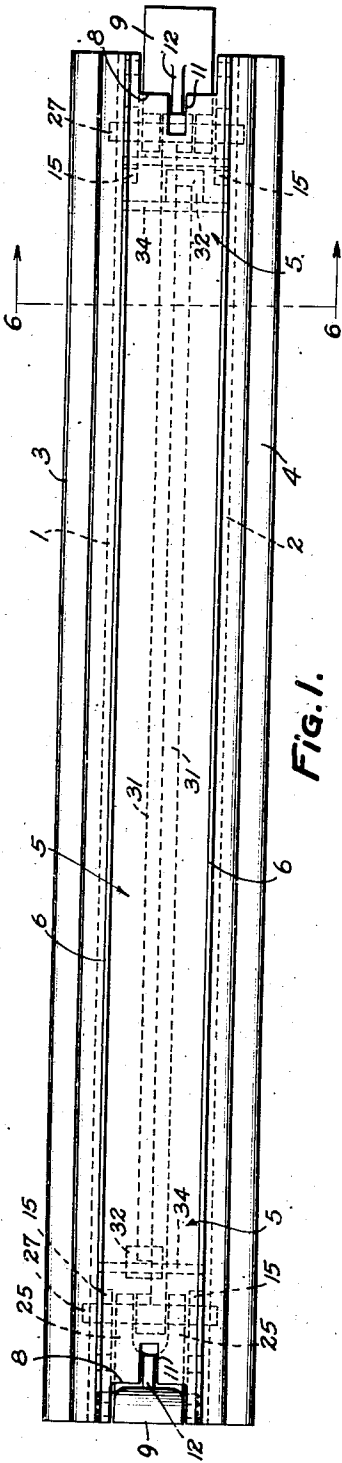


Fig. 1.

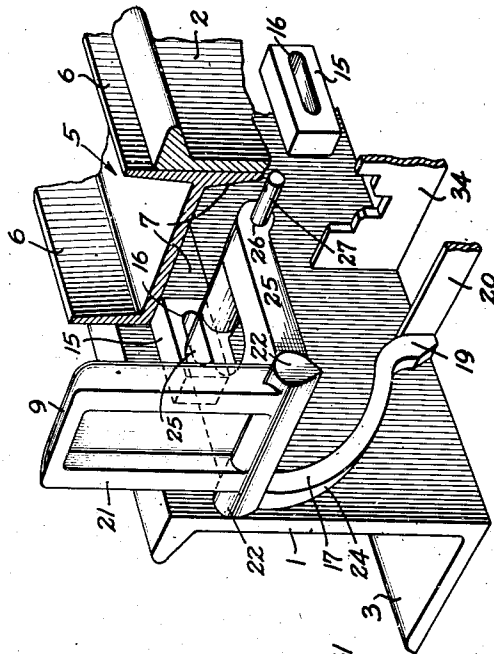


Fig. 2.

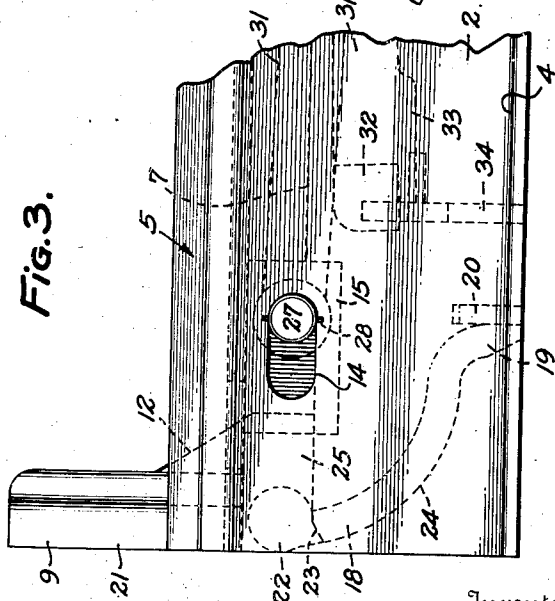


Fig. 3.

Inventor

FREDERICK W. CHRISWELL,

By *Ralph J. Bassett*

Attorney

Aug. 14, 1945.

F. W. CHRISWELL

2,382,002

LOG BUNK

Filed Jan. 14, 1942

2 Sheets-Sheet 2

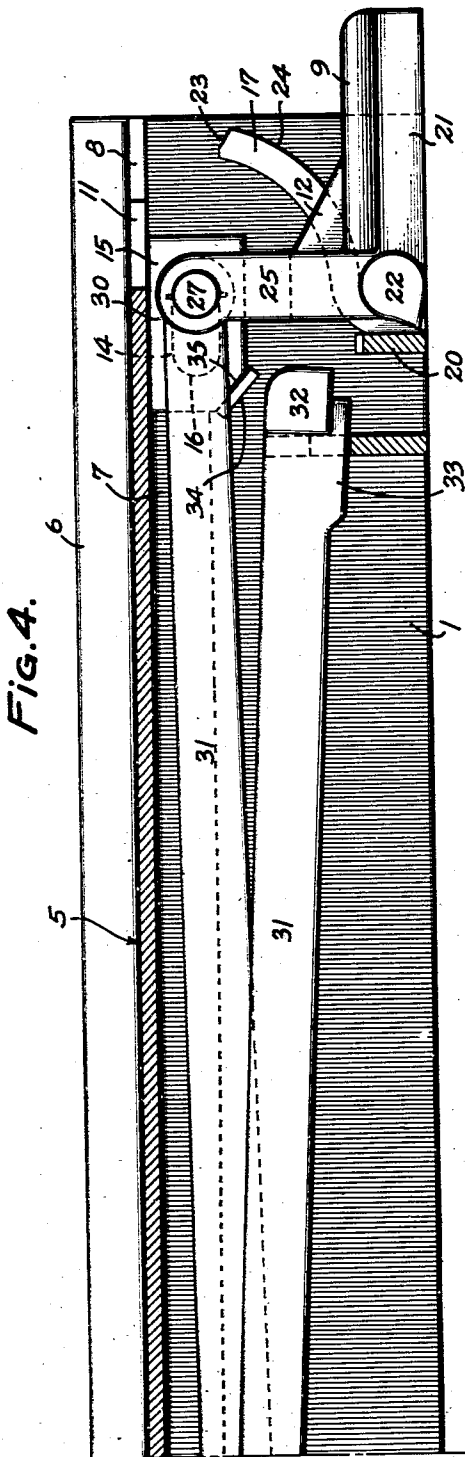


FIG. 4.

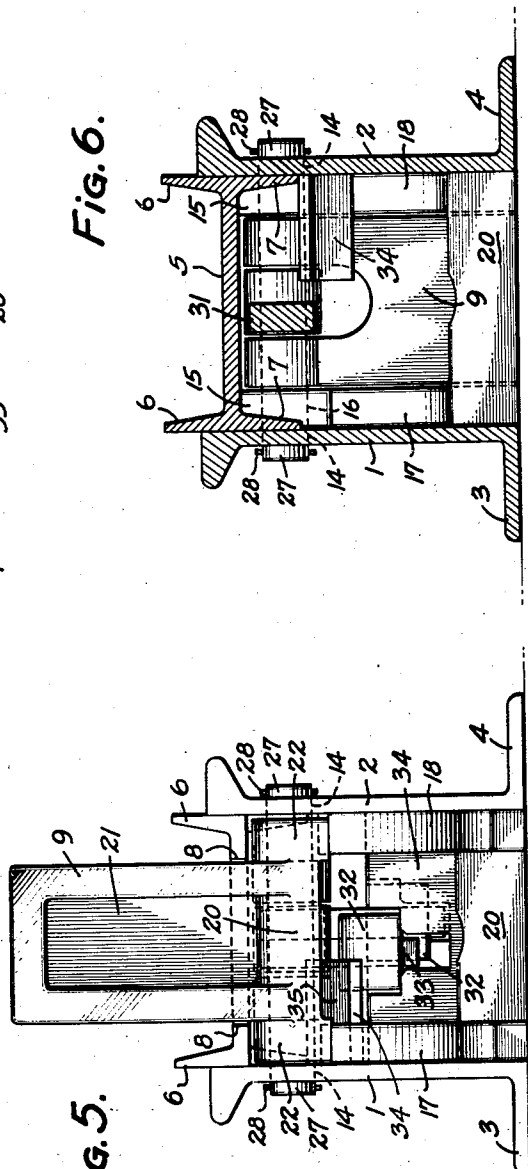


FIG. 6.

FIG. 5.

Inventor
FREDERICK W. CHRISWELL,

By *Reoph J. Bant*

Attorney

UNITED STATES PATENT OFFICE

2,382,002

LOG BUNK

Frederick W. Chriswell, Seattle, Wash., assignor
to Pacific Car and Foundry Company, Renton,
Wash.

Application January 14, 1942, Serial No. 426,787

4 Claims. (Cl. 105—380)

This invention relates to log bunks or bolsters of that type equipped with chocks or stakes which may be released from the side of the car.

The main object of this invention is to improve upon the structure of the bolster shown and described in my prior Patents Nos. 1,224,276 of May 1, 1917, and 1,569,613 of January 12, 1926, by eliminating the cast bunk filler and simplifying the bunk body structure, so that the latter may be made entirely of structural material and yet be sufficiently strong and durable to withstand the wear to which structures of this type are normally subjected.

Another object resides in the provision of a slot and pin support for the chock, in lieu of the guideway and trunnions heretofore provided in the art.

Other novel features for providing an inexpensive yet durable structure will be found in the details of construction and arrangement of parts more fully shown and described in the following specification and illustrated by the accompanying drawings, in which

Fig. 1 is a top plan view.

Fig. 2 is a perspective, partly in section, and partly exploded to show the stake, pin and guide slots.

Fig. 3 is a fragmentary side elevation of one end of the device.

Fig. 4 is a longitudinal vertical section of one end portion of the structure.

Fig. 5 is an end elevation, and

Fig. 6 is a transverse section on line 6—6 of Fig. 1.

The present embodiment includes a bunk body and stake mechanism therefor. The bolster is assembled from structural material and includes the side walls 1 and 2 formed of bulb angles, set upright with their bottom flanges 3 and 4 extending laterally outward to provide suitable supporting surfaces. Interposed between the upper marginal portions of the upright bulb angles 1 and 2 is a horizontally disposed I-beam including the web 5, upper flanges 6 and depending flanges 7. This I-beam is welded to the inner faces of the bulb angles in a manner to permit its upper flanges 6 to project substantially above the latter. The end portions of the web 5 and the end portions of the depending flanges 7 of the I-beam are cut away as at 8 in Figs. 4 and 5 to provide for the positioning and movement of the stakes 9. It will be noted that the centrally cut-out portions of the web 5 includes the slots 11 which receive the web like braces 12 of the stakes. Beneath the upper marginal bulb

portions of the side walls 1 and 2 are formed the longitudinally extending slots 14, these slots being relatively short in length and arranged in a common horizontal plane at each end of each side wall. Welded to the inner faces at each end of the side walls 1 and 2 are the reinforcing blocks or plates 15 each with longitudinally disposed slots 16 registering with the adjacent slot in the side wall to which it is attached. This arrangement reinforces the web structure of the side walls 1 and 2 about the slots and also increases the supporting guide surfaces of the pins which travel in the slots as hereinafter more fully described. Secured to each end of each of the side walls 1 and 2 by welding are the guide bars or rails 17 and 18, these guide bars or rails being positioned at their upper ends 18 outwardly of the slots 15 and curving downwardly and inwardly to terminate in the substantially vertical portions 19 against which abuts the cross brace 20. The cross brace 20 is in the form of a web connecting the lower marginal portions of the side walls 1 and 2 and functions to reinforce and retain the latter in their relative positions and also to cooperate with other movable parts to be hereinafter described. It will be noted that the braces 20 are welded at their extremities to the inner faces of the side walls and bars 17 and 18.

Each stake includes the body portion 21 of a width to snugly engage within the walls 8 defining the cut-out portion of the web of the top member 5 and of a height suitable to retain a predetermined load in the usual manner. At the base of the body of the stakes 9 are the laterally extending lugs or bosses 22 which engage the top end portions 23 and the outer faces 24 of the guide members 17 and 18. Pivot arms 25 extend at right angles inwardly of the body 21 of the stake and are formed with transverse axially aligned pin receiving openings 26. A pin 27 extends through these openings in the ends of the pivot arms and engages within and travels throughout the length of the slots 14 formed in the side plates 1 and 2 and the slots 16 formed in the reinforcing plates or blocks 15 secured about these openings. Cross pins 28 extend through the extremities of the pin 27 to secure the latter against displacement. A control lock arm 30 is pivoted to each pin 27 intermediate the spaced pivot arms 25 and includes the shank 31 which terminates at its free end in enlarged head 32 and depending flange 33. The control arms extend substantially the length of the bunk to engage cross braces 34 each of which is shaped to cooperate

with the enlarged head 32 and the depending flange 33 in a manner well known in the art.

As in my prior Patent No. 1,569,613 I have provided the transversely extending upwardly inclined webs 34 which extend outwardly of the inner walls of the uprights 1 and 2 and are secured to these walls and to the inner inclined faces 35 of the slotted blocks 15. This arrangement of the inclined web 34 immediately above the locked position of the enlarged end 32 of the shank 31 will cause an initial movement of the associated stake downwardly when the shank 31 of the control bar is lifted. This movement is essentially brought about because of the normal path of movement of the enlarged head 31 in its travel in contact with the inclined web 34. It will be noted that the projecting webs 34 terminate short of the path of movement of the shanks 31 of the control arms as is clearly shown in Fig. 6.

From the foregoing it will be noted that the present development resides primarily in the simplified bunk body construction which is made entirely of structural material, slightly modified to provide guide slots and end pockets. Such parts as the curved guide and supporting bar for guiding and supporting the chock is made of bent stock material and is welded in place as above described. The same is true of the webs positioned between the side walls and which not only function as cross braces but also cooperate with the locking bars as is well known in the art and as fully described in my prior patents. The locking bar, the means for holding and locking the locking bar, and the inclined web for shifting the bar forward when released to prevent it from falling back and locking in instances where the chock does not fall are features which also are broadly shown and described in my earlier patents.

As a result of the structure embodied in the present application it is possible to construct a log bunk of available material, with the bunk capable of performing all of its functions in the usual manner and perhaps more important, capable of supporting the maximum load under all conditions. It is also possible because of the simplified structure embodying the use of structural material to make repairs when and where needed without special equipment and with a minimum of time and labor.

What I claim is:

1. A log bunk including spaced vertical side walls formed at each end with parallel longitudinally extending slots arranged in a common plane, guide members secured to and extending from the inner faces of the end portions of each of said side walls, said guide members curving downwardly and inwardly and terminating at their inner ends below said slots, stake members having lateral projections adjacent their lower end portions, said projections being adapted to engage the top and outer sides of said guide members upon movement of said stake from upper to lower positions, said stakes each including a pair of spaced inwardly extending pivot arms formed with transversely extending aligned openings at their end portions, pins extending through said aligned openings in the outer end portions of said pivot arms and engaging within said longitudinally extending guide slots, a control lock arm pivoted to each of said pins in-

termediate said arms, and a horizontal beam having flanges at its outer edge portions connecting the upper portions of said side walls, said flanges projecting above the upper edges of said walls.

2. In combination, a bunk including spaced side walls and a connecting beam, said beam including upper flanges normally extending above said side walls and having its web cut away at each end to provide stake receiving pockets, longitudinally extending slots formed in each end of each of said side walls, separately formed downwardly and inwardly curved guide members secured to the inner faces of each end of each of said side walls, stake members at each end of said bunk, each stake member including inwardly extending spaced arms, a pin extending through said arms and into guiding engagement with the walls of said slots, and lateral projecting portions formed at the base of said stakes adapted to seat upon the upper end of said guide member when said pin is in its innermost position in said slots, and to swing under and in engagement with the outer face of said guide members as said pins are moved to their outer positions in said slot, whereby said stakes may be shifted to either a fixed vertical position or to a position between the ends of the side walls of said bunk.

3. A bunk for logging cars including a bunk body formed of spaced side angles and a connecting beam, said beam being welded to the upper longitudinal portion of the inner faces of said angles, slots formed in the end portion of each of the side angles, said slots being horizontally aligned, movable stakes positioned in the ends of said bunk body, and including inwardly extending spaced arms, pins extending through the outer end portions of said arms, said pins having their end portions extending laterally of said arms for movement within said slots, and slotted guide blocks secured to the inner faces of said angles with their slots registering with the slots in said angles, said blocks partially supporting said pins and engaging the outer faces of said spaced arms to form lateral stops for said stakes.

4. A log bunk including spaced vertical side walls formed at each end with parallel longitudinally extending slots arranged in a common plane, guide members secured to and extending from the inner faces of the end portions of each of said side walls, said guide members curving downwardly and inwardly and terminating at their inner ends below said slots, stake members having lateral projections adjacent their lower end portions, said projections being adapted to engage the top and outer sides of said guide members upon movement of said stake from upper to lower positions, said stakes each including a pair of spaced inwardly extending pivot arms formed with transversely extending aligned openings at their end portions, pins extending through said aligned openings in the outer end portions of said pivot arms and engaging within said longitudinally extending guide slots, a control lock arm pivoted to each of said pins intermediate said arms, and a horizontal beam connecting the upper portions of said walls.

FREDERICK W. CHRISWELL