

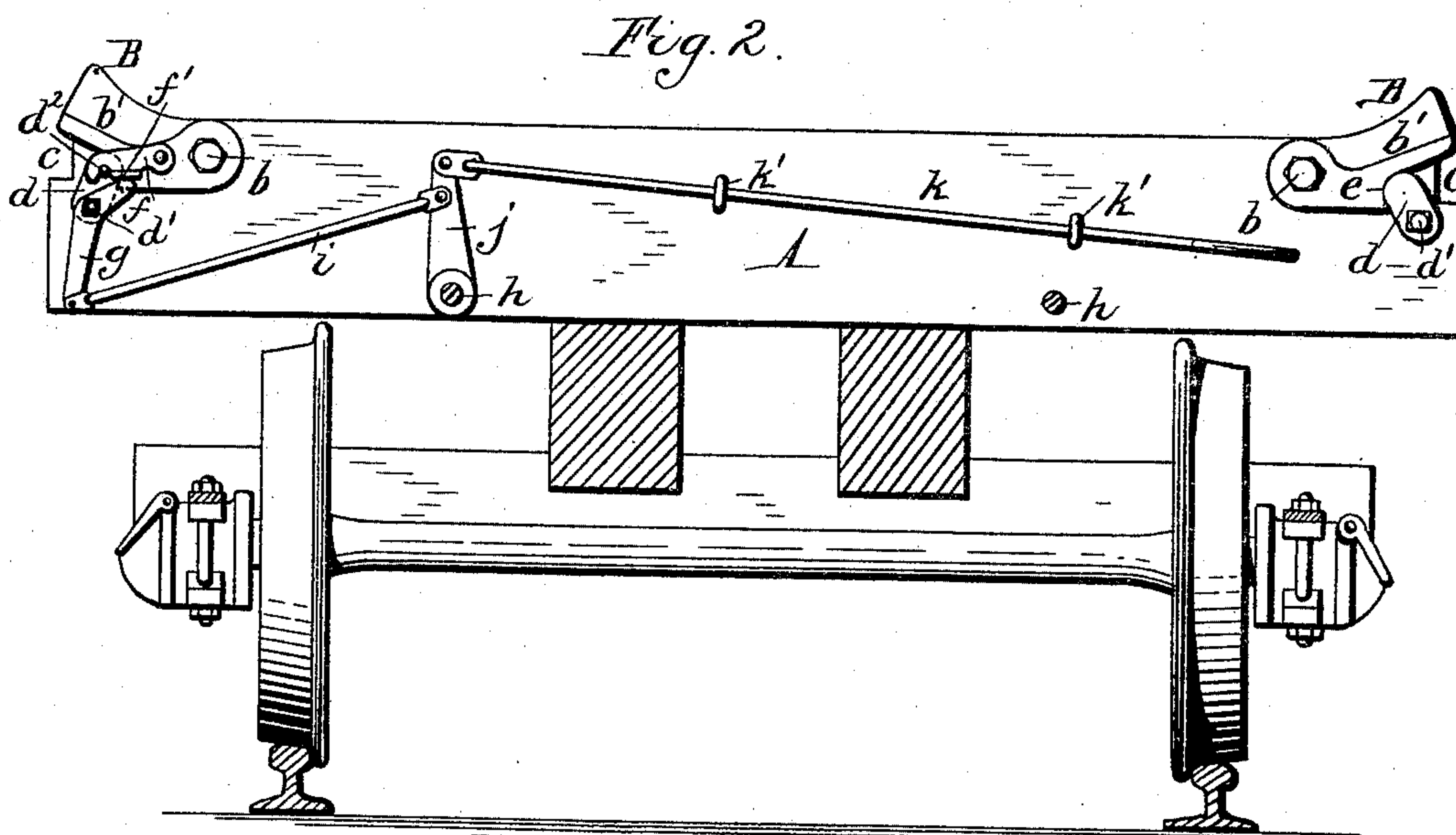
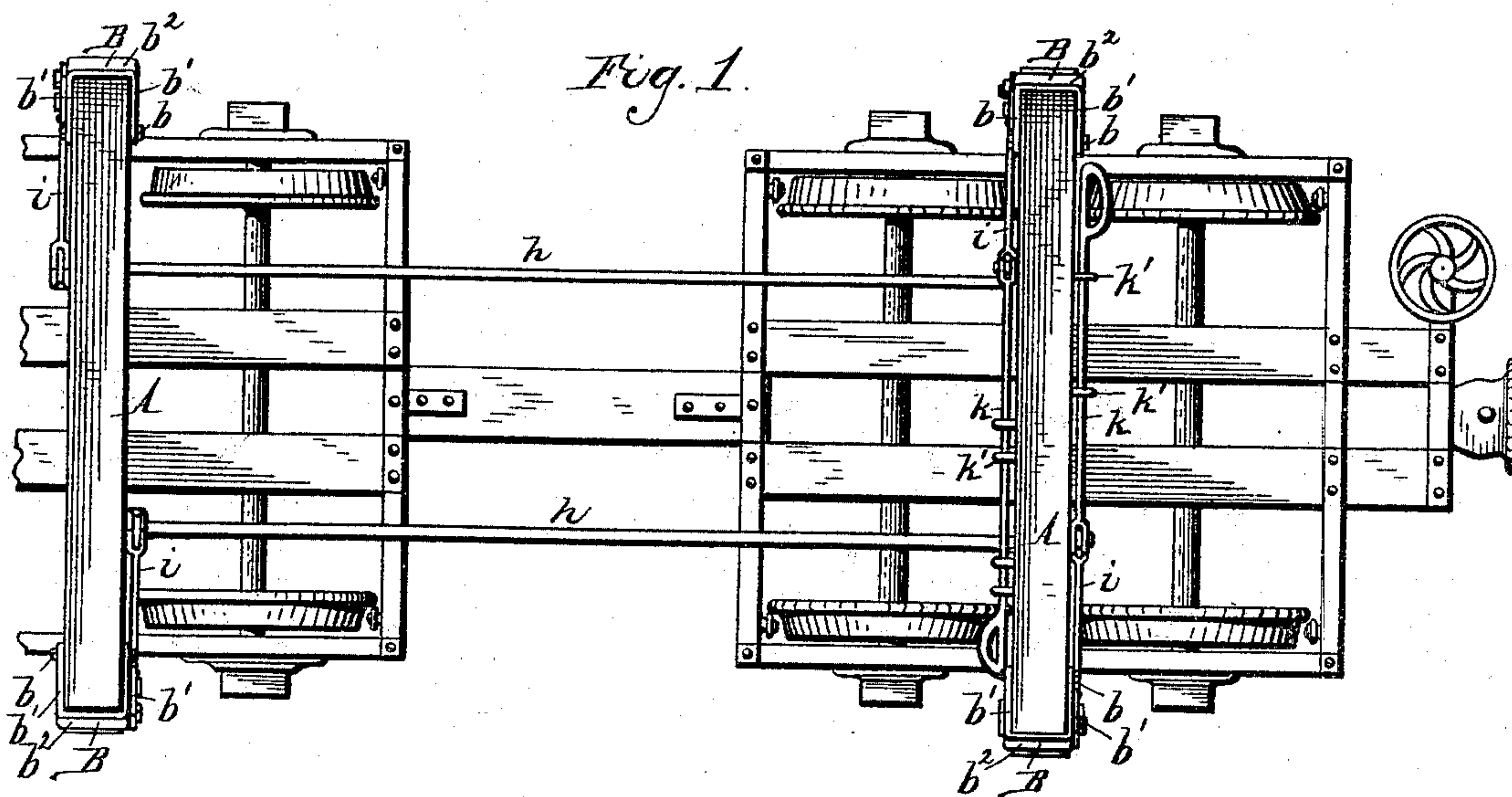
(No Model.)

2 Sheets—Sheet 1.

L. T. JOHNSON.  
LOG CAR.

No. 500,712.

Patented July 4, 1893.



Witnesses:

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Emil Neuhart

L. T. Johnson Inventor.  
By Wilhelm & Bonner  
Attorneys.

(No Model.)

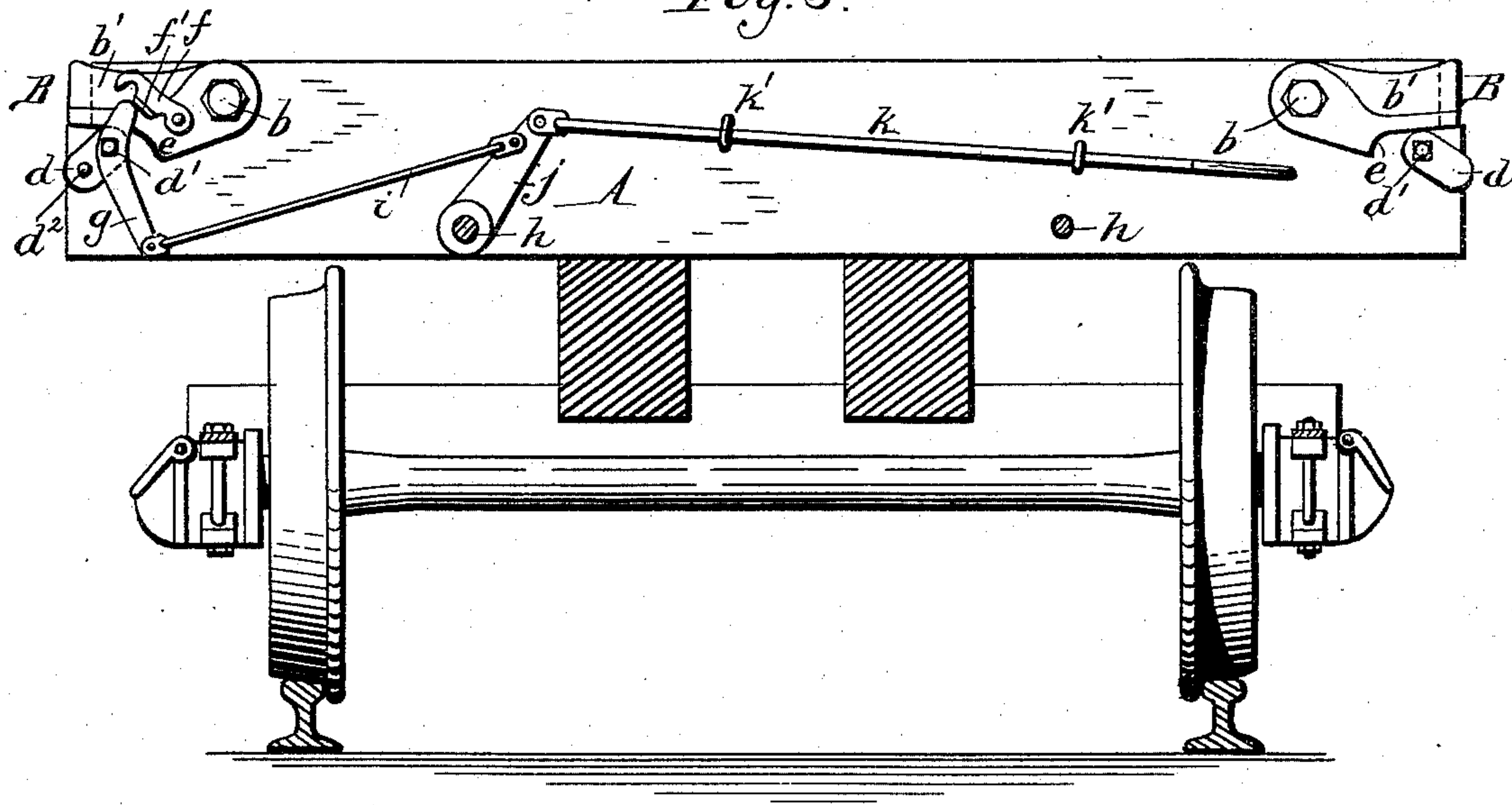
2 Sheets—Sheet 2.

L. T. JOHNSON.  
LOG CAR.

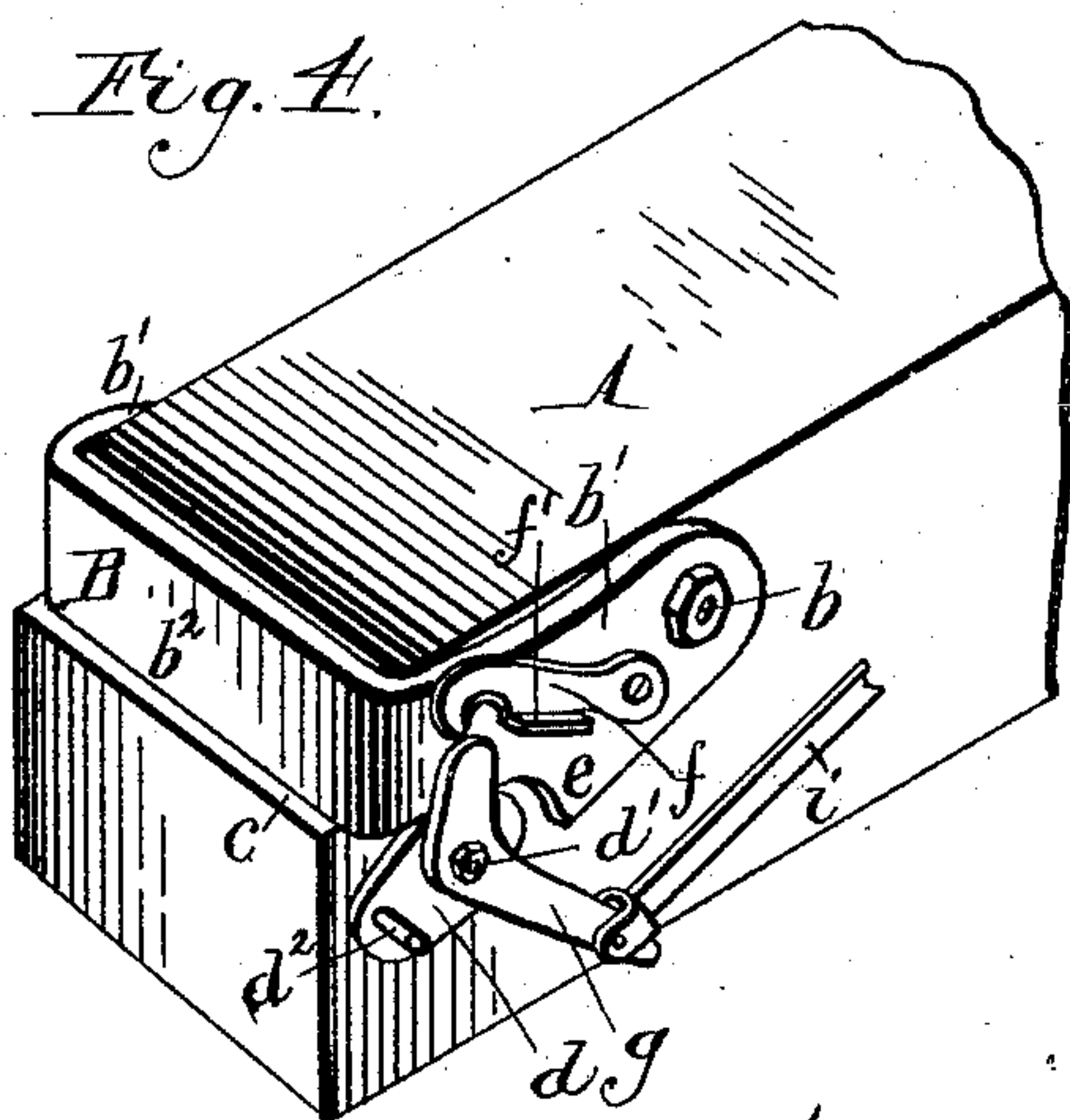
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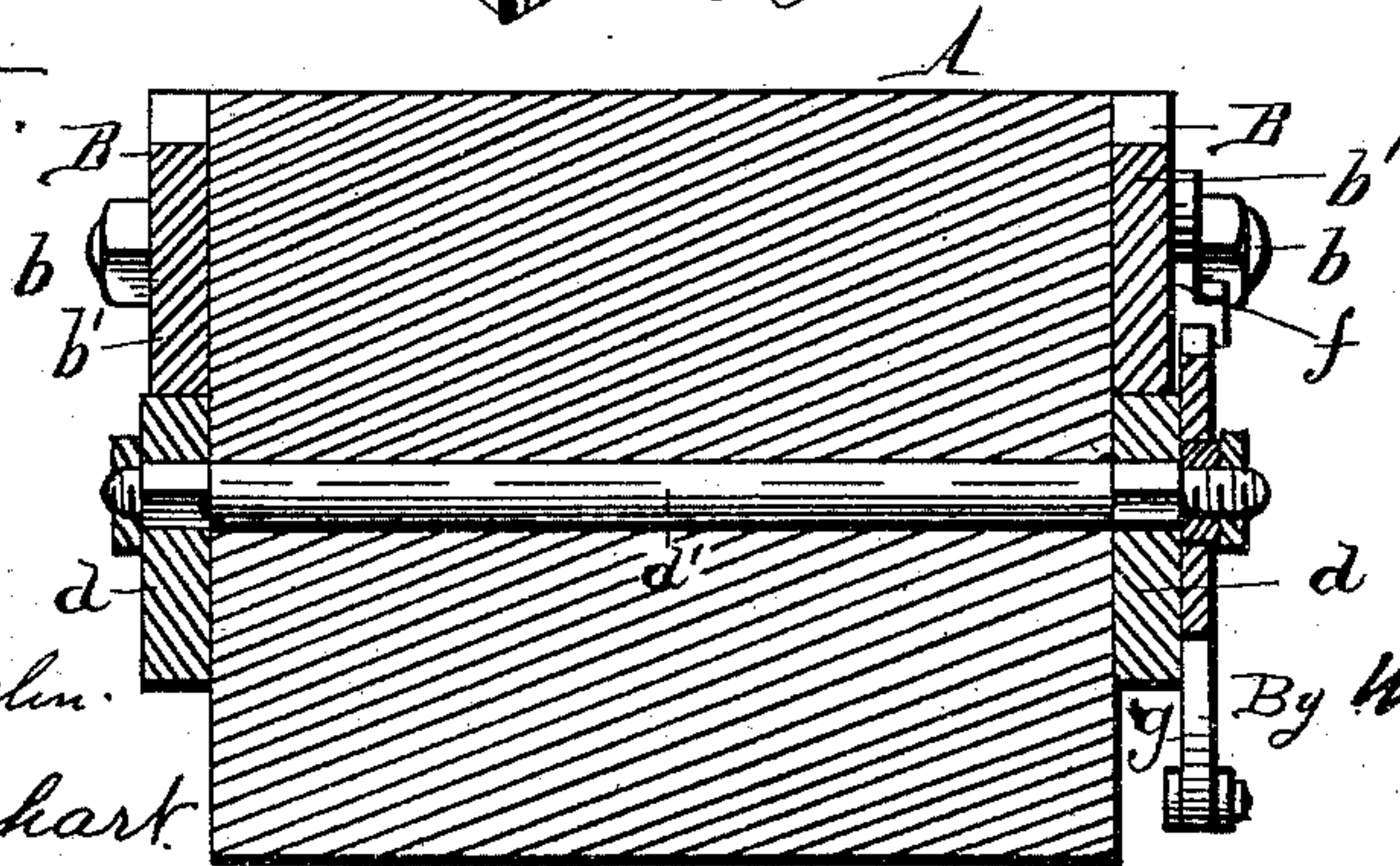
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

LAWRENCE T. JOHNSON, OF AUSTIN, PENNSYLVANIA.

## LOG-CAR.

SPECIFICATION forming part of Letters Patent No. 500,712, dated July 4, 1893.

Application filed December 22, 1892. Serial No. 455,986. (No model.)

*To all whom it may concern:*

Be it known that I, LAWRENCE T. JOHNSON, a citizen of the United States, residing at Austin, in the county of Potter and State of Pennsylvania, have invented a new and useful Improvement in Log-Cars, of which the following is a specification.

This invention relates to the movable chock blocks which are employed on log cars or trucks for retaining the logs upon the cars and the means for holding the blocks in their normal position and for moving the same into the position in which they permit the logs to roll off the cars.

My invention has for its principal object to produce a strong chock block of simple construction and to improve the means for locking and releasing it.

The invention has the additional object to provide simple means for simultaneously releasing the blocks on the same side of the car.

In the accompanying drawings consisting of two sheets:—Figure 1 is a fragmentary top plan view of a log car equipped with my improvements. Fig. 2 is a vertical cross section thereof, on an enlarged scale, showing the chock blocks in their normal or raised position. Fig. 3 is a similar view showing the chock blocks in their depressed position. Fig. 4 is a fragmentary perspective view of one of the bolsters or cross beams of the car, showing the chock block in its depressed position. Fig. 5 is a cross section of the bolster taken through the fulcrum of the releasing lever.

Like letters of reference refer to like parts in the several figures.

A represents the bolsters or cross beams of a log car or truck which are supported upon the longitudinal timbers of the car in the usual manner, and B are the chock blocks which are pivoted to opposite ends of the bolsters by horizontal bolts *b* so as to be capable of swinging vertically. Each chock block preferably consists of legs or side bars *b'* which straddle the bolster and through the inner ends of which the pivot bolt *b* passes, and a cross bar *b<sup>2</sup>* connecting the outer ends of said legs, the legs and their connecting bars forming together a chock block of approximately U-shape. The outer ends of the bolsters are cut away at their upper edges to

form recesses *c* which receive the outer portions of the pivoted chock blocks when the latter are in their depressed position, as most clearly shown in Figs. 3 and 4. When in this position, the U-shaped blocks embrace the ends of the bolsters and serve to protect the same from splitting.

*d* represents pivoted arms or braces arranged underneath the chock blocks and which are adapted to support the latter in an inwardly inclined position, as shown in Figs. 1 and 2, so as to prevent the logs from rolling off the car.

Each chock block is supported by two arms or braces arranged on opposite sides of the bolster and which are secured to the ends of a horizontal rock shaft *d'* passing through a transverse opening in the bolster. The side bars of each chock block are formed in their lower edges with stops or shoulders *e* against which the upper ends of the braces rest when the blocks are in their inclined position, and whereby the inward movement of the braces is limited.

*f* is a hook or catch pivoted to one side of the chock block and engaging with a pin or projection *d<sup>2</sup>* arranged at the upper end of the adjacent brace *d*. This catch locks the two braces of the block in their raised position and prevents the same from swinging outward accidentally.

*g* is a releasing or trip lever pivoted to one side of the bolster near the end thereof, and whereby the catch *f* is disengaged from the brace *d* and the latter is at the same time swung outwardly out of engagement with the chock block, thereby allowing the block to swing down flush with or below the upper side of the bolster for discharging the load. The catch *f* is provided with a laterally projecting lug *f'* which is arranged in the path of the upper arm of the trip lever when the catch is interlocked with the brace, and the pin *d<sup>2</sup>* of the latter also stands in the path of the lever, so that upon swinging the lower arm of the lever inwardly, its upper arm lifts the catch out of engagement with the pin of the brace during the initial part of its outward movement, and during the latter part of its movement strikes the pin of the brace and swings the latter outwardly beyond a per-



pendicular position. As soon as the braces of the block reach this position, the block is depressed to its lowermost position by the weight of the logs, which, being released, roll  
5 off the car.

The trip levers of the several chock blocks may be operated independently, if desired, but the levers of the blocks on the same side of the car are preferably connected so as to  
10 be actuated simultaneously. For this purpose, a longitudinal rock shaft *h* is arranged near each side of the car, and the trip levers on one side the car are operated from one of these shafts, and the levers on the opposite  
15 side of the car from the other shaft. Motion is transmitted from the rock shafts to the levers by rods *i* connected at one end to arms *j* secured to the rock shafts and at their opposite ends to the lower arms of the releasing levers.  
20 To one of the arms of each shaft is connected a shifting rod *k* for turning the shaft, which rod is guided in loops or staples *k'* secured to the sides of the bolsters, as shown. The longitudinal rock shafts *h* are journaled in openings or  
25 bearings arranged in the bolsters. Upon pulling either shifting rod outwardly, the chock blocks actuated thereby are released and lowered, in the manner before described, and the logs are discharged on the side of the car on  
30 which the blocks are released. In order to again raise the chock blocks to their inclined position, the braces are swung upward under the chock blocks and are locked in place by engaging the catches *f* with their pins. By this  
35 movement of the braces the trip levers are also returned to their former position.

My improved chock block and its actuating mechanism, though herein shown and described in connection with a log car, are  
40 equally applicable to wagons for carrying logs or other rolling loads, such as barrels, casks, &c.

I claim as my invention—

1. The combination with a cross beam of a  
45 log car or other vehicle, of a vertically swinging chock block pivoted directly to said cross beam so as to remain attached thereto, and a removable brace bearing against the under side of the chock block, for supporting the  
50 free outer portion of the block above the level of the cross beam, substantially as set forth.

2. The combination with a cross beam of a log car or other vehicle, of a vertically swinging chock block pivoted to said cross beam  
55 and an arm or brace pivoted to the cross beam underneath the pivoted chock block, whereby the latter is supported in an inclined position, substantially as set forth.

3. The combination with the cross beam of  
60 a log car or other vehicle, of a vertically swinging chock block pivoted to said beam, a pivoted arm or brace arranged under the chock block for supporting the same in an inclined position, and a catch whereby said brace is  
65 locked in place, substantially as set forth.

4. The combination with a cross beam of a

log car or other vehicle, of a chock block pivoted to the cross beam, a movable arm or brace bearing against the under side of the pivoted chock block, whereby the block is  
70 supported at an angle to the cross beam, and a shifting device whereby said arm or brace is moved aside to allow the chock block to assume a horizontal position, substantially as set forth.

5. The combination with a cross beam of a  
75 log car or other vehicle, of a vertically swinging chock block pivoted to said cross beam, a pivoted arm or brace bearing against the underside of the chock block and supporting  
80 the same in an inclined position, and a trip lever whereby the pivoted brace is released from the chock block, substantially as set forth.

6. The combination with a cross beam of a  
85 log car or other vehicle, of a vertically swinging chock block pivoted to said cross beam, a pivoted arm or brace supporting the chock block in an inclined position and having a pin or projection, and a trip lever pivoted to  
90 the cross beam adjacent to said pin, whereby the brace is released from the chock block by the lever striking the pin, substantially as set forth.

7. The combination with a cross beam of a  
95 log car or other vehicle, of a vertically swinging chock block pivoted to said beam, a pivoted arm or brace supporting the block in an inclined position, a locking catch engaging with said brace, and a releasing lever whereby  
100 the locking catch is disengaged from the brace and the latter released from the chock block, substantially as set forth.

8. The combination with a cross beam of a  
105 log car or other vehicle, of a vertically swinging chock block pivoted to said beam, a releasing lever, a pivoted arm or brace supporting the chock block in an inclined position and having a pin or projection, and a locking  
110 catch engaging with said brace and having a releasing lug, the lug of the catch and the projection of the brace standing in the path of the releasing lever, substantially as set forth.

9. The combination with the front and rear  
115 cross beams of a log car or other vehicle, of movable chock blocks arranged at opposite ends of said beams, and independent releasing devices each connecting a pair of the front and rear chock blocks on the same side  
120 of the car or vehicle, whereby the pair of blocks on one side of the car may be released without disturbing the pair on the other side thereof, substantially as set forth.

10. The combination with the front and rear  
125 cross beams of a log car or other vehicle, of movable chock blocks arranged at opposite ends of said beams, rock shafts arranged lengthwise of the car or vehicle and carrying rock arms, braces for supporting the chock  
130 blocks in an inclined position, and releasing levers for moving aside said braces, connected



with the arms of said rock levers, substantially as set forth.

11. The combination with the cross beam of a log car or other vehicle, of a vertically swinging chock block pivoted to said beam and provided on its under side with a shoulder, and an arm or brace pivoted at its lower end to the cross beam and adapted to bear

with its upper end against said shoulder, substantially as set forth.

Witness my hand this 24th day of September, 1892.

LAWRENCE T. JOHNSON.

Witnesses:

JAS. WILSON,

ROBT. L. SILLMAN.