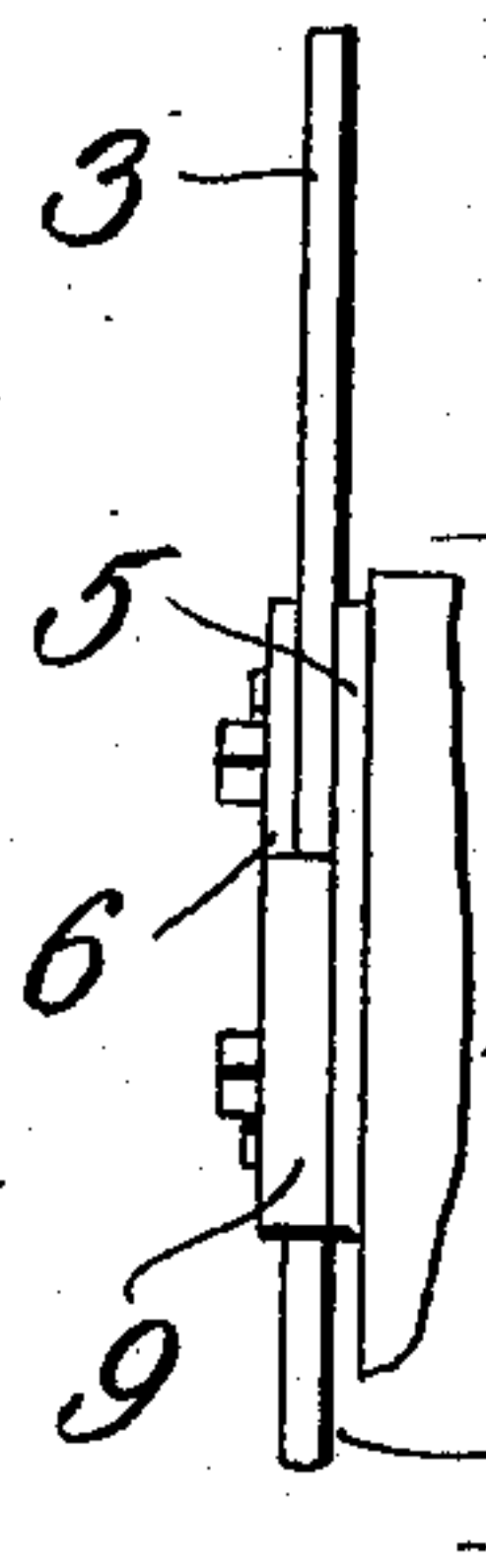
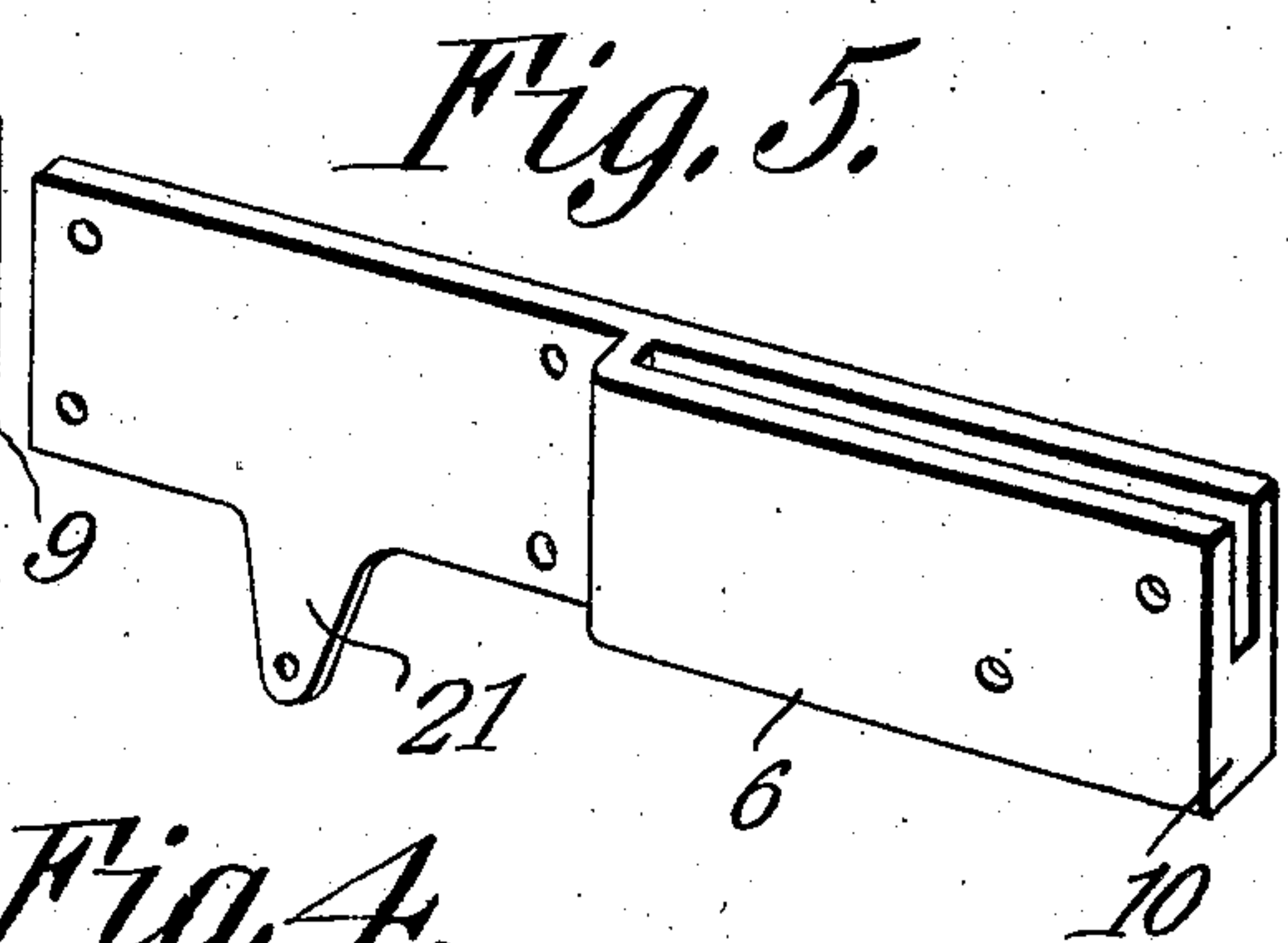
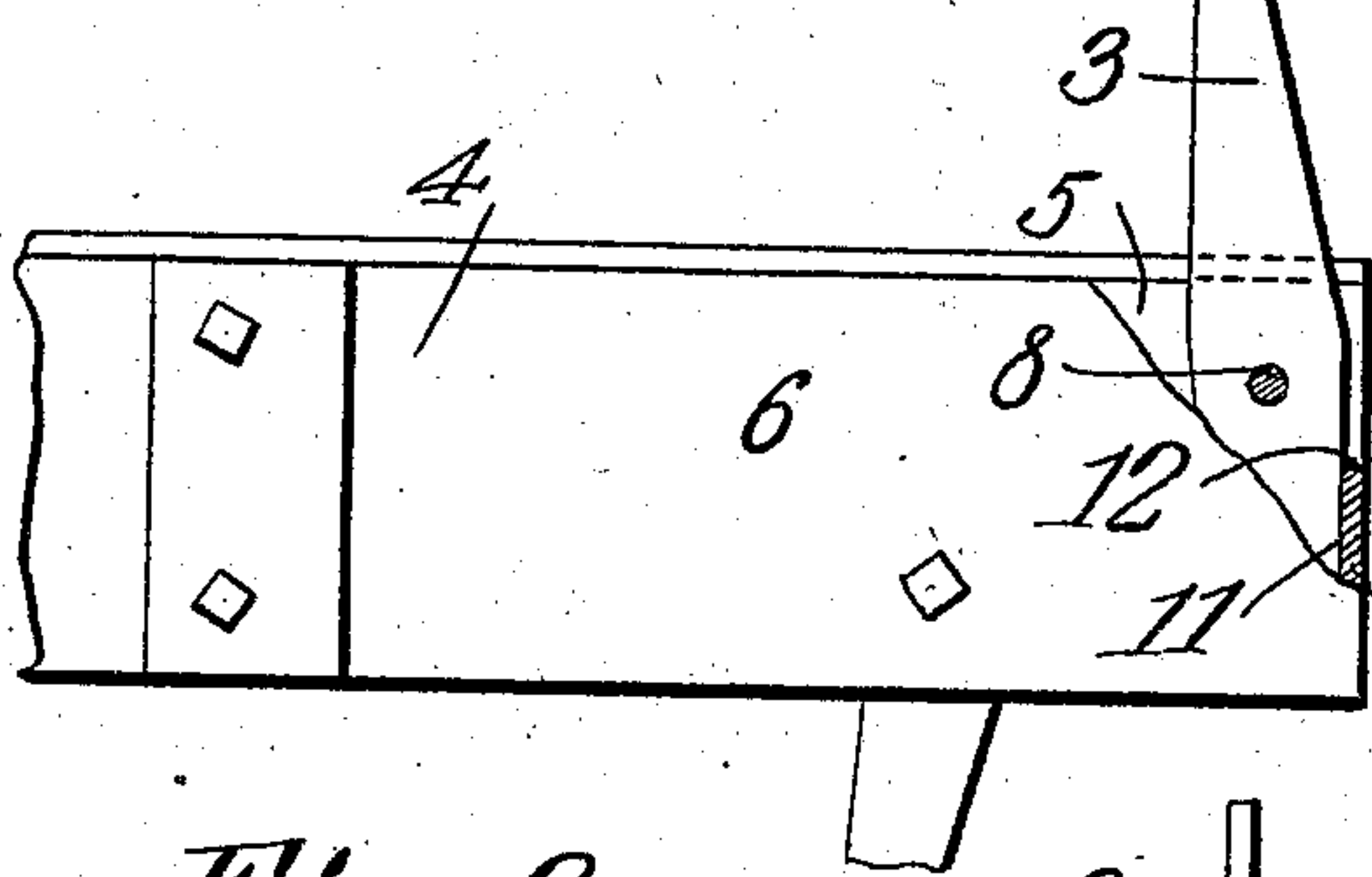
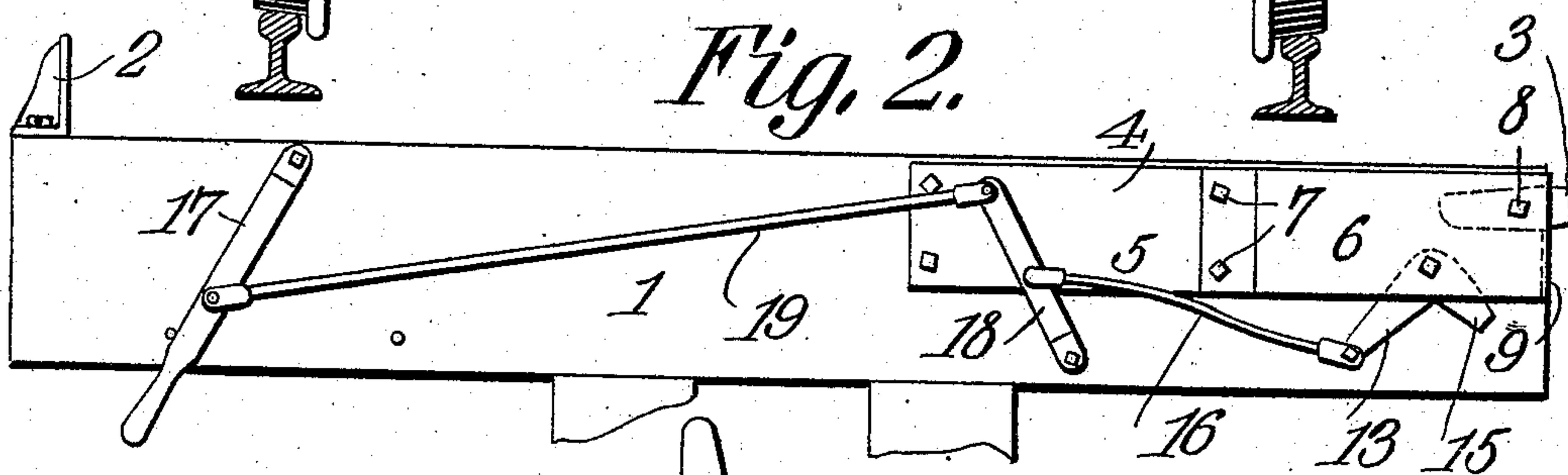
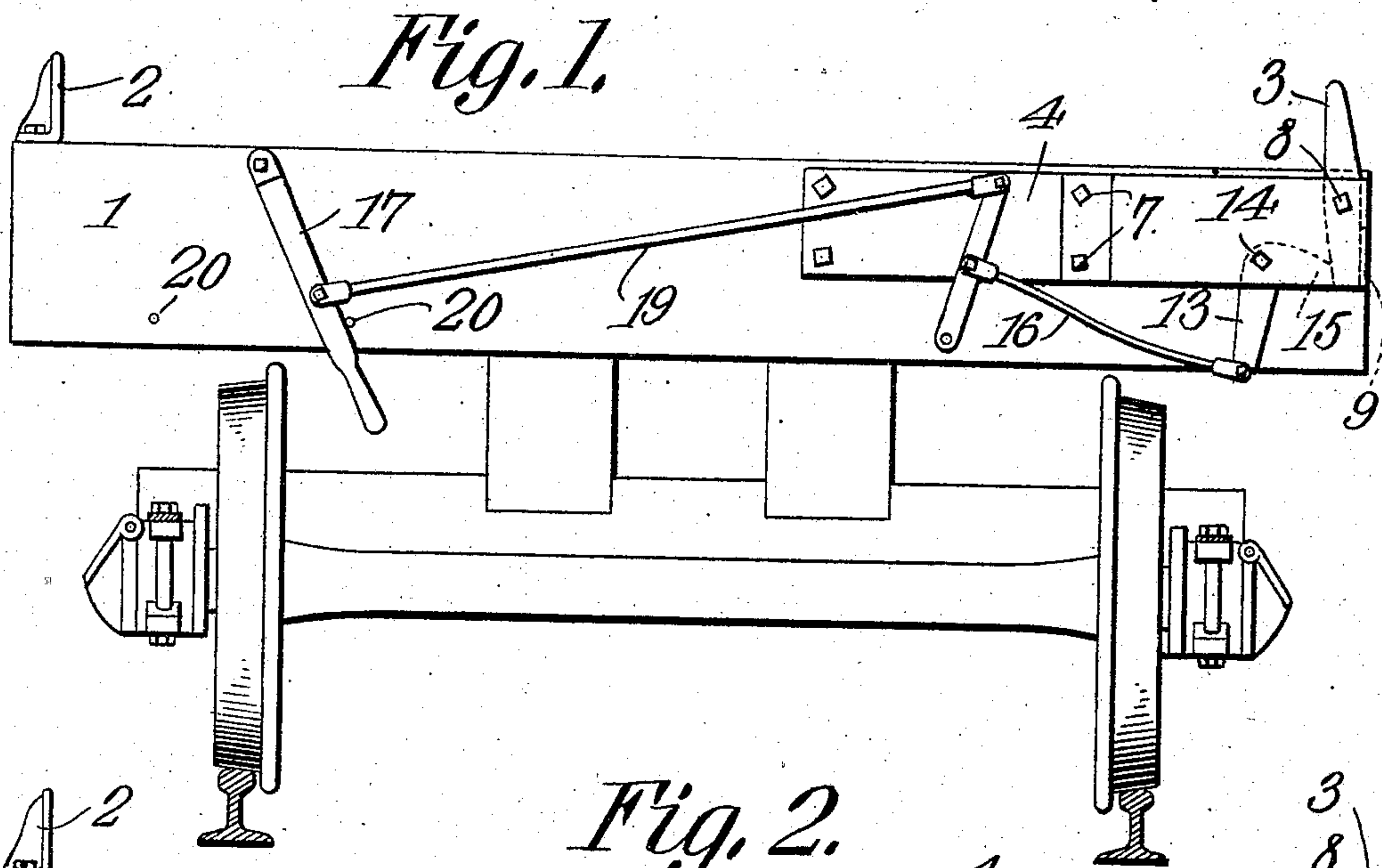


No. 855,103.

PATENTED MAY 28, 1907.

J. HANLEY.  
LOG CAR DOG.

APPLICATION FILED SEPT. 24, 1906.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

JOHN HANLEY, OF LAUREL, MISSISSIPPI.

## LOG-CAR DOG.

No. 855,103.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed September 24, 1906. Serial No. 335,951.

*To all whom it may concern:*

Be it known that I, JOHN HANLEY, a citizen of the United States, residing at Laurel, in the county of Jones and State of Mississippi, have invented a new and useful Log-Car Dog, of which the following is a specification.

This invention relates to log cars and similar vehicles and relates more particularly to an improved dog or standard designed to be attached to the cross beams or bolsters of the car, whereby the logs can be retained in position while in transit and can be conveniently unloaded without the danger to the workmen incident to the unfastening of the chains hitherto commonly employed for retaining the logs in place.

The invention has for one of its objects to improve and simplify the construction and operation of devices of this character, so that they can be manufactured at comparatively little cost, readily installed, conveniently operated, and are efficient and reliable in use.

A further object of the invention is to provide a pivotally mounted standard on a suitable supporting frame attached to the car bolster, or other convenient part, and a locking mechanism which is operated from the end of the bolster opposite from the dog for firmly holding the dog in an upright position, or for releasing the dog.

With these objects in view, and others, as will appear as the nature of the invention is better understood, the invention comprises the various novel features of construction and arrangement of parts, which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawing, which illustrates one of the embodiments of the invention, Figure 1 is an end view of a log car with the dog attachment applied thereto. Fig. 2 is a fragmentary end view of the car showing the dog released and in the position occupied during the unloading of the car. Fig. 3 is an enlarged detail view of the dog or standard and the supporting frame therefor. Fig. 4 is an end view of one of the dogs and its supporting frame. Fig. 5 is a perspective view of a modified form of supporting frame.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

Referring to the drawing, 1 designates one of the cross beams or bolsters of the log car which at one end is provided with a short

stationary standard 2 and at the opposite end with a pivoted standard or dog. 3. The dog 3 is pivotally mounted on the frame 4 suitably secured on one of the vertical sides of the bolster. The frame 4, which is preferably of iron, comprises two spaced parallel plates 5 and 6. The plate 5 is somewhat longer than the plate 6 and the two may be integrally connected or formed of one piece, as shown in Fig. 5, or they may be made of separate pieces secured together by bolts 7, as shown in the other figures. The dog 3 is disposed between the plates 5 and 6 adjacent their outer ends and fulcrumed approximately at a medial point, on the bolt or pivot 8 arranged adjacent the upper, outer corner of the supporting frame.

Between the two plates is provided a stop or abutment 9 on which the dog engages in both its upright and horizontal positions. This stop or abutment is formed either by a lug extending at right angles from one of the plates, as shown in Fig. 4, or by the connecting web 10 between the outer ends of the plates, as shown in Fig. 5. The inner end of the dog 3 disposed between the plates 5 and 6 is adapted to abut the inner vertical surface 11, when the dog is locked in an upright position shown in Figs. 1 and 3, and is adapted to abut the top surface 12 of the lug or abutment 9 when the dog is in its open position, as shown in Fig. 2.

The mechanism for locking and releasing the standard comprises a locking member 13 in the nature of a bell crank lever which is pivoted at its elbow on the bolt 14 disposed inwardly in a lateral direction from the lower end of the dog 3. The locking member 13 is arranged between the plates of the supporting frame 4, and the extremity of the arm 15 is adapted to engage the lower end of the dog on the side opposite from the abutment 9. The other arm of the locking member extends downwardly and is connected at its free end with a link 16. The link 16 extends along one side of the bolster and may be attached directly to an operating lever 17 fulcrumed on the bolster 1 adjacent the end opposite from the dog 3. By preference, however, the link 16 is connected with a secondary lever 18 fulcrumed on the bolster at a point below the inner end of the supporting frame 4. The free end of the intermediate lever is connected with the operating lever 17 by the connecting rod 19, the arrangement of the mechanism between the locking mem-



ber 13 and operating lever being such as to constitute a power multiplying means.

Any suitable device may be employed for limiting the throw of the operating lever 17, a simple form of such device being spaced pins 20 arranged in the bolster so as to form stops adapted to engage the lever adjacent its lower or handle end. The supporting frame of the construction shown in Fig. 5 is provided with a depending arm 21 to which the intermediate lever is pivotally bolted. The advantage of this form of frame is that the operating parts of the device can be assembled thereon in the shop and all that is necessary for applying it to a car is to bolt the frame to the bolster and then the lever 17.

In operating the device, the operating lever 17 is shifted to the right so as to throw the locking member 13 to the position shown in Fig. 1 for engaging with the dog 3, the latter having been raised to its vertical position before the throwing of the operating lever. The locking member 13 is arranged to have its upper arm 15 with its longitudinal dimension disposed at right angles to the dog or in tangential relation to its arc of movement, so that any outward pressure on the upper end of the dog operates directly in line with the arm 15 and the fulcrum 14. The lower end of the dog is thus firmly held between the end of the arm 15 and the abutment 9 of the supporting frame, so that the dog is positively locked in an upright position. Assuming that the car is to be unloaded, all that is necessary is to pull the operating lever 17 to the left, thereby releasing the lower end of the dog by the locking member 13 moving to the position shown in Fig. 2. The lateral pressure of the logs on the car will swing the dog outwardly, so that the logs can drop off over the dog and roll down the skids.

It will be noted that the locking member and dog are not mechanically connected, so that the dog is turned to its upright position by hand while the locking member is in the position shown in Fig. 2, in which position the arm 15 is out of the path of movement of the lower end of the dog. After the dog is moved to its upright position, the lever 20 is shifted to the right so as to cause the member 13 to lock the standard in place.

While only one dog and actuating mechanism has been described, it is to be understood that at least two dogs will be employed, one at each end of the car, and, if desired, a larger number may be used.

I have described the principle of operation of the invention, together with the apparatus which I now consider to be the best embodiment thereof, but I desire to have it understood that the apparatus shown is merely illustrative, and that various changes may be made, when found expedient, as are within the scope of the invention.

What is claimed is:—

1. In an apparatus of the class described, the combination of a dog pivoted at a point intermediate its ends, with a stationary abutment arranged to be engaged by one of the ends of the dog when the latter is in operative position, a locking member pivotally mounted and arranged to move independently of the dog and engaging the end thereof that bears on the abutment, and a mechanism directly connected with the locking member for moving the same into and out of operative relation with the dog.

2. In an apparatus of the class described, the combination of a dog, and a pivot disposed intermediate the ends of the dog, with a locking member in the form of a lever arranged to engage at one extremity said dog, and an operating mechanism directly connected with the locking member for moving the same into and out of contact with the dog, said mechanism comprising a hand lever, an intermediate lever, a connection between one lever and the other, and a connection between the intermediate lever and locking member.

3. In an apparatus of the class described, the combination of a dog, a pivot on which the dog is mounted, and a stationary abutment which the dog abuts in two different positions, with a locking member arranged to hold the dog against the abutment in one position, and means for actuating the locking member.

4. In an apparatus of the class described, the combination of a vehicle, with a dog attachment, said attachment comprising a supporting frame removably mounted on the vehicle, a dog pivoted thereon, and a locking member mounted on the frame in operative relation to the dog, said frame comprising spaced plates disposed on opposite sides of the dog and member, and an abutment extending between the plates to form a bearing for the dog when the latter is in its operative position.

5. In an apparatus of the class described, the combination of a vehicle, with a dog attachment, said attachment comprising a frame removably supported on the vehicle, a dog pivoted on the frame, an abutment adjacent the dog, a locking member arranged to lock the dog against the abutment, means for mounting the locking member on the frame, and a mechanism for actuating the locking member.

6. In an apparatus of the class described, the combination of a vehicle, with a dog attachment, said attachment comprising a frame removably supported on the vehicle and comprising spaced plates, a dog pivoted between the plates, an abutment on the frame which the dog abuts in two different positions, a locking member pivoted between



the plates in such a relation as to hold the dog against the abutment in one of its positions, and a mechanism for actuating the locking member.

5 7. In an apparatus of the class described, the combination of a vehicle, with a dog attachment, said attachment comprising a frame secured to the vehicle and composed of spaced plates and an abutment between  
10 the plates, a dog pivoted adjacent the abutments to engage the same and arranged between the plates, a bell crank lever pivoted between the plates and arranged with one arm to bear against the dog and hold the latter  
15 against the abutment, and a mechanism connected with the bell crank lever.

8. In an apparatus of the class described, the combination with a vehicle, and a sta-

tionary standard, of a dog attachment mounted on the vehicle, said attachment 20 comprising a frame composed of parallel connected plates, a dog pivoted between the plates, a locking member pivoted between the plates in cooperative relation with the dog, an operating lever, an intermediate le- 25 ver mounted on the frame, a link between the intermediate lever and locking member, and a link connecting the intermediate and operating levers.

In testimony that I claim the foregoing as 30 my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN HANLEY.

Witnesses:

A. J. BENSON,  
I. DRAYATER.