

W. H. BATES.
RAIL CLAMP OR STAY.
APPLICATION FILED DEC. 22, 1911.

1,024,611.

Patented Apr. 30, 1912.

Fig. 1

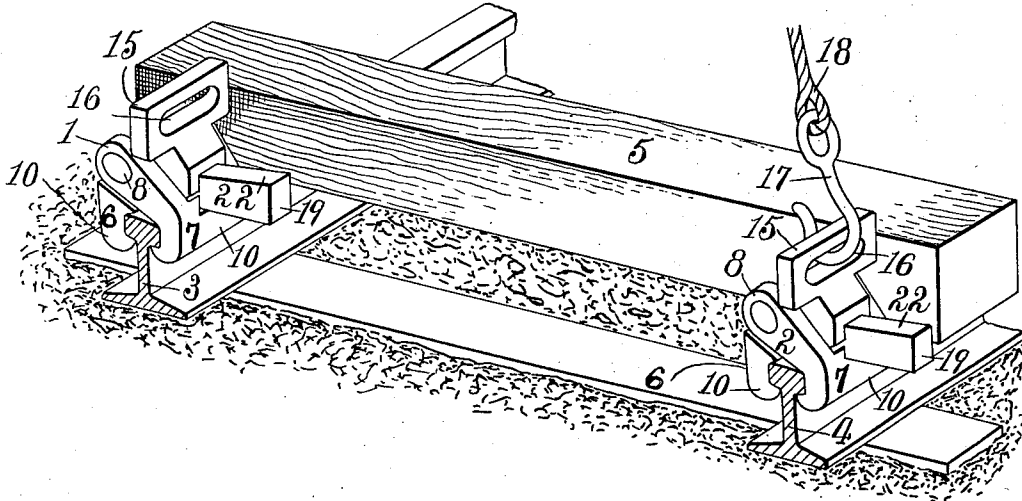


Fig. 2

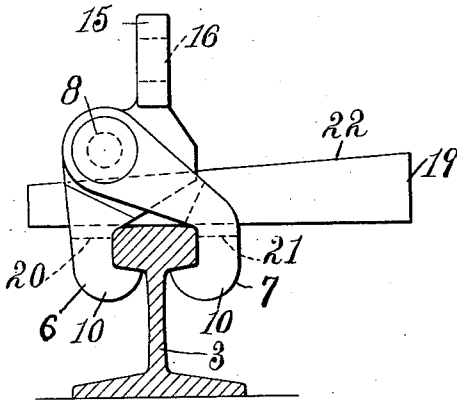


Fig. 3

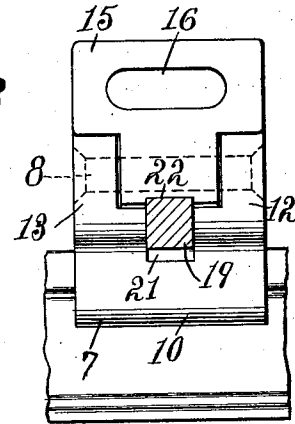


Fig. 4

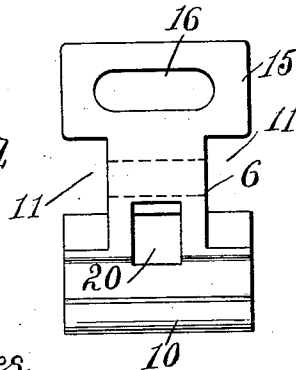
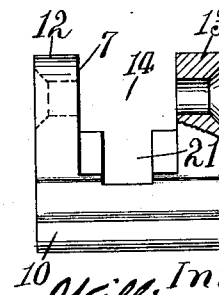


Fig. 5



Witnesses.
J. A. Propert
Ruey Klingler.

Inventor
William H. Bates.
By Horatio Whiting
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM H. BATES, OF EMPIRE, CANAL ZONE.

RAIL CLAMP OR STAY.

1,024,611.

Specification of Letters Patent.

Patented Apr. 30, 1912.

Application filed December 22, 1911. Serial No. 667,326.

To all whom it may concern:

Be it known that I, WILLIAM H. BATES, a citizen of the United States, and a resident of Empire, in the Canal Zone and Republic of Panama, have invented certain new and useful Improvements in Rail Clamps or Stays, of which the following is a specification.

This invention relates to a new and improved stay which may be used in the nature of a chock for holding a dredging car or other car against movement on its rails, and which may also be used as an anchor for a block and tackle or guy rope.

An object of this invention is to produce a simple and efficient device which will grip a rail in a secure and positive manner so that there will be no danger of slipping or giving away under even the greatest strain.

In the embodiment with which this invention is illustrated the stay is shown in a form of a clamp which is adapted to grip the head of a rail on all sides. This clamp is shown in a form of a pair of jaws pivotally connected together so as to move toward and from each other, with a wedge adapted to pass through alined openings provided in the jaws, so that the wedge will not only grip the top of the rail head, but also cause the jaws to approach each other, and grip the rail head on both sides. This is accomplished by offsetting the pivotal point of connection to one side, so that the pull on the rail of one jaw will be inclined and not vertical or nearly vertical, whereby this jaw grips the head of the rail more closely instead of tending to slip off; and further by having the wedge engage an extension of the other jaw at such a point with respect to the pivot that this last jaw will be rotated in a direction opposite to that of the first jaw; in other words the gripping portions of the jaws will be rotated toward each other the same time that the pivot is raised causing a gripping of the rail head on the sides, bottom and the top. The clamp may also be provided with an opening whereby the clamp may be readily handled, and also whereby the hook or shackle of a rope or block and tackle may be secured to the clamp using the latter as an anchor. These and further features together with the construction and combination of parts

will be described more fully hereafter, and particularly set forth in the accompanying 55 claims.

Reference may be had to the accompanying drawings forming a part of this specification in which like reference characters denote corresponding parts and in which— 60

Figure 1 is a perspective view showing the stay in use both as a chock and as an anchor. Fig. 2 is a view in elevation showing a single stay gripping a rail head. Fig. 3 is a view in elevation taken at right angles 65 to the view shown in Fig. 2. Fig. 4 is a detached view of one of the clamping jaws. Fig. 5 is a detached view of the other of the clamping jaws.

Referring more particularly to the separate parts of this invention as embodied in form shown in the drawing, 1 and 2 represent a pair of stays which grip the heads of rails 3 and 4 to hold in position a tie or other member 5; against which the wheels 75 of a car dredge or other car can rest, so that said car will be held in a fixed position. The stays 1 and 2 are each shown in the form of a clamp comprising a pair of jaws, 6 and 7 pivotally secured together, in any 80 suitable manner, as by means of a rivet 8 passing through alined openings in the two jaws.

It will be seen that both of the jaws are formed in the manner of gripping hooks 85 at their lower ends, so that they will conform to the bottom and sides of the head of the rail. It will be further seen that the jaw 6 is reduced above the hook portion to form a shank, by providing grooves 11 on 90 both sides thereof, whereby arms 12 and 13, provided on the jaw 7 by having a groove 14 formed therein, may extend on each side of the jaw 6, and yet will not project beyond the extreme side margins of said jaw. One 95 of the jaws, in this instance the jaw 6, is provided with an extension 15 having an opening 16 so that the device as a whole may be readily lifted, and also that a hook or other connection 17 may be readily secured to the stay, using the same as an anchor for a tie or draft rope 18. 100

Of course, it will be understood that the jaws 6 and 7 might clamp the head of the rail to some extent if an upward pull were 105 placed on the device. It is desired, however,

to make the connection of the device with the rail head positive, so that there will be no danger of slipping. For this purpose there is provided a wedge 19, which is shown in this instance to pass through alined openings 20 and 21 provided respectively in the jaws 6 and 7. These openings are so located that when the wedge 19 has been driven far enough into the jaws that the wedge will rest on the top of the head of the rail, and at the same time engage the top of the opening 20. It will be seen, inasmuch as at least one surface is inclined, in this instance the upper surface indicated at 22, that when the wedge 19 is driven home, it will raise the pivotal point of connection of the jaws 6 and 7 with respect to the rail head, whereby the gripping hooks of these jaws will be forced toward each other causing the jaws to grip the rail head more tightly, while at the same time the wedge itself tightly grips the top surface of the head of the rail. It will thus be seen that the device can be made to tightly grip the head of the rail on all sides, by the simple movement of the wedge 19, and that this gripping action is positive without leaving any chance for the device to slip on the rail, even under a great strain. It will be further noted by reference to Figs. 1, 3 and 5 that the opening 21 is opened at one side, and that in order to bring about the swinging of the gripping hooks toward each other a portion of the opening 20 is opened on the facing side, so that as the wedge 19 passes into these overlapping and alined openings, it will tend to swing the jaw 6 in a counter clockwise direction, and the jaw 7 in a clockwise direction, so that the gripping hooks or points of said jaws are brought closer together. This is accomplished by having both the portions of the jaws, first engaged by the wedge, at the same side of the pivotal point of connection of the jaws, so that any motion tending to spread these parts will move the gripping hooks to the jaws closer together. The pivotal point 8, of the jaws is offset to one side causing an incline pull on the jaw 7 tending to cause the gripping hook thereof to hug the head of the rail tighter. The other jaw has an extension in the opposite direction to the direction of offset of the pivot. This enables the wedge on passing through the jaws to also pass between them at a point distant from the pivot, and so as to spread these parts to bring the gripping hooks closer together.

While I have shown one embodiment of my invention I do not wish to be limited to the specific details thereof, but desire to be protected in various changes, alterations and modifications which may come within the scope of the appended claims.

Having thus described my invention what

I claim as new, and desire to secure by Letters Patent is:

1. The combination with a pair of jaws, movably connected together, and having openings therein, of a wedge for forcing said jaws together, to grip a rail head, by entering said openings, said openings being so located that said wedge on entering said openings will be exposed on one side, so as to engage the top of said rail head, to cooperate with said jaws to grip the same.

2. The combination with a pair of jaws pivotally connected together, and having openings therein, facing each other on the same side of said pivot, of a wedge for causing certain parts of said jaws to move toward each other, by passing between certain other parts of said jaws through said facing openings.

3. The combination with a pair of pivotally connected jaws having gripping portions formed so as to grip the sides of a rail head of a wedge connected to said jaws, so as to force said jaws into engagement with said rail head by swinging said gripping portions toward each other.

4. The combination with a jaw, having a gripping hook adapted to engage one side of a rail head, of another jaw pivotally connected to said first mentioned jaw, having a gripping hook facing in the opposite direction, to grip the other side of said rail head, and a wedge connected to said jaws, so as to engage the top of said rail head, and so as to force said gripping hooks toward each other.

5. The combination with a jaw, having a gripping hook adapted to engage one side of a rail head, of another jaw, pivotally connected to said first mentioned jaw, having a gripping hook facing in the opposite direction, to grip the other side of said rail head, and a wedge connected to said jaws, so as to engage the top of said rail head, and so as to force said gripping hooks toward each other, one of said jaws having an extension with an opening therethrough, forming a means of connection to some extraneous device.

6. The combination with a jaw having a reduced portion, of a second jaw, having a pair of arms engaging on opposite sides of said reduced portion and having their outer sides extending flush with the extreme side margins of said first mentioned jaws, means for pivotally connecting said jaws together, and a wedge for causing said jaws to move toward each other.

7. The combination with a jaw having a reduced portion, of a second jaw, having a pair of arms engaging on opposite sides of said reduced portion and having their outer sides extending flush with the extreme side margins of said first mentioned jaw, means for pivotally connecting said jaws together,

and a wedge causing said jaws to move toward each other, said jaws having gripping portions adapted to engage the head of a rail and also having openings to receive said wedge, so located that said wedge may project into the area inclosed by said gripping portions.

8. The combination with a jaw, having a reduced portion, of a second jaw, having a pair of arms engaging on opposite sides of said reduced portion and having their outer sides extending flush with the extreme side margins of said first mentioned jaw, means for pivotally connecting said jaws together, and a wedge causing said jaws to move toward each other, said jaws having gripping portions adapted to engage the head of a rail, and also having openings to receive said wedge, so located that said wedge may project in the area inclosed by said gripping portion, and an extension connected to one of said jaws having an opening therein.

9. In a chock, the combination with a pair of jaws having gripping hooks of a pivot for pivotally connecting said jaws together, said pivot being offset to one side away from

one gripping hook of one of said jaws, the other of said jaws having an extension toward the opposite side to that at which said pivot is located, and a wedge passing between said jaws at the side opposite to that at which said pivot is located.

10. A chock comprising a pair of pivotally connected jaws having rail gripping portions, and a wedge cooperating with said jaws, said jaws and said wedge being so formed and connected that a movement of said wedge into said jaws will force the gripping portions of said jaws together.

11. In a chock, the combination with a pair of pivotally connected jaws having openings therein of a wedge passing through said jaws by way of said openings and also passing between certain portions of said jaws to spread certain portions of said jaws and bring other portions together.

Signed at Empire, Canal Zone, Isthmus of Panama, this 13th day of November 1911.

WILLIAM H. BATES.

Witnesses:

MARK A. HALL,
ALF. SMITH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."