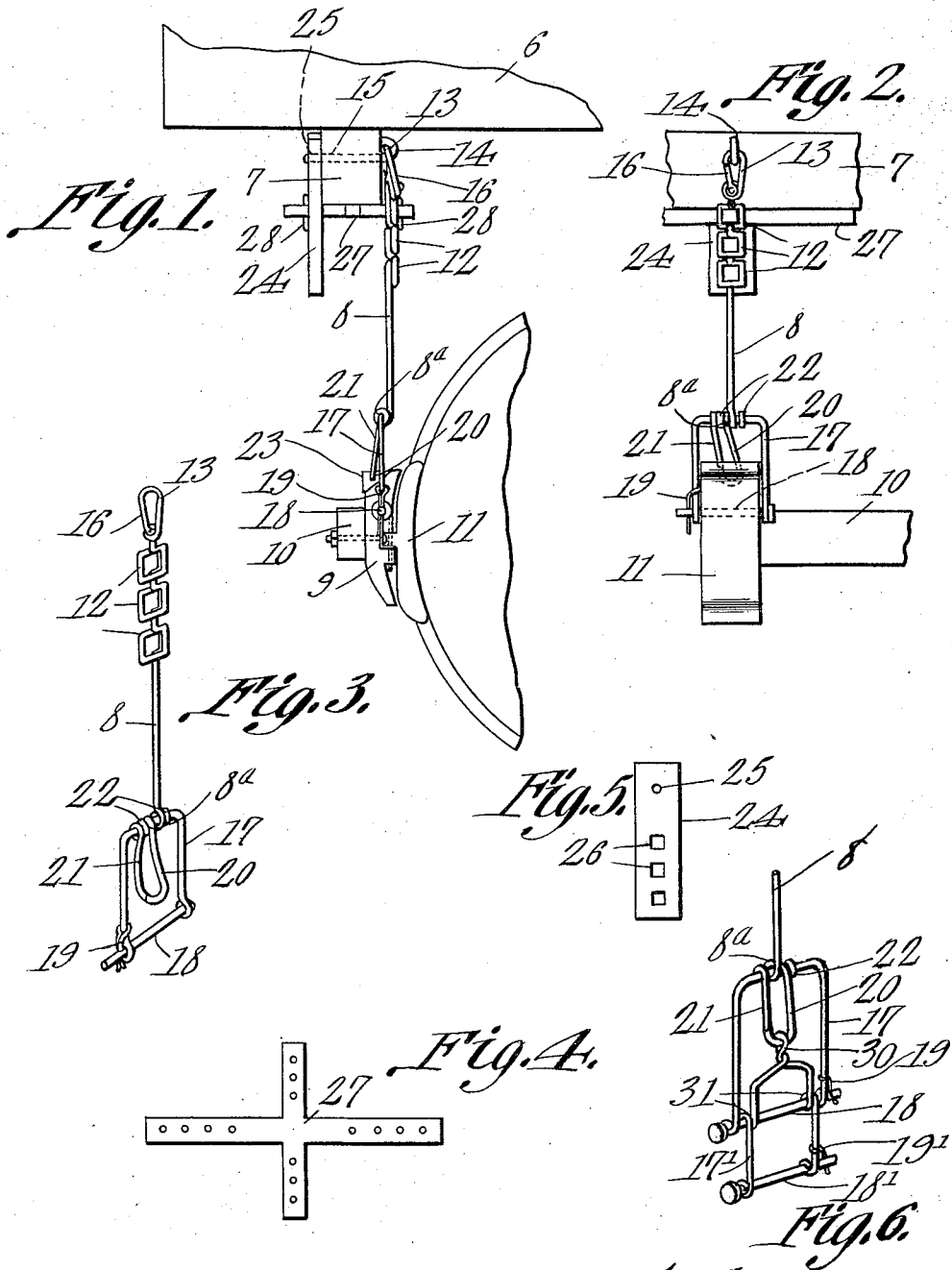


H. COOK.
 SAFETY BRAKE RIGGING.
 APPLICATION FILED DEC. 28, 1912.

1,069,391.

Patented Aug. 5, 1913.



Witnesses

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HENRY COOK, OF WELLSTON, OHIO.

SAFETY BRAKE-RIGGING.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY COOK, a citizen of the United States, residing at Wellston, in the county of Jackson and State of Ohio, have invented a new and useful Safety Brake-Rigging, of which the following is a specification.

This invention relates to safety brake rigging for railway cars, particularly freight cars.

It is the object of the present invention to provide a brake rigging so constructed and attached to the car body, that the several parts cannot become detached, or that the brake beam cannot be released, notwithstanding the various conditions to which the rigging is subjected.

It is a further object of the present invention to provide a rigging of the character indicated which shall be simple, durable, substantial and inexpensive in construction, as well as convenient, serviceable and efficient in use.

The present invention also contemplates a brake rigging which is applicable to various cars embodying different sizes of sills, hanger blocks or the like.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention has been illustrated in its preferred embodiment in the accompanying drawings, wherein like reference characters have been employed to denote corresponding parts, and wherein,—

Figure 1 is a side elevation of the brake rigging applied to a car. Fig. 2 is an end view thereof. Fig. 3 is a perspective view of the hanger. Fig. 4 is a plan view of a detail, and Fig. 5 is a plan view of another detail. Fig. 6 is a fragmental perspective of a modified form.

Referring specifically to the drawings, a portion of the car body has been designated by the numeral 6, the same including the sill, or hanger block 7 on the bottom thereof and extending transversely of the car body, as customary. A hanger 8 is attached to

each end of the sill 7 adjacent the corresponding car wheel, only one of the said hangers being illustrated, for the reason that a double use thereof is clearly apparent. This hanger 8 has the brake head 9 attached on the lower end thereof, the said head being attached to the corresponding end of the brake beam 10, and the brake 11 being attached to the head 9 in the usual fashion.

In carrying out the present invention, the hanger 8 is constructed from a suitable metal rod, bent into a hook 13 at its upper end and into a plurality or a series of square loops 12 immediately below the hook 13. The hook 13 of the hanger is engaged to the hooked end 14 of the usual hanger bolt 15 which passes through the sill 7. The lower end of the hanger 8 is bent into an eye or loop 8^a through which the intermediate portion of a clevis 17 passes loosely, and a pin 18 is passed through the terminal eyes of the clevis and through the usual passage provided through the brake head 9 in order to attach the head to the hanger. The loop of a cotter pin 19 slidably engages one arm of the clevis 17 and when slid downwardly or outwardly is adapted to pass through an opening provided in the pin 18, so as to lock the pin 18 in position. The loop 8^a terminates in a hook 20, and a latch 21 cooperating with the said hook is secured rigidly to the clevis 17 adjacent the hanger, the free end of the latch normally engaging the tip of the hook so as to close the hook. A pair of collars 22 are preferably secured on the intermediate portion of the clevis 17 at the sides of the loop or eye 8^a in order to retain the clevis and hanger in proper relation, the brake head 9 also being provided with an outwardly projecting ear 23 at its upper end provided with an aperture through which the hook 20 is engaged.

The clevis 17 passing loosely through the eye 8^a is permitted to swing so as to allow the brake shoe 11 to swing to and from the car wheel as the beam 10 is actuated, either by a hand brake or by the usual air cylinder connected to the train line. The ends of the clevis 17 being pivoted to the sides of the brake head 9 and the hook 20 which is rigid with the hanger 8 being connected to the ear 23 permit the latch 21 to be swung away from the hook 20 when the brake head 9 is swung outwardly or away from the car wheel sufficiently. Ordinarily the brake

head 9 cannot be disengaged from the hanger, and to disengage same, the pin 18 must first be removed by disengaging the cotter pin 19 therefrom and withdrawing the pin 18, and then swinging the brake head 9 outwardly so that the latch 21 frees the hook 20 and then swinging the head 9 so as to disengage the hook 20. It will thus appear that the brake head 9 in use cannot accidentally become separated from the hanger and the loss of the brake beam is therefore eliminated, that is, from the hangers at the two sides of the car body.

The plate 24 is screw-threaded onto the end of the bolt 15 opposite the hook 14 to which the upper end of the hanger is engaged, the said plate 24 having a screw-threaded aperture 25 into which the end of the bolt 15 is engaged and the said plate also having a series of square openings 26 complementing the loops 12 of the hanger. A cruciform member 27 is arranged below the sill 7 and has one of its arms passing through one of the loops 12 and the opposite arm passing through the corresponding opening 26, the arms of the said cruciform member 27 being perforated for the reception of cotter or locking pins 28 for retaining the hanger and plate 24 in position. One pair of the arms of the cruciform member 27 are longer than the other pair, the pair of arms which is idle lying longitudinally below the sill. The hanger 8 may thus be attached to sills, or hanger blocks of various sizes, for the reason that the member 27 may have either pair of its arms engaged through corresponding loops and openings of the hanger and plate, respectively, the locking pins 28 also being engageable at various distances along the lengths of the arms of the cruciform member 27.

In the variation illustrated in Fig. 6, a supplemental or auxiliary clevis 17' is employed in conjunction with the clevis 17 in order to accommodate certain brake heads, which do not have the apertured ears 23 as above described, but on the other hand are provided with a pair of openings there-through. This auxiliary clevis 17' is provided with an eye 30 at its intermediate portion engaging the hook 20 and the arms of the clevis are provided with loops 31 adapted to engage the pin 18, while a pin 18' is passed through the eyes of the clevis 17'. A cotter pin 19' is preferably slidable on one arm of the clevis 17' to engage the end of the pin 18'. When the clevis 17' is assembled with the clevis 17, the device is applicable to brake heads having a pair of openings therethrough, the pins 18 and 18' being adapted to pass through the openings in the brake heads. It will be manifest, also, that should either of the pins 18 or 18' become broken or lost, there will be no lia-

bility of the brake head becoming lost. It will thus be noted that the auxiliary clevis may be employed in connection with the primary clevis, or may be omitted, as necessary or essential.

From the foregoing, taken in connection with the drawings, it will be apparent that the present rigging cannot become detached, or the several parts cannot become separated, so that the loss of the brake beam and brake shoes together with accompanying parts, is eliminated.

Having thus described the invention, what is claimed as new is:—

1. In a brake rigging, a hanger, a clevis carried thereby, and a cooperating hook and latch carried by the clevis and hanger.
2. In a brake rigging, a hanger, and primary and secondary brake head supporting means carried thereby.
3. In a brake rigging, a hanger, and a clevis connected to the hanger, the hanger having a hook within the clevis.
4. In a brake rigging, a hanger having a lower eye terminating in a hook, a clevis having its intermediate portion engaged loosely by the said eye, a pin engaged by the ends of the clevis, and a latch rigidly secured to the clevis adjacent the hanger and normally engaging the tip of the hook.
5. In a brake rigging, the combination with a car sill, and a bolt passing there-through having a hook at one end, of a hanger engaging said hook and having a loop below the sill, a member screw-threaded onto the other end of the bolt and having an opening below the sill, a member passing below the sill and through said loop and opening, and securing members engaged to the latter member.
6. In a brake rigging, the combination with a car sill, and a bolt passing there-through having a hook at one end, of a hanger having a hook at its upper end engaging the hook of the bolt and having a series of loops below its hook, a plate screw-threaded onto the other end of the bolt and having a series of openings corresponding with the loops, a cruciform member arranged below the sill having its arms provided with a series of apertures and having a pair of its arms passing through one of the loops and the corresponding opening of the hanger and plate, respectively, and locking members engageable through the apertures in the cruciform member to retain the hanger and plate in position.
7. In a brake rigging, a hanger, a clevis carried thereby, and an auxiliary clevis attachable to the said clevis to support a brake head therewith.
8. In a brake rigging, a hanger, a clevis carried thereby and a supplemental clevis attachable to the said clevis and hanger.
9. In a brake rigging, a hanger, a clevis

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carried thereby, a pin carried by the end of the clevis, the hanger having a hook within the clevis, and an auxiliary clevis engageable to the said hook and pin.

5 10. In a brake rigging, a hanger, a clevis pivoted thereto, the hanger having a hook within the clevis, a pin carried by the clevis, an auxiliary clevis having an eye at its intermediate portion to engage the hook and
10 having loops in its arms to engage the said pin.

11. In a brake rigging, a hanger, a clevis carried thereby, a pin carried by the clevis,

and a locking member slidable on one arm of the clevis and engageable with the pin to
15 retain same in position.

12. In a brake rigging, a hanger, and primary and secondary clevises supported thereby.

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

HENRY COOK.

Witnesses:

LEE C. YOUNG,
A. D. WARD.

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