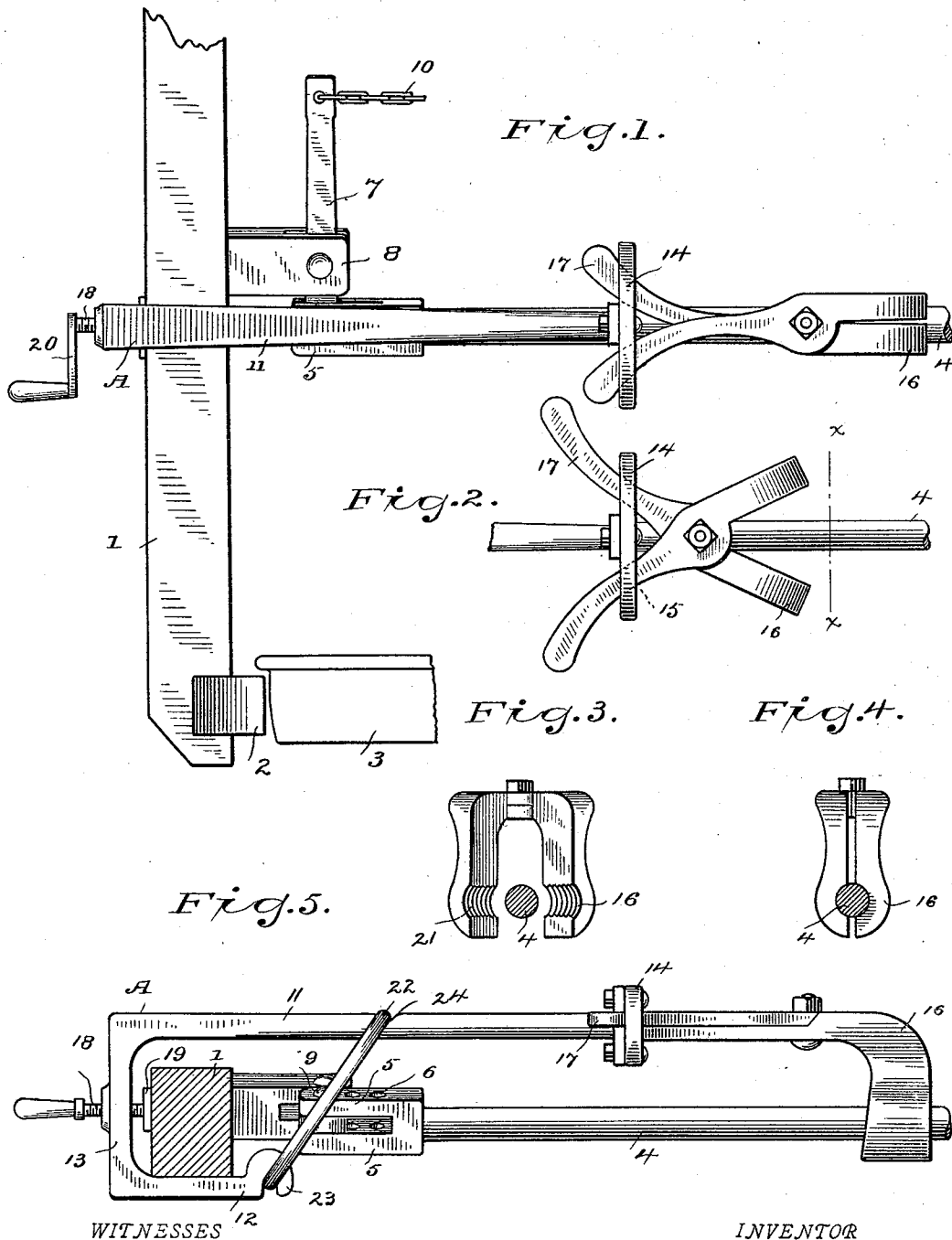


(No Model.)

A. RAUH.
DEVICE FOR ADJUSTING BRAKES.

No. 478,638.

Patented July 12, 1892.



WITNESSES
H. A. Lamb
Oliver J. Tuttle

INVENTOR
Andrew Rauh
By
A. M. Wooster
Att'y.

UNITED STATES PATENT OFFICE.

ANDREW RAUH, OF BRIDGEPORT, CONNECTICUT.

DEVICE FOR ADJUSTING BRAKES.

SPECIFICATION forming part of Letters Patent No. 478,638, dated July 12, 1892.

Application filed April 5, 1892. Serial No. 427,645. (No model.)

To all whom it may concern:

Be it known that I, ANDREW RAUH, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Devices for Adjusting Brakes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide a simple, strong, and easily-operated tightening device for use in adjusting car-brakes. It is of course well understood that brake-shoes wear away very rapidly in use, so that it is frequently necessary to adjust the parts to obtain efficient action of the brake mechanism. This operation is usually performed by hand and requires the services of a number of men and frequently takes an hour or two. It will be apparent that any device for clamping and holding the parts while the adjustment is being made to be of value must be very strong and easily and quickly operated. In order to accomplish this result, I have invented the simple and novel device which I will now describe, referring by numbers to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view illustrating my novel device in use; Fig. 2, a detail plan view showing the clamping-jaws in the open position; Fig. 3, a section on the line $x x$ in Fig. 2, looking toward the left; Fig. 4, a similar view, the jaws being in the closed position; and Fig. 5 is a side elevation of my novel device in use, the brake-beam being in section.

1 denotes a brake-beam; 2, a brake-shoe; 3, a car-wheel; 4, a brake-rod, having at its end ears 5, having corresponding openings 6 through them, and 7 a brake-lever, which is fulcrumed in ears 8 upon the brake-beam and the inner end of which is pivoted in ears 5, a pin 9 passing through two corresponding holes 6 in ears 5 and through the brake-lever, as clearly shown in Figs. 1 and 5. The usual brake-chain 10 is attached to the outer end of the brake-lever. These parts may be of ordinary or any preferred construction and form no portion of my present invention.

My novel tightening device consists of a

yoke A, said yoke consisting of an upper arm 11, an end piece 13, and, if preferred, a lower arm 12, a head 14, swiveled at the end of arm 11 and having openings 15 on opposite sides of the arm, clamping-jaws 16, whose curved shanks 17 pass through openings 15, and a tightening-screw 18, which passes through the end piece and is provided with a swiveled head 19, which bears against the brake-beam, and with a crank 20 for convenience in operation. The clamping-jaws are suitably curved, as shown in Figs. 2, 3, and 5, to adapt them to engage the brake-rod and clamp it firmly, the engaging portions being preferably serrated or roughened in any suitable manner, as at 21, to enable them to hold the brake-rod tightly. The shanks of the jaws cross each other, as shown, and curve outward, their rear ends passing through openings 15 in the swiveled head 14 at the end of the upper arm of the yoke, so that when the yoke and head are drawn backward the shanks and jaws are drawn together, causing the jaws to clamp the brake-rod. In use the parts are placed as shown in Figs. 1 and 5, the swiveled head 19 on the tightening-screw resting against the back of the brake-beam. The screw is then turned in, which moves the yoke backward, causing the jaws to clamp the brake-rod, and as soon as the brake-rod is gripped firmly forces the brake-beam forward. This enables the operator to remove pin 9 and place it in another pair of corresponding holes in ears 5 and through the brake-lever.

It will be noticed in Fig. 5 that yoke A is made heavy and is strengthened by additional metal at the corners. In order to give still greater strength, I may or may not use a link 22. In order to provide for the use of the link, I ordinarily form a hook 23 at the end of the lower arm of the yoke, which is engaged by one end of the link, and a depression 24 in the upper arm of the yoke, which is also engaged by the link, as clearly shown in Fig. 5. The use of the link renders it impossible that any amount of pressure that can possibly be brought to bear can either break or spring the yoke.

Having thus described my invention, I claim—

1. A device for adjusting brakes, consisting, essentially, of a yoke, a screw in said yoke

adapted to bear against a brake-beam, a swiveled head upon the arm of the yoke, having openings through it, and clamping-jaws adapted to engage a brake-rod and having 5 curved shanks which pass through said openings, so that when the screw is turned the clamping-arms are caused to engage the brake-rod and the brake-beam is moved forward, as and for the purpose set forth.

10 2. A device for adjusting brakes, consisting of a yoke adapted to partially inclose a brake-beam, a screw in said yoke having a swiveled head adapted to bear against the brake-beam, a swiveled head upon one arm of the yoke, 15 having openings through it, and clamping-jaws adapted to engage the brake-rod and having curved shanks which pass through the openings in the head upon the arm of the yoke, so that when the screw is turned in the 20 brake-rod is clamped firmly and the brake-beam moved forward.

3. A device for adjusting brakes, consisting of a yoke, a screw in said yoke adapted to

bear on the brake-beam, a head on one arm of the yoke, having openings 15 through it, 25 and clamping-jaws suitably curved to engage the brake-rod and having serrated engaging-surfaces and curved shanks which extend through the openings in the head.

4. A device for adjusting brakes, consisting 30 of a yoke, said yoke consisting of arms 11 and 12 and an end piece 13, said arm 11 having a depression 24 and said arm 12 having a hook 23, a link engaging said depression and hook for the purposes set forth, a screw in said 35 piece adapted to bear against a brake-beam, a swiveled head on arm 11, having openings 15 through it, and clamping-jaws adapted to engage a brake-rod and having curved shanks passing through the openings in said head. 40

In testimony whereof I affix my signature in presence of two witnesses.

ANDREW RAUH.

Witnesses:

A. M. WOOSTER,
CLARA J. TUTTLE.