Sept. 21, 1926. 1,600,672

C. S. JANOWSKI

BRAKE

Filed May 3, 1926

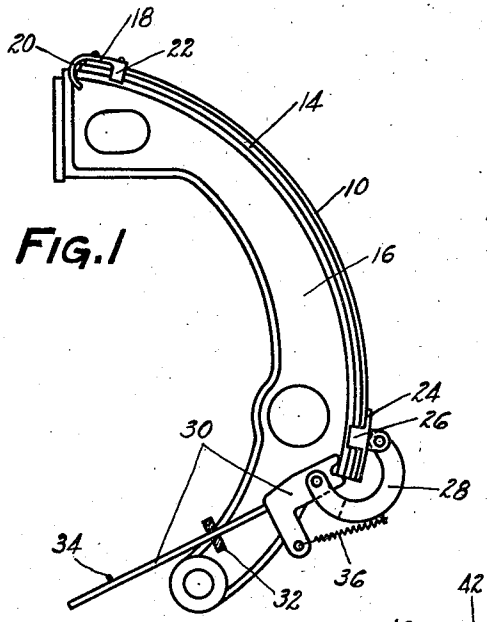


FIG. 1

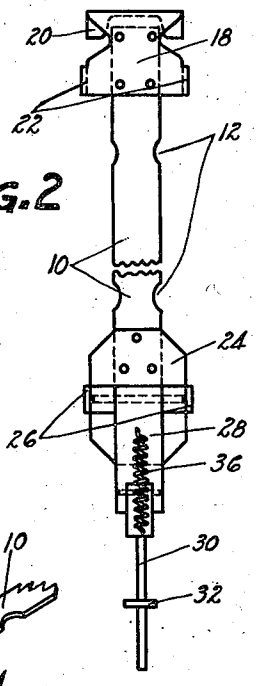


FIG. 2

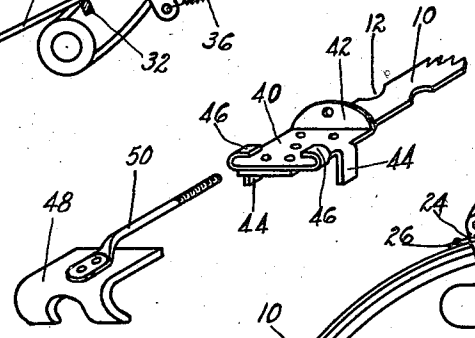


FIG. 5

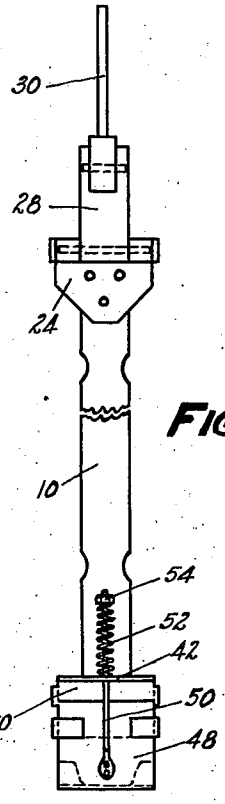


FIG. 4

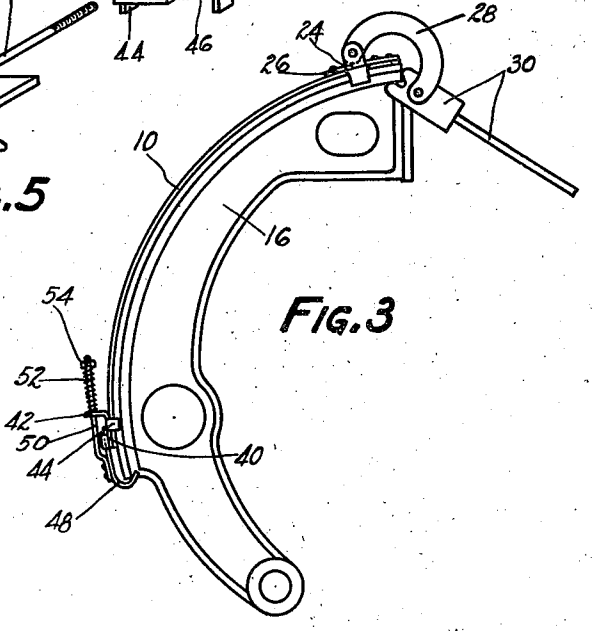


FIG. 3

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UNITED STATES PATENT OFFICE.

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BRAKE.

Application filed May 3, 1926. Serial No. 106,209.

This invention relates to securing brake lining to shoes of the type used in automobile brakes, and is illustrated as embodied in a clamp having a flexible strap holding the lining and devices at the end of the strap which engage the shoe and hold the lining clamped against the shoe, preferably under a spring tension.

In one desirable arrangement, the clamp includes a flexible strap having a device such as a hook at one end which engages the end of the shoe, while at the other end of the strap means is provided for tensioning and clamping the strap to hold the lining while it is being riveted or otherwise permanently secured. The tensioning and clamping means preferably includes a part such as an approximately semi-circular link pivoted to the end of the strap curved about the end of the brake shoe to support a toggle clamp lever engaging the shoe. It is very desirable that the shoe-engaging device at one end or the other of the clamp should include a spring, so that the lining is clamped under yielding tension.

The above and other objects and features of the invention, including various desirable particular constructions of the different parts of the clamp, will be apparent from the following description of two illustrative embodiments of the invention shown in the accompanying drawings, in which:—

Figure 1 is a side elevation of the brake shoe with the lining temporarily clamped in place by a novel lining clamp;

Figure 2 is a plan view of the clamp shown in side elevation in Figure 1;

Figure 3 is a view corresponding to Figure 1 but showing in side elevation a modified form of clamp;

Figure 4 is a plan view of the clamp shown in side elevation in Figure 3; and

Figure 5 is a perspective showing one end of the clamp of Figures 3 and 4 with two of the parts disconnected to show the manner of assembly.

The clamp shown in Figures 1 and 2 includes a flexible metal strap 10, which may if desired be notched out as at 12 opposite the positions of the rivets for the brake lining, and which holds the lining 14 temporarily clamped against the brake shoe 16 while it is being riveted or otherwise permanently secured to the shoe. At one end of the flexible strap 10 is riveted or otherwise secured a shoe-engaging part shown as a stamping 18 formed with a hook 20 embracing the end of the shoe and with parts 22 straddling and embracing the sides of the lining and shoe.

At the other end of the strap 10 is riveted or otherwise secured a member such as a stamping 24 shown with parts 26 straddling and embracing the sides of the lining and shoe. The tensioning and clamping means in this form of the clamp includes an approximately semi-circular link 28 pivotally connected at one end to the part 24 and having pivoted to its other end a toggle clamp lever 30. When the clamp is arranged with the strap 10 holding the lining against the shoe the toggle lever 30 is swung upwardly in Figure 1 to the position shown in that figure, thus tensioning the strap 10 and holding the lining in place.

Suitable means is provided for holding the lever 30 in this position, as, for example, a collar 32 slidable on the lever to the position shown in Figure 1, where it engages the end of the shoe to prevent reverse movement of the lever. A suitable stop 34 is provided on lever 30 to determine the idle position of the collar 32. A spring 36 may, if desired, be tensioned between the link 28 and an arm projecting from the lever 30 to hold the collar 32 yieldingly against the end of the brake shoe 16 when in the position shown in Figure 1.

In the modification shown in Figures 3, 4, and 5, the strap 10 holds the lining 14 as before, and a member 24 carries the approximately semi-circular link 28 with the toggle clamp lever 30. In this case, however, the lever is arranged to be moved to or slightly beyond a dead center position with respect to its pivotal connection with member 24 so that no collar 32 or equivalent holding device is required, as the lever will hold itself until moved back past its dead center position. This gives an extremely powerful toggle connection as between the lever 30 and the strap 10.

The holding device at the other end of the clamp in this embodiment is modified to include a spring holding the parts under yielding tension. A stamping or the like 40 is secured in any suitable manner to the end of the strap 10, the stamping being formed

with a perforated upturned flange 42 with downwardly projecting parts 44 which straddle and hold the sides of the lining and shoe, and with in-turned hook-shaped fingers 46 which form a slide for a separate hook part 48 arranged to embrace the end of the shoe. The hook 48 carries a stem 50 which projects through the perforated flange 42 when the parts are assembled and on which is sleeved a coil spring 52 compressed and confined between the flange 42 and a nut 54 threaded on the end of the stem 50.

While two illustrative embodiments of the invention have been described in detail, it is not my intention to limit its scope to those particular embodiments or otherwise than by the terms of the appended claims.

I claim:

1. A clamp for temporarily securing lining to a brake shoe including a flexible strap having a shoe-engaging securing device at one end, in combination with a tensioning and clamping device pivotally secured to the other end and including a part arranged to fulcrum on the shoe.

2. A clamp for temporarily securing lining to a brake shoe including a flexible strap having a hook at one end, in combination with tensioning and clamping means at the other end comprising a link pivotally connected to the end of the strap and curved about the end of the shoe, and a clamp lever pivoted to the end of the link and arranged to fulcrum on the shoe.

3. A clamp for temporarily securing lining to a brake shoe including a flexible strap having a securing device at each end, one of these securing devices comprising a hook engaging the shoe, and the other securing device comprising a toggle clamp lever pivotally linked to the end of the strap, and one of the securing devices including a spring compressed by the clamping of the lining and holding the lining yieldingly clamped.

4. A clamp for temporarily securing lining to a brake shoe including a flexible strap having a shoe-engaging hook yieldingly mounted at one end and a toggle clamp lever linked to the other end.

5. A clamp for temporarily securing lining to a brake shoe including a flexible strap, a device at each end of the strap having parts at its sides arranged to embrace the sides of the lining and a shoe, and one of which devices has a hook arranged to embrace one end of the shoe, together with an approximately semi-circular link pivoted on the other device and passing around the other end of the shoe, and a toggle clamp lever pivoted on the end of the link.

In testimony whereof, I have hereunto signed my name.

CHARLES S. JANOWSKI.