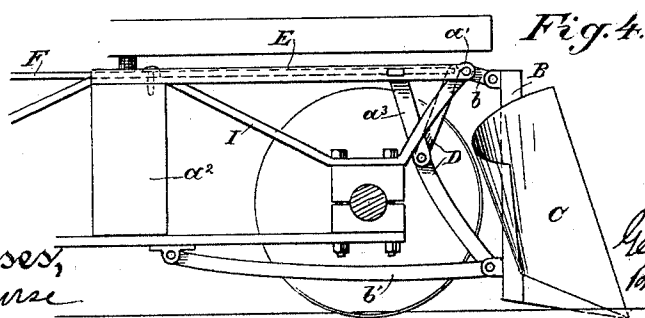
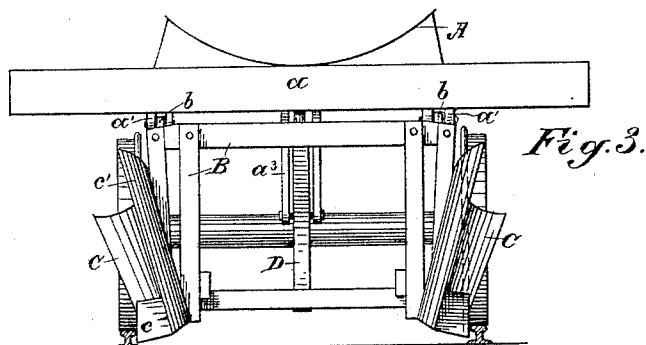
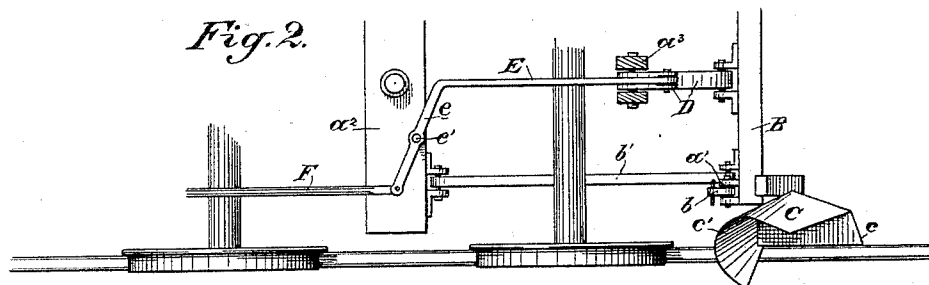
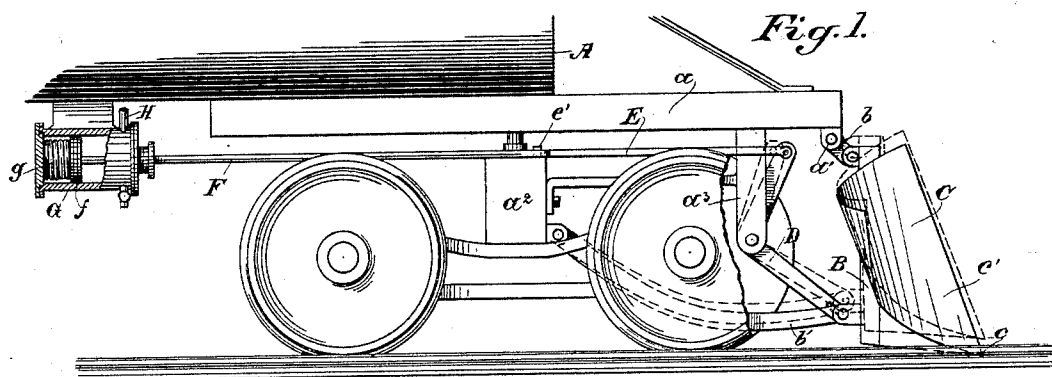


(No Model.)

G. H. JOHNSON.
RAILROAD SNOW FLANGER.

No. 497,753.

Patented May 16, 1893.



Witnesses,
J. F. Aschbeck

Inventor,
George H. Johnson
By
Dewey & Co.
Attys.

UNITED STATES PATENT OFFICE.

GEORGE H. JOHNSON, OF SISSON, CALIFORNIA.

RAILROAD SNOW-FLANGER.

SPECIFICATION forming part of Letters Patent No. 497,753, dated May 16, 1893.

Application filed April 20, 1892. Serial No. 429,960½. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. JOHNSON, a citizen of the United States, residing at Sisson, Siskiyou county, State of California, have
5 invented an Improvement in Track-Clearers; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of track clearers sometimes known as "snow flangers,"
10 in which suitably shaped shovels or plows are mounted at the front of the locomotive and are adapted to travel along the inner side of the head of the rail, to clear away the snow and permit the passage of the wheel flange.

15 My invention consists in the novel construction of and means for adjustably mounting the supporting frame of the shovels or plows, and the means for operating said frame whereby its shovels or plows can be lowered
20 to proper position for operation, and raised therefrom, as I shall hereinafter fully describe and specifically point out in the claims.

The object of my invention is to provide an adjustable track clearer or snow flanger
25 in front of the locomotive which can be readily fixed in position and raised therefrom when required.

Referring to the accompanying drawings for a more complete explanation of my invention,—Figure 1 is a side view of my track
30 clearer. Fig. 2 is a plan of one side thereof and of its operating connections. Fig. 3 is a front view. Fig. 4 is a side view showing a modification in the place of its connection.

35 A represents the front of a locomotive having a forwardly extending platform *a*.

B is a frame of suitably strong construction, and having secured to each side of it the shovels, plows or flangers C. These are in
40 proper shape for the work, consisting generally of a point *c* and a mold-board *c'*. The top of the frame B is connected by short links *b* with bearings *a'* under the platform *a* of the locomotive, the connection being a
45 pivotal one as shown. The bottom of the frame B is pivotally connected by longer links *b'* with a cross-beam *a²* under the locomotive.

Pivoted to the center of the lower beam of the frame B is a bell crank lever D which is
50 pivoted at its angle to a depending hanger *a³* under the locomotive platform. With the

upper end of lever D is connected a lever rod E, the rear end *e* of which is bent sidewise, and is pivoted at *e'*. With the bent end of this lever rod E is connected a rod F which
55 extends backwardly to and is connected with the piston *f* working in a cylinder G mounted in convenient position under the locomotive, and having within it a spring *g* operating be-
60 hind the piston. With the forward end of the cylinder communicates a pipe H by which steam or compressed air may be introduced from the locomotive.

The operation of the device is as follows: 65
The points of the shovels or plows travel along the inner side of the head of the rail and to a depth about equal to or a little greater than that of the wheel flange. Their position is regulated by the swinging move-
70 ment of the frame B which carries them, whereby they may not only be set to the required depth but can be raised entirely out of the way when necessary. The normal position is an elevated one in which they are
75 entirely out of operation. This is due to the spring *g* forcing the piston *f* forwardly, which, through its rod F, draws the lever rod E backwardly, and this rod, through the bell crank lever D, raises the lower end of the frame B, 80
said frame turning about its pivoted link connections *b* and *b'* and lifting the points of its shovels or plows above the rails. When it is desired to throw them down for action, steam or compressed air is forced in through pipe
85 H, thereby forcing piston *f* backwardly, and by reversing the movements of the parts heretofore described, throws the frame B downwardly so that the points of the shovels or plows are brought down to position and are
90 held there by whatever pressure may be necessary.

I do not confine myself to supporting the shovel or plow frame B from the front platform of the locomotive, as in some cases it
95 may be supported from the front truck thereof. This I have shown in Fig. 4, in which I represents the truck frame, and the device and its connections are similar and similarly lettered to the other figures. 100

The track clearer is intended to be used in front of a snow plow, as well as of a locomotive or other car.

Having thus described my invention, what

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

1. A track clearer consisting of a frame having on each side a shovel or plow the points of which are adapted to travel beside the inner surface of the rail head, the short links *b* and long links *b'* pivotally connecting the top and bottom of said frame with the locomotive, the bell crank lever connected with the bottom of said frame, and means for operating said lever, substantially as herein described.

2. A track clearer consisting of a frame having on each side a shovel or plow, the short links *b* and long links *b'* pivotally connecting the top and bottom of said frame with the locomotive, the bell crank lever connected with the bottom of said frame, and means for operating said lever, substantially as herein described.

3. A track clearer consisting of a frame having on each side a shovel or plow, the short links *b* and long links *b'* pivotally connecting the top and bottom of said frame with the locomotive, the bell crank lever con-

nected with the bottom of said frame, and means for operating said lever, consisting of a cylinder to which steam is admitted, a reciprocating piston therein and connections between said piston and bell crank lever, substantially as herein described.

4. A track clearer consisting of a frame having on each side a shovel or plow, the short links *b* and long links *b'* pivotally connecting the top and bottom of said frame with the locomotive, the bell crank lever connected with the bottom of said frame, and the means for operating said lever, consisting of a cylinder to which steam is admitted a reciprocating piston therein and spring behind said piston and connections between said piston and bell crank lever, the rod of said piston and the pivoted lever rod *E* connected with said piston rod and with the bell crank lever, substantially as herein described.

GEORGE H. JOHNSON.

Witnesses:

FRANK L. MONTGOMERY,
R. E. MONTGOMERY.