(No Model.)

W. B. WOOD.

SAFETY BRIDGE FOR LOCOMOTIVES.

No. 262,548. Patented Aug. 8, 1882.

Fig. 1.

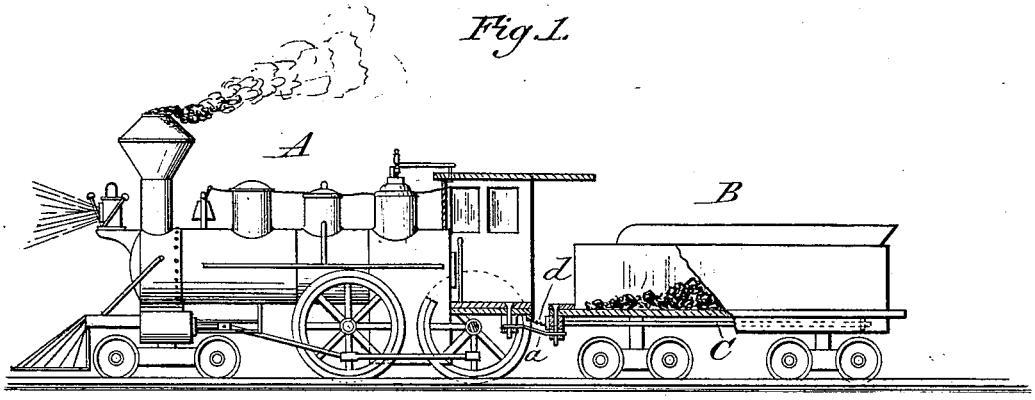

Fig. 2.

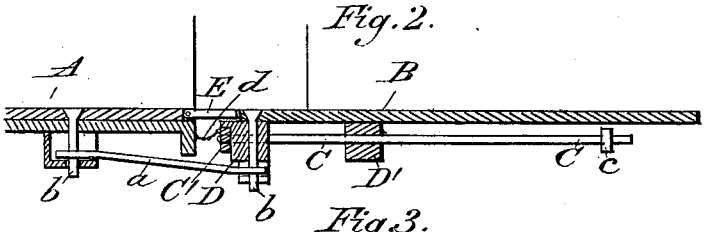

Fig. 3.

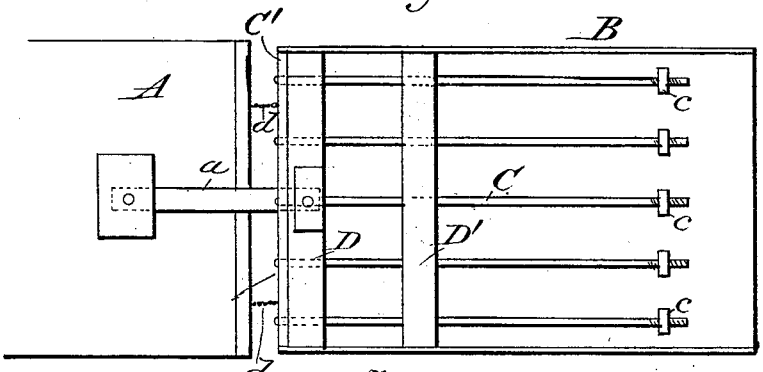

Fig. 4.

Witnesses:
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UNITED STATES PATENT OFFICE.

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SAFETY-BRIDGE FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 262,548, dated August 8, 1882.

Application filed May 16, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. WOOD, a citizen of the United States, residing at Bowling Green, in the county of Warren and State of Kentucky, have invented certain new and useful Improvements in Safety-Bridges for Locomotive-Tenders; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to safety attachments to locomotive-tenders; and it consists of a sliding frame supported beneath the tender and connected with the rear end of the locomotive in such a manner as to be drawn out automatically by the traction of the locomotive upon the accidental breakage of the ordinary coupling, and so form a safety bridge or platform for the support of the fireman.

Heretofore when the coupling between the engine and its tender parted or broke the person or persons upon the locomotive or tender, especially the fireman, who is almost constantly passing from one to the other, would be thrown upon the track beneath the wheels of the moving train, and be thus exposed to death or serious injury. By the use of my invention this danger is entirely obviated, the safety-bridge or sliding frame arranged beneath the locomotive-tender being automatically extended in season to receive and support the fireman or other person who would otherwise have fallen beneath the cars.

The invention is fully illustrated in the annexed drawings, in which Figure 1 is a side elevation, partly in section, of a locomotive and its tender with my improved safety attachments. Fig. 2 is a longitudinal section of the same. Fig. 3 is a bottom plan view of Fig. 2, and Fig. 4 is a view representing the locomotive and tender uncoupled or attached only by slight chains, the safety bridge or platform being drawn out in position to catch the falling fireman.

Like letters of reference are used to designate the same parts in the several views.

The letter A indicates a locomotive, while B is a tender coupled thereto by means of the usual link, *a*, and pins *b b*, or any other suitable coupling.

Beneath the tender is arranged a sliding safety bridge or platform, C, which is preferably composed of parallel metal rods disposed at suitable intervals and in the longitudinal direction of the car or tender. These rods, which may be of any suitable length, are supported loosely in openings made in the cross-beams D D′, and are connected at their forward ends by means of a transverse bar, C′, which rests normally in a groove or recess formed in the front face of the forward transverse beam, D. At their rear ends the rods composing the frame or bridge may be threaded for the attachment of stop-nuts *c c;* or they may be connected by a transverse bar similar to that by which they are connected at their forward ends. When the nuts are used they may, if desired, be attached only to the rear ends of the outside rods. An ordinary footboard, E, may be attached to the rear end of the locomotive, if desired, so as to cover the space between it and the tender, as shown in Fig. 2.

The forward end of the bridge C is connected to the rear end of the locomotive by means of chains *d d*, which may be of such slight construction as to break readily after the bridge has been drawn out.

It will be seen that if the coupling between the locomotive and tender should break or become detached while the train is in motion the connection of the locomotive with the bridge C by means of the chains *d d* will suffice to draw the bridge or platform out from beneath the tender, as shown in Fig. 4, until the stops on the rear ends of the rods composing the bridge come in contact with the transverse bar D′, and thus prevent any further movement of the bridge or platform. By this means the space between the engine and tender is bridged over, and should the fireman be thrown off he will fall upon the bridge, and thus be saved from injury. When the bridge is drawn out to its full extent the chains *d d*, being the weakest point, will break unless the engine is soon stopped. The rods composing the sliding bridge or platform may all be arranged on the same horizontal plane; or the outer ones

may be slightly higher than those at and toward the center, thus forming a concave.

This safety-bridge is intended especially for attachment to a locomotive-tender for the purpose above explained; but it is obvious that it may also be attached to other railway-cars, if desired.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a locomotive-tender, of a sliding safety-bridge supported in suitable bearings beneath said tender, and connected at its forward end to the locomotive, whereby it is capable of being automatically extended or drawn out from beneath the tender upon the uncoupling of the locomotive while in motion, substantially as described.

2. The combination, with the locomotive A and tender B, having transverse beams D D′, of a sliding bridge, C, composed of parallel rods supported by said beams, said bridge having suitable connections and stops, and being attached to the locomotive by means of chains *d d*, whereby the bridge is automatically extended upon the accidental uncoupling of the locomotive while in motion, substantially as described.

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

WILLIAM BASIL WOOD.

Witnesses:
JOHN MILTON BROWN,
JNO. A. STOCKMAN.