

(No Model.)

E. W. M. HUGHES.
RUNNING BOARD FOR LOCOMOTIVES.

No. 418,287.

Patented Dec. 31, 1889.

Fig. 1.

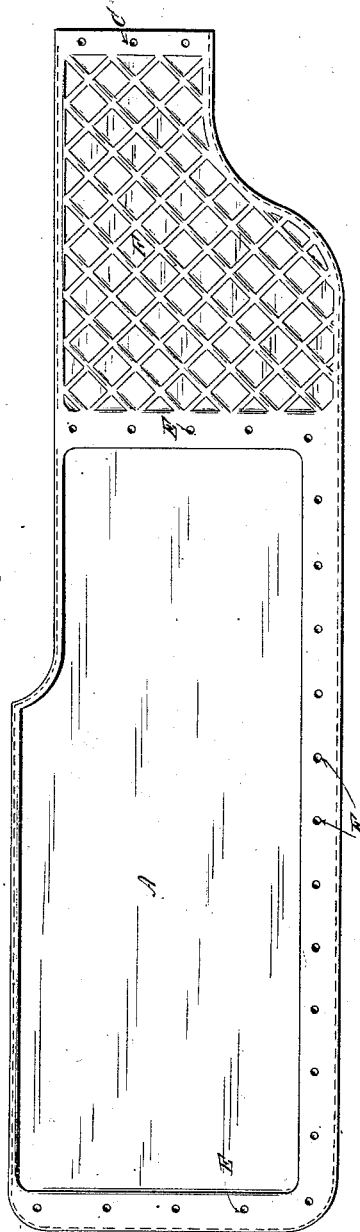


Fig. 2.

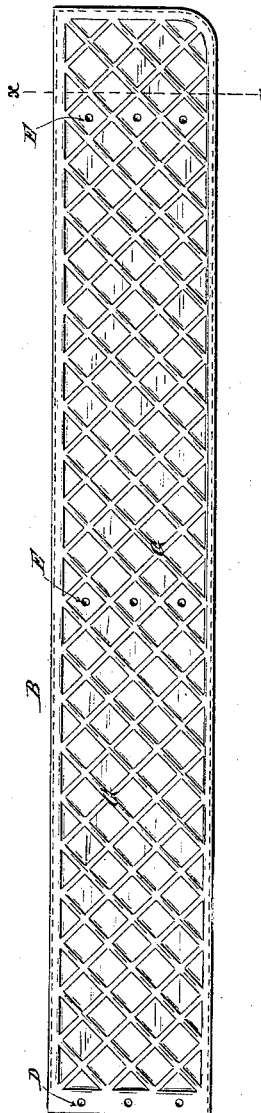
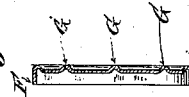


Fig. 3.



Witnesses:
W. Gardner
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Inventor:
Edward William Mackenzie Hughes
By his Attorney,
E. N. Drinker.

UNITED STATES PATENT OFFICE.

EDWARD WILLIAM MACKENZIE HUGHES, OF CHICAGO, ILLINOIS, ASSIGNOR
TO THE FOX SOLID PRESSED STEEL COMPANY, OF SAME PLACE.

RUNNING-BOARD FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 418,287, dated December 31, 1889.

Application filed July 3, 1889. Serial No. 316,440. (No model.)

To all whom it may concern:

Be it known that I, EDWARD WILLIAM MACKENZIE HUGHES, of Chicago, Cook county, Illinois, have invented a new and useful Improvement in Running-Boards for Locomotive-Engines, of which the following is a full, true, and exact description, reference being had to the accompanying drawings.

This invention relates to an improvement in running-boards for locomotive-engines, by which the same are made of pressed steel, having transverse ridges or corrugations for the purpose of insuring a firmer foothold.

My invention will be readily understood from the accompanying drawings, in which—

Figure 1 represents a plan of the front end of the running-board; Fig. 2, a plan of the rear end of the same, and Fig. 3 a section through Fig. 2 on the line *x x*.

As shown, the running-board is arranged in two portions A and B, which are joined together in position by bolts at C and D, as indicated. In position the running-board is likewise fastened to suitable supports by bolt-holes E. It is obvious that these two portions can be pressed in one piece if a sufficiently large press is available; but for convenience I prefer to make them as shown. The part A has a flat part, as indicated, and a corrugated portion, and the part B is corrugated, by preference, throughout its entire extent by corrugations G, as shown. These

parts are likewise suitably flanged, as at F, thereby securing increased strength and rigidity. Additional strength and rigidity are also secured by forming an upwardly-projecting ridge or bead around the board and then bending the flange down below the lower portion of the board, which thus causes the outer edge of the board to be doubled upon itself, as it were, in forming the ridge and flange, as shown in Fig. 3.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The pressed-steel running-board for locomotives, consisting of one or more pieces, one end of which A has a plain flat surface, and the other end B is provided with corrugations G, pressed therein in the process of manufacture, substantially as described.

2. The pressed-steel running-board for locomotives, one portion of which is provided with corrugations G upon its surface, and the combined ridges F, all pressed therein in the process of manufacture, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD WILLIAM MACKENZIE HUGHES.

Witnesses:

H. COUTANT,
ANTHONY GREF.