

(No Model.)

T. W. STAPLETON.
SAND GUARD FOR RAILWAYS.

No. 285,700.

Patented Sept. 25, 1883.

fig 1

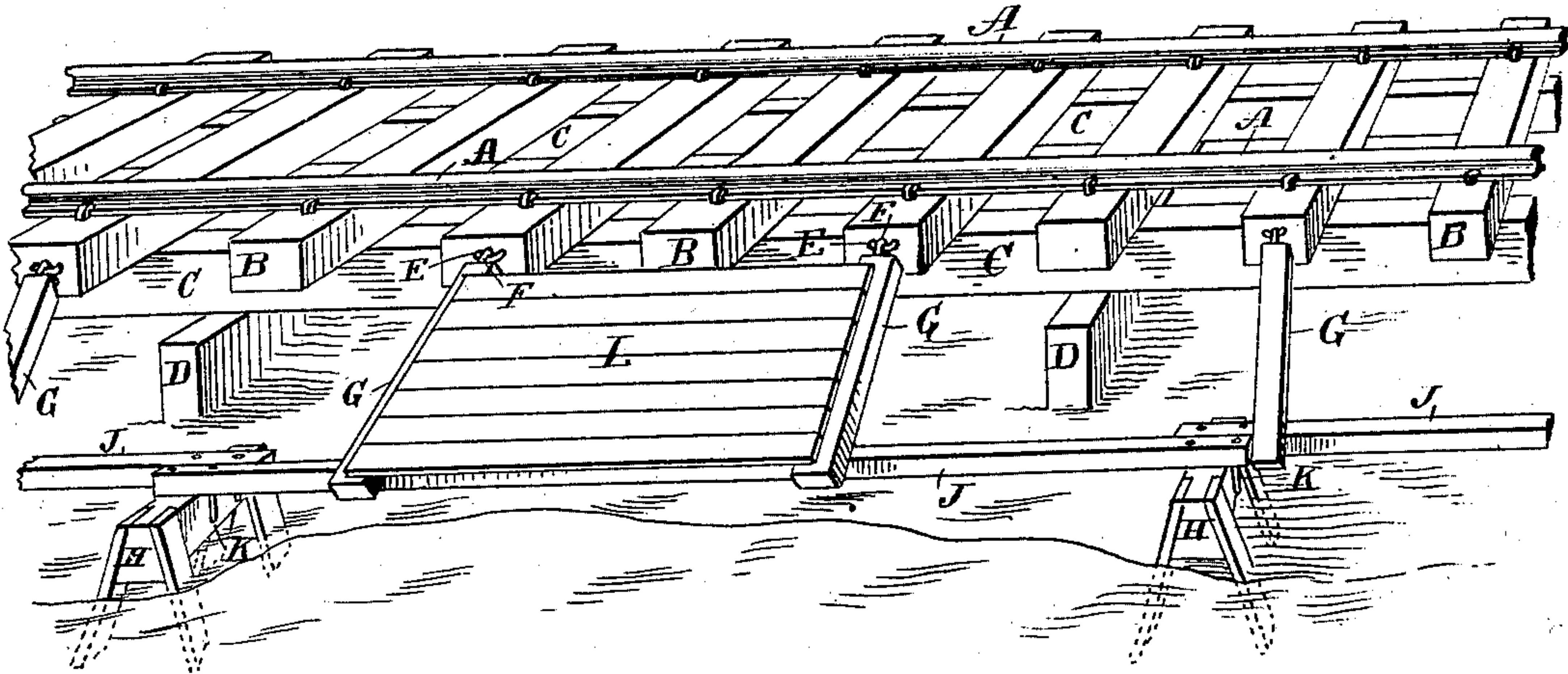


fig 2

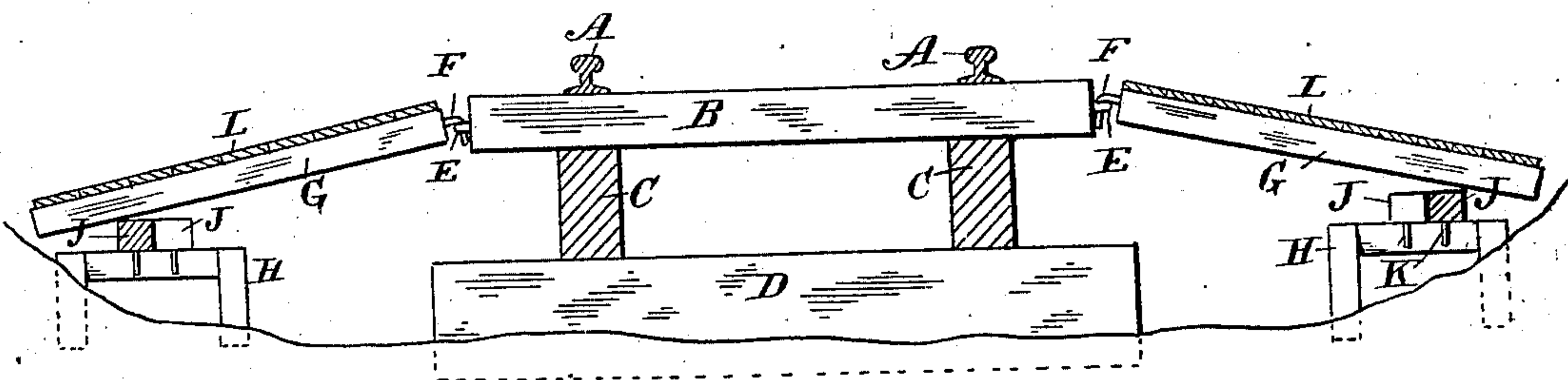
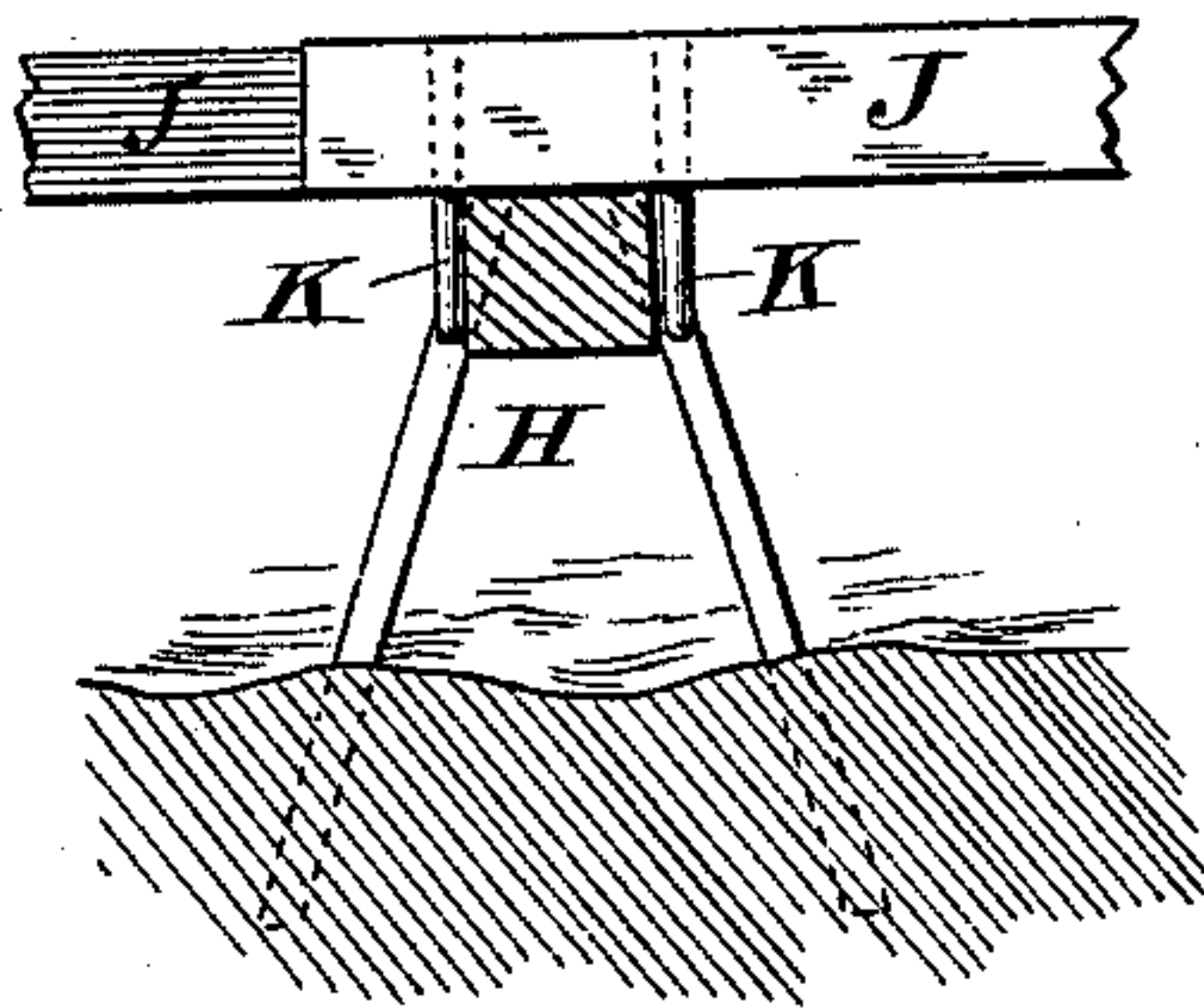


fig 3



WITNESSES:

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INVENTOR:

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BY

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UNITED STATES PATENT OFFICE.

TIMOTHY W. STAPLETON, OF PORTLAND, ASSIGNOR TO JOHN G. McBRIDE,
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SAND-GUARD FOR RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 285,700, dated September 25, 1883.

Application filed May 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, TIMOTHY W. STAPLETON, of Portland, in the county of Multnomah and State of Oregon, have invented a new and
5 useful Improvement in Sand-Guards for Railways, of which the following is a full, clear, and exact description.

The object of my invention is to provide new and improved devices for preventing sand-
10 drifts or sand which is carried along by the wind from accumulating on the tracks.

The invention consists in a series of boards pivoted at the sides of the track and supporting other boards under which the wind passes
15 and sweeps over the track, carrying the sand along in its course, and thus clearing the track.

The invention also consists in rails for supporting the ends of the said boards, and in
20 horses for supporting the ends of the said rails.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a railway provided with my improved sand-guards. Fig.
25 2 is a cross-sectional elevation of the same. Fig. 3 is a cross-sectional elevation of one of the horses, showing the ends of the longitudinal side boards for supporting the sand-boards.

30 The rails A are spiked to ties B, which are placed at the usual distance apart and rest on longitudinal beams or stringers C, which in turn rest on the sleepers D, which are embedded in the ground more or less, as the case
35 may be. The ground in which the said sleepers are embedded must consist of gravel, or some other earth that cannot be blown off by the wind. Some of the ties are provided at the
40 ends with eyelets or loops E, adapted to receive hooks F on the ends of boards G, the free ends of which bars rest on longitudinal rails J, placed at the side of the track and parallel with the same. The said rails J rest on horses
45 H, placed at right angles to the tracks, and the rails J are provided at the ends with downwardly-projecting pins K, one of which rests on each side of the top piece of a horse for holding the rail in place on the horse. The
50 boards L are placed on the boards G, as shown. The boards G can be hinged to the ties, or can be fastened to the same in any suitable man-

ner. If desired, the free ends of the boards G can rest on the earth in place of being rested on rails J, supported by the horses.

In sand-storms the sand accumulates on each
55 side of the track in ridges from four to ten feet high. It then encroaches on the track, and finally stops travel. The horses H are then placed on the top of the ridges, and are pressed
60 down in the same until they have a firm bearing, the rails J are placed on the horses, the free ends of the boards G are placed on the rails J, and then the boards L are placed on the other boards G in such a manner that their
65 outer edges will be a certain distance above the sand. The boards L must be so arranged that the opening between the sand and the outer edges of the boards will be toward the
70 direction from which the sand blows. The wind passes in under the boards L and is conducted to the other side of the track, and in its passage carries along the sand. Thereby the
75 height of the ridges at the sides of the track are gradually reduced, and gradually the ridges are removed altogether. The tracks can thus
be kept clean at a very low cost, and much delay, which is very frequently caused by sand-
storms, can be avoided.

The boards L need not cover all the space
80 between the track and where the horses rest—say about half-way—ending at where the horses are, or far enough to direct the current of wind so that it will carry along the sand in its course, and in some instances it will be found that
85 the boards G will be sufficient to keep the track clear, as the wind striking against their sides will so direct the current of wind as to have the desired effect. This applies to
90 such places on the railroad as are not badly blocked with sand; but where large ridges of sand have already accumulated on one or both
sides of the railroad-track it will be found
advisable to use the cross-boards L in connection with the boards G. These boards may
95 be of any width desired—say from twelve to eighteen inches. The wider they are the more effectual will they be for directing the course of the wind.

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

1. The combination, with a railway-track,

of sand-boards attached to the sides of the same, substantially as herein shown and described, and for the purpose set forth.

2. The combination, with the rails A and
5 ties B, of the boards G and the boards L, substantially as herein shown and described, and for the purpose set forth.

3. The combination, with the rails A and
ties B, of the boards G and the boards L, the
10 rails J, and the horses H, substantially as
herein shown and described, and for the purpose set forth.

4. The combination, with the rails A and
the ties B, of the boards G and the boards L,
the rails J, the pins K, and the horses H, sub- 15
stantially as herein shown and described, and
for the purpose set forth.

TIMOTHY WM. STAPLETON.

Witnesses:

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C. B. BELLAY.