

(No Model.)

G. F. HUNTINGTON.
SAND BOX FOR STREET CARS.

No. 260,572.

Patented July 4, 1882.

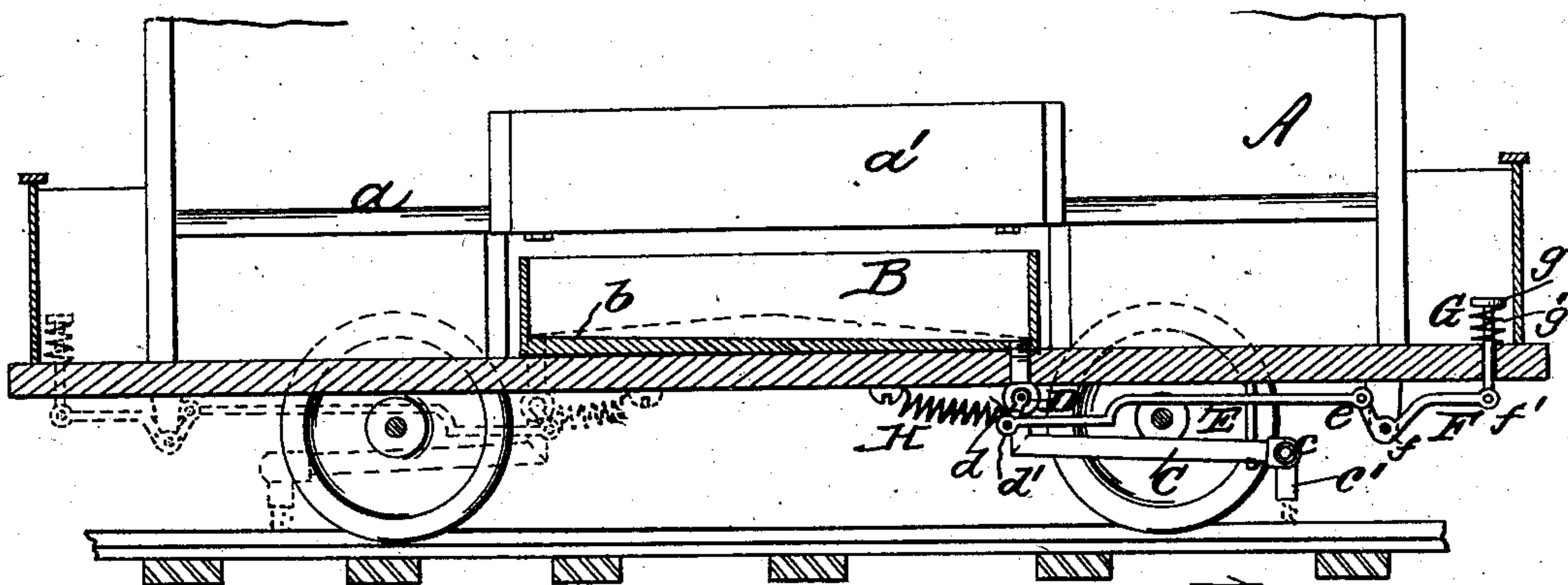


Fig. 1

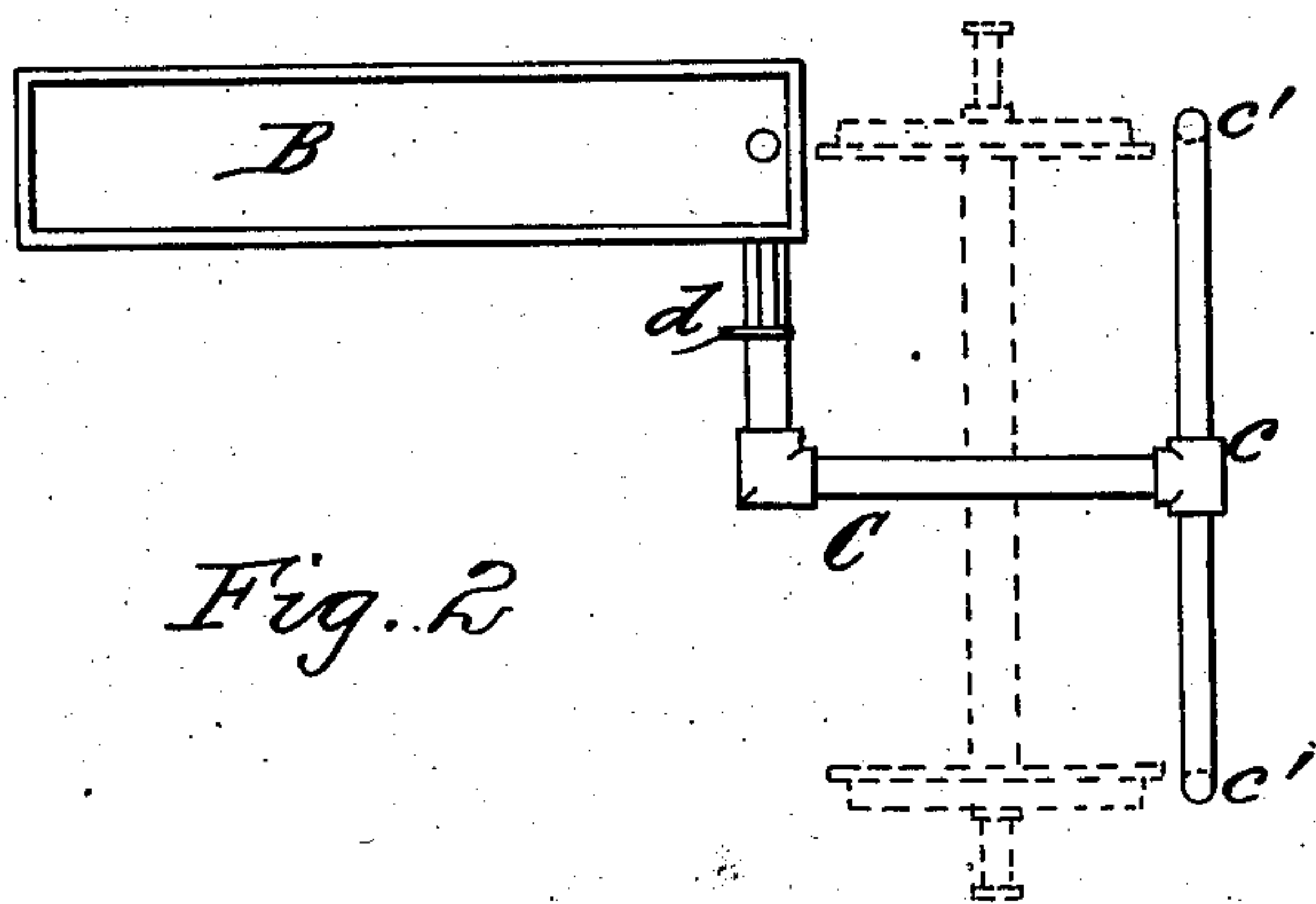


Fig. 2

WITNESSES:

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GEORGE F. HUNTINGTON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR
OF ONE-HALF TO GEORGE G. LENNIG, OF SAME PLACE.

SAND-BOX FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 260,572, dated July 4, 1882.

Application filed February 27, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. HUNTINGTON, a citizen of the United States, and a resident of the city and county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Sand-Boxes for Street-Cars, of which the following is a specification, reference being had to the accompanying drawings, wherein—

Figure 1 is a vertical longitudinal section of the lower portion of a street-car, with my improvements shown as applied thereto, and Fig. 2 is a plan of said improvements.

My invention has for its object to provide an improved sand-box for street-cars; and it consists in the novel construction, combination, and arrangement of parts hereinafter specifically described and claimed.

Referring to the accompanying drawings, A represents a portion or broken section of a street-car, and B a box located beneath seat *a*. The latter is provided with a door in its side, as shown at *a'*, or the seat *a* may be hinged to its frame-work, so that said door or seat may be opened or raised to obtain access to box B. From the latter leads a pipe or tube, C, bifurcated at *c* to form branches *c' c'*, which terminate in front of and align with the forward wheels of the car, as shown in Fig. 2. Said pipe is provided with a valve or cut-off, D, having an operating handle or lever, *d*, which is loosely jointed at *d'* to a link, E, connected at *e* to a bell-crank lever, F, pivoted at *f* to the car-floor, as illustrated.

To the end *f'* of lever F is secured a treadle, G, which projects upwardly through the car-floor or front platform, as indicated, and is provided with a foot-rest, *g*, and retracting-spring *g'*. H is another retracting-spring, secured at one end to valve-lever *d* and at its other end to car-floor, as shown. The box B is formed with an inclined bottom, *b*, to direct the flow of sand therein toward the inlet-opening of pipe C.

The operation is as follows: A street-car provided with the foregoing-described apparatus traveling upon a wet track or up or down a steep grade has its wheels prevented from slipping on said track by the operation of sanding such track in front of the forward wheels

of said car. In moving over said track, if the wheels of the car begin to slip, the driver depresses treadle G to oscillate lever F, which in turn moves link E in the direction of arrow *x*, thereby partially rotating lever or handle *d* to open valve D, whereupon sand in box B passes through tube C into its branches *c' c'* and falls out thereof onto the track in front of the forward wheels of the car, so that when said wheels pass over such sand sufficient friction or traction is thereby produced to cause said wheels to revolve. When the car has traveled over such parts of the road the driver releases his foot from treadle G, whereupon the retracting-springs *g' H* operate to restore said parts to their normal position, thereby closing valve D and cutting off the flow of sand through pipe C.

In applying my invention to cars which make the round-trip without changing the horses from one platform to the other only one pipe C is employed, and the bottom *b* of box B is formed with a single incline, as shown in full lines of Fig. 1; but where a change of position of the horses is effected in order to make such trip, then two tubes C must be attached to box B, and the latter is provided with a double-inclined bottom. Such extra tube and bottom are represented by dotted lines in Fig. 1.

During the winter season, when the track becomes covered with ice or snow, salt may be placed in box B and caused to pass to the track, as above set forth. In this way such snow or ice may be melted and the track kept clear thereof throughout the entire length of the same.

I have shown and described but one box B; but two or more may be used, if desired, such boxes being secured to the car beneath the seats thereof, or in any other suitable location.

I am aware that sand-boxes have been applied to street-cars; but the construction and arrangement of the same differ from my invention. Therefore I disclaim such devices.

What I claim as my invention is—

1. In combination with a street-car having seat *a*, provided with door *a'*, the box B, having inclined bottom *b*, pipe C, bifurcated at *c* to form branches *c' c'*, and having valve D, the

treadle G, and mechanism interposed between said valve and treadle, substantially as shown and described.

2. In combination with a street-car having
5 seat *a*, provided with door *a'*, the box B having inclined bottom *b*, the pipe C, bifurcated at *c* to form branches *c' c'*, valve D, lever *d*, link E, bell-crank lever F, treadle G, and
10 springs *g' H*, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of February, A. D. 1882.

GEORGE F. HUNTINGTON.

Witnesses:

CHAS. F. VAN HORN,
EDWIN PARAMORE.