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BRACE FOR USE IN PACKING BOXES AND CRATES IN RAILWAY CARS.

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1,075,001. Patented Oct. 7, 1913.

Fig. 1.

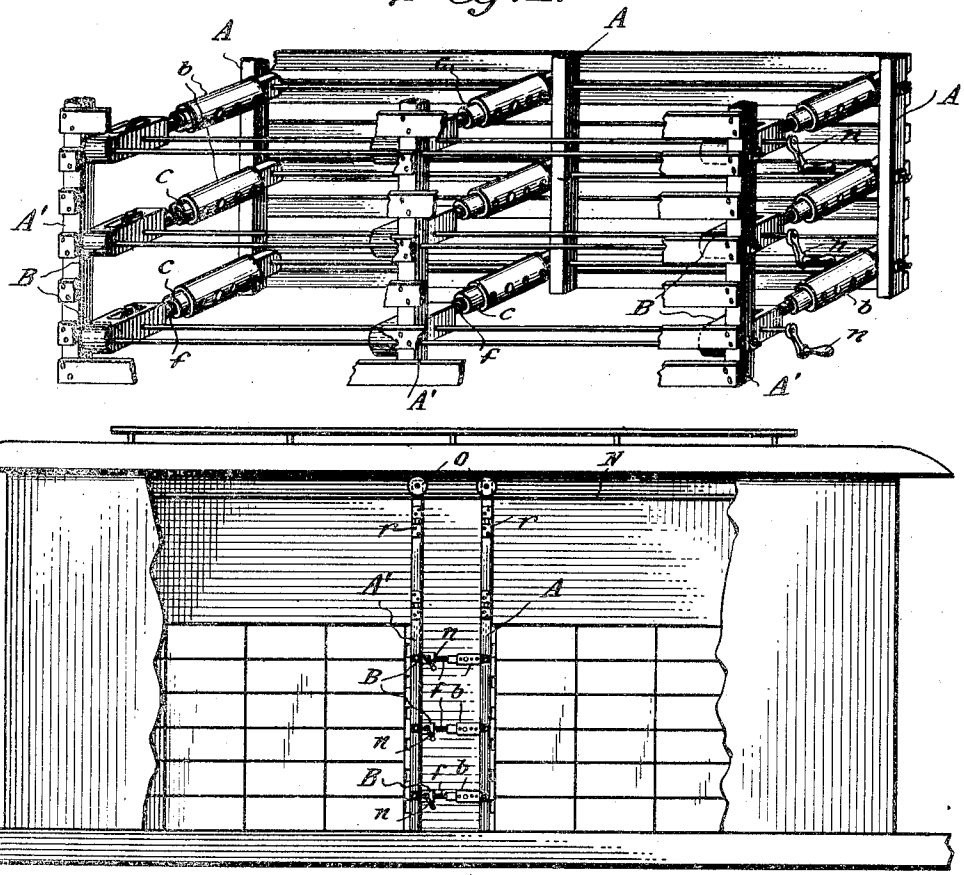


Fig. 2.

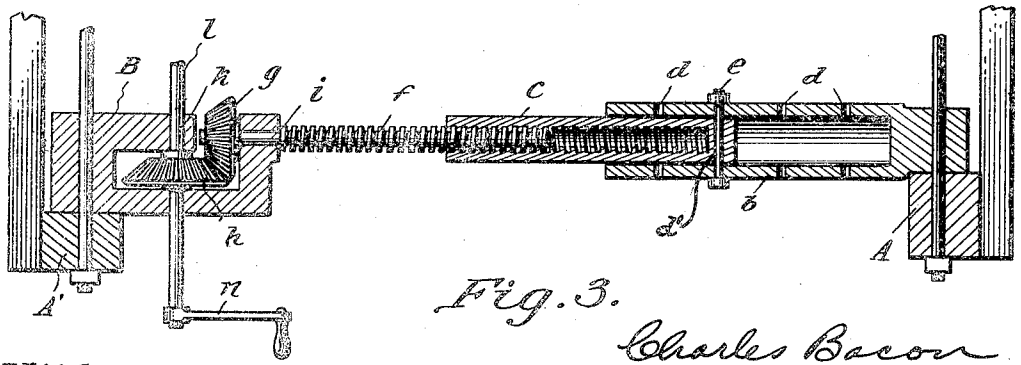


Fig. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

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BRACE FOR USE IN PACKING BOXES AND CRATES IN RAILWAY-CARS.

1,075,001. Specification of Letters Patent. Patented Oct. 7, 1913.

Application filed December 28, 1912. Serial No. 738,780.

To all whom it may concern:

Be it known that I, CHARLES BACON, a citizen of the United States, and a resident of the city of Fresno, county of Fresno, and State of California, have invented a new and useful Brace for Use in Packing Boxes and Crates in Railway-Cars, of which the following is a specification.

In packing boxes or crates in railway cars it is the usual practice to stack them in tiers from either end of the car toward the center thereof, leaving a narrow aisle in the center of the car and crosswise thereof between said stacks of boxes, and in this aisle braces are placed to keep said stacks of boxes rigid in transit.

My invention relates to an adjustable brace to be used in railway cars between such stacks of boxes which can be readily placed into position and readily removed.

In the drawing accompanying this specification Figure 1 shows a perspective view of the brace complete; Fig. 2 shows a side view of the brace when adjusted in a car, and Fig. 3 shows a view of one of the units composing the brace.

In said drawing N represents a track which is suspended inside the car, and parallel with the comb of the roof thereof and a short space below it. O is a carriage which runs on said track and from which is suspended the said brace hereinafter described. Said brace is connected with carriage O by means of a hinge *r*, the purpose being that when not in use said brace can be swung to the top of the car and pushed to either end thereof out of way.

A and A′ are upright pieces which are placed against the stacks of boxes.

b is a sleeve which is attached at one end to upright A.

c is an extension which slides in sleeve *b*.

d is a series of holes in sleeve *b* which are in line with a series of holes *d′* in extension *c*. The object of this construction is to permit the combination of sleeve *b* and extension *c* to be lengthened or shortened at will, and at the adjustment desired to be firmly fastened together by means of a pin *e* which passes through one of the holes *d* and the hole *d′* immediately opposite.

In the end of extension *c* I have cut a female thread into which screw *f* works. Screw *f* terminates at the end with a bevel cog pinion *g* which engages with a bevel cog wheel *h*. Screw *f* has a bearing between the end of the threaded portion and bevel cog pinion *g* which rests in a journal *i* in support B. Support B has also a journal *k* carrying a shaft *l*, on which said bevel cog wheel *h* is fastened. Said support B extends beyond the periphery of bevel cog wheel *h*, and at the end thereof is attached to upright A′. Shaft *l* terminates with crank *n*. This brace is suspended from carriage O as hereinbefore set forth, and when it is desired to use the same it is pulled to the center of the car and dropped between the tiers of boxes in the center of the car, with upright A against the pile of boxes on the one side of the car, and with upright A′ against the pile of boxes on the other side of the car, after which by turning crank *n* in one direction the distance between uprights A and A′ is lengthened and the boxes on either side are pressed firmly against the end of the car, while by reversing the motion of the crank the brace is loosened.

In my construction I prefer to construct my brace by having three of the units above described connected to a common shaft *l*, and the ends of each of said three units attached to an upright A′ at one end of said units, and attached to A at the other end thereof, which three units thus united I term herein a series, and to have three such series in a complete brace. Thus, a series of three will run parallel to each other, and when shaft *l* is turned the three units therein will lengthen or shorten uniformly and simultaneously. Each of said uprights A and A′ used in one of said series, is common to the three series used in said brace.

What I claim as my invention and upon what I desire Letters Patent are:

1. In a brace for clamping boxes in a car, the combination of a sleeve *b*, an adjustable extension *d* sliding therein, a screw in the end of said extension terminating with a bevel cog pinion which engages a bevel cog wheel, *h*, a shaft fastened to said bevel cog wheel having a crank at one end thereof, a support extending beyond the periphery of the bevel cog wheel and having bearings for said shaft and screw, all substantially as described.

2. In a brace for clamping boxes in a railway car, a plurality of screws working in tubes attached at one end to a base, each screw having a bearing working in a support B, a cog pinion attached to the end of said screw and engaging with a cog wheel *h*,

a common shaft connecting said cog wheels *h*, and passing through bearings in support B, all substantially as described.

3. The combination of a track running parallel to the comb of the roof of a railway car, a carriage running upon such track, a brace suspended from said carriage by means of a hinge, said brace consisting of two parallel frames running crosswise in such car, said frames being connected by a plurality of screws one end of which screws into a base attached to one side of such frame, the other end of which terminates with a cog wheel, and near said end rests in a bearing in a head attached to the other frame, and means for turning such cog wheel, all substantially as described.

CHARLES BACON.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."