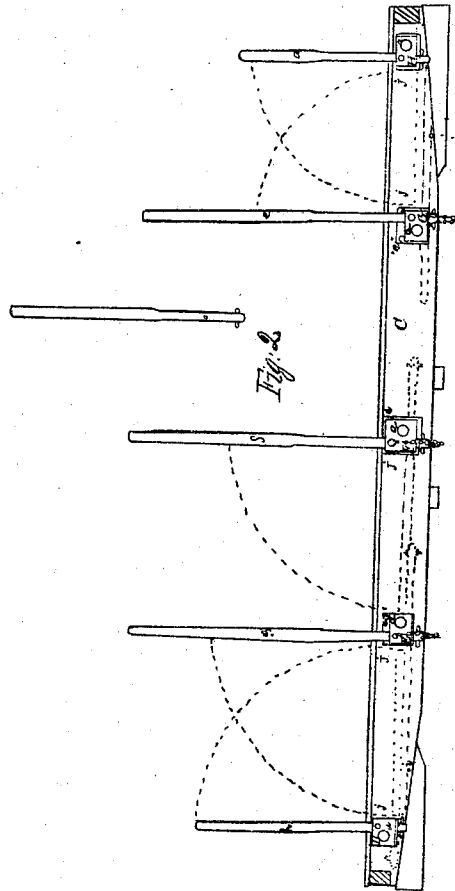
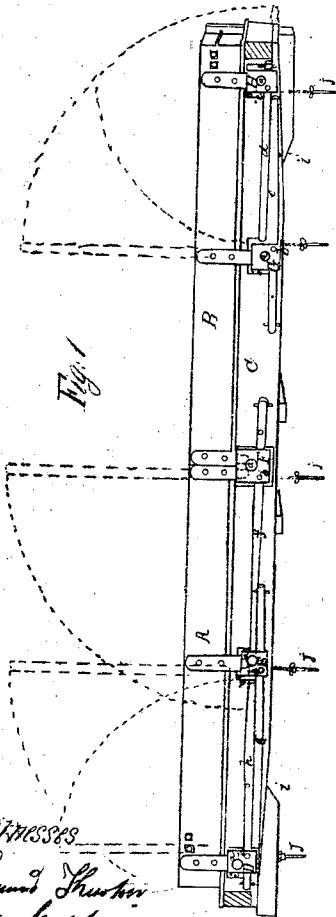
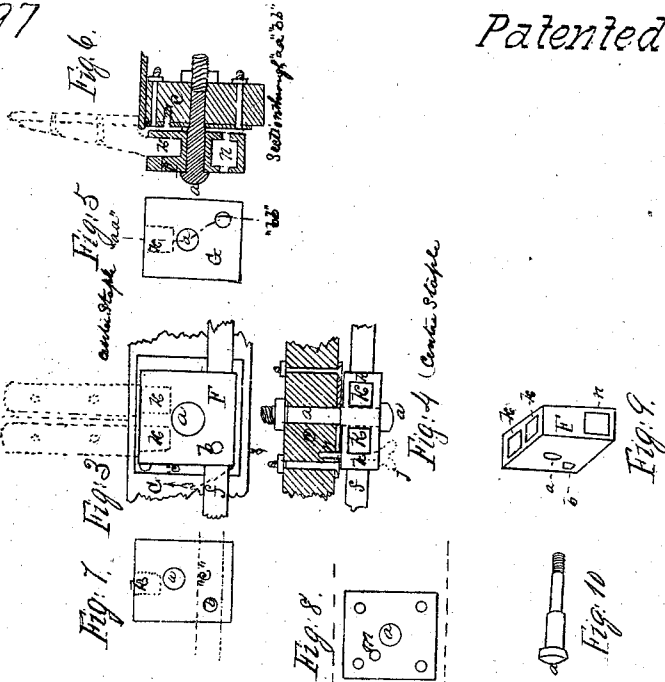


T. A. Slack.

Stake-Holder for Railroad-Cars.

N^o 72097

Patented Dec. 10, 1867.



Witnesses
Edmund Shuck
J. H. Lawrence

INVENTOR
Thomas A. Slack

United States Patent Office.

THOMAS A. SLACK, OF PEORIA COUNTY, ILLINOIS.

Letters Patent No. 72,097, dated December 10, 1867.

IMPROVED STAKE-HOLDER FOR RAILROAD-CARS.

The Schedule referred to in these Letters Patent and making part of the same.

Be it known that I, THOMAS A. SLACK, of the county of Peoria, and State of Illinois, have invented a new and useful Improvement in Railway-Cars, or a certain apparatus attached to flat cars to adapt them to different requirements, as either coal cars or staked cars; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view as a coal-car.

Figure 2, a longitudinal elevation as a staked car.

Figures 3, 4, 5, 6, and 7, diagrams of revolving staple.

Figure 8, staple-plate.

Figure 9, perspective view of revolving staple; and

Figure 10, staple-bolt.

My invention consists in uniting the ordinary flat car, coal-car, and staked car into one vehicle, which, by a simple arrangement of parts, is convertible into either kind of car in five minutes' time.

To the ordinary flat car I attach ten revolving staples, D E F G H, hereafter described, five staples on a side, at nearly equal distances, (fig. 1,) each having square sockets and mortises in the sides for the admission either of stanchions of "coal-sides," A B, or standards or stakes, *defgh*, say eight to ten feet long, and lying down alongside of car horizontally when not wanted, (fig. 2.) The revolving staples D E F G H, are of iron; say six inches or more square, by, say, about three inches thick, figs. (3, 4, 5, 6.) The staple revolves on a bolt, *a*, through its centre, which bolt passes through a plate, *c*, bolted to side of car. This bolt (fig. 10) has a shoulder at such a distance from its head as to allow free motion to the revolving staple, and should also have a washer next to staple. Each staple has a square socket, *k*, in its upper side (or side uppermost when required for coal or gravel) to admit stanchions of "coal-sides," A B, and is also perforated with square mortise, *n*, (fig. 9,) large enough to admit a good, stout stake, and just large enough to allow the stake to slide in it. There is also a bolt-hole, *b*, through staple, standard, or stake, through which a thumb-screw, *j*, passes into a thread, *m*, in staple-plate, *c*, when the standards or stakes are required to be elevated to convert car into a staked car, as indicated by the dotted lines in each diagram, (figs. 1 and 2.) When not in use, the staple-bolts *j* are inserted into threads or holes inside of car, or may hang by small chain from underneath the car *j j j j*. The stakes or standards have each a stop at their lower ends, either cross-pieces or rings of iron, to prevent their sliding entirely out of mortises. There are also stops or irons *i i* in side of car, on which to rest stakes marked *e* and *g*. The others will lie on these two stakes.

It will be seen by the drawing that the centre staple F has two sockets for "coal-sides" stanchions, and the others but one each; also, that the stake-bolts *j*, or, rather, the bolt-holes *b b b b b* are varied as to position in staple. This is merely for convenience of placing the stakes in the best positions when not in use; and which will be self-evident by reference to drawings. Staple-plate *c* is merely an iron plate, rather wider each way than the staples, and from one-half to three-quarters of an inch in thickness, and fastened to side of car by a bolt in each corner, bringing its surface flush with the eaves or ends of floor of car, designed to prevent wearing car by rotating of staple.

The "coal-sides" A B are made in two sections, with three stanchions on each side of each section; the middle revolving staple F receiving two stanchions, one of each section. They are made similar to ordinary "coal-sides." When not wanted, they are, of course, removable.

To operate this car, if wanted for coal, gravel, &c., place the "coal-sides" A B in position, inserting the stanchions in the sockets *k* of revolving staples D E F G H. If wanted for staked car, turn the staples so that the stakes *defgh* are brought upright, as by direction indicated by dotted lines, then raising them as high as they will go in the mortise; then insert the thumb-screws *j* in the holes *b b b b b*, thence through the corresponding holes in stakes, and into thread *m* in staple-plate, *c*, and the change is effected.

It is as well to observe that the loss of stakes annually, in the ordinary form of staked cars, (where they are all loose, and when not wanted are thrown aside, and are thus liable to theft and destruction,) is a considerable item in expenses of running railways. In this plan this loss is prevented. The stake is made smallest at the lower end, say for about one-third of its length, so that the stake will not fall out or be removed.

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

The combination of revolving staple, stakes, and divisional "coal-sides," as described and for the purpose set forth.

Done this 11th day of May, A. D. 1867.

THOMAS A. SLACK.

Witnesses:

EDMUND THURLOW,

J. W. COCHRAN.