(No Model.)

W. H. ADAMS.

CAR ATTACHER.

No. 496,215. Patented Apr. 25, 1893.

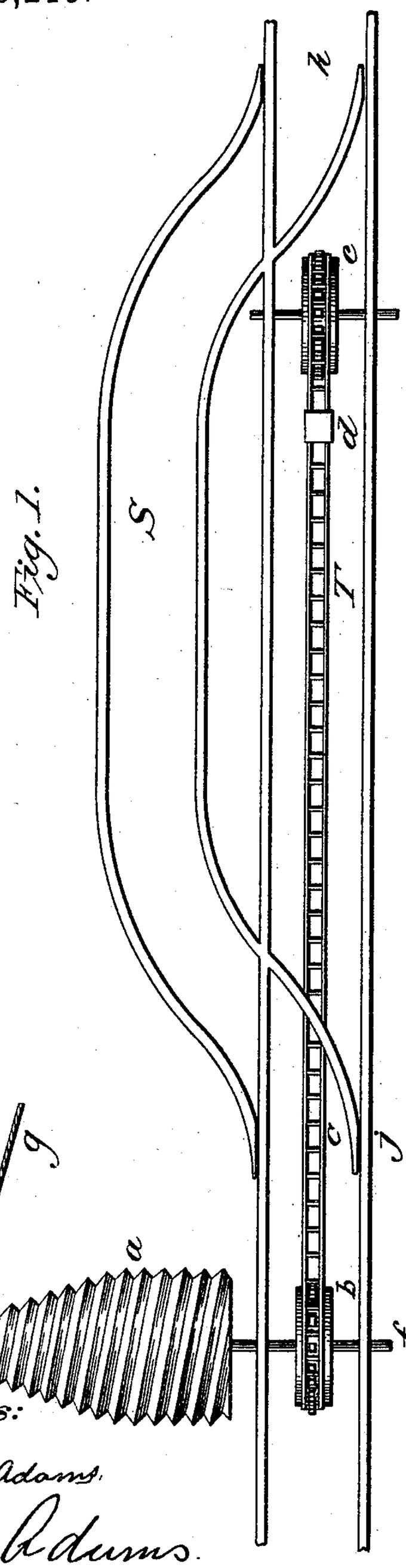

Fig. 1.

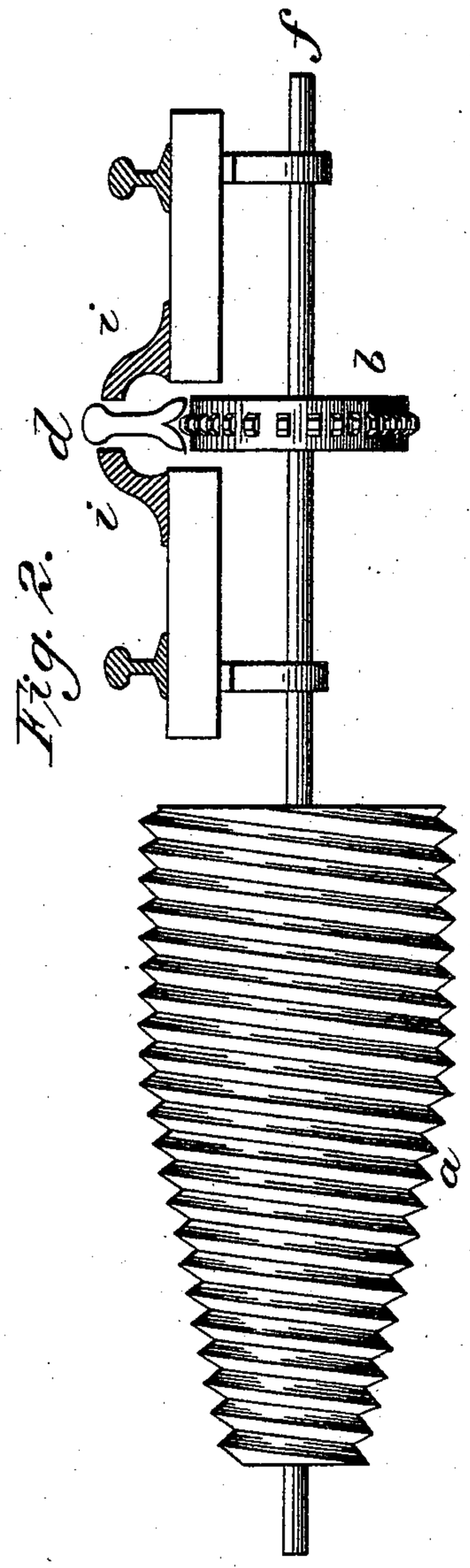

Fig. 2.

Witnesses:

Alice L. Adams.

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UNITED STATES PATENT OFFICE.

WILLIAM H. ADAMS, OF CHICAGO, ILLINOIS.

CAR-ATTACHER.

SPECIFICATION forming part of Letters Patent No. 496,215, dated April 25, 1893.

Application filed February 13, 1891. Serial No. 381,403. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. ADAMS, a citizen of the United States, residing in the city of Chicago, county of Cook, and State of Illinois, have invented a new and useful Device for the Purpose of Attaching a Car or Cars to a Moving Train, of which the following is a specification and explanation.

The object of this invention is to enable a train running either on elevated surface or other roads, to take on or let off passengers or freight or both at any station, where it may be placed, without the necessity of stopping, said train, thus effecting a great saving in the running time of such train. I accomplish this result in the following manner with the mechanism shown in the accompanying drawings, in which

Figure 1 is a top view of the machine showing its relation to the main track, and to the switch or siding at the station where it is desired to, take on and let off, cars. Fig. 2 shows a vertical section of the device together with an end view of the main track showing the position of the machine in regard to it.

In the following description like letters refer to like parts of the device.

In the drawings S represents the siding on which is the car to be attached to the rear of a train moving toward the observer on the main track T. The exchange of cars is made in the following manner: The car to be left at the station, is uncoupled from the train, before it reaches the switch *h* over which it runs onto the siding S, its speed being regulated with a brake by the man in charge. As the remainder of the train passes along the main track, a suitable catch placed under the rear car, comes in contact with the stop-block *d*, attached to the endless chain *c* which passes along the center of the track between the guide rails (*i. i* Fig. 2) and over the pulleys *b* and *c*, thus imparting the motion of the train through the pulley *b*, and the shaft *f* to the conical drum *a*, to the smaller end of which the rope *g* is fastened, the other end of *g* being attached to the car on the siding S. Now, the diameter of the smaller end of the drum *a*. being much less than the diameter of the pulley *b* it follows that the motion first imparted to the car on siding S will be much less than that of the train on T but, as the rope *g* is wound up toward the larger end of the drum *a*, the speed will rapidly increase until it reaches a point where the diameter of *a* exceeds the diameter of *b* when the speed of the car on S will be greater than the speed of the train on T. By a proper adjustment of the rope *g* and the stop-block *d* the car on S will pass in behind the train on T and over the switch connecting the siding with the main track at *j* and overtake the train on the main track, when it can be attached to the train by the ordinary automatic couplers now in use. The shock at connecting, being caused by the greater speed of the car, will be slight and easily regulated. The stop-block *d* in passing over the pulley *b* will disengage itself from the train and be returned to its former position by a counter-balance attached to the rope *g*. The proper coiling of the rope *g* on the drum *a* is secured by the spiral flange or groove shown on the drum *a*. Automatic switches will connect both ends of the siding S with the main track T but they form no part of this invention.

I claim—

The machine herein-before described comprising the conical drum as shown at *a* revolved by means of an endless chain connected with the moving train by means of a stop-block and catch all substantially as described and illustrated herewith.

Chicago, December 20, 1890.

WILLIAM H. ADAMS.

Witnesses:

ALICE D. ADAMS,

M. J. ADAMS.