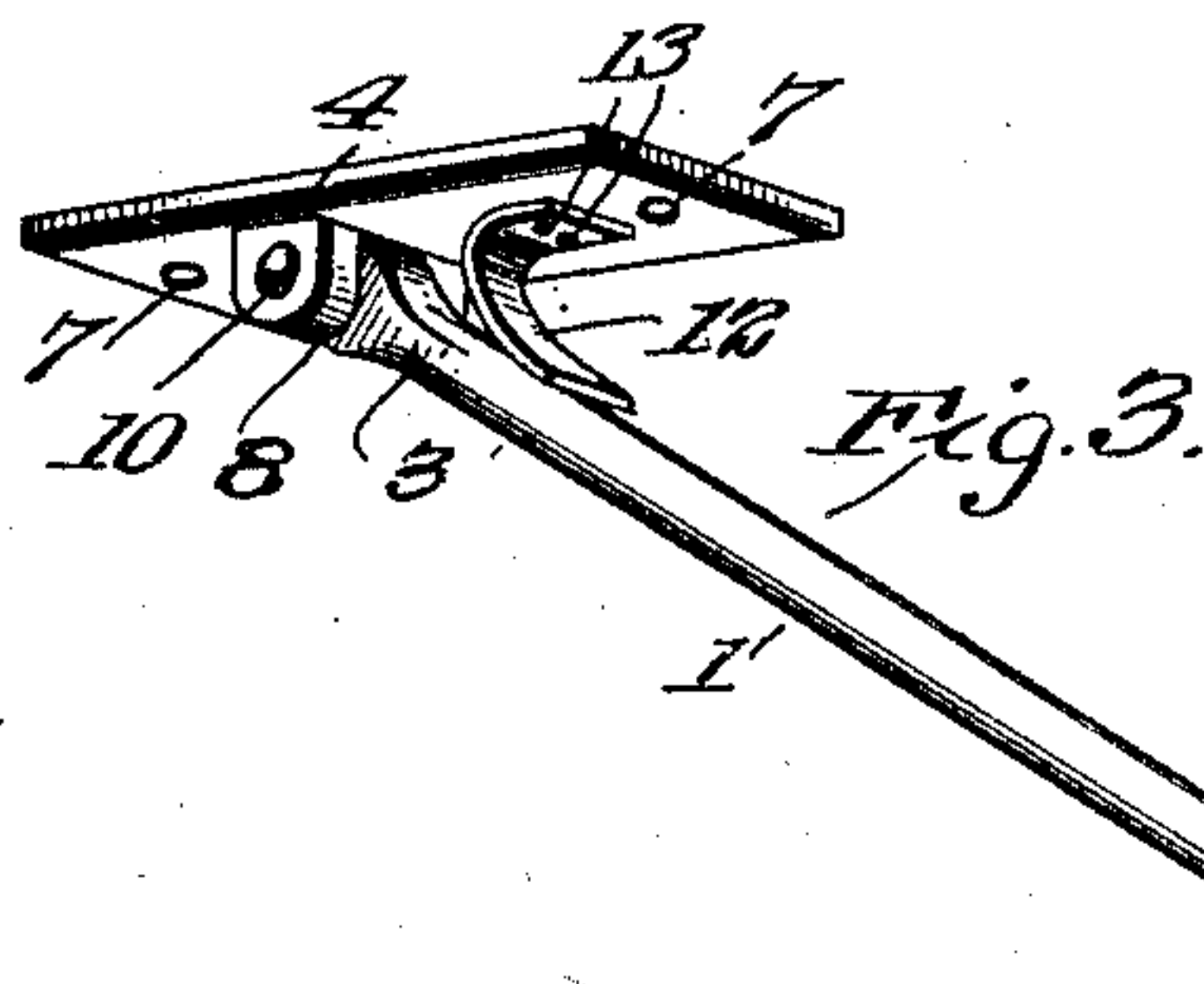
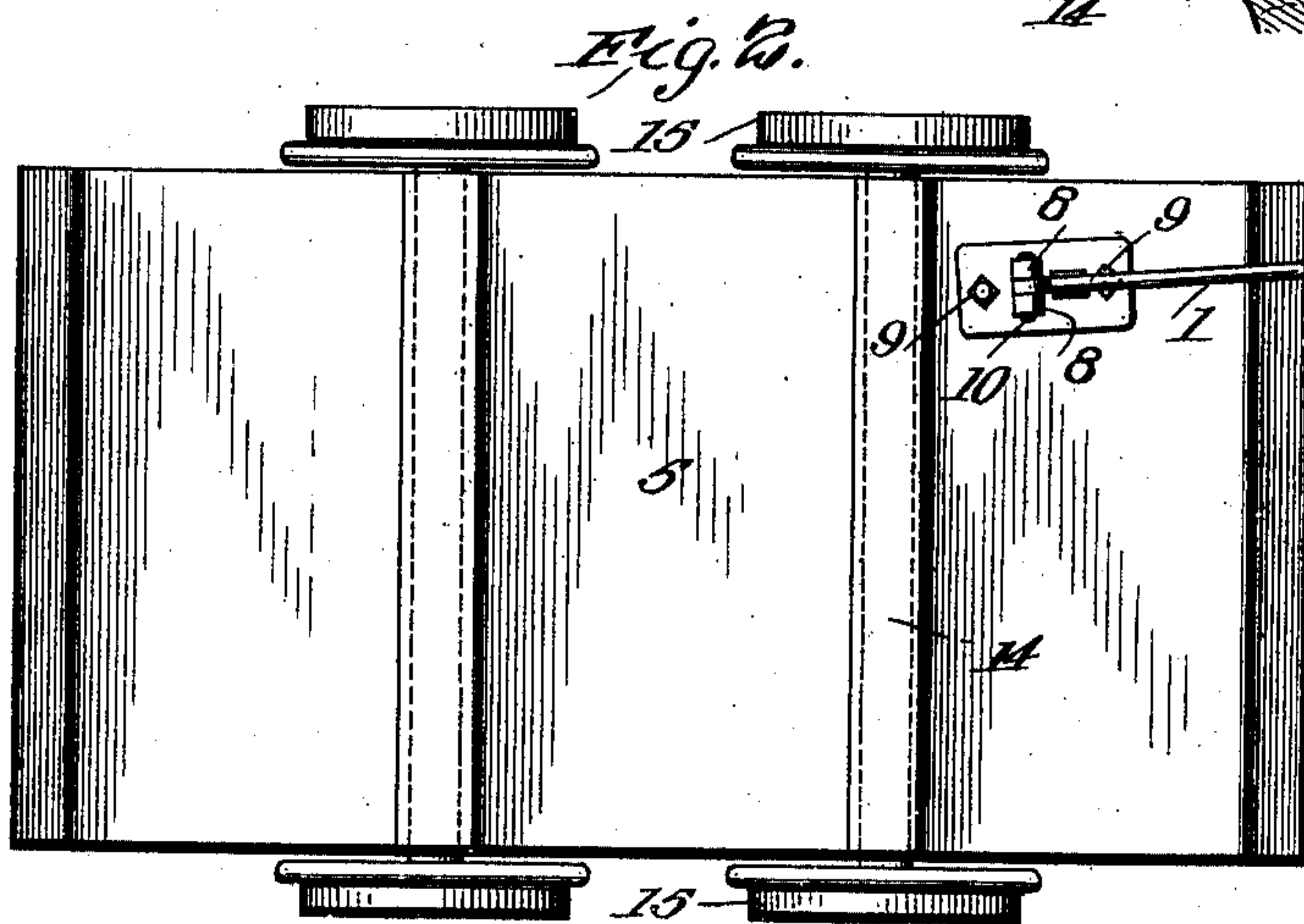
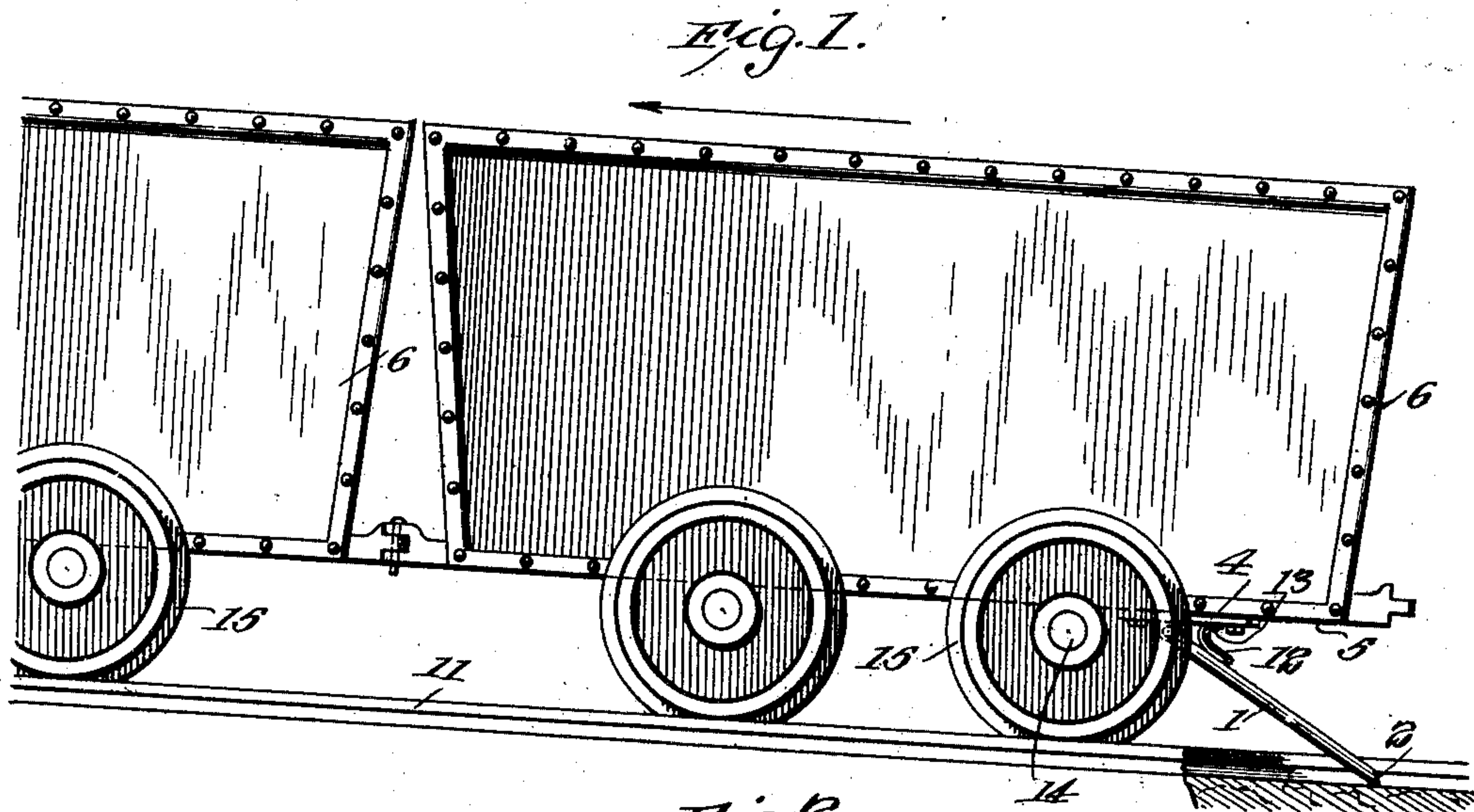


F. W. BYRNE.
MINE CAR DERAILING DEVICE.
APPLICATION FILED DEC. 28, 1910.

990,703.

Patented Apr. 25, 1911.



WITNESSES:
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UNITED STATES PATENT OFFICE.

FRANCIS W. BYRNE, OF EVERSON, PENNSYLVANIA.

MINE-CAR-DERAILING DEVICE.

990,703.

Specification of Letters Patent.

Patented Apr. 25, 1911.

Application filed December 28, 1910. Serial No. 599,693.

To all whom it may concern:

Be it known that I, FRANCIS W. BYRNE, a citizen of the United States, and a resident of Everson, county of Fayette, and State of Pennsylvania, have invented certain new and useful Improvements in Mine-Car-Derailling Devices, of which the following is a specification.

My invention is an improvement in mine car derailling devices, and consists in certain novel constructions, and combinations of parts, hereinafter described and claimed.

The object of the invention is to provide a simple device of the character specified adapted for use on inclines, for the purpose of derailling the last car of a string, to prevent damage in case of accident, such for instance as the breaking of the hitching device.

Referring to the drawings forming a part hereof, Figure 1 is a side view of a part of a string of cars, provided with the improvement. Fig. 2 is a bottom plan view of the rear car, and, Fig. 3 is a perspective view, from below, of the improvement detached.

The improvement consists of a bar or rod 1, one end of which is beveled or pointed at 2, while the other end is flattened transversely to form an ear 3, and the said ear is transversely perforated. A plate 4 is provided for connecting the rod or bar with the car, and the said plate is adapted to be attached to the under face of the bottom 5 of the car 6, by means of bolts 9. The plate is provided with openings 7 through which and through registering openings in the car bottom, the bolts are passed. The plate is provided with a pair of spaced ears 8, between which the ear 3 of the rod or bar is received, and a bolt or rivet 10 is passed through the opening of the ear 3, and registering openings in the ears 8. The rod or bar 1 is of such length that when the end 2 thereof engages the track 11, the bar will be in an inclined position with respect to the track. A plate spring 12 is provided for pressing the bar into firm engagement with the track. One end of the spring 12 is secured to the plate 4 by rivets 13, and the

free end bears against the upper face of the bar.

The device is preferably arranged on the last car of the string, and near the rear end of the car.

As shown in Figs. 1* and 2, the plate is arranged just behind the rear axle 14 of the car. It will be evident that as long as the string of cars moves ahead, the bar or rod will slip over the track without affecting the cars in any manner. Should, however, the draft connection break, and the string of cars begin to move rearwardly, the pointed end of the bar will engage a tie, or the ballast between the ties, or the ground, and the string of cars will be checked or derailed. As indicated more particularly in Fig. 2, the plate 4 is arranged at an angle with respect to the car, that is, the longitudinal axis of the plate is inclined with respect to the longitudinal axis of the car and the bar is also inclined with respect to the longitudinal axis of the car. Owing to this arrangement the car will not only be checked under the conditions above noted, but will be lifted and moved laterally. The rear wheels 15 of the car will thus be lifted and thrown laterally, and lifted off of the rails. The derailling of the car will of course stop the motion of the cut or string, and damage to the cars or to the mine will be prevented.

I claim:

1. In combination with the car, of a plate secured to the under face of the bottom thereof, said plate having a pair of spaced ears, a rod or bar having one end received between the ears and pivoted thereto, said bar being inclined laterally with respect to the longitudinal axis of the car, and a spring secured to the plate and pressing the free end of the rod downwardly, said end being pointed and the bar being of greater length than the height of the car bottom from the track, to cause said bar to take an inclined position when the free end moves on the ground.

2. In combination with the car, of a plate secured to the bottom thereof, a bar pivoted at one end to the plate, said bar being of

greater length than the height of the car
bottom from the track, and being inclined
laterally with respect to the longitudinal
axis of the car, and a spring pressing the
5 free end of the bar downwardly.

3. In combination with the car, of a plate
secured to the bottom thereof, a bar pivoted
at one end to the plate, said bar being of

greater length than the height of the car
bottom from the track, and being inclined 10
laterally with respect to the longitudinal
axis of the car.

FRANCIS W. BYRNE.

Witnesses:

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