

(No Model.)

E. A. KERN.

SWITCH FOR TRACKS FOR CARRYING IRON.

No. 388,688.

Patented Aug. 28, 1888.

Fig. 1.

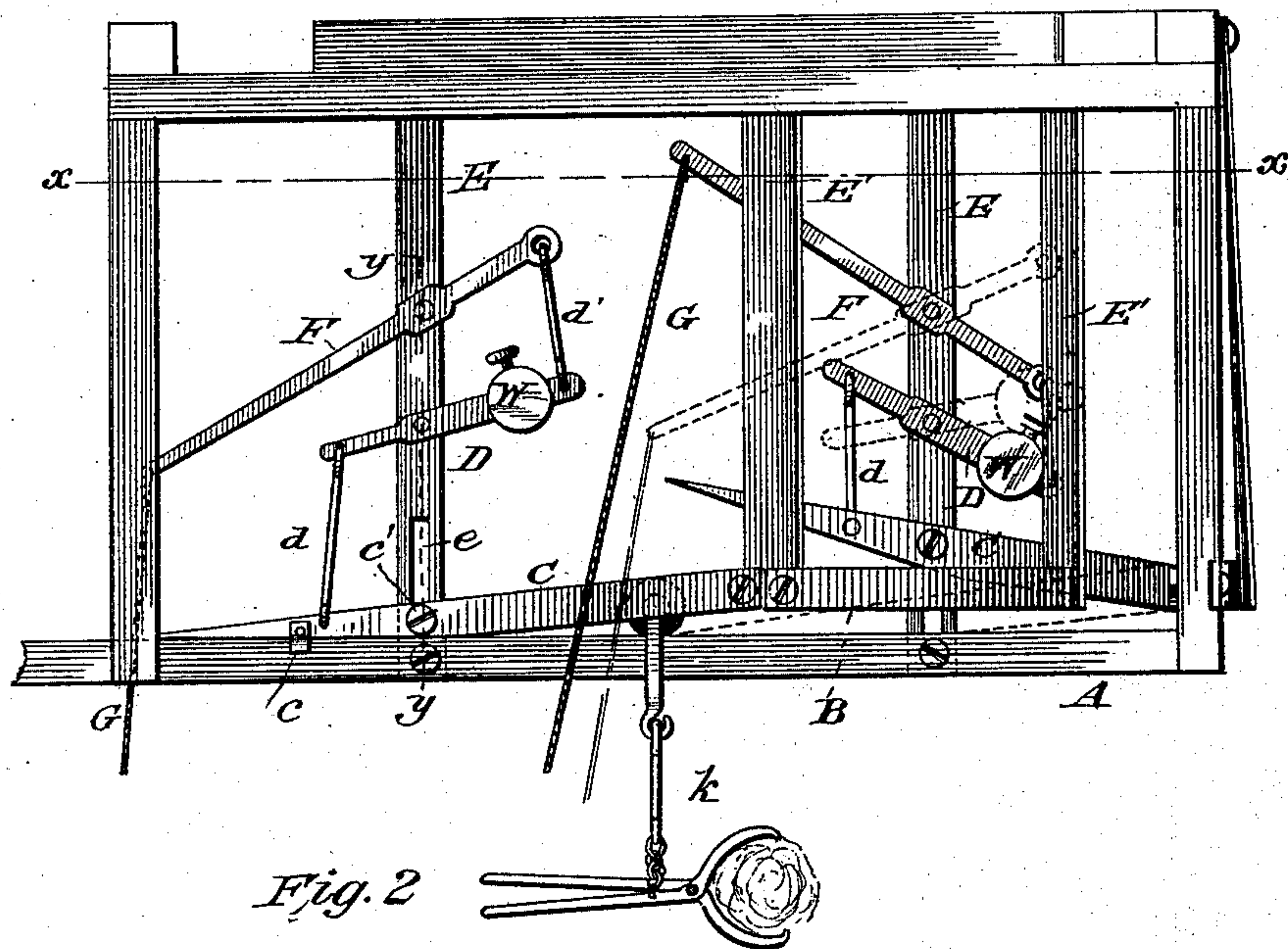


Fig. 2

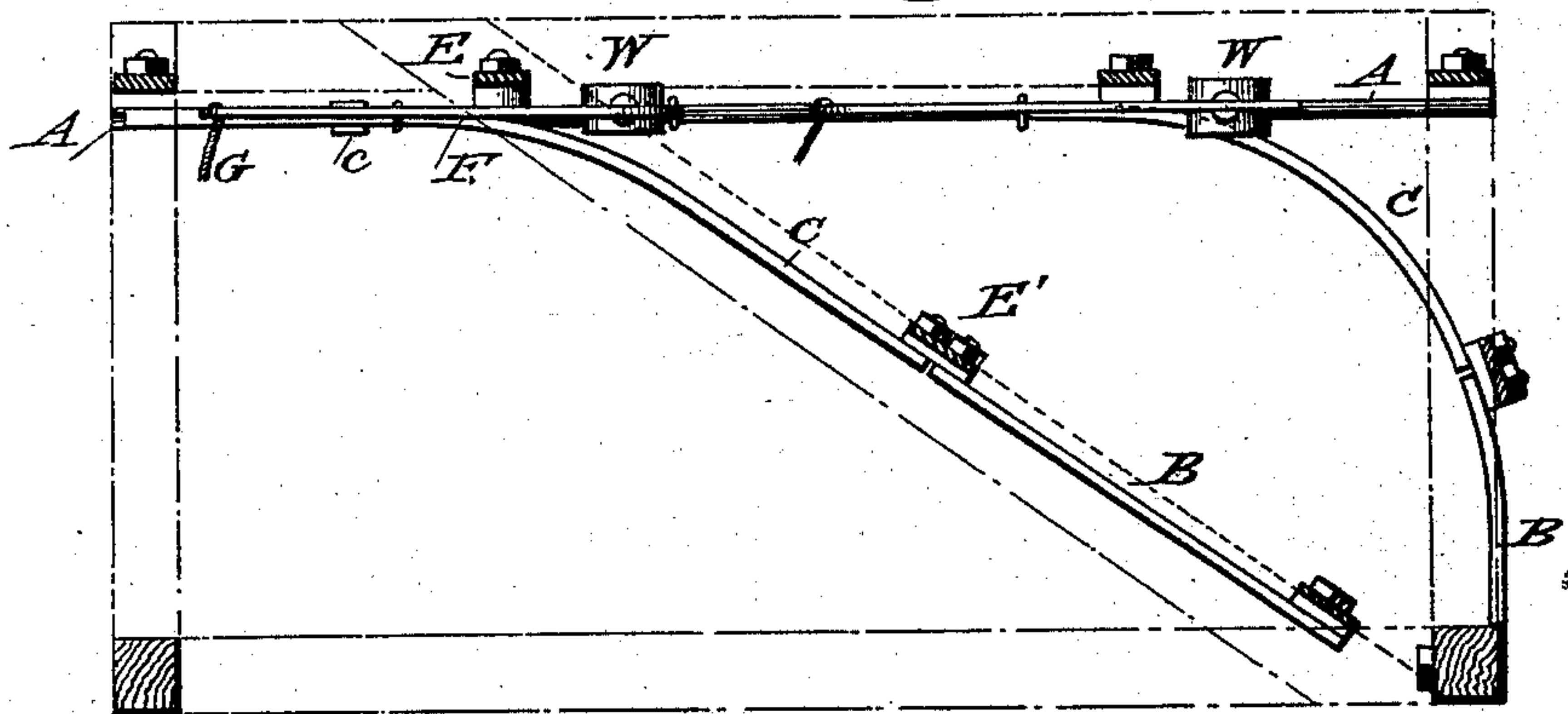


Fig. 3.

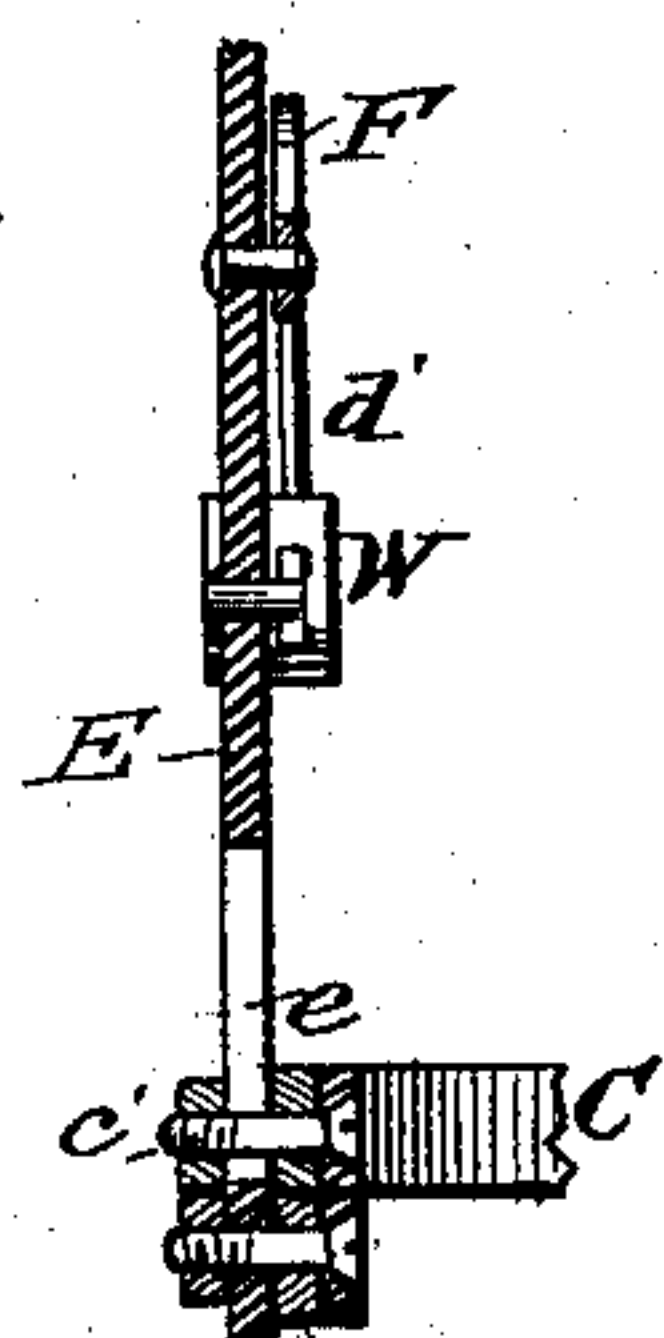
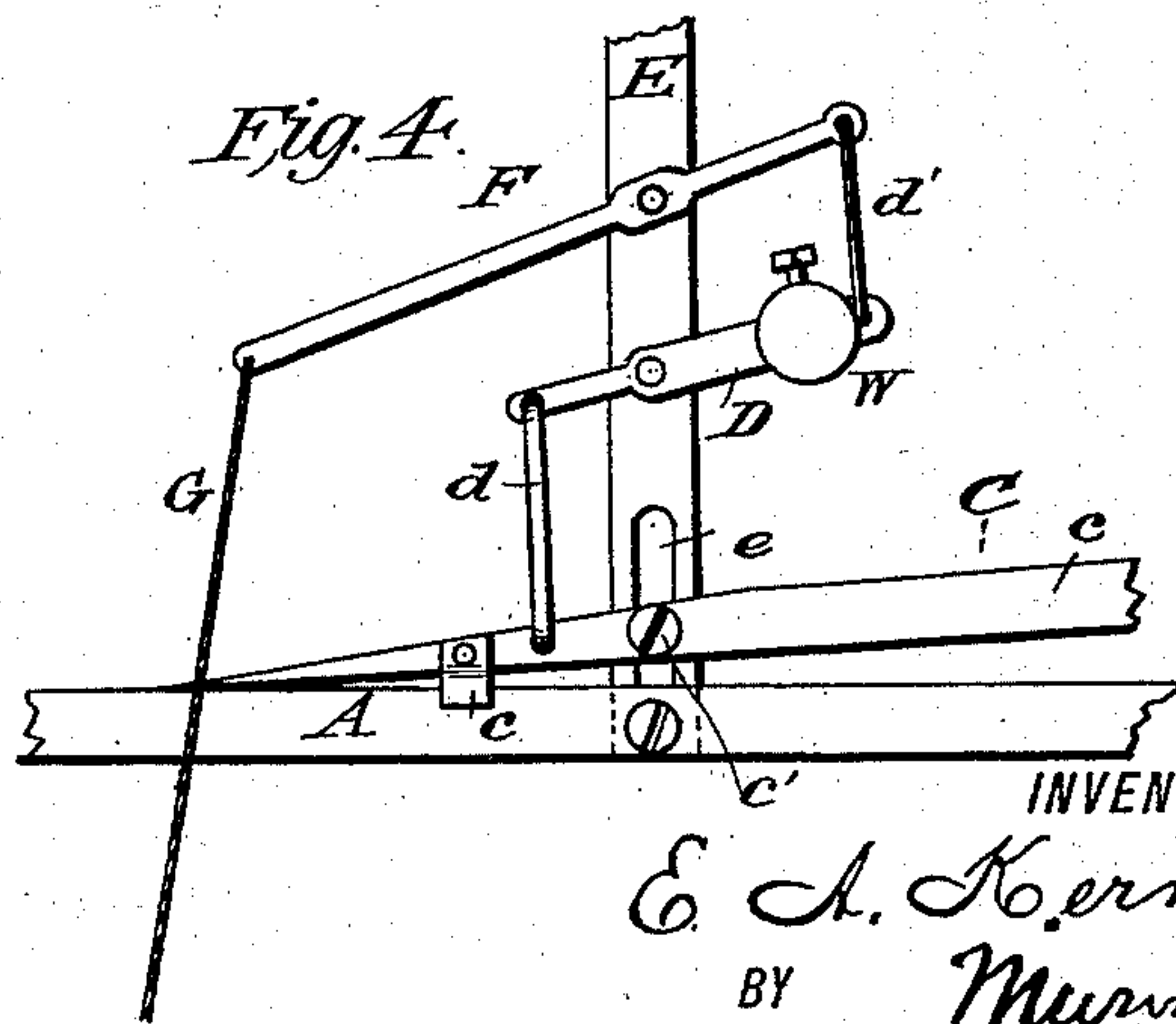


Fig. 4.



WITNESSES: A

Fred G. Dieterich,

Gus Brock,

INVENTOR.

E. A. Kern,

BY

Murphy

ATTORNEY,



# UNITED STATES PATENT OFFICE.

EDWIN A. KERN, OF GIRARD, OHIO.

## SWITCH FOR TRACKS FOR CARRYING IRON.

SPECIFICATION forming part of Letters Patent No. 388,688, dated August 28, 1888.

Application filed May 14, 1888. Serial No. 273,886. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN A. KERN, of Girard, in the county of Trumbull and State of Ohio, have invented new and useful Improvements in Tracks for Carrying Iron, of which the following is a specification.

My invention relates to that class of devices which are designed for use in rolling-mills, &c., where there are a number of side tracks from different points joining the main track.

The object of my invention is to provide means whereby the carriers may be readily run from the side tracks to the main track and back again, or the entire length of the main track with ease and great rapidity.

My invention consists of a main track, side tracks, and switches for connecting them, and means for opening and closing these switches, as will be hereinafter fully described, and pointed out in the claims.

Figure 1 is a side elevation of my apparatus. Fig. 2 is a horizontal section on line *xx*, Fig. 1. Fig. 3 is a detail section on line *yy*, Fig. 1. Fig. 4 is a view of a modification of the tilting switch.

In the drawings, A indicates the main track, which runs the entire length of the building in which it is used, and is suspended at a suitable elevation by the supports E. The side tracks which converge toward the main track are formed of the two parts B and C, the part B being rigidly secured to the supports E' at a greater elevation than the main track. The part C, which is the switch proper, is pivoted at one end to the support E', in alignment with the part B, and is so arranged as to admit of a free vertical tilting movement, and is beveled at its free end to insure a close junction with the main track.

The beveled portion is provided with the downwardly-projecting ears *c c*, which pass down on each side of the main track when the switch is closed to prevent accidental displacement of the latter. It is also provided at a point near its center with a horizontally-projecting headed pin, *c'*, which projects through and works in a vertical slot, *e*, in the main-track support E, near its lower end. This slot is of sufficient length to allow the vertically-tilting switch C to be raised high enough to permit the carrier K on the main track to pass by unobstructed when it is desired to carry

it to another side track or to the end of the main track.

Near the center of the beveled portion of the vertically-tilting switch C is secured a vertical rod, *d*, which is fastened at its upper end to a lever, D, pivoted at or near its center to the support E. To the opposite end of the lever D is secured a vertical rod, *d'*, which is fastened at its upper end to a long lever, F, pivoted to the support E, and provided at its free end with a cord or chain, G. The lever D is provided with an adjustable weight, W, near the point of its connection with the rod *d'*, for the purpose of automatically lifting the switch-track C away from the main track. This weight is sufficiently heavy to raise the switch-track C high enough above the main track to permit the passage under it of the carrier K, which is provided with a downwardly-hanging hook, *k*. The cord or chain G hangs down low enough to allow of its being grasped by a person standing on the ground. The switch-track C is held in a raised position when not in use by the adjustable weight W on the end of lever D, through the medium of the rod *d*. The weight W slides on the lever D and is adjusted by the set-screw S. The lever F, with its connections, is used to close the switch.

The operation of my improvement is as follows: When it is desired to run the car to any one of the furnaces, the operator pulls down on the cord G, and through the medium of the levers and their connections brings the switch-track C into register with the main track, as shown in dotted lines, Fig. 1. The carrier is then shoved along the main track up over the closed switch, and along the side track until it reaches the point at which it is to be loaded. As soon as the carrier has passed the point where the tilting switch is pivoted to the support E', the operator having released the cord or chain G, the weighted lever D causes the vertically-tilting switch C to rise, and holds it in that position, as shown in full lines, Fig. 1, thus leaving the main track clear. To return the carrier to the main track, the operator simply forces the carrier along the side track, B, until it reaches the pivotal point of the vertically-tilting switch C, when the weight of the carrier causes the said vertically-tilting switch to descend and again register with the



main track, forming an incline between the side track and the main track, thus enabling the carrier to pass on to its destination. As soon as the carrier has left the vertically-tilting switch C and taken the main track, the switch again returns to its raised position, through the agency of the weighted lever D and its connections.

The vertically-tilting switch C may be beveled on its upper surface, as shown in Fig. 4; but it is preferable to bevel its lower surface, as shown in Fig. 1.

With my invention it is impossible that any switch shall be misplaced, because the main track is continuous and all the switches ahead are held open or away from the track by means of the weighted lever D and its connections.

Having thus fully described my invention, what I desire to claim and secure by Letters Patent is—

1. The combination, with the main track A, and side track, B, of the switch C, which is pivoted at a point higher than the said main track, and beveled at its free end, and provided with ears *c c*, whereby it is adapted to be lowered, so as to rest upon the main track, and to be held in place thereon when in use, as shown and described.

2. The combination, with the main track A

and the slotted support E, of the switch C, pivoted to the support E', and provided with the horizontally-projecting pin *c'*, and lever-connections for throwing said switch into and out of register with the main track, as herein shown and described.

3. The combination, with the main track A, secured to the support E, having the vertical slot *e*, of the side track, B, provided with the vertically-tilting switch C, having the horizontally-projecting pin *c'*, the lever D, pivoted to the support E, and connected at one end to the vertically-tilting switch C by the rod *d*, and provided at its other end with the adjustable weight W, whereby said vertically-tilting switch is held in a raised position above the main track, as shown and described.

4. The combination, with the vertically-tilting switch C, having its free end beveled, of the rod *d'*, weighted lever D, rod *d*, lever F, and cord or chain G, whereby the said vertically-tilting switch is thrown into and out of register with the main track, substantially as shown and described.

EDWIN A. KERN.

Witnesses:

WM. F. BONNELL,

W. W. WILSON.