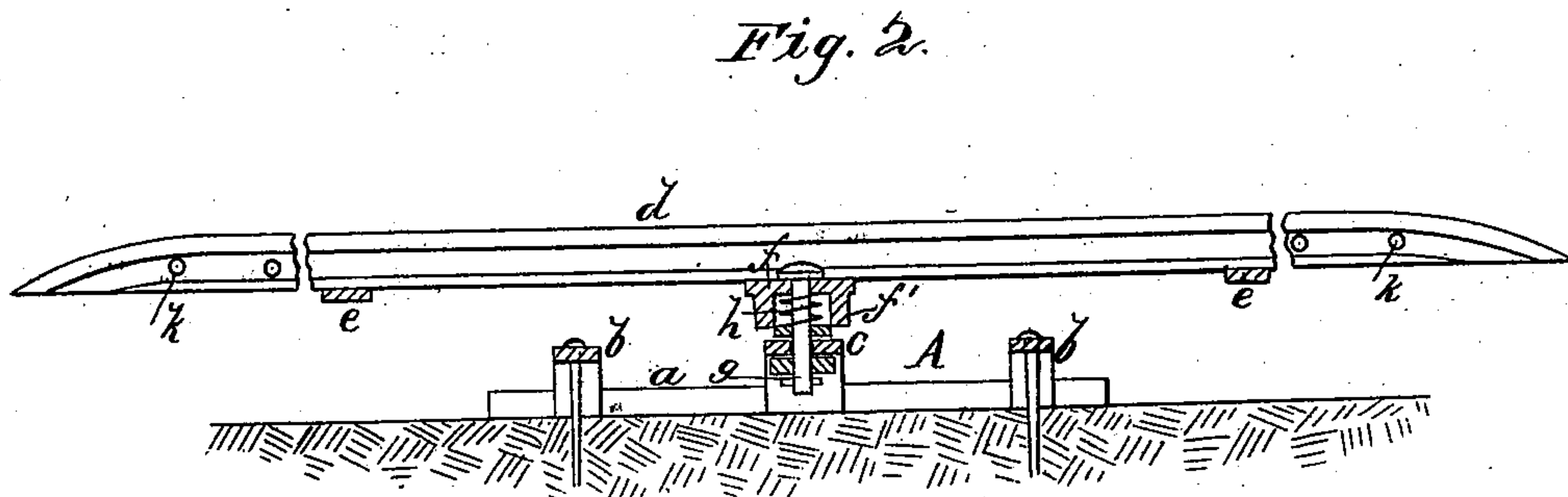
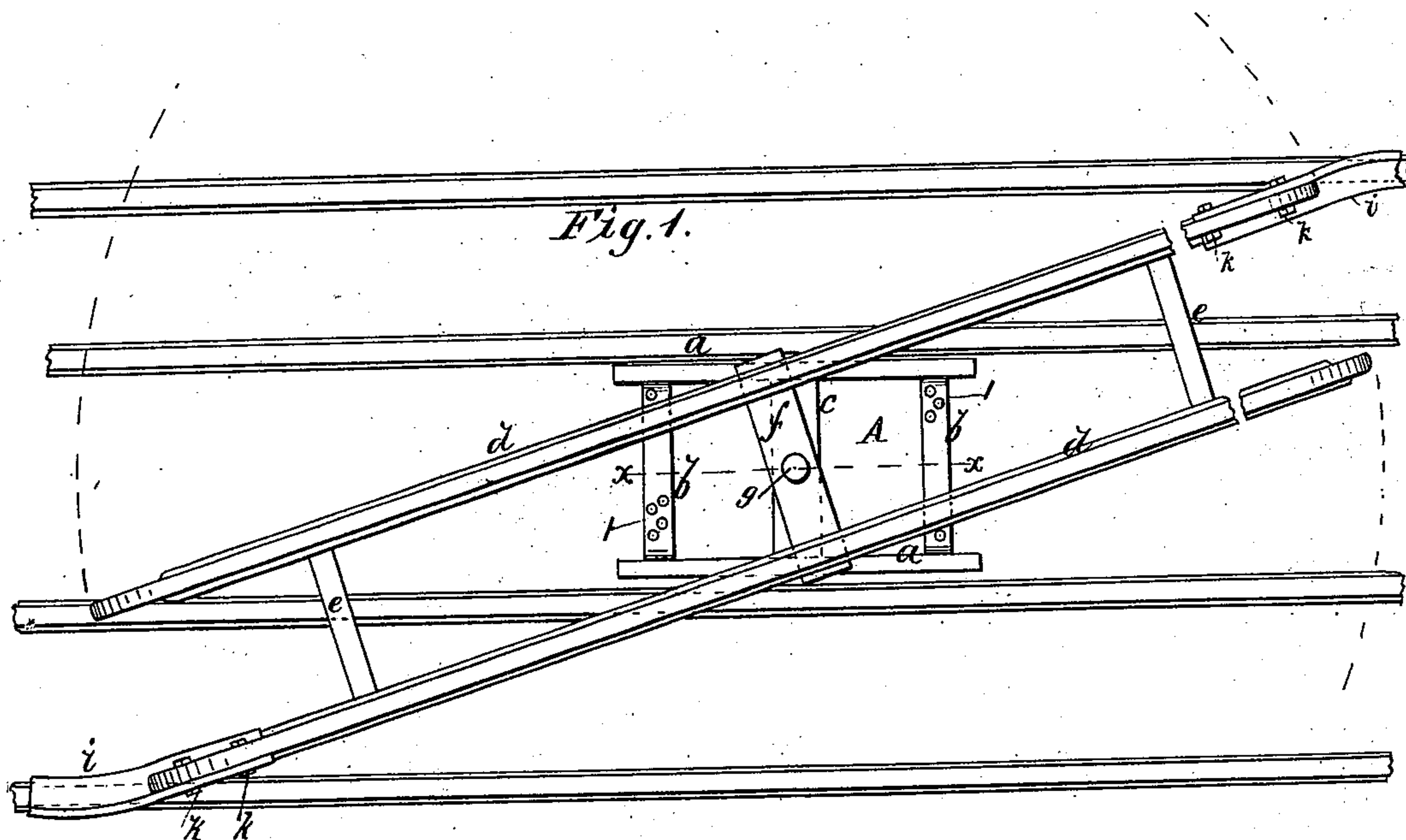


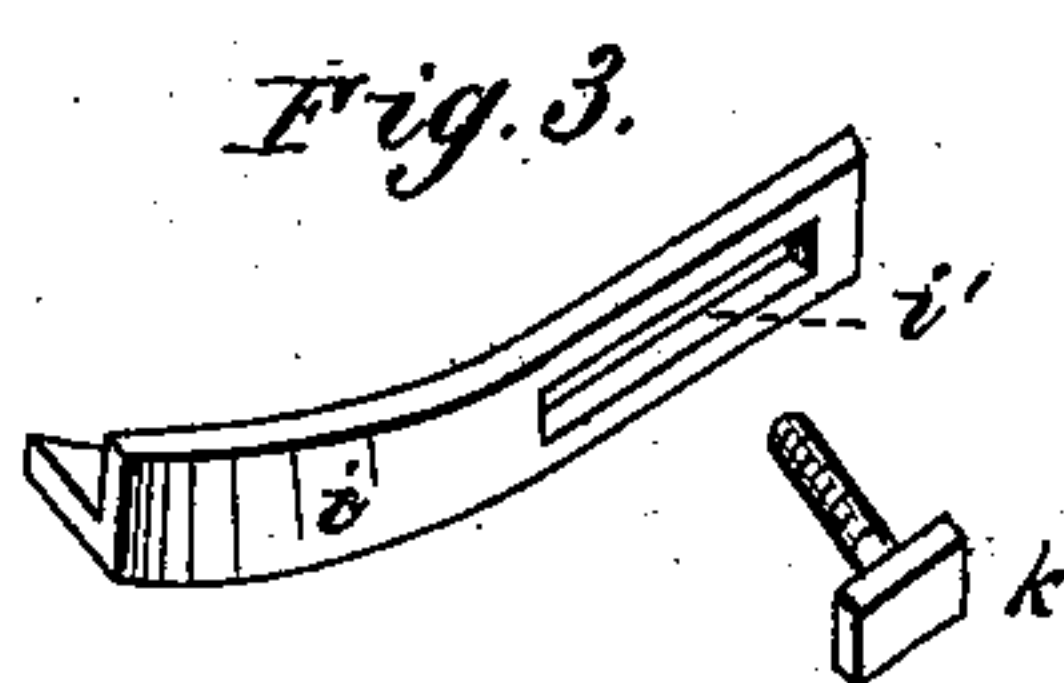
J. W. KRAMER.
Turnout for Railways.

No. 227,795.

Patented May 18, 1880.



WITNESSES:
Henry N. Miller
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UNITED STATES PATENT OFFICE.

JOHN W. KRAMER, OF NEW YORK, N. Y.

TURN-OUT FOR RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 227,795, dated May 18, 1880.

Application filed December 18, 1879.

To all whom it may concern:

Be it known that I, JOHN W. KRAMER, of the city, county, and State of New York, have invented a new and useful Improvement in
5 Turn-Outs for Railways, of which the following is a specification.

The object of my invention is to furnish a portable turn-out or turn-table for railways, especially street-railways, whereby cars may
10 be shifted from one track to another, or turned end for end, if necessary, when obstructions occur in the line; and the invention consists in a frame fitted for being pinned to the ground between the tracks and carrying a
15 pivoted section of rails, which may be turned to coincide with either track to receive the car, and then turned, as desired, to shift the car to the other track.

The construction and operation will be particularly described with reference to the accompanying drawings, wherein Figure 1 is a plan view of my improved turn-out. Fig. 2 is a sectional elevation on line *xx* of Fig. 1. Fig. 3 is a detail view of one of the toe-pieces,
25 showing the slot and T-headed bolt.

Similar letters of reference indicate corresponding parts.

A is the supporting bed-frame, consisting of parallel side bars, *a a*, that are connected
30 together by cross bars or plates *b*, and carry the apertured central cross-plate, *c*, in which is fitted the axis of the turn-table.

The bars *b* are provided with holes, as at 1, at irregular intervals, to allow pins to be
35 driven into the ground or between the stones of a pavement, whereby the frame A will be held in place.

The frame A is of a width for setting between two railroad-tracks, and the cross-plates *b* should be raised, as shown, to give
40 space beneath them for the axis of the turn-table.

The turn-table proper consists of the rails *d d*, that are connected by the cross-ties *e e*,
45 and a cross-plate, *f*, at the midlength, which plate *f* is fitted with the axial bolt *g*, that passes through cross-plate *c* of frame A.

The rails *d* may be of metal or of hard wood shod with metal. They are of a length
50 sufficient to receive a car, so that the car can be turned bodily on the turn-table, if required.

Upon the under side of the cross-plate *f* is

fixed a gudgeon, *f'*, that forms a bearing for the turn-table, and around the bolt *g* a spiral
55 spring, *h*, is fitted to bear between the plates *c f*, for the purpose of relieving the weight.

To give the required curve to one of the rail ends *d*, so that it will join the rails of the main track, I provide removable and adjustable points or toe-pieces *i*. These consist of
60 flanged metal strips adapted for setting upon the under and outer sides of rails *d*, and are slotted at *i'* to pass over the T-head bolts *k*, fitted to the side of rails *d*. The bolts *k* are
65 fitted to turn, so that after the pieces *i* are put in position and adjusted in length the bolts, by being turned with their heads cross-wise of slots *i'*, hold the points in place. These
70 pieces or toes *i* are adapted to guide the cars on or off the rails *d*, so that a car can be turned which has come from either of two tracks, as illustrated in the drawings.

This construction furnishes a light and portable turn-out or turn-table, which may be
75 readily transported from place to place, as occasion requires.

In case of obstruction on the track, when it is desirable to transfer the cars to the other track, this apparatus will avoid the necessity
80 of jumping the track and running them over the pavement.

The apparatus is to be pinned down between the tracks, the rails *d* turned to receive the car, and the car run on the rails. The car
85 will thus be balanced on the axis *g*, and the rails are then to be turned to bring the other end in connection with the other track, or the car may be turned end for end.

Having thus described my invention, I claim
90 as new and desire to secure by Letters Patent—

1. In a railroad turn-table, the toe-pieces *i*, combined with the rails, as and for the purpose specified.
95

2. In railroad turn-tables, in combination with the frame A, provided with the apertured bearing-plate *c*, the table formed of rails *d*, provided with the bearing-plate *f*, gudgeon *f'*, and axial pin or bolt *g*, substantially as specified.
100

JOHN W. KRAMER.

Witnesses:

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