

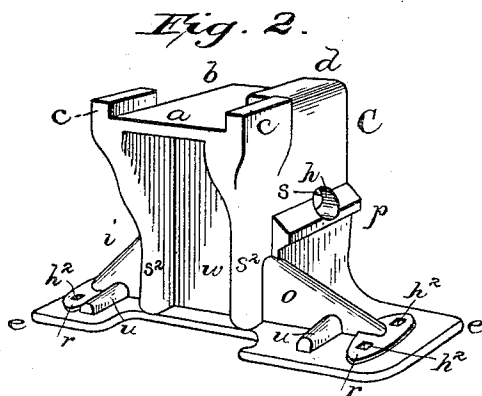
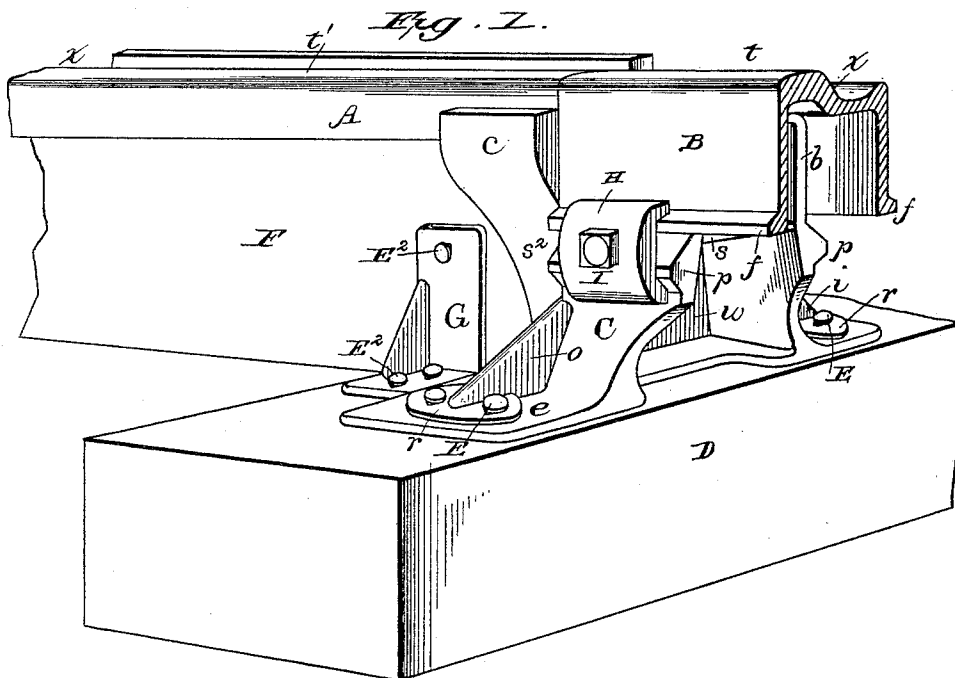
(No Model.)

2 Sheets—Sheet 1.

W. C. WOOD.
TRACK FOR STREET RAILWAYS.

No. 461,090.

Patented Oct. 13, 1891.



Witnesses

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TRACK FOR STREET-RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 461,090, dated October 13, 1891.

Application filed April 2, 1891. Serial No. 387,435. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM CLARK WOOD, a citizen of the United States, and a resident of Brooklyn, in the State of New York, have invented a new and useful Improvement in Tracks for Street-Railways, of which the following is a specification.

This improvement is additional to my series of improvements in "box" girder-rails and their fastenings applicable in part as regards the clamp-chairs to street-railway tracks in which rails of other patterns are used.

The present invention consists in the provision of such track with "compromise-chairs," as hereinafter described, whereby clamp-fastened girder-rails may be readily connected with smooth and strong joints to flat rails of any approved pattern and permanently aligned therewith as to the treads of the respective rails; also, in the novel construction of a compromise-chair for box and flat rails, as hereinafter set forth.

Two sheets of drawings accompany this specification as part thereof.

Figure 1 of the drawings is a perspective view of the junction of a box girder-rail and a flat rail effected by means of a compromise-chair according to this invention. Fig. 2 is a perspective of the compromise-chair from a different point of view. Fig. 3 is an end view of the chair and rails, as in Fig. 1, with a cross-section of the flat rail, a steel rail for curves, in the foreground. Fig. 4 represents a section of the chair on the line 4 4, Fig. 3; and Fig. 5 is a sectional plan of those portions of the same at and below the line 5 5, Fig. 4. Fig. 6 is a partial end view of the chair in use, showing a different side bearing flat rail in cross-section; and Fig. 7 is another partial end view of the chair in use, showing a center bearing flat rail in cross-section.

Like letters of reference indicate corresponding parts in the several figures.

The flat rail A may be of any of the patterns represented in Figs. 1 and 3, Fig. 6, and Fig. 7, respectively, or of any other approved make. The three patterns represented as above are those most commonly used.

The box-rail B may have a top of any approved section in connection with depending webs at both edges, having lateral flanges *f*

beveled on top. The particular rail represented in the drawings is one of my improved box girder-rails of the section known as "section B," and of the peculiar construction set forth in my specification forming part of Patent No. 443,470, dated December 23, 1890. Other box-rails having such flanges on their webs may obviously be substituted.

The compromise chair C (shown stripped 60 in Figs. 2, 4, and 5) is preferably an iron casting, so as to be readily modified to fit different sizes and patterns of rails, and in each pattern it is cast "right" and "left" by the customary transpositions.

Two seats *a b* at top in line with each other are fitted, respectively, to the bottom of the flat rail A and to the interior of the clamped box-rail B. The seat *a*, excepting in some cases, a flange-receiving groove or grooves *g*, Fig. 6, is at or about the height of the lower level of the top of the seat *b*. At the sides of the seat *a* a pair of strong lugs *c* afford lateral support to the end of the flat rail A and align the gage-shoulder *x* of its tread *t'* with that of the tread *t* of the box-rail B. The inner ends of said lugs serve also to prevent the protrusion of the rail B beyond the seat *b*. (See Fig. 1.) The seat *b* is preferably crowned, as in my other box-rail chairs, with a projection *d*, fitted to the hollow back of the tread of the rail B, and the chair is provided immediately below the level of the rail-flanges *f* with bolt-holes *h* in its sides and with lateral projections *p*, beveled at bottom and matching or opposing said beveled flanges *f* on the box-rail. Being combined with my said patented box-rail in the example said projections *p* are located out of reach of the lower edges of the rail-webs, and the sides of the seat portion of the chair above them are vertical or substantially vertical, so that the box-rail may be clamped in the manner and with the advantages set forth in my specification forming part of application, Serial No. 328,906, filed November 1, 1889; but these details, together with said seat projection *d*, are not considered essential to a seat for box-rails as a part of the present invention. A horizontal strut *s* in the plane of the bolt-holes *h* re-enforces the open box-rail end of the chair against clamping strains, and the union of the upright

portion of the chair with a suitable flat base
e common to all is re-enforced by side braces
i o, appropriate to the inside and outside of the
 track, which are in turn braced on the flat rail
 side by stays *u*, united at bottom with the base
 5 *e*. A vertical transverse wall *w* in the plane
 of the braces *i o* extends upward from the base
e to the seats *a b*, and is further connected
 with said seat *a* by bracket-struts *s*², which
 10 merge into the lugs *c* at top. At the outer
 ends of the side braces *i o* the base *e* is pro-
 vided on top with re-enforces *r*, within whose
 area a pair of square spike-holes *h*², Figs.
 2 and 5, are located at each side of the chair.
 15 The chair C is so adapted to be spiked down
 upon a wooden cross-tie D, Figs. 1 and 3, by
 means of my improved spikes E, patented
 February 24, 1891, as set forth in my specifi-
 cation forming part of Patent No. 447,268.
 20 Other attaching devices and supports may
 be used, and other like modifications will
 suggest themselves to those skilled in the art.
 The flat rail A is spiked or bolted in cus-
 tomary manner to a wooden stringer F, the
 25 extremity of which is supported upon the
 cross-tie D and held in place by means of ordi-
 nary iron knees G, attached by spikes E³, pref-
 erably of the same pattern as said spikes E.
 The box-rail B is clamped fast upon the
 30 chair C by means of a pair of rigid wedging-
 clamps H, having beveled flanges fitted to
 said rail-flanges *f* and chair projections *p* and
 bolt-holes matching said bolt-holes *h*, and
 drawn toward the respective sides of the
 35 chair by a through clamping-bolt I, which,

together with its screw-nut *n*, completes the
 structure.

Details which have not been specified may
 be of any approved construction, and I do
 not limit my respective claims to mechanical 40
 details except as therein expressly stated.

Having thus described the said improve-
 ment in tracks for street-railways, I claim as
 my invention and desire to patent under this
 specification—

1. The combination, with the adjoining 45
 ends of a flat rail and a girder-rail, the lat-
 ter having laterally-projecting flanges at bot-
 tom, and with a pair of flanged clamps and a
 clamping-bolt, of a compromise-chair having 50
 at one end a seat fitted to the bottom of the
 flat rail and upwardly-projecting lugs at its re-
 spective sides and at the other end a suitable
 seat for the girder-rail, lateral projections
 below its flanges to coact with said clamps, 55
 and transverse bolt-holes to receive said
 clamping-bolt, substantially as hereinbefore
 specified.

2. A compromise-chair having at one end
 a flat-rail seat and upwardly-projecting lugs 60
 at its respective sides and at its other end a
 box-rail seat and provided below the latter
 with lateral projections and transverse bolt-
 holes and at bottom with a suitable base com-
 mon to all, substantially as hereinbefore 65
 specified.

WILLIAM CLARK WOOD.

Witnesses:

G. W. MYERS,
 J. G. PRESTON, Jr.