

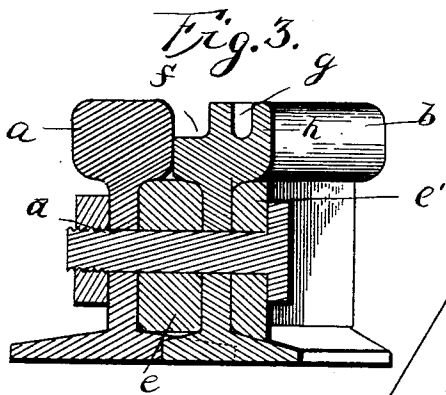
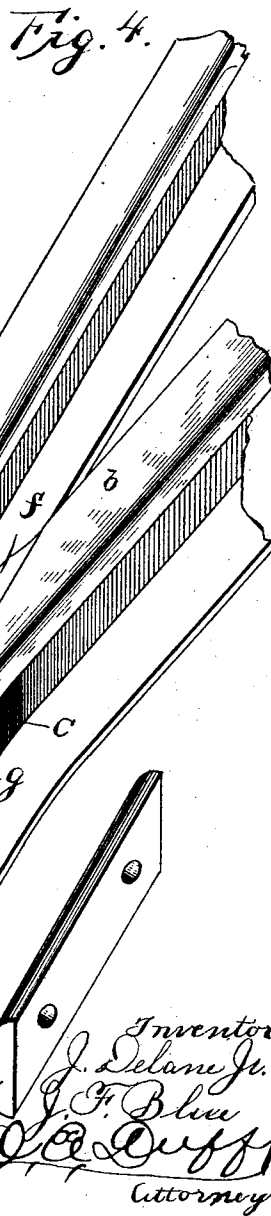
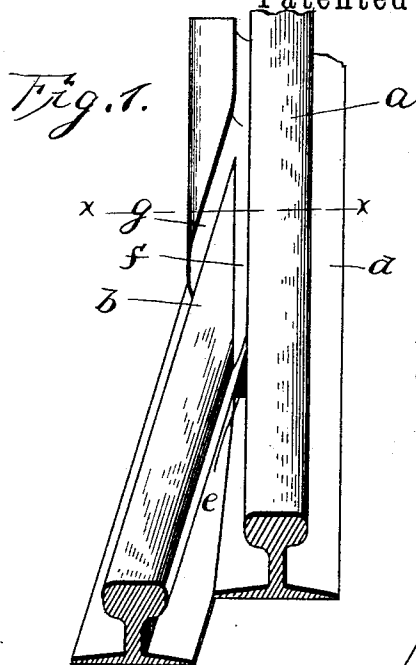
(No Model.)

2 Sheets—Sheet 1.

J. DELANE, Jr. & J. F. BLUE.
SWITCH MATE.

No. 587,712.

Patented Aug. 10, 1897.



Witnesses
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C. C. Duff

Inventors:
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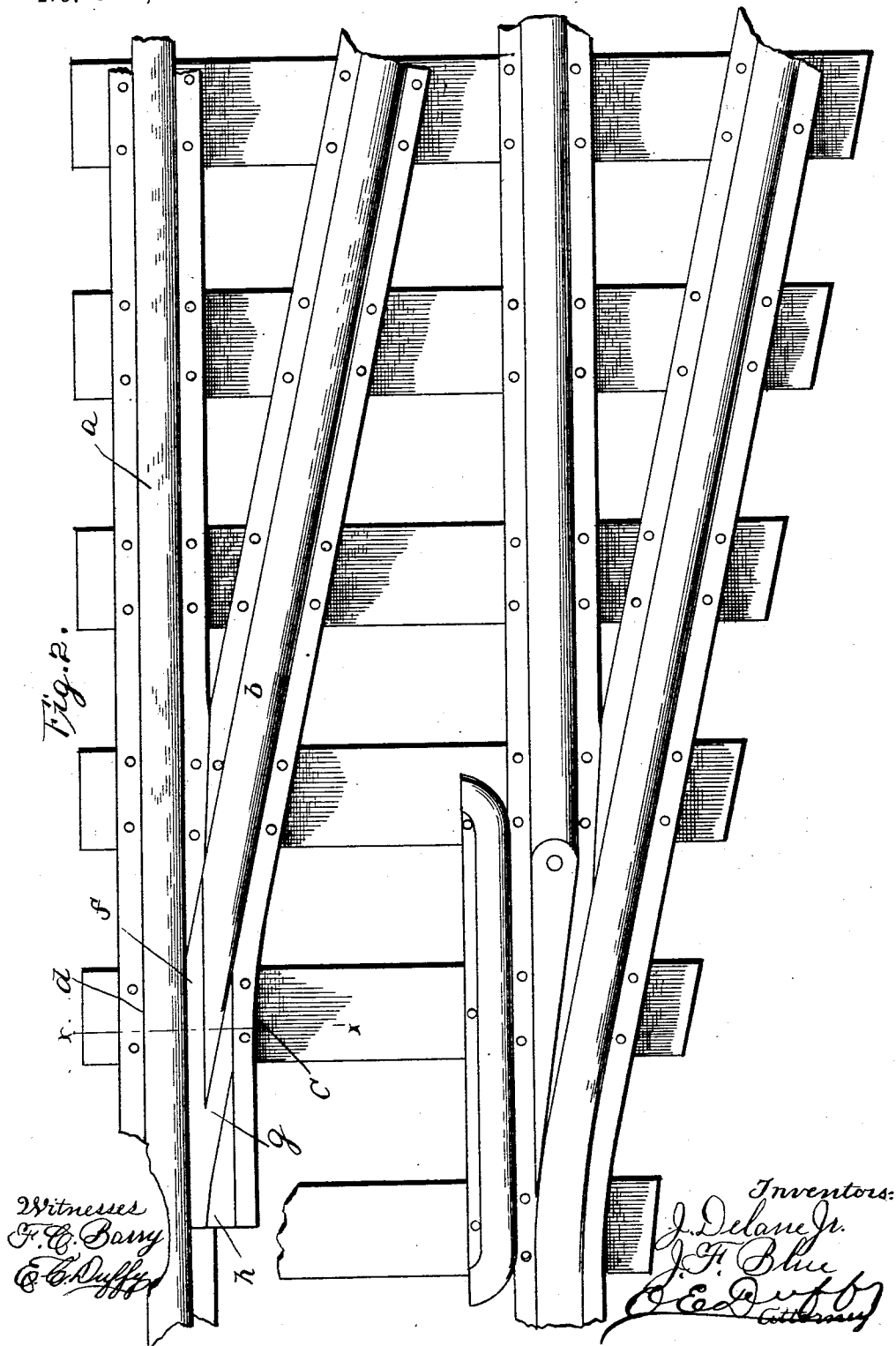
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UNITED STATES PATENT OFFICE.

JOHN DELANE, JR., AND JOHN F. BLUE, OF TERRE HAUTE, INDIANA.

SWITCH-MATE.

SPECIFICATION forming part of Letters Patent No. 587,712, dated August 10, 1897.

Application filed February 5, 1897. Serial No. 622,208. (No model.)

To all whom it may concern:

Be it known that we, JOHN DELANE, Jr., and JOHN F. BLUE, of Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Switch-Mates; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to certain new and useful improvements in switch-mates for railways, principally for street-railways.

The object of the invention is to provide a switch-mate simple, cheap, and durable in construction and composed of a minimum number of parts.

A further object is to provide a switch-mate which occupies a very small space and also one which makes a very smooth joint and is not injurious or destructive to vehicles.

Heretofore switch-mates have required many parts and great cost of money and labor to construct. This invention obviates these objectionable features by its simplicity and cheapness.

The invention consists in certain novel features of construction and in combinations of parts and arrangements more fully described hereinafter and particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a perspective view of the improved switch-mate, showing one main rail and one rail of the side-track. Fig. 2 is a top plan view of the switch and mate. Fig. 3 is a cross-section through the mate on the line *xx*, Fig. 2. Fig. 4 shows the parts detached.

Like letters of reference mark the same parts throughout the different views, in which—

a indicates the main-line rails, and *b* the switch-track.

The rails of the switch or side track *b* are bent to the desired angle at *c* and bolted to the main-track rails at *d*, the bases of both rails being planed off sufficiently to allow the heads of the rails to meet and bear snugly together.

e is a block or wedge, of any suitable material, snugly fitting between the main and side track rails the whole distance the switch-rail bears against the main rail, thus making a very rigid connection.

e' is a metal plate secured on the outside of the switch-rail, forming a support for the head thereof.

After the main and switch rails have been rigidly secured together the groove *f* in the switch-rail forms the passage and guidance of the flange of a wheel while passing along the main track. Another groove *g* is cut in the rail *b* at the angle the switch is desired to be laid. The groove *g* is for the passage of the flange of the wheel while passing onto the switch.

That portion of the switch-rail that bears against the main rail is of sufficient length to form a guide and guard *h* for the flange of the wheel on the switch after the grooves *f* and *g* are formed therein. Thus it will be seen that the switch-rail forms a guide and guard of itself, thereby doing away with these two as well as other pieces necessary in the mates heretofore invented.

The advantages of this simple construction are obvious, and it is evident that various slight changes might be made in the forms, constructions, and arrangements of the parts described without departing from the spirit and scope of the invention. Hence we do not wish to limit ourselves to the exact construction herein shown and described, but consider ourselves entitled to all such changes that fall within the spirit and scope of our invention.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent of the United States, is—

1. In a switch-mate for railways the combination of the main-track rails, the side or switch rail bent or curved as described and the grooves for the passage of the flange of a wheel cut in said switch-rail for the purpose set forth.

2. A switch-mate for railways comprising the main-track rails, the switch or side track rail, a groove in said switch-rail parallel with said main-track rail, a groove in said switch-rail at an angle to said main-track rail and parallel with said switch-rail and a guide

formed in said switch-rail by means of the groove as shown and described.

3. A switch-mate comprising the main rail, the switch-rail, grooves in said switch-rail, one parallel with the main rail, the other parallel with the switch-rail, a guard formed in said switch-rail by means of the grooves, and a block or wedge between the main and switch rails as set forth.

10 4. A switch-mate comprising the main rail, the switch-rail curved or bent and cut away to snugly bear against the main rail, grooves cut in said switch-rail for the passage of the

flanges of a wheel on either the main or switch rails, a guard formed by means of said grooves and a block or wedge between said main and switch rails all bolted securely together for the purpose set forth. 15

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses. 20

JOHN DELANE, JR.
JOHN F. BLUE.

Witnesses:

ERASMUS M. CORNELL,
FREDERICK J. MAURER.