(No Model.)

2 Sheets—Sheet 1.

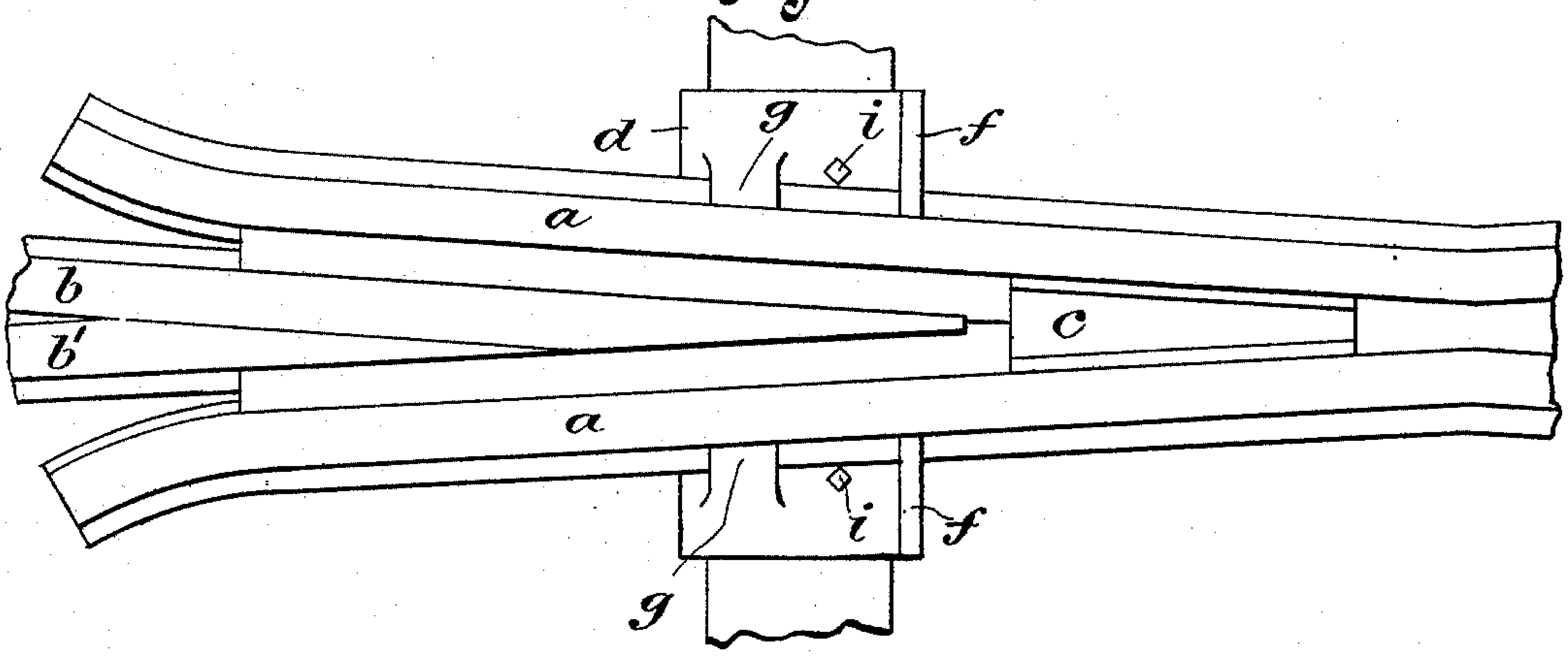
W. ROWLANDS.

RAILWAY FROG.

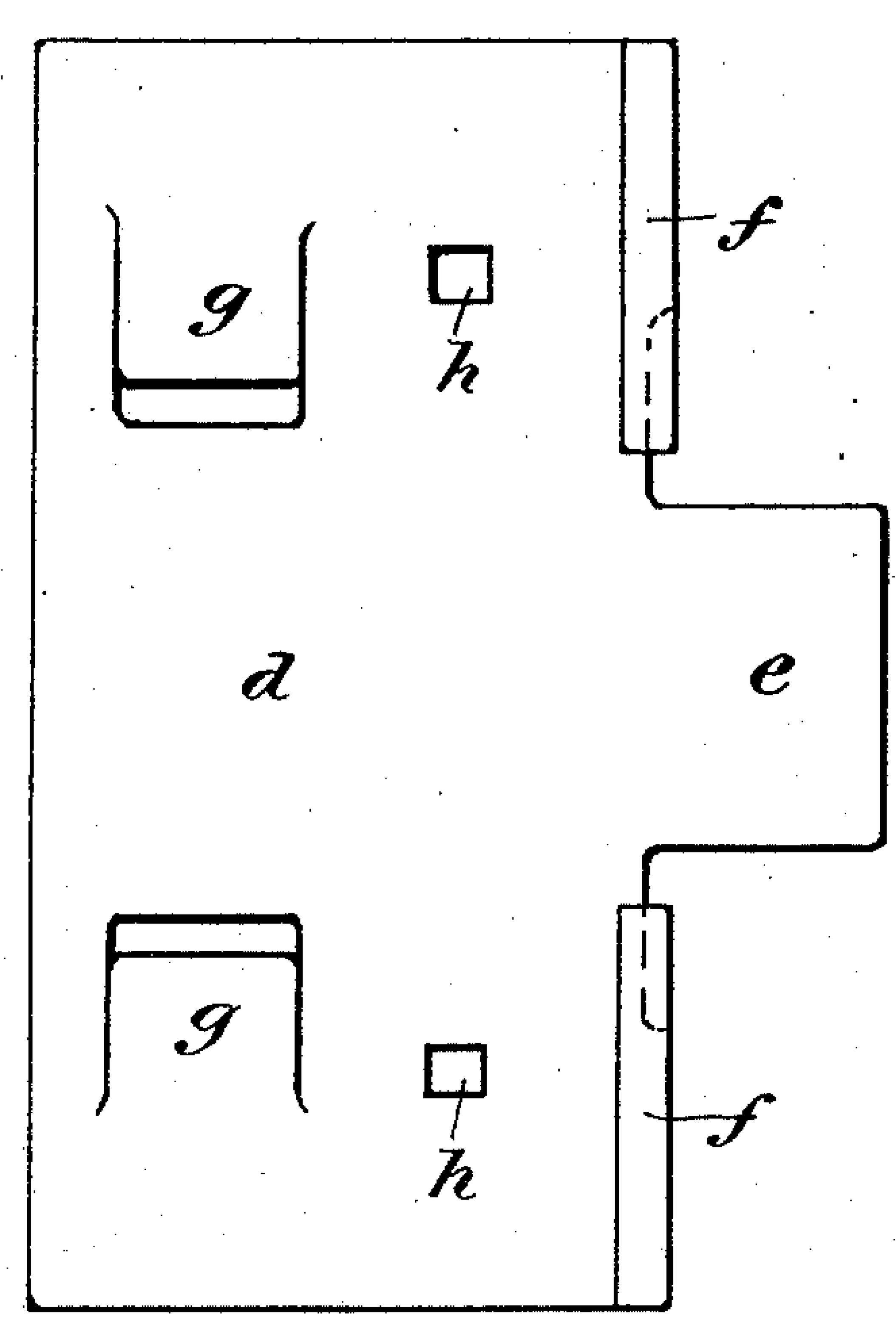
No. 524,469.

Patented Aug. 14, 1894.

— Fig. 1 —



— Fig. 2 —



Witnesses

Inventor

Walter Rowlands

By his Attorney

(No Model.)

2 Sheets—Sheet 2.

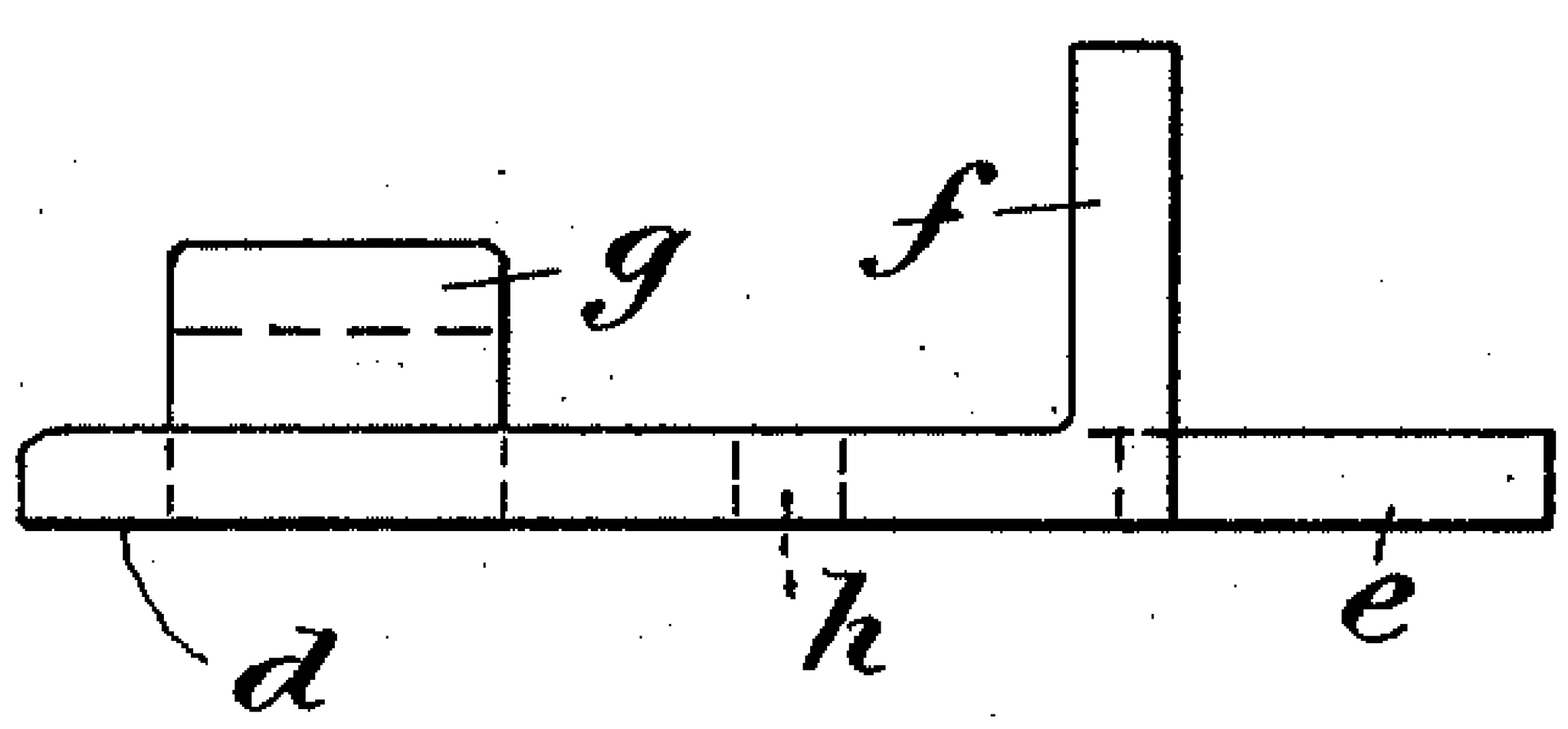
W. ROWLANDS.

RAILWAY FROG.

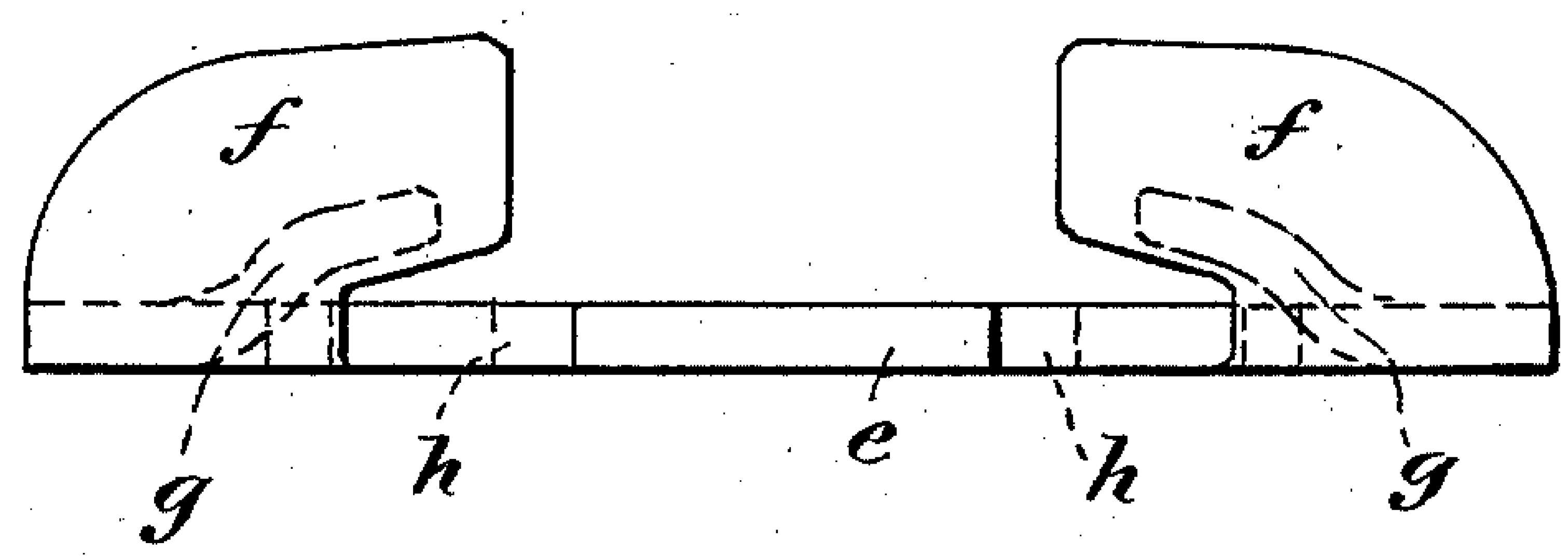
No. 524,469.

Patented Aug. 14, 1894.

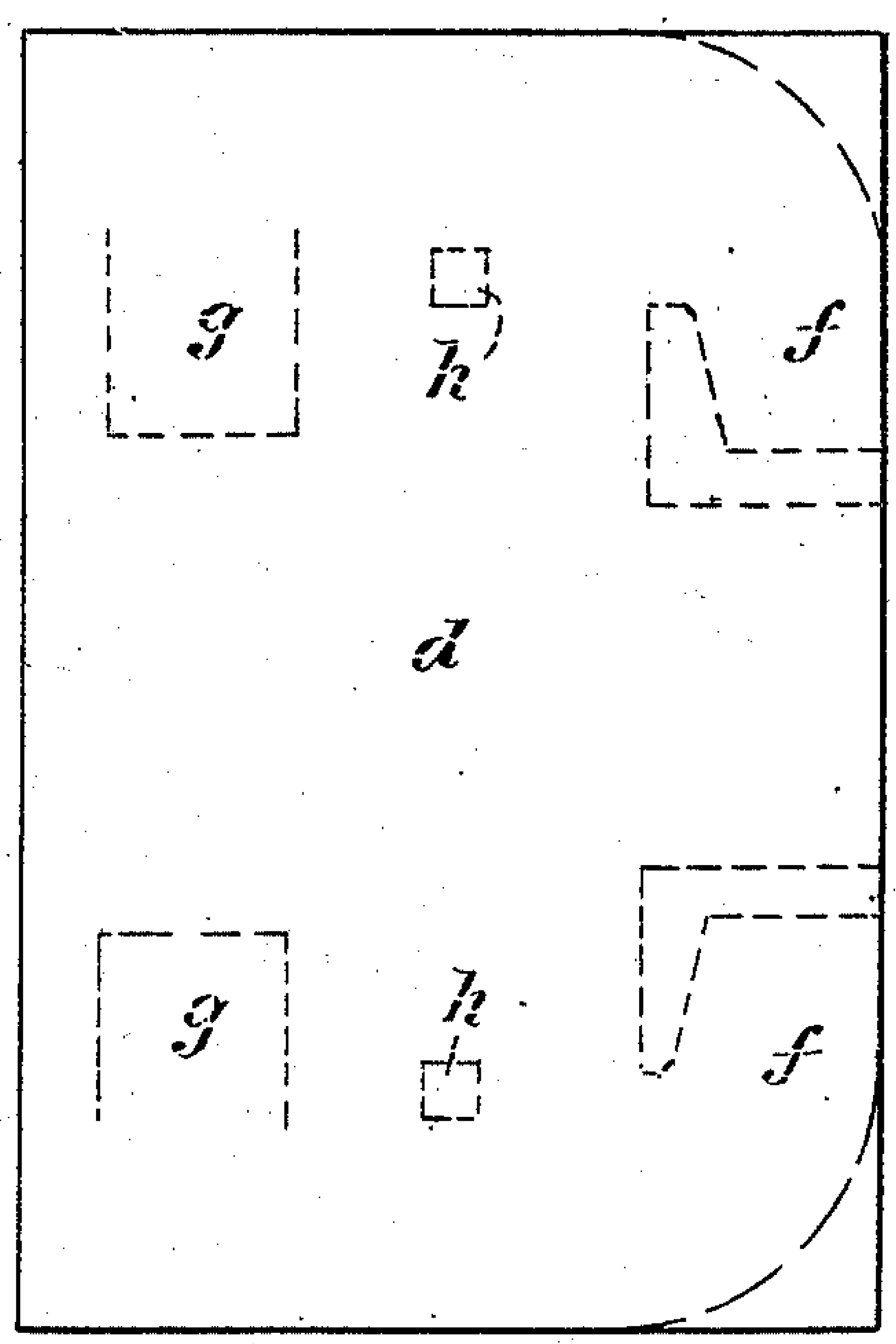
—Fig. 3—



—Fig. 4—



—Fig. 5—



Witnesses

[illegible]

R. A. [illegible]

Inventor

Walter Rowlands

By his Attorney

[illegible]

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UNITED STATES PATENT OFFICE.

WALTER ROWLANDS, OF MONTREAL, CANADA.

RAILWAY-FROG.

SPECIFICATION forming part of Letters Patent No. 524,469, dated August 14, 1894.

Application filed April 16, 1894. Serial No. 507,766. (No model.)

To all whom it may concern:

Be it known that I, WALTER ROWLANDS, of the city of Montreal, in the district of Montreal and Province of Quebec, Canada, have invented certain new and useful Improvements in Railway-Frogs; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to the devices used for supporting, clamping and tightening the frog sections of a railroad and has for its object to produce a more complete and effective device for the purpose.

The invention consists of the improved features hereinafter described and claimed.

For full comprehension however of the invention, reference must be had to the annexed drawings forming a part of this specification in which like symbols indicate corresponding parts, and wherein—

Figure 1 is a plan view of a frog showing my improved supporting, clamping and tightening device in place; Fig. 2 a separate plan view of the device; Fig. 3 a side elevation of same; Fig. 4 a front or face view thereof and Fig. 5 a plan view of the blank from which such device is formed.

The frog comprises the usual wing-rails *a*, *a*, point-rails *b b'*, intermediate filling *c* or its equivalent, and my improved device for supporting and binding the whole together. This device consists of a plate *d* of substantially oblong rectangular form preferably of a width somewhat greater than that of a tie and having an extension *e* at one side to serve as a support for the extreme end of the forward point-rail *b*, two forward butting clamps *f f* adapted to overlap the outer flanges of the wing-rails *a a* and bear directly against the webs thereof, and a pair of rearward clips *g g* to overlap the flanges of such wing-rails. The plate *d* and the clips *g g* constitute in effect a tie plate,—the plate *d* with its extension *e* a frog plate,—and such plate and the clamps *f f* a frog clamp,—thus combining in the single integral device such three elements. The inner ends and edges of the clamps *f* and the inner ends and edges of the clips *g* are located respectively nearer to and farther from the transverse axis of the plate in order to accommodate the oblique lay of the wing-rails as shown in Fig. 1. The plate has two holes *h h* through which the retaining spikes *i i* can be driven into the tie beneath.

Should the parts become worn, the rails creep, or the frog in any way work loose, the retaining spikes are withdrawn and the device forced farther along toward the wider end of the frog till everything is thoroughly tightened up after which the spikes are again driven.

The device is preferably formed from the integral oblong rectangular blank cut as indicated by dotted lines in Fig. 5 and the clamp and clip portions *f* and *g* struck up as shown in the other figures.

It will be apparent that by my invention there are no separate parts to work loose and get out of order the same as in many other forms of clamping devices.

What I claim is as follows:

1. As a device for supporting and holding in place a railway frog, a combined integral tie plate, frog plate and frog clamp with means for retaining it in place.

2. As a device for supporting and holding in place a railway frog, a tie plate having a pair of integral flange clips struck up therefrom and a pair of integral frog clamps standing at right angles to the plate with means for retaining it in place.

3. As a device for supporting and holding in place a railway frog, a tie plate having a pair of integral flange clips struck up therefrom, a pair of integral frog clamps standing at right angles to the plate, an extension of the plate between said clamps, and means for retaining the plate in place.

4. In a railway frog, the combination with the wing-rails *a a*, point rails *b b'* and intermediate filling *c* or the like, of plate *d* adapted to rest upon a tie and having an extension *e* at one side, a pair of integral flange clips *g g*, a pair of integral butting clamps *f f* and perforations to allow retaining spikes to be driven into the tie beneath.

Montreal, 5th day of April, 1894.

WALTER ROWLANDS.

In presence of—
WILL. N. MCFEAT,
FRED. J. SEARS.