

(No Model.)

C. F. KRESS, Jr.
RAILWAY FROG.

No. 584,372.

Patented June 15, 1897.

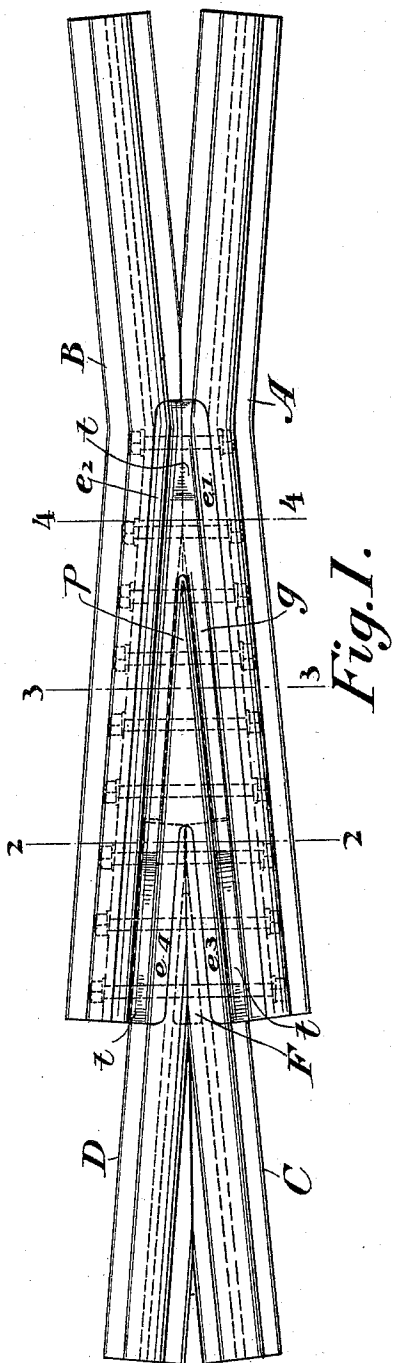


Fig. 1.

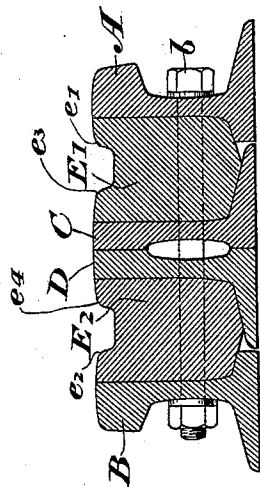


Fig. 2.

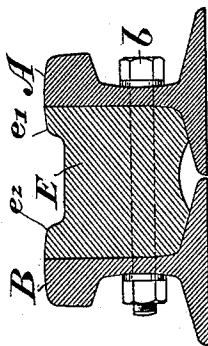


Fig. 3.

Fig. 4.

WITNESSES:
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UNITED STATES PATENT OFFICE.

CARL FREDERICK KRESS, JR., OF JOHNSTOWN, PENNSYLVANIA, ASSIGNOR
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RAILWAY-FROG.

SPECIFICATION forming part of Letters Patent No. 584,372, dated June 15, 1897.

Application filed February 24, 1897. Serial No. 624,828. (No model.)

To all whom it may concern:

Be it known that I, CARL FREDERICK KRESS, Jr., of Johnstown, Cambria county, Pennsylvania, have invented certain new and useful Improvements in Railway-Frogs, of which the following is a specification.

My invention relates to that class of frogs constructed by securing together rails cut and fitted to the proper angle and fastening between them a chock, preferably hardened, which is adapted to take the principal wear caused by the wheels of the traveling vehicle.

The objects of my invention are the production of a frog of the class described which shall be rigid and durable, built up of a small number of component parts, require little expense in the cutting and fitting of parts, and having a chock that will protect the rails from wear to the greatest possible extent, especially at those points which are usually worn the most.

To these ends my invention consists in the novel construction, arrangement, and combination of the parts which I will now describe.

Referring to the drawings, Figure 1 is a plan view of my improved frog. Figs. 2, 3, and 4 are cross-sections on the lines 2 2, 3 3, and 4 4, respectively.

A and B represent two T-rails, bent as shown.

E is a chock bolted between rails A and B, beginning a little beyond the line where rails A and B converge and ending at a point on rails C and D at which said rails have a full head.

The rails A, B, C, and D have their heads cut off on the side nearest the chock, so that the inner web-line is continued, as shown, to the top of the rail. The chock is conformed so that raised portions e' , e^2 , e^3 , and e^4 may take the places of the cut-away portions of the T-rails. The grooves $g g$ of the chock E are only cut deep enough to make a floor-plate for the flanges of the car-wheels to travel upon. Each end of $g g$ is tapered at t , as shown. By this arrangement the point p of the chock is saved from wear.

The greatest points of wear in a frog are at the points and at the gage-lines of the rails immediately opposite the point. By the use

of the floor-plate I am enabled to save all wear upon the point, and by the use of the partial heads e' and e^2 I am enabled to present a hard surface at the gage-line opposite the point.

Rails C and D are fitted together, as shown, to form a point and enter between the wings E' and E^2 of the chock. This is done so as to secure a more rigid fastening and to allow of bolting a guard-rail to C and D, which will fit the end of the chock. This guard-rail is not shown and is not needed except for curve work.

In a curved frog e' , e^2 , e^3 , and e^4 are required to take much wear throughout their length, and an added advantage of my invention is that I am enabled to offer a hardened surface at all gage-lines throughout the frog.

Bolts $b b$ secure the parts together rigidly, and it will be seen that the arrangement shown is such that when desired the chock can be readily removed by loosening bolts $b b$ and a new chock inserted.

I prefer to insert a filler-piece F between the webs of the converging rails C and D.

In the foregoing description and in the claims I have referred to the gage-line of the rails. In these references it is understood that I mean not only the actual gage-lines of the track, but that part of each rail adjacent to the chock which is ordinarily called the "gage-line" of the rail.

I do not limit myself to the exact construction or arrangement here shown, as many modifications might be made therein without departing from the scope of my invention.

What I claim, and desire to protect by Letters Patent, is—

1. In a railway-frog, the combination with the plurality of separate recessed frog-rails, of the chock secured between the walls of said rails and having a gage-line in alinement with the gage-line of each frog-rail.

2. In a railway-frog, in combination, the rails cut on their inner sides so as to have vertical side walls above their lower flanges, and a chock with vertical side walls secured between said rails.

3. In a railway-frog, a chock having a point, grooves upon which the wheel-flanges are

adapted to roll, a gage-line in alinement with each of the rails, and head portions, as e' , e^2 , e^3 and e^4 , adapted to occupy cut-away portions of the head of each rail.

- 5 4. In a railway-frog, in combination, a chock having a point, head, gage-lines, and wings, rails fitted and secured to the outside of the chocks, and converging rails fitted and secured to each other and to the inside of the
10 wings.

5. A chock for railway-frogs, having a surface comprising a floor-plate, a raised portion adapted to form the point of the frog, and raised portions adapted to take the place of

cut-away portions of the head of each of the 15 frog-rails.

6. In a railway-frog, in combination, bent rails, a chock between said rails, said chock having a point, grooves head portions, and wings converging rails between the wings of 20 said chock, and means for securing the whole together.

In testimony whereof I have affixed my signature in presence of two witnesses.

CARL FREDERICK KRESS, JR.

Witnesses:

ROBT. PHILLIPS, JR.,

H. W. SMITH.