

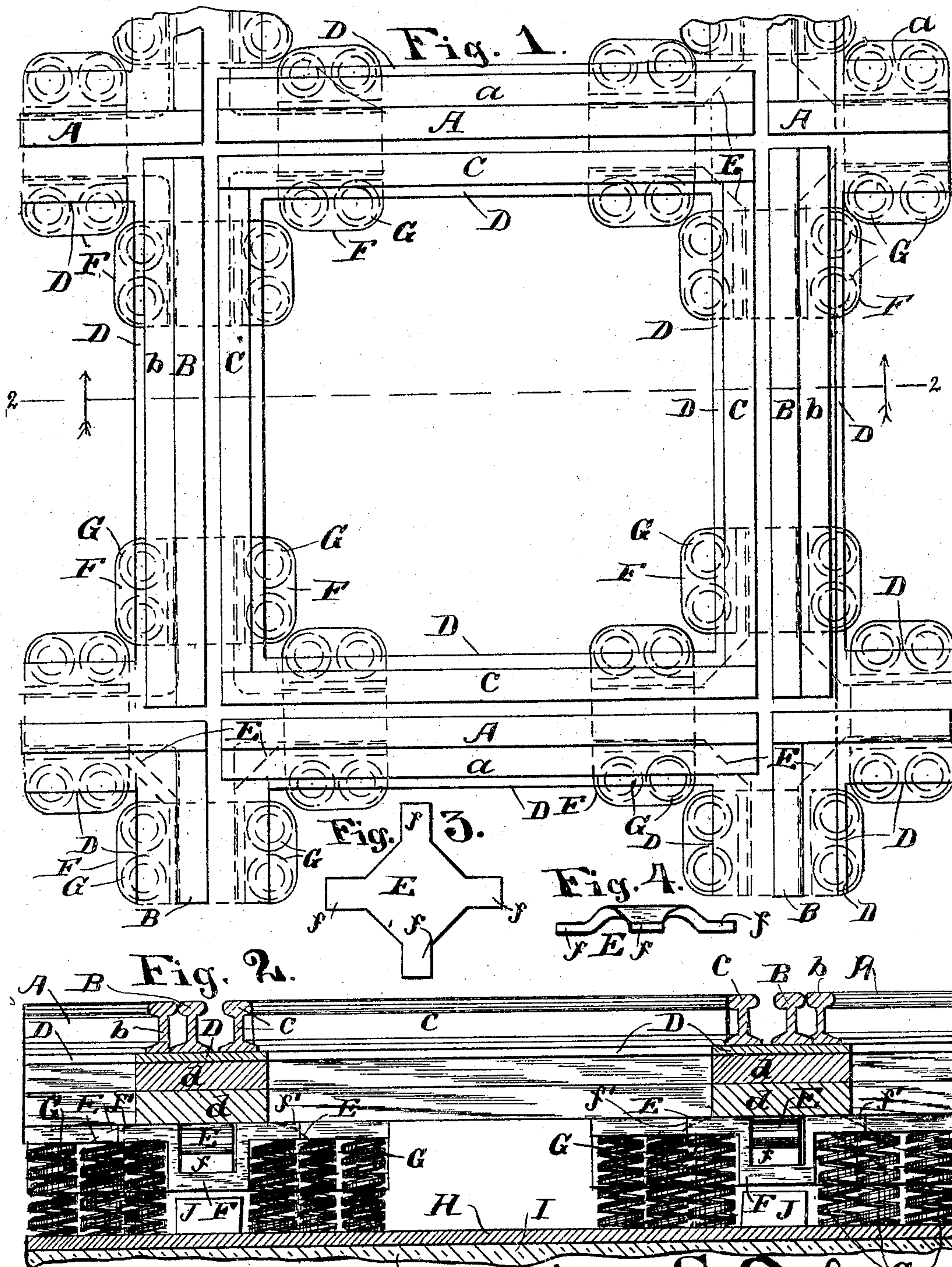
No. 798,145.

PATENTED AUG. 29, 1905.

C. S. OSBORN.

GRADE CROSSING FOR RAILROADS.

APPLICATION FILED JULY 7, 1904. RENEWED MAR. 17, 1905.



Witnesses:
J. Campbell.
H. A. Adams.

Charles S. Osborn,
Inventor.
By Charles Turner Brown
Att'y.

UNITED STATES PATENT OFFICE.

CHARLES S. OSBORN, OF CHICAGO, ILLINOIS.

GRADE-CROSSING FOR RAILROADS.

No. 798,145.

Specification of Letters Patent.

Patented Aug. 29, 1905.

Application filed July 7, 1904. Renewed March 17, 1905. Serial No. 250,607.

To all whom it may concern:

Be it known that I, CHARLES S. OSBORN, a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Grade-Crossings for Railroads, of which the following, when taken in connection with the drawings accompanying and forming a part hereof, is a full and complete description, sufficient to enable those skilled in the art to which it pertains to understand, make, and use the same.

This invention relates to the crossing of the rails of one railroad by the rails of another railroad, the crossing of the rails of a railroad by the rails of a street-car road, and the crossing of the rails of one street-car road by the rails of another street-car road; and the object of this invention is to obtain a crossing of that kind usually termed "grade-crossings," which will lessen or distribute the shock or jar on the parts thereof adjacent to the wheels rolling over the same, which will not be liable to get out of order, which will not be liable to injure or derail cars traveling over the same, and one which will be economical in construction and maintenance.

I have illustrated a grade-crossing embodying this invention by the drawings hereinbefore referred to, in which—

Figure 1 is a plan view of a grade-crossing. Fig. 2 is a vertical sectional view of the grade-crossing illustrated in Fig. 1, on line 2 2 of such Fig. 1, viewed in the direction indicated by the arrows. Fig. 3 is a plan view of a spider forming an element in a grade-crossing embodying this invention, and Fig. 4 is a side elevation of the spider illustrated in Fig. 3.

A reference-letter applied to designate a given part is used to indicate such part throughout the several figures of the drawings wherever the same appears.

A A are the rails of one track, and B B are the rails of a track crossing rails A A.

a a and b b are respectively auxiliary rails to rails A A and B B.

C C are additional rails, usually termed "safety-rails."

D is a metal plate constituting a foundation on which the several rails A A, B B, a a, b b, and C C are placed, and d d' are ties, sleepers, or planks on which the plate D is placed.

E E are spiders, preferably made of metal,

which are respectively placed at the four corners of the crossing and on which the ties, sleepers, or planks D D rest and by which they are supported.

f f f f are the ends of spiders E E, respectively.

F F are saddles, preferably made of metal, as wrought or cast iron or cast-steel, in which saddle the ends f f f f of the respective spiders E E rest and by which they are supported.

f' f' are the ends of saddles E E, respectively.

G G are springs underneath the ends f f of the respective saddles F F.

H is a foundation on which the lower ends of the springs G G rest.

Foundation H may well consist of plank, ing, stone, or metal plates resting on the concrete or cement foundation I.

J J are stops placed underneath saddles F F, respectively, to limit the downward movement of such saddles and the load carried thereby, caused either by the resiliency of the springs G G or the breaking of one or more of such springs.

The purpose of the springs G G is to distribute the shock of a rapidly-moving train over the crossing rather than to present resilient supports for saddles E E, respectively, and such springs are therefore made of sufficient size and strength to stand up to the load received by them, so that the rails have but little, if any, vertical movement.

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

1. In a grade-crossing the combination of a base, springs on the base, saddles on the springs, spiders on the saddles, a framework of timbers on the saddles, and rails on such timbers; substantially as described.

2. In a grade-crossing the combination of a base, springs on the base, a framework of timbers, connections between the framework of timbers and the springs to support such framework on the springs, and rails on such timbers; substantially as described.

CHARLES S. OSBORN.

In presence of—

CHARLES TURNER BROWN,
CORA A. ADAMS.