

(No Model.)

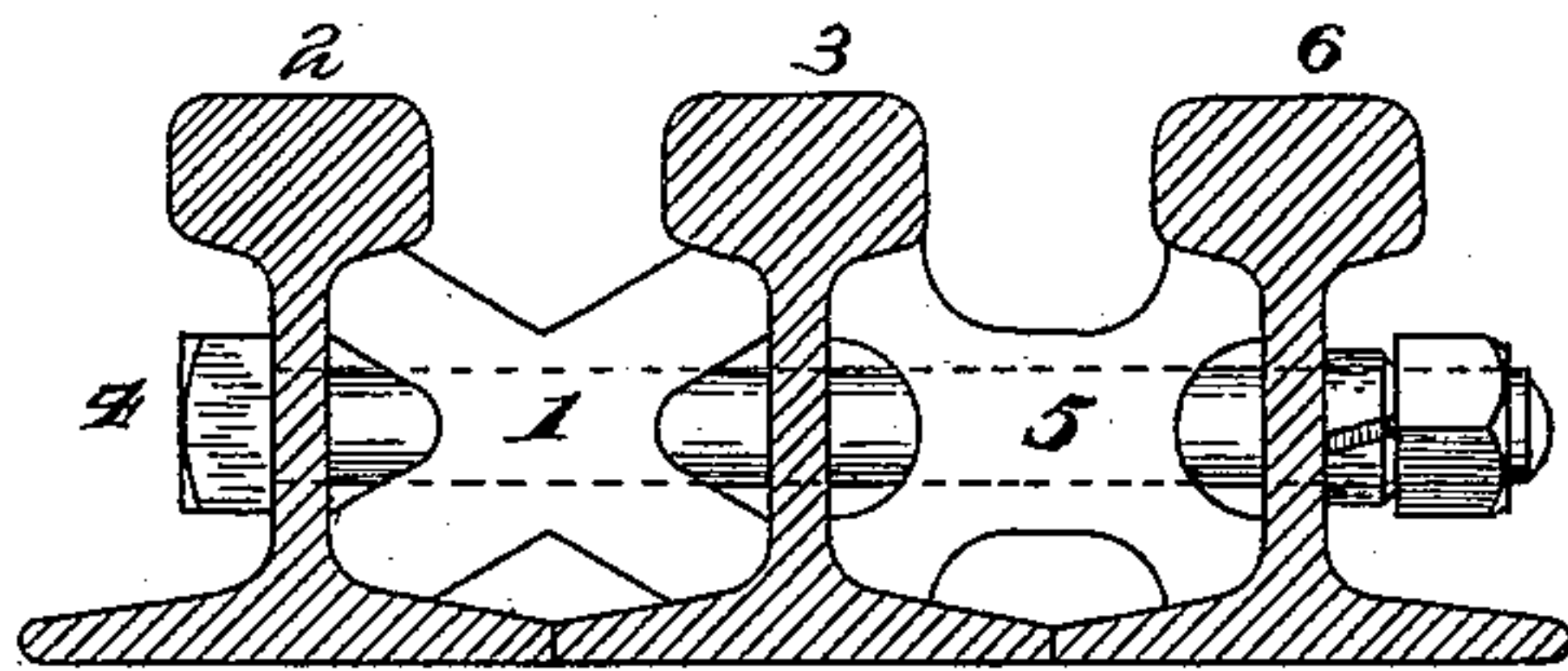
F. C. WEIR.

FILLING FOR RAILWAY FROGS AND CROSSINGS.

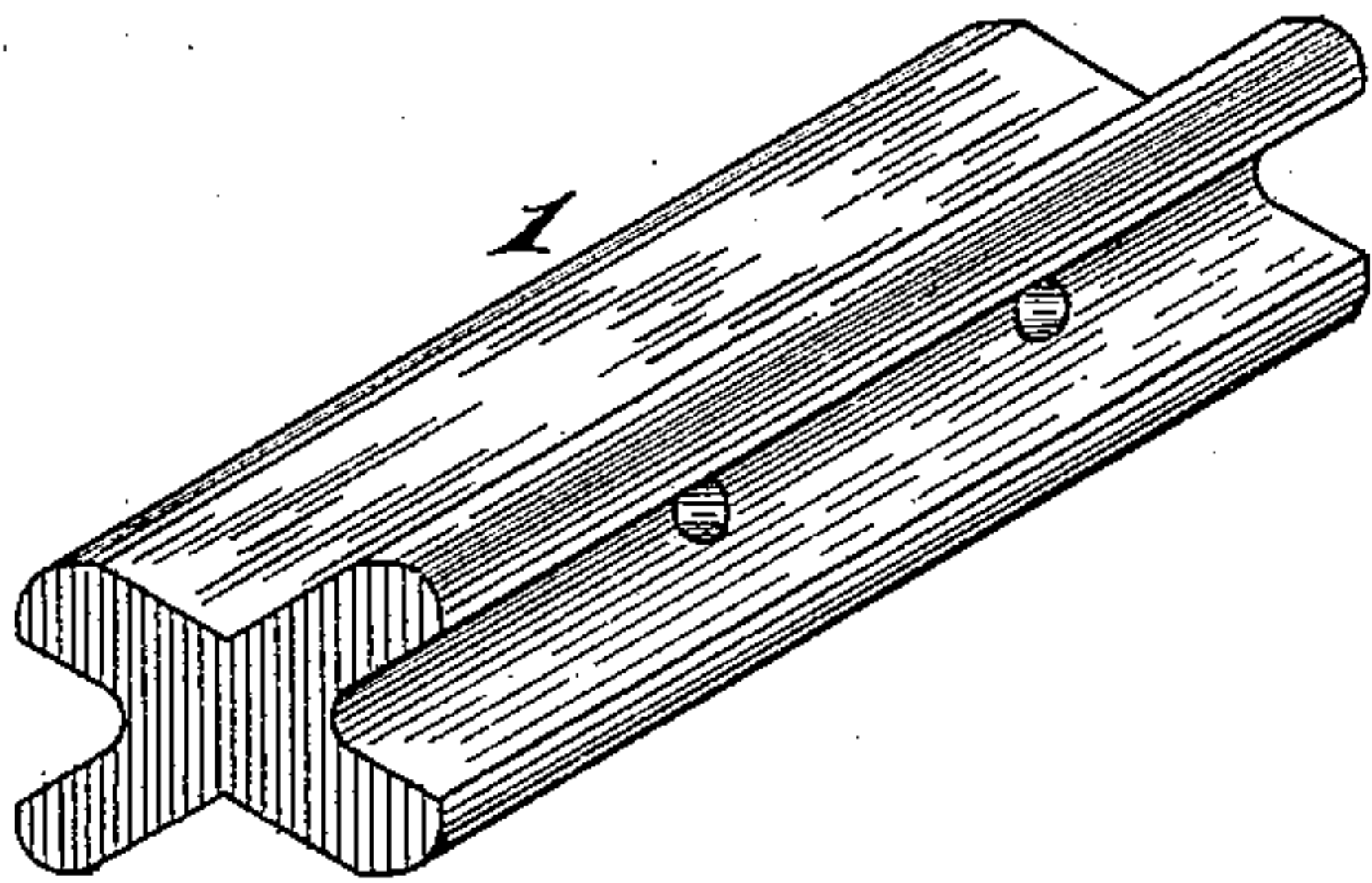
No. 407,754.

Patented July 23, 1889.

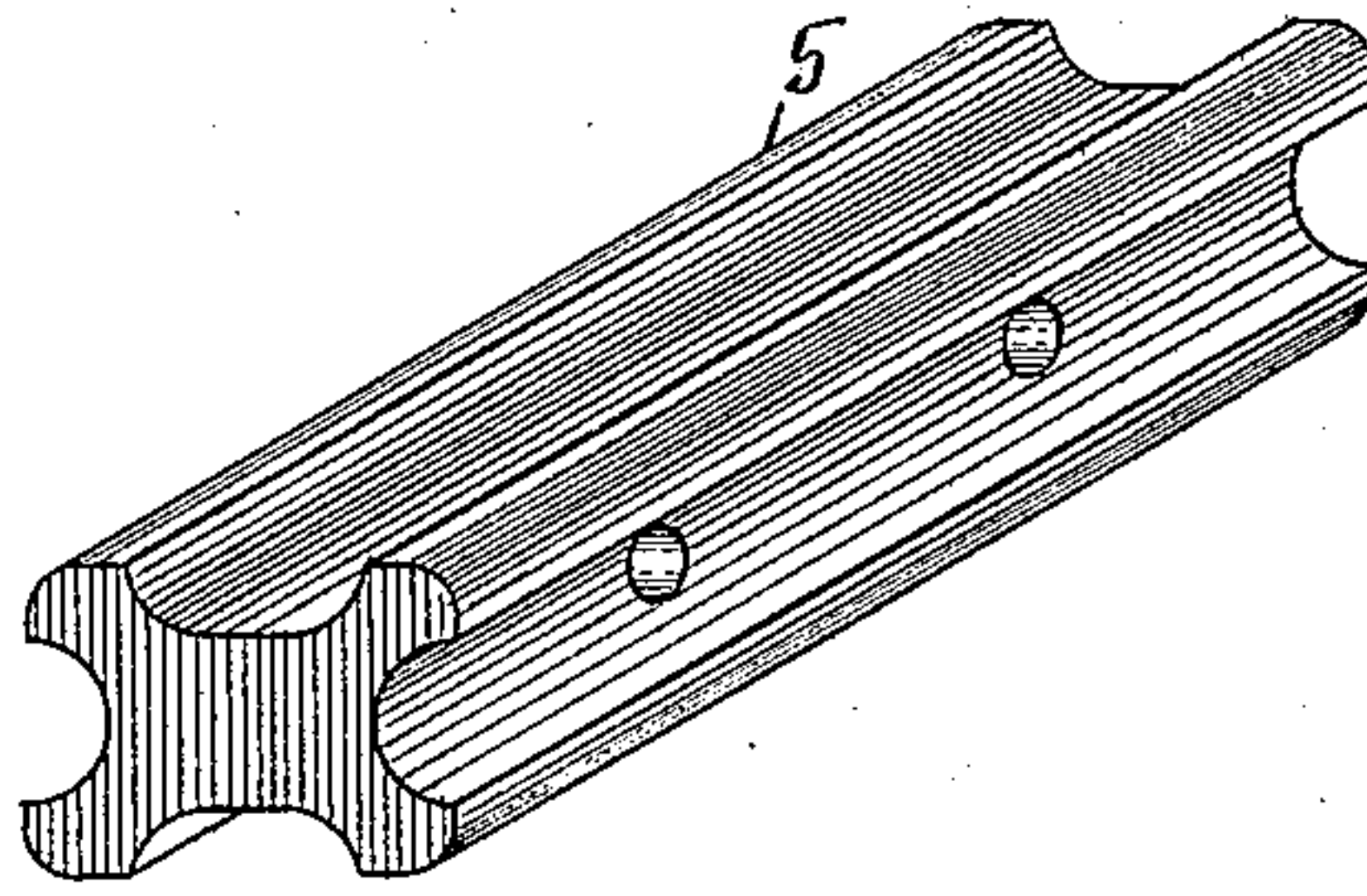
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Attest*

*J. Watson Sims*  
*J. Simmons*

*Inventor*

*Fredric C. Weir*  
*by Woods & Boyd*  
*his Attorneys etc.*

# UNITED STATES PATENT OFFICE.

FREDRIC C. WEIR, OF CINCINNATI, OHIO.

## FILLING FOR RAILWAY FROGS AND CROSSINGS.

SPECIFICATION forming part of Letters Patent No. 407,754, dated July 23, 1889.

Application filed March 30, 1889. Serial No. 305,464. (No model.)

*To all whom it may concern:*

Be it known that I, FREDRIC C. WEIR, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Fillings for Railway Frogs and Crossings, of which the following is a specification.

My invention relates to an improved filling for railway frogs and crossings.

The object of my invention is to provide a strong filling with a minimum amount of material and a maximum amount of strength to support the railway-rails and maintain the space between them; also, to provide such filling of a shape that will allow them to be rolled, the features of which will be fully set forth in the description of the accompanying drawings, making a part of this specification, in which—

Figure 1 is a sectional elevation of a railway-frog and my improved filling applied thereto. Fig. 2 is a perspective view of the filling. Fig. 3 is a perspective view of a modification of the same.

In constructing a railway frog or crossing it is desirable to have the rails supported at the juncture of the head and the web and at the juncture of the web and the flange or base by the filling-piece, which extends from one rail to the other and is formed integral throughout. If this filling is solid, occupying all the space, it makes the frog or crossing too heavy. It is desirable also to have the filling rolled, as cast metal is apt to break under the thrusts and strains to which the frogs and crossings are subjected. I have found that a filling made in the form of a cross is the best suited to this purpose, and that such shape can

be readily rolled. By making the said filling of this cross form the same set of rollers can form fillings of different sizes to fit the various sized rails. This size in rolling is obtained by the use of different passes in the same set of rollers and by the adjustment of the rollers.

1 represents the preferred form of filling applied between the railway-rails 2 and 3.

4 represents a through-bolt, passing through the filling 1 and rail-flange.

5 represents a modification of the filling 1, which consists in making the bottom of the grooves or recesses between the arms of the crossings rounded instead of pointed, as is the case with the filling 1. This filling occupies the space between the rails 3 and 6. The four respective wings of either of these fillings are rounded to abut and brace that portion of the rails to which strain is subjected, and, being recessed out between the arms, decrease the weight without impairing the strength and structural support of the filling.

Having described my invention, what I claim is—

A filling-piece for railway frogs and crossings made in cross form and having the four arms abutting the two adjacent rails in such manner that the two upper arms abut at the juncture of the heads of the rails and the web and the two lower arms at the juncture of the base and the web, substantially as described.

In testimony whereof I have hereunto set my hand.

FREDRIC C. WEIR.

Witnesses:

J. WATSON SIMS,

T. SIMMONS.