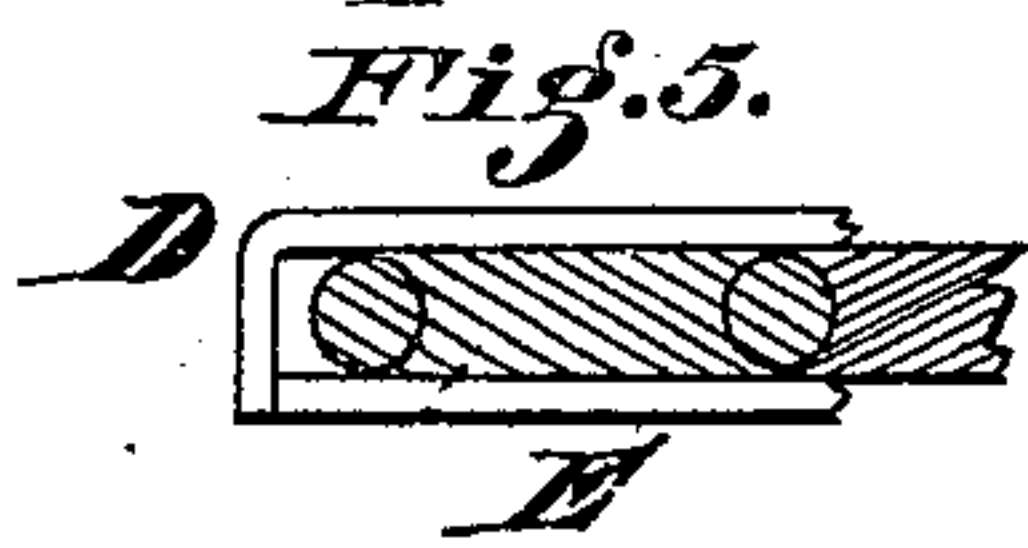
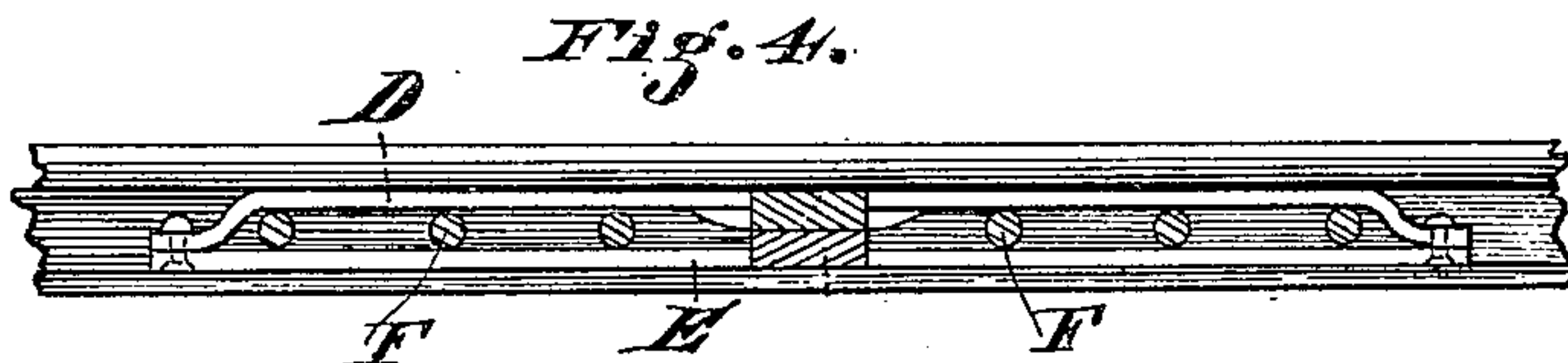
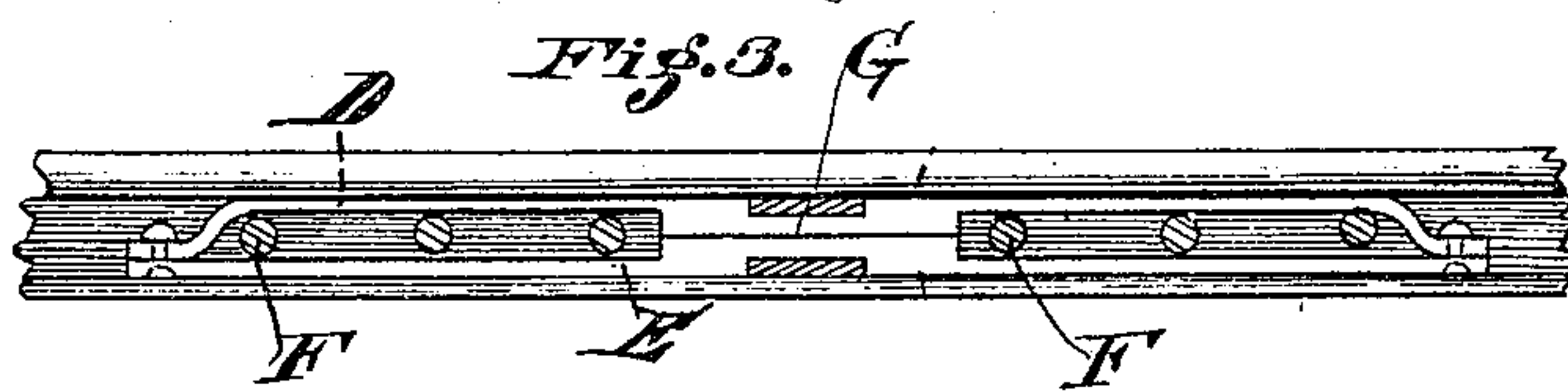
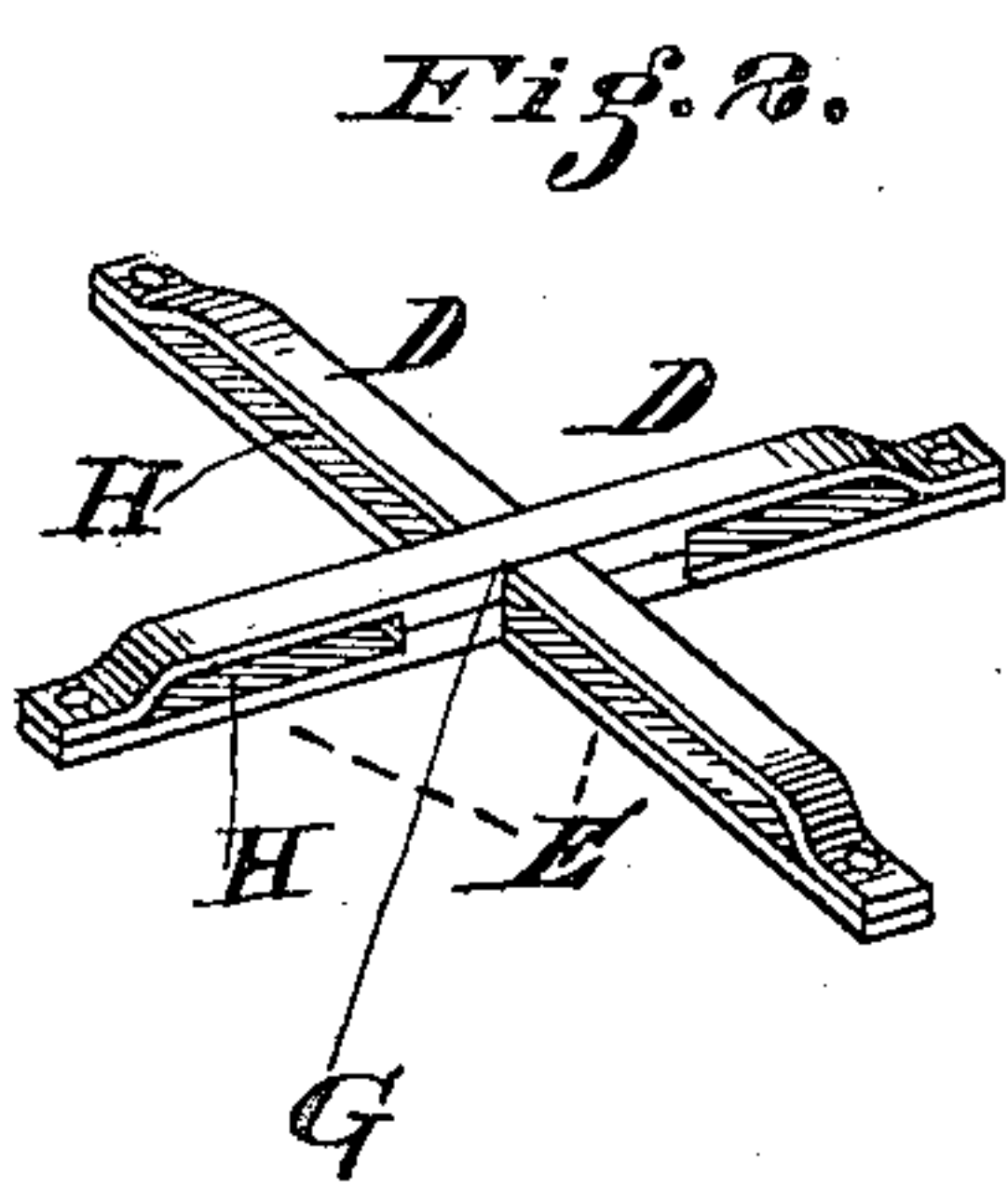
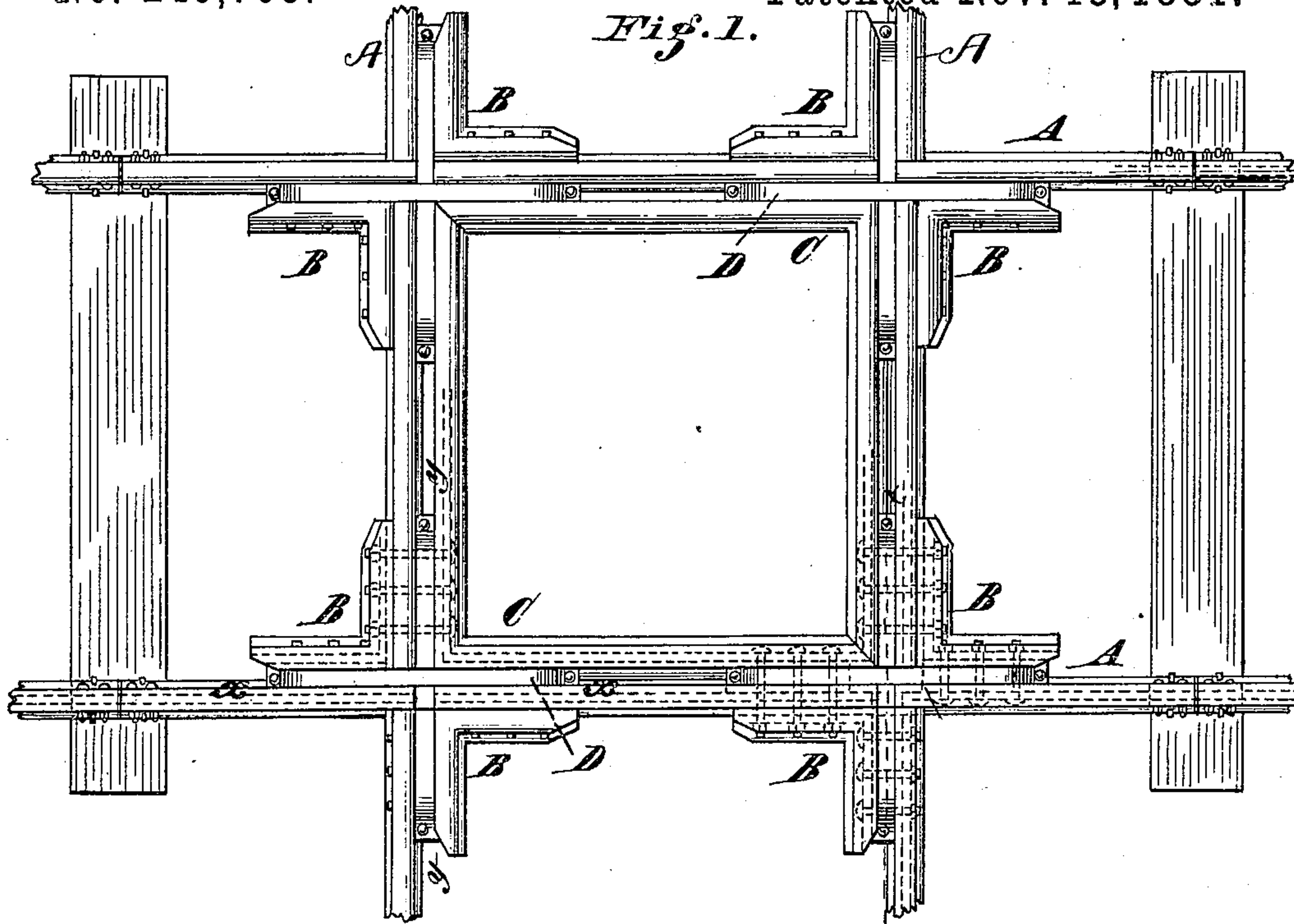


(No Model.)

F. C. WEIR.
RAILROAD CROSSING.

No. 249,705.

Patented Nov. 15, 1881.



Attest
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UNITED STATES PATENT OFFICE.

FREDRIC C. WEIR, OF CINCINNATI, OHIO.

RAILROAD-CROSSING.

SPECIFICATION forming part of Letters Patent No. 249,705, dated November 15, 1881.

Application filed September 12, 1881. (No model.)

To all whom it may concern:

Be it known that I, FREDRIC C. WEIR, of Cincinnati, Hamilton county, State of Ohio, have invented an Improvement in Railroad-Crossings, of which the following is a specification.

My invention relates to that class of crossings constructed of rails, of which—

Figure 1 is a plan view of my invention. Fig. 2 is a perspective view of my improved corner-spacing and flange-supporting plates. Fig. 3 is a sectional elevation on line *x x*, Fig. 1. Fig. 4 is a sectional elevation on line *y y*, Fig. 1. Fig. 5 is a broken sectional elevation of one end of a corner spacing-plate, showing a modified form of uniting the ends, and also a block introduced between the bolts and being the width of the plates. Fig. 6 is a perspective view of one of the blocks shown in Fig. 5.

A A A A are the main-track rails forming the crossing; B B B B, the outside bent corner-strengthening or guard rails; C C, the inside bent corner-strengthening or guard rails; D D D D, the top spacing and flange-supporting plates. E E E E are the bottom spacing and supporting plates; F F, bolts joining the structure.

In constructing this crossing I use the usual main-track rails and corner spacing or flange-supporting plates so formed as to be halved together at the required angle of crossing at G. The plate forming the upper half of this flange-support has a re-enforcing piece on its under side, and the plate forming the lower half has a re-enforcing piece on its upper side, so that when put in place between the bottom flange and head of the rails these two re-enforced surfaces meet and complete a solid support at the immediate crossing-point when it is necessary to carry a portion of the weight on the flanges of the wheels to protect the junction of the rails when cut to permit of the passage of the flanges.

Between the re-enforcing parts and the ends of the plates open spaces H are left, through which pass the transverse bolts that also pass through the webs of the rails and join the structure solidly together. The provision of these open spaces avoids the labor and expense of drilling holes for the passage of the bolts.

The top spacing or filling plates are riveted

at the ends to the bottom spacing-plates, as shown in Figs. 1, 2, 3, and 4, or may be bent over at the ends to hold the bottom plate, as shown in Fig. 5. In addition to these corner spacing and flange-supporting plates I use solidly-bent corners both inside and outside, through which the bolts are passed, thus joining the whole structure and very materially strengthening it. These bent corners also serve as guards for the flanges into and out of the flange-openings of the crossing, and they are made preferably from the same material as the body of the crossing; but a different size or shape may be used.

I do not intend to confine my invention to the use of combined steel and iron filling-plates, as it is obvious that both sections, when made of either steel or iron, will embody the features of my invention.

The object of this invention is to furnish a strong angular form of spacing-plates, the top half of which may be made of steel for the flanges to wear on, and the bottom half of iron, both halves of which may be accurately planed to the required angle, and thus produce a strong, accurate, and, if steel is used, an extra durable flange-support at the corners, and by putting together in halves save the extra labor of drilling, thus making a cheaper construction.

Having described my invention, what I claim is—

1. A railroad-crossing having its corner angular spacing and flange-supporting filling constructed of top and bottom plates united so as to form a space sufficient to pass bolts between them, substantially as specified.

2. A railroad-crossing having its angular spacing and flange-supporting filling constructed of top and bottom plates, and having its inside and outside corners strengthened by solidly-bent corners from the same material as the body of the crossing, said strengthening-corners also acting as guards, substantially as specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FREDRIC C. WEIR.

Witnesses:

JNO. E. JONES,

EUGENE L. FIRNKOESS.