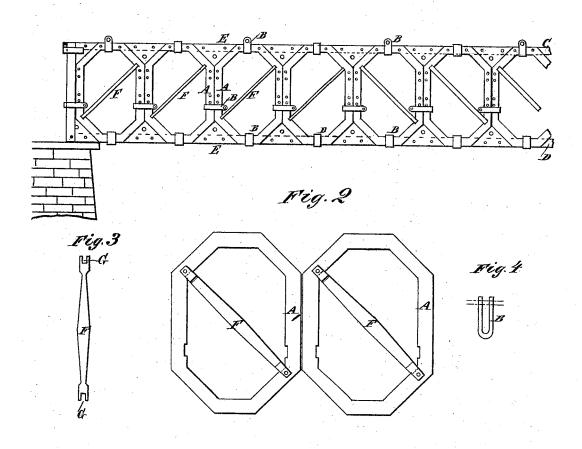
### W. H. MILLER.

### WROUGHT IRON BRIDGES.

No. 185,185.

Patented Dec. 12, 1876.

## Fig. 1



WITNESSES:

S.W. Almgorst John Soethals M. H. M. Iniler

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

WILLIAM H. MILLER, OF CURWENSVILLE, PENNSYLVANIA.

#### IMPROVEMENT IN WROUGHT-IRON BRIDGES.

Specification forming part of Letters Patent No. 185, 185, dated December 12, 1876; application filed May 22, 1876.

To all whom it may concern:

Be it known that I, WILLIAM H. MILLER, of Curwensville, Clearfield county, Pennsylvania, have invented a new and Improved Wrought-Iron Bridge, of which the following is a specification:

My invention consists of a truss made of six-sided frames of iron placed upright in a line and clamped together, and also top and bottom chords, and stayed with plates and braces in a manner calculated to make a light, simple, and very strong bridge, capable of sustaining great weight, and being very stiff against lateral vibration.

Figure 1 is a side elevation of my improved truss. Fig. 2 is a detail of a couple of the frames in side elevation. Fig. 3 is a side elevation of one of the braces; and Fig. 4 is a side elevation of a clamp, such as is used in clamping the frame together.

Similar letters of reference indicate corre-

sponding parts.

A represents six-sided frames, to be made of plate iron riveted together, and substantially in the form shown—that is, with long vertical sides and shorter top and diagonal sides—which frames are placed together at the vertical sides in a row, and clamped to-

gether by clamps B, the top and bottom sides being fastened to top and bottom chords C and D, respectively, and strengthened by the triangular plates E, and by braces F. Besides being bolted to the top and bottom chords, they are also secured by clamps B. The braces are slotted at the ends G, to connect with the frames, the braces being put inside of them, and they are fastened in position by bolts. They incline toward the center of the truss-frame each way.

The clamps may be dispensed with, if desired; but it will generally be preferable to

use them.

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

1. The combination of frames A, top and bottom chords C D, plates E, and braces F. substantially as specified.

2. The combination of clamps B with the frames A, chords C D, braces F, and plates E, substantially as specified.

WILLIAM H. MILLER.

Witnesses:

JNO. W. WRIGLEY, D. F. ETZMEILER.