

A. HAY.
COMPOUND-GIRDER.

No. 179,114.

Patented June 27, 1876.

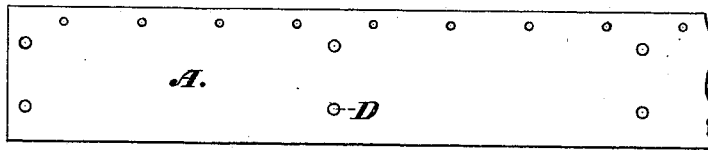


Fig. 1.

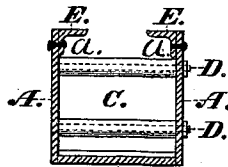


Fig. 2.

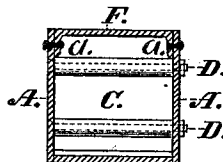


Fig. 5.

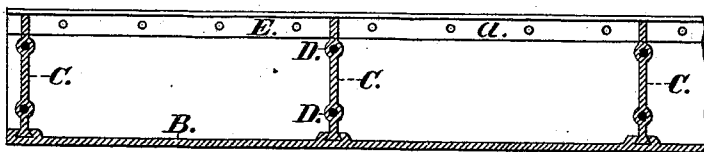


Fig. 3.

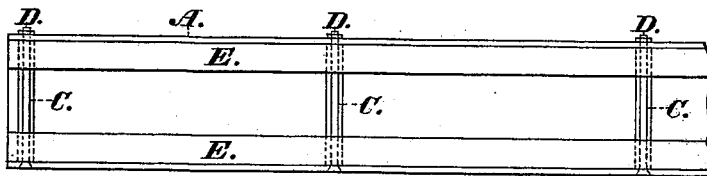


Fig. 4.

Witness
Horace Harris
R. W. Holmes

Inventor
Adam Hay

UNITED STATES PATENT OFFICE.

ADAM HAY, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN COMPOUND GIRDERS.

Specification forming part of Letters Patent No. **179,114**, dated June 27, 1876; application filed May 19, 1876.

To all whom it may concern:

Be it known that I, ADAM HAY, of Newark, in the county of Essex and State of New Jersey, have invented a certain Improved Compound Girder, of which the following is a specification:

My invention consists in an improvement on my former patent for a compound box-girder, No. 164,734, June 22, 1875—viz., in strengthening the girder by the application of an element to the upper side.

Figure 1 is a side elevation of a girder. Fig. 2 is a cross-section, showing the added part. Fig. 3 is a longitudinal section, showing the same. Fig. 4 is a plan, showing the added part on each side. Fig. 5 is a cross-section, showing a modification of the added part.

My former patent girder had the bed or base B of cast-iron, with cast-iron ribs C, and the sides A, of wrought-iron, bolted to the bed and to the ribs; but the upper side was left open, thus leaving unoccupied a place of strengthening, which may be utilized to advantage. I now take the girder constructed on my former plan, and to the inside of the upper edge of sides A I bolt, through the flanges *a*, the angle-iron strips E, made of wrought-iron running the whole length of the

girder. That part of the strip facing on the top may be of such width as experiment shall prove most desirable; or, instead of these strips, there may be a channel-iron plate, F, as shown in Fig. 5, extending across the whole of the upper side; and this plate may be either of wrought or cast iron, and made with flanges *a* extending down from the lower side, by which it will be bolted, the same as the angle-strips, to the sides A. In either case the girder will be materially strengthened by the additional part or parts.

I claim no part of the devices set forth in my former patent, but only this filling in of the upper side for increased strength. The same devices may be employed in the construction of columns for the support of fronts.

I claim—

In the compound girder having the cast-iron base B and wrought-iron sides A, the combination of the angle-iron strips E therewith, substantially as and for the purpose specified.

ADAM HAY

Witnesses:

HORACE HARRIS,
R. W. HOLMES.