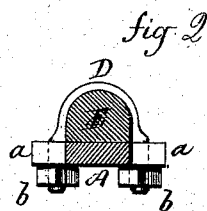
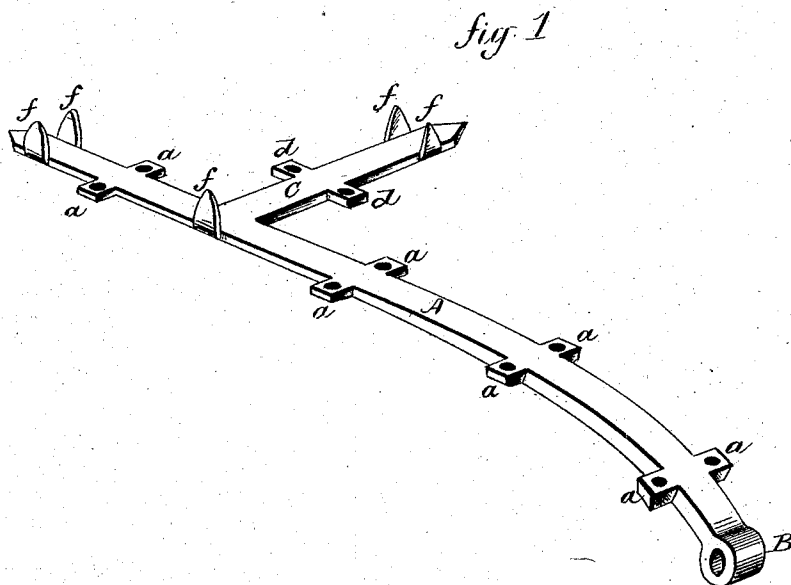


W. TERRELL.
Carriage-Shaft Irons.

No. 156,829.

Patented Nov. 10, 1874.



Witnesses.
D. W. Thurgway
H. R. Peck

Wales Terrell
Inventor
By Atty.
John O. Carl

UNITED STATES PATENT OFFICE.

WALES TERRELL, OF ANSONIA, CONNECTICUT.

IMPROVEMENT IN CARRIAGE-SHAFT IRONS.

Specification forming part of Letters Patent No. 156,829, dated November 10, 1874; application filed July 29, 1874.

To all whom it may concern:

Be it known that I, WALES TERRELL, of Ansonia, in the county of New Haven and State of Connecticut, have invented a new Improvement in Carriage-Shaft Irons; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 a perspective view; and in Fig. 2 a transverse section as applied to a shaft.

This invention relates to an improvement in what are known to the trade as "shaft-irons"—that is to say, an iron by which the shafts are attached to the shackle on the axle of carriages. These are formed with an eye to fit the shackle, and are usually secured by bolts passing through both the shaft and iron. This necessitates the boring of the shaft, and, consequently, weakens the shaft at the point where the bolt passes through. The object of this invention is to avoid the boring of the shaft, and more perfectly secure the iron to the shaft; and it consists in a shaft-iron formed with lugs upon either side, to serve as clip-bars, and with a transverse arm with similar lugs to take the cross-bar, as more fully hereinafter described.

A is the iron, formed with an eye, B, in the usual manner; C, the arm, which extends

from the body A beneath the cross-bar. On the opposite sides of the body lugs *a* are formed, and then drilled to receive the ends of a clip. Clips D, as seen in Fig. 2, prepared for the purpose, are set on the shaft E through the lugs *a*; then secured by nuts *b*. In the arms C similar lugs *d* are formed; and, as a further protection against transverse strain, lips *f* are formed upon, and turned up from, the iron, to embrace the sides of the shaft and of the cross-bar.

By this construction neither the shaft nor the iron are drilled, and, consequently, weakened. I am enabled, therefore, to make the iron of the same strength, but of considerable less weight than when the iron is drilled.

The lips are not essential to the iron, but are desirable in many classes of work.

I claim—

1. The shaft-iron, consisting of the body A, the arm C, and eye B, the body constructed with lugs *a* upon opposite sides, substantially as described.

2. The shaft-iron, consisting of the body A, the arm C, and eye B, the body constructed with lugs *a* and lips *f* upon opposite sides, substantially as set forth.

WALES TERRELL.

Witnesses:

CHAS. H. PINE,
J. G. REDSHAW.