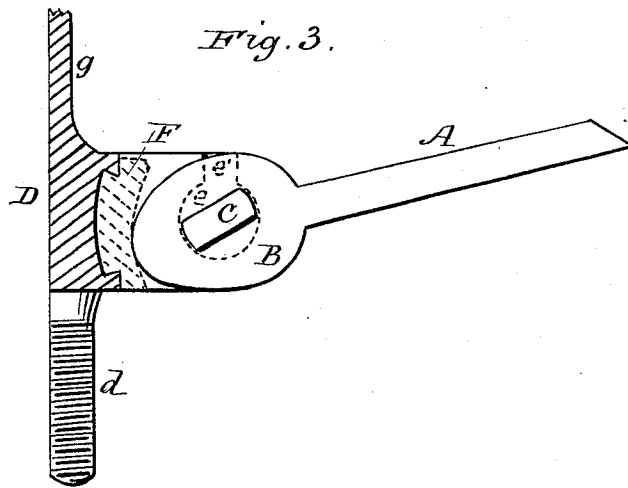
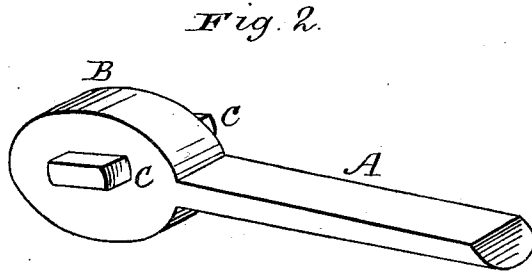
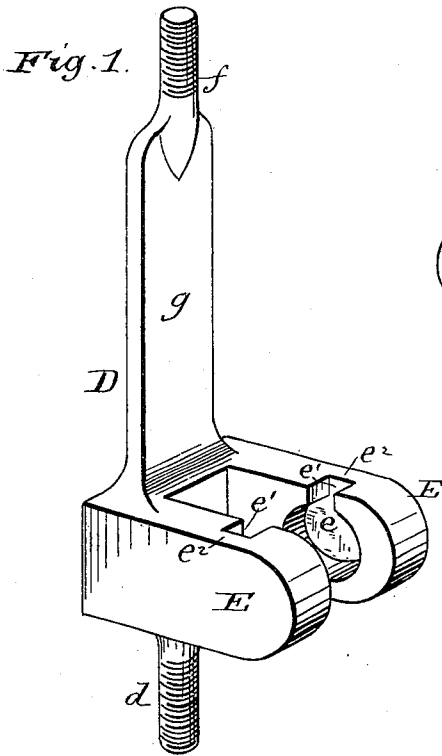


(No Model.)

F. HOFFMAN.  
THILL COUPLING.

No. 246,508.

Patented Aug. 30, 1881.



Witnesses:

E. E. Masson  
J. S. Barker

Inventor:

Franklin Hoffman  
by Doubleday & Bliss  
attys.

# UNITED STATES PATENT OFFICE.

FRANKLIN HOFFMAN, OF FREEBURG, OHIO.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 246,508, dated August 30, 1881.

Application filed April 23, 1881. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN HOFFMAN, a citizen of the United States of America, residing at Freeburg, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Thill-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view of the clip and of the ears for attaching the thills. Fig. 2 is a perspective of the thill-iron. Fig. 3 is a vertical section of the parts when joined.

In the drawings, A represents the thill-iron, which is bolted to the thill or secured thereto in any suitable manner. It is formed with an expanded part or head of oval shape at the rear end, as shown at B, the longer axis of which head is inclined considerably relatively to the line of the thill-iron A.

C C are elongated lugs or ears projecting laterally from the head B. They are situated on the longer axis of the latter, and are therefore inclined to the thill-iron.

D represents the clip. It is cast with the downwardly-projecting arm, *d*, and the upwardly-projecting arm *f*, and the yoke or stirrup-piece *g*, adapted to be bent around an axle, so that the arms *d* and *f* can be joined by a suitable strap.

E E are ears projecting forward from the clip D and cast integral therewith. These ears are separate from each other, and leave an open space between them, extending from the bottom to the top. They are not perforated in the way in which couplings ordinarily are to adapt them to receive a coupling-pin or a lug on the thill-iron. The perforations greatly weaken the clip-ears; and one of the objects of my invention is to provide a means of supporting the thill without the necessity of forming any perforations through the clip-ear or other support.

In my coupling the ears E E are provided upon their inner faces with circular recesses *e*, of a diameter equal to or a little greater than

the length of the lugs C C on the thill-iron. These recesses are deep enough to provide strong bearings for the lugs C C, but do not extend entirely through the ears, leaving solid walls of metal at the outer faces, as shown at *e*<sup>2</sup> *e*<sup>2</sup>.

*e' e'* are throats sunk in the inner faces of the ears and extending from the edges to the central recesses, *e*. These throats are of such width that the lugs C C can pass through them when the thills are turned into the position shown in dotted lines in Fig. 3, into which position they are put whenever they are to be attached to the vehicle or removed.

It will be seen that I have succeeded in devising an exceedingly simple coupling, it having but two parts—the thill-iron and the clip; but notwithstanding the fewness of the parts the coupling is much stronger than are those now used having parts of the same number and of the same general character.

I am aware that use has been made of thill-irons having expanded heads and inclined lugs thereon, and also that they have been constructed in but two parts; and I do not broadly claim such features as my invention. But the thill-couplings with which I have been acquainted have had clips and ears provided with sockets extending entirely through them, and I believe myself to be the first to have devised a coupling of but two parts constructed and arranged as described.

If desired, a cushion of rubber or other suitable material may be inserted behind the thill-iron, as shown at F.

What I claim is—

The clip D, having the ears E E, formed with the outer walls, *e*<sup>2</sup> *e*<sup>2</sup>, intact, with the circular recesses *e e*, and with the throats *e' e'*, said throats and recesses being formed in the inner face of the ears E E, but not extending through them, in combination with the thill-iron having the enlarged oval head B, and the elongated lugs C C, inclined relatively to the thill-iron A, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRANKLIN HOFFMAN.

Witnesses:

HENRY FISHER,  
GEO. E. BALDWIN.