

G. W. PILSON.

Improvement in Thill Couplings.

No. 123,196.

Patented Jan. 30, 1872.

Fig. 1.

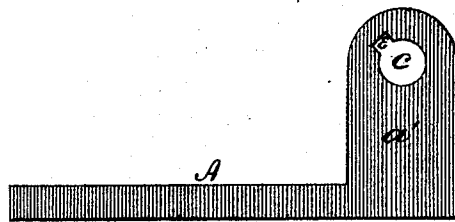


Fig. 3.

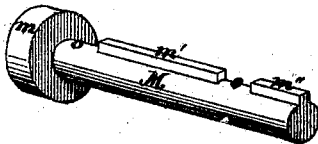


Fig. 2.

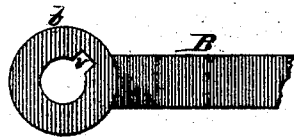
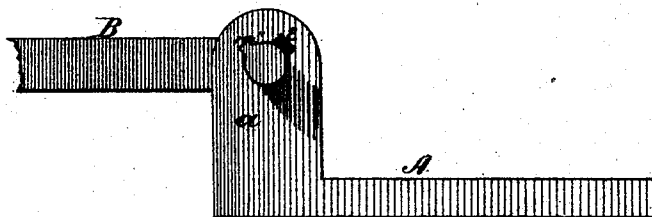


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE W. PILSON, OF TOWSONTOWN, MARYLAND.

IMPROVEMENT IN THILL-COUPPLINGS.

Specification forming part of Letters Patent No. 123,196, dated January 30, 1872; antedated January 25, 1872.

To whom it may concern:

Be it known that I, GEORGE W. PILSON, of Towsontown, in the county of Baltimore and State of Maryland, have invented an Improved Thill-Coupling or Hinge; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a side elevation of the clip or fixed plate of the coupling or hinge. Fig. 2 is side elevation of the shaft-iron or movable leaf of the coupling or hinge. Fig. 3 is a perspective view of the key employed, the end parts shown in Figs. 1 and 2; and Fig. 4 is a view of the whole coupling, a portion of the shaft-iron having been removed to show the arrangement and operation of the key.

Similar letters of reference in the accompanying drawing indicate corresponding parts.

This invention relates to that class of thill-couplings which hold the thills in such a manner that, while in or near the line of draft, they cannot be detached from the carriage, but by raising them up nearly to a vertical position they can be readily disconnected; and my improvement consists in the use of a peculiarly-constructed key or coupling-pin, in connection with the clip and the shaft-iron, as hereinafter described.

In the drawing, A is the fixed plate, clip, or leaf, rigidly attached in any desirable manner to the carriage, and provided with two lugs *a a'*, having a bolt-hole, *c*, through them, a notch or gain, *e*, being made in the side of the hole, as shown. B is the shaft-iron, provided with cylindrical cross-head *t* at its rear end, which cross-head is pierced longitudinally to receive the bolt, supported by the lugs *a a'*. A gain, *v*, is cut in the bolt-hole of the iron, the same as in the holes in the lugs, but arranged so as not to be in line with it when the shafts are in position for working the carriage. In connection with the parts A B, a bolt, M, is employed, having a head, *m*, on one end, and a feather or key, *m' m''*, extending therefrom to the other end, except at the points *o o*, where the bolt bears in the lugs. The bearings *o o* are not perfectly round, but bulge a little on one side, so that, although they enter the bolt-holes freely, yet when the thills are turned down, they cramp in the holes and thus make an anti-rattling connection.

The part B is connected to the part A by placing the cross-head between the lugs with the bolt-holes and notches *e v* in line, and inserting the part M. Then, by turning the thills down to their proper position for drawing or backing the carriage, the outer extremity of the key *m''* passes out of line with the notch *e* in that lug, so that the bolt cannot, by any possibility, be withdrawn or fall out until the carriage is detached from the horses and the thills raised again nearly to a vertical position.

I do not limit myself to any particular form of the notches *e v* and the key *m'*, any shape that will cause them to operate together as described being within the scope of my invention; and instead of notches and a key to pass through them and then turn out of line, bolt-holes and bolts of different shape from the holes may be employed, they being so adapted to each other that one of the heads of the bolt will pass through the hole or bearing and then turn out of line with it and shoulder against the side of the lug, to prevent the bolt from being withdrawn; but I do limit myself to a key in which the feather-head or eccentric portion extends beyond that bearing which is farthest from the head *m*, thus forming the part *m''*, which is seen at the point of the bolt. This elongation of the feather performs three distinct and important functions—viz., first, it prevents the bolt from twisting when it is inserted; secondly, it assists in holding the bolt properly in place; and thirdly, it forms a guide that indicates to the eye exactly the point to which the shaft should be raised to take out the bolt. The feather between the lugs being always concealed, and the head of the bolt being round so as to indicate nothing, it is important that the elongation *m''* should extend in sight, in order to show exactly at what instant the feather comes in line with the notches, so that the bolt can be removed.

I therefore claim as my invention—

A thill-coupling consisting of the plates A B, constructed as described, and the coupling-bolt M, provided with a feather which extends at *m''*, outside of the bearings, substantially as herein set forth.

G. W. PILSON.

Witnesses:

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