

UNITED STATES PATENT OFFICE.

SOLOMON J. WISER, OF BOWMANSVILLE, NEW YORK.

IMPROVEMENT IN THILL-COUPPLINGS.

Specification forming part of Letters Patent No. **163,713**, dated May 25, 1875; application filed April 20, 1875.

To all whom it may concern:

Be it known that I, SOLOMON J. WISER, of Bowmansville, in the county of Erie and State of New York, have invented a Thill-Coupling; and I do hereby declare that the following is a full, clear, and exact description of the same, having reference to the accompanying sheet of drawings, making a part of this specification, and in which—

Figure 1 is a plan view of my improved thill-coupling, showing its application. Fig. 2 is a perspective view, and Fig. 3 a transverse section, of line *xx* of Fig. 1.

Like letters of reference indicate like parts in the several figures wherever they appear.

The nature of this invention will first be described, and then pointed out in the claims.

A is the axle of a vehicle, &c. It has the usual carriage-clips B to connect the wooden axle-tree with the axle proper, and it does not vary in construction from those now in general use. C is the thill or pole, as the case may be, and E E are couplings attached to each end of the axle A by means of the aforementioned clips B. These couplings I construct upon the principle of a pair of tongs, and they consist of the plate D, having the jaw E and the shaft E'. F is a second member of the tongs, consisting also of a jaw, F, projection F', and shaft F''. This second member is movably attached to the stationary member by means of the pivot G passing through the lug H and the projection F'. The jaws proper E and F are provided with the journal-pin J, attached to the loose jaw F in one and to both jaws in the other coupling. K is a spring attached to the shaft F'' and engaging with a notch or indentation, L, in the arm or shaft E' in such a manner that when the jaws E and F are properly closed the spring will act as a brace to prevent the said jaws from opening, either accidentally or otherwise, until the said spring K is first released from its catch in the stationary shaft E'. The jaws E and F are provided with the journal-pin J in such a manner that but one of the couplings has a pivot or projections forming the said journal-pin in each jaw, while the other has a pin attached entirely to the loose jaw F, which pin, in this case, is of a length equal to the width of the mouth of the said jaws. This arrangement I find very convenient to properly en-

gage and disengage the thill, which is effected in the following manner: Supposing the thill coupled, I take hold of both shafts of the tongue-like coupling of that which has the journal-pin attached to the loose jaw F, and press the shafts together after I have released the spring K. This will withdraw the said journal-pin from the thill-iron, so that one side of the thill can be removed. Now I open the other jaws in a like manner, and remove the thill from these jaws also. The process of connecting the thill is a reverse operation from that now described.

The jaws E and F are fitted so close to the thill-irons that no intervening rubber washers are needed to prevent this coupling from rattling, as the spring K has a tendency of closing the jaws E and F, thus tightly embracing the thill-irons. If wanted, however, rubber washers may be placed upon the journal-pins as an additional precaution.

It will be observed that my device is equally applicable to a thill or to a shaft or pole, without any alteration or change therein, and that the same is a locked thill-coupling that can be manufactured from malleable iron or the like at a small cost.

Having thus fully described my invention, in order to enable any one skilled in the art to which it pertains to make and use the same, I desire to secure to me by Letters Patent the following claims:

1. In a thill-coupling, the combination, with a stationary jaw, E, of a movable jaw, F, and a journal-pin, T, substantially as and for the purpose set forth.

2. The combination, with the stationary jaws E and movable jaw F, of the spring K and the catch L, substantially as and for the purpose set forth.

3. The combination, with the clip B, of the plate D, having the jaw E, lug H, and shaft E', with the catch L of the loose jaw F, projection F', and shaft F'', journal-pin J, and spring K, as and for the purpose set forth.

In testimony whereof I have hereto set my hand this 16th day of April, 1875, in the presence of two subscribing witnesses.

SOLOMON J. WISER.

Witnesses:

MICHAEL J. STARK,
JOHN B. EDMONDS.