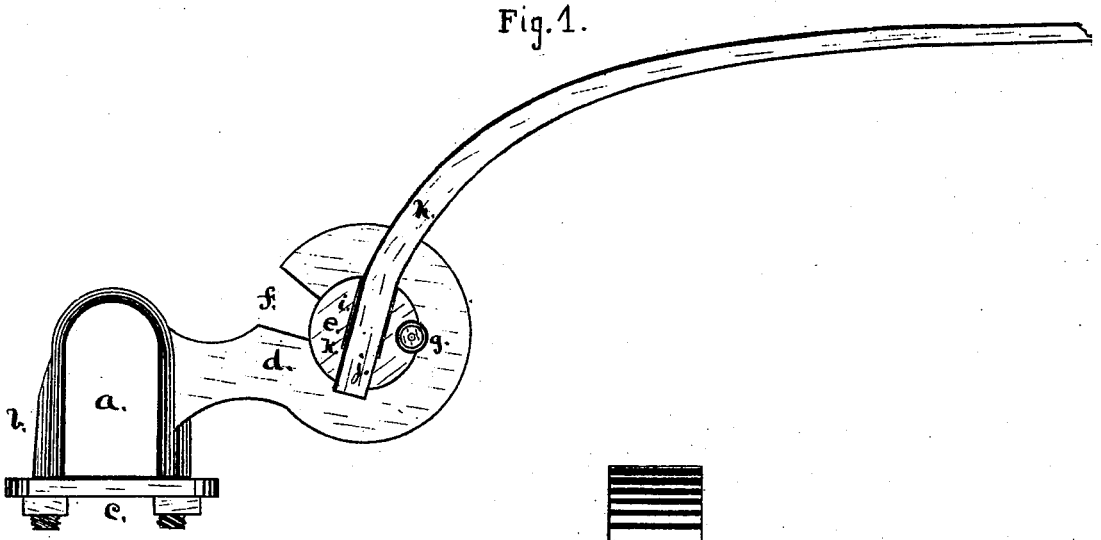
B. F HORTON.

Thill Coupling.

No. 112,811 Patented March 21, 1871.

Fig. 1.



Figs. 2.

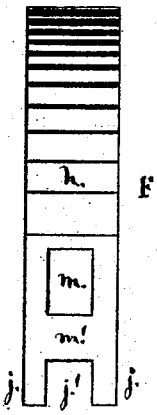


Fig. 3.

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Letters Patent No. 112,811, dated March 21, 1871.

IMPROVEMENT IN THILL-COUPLINGS.

The Schedule referred to in these Letters Patent and making part of the same.

I, BENJAMIN F. HORTON, of Ithaca, Tompkins county, New York, have invented an Improved Coupling for Shafts or Thills, and Wagon-Poles, of which the following is a specification.

My object is to make a hook and disk coupling, and fit it so as to lock and be unlocked readily, as well as be permanently made and easily used; and

The nature of my invention will be apparent as I describe it.

Figure 1 is a side elevation of my invention.

Figure 2, views of the disk detached.

Figure 3, of the thill-bar, from the rear, and detached.

In fig. 1—

a is the space for the axle in the clip; and

b is the axle-clip; and

c, the cross-bar under the axle; and

d is the hook-coupling, fast to the clip, and having the aperture *f*, through which the thill-bar lock *m'*, fig. 3, is inserted or taken out at pleasure; and

e is a flat disk the thickness of the hook, and having a slot, *i*, in it, in which lies a piece of rubber, *k*, for the purpose of keeping the thill-bar in contact with the hook; and also in the slot the cross-piece of the bar, (*m'*, fig. 3;) and further, this disk is held from falling out of the hook by the ear-pieces *g*, whenever the thills are uncoupled.

In fig. 2, at *e*, is seen the deep slot *i* in the disk, the rubber at its base, and the ear-pieces *g;* and at *e'* the edge of the disk is shown with the ear-pieces.

In fig. 3 is seen the slot *j'*, between the two projections *j*, which lap over the junction of the disk and hook, giving a steadiness to the disk and a more even wear to the several parts of my coupling; and

m' is the cross-piece of the thill-bar or the locking-piece.

It will be noticed that fig. 1 represents the thill or shaft-bar in the position it has when the horse is in the thills, and that then uncoupling is impossible; that the wear of the disk by drawing comes on the side of the disk next to to the letter *g*, and that when the thills are raised upward sufficiently the cross or locking-piece *m'* can be unlocked through the aperture *f*, as can be done when the horse is detached.

The other advantages and uses of my invention are apparent to those skilled in the art to which it appertains.

Claims.

1. In combination with the hook and disk, the arrangement of the locking-slot *f*, in the upper and rearward part of the hook *d*, substantially as set forth.

2. The ear-pieces *g*, fast to the sides of the disk *e*, substantially as set forth.

3. The rubber *k*, when situated in the bottom of the slot *i*, and thrusting the cross or locking-piece *m'* against the hook *d*, as set forth.

4. The shaft-bar *h*, when it has the slot *j'*, made by the projections *j*, as set forth.

5. The combined whole, consisting of the upper and rearward slotted hook *d*, the deep-slotted disk *e*, with the rubber *k* and ear-pieces *g*, and shaft-bar *h*, with projections *j*, arranged and used substantially as set forth.

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