

(No Model.)

H. DEGNER.
THILL COUPLING.

No. 503,739.

Patented Aug. 22, 1893.

Fig. 2.

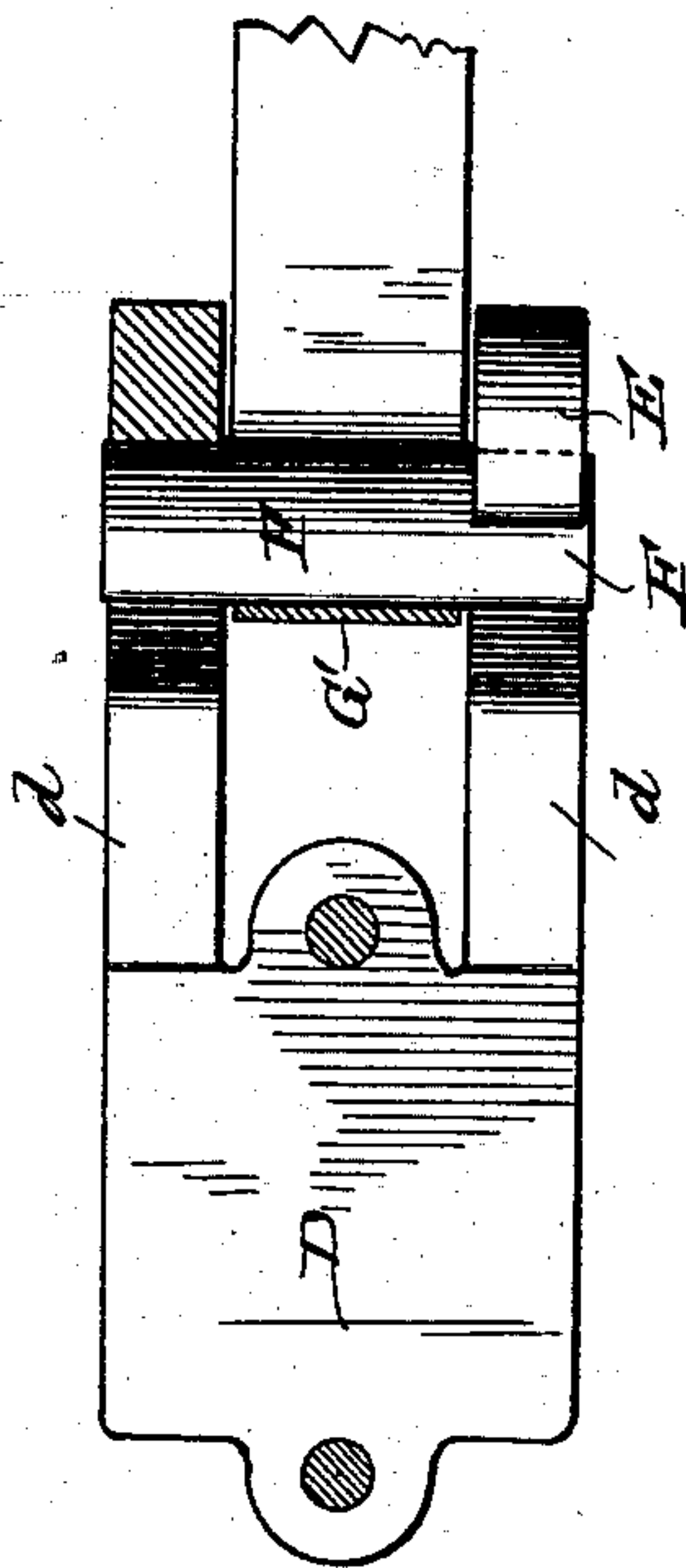
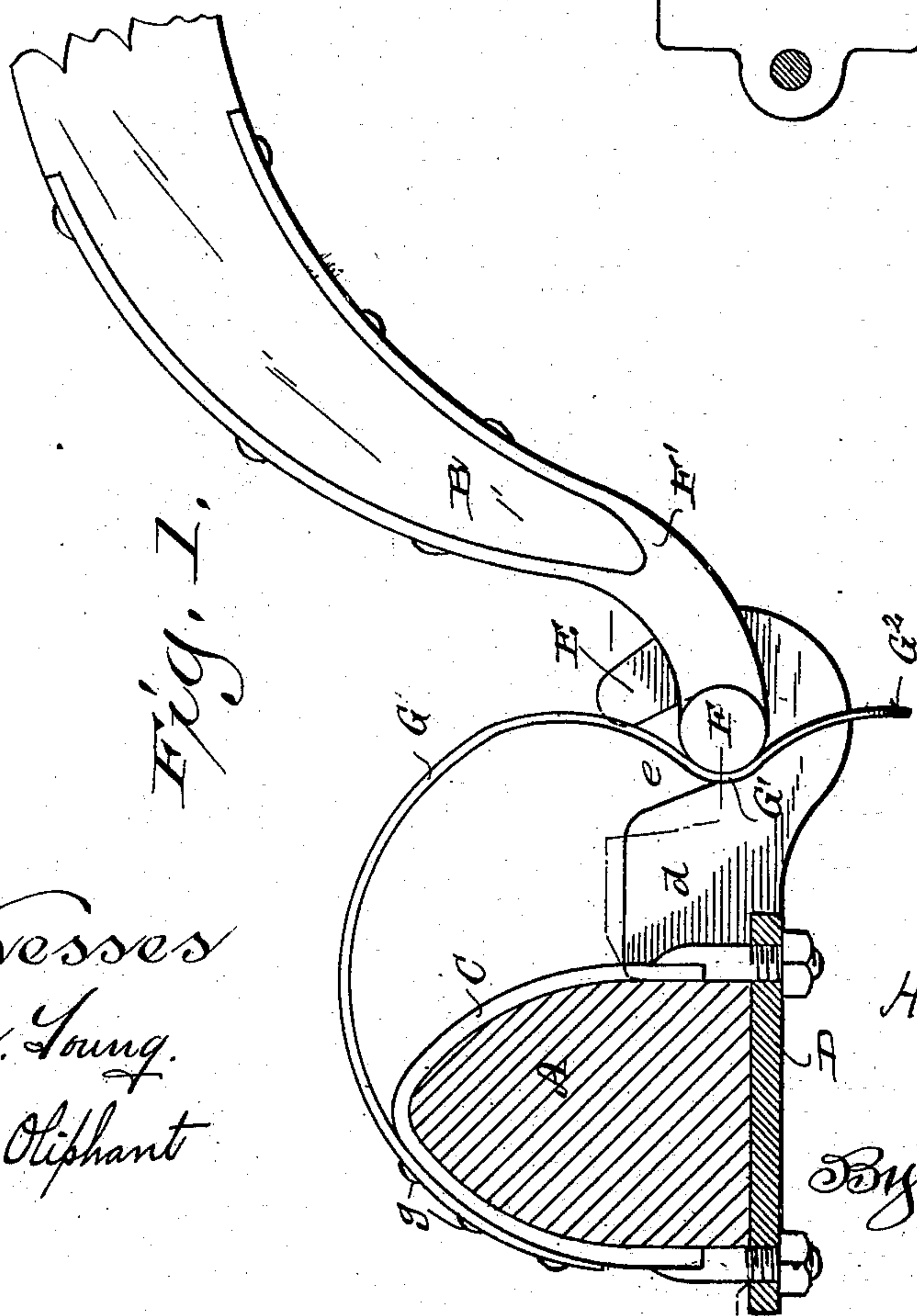


Fig. 1.



Witnesses
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THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 503,739, dated August 22, 1893.

Application filed April 17, 1893. Serial No. 470,584. (No model.)

To all whom it may concern:

Be it known that I, HERMAN DEGNER, a citizen of the United States, and a resident of West Bend, in the county of Washington, and in the State of Wisconsin, have invented certain new and useful Improvements in Thill-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to new and useful improvements in thill couplings, and consists in the matters hereinafter described and pointed out in the appended claims.

In the accompanying drawings illustrating my invention: Figure 1 is a side elevation of my improved device, with the vehicle axle and plate beneath the same in section, and Fig. 2, is a plan view of my device, with the axle and clip removed, with portions of the device broken away, or in section, in both figures, to better illustrate details of construction.

Referring by letter to said drawings, A represents the axle of a vehicle and B the rear end of one of the thills. Secured to the under side of the axle A by means of the usual clip C, is a plate D provided with upwardly extending shoulders *d d* terminating at their front ends in upwardly and rearwardly inclined hooks E E, the oblique openings *ee* of which are arranged for the reception of suitable lateral studs F F upon opposite sides of the thill iron F'.

A curved spring G is secured to the rear curved surface of the clip C, by suitable screws or rivets *g g*, and extends forwardly in the manner shown, until it reaches a point forward of the center of the studs F F, and is thence curved downwardly and somewhat rearwardly at G' and arranged to engage with the central part of the transverse part of the thill iron F', and from thence is carried downwardly and slightly forward and terminates in a suitable projection G². It follows from this construction, that the pressure of the spring G upon the thill iron will tend to press the studs F F downwardly and forwardly into the bottoms of the oblique openings *ee*, so as to resist any tendency of the thill iron to slip out of engagement with the hooks E E, and by its elasticity, serving to take up any wear of the parts and at the same time to prevent any rattling of the coupling.

When it is desired to detach the thills, they may readily be freed from engagement with the hooks E E, by simply pressing back the lower end G² of the spring G until said spring is sprung out of the path of the transverse portion of the thill iron, when the thills may be lifted out of engagement with the hooks, in an obvious manner.

My improved device forms a very satisfactory thill coupling from the fact that it is very simple and strong in its construction and is cheap to manufacture, while by the described arrangement of the spring, while the thills are engaged with the hooks so as to be readily detachable, yet, when in place, they are held very securely and effectually prevented from rattling.

While I have shown and described my device as adapted for use as a thill coupling yet I would have it understood that my said device is equally well adapted for use in connection with the poles of vehicles as with the thills of vehicles.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A thill coupling comprising a plate adapted to be secured to the under side of the axle of a vehicle, and provided with forwardly projecting portions terminating in upwardly and rearwardly inclined hooks, an axle clip secured to said plate a metallic piece upon the end of the thill and provided with lateral studs adapted for engagement with said hooks, and a suitable spring secured to the upper part of said clip and arranged to extend forwardly and to bear obliquely against said metallic piece to crowd said studs downwardly into engagement with said hooks, substantially as set forth.

2. The combination with the axle of a vehicle, and a clip embracing the same, of a plate engaged with said clip and arranged to rest against the under side of the axle and provided with forwardly extending arms terminating in upwardly and rearwardly inclined hooks, a thill iron provided with lateral studs adapted for engagement with said hooks, and a spring engaged with the upper rear part of said clip and curved forwardly and downwardly so as to bear obliquely against the end of said thill iron to crowd the lateral

studs into engagement with said hooks, substantially as set forth.

3. In a thill coupling, the combination with
a flat axle supporting plate having rigid forwardly projecting and rearwardly inclined
5 hooks integral therewith, and a central opening therein, between said hooks, of an axle clip secured to said plate, a metallic thill piece provided with laterally projecting studs for
10 engagement with said hooks, and a curved spring secured to the upper rear part of said clip, and extending forwardly and downwardly between said hooks and thence curved

inwardly, downwardly and forwardly for engagement with said thill piece, and projecting through the plate opening, terminating below the plane of said plate, substantially as set forth. 15

In testimony that I claim the foregoing I have hereunto set my hand, at West Bend, in the county of Washington and State of Wisconsin, in the presence of two witnesses. 20

HERMAN DEGNER.

Witnesses:

JOHN REISSE,

OTTO BOESEWETTER.