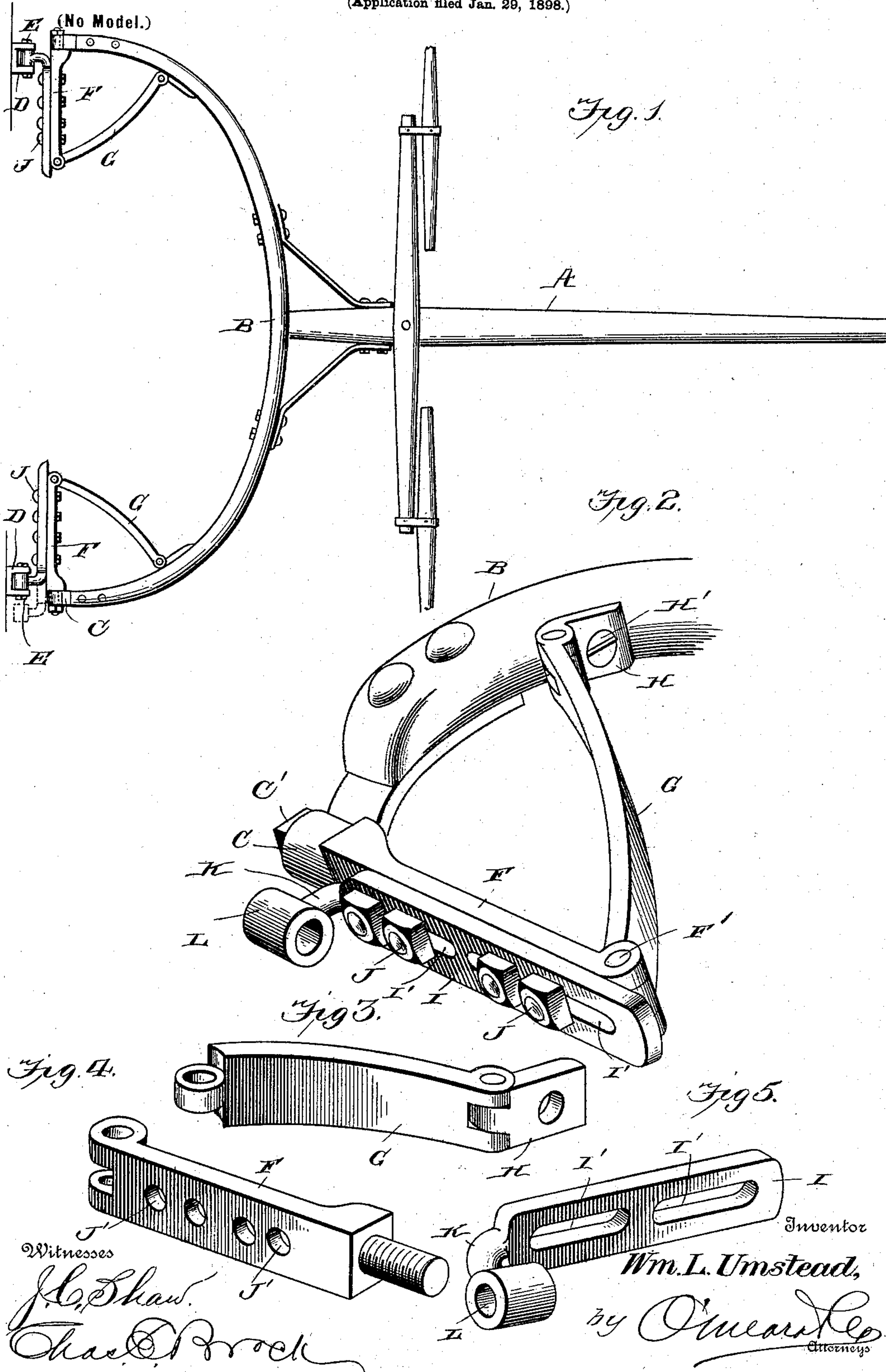


No. 611,665.

Patented Oct. 4, 1898.

W. L. UMSTEAD.  
VEHICLE THILL OR POLE COUPLING.

(Application filed Jan. 29, 1898.)





# UNITED STATES PATENT OFFICE.

WILLIAM L. UMSTEAD, OF WASHINGTONVILLE, PENNSYLVANIA.

## VEHICLE THILL OR POLE COUPLING.

SPECIFICATION forming part of Letters Patent No. 611,665, dated October 4, 1898.

Application filed January 29, 1898. Serial No. 668,461. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM L. UMSTEAD, residing at Washingtonville, in the county of Montour and State of Pennsylvania, have invented a new and useful Vehicle Thill or Pole Coupling, of which the following is a specification.

My invention relates to vehicle thill or pole couplings, and has for its object to furnish a device of this class whereby thills or poles may be attached to different vehicles in which the distance between the two axle-clips are different.

With this object in view my invention consists in a thill or pole coupling having the usual thill-iron ordinarily slipped between the jaws of the axle-clip to receive the coupling-bolt, a plate of metal provided at one end with a stud or pin to enter the clip-iron and furnished with a series of bolt-holes, a hinged brace at the inner end of this plate of metal adapted to be secured to the bow of the thill or pole, and a second or back shifting plate provided with a slot or slots through which to pass bolts for securing it to the first-named plate in any suitable adjusted position and having at one end a socket-piece corresponding in structure to the socket-piece at the meeting ends of thill-irons, as usually constructed.

My invention further consists in the improved construction, arrangement, and combination of parts, hereinafter fully described, and afterward specifically pointed out in the appended claims.

In order to enable others skilled in the art to which my invention most nearly appertains to make and use the same, I will now proceed to describe its construction and operation, having reference to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top plan view of my invention applied to a vehicle-pole, the outer ends of the singletrees being broken away. Fig. 2 is a fragmentary detail view in perspective on an enlarged scale illustrating the application of a coupling constructed in accordance with my invention. Fig. 3 is a detail perspective view of the brace. Fig. 4 is a detail perspective view of the front shifting plate. Fig. 5 is a detail perspective view of the rear shifting plate.

Like letters of reference indicate the same parts wherever they occur throughout the various figures of the drawings.

Referring to the drawings by letters, A indicates the pole for a double team, provided with the bow B, to the rear outer ends of which are attached thill-irons C, which are usually placed between the jaws of the axle-clip D to receive the coupling-bolt E.

F is a plate of metal which I denominate the "front" shifting plate, which is provided with a threaded pin or stem projecting from its outer end adapted to be passed through the thill-iron C and secured therein by means of a nut C'. Pivotaly connected to the inner end of the plate F by means of a pin F' is a curved brace G, to the opposite end of which is hinged a plate H, adapted to be secured to the inside of the bow B by means of a screw H'.

I indicates a plate which I denominate the "back" shifting plate, which is slotted, as at I', to receive bolts J, which are passed through bolt-holes J' in the front shifting plate F. Projecting rearwardly from the outer end of the back shifting plate I is an arm K, on the outer end of which is secured a socket L similar in size and construction to the socket on the thill-iron C and adapted to be used in exactly the same manner in which the ordinary thill-iron is used.

Wherever in this specification the bow B of the pole A is mentioned it is to be understood that the bow at the rear end of an ordinary thill may be used for the purpose of attaching thills rather than a pole to the vehicle.

The construction of my invention will be readily understood from the foregoing, and its operation may be described as follows: Assuming that the thill-irons on the rear of the bow or a pair of thills are at a distance apart greater or less than the distance between the axle-clips of the vehicle to which it is intended to attach the pole or thills, the nuts on the bolts J are loosened until the back shifting plate I can be moved on the front shifting plate F of my coupler. The back plate is now adjusted either in or out as occasion requires until the sockets L on the back plate are in proper positions to be slipped into the axle-clips. The nuts are now



tightened up, and to all intents and purposes there is a pole or thills provided with thill-irons at the proper distance to enter the axle-clips. The sockets are now inserted in the  
5 axle-clips and the coupling-bolts properly placed in position and secured.

The brace G supports the outer end of the front shifting plate F, making the whole structure rigid.

10 From the foregoing it will be obvious that I have provided the farmer, liveryman, or other vehicle owner with means whereby he can readily detach a pole or thills from a vehicle and attach the same to another vehicle  
15 the clips of which are at different distances apart from those on the vehicle on which the pole had been used, the operation entailing only the use of an ordinary wrench to loosen and tighten the nuts, requiring no special  
20 skill and involving no expense whatever, the ordinarily necessary visit to the blacksmith and the attending expense being entirely obviated.

While I have illustrated and described the  
25 best means now known to me for carrying out my invention, I do not wish to be understood as restricting myself to the exact construction shown, but hold that any slight changes or variations, such as might suggest themselves to the ordinary mechanic, would properly fall within the limit and scope of my invention.  
30

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

1. In a coupling for thills or poles, the combination with the ordinary thill-iron, of the front shifting plate having a stem to enter the socket of the thill-iron provided with a  
40 series of bolt-holes, a rear shifting plate provided with longitudinal slots, a socket-arm,

and the bolts for adjustably securing the two plates together, substantially as described.

2. In a coupling for thills or poles, the combination with the ordinary thill-iron, of the  
45 front shifting plate having a stem at its outer end to enter the socket of the thill-iron, a brace hinged to its inner end and secured to the bow of the pole or thill, a rear shifting plate provided with longitudinal slots, a  
50 socket-arm, and the bolts for adjustably securing the two plates together, substantially as described.

3. An improved thill or pole coupling, consisting essentially of the front shifting plate  
55 having a pin or stem projecting from its outer end, adapted to be secured in the socket of the thill-iron and provided with a series of bolt-holes, and the rear shifting plate adapted to be adjustably secured to the front shifting  
60 plate and provided with a socket adapted to engage in the axle-clips, substantially as described.

4. The herein-described coupling for thills or poles of vehicles, comprising the front shifting  
65 plate F having at its outer end a pin or stem adapted to enter the socket of the thill-iron and provided with a series of bolt-holes, the brace G hinged to the inner end of the plate F, the plate H hinged to the outer end  
70 of the brace and adapted to be secured to the thill or pole, the back shifting plate I having a socket L adapted to engage in the axle-clips and provided with longitudinal slots I', and the bolts J projecting through bolt-holes  
75 of the plate F and the slots of the plate I, whereby the plates are adjustably secured together, substantially as described.

WILLIAM L. UMSTEAD.

Witnesses:

W. K. HOLLOWAY,  
J. P. BARE.