(No Model.)

W. J. PATTERSON.

THILL COUPLING.

No. 459,710. Patented Sept. 15, 1891.

FIG. 1.

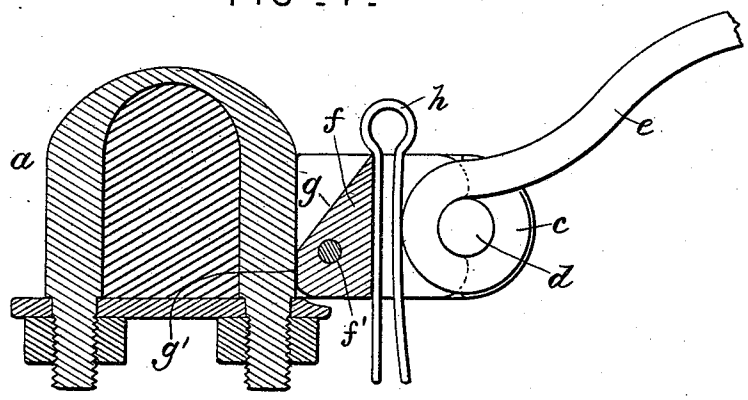


FIG. 2.

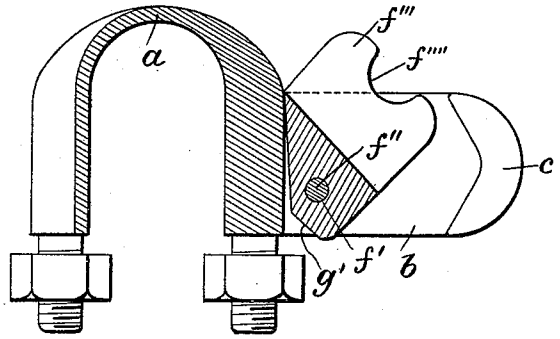
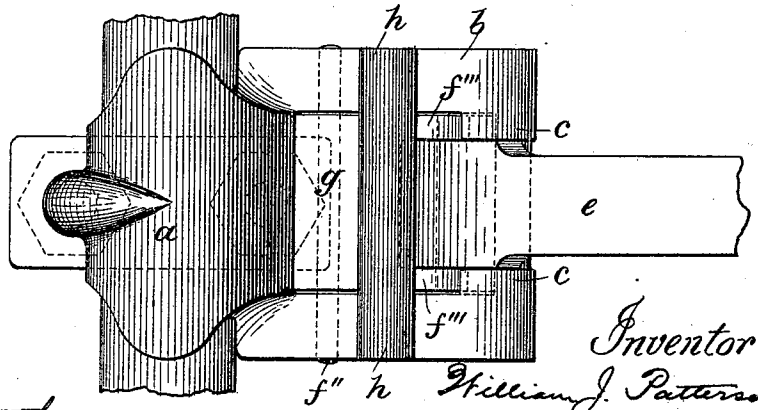


FIG. 3.



Attest:
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UNITED STATES PATENT OFFICE.

WILLIAM JAMES PATTERSON, OF BEAVER FALLS, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO JOSEPH TEXTOR, OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 459,710, dated September 15, 1891.

Application filed January 5, 1891. Serial No. 376,819. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM JAMES PATTERSON, of Beaver Falls, in the county of Beaver, in the State of Pennsylvania, have invented new and useful Improvements in Clip-Shackles; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification.

My invention relates to a combined thill-coupling and anti-rattler; and my object is to provide a more simple, cheap, durable, and effective device than those heretofore employed.

With this purpose in view my invention consists in the peculiar features and combinations of parts more fully described hereinafter, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 represents a vertical section of my complete invention; Fig. 2, a similar view with the spring-key removed and the tumbler-coupler thrown open; Fig. 3, a top view.

The clip *a* is provided with a pair of forwardly-projecting arms *b*, having upon their outer ends an inwardly-extending seat *c*, the whole forming a shackle. These seats are substantially concave on the inside for the reception of a coupling-pin *d*, which pin may be either loose in the eye of the thill *e* or made rigid therewith. Between the arms *b* is pivoted a tumbler *f*, consisting of a piece of cast metal provided with a hole *f'* for the reception of a pin *f''*, which forms the pivot, and a pair of forwardly-extending arms *f'''*, having recesses *f''''* in their outer ends to receive the coupling-pin *d*. The rear upper corner of the tumbler is cut off diagonally to form an incline *g*, to permit the tumbler to tilt back upon its pivot in the uncoupling operation, as seen in Fig. 2. The tumbler is pivoted eccentrically, so that its forward ends will always gravitate downward, the tumbler being limited in this movement by the straight wall *g'*, which abuts against the vertical side of the clip *a*, as seen more clearly in Fig. 1. The thill is prevented from rattling by a spring-key *h*, which is interposed between the thill-eye and inner wall of the tumbler, as in Fig. 1.

The operation of my device may be briefly given by stating that the thill is attached by throwing up the tumbler *f* to the position shown in Fig. 2, placing the thill-pin *f''* in the recesses *f''''*, and lowering the tumbler to the position shown in Fig. 1, after which the spring-key *h* is inserted. The uncoupling is accomplished by a reversal of these movements.

It is evident that my invention could be varied in many slight ways that might suggest themselves to a skilled mechanic. Therefore I do not limit myself to the precise construction therein shown and described, but consider myself entitled to all such variations as come within the scope and spirit of my invention.

Having thus described the preferred manner of constructing and using my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a thill-coupling, the combination of a clip adapted to surround the vehicle-axle, a pair of arms provided with seats at their outer ends for the reception of one side of a coupling-pin, a tumbler pivoted at its rear end between said arms and having a recess in its free end to receive the opposite side of said coupling-pin and hold it in place, and a spring-key interposed between the thill-eye and the interior wall of said tumbler, in the manner and for the purpose substantially as described.

2. In a thill-coupling, the combination of a clip attached to the vehicle-axle, a pair of arms attached to the clip and projecting forward, a coupling-pin seat upon the interior of said arms, a tumbler pivoted at its rear end between said arms and provided with a recess adapted to register with the seat in the arms, whereby the coupling-pin is embraced and held, and a spring-key interposed between the thill-eye and interior wall of the tumbler, in the manner and for the purpose set forth.

3. In a thill-coupling, a clip provided with

a pair of forwardly-projecting arms having seats for the reception of a coupling-pin, in combination with a tumbler provided with recesses in its forward end adapted to receive the opposite side of the pin and hold it in place, said coupler being eccentrically pivoted between said arms and having an inclined surface at its rear portion, and a key interposed between the thill-eye and interior wall of the tumbler, as set forth.

WILLIAM JAMES PATTERSON.

In presence of—
J. F. MERRIMAN,
JOSEPH TEXTOR.