(No Model.)

C. C. WALLACE.

THILL COUPLING.

No. 554,325. Patented Feb. 11, 1896.

Fig. 1.

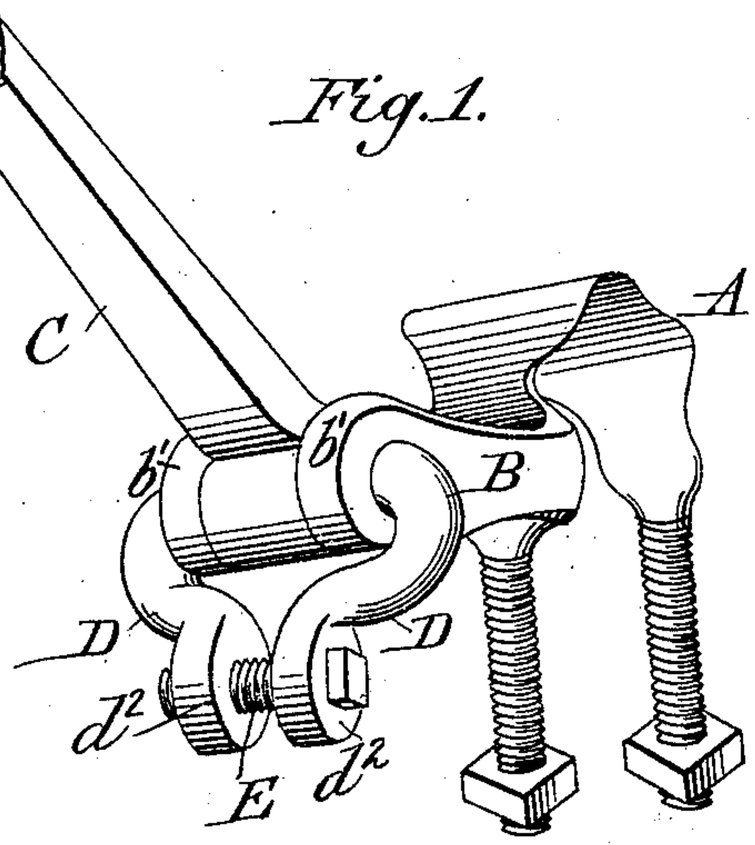


Fig. 2.

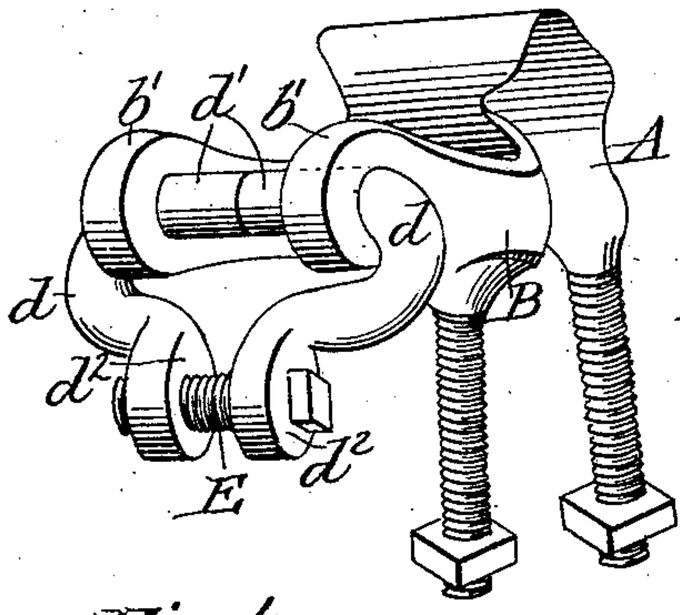


Fig. 3.

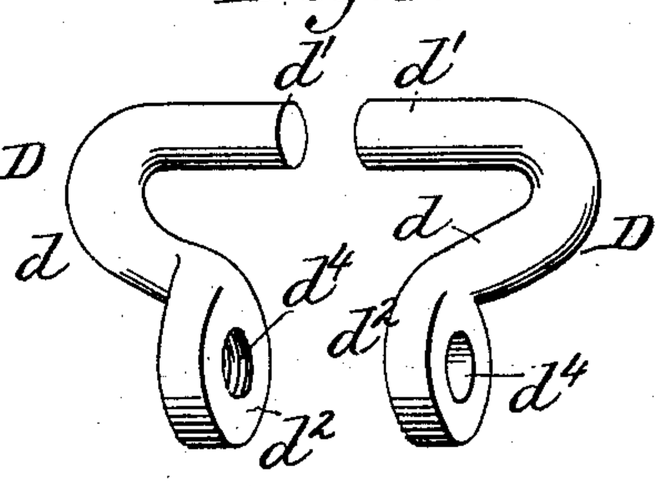


Fig. 4.

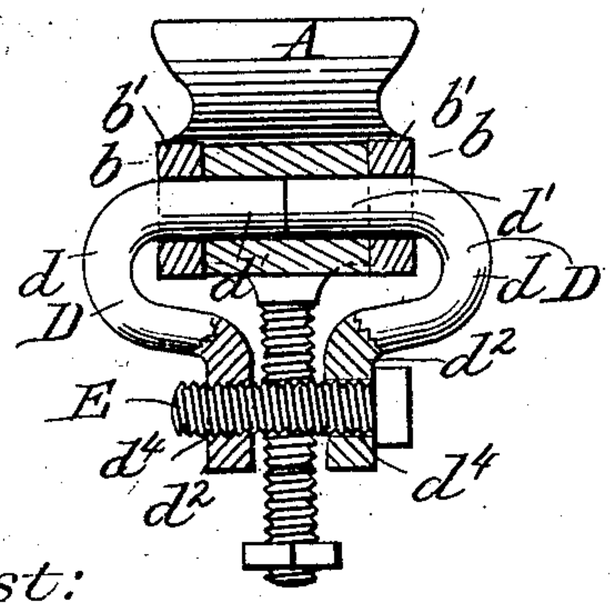


Fig. 5.

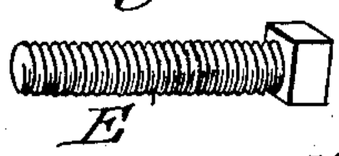
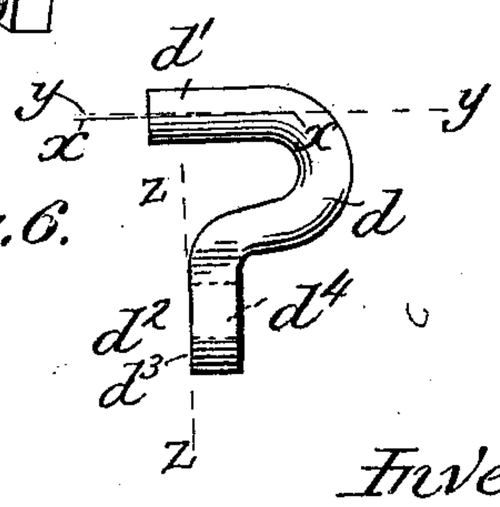


Fig. 6.



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UNITED STATES PATENT OFFICE.

CHARLES C. WALLACE, OF ONEONTA, NEW YORK.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 554,325, dated February 11, 1896.

Application filed July 5, 1895. Serial No. 555,041. (No model.)

To all whom it may concern:

Be it known that I, CHARLES C. WALLACE, a citizen of the United States, residing at Oneonta, in the county of Otsego and State of New York, have invented certain new and useful Improvements in Thill and Pole Couplings for Vehicles, of which the following is a full, clear, and exact description, such as will enable those skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings.

The invention has for its object the construction of such a device as can be used with the connections in general use without any changes or alterations in the latter; that will allow a speedy attachment or detachment of thills or poles; that will prevent rattling of the several parts of the connection; that will reduce the wear of the same; that will obviate the use of nuts; and it also has for its object the production of a device that will be of a cheap and simple construction.

The invention consists in the novel construction, combination, and arrangement of parts, such as will be hereinafter fully described, pointed out in the appended claims, and illustrated in the accompanying drawings.

In the accompanying drawings, in which similar letters of reference designate corresponding parts, Figure 1 is a perspective view of a coupling embodying the invention. Fig. 2 is a similar view illustrating the device without the thill-iron. Fig. 3 is a detail perspective view showing the divided pintle and part of the clamping mechanism. Fig. 4 is an elevation showing the divided pintle partly in section. Fig. 5 is a detail perspective view showing the thumb-screw. Fig. 6 is a detail view showing an elevation of one of the members forming the divided pintle.

Referring to the drawings by letter, A designates a clip, B a shackle, and C a thill-iron, of any construction suitable in the premises.

The mechanism connecting the thill-iron with the shackle consists, primarily, of a divided pintle and a clamping device adapted to secure the members of the pintle together and to hold them in place. This mechanism consists of two members D D, which are substantially alike, and consequently a description of one will suffice for both. The member D is somewhat hook-shaped. It consists of the shank d intermediate of the rounded end d', which forms a section of the divided pintle, and the flattened end d^2, which forms part of the clamping device. It is to be observed that the configuration of the member D is such that the end d', forming a section of the pintle, is slightly bent inwardly—that is, a line, such as $x\ x$, (see Fig. 6,) running through the axis of the said section is depressed slightly from a line, such as $y\ y$, drawn from a point in the axial line intermediate of the pintle portion and the shank at right angles to a line, such as $z\ z$, passing through the face d^3 of the end d^2. It is also to be observed that the length of the pintle, consisting of the two sections $d'\ d'$, is somewhat greater than the distance between the faces $b\ b$ of the lugs $b'\ b'$ of the shackle B. In the flattened end $d^2\ d^2$ apertures $d^4\ d^4$ are formed, one of which is screw-threaded for the reception of the thumb-screw E.

In applying the device the thill-iron is placed in register with the shackle. The divided pintle is then put in position and is secured by passing the thumb-screw E through the apertures $d^4\ d^4$ formed for its reception. By forcing the two ends $d^2\ d^2$ of the clamp together by means of the thumb-screw, the inner ends of the sections $d'\ d'$ of the pintle are also forced together, and by reason of the peculiar configuration of the members the said sections bind in their sockets in such a manner as to prevent rattling of the several parts of the connection. As the contacting parts are worn the thumb-screw can be tightened to take up lost motion. By having the pintle, as a whole, longer than the distance between the outside faces of the lugs $b'\ b'$ the clamp will not force the lugs together against the thill-iron, thereby reducing the wear between the said parts.

It is obvious that the embodiment of the invention herein set forth can be departed from to a considerable extent without departing from the spirit of the same, and also that it can be used for other purposes than connecting thills, &c.—as, for an instance, it may be used in machinery connections.

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

1. In a thill-coupling, the combination of the shackle, the thill-iron, the pintle connecting the said shackle and thill-iron, the said pintle being divided transversely intermediate of its ends, and mechanism for holding the said pintle in place, substantially as described.

2. In a thill-coupling, the combination of the shackle, the thill-iron, the pintle connecting the said shackle and thill-iron, the said pintle being divided transversely intermediate of its ends, and the bolt connecting the two sections of the said pintle, substantially as described.

3. In a thill-coupling, the combination of the shackle, the thill-iron, the divided pintle connecting the said shackle and thill-iron, and the clamp connecting the sections of the pintle, the inner ends of the sections forming the pintle being inclined toward the clamp, substantially as described.

4. In a thill-coupling, the combination of the shackle, the thill-iron, the divided pintle connecting the same, the clamp formed of extensions of the outer ends of the pintle and the thumb-screw passing through the said ends, substantially as described.

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Witnesses:
DAVID J. YAGER,
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