E. DUGDALE.

Thill-Coupling.

No. 45,593. Patented Dec. 27, 1864.

Fig. 2.

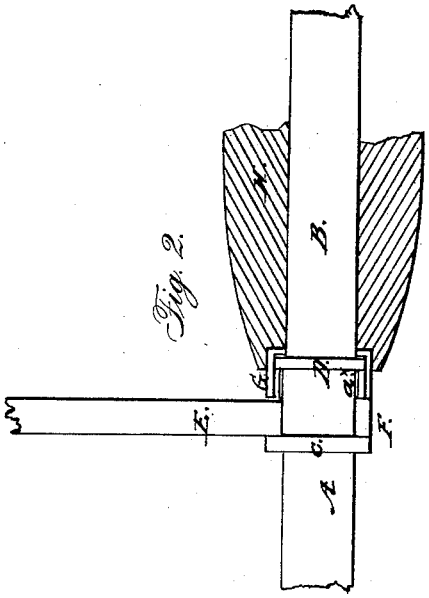


Fig. 3.

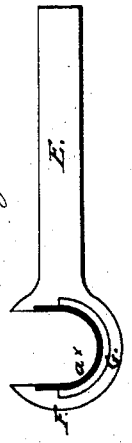
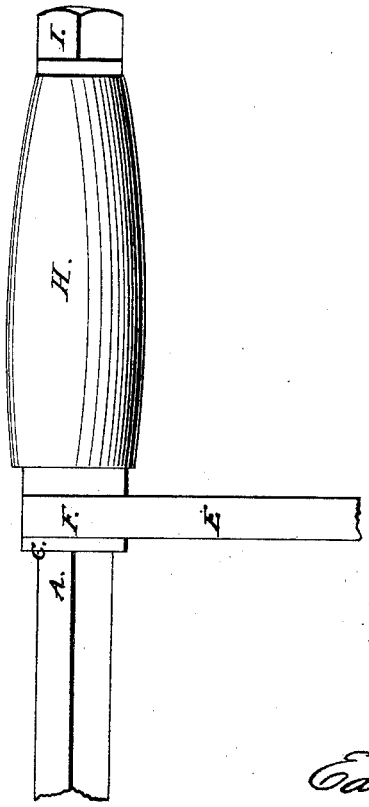


Fig. 1.



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UNITED STATES PATENT OFFICE.

EDWARD DUGDALE, OF NEW YORK, N. Y.

IMPROVEMENT IN MODES OF ATTACHING THILLS TO AXLES.

Specification forming part of Letters Patent No. **45,593**, dated December 27, 1864.

To all whom it may concern:

Be it known that I, EDWARD DUGDALE, of the city, county, and State of New York, have invented a new and Improved Mode of Attaching Thills to Axles; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an external view of a hub and a portion of an axle having a thill-iron connected to it according to my invention. Fig. 2 is view of the axle-arm with the thill-iron applied to it and the hub bisected longitudinally; Fig. 3, a detached side view of the thill-iron.

Similar letters of reference indicate like parts.

The object of this invention is to obtain a means for attaching thills to axles which will admit of the former being fitted and secured to the latter with the greatest facility, and also of being readily detached therefrom, the invention at the same time admitting of the thill-iron being readily tightened at any time should it become loose by wear or otherwise.

A represents a portion of the front axle of a wheel-vehicle, and B is the arm thereof. C is a shoulder at the junction of the axle and arm; and D is a shoulder or fixed collar on the arm, which is a short distance from the shoulder C. (See Fig. 2.) The shoulder or fixed collar D on the arm B serves as a bearing for the inner end of the box of the hub, while the inner part of the hub itself projects over and beyond the shoulder D, as shown clearly in Fig. 2.

E represents a thill iron, which is secured to the inner end of a thill, as usual, and is constructed with a loop or clip, F, at its outer end to fit over the portion of the arm B between the two shoulders C D. This clip F is provided at one side with a flange, G, which extends around the upper part of the clip, forming nearly a semicircle, said flange being of such a thickness that its exterior surface will be flush with the shoulder D. (See Fig. 2.) This flange G, in connection with the clip F, fills the space between the two shoulders.

H represents the hub, which is fitted on the arm B, its inner end projecting over the shoulder C and flange G, and the inner end of its box bearing against the shoulder D. The hub is secured on the arm by a nut, I, as usual.

By this arrangement it will be seen that the clip F will be firmly retained on the arm B in consequence of the inner part of the hub fitting over the flange G, while the clip will be allowed to turn or work freely on the arm, and at any time when it becomes necessary to detach the thills from the axle all that is required is simply to unscrew the nuts I sufficiently far to admit of the hubs H being drawn outward on their arms to free the flanges G, and in case of the clips becoming loose on account of wear they may be adjusted lightly on the arms by screwing up the nuts I.

I would remark that the inner surfaces of the clip and flange may be provided with a leather or other suitable lining, $a^{\times}$, to prevent wear, and I would further remark that the invention is applicable to the attaching of draft-poles to vehicles, the poles being fitted in curved or bowed arms or hounds, to which the irons E are secured.

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

The thill-iron E, provided with the clip F and flange G, and fitted on the arm B of the axle between the two shoulders C D, with the inner part of the hub projecting over the flange, substantially as and for the purpose herein set forth.

EDWD. DUGDALE.

Witnesses:

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THEO. TUSCH.