C. D. BUNDY.

Thill-Coupling.

No. 164,140. Patented June 8, 1875.

Fig. 1.

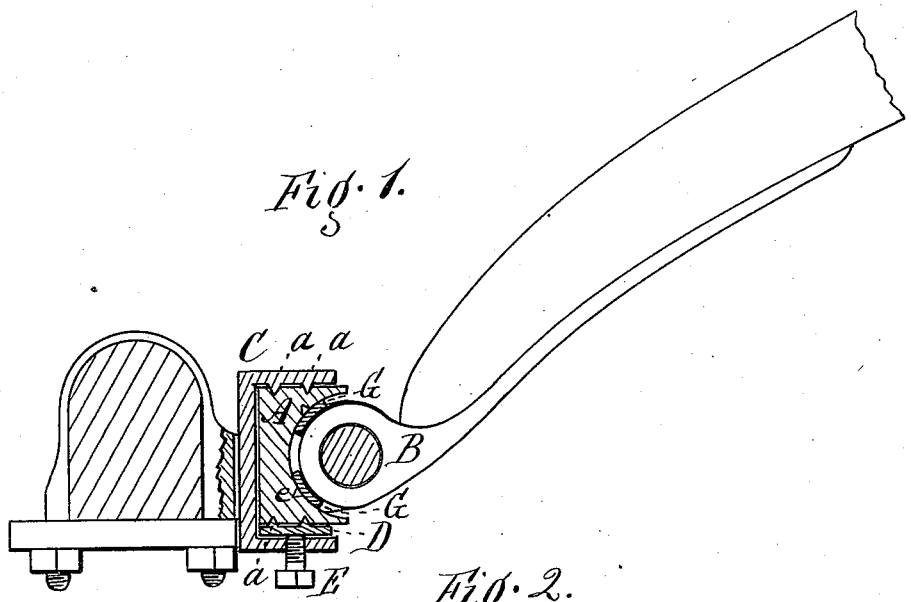


Fig. 2.

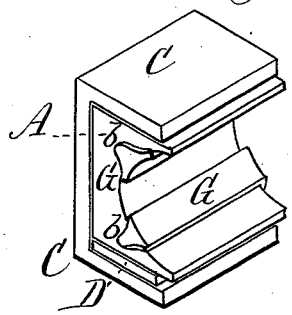
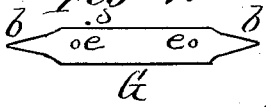


Fig. 3.

Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

CLINTON D. BUNDY, OF LIMA, NEW YORK.

IMPROVEMENT IN THILL-COUPLINGS.

Specification forming part of Letters Patent No. **164,140**, dated June 8, 1875; application filed November 28, 1874.

To all whom it may concern:

Be it known that I, CLINTON D. BUNDY, of Lima, in the county of Livingston and State of New York, have invented a certain new and useful Improvement in Packings for Thill-Couplings; 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 accompanying drawings, in which—

Figure 1 is a vertical section of my improvement. Fig. 2 is a perspective view of the packing. Fig. 3 is a horizontal section of the same. Fig. 4 is a flat view of one of the wear-plates.

My improvement relates to rubber packings having metallic wear-plates on the inner side, which press against the thill-eye and obviate the wearing and grinding which occur when the friction comes directly upon the rubber, as is usually the case. Much sand is thrown up, and, falling into the packing, wears it out very rapidly unless some provision is made to obviate the difficulty.

My invention consists of wear-plates of malleable iron, provided with spurs or points, which, when bent, strike into sockets or holes formed in the packing to receive them, the attachment being thereby made directly to the rubber, by which it loses none of its elasticity, all as hereinafter described.

In the drawings, A represents the rubber packing, which fits in the clip in the usual manner, so as to bear against the thill-eye B. It rests in a metallic case, C, closed on its rear and top and bottom, but open on its front and sides. Beneath the packing, and between it and the bottom of the case, is a follower, D, which is pressed up by a set-screw, E, to compress the packing against the thill-eye. The upper surface of the follower and the lower surface of the top of the case have small points *a a*, to strike into and hold the rubber when compressed. G G are the wear-plates, which are cast of malleable iron, and provided at the ends with sharp spurs or points *b b*, Fig. 4. These are cast straight, and afterward bent into hook form. The inner faces of the wear-plates are made concave, so as to fit closely to the circle of the thill-eye, and are provided with points *e e*, which strike into the rubber. The sides of the packing are formed with holes or sockets *c c* in the act of molding, and the wear-plates are applied to the packing by simply compressing the rubber block, so that the hook ends of the wear-plates can enter the sockets, and then releasing the rubber, which expands, and thereby retains the spurs in place. The wear-plates are thus made self-attaching, and the points *e e* assist in retaining them in place and prevent too much strain on the spurs *b b*.

The wear-plates might be made of wrought iron or other metal; but malleable iron is the cheapest, and the hooks or spurs can be readily bent after casting.

By the means above described I attach the wear-plates directly to the rubber itself, and not to other parts of the coupling, so that the rubber retains all its elasticity, and is not impeded at all by the attachment of the wear-plates. It enables me to use the packing alone, if desired, as the wear-plates are a permanent attachment thereto. I prefer, however, the casing C and follower D, as described, since they render the packing more permanent and enduring, and enable the packing to be compressed when desired. The wear-plates attached in this manner are a permanent fixture with the packing, the spurs having sufficient hold in the sockets of the rubber to be retained in place at all times. The movement of the thill-eye is but slight, and always in a vertical plane, so that there is very little tendency to force the wear-plates from place, and the hold of the bent spurs is so deep that lateral displacement cannot occur. The bends of the spurs, by embracing the rubber, also prevent lateral expansion of the latter under compression, and this action holds the wear-plates still tighter.

The extreme simplicity and cheapness of the device is one of the chief features of novelty. It is much cheaper than a wear-plate which has to be permanently fastened by extra fixtures to the packing, and more effective than a loose wear-plate could be.

Having thus described my invention, I am aware that metallic bearing-surfaces are well known in thill-couplings, and such I do not broadly claim.

What I claim as new is—

1. The metallic wear-plates G G, provided

with the bent spurs *b b*, in combination with the rubber packing A, having sockets *c c* for the reception of said spurs, as and for the purpose specified.

2. The combination, with a rubber packing, A, provided with the self-attaching wear-plates G G, of a case, C, covering said packing at its top, bottom, and rear, and provided with points *a a* for holding in the rubber, the compression upon the packing being produced by a follower, D, and set-screw E, as shown and described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

CLINTON D. BUNDY.

Witnesses:

SEYMOUR HURD,

J. FOREMAN.