

Simon Slack's Improv'd Shackles for Thills etc.

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PATENTED AUG 8 1871

Fig 1

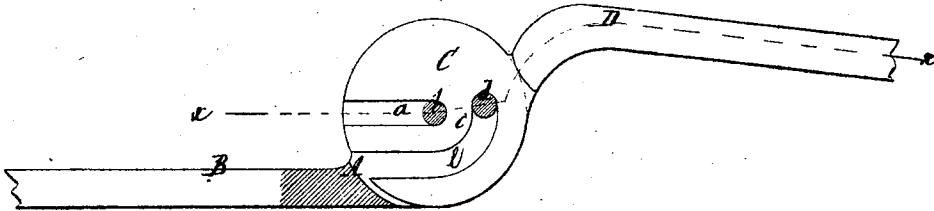


Fig 2



Fig 3

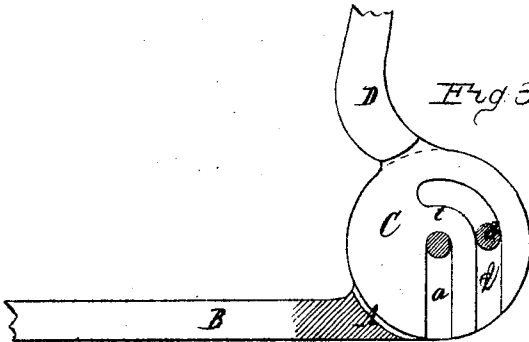


Fig 4

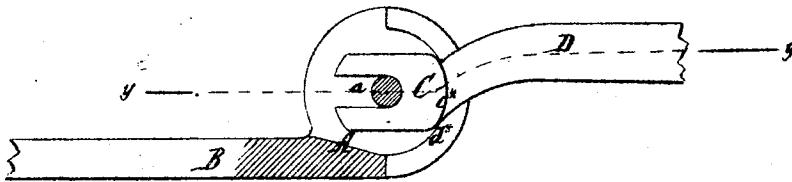


Fig 5

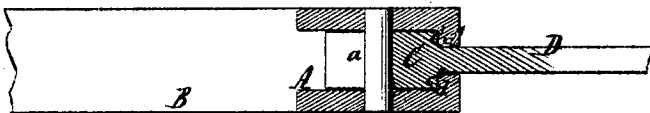
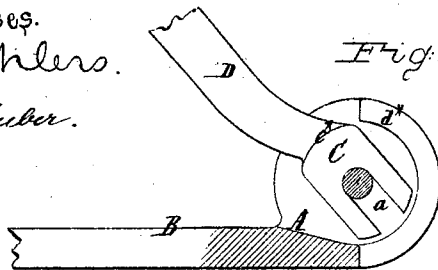


Fig 6



Witnesses.
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UNITED STATES PATENT OFFICE.

SIMON SLACK, OF LEBANON CENTRE, NEW HAMPSHIRE.

IMPROVEMENT IN THILL-COUPPLINGS.

Specification forming part of Letters Patent No. 117,937, dated August 8, 1871.

To all whom it may concern:

Be it known that I, SIMON SLACK, of Lebanon Centre, in the county of Grafton and State of New Hampshire, have invented a new and useful Improvement in Shackles for Thills and other parts; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a sectional side view of this invention when the shackle is in working position. Fig. 2 is a horizontal section of the same taken in the plane *x x*, Fig. 1. Fig. 3 is a sectional side view of the same when the shackle is in position to allow of its parts being separated. Fig. 4 is a sectional side view of a modification thereof, showing the shackle in working position. Fig. 5 is a horizontal section of the same in the plane *y y*, Fig. 4. Fig. 6 is a sectional side view of the same, showing the shackle in position to allow of its parts being separated.

Similar letters indicate corresponding parts.

This invention relates to a shackle for thills, shafts, or rods of any description, said shackle being composed of a slotted head with a bearing-shoulder and of a socket provided with a center pin and with an abutment, the slot in the head being intended to catch over the center pin of the socket and the shoulder of the head to bear against the abutment in such a manner that, by the combined action of the center pin, the slot, the bearing-shoulder, and the abutment, a firm connection between the two parts of the shackle is obtained as long as said parts are in their working position; but, by turning the head in the proper position, it can be readily disconnected from the socket, and thereby the operation of connecting or disconnecting the two parts of the shackle is materially facilitated.

In the drawing, A designates the socket, which is formed at the end of the clip or rod B. Into this socket is fitted a head, C, formed at the end of the goose-neck or bar D. Said head is provided with a radial slot, *a*, which is intended to drop over the center pin *b* secured in the socket A, and on the head is also formed a shoulder, *c*, to bear against an abutment, *d*, in the socket when the shackle is in working position, as shown in Figs. 1 and 4. The shoulder *c* in the head C

is either formed as shown in Figs. 1 and 3, or it may be formed as shown in Figs. 4 and 6. In Figs. 1 and 3 the head C is provided with a segmental slot, *e*, the outer end of which runs parallel to the radial slot *a*, while its inner end is curved up, forming the segment of a circle described from the center of the pin *b*, as shown; and in the socket A is secured a pin, *d*, to form the abutment for the shoulder *c*. When the head C is brought in the position shown in Fig. 3 the radial slot *a* drops over the center pin *b* and the segmental slot *e* drops over the abutment *d*; and when the head is turned to the position shown in Fig. 1 the two parts of the shackle are securely united, and they cannot be disconnected unless the head is turned up to the position shown in Fig. 3. Instead of forming the shoulders *c* by a segmental slot, as shown in Figs. 1 and 3, it may be formed by increasing the thickness of the head C, (best seen in Fig. 5,) thereby producing two shoulders, one on each side of the bar D, and in this case the pin *d* of Figs. 1 and 3 is replaced by flanges *d**, against which the shoulders *c** abut. The flanges *d**, however, are made segmental, so that by turning the head to the position shown in Fig. 6 the two parts of the shackle can be disconnected; but if the head is turned down to the position shown in Fig. 4 the two parts of the shackle are securely connected. In either case—that is to say, whether the shackle is constructed as shown in Figs. 1, 2, and 3 or as shown in Figs. 4, 5, and 6—the head C, when in working position, is confined between the center pin *b* and the abutment *d*, and the two parts cannot be disconnected unless the head is turned up to the position shown in Figs. 3 and 6.

What I claim as new, and desire to secure by Letters Patent, is—

1. The head C of the thill-iron D, provided with a segmental slot, *e*, in combination with the socket A and pin *d* of the clip A, substantially as described.

2. The head C of the thill-iron D, provided with the radial slot *a* and segmental slot *e*, in combination with the pins *b* *d* of the socket A of the clip B, substantially as described.

SIMON SLACK.

Witnesses:

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