

(No Model.)

W. KATON.  
THILL COUPLING.

No. 312,125.

Patented Feb. 10, 1885.

Fig. 1.

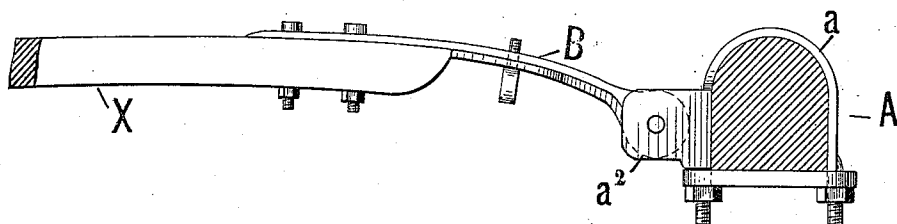


Fig. 2.

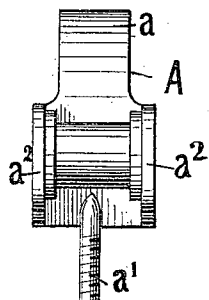


Fig. 3.

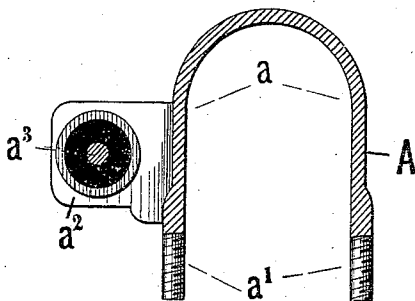


Fig. 4.

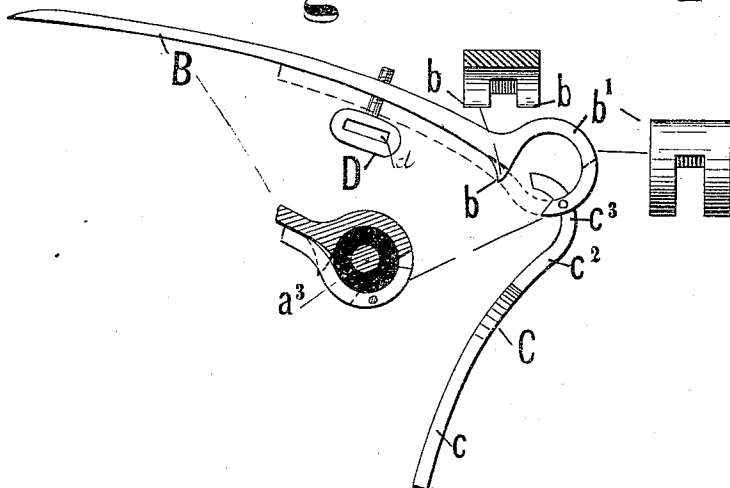
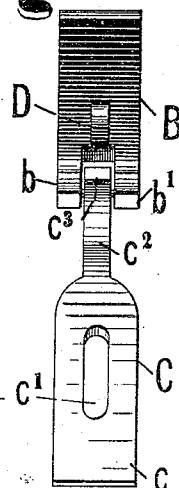


Fig. 5.



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# UNITED STATES PATENT OFFICE.

WALTER KATON, OF NORTH ATTLEBOROUGH, MASSACHUSETTS.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 312,125, dated February 10, 1885.

Application filed November 10, 1883. Renewed November 11, 1884. (No model.)

To all whom it may concern:

Be it known that I, WALTER KATON, of North Attleborough, county of Bristol, and State of Massachusetts, have invented new and useful Improvements in Thill-Couplings; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention consists, mainly, in certain details of construction, fully described hereinafter, by means of which a strong and positively-secured coupling is obtained, which has a capacity for easy disconnection, when desired, as will be fully described hereinafter.

In the drawings, Figure 1 represents a side elevation of my improved coupling; Fig. 2, an end view of the clip-iron; Fig. 3, a side sectional view of the same; Fig. 4, a side view of the main and auxiliary shaft-irons detached, and Fig. 5 an end view of the same.

To enable others skilled in the art to make my improved coupling, I will proceed to describe the construction of the same.

A, Figs. 1, 2, and 3, represents a clip-iron having the main U-shaped portion  $a$ , with threaded studs  $a'$   $a'$ , and the auxiliary side plates or arms,  $a^2$   $a^2$ , extending at right angles from the main portion on the front side of the same, as shown in Figs. 1 and 3. By means of the threaded studs  $a'$   $a'$  and proper nuts and a clip-plate the clip-iron is permanently secured to the axle, as shown in Fig. 1.

$a^3$ , Figs. 1 and 3, represents a strong transverse shaft extending between the side plates,  $a^2$   $a^2$ , which is covered with a rubber sleeve, as shown in Figs. 2 and 3.

B, Figs. 1, 4, and 5, represents the main shaft-iron, the front end of which is adapted to be secured to the rear end of the shaft X, Fig. 1, in any proper manner, and the rear end of which iron is provided with the shoulders  $b$   $b$ , having an intermediate space, and the hook  $b'$  with central slot, as shown.

C represents the auxiliary shaft-iron, consisting of an enlarged portion,  $c$ , having a central slot,  $c'$ , and a narrow portion,  $c^2$ , terminating in a hook,  $c^3$ , as shown. The hook  $c^3$  of the auxiliary iron C is pivoted in the central slot of the hook  $b'$  in such manner as to form in connection with it when in its

closed position a complete ring, as shown in dotted lines, Fig. 4.

D represents a set-screw secured to the main iron B in such position that its head  $d$  can pass through the slot  $c'$  of the portion  $c$  of the iron C when the latter is moved from its open position (shown in full lines, Fig. 4) to its closed position. (Shown in dotted lines, Fig. 4.)

$d$  represents a slot in the head of the set-screw. By screwing the set-screw to place the two irons are firmly united together.

The position of the parts when the shaft is connected to the axle is shown in Fig. 1, the ring portion of the two irons inclosing the shaft  $a^3$  of the clip-iron, which shaft is covered with the rubber sleeve, as shown. A positively-secured connection is thus made between the parts, and disconnection cannot accidentally occur.

When it is desired to disconnect the parts, the set-screw is unfastened and the auxiliary iron C is swung downward away from the main iron until the hook portions of the shaft-irons are disengaged from the shaft  $a^3$  of the clip-iron, when the shaft-irons may be lifted up out of the space between the arms  $a^2$   $a^2$ .

By means of the rubber sleeve the parts are so held that all noise is effectually prevented.

By means of the slot in the head of the set-screw a lever may be employed to turn it, if desired.

By means of the described construction a strong coupling is obtained, the parts of which are positively secured together when in their normal position, but yet may be easily and quickly disconnected when desired.

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

The main shaft-iron B, having the shoulders  $b$   $b$  and hook  $b'$ , with central slot, in combination with the auxiliary shaft-iron having the narrow portion  $c^2$  terminating in the hook  $c^3$ , as shown, the auxiliary iron being pivoted to the main iron in such manner that no strain is borne by the pivot-bolt.

This specification signed and witnessed this 16th day of October, 1883.

Witnesses: WALTER KATON.

SIMEON BOWEN,  
CHARLES KNAPP.