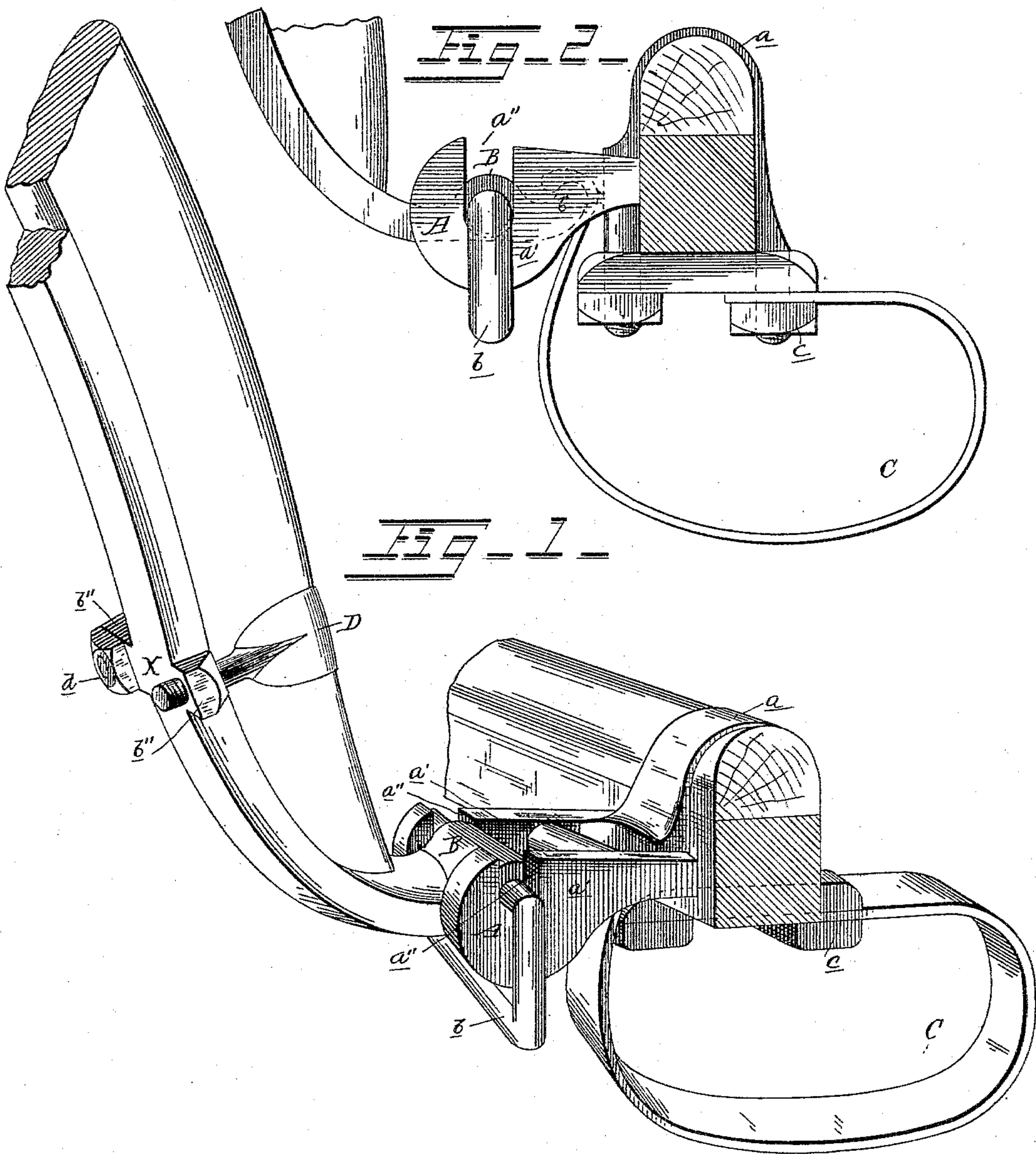


(No Model.)

B. W. CONROY.
THILL COUPLING.

No. 414,497.

Patented Nov. 5, 1889.



Witnesses

Wm. T. Robertson

Thos. E. Robertson

Inventor

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UNITED STATES PATENT OFFICE.

BARTHOLOMEW W. CONROY, OF PORT HURON, MICHIGAN.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 414,497, dated November 5, 1889.

Application filed March 2, 1889. Serial No. 301,767. (No model.)

To all whom it may concern:

Be it known that I, BARTHOLOMEW W. CONROY, a citizen of the United States, residing at Port Huron, in the county of St. Clair and State of Michigan, have invented certain new and useful Improvements in Thill-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This improvement relates, mainly, to that class of thill-couplings which are provided with springs to prevent the rattling of the parts; and the invention consists in the peculiar construction, arrangement, and combination of parts hereinafter more particularly described, and then definitely pointed out in the claims.

20 In the accompanying drawings, Figure 1 represents a perspective view of my improvement, and Fig. 2 a detail in side elevation.

Referring now to the details of the drawings, A represents the draw-jack provided with the usual clip *a*, and having two jaws *a'* *a'*, each provided with a slot *a''*. Between the jaws is set the thill-iron B, provided with a loop *b*, which is rigidly connected with the thill-iron, and after passing through the slots *a'' a''* extends downward and beneath the jaws *a' a'*, the parts nearest the thill-iron being made round to fit and turn in the bottom of the slots *a''*. The rear part of the thill-iron has an extension *b'*, as clearly shown by dotted lines in Fig. 2. On the end of this extension rests the free end of a peculiarly-35 formed spring C, whose other end is secured by the nut *c*, that secures the clip to the axle.

40 It has been found that the common practice of boring a hole through the thill-iron at the point marked X to receive a bolt so weakens it that the iron is very apt to break at that point. To avoid this difficulty I provide the thill-iron with ears *b'' b''*, through which pass the threaded ends of the clip D, which receives the nuts *d*. By this means the iron 45 is made the strongest at the part which is usually the weakest, and I therefore regard this as a great improvement over the thill-irons of ordinary construction, independent of the ex-

tension, the spring, and loop, which I regard as the main feature of my improvement. 50

By the peculiar arrangement of the extension *b'* in the rear of the thill it acts as a lever on the spring, and thus there is no possible chance of rattling, and yet by raising the thill it can be readily disengaged from the spring 55 and the jaws without removing a bolt or nut. The lower part of the loop is used mainly as a guard in case the spring should happen to break; but it really has no function when the thill is in place and the spring rests on the extension *b'*. It is, however, useful to prevent the thill from becoming detached until the thills are elevated to a perpendicular position for the purpose of detaching. By this arrangement a thill-coupling is made that is 65 very strong, convenient, cheap, and one that will not rattle under any circumstances when in use.

What I claim as new is—

1. In combination with a draw-jack having 70 slotted jaws *a'*, a thill-iron working between and resting in said jaws and provided with an extension to receive a spring, and a loop to pass under the jaws, substantially as described. 75

2. The combination of a draw-jack having slotted jaws *a'*, a thill-iron working between said jaws provided with a rearward extension resting in said jaws, and a loop surrounding said jaws, with a spring having one end fast- 80 ened to the draw-jack and the other end resting on the extension of the thill-iron, substantially as described.

3. In combination with a draw-jack having slotted jaws *a'*, a thill-iron provided with a 85 rearward extension, a spring bearing thereon, and a loop passing through and under the jaws, substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 2d day of 90 March, 1889.

BARTHOLOMEW W. CONROY.

Witnesses:

WM. T. ROBERTSON,
THOS. E. ROBERTSON.