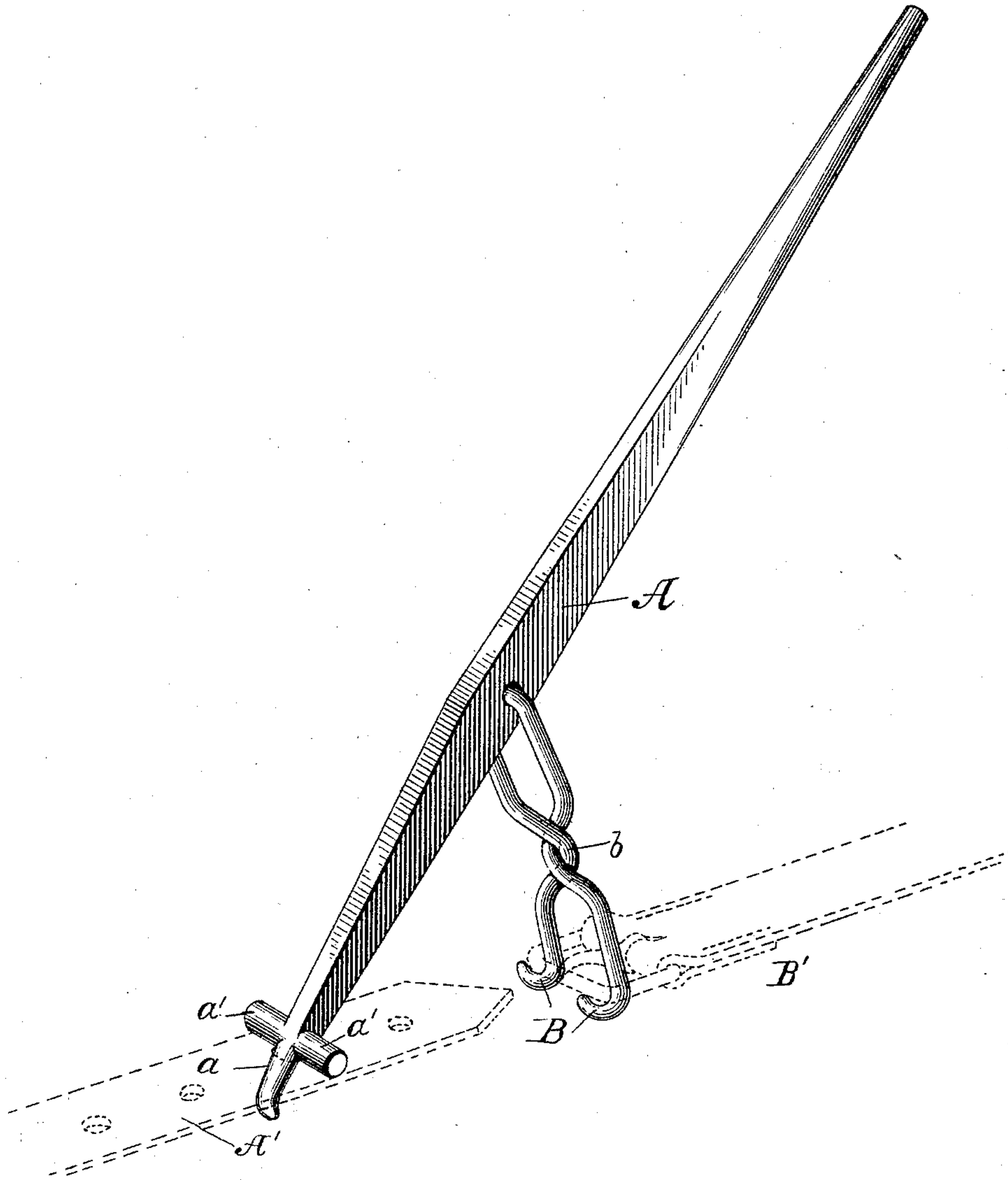


(No Model.)

J. J. MILLER.
BELT TIGHTENER.

No. 491,728.

Patented Feb. 14, 1893.



Witnesses:

A. M. Parkins.

Gray B. Hills.

Inventor.

John J. Miller
By his attys.
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UNITED STATES PATENT OFFICE.

JOHN J. MILLER, OF HOWELL, MICHIGAN.

BELT-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 491,728, dated February 14, 1893.

Application filed October 24, 1892. Serial No. 449,869. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. MILLER, a citizen of the United States, residing at Howell, in the county of Livingston and State of Michigan, have invented certain new and useful Improvements in Belt-Tighteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same.

The invention relates to improvements in devices for stretching and tightening belts and aprons, designed more especially for use in tightening up the platform and elevator can-
15 vases commonly employed in grain harvesters, binders and thrashers, but capable of general use for analogous purposes.

The invention consists in the improved implement hereinafter described and illustrated, comprising a lever or handle provided at its forward end with a peculiar tongue or hook and cross piece, and having also a pair of swinging catch-hooks pivoted a short distance from the end of the lever.
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In the accompanying drawing forming part of this specification the implement is illustrated in perspective, the two end leathers of the belt or canvas to be tightened being indicated in broken lines.
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Referring to this drawing A denotes a handle or lever of suitable length to insure sufficient purchase or leverage. The work end of this lever is formed into or provided with a smooth rounded tongue *a*, like that of an ordinary buckle. This tongue is preferably straight, except at the end which may be curved, as shown, so as to more readily catch into the holes in the belt straps. At the base of this tongue, rounded pins are formed on the lever, said pins projecting at right angles to the tongue, and forming in effect a straight cross piece extending the width of the ordinary belt straps.
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B, B denote a pair of swinging catch-hooks, said hooks being pivoted to the lever at a suitable distance above the pins *a'*. As represented in the drawing, these hooks are formed out of a single piece of stout wire passed freely through a hole in the body of the lever and doubled back upon itself, the parts thus formed being twisted or given one or two turns around each other as shown at *b*, and their free ends being bent up into hooks facing the tongue *a* and cross pins *a'*.
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A' and B' denote the leather straps of the canvas or other belt or apron, these parts being represented in broken lines, and being shown merely to illustrate the operation of my improved tightener, which will be readily understood without further description.
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The cross piece or rounded pins *a'* perform an important function in the operation of the device, especially when great strain is required to be exerted on the belt, in that they form a flat surface for the straps to lie upon, thus preventing ridging or buckling of the same in the center and the tearing out of the holes.
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The tongue *a* should be made about the size of the ordinary buckle tongue, so as not to stretch or tear the holes in the straps. It will be understood that the pins *a'* take much of the strain off the tongue *a* as the implement is bent back to bring the ends of the straps together.
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No explanation of the function of the hooks B appears to be necessary, as their mode of operation is clearly indicated in the drawing. The object of twist or turn *b* is to form a stop to prevent the hooks from swinging over past the handle out of operative position, as will be understood.
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Having thus described my invention what I claim and desire to secure by Letters Patent is as follows:—
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1. In a belt or apron tightener, the combination of the lever or handle A, provided at its end with the tongue *a*, and the laterally projecting pins *a'*, with the swinging catch-hooks B, pivoted to the lever at a point above the cross pins, substantially as described.
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2. The belt or apron tightener herein described and illustrated, the same consisting of the lever or handle A, provided at its work end with the tongue *a*, and the straight laterally projecting cross pins *a'*, and the swinging catch-hooks B, the same being formed of a single piece of wire pivotally connected to the handle above the cross pins and bent back upon itself and having its parts twisted together at *b*, all as and for the purpose set forth.
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In testimony whereof I affix my signature in presence of two witnesses.

JOHN J. MILLER.

Witnesses:

DENNIS SHIELDS,
FRANCIS J. SHIELDS.