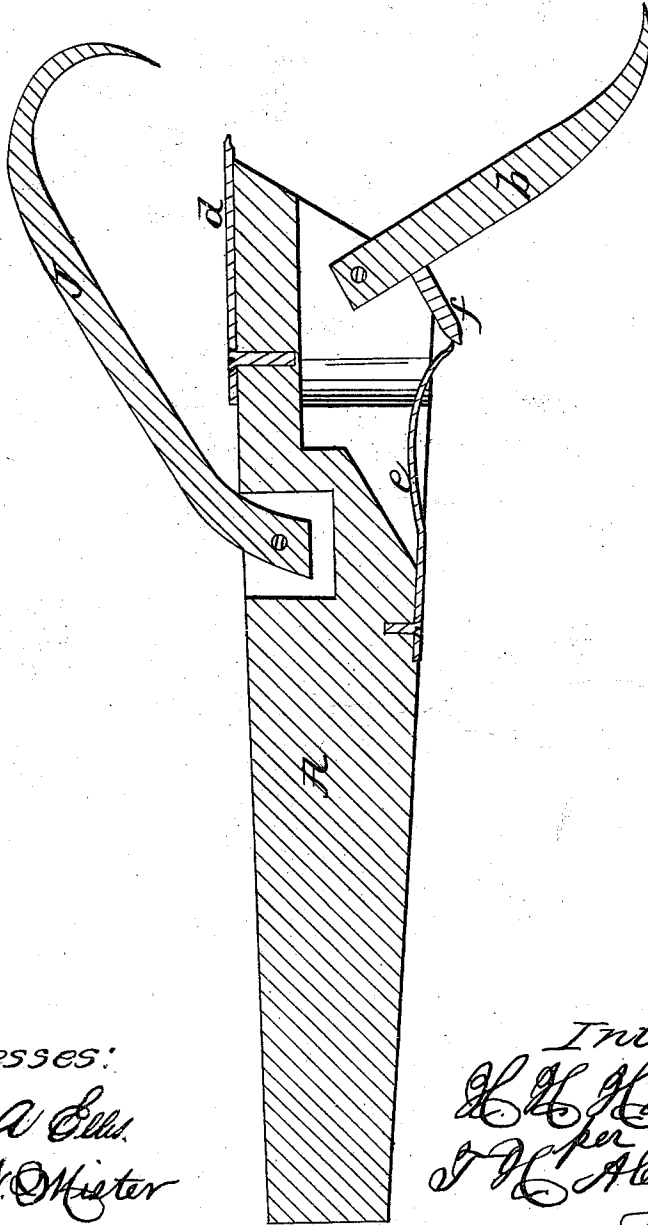


H.H. Hall,

Box Opener.

N^o 81,497.

Patented Aug. 25, 1868.



Witnesses:

J^{no}. A. Ellis
J. W. Miller

Inventor

L. L. Hall
per
J. H. Alexander
Atty.

United States Patent Office.

H. H. HALL, OF TIOGA, PENNSYLVANIA.

Letters Patent No. 81,497, dated August 25, 1868.

IMPROVEMENT IN BOX-OPENERS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, H. H. HALL, of Tioga, in the county of Tioga, and State of Pennsylvania, have invented certain new and useful Improvements in Box-Openers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, in which is represented a horizontal section of my box-opener.

The nature of this invention consists in the employment of two hooks, so constructed and arranged, in combination with the stock or lever, and spring, that a box may be easily opened, or the hoops of a barrel expeditiously removed, substantially in the manner hereinafter set forth.

To enable others skilled in the art to make and use my invention, I will now describe its construction and operation.

In the accompanying drawing—

A represents a lever or stock of suitable length, which is furnished on its upper surface at one end with the metal wedge *d*. This wedge is made to project beyond the end of the lever, and designed to penetrate the joints of the box to be opened.

b designates a hook, formed to curve upwards at its outer end, and pointed at its centre, so as to enter the wood freely. The hook *b* is supplied with a heel, *f*, which, at its outer end, rests on the spring *e*.

A depression is made on the under side of the lever A, for receiving the spring *e* and the inner end of hook *b*, which is made to play on the fulcrum *g*.

J designates a second hook, curved downwards near its outer end, and pointed, so as to enter the wood and assist the action of lever A. The hook J is pivoted in a mortise made in the rear of wedge *d*.

The operation of my machine is as follows:

Place the lever in such a position as that the hook *b* can, with its sharp point, be forced into the side of the box, and is held in the proper position for so doing by the spring *e*, acting on the heel *f* of hook *b*. Next force the wedge into the joint under the lid of the box, and, by so doing, the hook J will come in contact with the lid, and prevent the wedge from receding while pressure is being applied to the long arm of lever A sufficient to force the lid upwards and accomplish the end in view.

My machine may be applied successfully to taking hoops from barrels.

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

The lever or stock A, hooks *b* and J, spring *e*, and wedge *d*, all combined, constructed, and arranged substantially in the manner and for the purpose set forth.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

H. H. HALL.

Witnesses:

H. S. JOHNSON,

H. F. KEENEY.