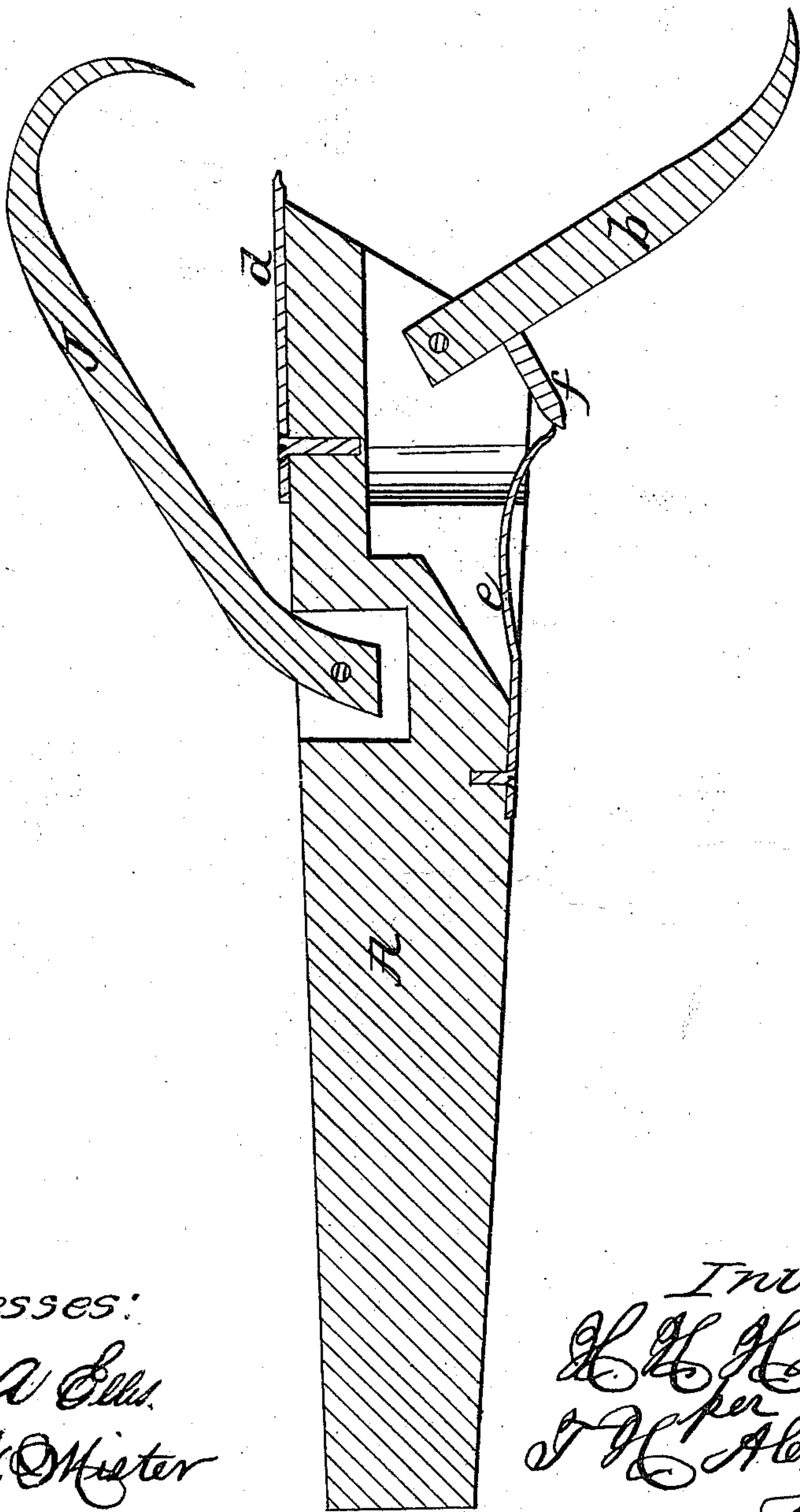


H. H. Hall,

Box Opener.

N^o 81,497.

Patented Aug. 25, 1868.



Witnesses:

*J. no. A. Ellis.
J. W. Myster*

Inventor

*H. H. 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.