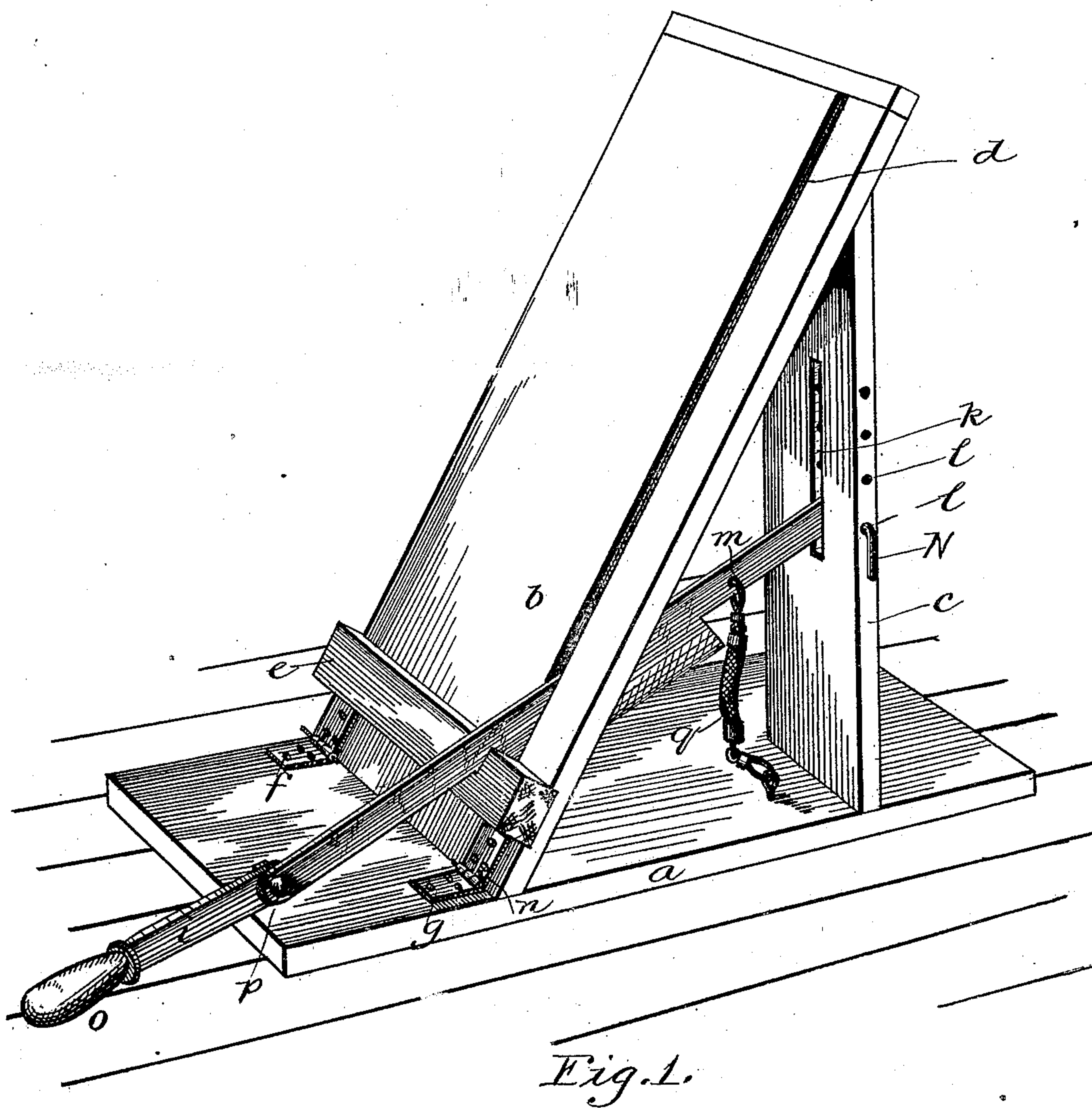


C. BARR.

# WOOD SPLITTING MACHINE.

No. 396,722.

Patented Jan. 29, 1889.



Witnesses:

Chas. G. Hawley.

Ella Edder

*Inventor:*

Charles Barr

By George P. Boston  
Attorney.

*Attorney.*

(No Model.)

2 Sheets—Sheet 2.

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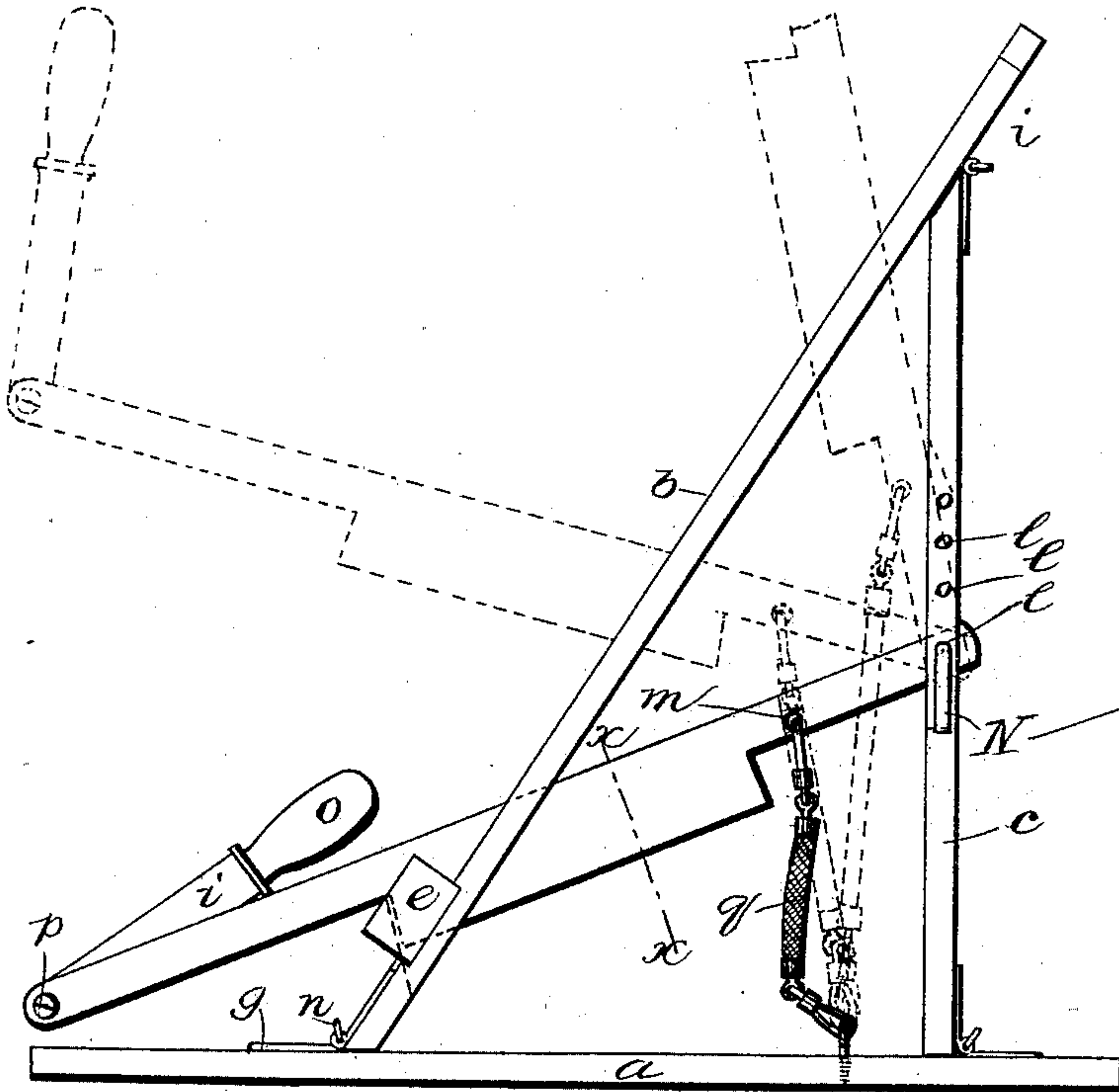


Fig. 2.

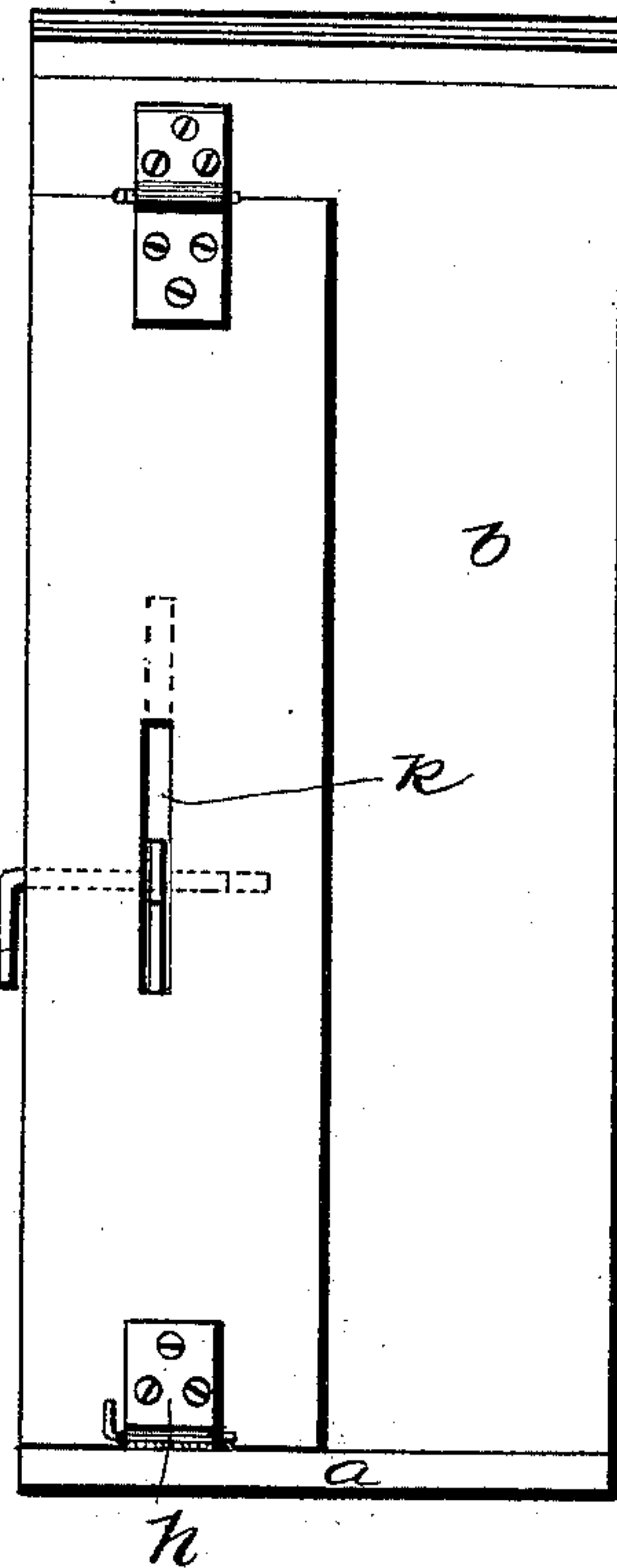


Fig. 3.

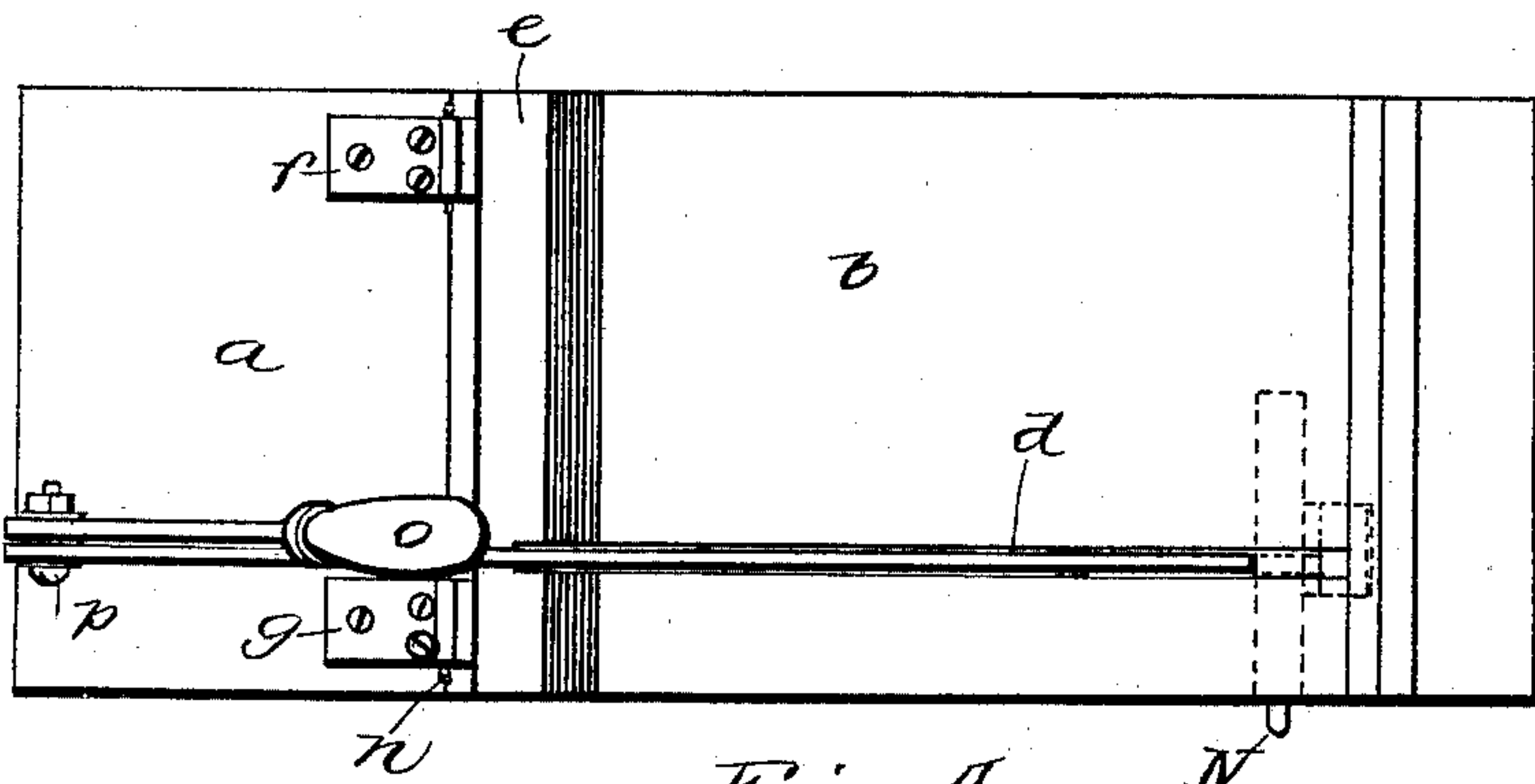


Fig. 4.



Fig. 5.

Witnesses:

Chas. G. Hawley.

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# UNITED STATES PATENT OFFICE.

CHARLES BARR, OF CHICAGO, ILLINOIS.

## WOOD-SPLITTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 396,722, dated January 29, 1889.

Application filed August 28, 1888. Serial No. 284,039. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES BARR, a citizen of the Kingdom of Great Britain, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Wood-Splitting Machines, (Case 1,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to machines for splitting kindling-wood, and its object is to provide for splitting wood, after it has been cut of suitable length, by means of a knife operated by hand. The knife is pivoted at one end and extends forward through a slot provided in an inclined board or support, and is provided at the other end with a pivoted handle, which is preferably of considerable weight.

My invention consists in the knife pivoted, as thus described, and provided with the pivoted handle, in combination with the framework of the machine, constructed and arranged as hereinafter described.

The frame consists, preferably, of three principal parts—the base, an upright standard supported thereon, and the inclined slotted support secured or hinged to the base and braced at or near its upper end by the standard. At the lower portion of the inclined support I provide a transverse block. In connection with the knife I preferably provide a retractile spring, which may be of any suitable form or construction.

The block of wood to be split up into kindling-wood is placed with its end resting upon the cross-piece or transverse block and its rear surface resting against the surface of the inclined support. The user, taking the handle of the knife in the right hand, raises the knife high enough to make room for the block, whereupon the block is moved with the left hand to the right, so as to come under the knife. The knife is then brought down, so as to split off a piece from the block.

I preferably secure the different parts of the frame together in such manner that they may be readily taken apart for packing. In machines which I have constructed I have used hinges for securing the standard and in-

clined supporting-piece to the base, the standard being also secured at its upper end by hinge to the inclined supporting-piece.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my wood-chopper or kindling-splitter. Fig. 2 is a side elevation of the same, different positions of the knife being indicated by dotted lines. Fig. 3 is a rear end view of the same, showing the manner in which the inclined support is braced by the standard. Fig. 4 is a plan view. Fig. 5 is a sectional view of the blade of the knife upon line X X of Fig. 2.

Like parts are indicated by similar letters throughout the different figures.

The base *a*, the inclined slotted supporting-piece *b*, and the standard or brace *c* are preferably of wood. Ash or oak may be used. The inclined supporting-piece *b* is provided with a slot, *d*, preferably nearest its right edge. A transverse block, *e*, is secured to the outer inclined face of this support *b*, as shown, near the lower end thereof. This block *e* is of sufficient thickness to serve as a rest for a block of wood when placed upon end thereon.

As shown in Figs. 1, 2, and 3, the inclined support *b* is secured to the base *a* by hinges *f g* at the angle desired. The upright piece or brace *c* is secured by hinge *h* to the base and by a hinge, *i*, to the under side of the inclined support. These hinges are provided with removable pins, so that the frame may be taken apart, as occasion may require. It will be observed, however, that when the frame is put together, as shown, the three parts—that is to say, the base *a*, the inclined support *b*, and the standard or brace *c*—are rigidly connected together. A slot, *k*, is provided in the standard *c*, as shown, directly behind the slot *b* of the inclined support. One or more pin-holes are provided in the standard *c*, as indicated at *l*. The end of the knife *m* is inserted through the slot *b* into the slot *k* and secured, as shown, therein by a pin, *N*, inserted in one of the holes *l*. Thus pin *N* serves as the pivotal support of the knife. The knife may be adjusted at different heights in the slot *k* by inserting the pin *N* into any one of the pin-holes *l* that may be desired, the eye or pin-



hole at the end of the knife being brought into position to receive the pin when inserted. The handle *o* of the knife is pivoted, as shown, at *p*, and when in use is held in an upright position by the user.

The retractile spring *q* is attached at one end to the base *a* and at the other to the knife. The knife when raised is lifted, as indicated by dotted lines in Fig. 2, against the tension of this spring. Then as the knife is forced down again the recoil of the spring adds force to the stroke against the block of wood that is to be split.

The spring, in addition to its function when the knife is in operation, is of advantage, in that it serves to bring the knife down toward the bottom of the slot *d* after the work is complete; so that by no chance may the knife be left in its elevated position, so as to be liable to be thrown down accidentally, it being obvious that such an accidental falling of the knife would be dangerous.

It is evident that any other form of spring might be substituted in place of the spring *q* illustrated. A coiled spring of metal or a flat spring might be used in place thereof to do the same work in the same way.

The operation of my machine will be readily understood from the foregoing description. Thus the user, grasping the handle *o* in the right hand, places the block of wood to be split with one end upon the support *e* and the rear side against the inclined support *b*, holding the block or stick of wood in the left hand. As the knife is raised, the stick of wood is moved along to the right under the knife and the knife is brought down, cleaving the wood.

My invention admits of various modifications, that will readily suggest themselves to those skilled in the art, and I therefore do not limit my invention to the details of the construction herein shown and described.

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

1. The combination, with the inclined support provided with a transverse block near its lower end, of the brace or standard, said standard and said horizontal support being provided with slots, the slot in the standard being at the rear of the slot in the inclined sup-

port, and a knife pivoted upon a pin passing through the slot in the standard, said knife extending through the slot in the inclined support and being provided with a weighted pivoted handle and a retractile spring, against the tension of which the knife is lifted when raised, substantially as and for the purpose specified.

2. The combination, with the base *a*, of the upright standard *c*, the inclined support *b*, said support *b* being provided with a transverse block, *e*, and a knife pivoted to the standard and extending through a slot provided in the inclined support, said knife being provided with a pivoted handle, substantially as and for the purpose specified.

3. The combination, with the base *a*, of the inclined support *b* and the back or standard *c*, said pieces *a b c* being rigidly secured together by hinges provided with removable pins, a knife secured to the standard *c* by a pivotal attachment, said knife extending through a slot, *d*, provided in the inclined support, and a retractile spring between the knife and the base, substantially as and for the purpose specified.

4. In a machine for splitting wood, the combination, with the base, of an inclined slotted support braced or secured in position by a standard extending from the base to the under side of the inclined support near the top of said support, said standard being provided with a slot at the rear of the slot in the inclined support, several pin-holes being provided in the standard, passing through the edge of the standard and through the slot, as described, and a knife extending through the slot in the inclined support and pivoted upon a pin passing through the eye in the end of the knife and one of the pin-holes, said knife being adapted to be adjusted to any desired height by changing the pin or pivot from one pin-hole to another, substantially as and for the purpose specified.

In witness whereof I hereunto subscribe my name this 23d day of August, A. D. 1888.

CHARLES BARR.

Witnesses:

GEORGE P. BARTON,  
CHAS. G. HAWLEY.