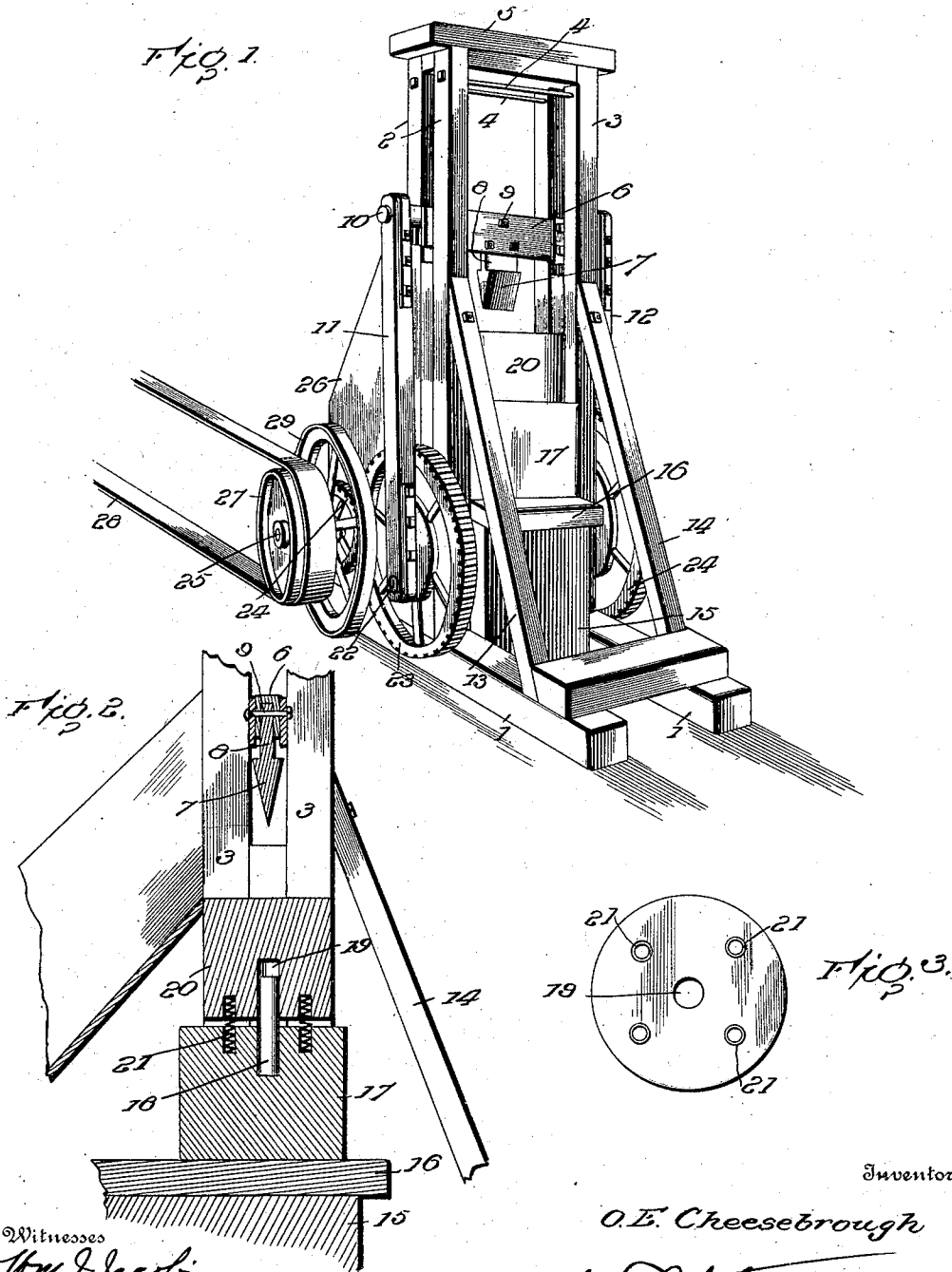


No. 748,162.

PATENTED DEC. 29, 1903.

O. E. CHEESEBROUGH.
WOOD SPLITTING MACHINE.
APPLICATION FILED APR. 15, 1903.

NO MODEL.



Witnesses
Wm. J. Jacobi
C. S. Pryor

Inventor
O. E. Cheesebrough
By W. F. Fitzgerald &
Attorneys

UNITED STATES PATENT OFFICE.

OSCAR E. CHEESEBROUGH, OF ANAHEIM, CALIFORNIA.

WOOD-SPLITTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 748,162, dated December 29, 1903.

Application filed April 15, 1903. Serial No. 152,723. (No model.)

To all whom it may concern:

Be it known that I, OSCAR E. CHEESEBROUGH, a citizen of the United States, residing at Anaheim, in the county of Orange and State of California, have invented certain new and useful Improvements in Wood-Splitting Machines; 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 appertains to make and use the same.

My invention relates to a wood-working machine, and more particularly to splitting-machines designed for readily splitting into desired form a block of wood as severed from the trunk of a tree.

My invention therefore comprehends certain novel features of combination and construction of parts, as will be hereinafter clearly set forth, reference being had to the accompanying drawings, which are made a part of this application.

The object of my invention, among others, is to provide a machine of great strength whereby a block of wood may be split or severed into sections of desired size notwithstanding the same may be full of knots, &c.

Other objects and advantages will be hereinafter made clearly apparent.

Referring to the drawings, Figure 1 is a perspective view of my invention complete ready for use. Fig. 2 is a detail view showing a vertical central section of the chopping block or support upon which the block of wood to be split is placed ready for the knife. Fig. 3 is a detail view showing the bottom of the block-supporting base.

Referring to the numerals on the drawings, in which the same numeral is employed to indicate a similar part in the several views, 1 designates a part of the framework of my machine, said parts being the supporting-sills, which in some instances, if desired, may be beveled at one end, so as to serve as sled-runners, whereby draft-animals may be attached thereto and the entire machine readily moved from place to place. Upon the base member 1 thus or otherwise constructed I erect the parallel standards 2 and 3, secured in any preferred way and connected at their upper ends by suitable stay-rods 4 and by the cap-section 5, a space of proper size being left between

each pair of standards 2 and 3 to permit a free upward and downward play of the cross-head 6, which, as will be observed in Fig. 1, carries the splitting-knife 7, which is connected to the cross-head 6 in any preferred way, as by having its shank 8 inserted in a suitable socket or recess and removably secured therein, as by the bolt 9 or other equivalent device. The cross-head is of proper length to extend through and beyond the standards 2 and 3 and is provided at each end with a journal or gudgeon 10, adapted to coöperate with the upper end of the pitmen 11 and 12, one of said pitmen being provided for each side of the machine, as clearly shown.

The standards 2 and 3 are properly reinforced and supported in their upright position upon one or both sides by means of suitable braces 13 and 14, connected to said standards and the base member 1 in any preferred way that will insure proper strength and union of the parts.

A suitable supporting-base consisting, preferably, of a series of blocks or base members 15, 16, and 17 is provided, said base being supported by having the member 15 rest directly upon the member 1, all of said parts being secured together in any desired way and also connected with the uprights or standards 2 and 3. The base member 17 is provided on its upper surface with a central aperture in which is secured the vertically-disposed stud or tenon 18, the upper protruding end of which is loosely received by an aperture 19, provided in the central part of the lower end of the base or supporting-block proper 20.

The base proper is designed to support the block of wood to be split, inasmuch as during the full downward stroke of the knife the latter will come in near approach to the base and insure that it will pass entirely through any block of wood which may have been interposed between the base and the knife.

In order to cushion the base member 20 in its operative position, whereby it will somewhat relieve the strain placed upon the knife as the latter enters the block of wood, I provide a plurality of apertures in the upper surface of the base-section 17, in each of which I dispose a cushioning-spring 21, and it is therefore obvious that the base member 20 will not only be very reliably sustained in

its adjusted operative position, but will also be in position to yieldingly receive the heavy strain placed upon the same and incidentally save the knife against all blows and undue strain placed thereon.

In order that the cross-head carrying the knife may be rapidly reciprocated in the guideways formed by the standards 2 and 3, I connect the pitmen 11 and 12 at their lower ends to suitable wrist-pins 22, carried by the gear-wheels 23, one of said wheels being placed upon each side of the machine to co-operate with its respective pitman.

The gear-wheels 23 are supported upon a suitable shaft extending entirely through the framework of the machine and through the base member 15, it being understood that suitable bearings therefor are also provided.

The gear-wheels 23 are actuated by means of the driving-gears 24, also supported upon a suitable shaft 25, extending through the base of the machine and through bracing sections or uprights 26, there being one of the gears 24 for each of the gears 23, as will be obviously necessary.

The shaft 25 and the gears 24, which are keyed rigidly thereto, are driven by the band-wheel 27 or the equivalent thereof, and while I have shown a simple band-wheel co-operating with the belt 28 as affording the source of power, yet it will be understood that the band-wheel 27 may be replaced by a sprocket-wheel or otherwise connected with the steam or horse power motor, as preferred. I also rigidly secure to the shaft 25 the fly-wheel 29, whereby requisite momentum may be maintained and insure that the knife will be reliably forced through any obstructing block of wood.

My improved splitting-machine will not only be found very desirable and useful for preparing wood for stoves, furnaces, &c., but

will also be found very desirable for splitting staves, shingles, and the like, inasmuch as the operator may by holding the block of wood in proper position shape the severed portions thereof as he may desire.

While I have described the preferred combination and construction of parts, I desire to comprehend in this application such substantial equivalents and substitutes as may properly come within the scope of my invention.

Believing that the advantages and manner of using my improved splitting-machine have thus been made clearly apparent, further description is deemed unnecessary.

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

The herein-described splitting-machine for severing blocks of wood, comprising a suitable frame having uprights erected thereon, a cross-head reciprocating in openings between said uprights, a knife carried by said cross-head, pitmen connected to said cross-head, and extending downward near the bottom of the machine and suitable driving mechanism adapted to reciprocate said pitmen whereby the knife will be raised and lowered, a splitting-block or base member at the lower end of the path of the knife, a stud 18 adapted to hold said block in its operative position and springs 21 secured in orifices in said splitting-block and base-block whereby said splitting-block will be yieldingly supported, as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

OSCAR E. CHEESEBROUGH.

Witnesses:

JAMES S. HOWARD,
O. T. CAILOR.