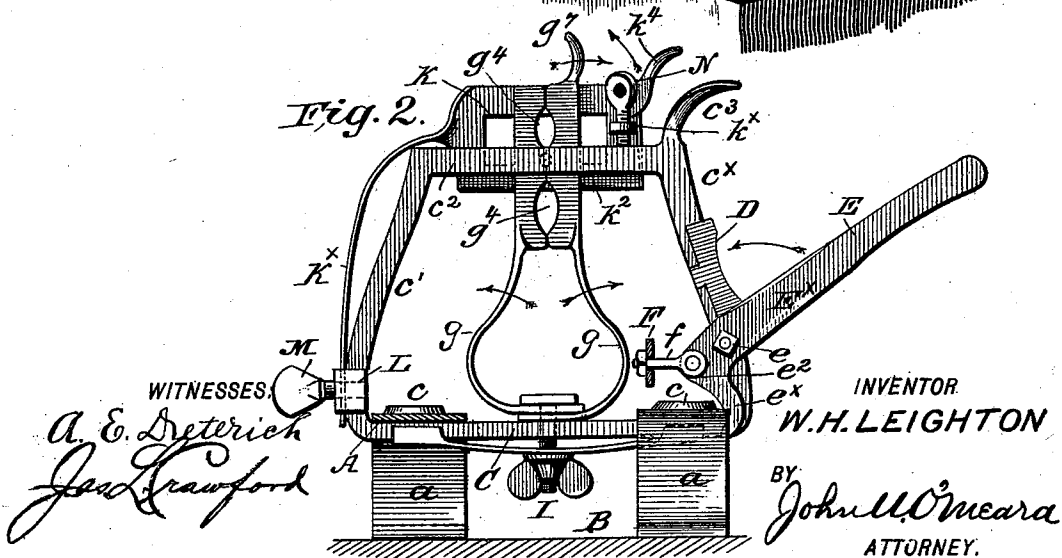
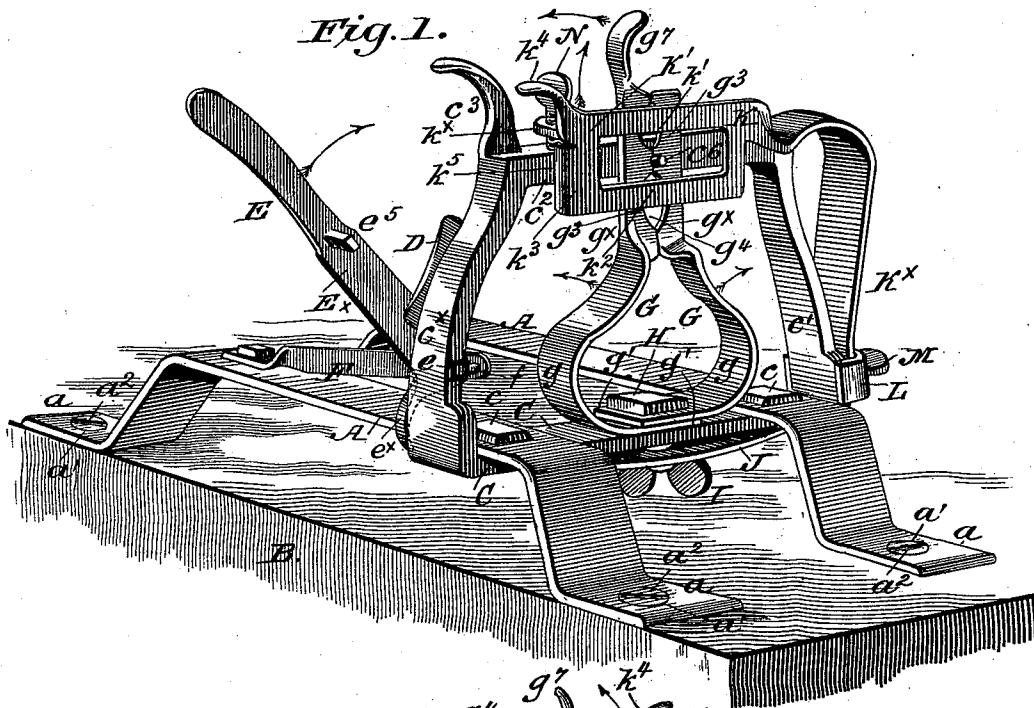


(No Model.)

W. H. LEIGHTON.
CANE STRIPPER.

No. 539,434.

Patented May 21, 1895.



WITNESSES:

INVENTOR:

W.H. LEIGHTON

BY

BY: *John M. O'Neara*
ATTORNEY.

UNITED STATES PATENT OFFICE.

WILLIAM H. LEIGHTON, OF COVINGTON, VIRGINIA, ASSIGNOR OF ONE-HALF
TO WILLIAM QUILLIASH, OF SAME PLACE.

CANE-STRIPPER.

SPECIFICATION forming part of Letters Patent No. 539,434, dated May 21, 1895.

Application filed November 9, 1894. Serial No. 528,306. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. LEIGHTON, residing at Covington, in the county of Alleghany and State of Virginia, have invented a new and Improved Cane Topping and Stripping Machine, of which the following is a description.

My invention relates to a machine for cutting off the tops of sugar canes and stripping the same of the outer bark, and it has primarily for its object to provide a machine of this character of a very simple and economical construction, which can be easily manipulated and which is effective in its operation.

It has also for its object to provide a machine of this kind in which the stripping jaws can have their gripping tension quickly adjusted to set them in a proper condition for engaging different sizes of cane and in which the blading and stripping members are relatively so arranged, as to produce a compact but very strong machine.

With other minor objects in view, which hereinafter will appear my invention consists in such novel features of construction and peculiar combination of parts, as will hereinafter be first described in detail and then be pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved cane blading and stripping machine, and Fig. 2 is a rear view thereof.

In the practical construction, my improved machine is made entirely of metal, and comprises generally, a base portion whereby it can be conveniently and fixedly secured to a bench or table, a pivoted cutting lever for cutting off the tops of the cane, a pair of compressible spring gripper jaws adapted to grip against the cane and strip it as it is pulled there-through, and a spring actuated gage or pressure device for holding the stalks down in close contact with the stripping edges of the said jaws.

Referring now to the drawings in which like letters indicate similar parts in all the figures, A A indicate a pair of longitudinally disposed base members, having foot portions $a-a$ apertured at $a'-a'$ whereby they can be

conveniently secured by the screws $a^2 a^2$ to a bench or table B as clearly shown in Fig. 1.

C denotes a cross bar which passes transversely under the front end of the base members A A, and is secured thereto rigidly by the bolts C C. This bar has integral side portions extended upward to form the vertical ends $c'-c^x$ of a yoke like frame, the upper cross beams c^2 of which is integrally connected by welding or otherwise, with the said ends $c'-c^x$, and the end of c^x is extended upward and formed into a finger piece c^3 for a purpose presently described. Upon the inner face of the member c^x of the yoke frame, is secured a fixed cutter blade D, see Fig 2, the same being preferably seated in a recess in the said member, and secured therein in any suitable manner, preferably detachably, so that it can be easily removed when it requires sharpening, or to be replaced by a new cutter blade.

E indicates the movable cutter blade which is pivoted to the member c^x , at e , normally held extended diagonally from the main frame as shown, it being moved normally to such position by the spring tang F which is secured at one end to the adjacent base members A, and at the other to a short link f , which is pivotally connected to the heel portion e^2 of the cutting lever E, which portion merges into an angular extension e^x which forms a stop to engage the outer edge of the said base member A, to limit the outward swing of the lever E, as clearly shown in Fig. 2 of the drawings.

The cutting portion proper E^x of the lever E is adapted to shear over the fixed cutter when the lever is swung inward, and such lever at a point above its cutting edge has a stop e^5 which engages the frame member c^x and limits the inward swing of the said lever.

G G indicates the strippers, which consist each of a bow spring portion g , the lower ends g' of which lap, rest on the cross bar C, and fit on an adjusting bolt H, the head of which securely holds the said ends g' down in place on such cross bars, such bolt H passing through the cross bar C, and having a screw shank on which is fitted the adjusting screw I which is held tightly to its adjusted position.

tions by the flat spring J. The upper ends of the spring portions g terminate in flat vertical jaws g^x g^x , which extend up above the upper cross beam of the yoke frame, and are held with their gripping edges spring pressed toward each other and against a stud c^6 projected forward from such cross beam. At points above and below the said upper cross beam the jaws have registering concave recessed portions g^3 whereby passages g^4 g^4 are formed one above and the other below the cross beam, through which to pass the cane stalks, and one of such jaws g^x (the left one) has an extension which forms a thumb piece g^7 as shown.

K indicates a gage or presser frame, which is in the nature of a cross spring frame, and consists of a rectangular body portion K' , having upper and lower presser bars k' k^2 , connected at the front by the vertical portion k^3 which terminates on a finger piece k^4 , and a guide lip k^5 which bears against the front face of the cross beam. The other end of the frame K' merges into a stout flat spring K^x , which extends down on the outside of the end member c' and seats in a clip L fitting about the lower end of the said member, which and the spring are tightly held thereon by the binding screw M.

The manner in which my machine is operated is best explained as follows: The cane is first laid straight in range with the topping or cutting lever, after which it is grasped near the top with the left hand, and placed with the tops between the cutting blades. The lever E is then manipulated by the right hand to cut off the tops. The operator then presses on the thumb piece of the left stripper jaw, with the thumb of the right hand and pulls on the finger piece of the gage frame. This causes the stripping jaws to open and the gage frame to rise to allow the passages g^4 g^4 to open to their fullest extent. The topped ends of the cane is then inserted from the front in either the lower or upper passage as the size thereof may require (the passages being of different sizes) a short distance, after which the jaws and gage frame are released, which allows the jaws to tightly grip the cane.

It will be noticed by reference to Fig. 1, the lower edges of the upper and lower cross members of the gage frame normally extend down over the upper portions of the passages. Hence it is manifest that when the cane is inserted in either of such passages the cross member of the respective passage in which the cane rests will bear with a spring pressure down on the cane and force it down into the seat and side edges of the passages, such arrangement serving to cause the cane to be the more effectually stripped as it is pulled rearwardly through the passages.

The spring pressure of the gage frame on

the cane can be readily regulated, by the set screw N, which passes through a threaded aperture in a lug k^x on the rear face of the frame K, which screw engages the top of the cross beam as clearly shown in Fig. 2. The gripping pressure of the jaws on the cane can also be regulated by adjusting the screw H which increases or diminishes the tension of the spring jaws as desired.

While I have not shown it in the drawings it is manifest that additional gripping faces may be provided, having passages for the cane, as for instance by extending the vertical portions of the jaws and forming such extended portions with recesses to form the said passages.

From the foregoing description taken in connection with the accompanying drawings it is thought the advantages and operation of my invention will be readily understood. The construction thereof is exceedingly simple and the same can be operated by boys, the cutting and stripping capacity thereof being such that a boy can accomplish therewith the work usually done in the ordinary manner by three men. The same is adapted for cutting all kinds of sugar cane.

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

1. In a machine as described, the combination with the vertically disposed gripper jaws having cane passages, of the spring actuated presser gage having members extending over the upper portions of the passages and forced downward, whereby to compress the stalk into close contact with the edges of the said passages, all arranged substantially as shown and for the purposes described.

2. In a machine as described, the combination with the main frame, of the stripping jaws, formed of a pair of bow like spring members, having their upper ends formed into flat gripping members, having one or more recesses, forming passages, their lower ends held lapped, and adjusting screw devices connecting such ends to the main frame substantially as shown and for the purposes described.

3. In a machine as described, the combination with the vertically disposed gripping jaws, said jaws having passages for the cane, of a vertically disposed gage or presser frame, movable over the front face of the gripper jaws, spring pressed to its downward position, and having adjusting means for limiting its downward movement all arranged substantially as shown and described.

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

WILLIAM H. LEIGHTON.

Witnesses:

JAMES A. MCCLUNG,
S. S. CARPENTER.