

B. & E. HAWORTH.

Cane-Stripper.

No. 35,680.

Patented June 24, 1862.

Fig. 1.

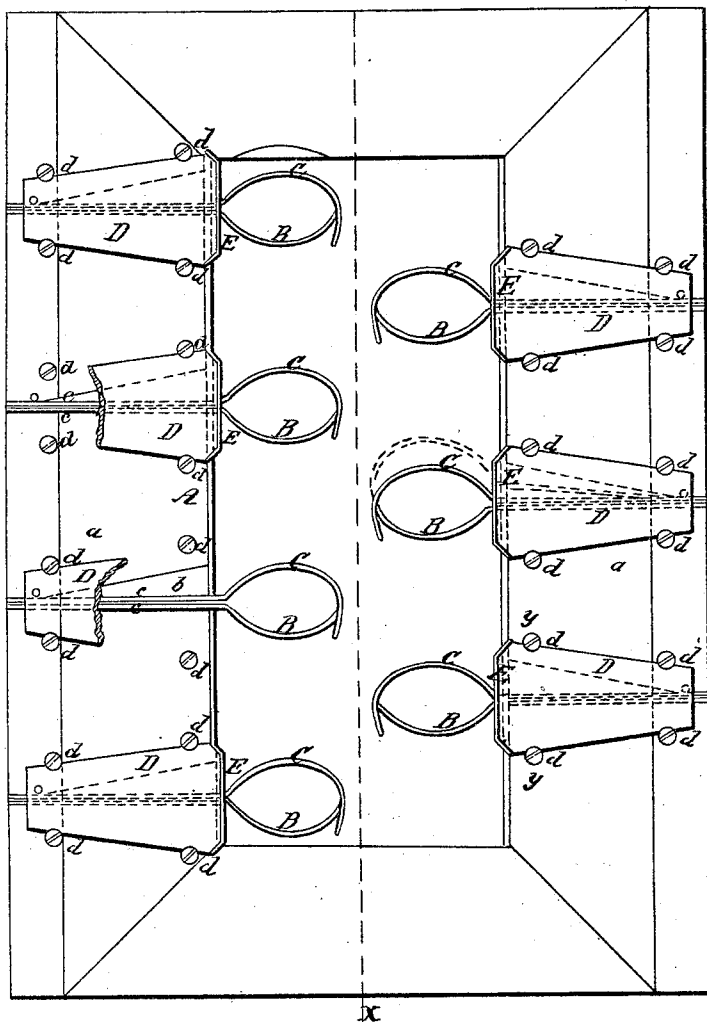


Fig. 2.

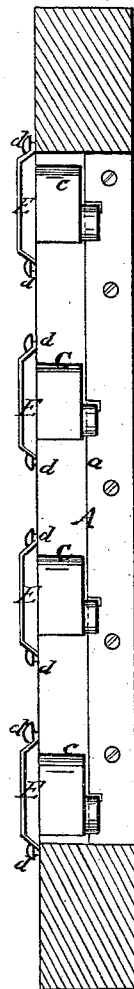
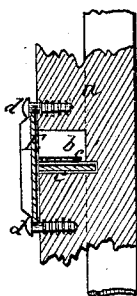


Fig. 3.



Witnesses:

Geo Reed
Edw Hodgson

Inventor:

B Haworth
E. Haworth
per Munn & Co
Attorneys

UNITED STATES PATENT OFFICE.

B. HAWORTH AND E. HAWORTH, OF RIDGE FARM, ILLINOIS.

IMPROVEMENT IN SUGAR-CANE STRIPPERS.

Specification forming part of Letters Patent No. 35,680, dated June 24, 1862.

To all whom it may concern:

Be it known that we, B. HAWORTH and E. HAWORTH, of Ridge Farm, in the county of Vermillion and State of Illinois, have invented a new and improved device for stripping the leaves from sugar-cane preparatory to crushing and expressing the juice therefrom; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a front or face view of our invention; Fig. 2, a vertical section of the same, taken in the line *x x*, Fig. 1; Fig. 3, a section of a portion of the same, taken in the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in the employment or use of a series of cutters or strippers constructed, arranged, and fitted in a frame in such a manner that they will be capable of adjusting themselves to suit cane of different thickness, and also to suit the varying thickness or taper of each individual stick or cane as the latter is drawn through or between them and the leaves stripped therefrom.

To enable those skilled in the art to fully understand and construct our invention, we will proceed to describe it.

A represents a rectangular frame, having an open center, as shown in Fig. 1, and constructed of any suitable dimensions. In the front side of the upright pieces *a a* of the frame there are made a series of taper or V-shaped recesses, *b*, in which steel plates *c c'* are fitted. These plates may be of any suitable width, and the lower ones, *c*, are secured to the bottoms of the recesses, their inner ends projecting into the central opening of the frame and curved in the form of the longitudinal half of an ellipse, as shown at B in Fig. 1. The plates *c'* are fitted in the recesses *b* directly over *c*, and are somewhat wider than the latter, and the two are firmly wedged or otherwise secured together at their outer ends. The plates *c* rest or bear on the bottoms of the recesses *b*, and are consequently fixed; but the plates *c'* are allowed, owing to their elasticity, to rise and fall in said recesses, the taper form of the latter admitting of this move-

ment. The plates *c'*, like *c*, project into the central opening of the frame, and directly over the curved parts B of *c* are curved, as shown at C. The curved parts C of the plates *c'*, however, are rather longer than the curved parts B of *c*, and the former extended down over the ends of B, as shown clearly in Fig. 1, the two curved parts B C forming an ellipse. The recesses *b* are each covered by a metal plate, D, of taper form, and secured to the upright pieces *a a* of the frame A by screws *d*, which pass into the frame and have their heads projecting over the edges of the plates D. By this arrangement it will be seen that the plates D, when necessary, may be readily detached from the frame by simply unscrewing the screws *d* a trifle to admit of the plates being drawn out longitudinally toward the center of the frame. The inner ends of the plates D are curved outward from the frame A, so as to form stripping-edges at the inner ends of the curves B C, as shown at E.

The operation is as follows: The cane is drawn between the curved parts B C of the plates *c c'*, the upper part, C, yielding or giving, owing to the elasticity of *c'*, to conform to the varying thickness of the cane, and the edges of said parts B C, in connection with the inner ends, E, of the plates D, strip the leaves from the cane. The downward-curved parts of C, at their ends, always preserve the elliptical form of each pair of strippers, or, in other words, compensate for the rising of C, so as to preserve a continuous stripping all around the inner parts of the strippers, while the stripping-edges E compensate for the part of C from B as the former rises.

The whole device is extremely simple, may be constructed at a small cost, and is capable of being applied to a crushing-mill so that the cane may be drawn through or between the strippers under the action of the pressure-rollers, the stripping and crushing being performed at one operation. The device may also be used by hand, when desired, and any number of strippers employed.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The employment or use of cutters or strippers formed of plates *c c'*, the latter being allowed to yield or give under pressure, and both

fitted in a suitable frame, A, one over the other, and curved at one end in semi-elliptical form, substantially as shown, to operate as and for the purpose herein set forth.

2. In combination with the strippers B C, the supplemental or auxiliary strippers E, applied to the frame A, and arranged, substantially as shown, to operate in connection with the strippers B C, as set forth.

3. The manner, as shown, of securing in the frame A the plates *c c'* of the strippers B C, and likewise the manner of attaching to said frame the supplemental or auxiliary strippers E—to wit, by having the plates *c c'* fitted in

taper recesses *b* in the frame so that the plates *c* may be fixed and the plates *c'* allowed to yield or give under pressure, and the strippers E formed in the inner ends of the plates D, which cover the recesses *b*, whereby the strippers may be very readily applied to the frame A and detached therefrom, when necessary, for the purpose of repairs, the substitution of new ones, &c.

BARTLETT HAWORTH.
ELVIN HAWORTH.

Witnesses:

WILLIAM S. RICE,
SAMUEL WEEKS.