Easterbrook & Wood,

Osier Peeler.

No. 34,201. Patented Jan. 21, 1862.

Fig. 1

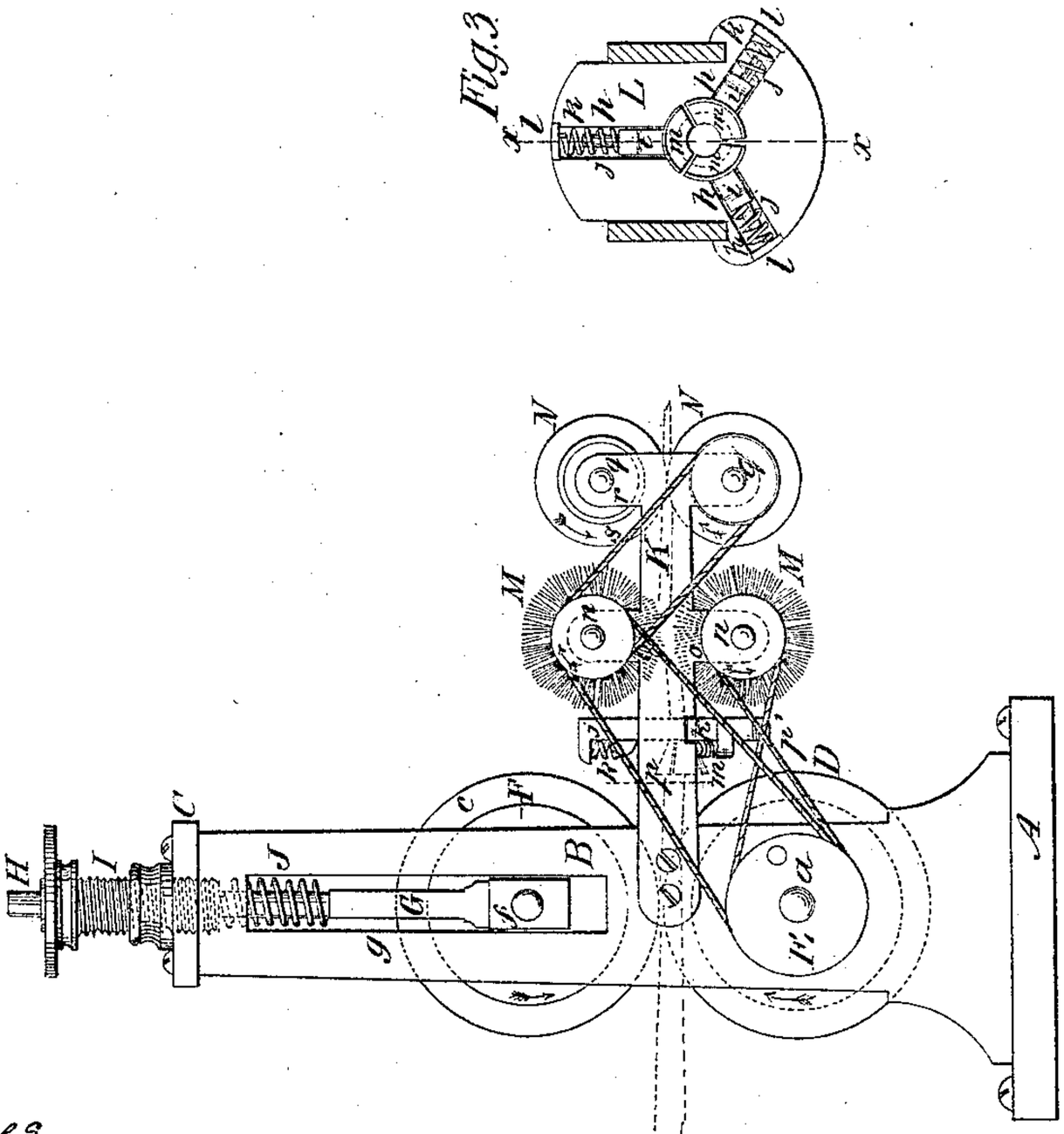


Fig. 2.

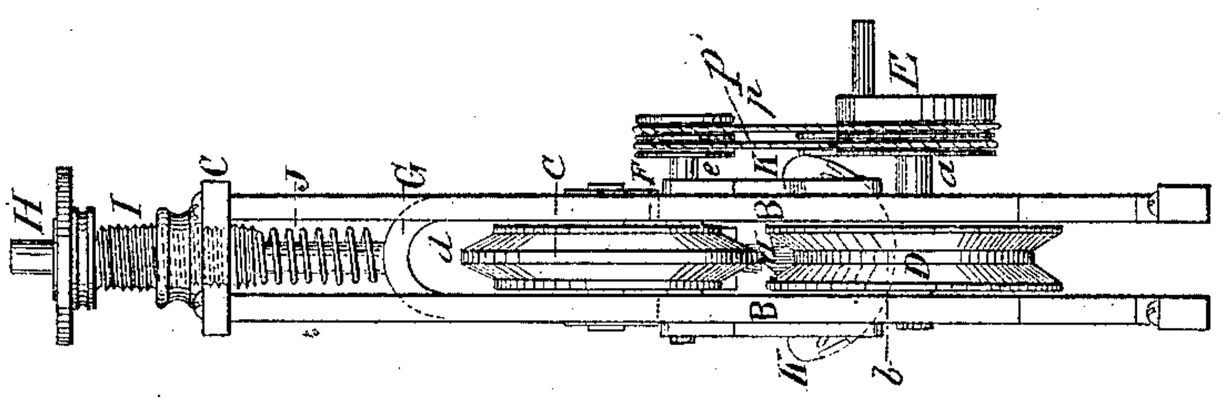
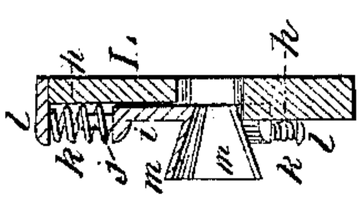


Fig. 3.

Fig. 4.



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UNITED STATES PATENT OFFICE.

M. EASTERBROOK AND J. M. WOOD, OF GENEVA, NEW YORK.

IMPROVEMENT IN MACHINES FOR PEELING WILLOW.

Specification forming part of Letters Patent No. **34,201**, dated January 21, 1862.

To all whom it may concern:

Be it known that we, M. EASTERBROOK and J. M. WOOD, both of Geneva, in the county of Ontario and State of New York, have invented a new and Improved Machine for Peeling Willow; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side elevation of our invention. Fig. 2 is a front elevation of the same; Fig. 3, a detached face view of a stripping-plate pertaining to the same; Fig. 4, a section of Fig. 3, taken in the line *x x*.

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

This invention relates to a new and improved machine for stripping the bark from willow preparatory to the manufacture of the same into baskets.

The invention consists in the employment or use of two pressure-wheels, one of which has a V-shaped and the other a grooved periphery, and using in connection therewith a stripping-plate, rotary brushes, and discharging-rollers, substantially as hereinafter fully shown and described.

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

A represents a base or bed piece, which has two upright plates B B attached to it, the upper ends of which are connected by a cross-plate C. Between the uprights B B near their lower ends there is a wheel D, the shaft *a* of which passes through the uprights and has a crank-pulley E at one end. The wheel D has a grooved periphery, which is of V form, as shown at *b* in Fig. 2.

F is a wheel, the diameter of which is equal to D. The periphery of the wheel F is formed of a V-shaped projecting bead *c*, which corresponds in shape to the groove of the wheel D. The edge of the bead *c* is grooved or made concave, as shown at *d* in Fig. 2. The wheel F has its shaft *e* fitted in bearings *f f* at the lower end of a yoke G, which is allowed to slide freely in slots *g g* in the uprights B B.

The yoke G has a vertical rod H at its upper end, and this rod passes loosely through a screw I, which is fitted in the plate C. The lower end of the screw I bears upon a spiral spring J, which is placed on the rod H.

To the uprights B B there are attached horizontal bars K K, one to each upright. These bars K are about in line with the "bite" of the wheels D F.

Between the bars K K there is fitted a plate L, which has three radial grooves *h* made in in it at one side, as shown in Fig. 3. In each groove *h* there is placed a slide *i*, having a rod *j* at its outer end, on which is a spiral spring *k*. The springs *k* bear against lips *l* at the edge of the plate L. The inner edge of each slide *i* is provided with an oblique or inclined projection *m*, and these three projections form a funnel-shaped tube, as shown in Figs. 3 and 4.

M M represent two circular and rotary brushes, the shafts *n n* of which have their bearings in projections *o*, which form parts of the bars K K. These brushes work nearly or quite in contact with each other, and they are rotated by belts *p p'* from the crank-pulley E.

N N are two discharging-rollers, which are placed one directly over the other, the shafts *q* of said rollers being in projections *r*, which form parts of the bars K K. The rollers N N are of india-rubber or other suitable elastic material. The rollers N N are driven by a belt *s* from the shaft *n* of the upper brush M.

The operation is as follows: The crank-pulley E is rotated by any convenient power, and the willow to be peeled is passed between the wheels D F, which rotate in the direction indicated by the arrows upon them. These wheels, owing to the form of their peripheries, as described, loosen the bark on the willow, which may be subjected to a greater or less pressure, as required, by adjusting the screw I, which acts or bears on the spring J. The willow with its loosened bark passes into the funnel formed by the projections *m*, and these projections strip the bark from the willow. The projections *m* act upon the willow like scrapers—in fact, are scrapers—and readily strip the loosened bark from the wood, the pressure of the springs *k* causing the scrapers at the points which form the smaller end of the funnel to bear sufficiently hard upon

the willow to effect the desired end. The bark as it is stripped from the willow is discharged from the larger end of the funnel. The wheels D F, it will be understood, loosen the bark from the wood, so that all the scrapers are required to perform is to simply strip the bark from the wood, a function which they readily perform. The brushes M M, which rotate in the direction indicated by the arrows upon them, take off any of the bark which may have escaped the action of the projections *m*, and the rollers N N serve to draw the willow through between the projections *m* and brushes M.

This machine has been practically tested, and it operates well. The wheels D F, owing to the form of their peripheries, act very efficiently on the bark, loosening it from the wood, and the pressure of the rollers may be graduated with the greatest nicety by means of the screw I, arranged as shown. The projections *m*, it will be seen, are allowed to yield or give to conform to the varying size of the willow and the irregularities of the surface thereof, so as to act very efficiently, while the brushes M are sure to remove any portions of bark remaining on the willow after passing between the projections *m*.

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

1. The two pressure-wheels D F, when provided, respectively, the one with a V-shaped groove *b* and the other with a beaded projection *c*, and used in combination with a stripping device formed of the projections *m* of plate L, for the purpose set forth.

2. The projections *m*, attached to yielding slides *i*, which are fitted in a plate L between the bars K K and arranged in relation with the wheels D F, to operate as and for the purpose specified.

3. The combination of the wheels D F, projections *m* of the plate L, rotary brushes M M, and discharging-rollers N N, all arranged for joint operation, as and for the purpose set forth.

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