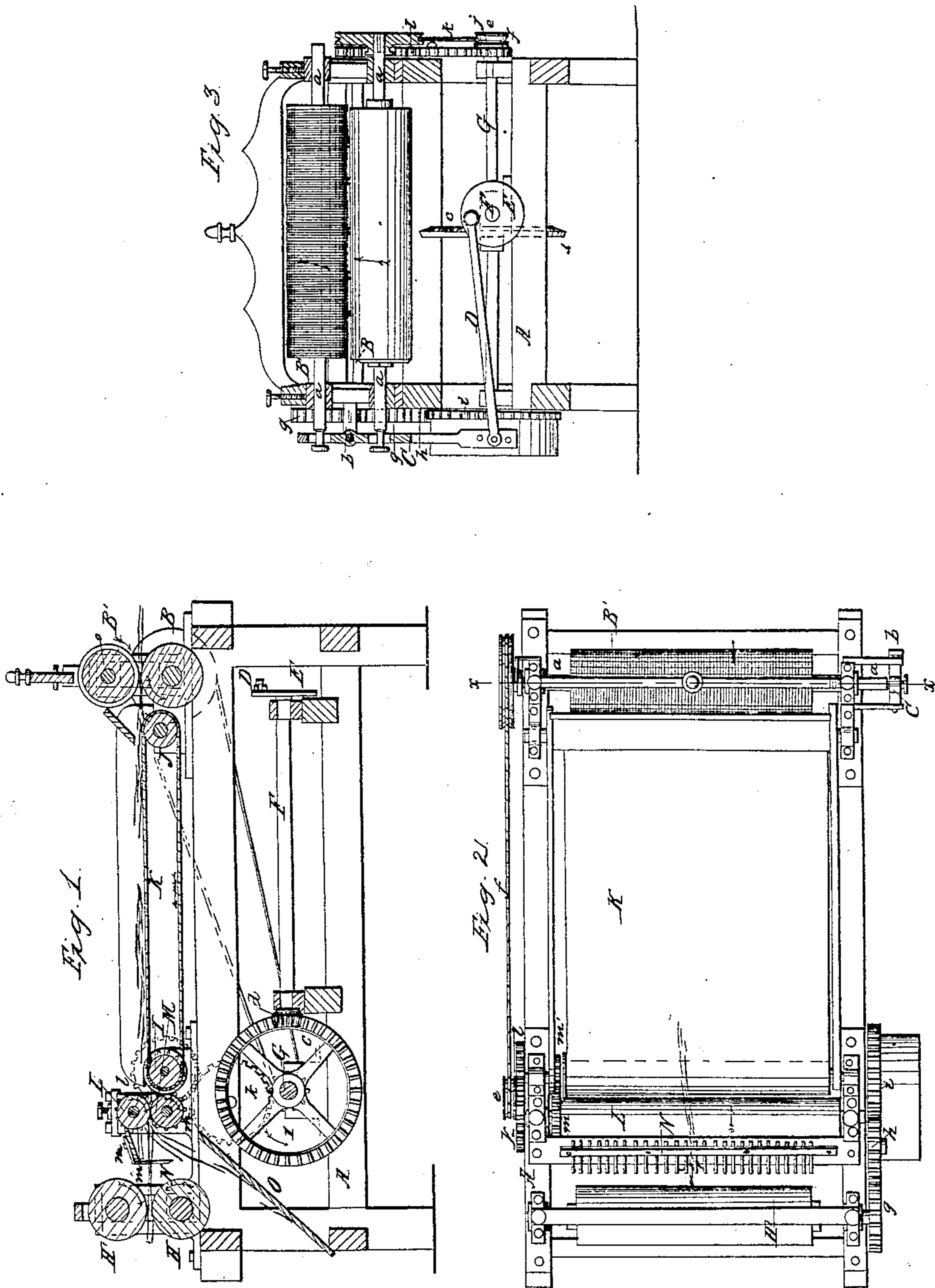


G. J. Colby,
Osier Peeler.

N^o 21,740.

Patented Oct. 12, 1858.



UNITED STATES PATENT OFFICE.

GEORGE J. COLBY, OF WATERBURY, VERMONT.

MACHINE FOR PEELING WILLOW.

Specification forming part of Letters Patent No. 21,740, dated October 12, 1858; Reissued June 13, 1865, No. 1,991.

To all whom it may concern:

Be it known that I, GEORGE J. COLBY, of Waterbury, in the county of Washington and State of Vermont, have invented a new and useful Machine for Peeling Basket-Willow; and I 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 longitudinal vertical section of my improvement. Fig. 2, is a plan or top view of do. Fig. 3, is a transverse vertical section of do. taken in the line *x, x*, Fig. 2.

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

This invention relates to a new and useful machine for peeling the bark from willows used in basket making.

The invention consists in the employment or use of detaching rollers, an endless apron, separator and discharge rollers, arranged as hereinafter shown so as to perform in an efficient manner the desired work.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents a rectangular frame which may be constructed in any proper way to support the working parts.

B, B', represent two rollers which are placed at one end of the framing A, one over the other. The lower roller B, has an elastic covering or, it may be formed of india rubber or other elastic material. The upper roller B', is constructed of metal or has a metal surface and is grooved or creased circumferentially as shown in Figs. 2 and 3. The journals *a, a*, of the rollers B, B', are allowed a certain degree of longitudinal play in their bearings and they are connected at one end to a lever C, at opposite sides or points of its fulcrum *b*, as shown clearly in Fig. 3. The lower end of the lever C, has a rod D, attached to it, and this rod is attached to a crank pulley E, said pulley being at the end of a shaft F, which is placed longitudinally in the lower part of the frame and is driven by gearing *c, d*, from a driving shaft G, which is placed transversely in the lower part of the frame. On one end of the shaft G, a pulley *e*, is placed and from which motion is communicated to the lower roller B, by a belt *f*.

H, H', are two elastic rollers which may

be constructed precisely similar to the roller B. These rollers are placed one over the other in the same plane and at the end of the framing opposite to that occupied by the rollers B, B'. The shafts of these rollers are connected at one end by gearing *g, g*, and this gearing is connected by a gear wheel *h*, with a wheel *i*, on the driving shaft G.

On the end of the driving shaft G, and adjoining the pulley *e*, a toothed wheel *j*, is placed. This wheel gears into a wheel *k*, which is attached to the framing and gears into a wheel *l*, which is attached to a roller I, placed transversely on the framing. J, is a roller which is also placed on the framing A, near the rollers B, B', and K, is an endless apron which works around the rollers I, J.

L, M, are two rollers which are placed directly back of the roller I. These rollers are parallel with the rollers H, H'. The upper roller L, is an elastic one and may be constructed of the same material as the rollers H, H', and B'. The lower roller M, is a rigid one and may be constructed of wood or other suitable material. The rollers L, M, are connected at one end by gearing *m*, driven by a gear wheel *m'* at one end of roller I.

N, represents what may be termed a comb, which may be constructed of wire teeth, and attached to a board *n*, the teeth projecting down directly behind the rollers L, M, and between the two pairs of rollers H, H', and L, M.

O, is an inclined board which is fitted in the framing A, directly below the rollers H, H'.

The operation is as follows:—Motion is given the shaft G, by any proper means, said shaft being rotated in the direction indicated by arrow 1, see Fig. 1, and the rollers B, B', as well as all the other rollers are rotated in the direction indicated by the arrows upon them. The rollers B, B', have two motions, a rotary one and a longitudinal vibrating one, the latter movement being given them by the lever C, connecting rod D, and crank pulley E. The willow sticks are fed by hand between the two rollers B, B', which in consequence of their vibrating movement and the corrugations or grooves on the roller B', loosen or detach the bark on the sticks, and the apron K, conveys said

sticks to the rollers L, M, between which the sticks pass and are forced through the comb N, and between the rollers H, H', the loosened bark being stripped from the sticks
5 as the latter are drawn through the comb, the operation being assisted by the relative speed of the rollers H, H', and L, M, the latter moving slower than H, H', see Figs. 1 and 2 the sticks being shown in red.

10 By this device the willows may be rapidly and perfectly stripped of their bark. The invention is simple and may be constructed at a small cost. I would remark that the journals of the upper rollers B', L, H', may

be fitted in yielding or elastic bearings if 15 necessary.

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

The vibrating rollers B, B', in combination with the rollers L, M, H, H', comb N, and apron K, or its equivalent, the whole being arranged to operate as and for the purpose set forth. 20

GEO. J. COLBY.

Witnesses:

HORATIO MOFFITT,
THOS. P. GLOVER.

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