

No. 623,061.

Patented Apr. 11, 1899.

L. D. ALDEN.
BARK PEELING MACHINE.

(Application filed June 23, 1898.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

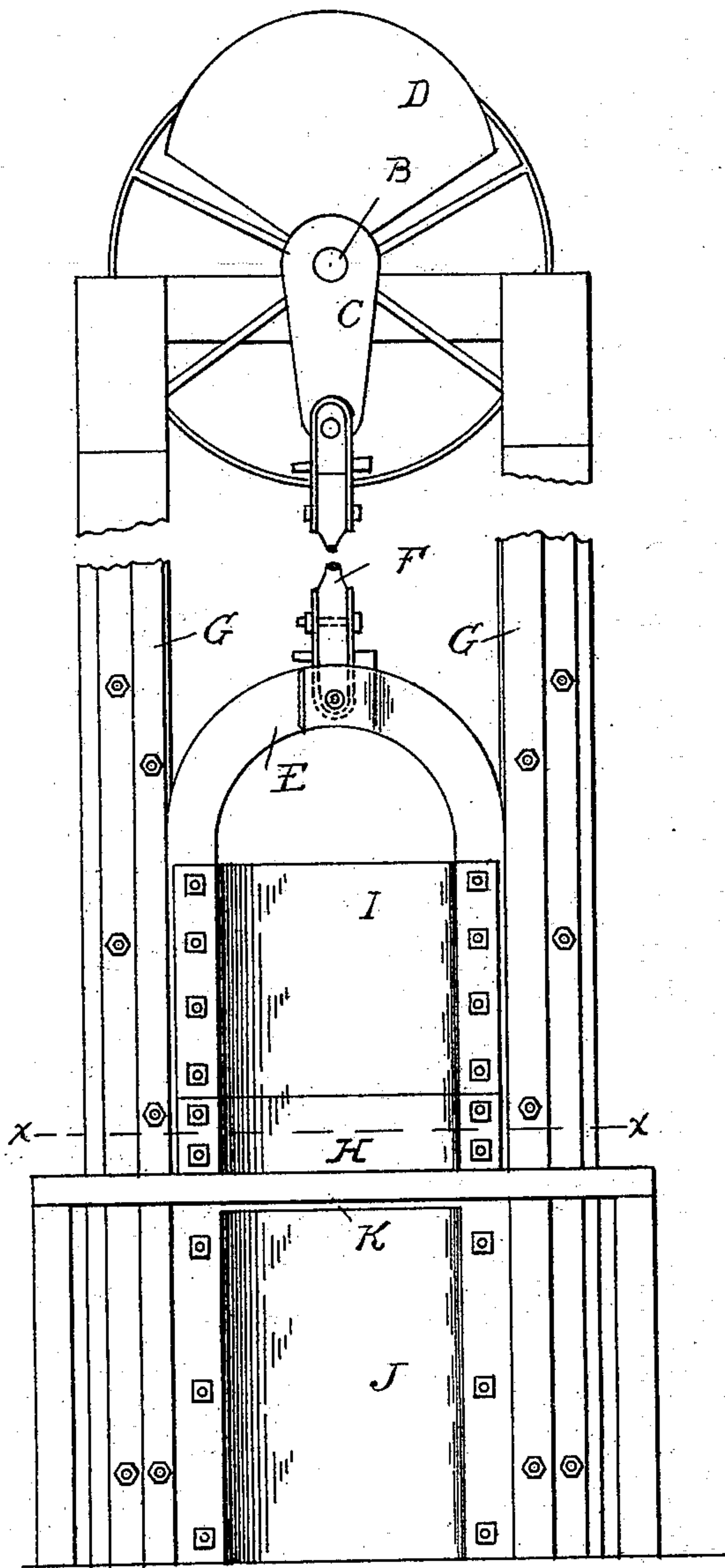
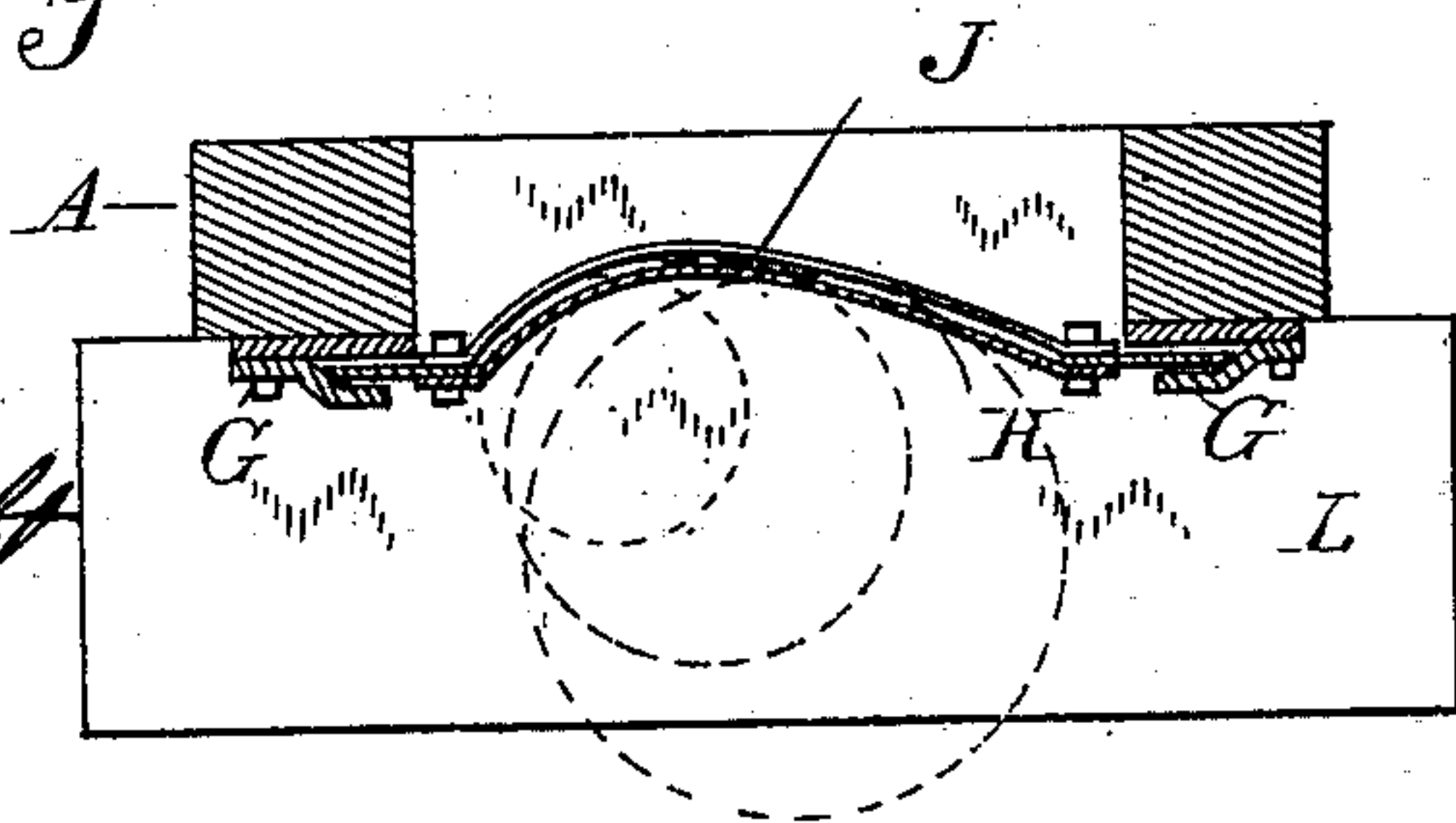


Fig. 3.



Witnesses

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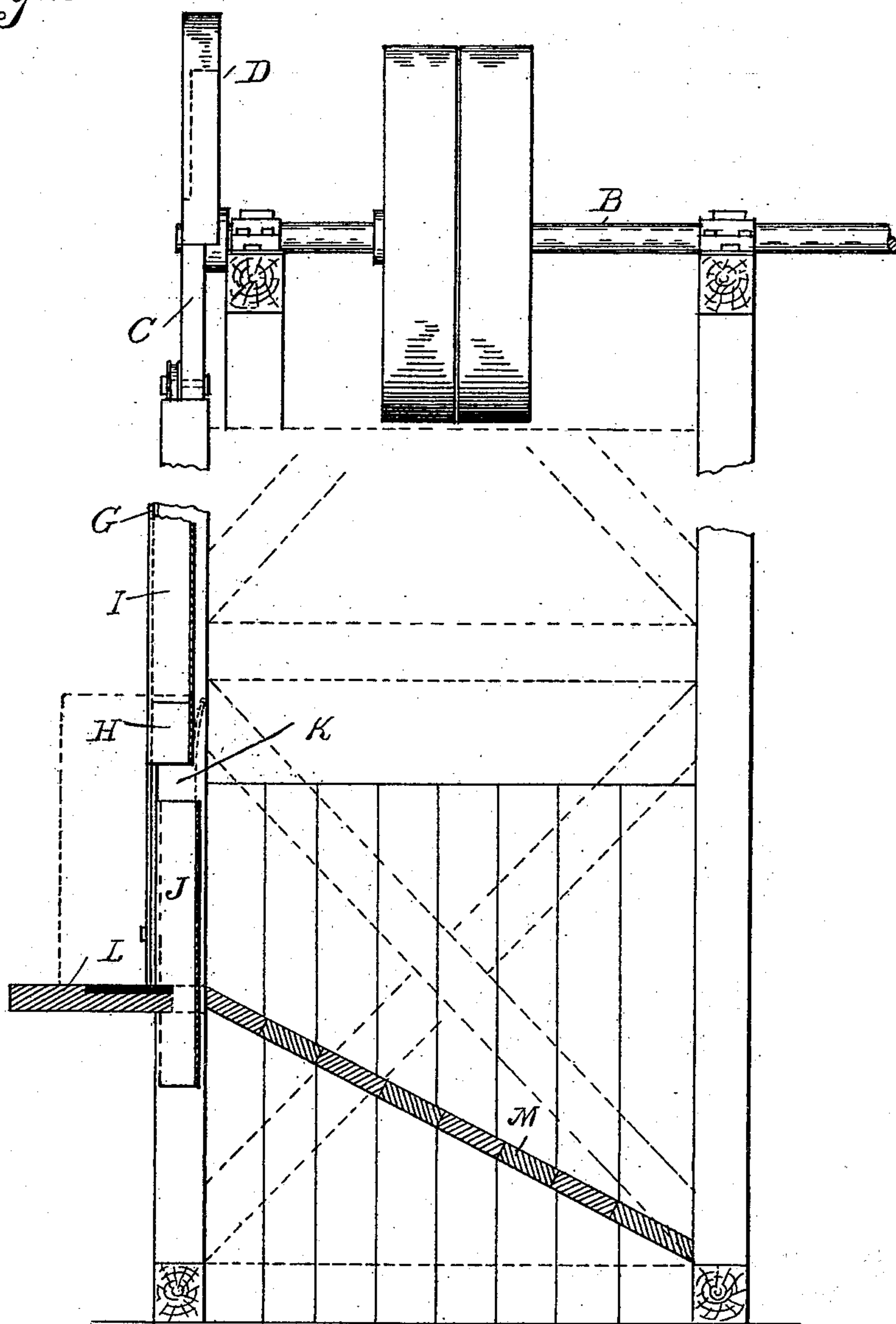
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2 Sheets—Sheet 2.

Fig. 2.



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UNITED STATES PATENT OFFICE.

LEO D. ALDEN, OF SAGINAW, MICHIGAN, ASSIGNOR TO JACKSON & CHURCH,
OF SAME PLACE.

BARK-PEELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 623,061, dated April 11, 1899.

Application filed June 23, 1898. Serial No. 684,210. (No model.)

To all whom it may concern:

Be it known that I, LEO D. ALDEN, a citizen of the United States, residing at Saginaw, in the county of Saginaw and State of Michigan, have invented certain new and useful Improvements in Bark-Peeling Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

10 In the present state of the art the removing of the bark from short blocks, such as paving-blocks, is accomplished by means of vertically-reciprocating slicer-knives of circular or segmental circular shape, under which the
15 blocks are properly placed to cut around the outside. As the blocks are of different diameters such machines employ a plurality of knives of different radii; but it is obvious that even with a large number of such knives
20 considerable amount of wood is often removed with the bark. Besides such machines are not adapted for accomplishing the barking of larger blocks or bolts, such as are used in cutting staves from.

25 It is the object of my invention to provide a machine specifically adapted for this purpose and also to accomplish the removal of the bark without wasting the wood.

30 To this end my invention consists in the construction and arrangement of a single knife, which instead of being a section of a circle is formed with a varying curvature after the fashion of an evolute, so that some portion of the knife will represent the particular
35 curve required to trim or bark a bolt of a certain diameter.

Further, my invention consists in the arrangement of a guide operating in connection with the knife to hold and adjust the bolt in
40 position on the table, all as more fully hereinafter described, and shown in the drawings, in which—

45 Figure 1 is a front elevation of my machine. Fig. 2 is a side elevation, partly in vertical section. Fig. 3 is a horizontal sectional plan on line *x x* in Fig. 1.

A is the frame of the machine.

B is the shaft to which the power is applied.

50 C is the crank which reciprocatingly actuates the gate.

D is a counterweight carried by the crank.

E is the reciprocating gate.

F is the connecting-rod.

G are the vertical guides in which the gate reciprocates.

55 H is a curved slicer-knife carried by the gate.

I is a guard secured to the gate above the knife.

J is a guide secured to the gate below the
60 knife, with an open interstice K left between the cutting edge of the knife and the top of the guide.

L is the table upon which the blocks are supported while the bark is being removed, 65 and M is an inclined slide for carrying away the debris.

The knife H, a cam-guard I, and guide J are all of the same cross-section shown in Fig. 3; but while the guard is in the same
70 vertical plane with the knife the guide is set back about five-eighths of an inch—that is, the thickness of the bark. This is accomplished in a very simple way in the construction shown by bolting the knife and guard
75 to the front face of the gate and the guide to the rear face, thus setting the latter back the thickness of the gate, which is five-eighths of an inch. The knife is made of quarter-inch
80 steel and in cross-section represents a curve of varying curvature, as shown.

In practice, the parts being constructed and arranged as shown and described, they are intended to operate as follows: Power being applied to the shaft B, the gate E has imparted
85 to it a vertically-reciprocating motion. In the highest position of the gate the guide is entirely, or nearly so, above the feed-table, and the knife is lifted sufficiently high
90 above the table to be above the top of a bolt placed upright upon this table. The operator having placed the bolt upright upon the table, pushes it, when the gate is in the above-described position, against a guide and holds
95 it there while the knife descends and completely slices off a portion of the bark, which drops unobstructed by the knife or guide on the inclined slide in the rear of the gate and is thus carried away. This operation of the
100 knife is repeated while the operator turns

the block slightly with his hands to present a new portion of bark to the knife at each operation until the whole bark is sliced off.

It will readily be seen that the width of the strip which the knife will slice off depends upon the adjustment of the block. Therefore the operator selects that portion of the guide for the block to rest against where it most closely corresponds with the peripheral outline of the block, so that the knife, which has the same curvature as the guide H, will cut off the largest possible slice of bark at each operation. The removal of the bark is thereby greatly expedited with the least waste of wood, and after a little practice it requires no extra attention on the part of the operator to adjust the blocks according to their diameters in the most suitable relation to the knife to obtain the best and most expeditious work.

The upper guard is of no especial benefit, except that it prevents the operator from inadvertently placing the block on top of the knife, and it may therefore be omitted without detracting from my invention.

What I claim as my invention is—

1. In a bark-peeling machine, the combination of a table, a reciprocating gate, a curved knife and a correspondingly-curved guide for the block fixedly secured to the gate, said guide being adapted to bear constantly against the block during the entire cutting interval, and the knife and guide being arranged one above the other in parallel vertical planes with their adjacent edges separated vertically and laterally, the said

relation between the knife and guide being constantly maintained, substantially as described.

2. In a bark-peeling machine, the combination with the frame, of a table adapted to receive the block, a gate mounted in the frame for vertical reciprocation, a vertical slicer-knife carried by the gate having a horizontal cutting edge shaped substantially in the form of an evolute, and a guide for the block corresponding in configuration to the knife, whereby a maximum amount of bark may be removed from blocks of different sizes by presenting each block to the portion of the knife conforming most nearly to the block's external contour.

3. In a bark-peeling machine, the combination with the frame, of a table adapted to receive the block, a gate mounted in the frame for vertical reciprocation, a vertical slicer-knife carried by the gate having a horizontal cutting edge shaped substantially in the form of an evolute, and a guide of like configuration, for the block, said guide being secured to the gate and arranged at a distance from the knife equal to the thickness of the block, and entirely below the knife in a plane parallel therewith, substantially as and for the purpose described.

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

LEO D. ALDEN.

Witnesses:

H. R. WITT,
M. D. GEER.