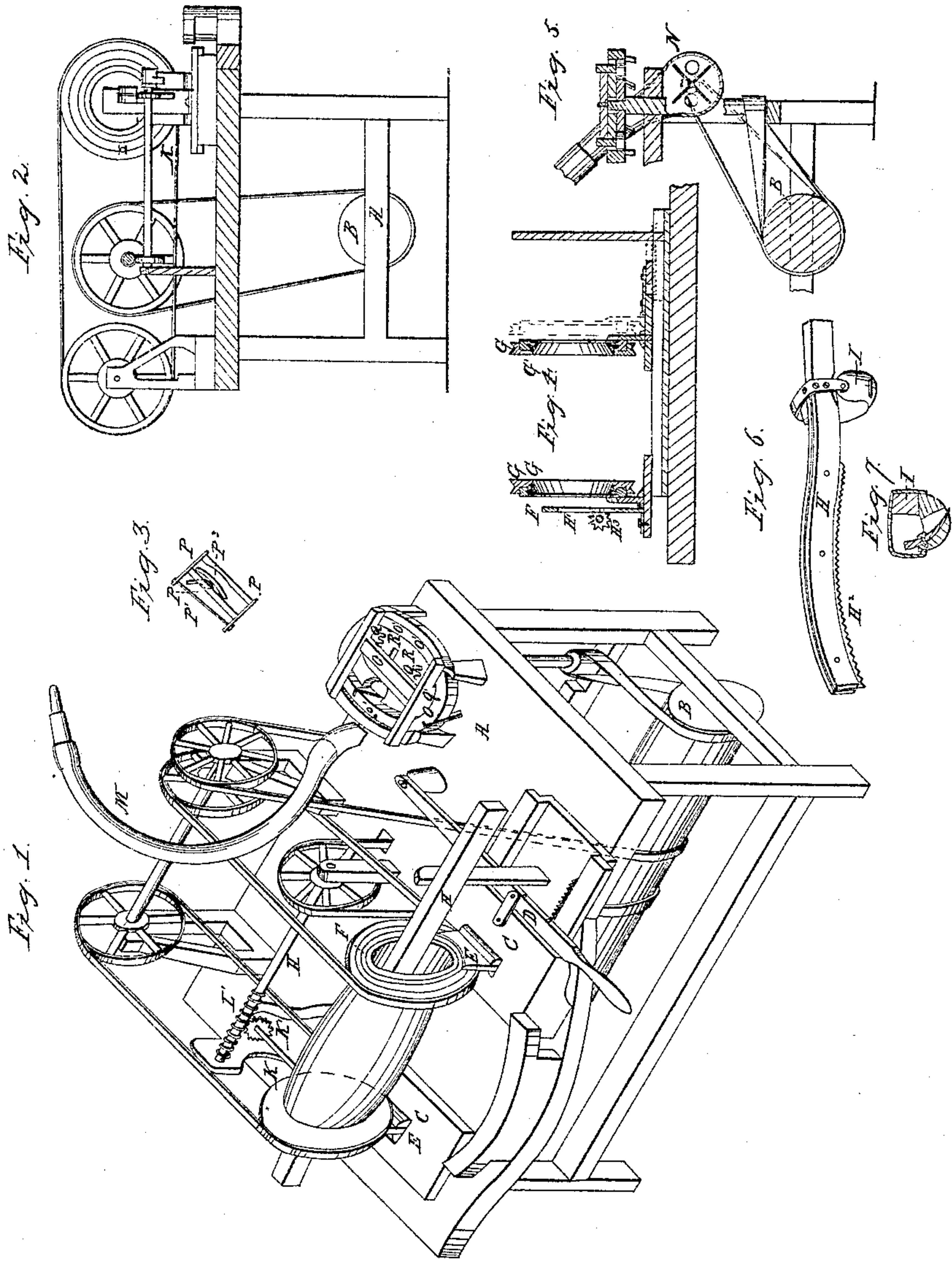


# H. Baker, Dressing Staves.

N<sup>o</sup> 58,754.

Patented Oct. 16, 1866.



Witnesses:  
J. H. Laufing  
Lawrence Humphrey

Inventor:  
Horace Baker  
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his atty-



# UNITED STATES PATENT OFFICE.

HORACE BAKER, OF CORTLAND, NEW YORK.

## IMPROVEMENT IN BARREL MACHINERY.

Specification forming part of Letters Patent No. 58,754, dated October 16, 1866.

*To all whom it may concern:*

Be it known that I, HORACE BAKER, of Cortland village, Cortland county, and State of New York, have invented a new and useful Improvement in Machines for Making Churns; 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 part of this specification, in which—

Figure 1 is a perspective view. Fig. 2 is a vertical section. Fig. 3 is a plan of the swinging frame; Fig. 4, a section of part of the machine; Fig. 5, a section of the fan; Fig. 6, a view of the inside plane; Fig. 7, a section of the same.

In the several figures I employ the same letters when referring to identical parts.

The following description will enable persons skilled in the art to make and operate my machine.

A is the main frame and bench upon which the machinery is carried. It will be framed as may be required for the purpose. The mechanism is driven by belts from the drum B, placed under the bench.

The churn or cask is finished on the lathe arranged for the purpose of finishing it by planing the outside and inside surfaces at the same time. The outside surface is planed by a plane held in the hands of the operator against the side of the churn. The inside is planed automatically by devices I will proceed to explain.

One end of the churn is supported on the adjustable head-plate C, which slides on ways moved by the lever D. On this plate, and also on a corresponding fixed plate, C', at the opposite end of the churn, I erect a standard, E, supporting a ring, F, which serves as an annular guide for the pulley G. This pulley is a ring of metal, having on one side a circular groove of the width and depth of the annular guide F, in which it fits, so as to permit the pulley to turn easily. The pulley is driven by a belt.

On the exterior of the annular guide F is a groove which receives the projecting point G', which retains the pulley on the ring. The churn, being inserted in and attached to the inner face of the annular pulley G, turns with the revolutions of these pulleys, which are attached at each end of the churn.

The inside of the churn is turned or planed by the plane I, which is hung on the guiding-bar H, which, passing through a notch in the standard H<sup>1</sup>, guides the plane along the surface of the churn. The guiding-bar H is curved, so that the bar shall have the curvature intended to be given to the internal longitudinal face of the churn. On the under side of the bar H is a rack, H<sup>2</sup>, which receives the teeth of the feed-pinion H<sup>3</sup> on the end of the shaft K, which is turned by a pinion, K', and endless screw L' on a shaft, L, which receives its motion from the drum B by belt and pulley. The motion of the pinion H<sup>3</sup> regulates the feed given to the bar H and plane I.

A flexible tube, M, through which is conducted a blast from the fan N, is used for blowing the shavings as made from the churn.

The staves are cut to the proper form by the knives O' on the revolving annular wheel O, which is carried upon a vertical shaft and driven by belts from the drum B.

There are a double series of knives or cutters, O'—one set in the external and another set in the internal edge of the annular wheel O.

P is the swinging frame, in which the staves are secured by the pressure of the arc P<sup>3</sup>, which is pressed by the eccentric-headed lever P<sup>2</sup> against the inside of the staves. The rod P<sup>1</sup> is placed diagonally on the swinging frame, and, when laid upon the frame, is held in place by the catches Q. These catches are bent, as shown in Fig. 1, so that when the swinging frame is laid upon the annular wheel O the transverse rod P will lie in the first loop on one side and the last loop in the other catch Q, and when turned over will in like manner be received by the other loops. The catches and the swinging frame rest upon the plate R, which has a slot, R', through which the shaft of the annular wheel O passes. This plate slides freely upon flanges projecting from the inner face of the side pieces of the frame S.

The outside set of knives, O', is used for partly finishing the rough faces of the staves. They are finished on the inside set of knives. When finished on one side they are brought in contact with the knives on the opposite face of the stave by reversing the swinging frame P.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The annular wheel O and knives O', in

combination with the swinging frame P, when respectively constructed and arranged for use substantially as set forth.

2. The combination and arrangement of the annular guide F and pulley G, for suspending and revolving the barrel of a churn, with the guide-bar H, carrying the plane I and operated by an automatic feed, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HORACE BAKER.

Witnesses:

GEO. F. HOLMES,  
R. D. KING.