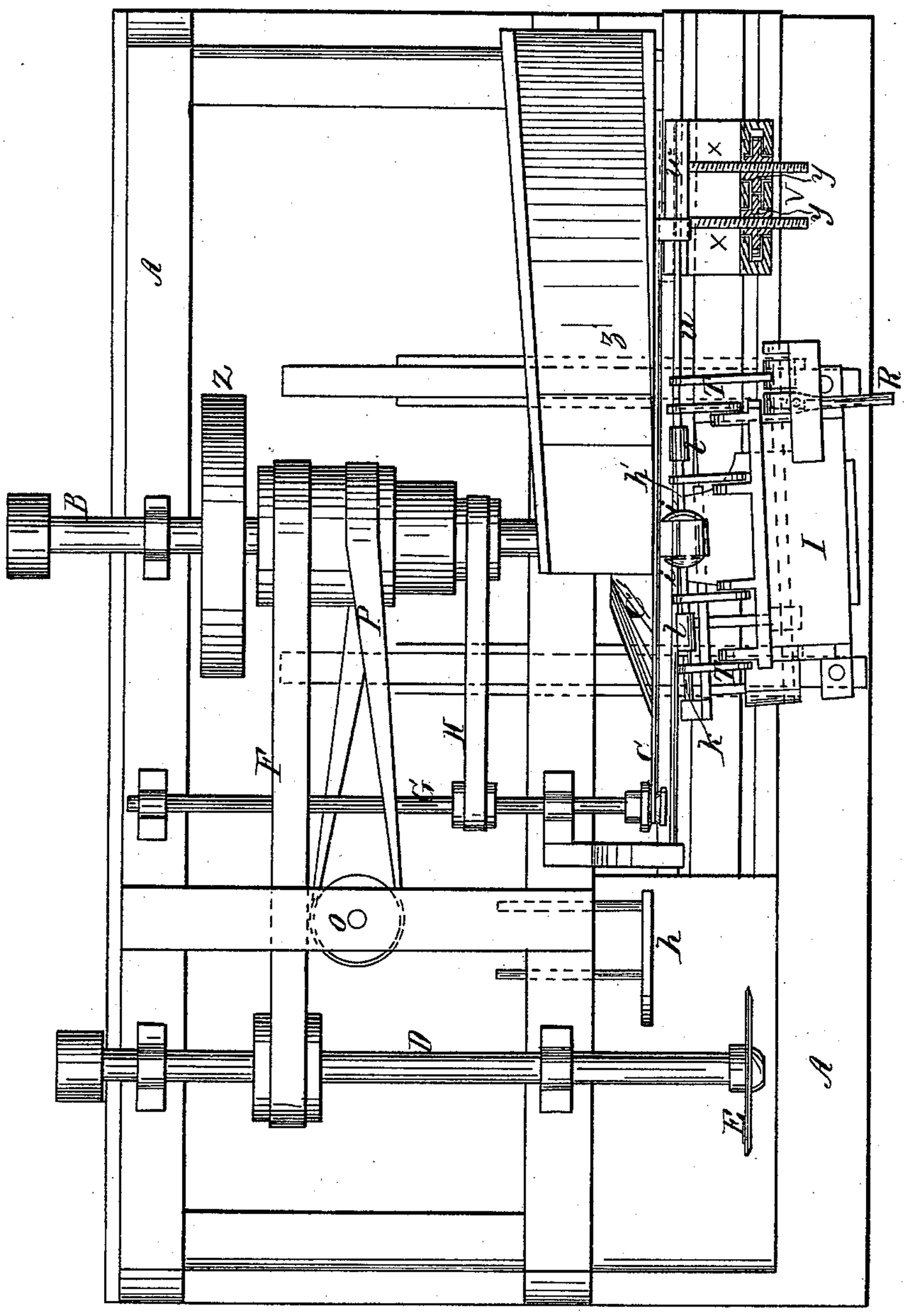
Sheet 1, 2 Sheets.

E. A. Brimson.

Cork Cutting Mach.

No. 93,958. Patented Aug. 24, 1869.



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Sheet 2, 2 Sheets.

E. A. Brimson.

Cork Cutting Mach.

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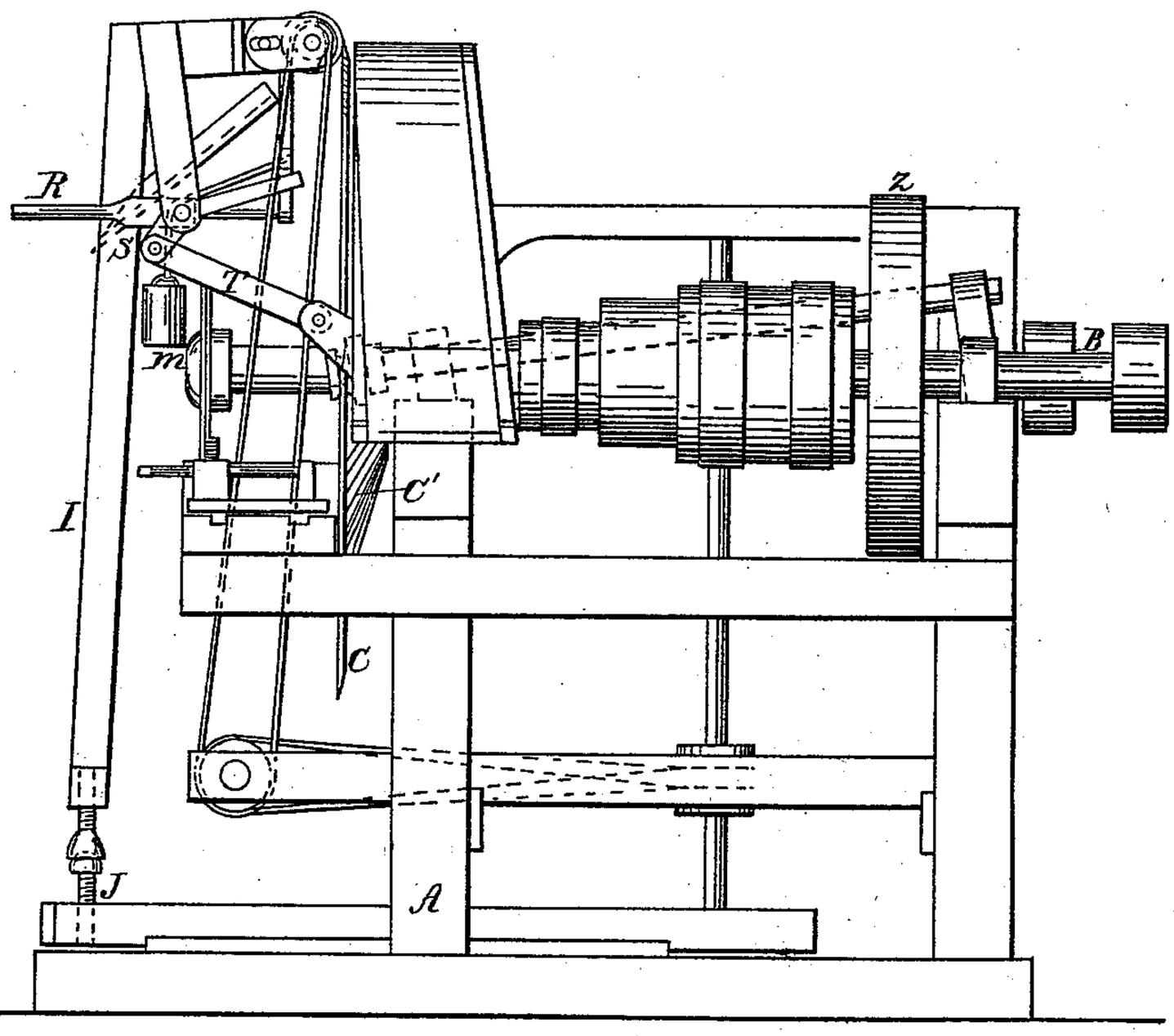

Witnesses

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EDMUND A. BRIMSON, OF NEW YORK, N. Y.

Letters Patent No. 93,958, *dated August* 24, 1869.

IMPROVEMENT IN CORK-CUTTING MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EDMUND A. BRIMSON, of the city, county, and State of New York, have invented a new and useful Improvement in Cork-Cutting Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

This invention relates to new and useful improvements in machines for cutting corks, and consists mainly in three principal parts, the first being the portion for shaping or rounding the corks from the square blocks; secondly, the portion for cutting the square blanks; and, thirdly, the portion for cutting veneers or thin pieces for various purposes, as will be hereinafter more fully described.

In the accompanying sheets of drawing—

Sheet I represents a top or plan view of the machine, showing the position of the various parts, and the manner of their arrangement.

Sheet II is an end elevation.

Similar letters of reference indicate corresponding parts.

A represents the frame, which is rectangular in form, made of either wood or metal, and of suitable size and strength.

B is the main shaft, supported transversely across the frame, upon the end of which is the main cutter C, by which the corks are rounded and the veneers are cut.

The cutter C is strengthened by a stiff collar, seen at C′, on the main shaft behind the cutter, to which the cutter is attached.

D is another shaft across the frame, with a cutter, E, upon its end, for cutting the raw cork into square blanks.

This shaft is driven from the main shaft B by means of the belt F.

G is another transverse inclined shaft, which is also driven by the main shaft B, by the belt H.

E is the cutter on the shaft D.

h is a gauge on the table of the cutter E, where the cork is cut into blanks or squares.

The mechanism for rounding the corks, or rather for holding the cork to the main cutter, and revolving it while being rounded, is attached to the adjustable frame I, Sheet II.

This frame is adjusted in height by means of the stop-screws J J, on which the frame is supported.

The square blank of cork is placed between the disks *i i*, which are revolved on separate shafts *k k′*, by means of belts from the pulleys *l l*.

The shaft *k′* has no longitudinal motion, while the shaft *k* has, and is forced, by means of a weight, *m*, toward the other shaft with sufficient power to hold the cork between the disks *i i* while being rounded.

The weight *m* is attached to the long end of a bent lever, which has its fulcrum at the elbow, while the short end is connected with the shaft *k*.

The frame I has a forward and back motion given it by means of the ball-and-socket joints on the stop-screws J J.

The short disk-shafts *k k′* are hung in adjustable boxes, and are rotated by means of belts on the pulleys *l l*, which extend down to pulleys on a parallel shaft beneath, not seen in the drawing.

This unseen shaft is driven from an upright shaft, the top end of which is seen at *o*, and which is itself driven by the belt P, from the main shaft B.

R is a lever, which is attached to a horizontal shaft, seen in dotted lines on the frame I, which governs the position of the frame I, in its movements to and from the cutter C.

This is accomplished by means of knuckle-joints S, Sheet II.

The ends of the limbs T of the knuckle-joint are connected with a rod, *u*, supported by brackets on the frame A, in front of the cutter C.

By raising and lowering the lever R, the knuckle-joints are turned, and the frame I is moved to or from the cutter C, and at the same time the belts which drive the disk-shafts (or *k k′*) are tightened or loosened.

V, Sheet I, represents a sliding frame, to the inside of which the cork to be cut into veneers or thin pieces is placed, as seen at W, where the cork is seen in red color.

X X represent screws, by which the cork is fed up to the cutter for being cut into veneers or thin pieces.

Y Y represent gear-wheels, on the feed-screws X X, by which the screws are turned together and uniformity in the feed is insured. The frame is crowded up to the cutter by hand.

Z is a fly-wheel.

Z′ is a spout for receiving and conducting off the shavings.

The advantages of this machine are, that there is an endless self-sharpened edge for cutting the cork. The piece revolves independently and separately from the cutter, and always at a certain fixed rate of speed, in proportion to the speed of the cutter. It is at all times entirely under the control of the operator, as in hand-cutting.

By this machine any-sized cork, in length or diameter, can be cut. From the uneven thickness of cork-wood, it is extremely difficult to properly select and cut corks of the various sizes, by the present mode, without great waste of material. By the use of this machine a very great saving is effected.

The frame I, being adjustable, so as to present the

piece of cork to the knife for cutting any desired taper, and the piece being directly under the eye of the operator, each blank is so cut as to make the most of it, or to avoid waste.

If it is desired to cut corks of a uniform size, a stop may be applied for limiting the forward movement of the frame I.

I do not confine myself to the particular methods shown for carrying out my invention, as regards the details, my object being to secure the three main features before mentioned.

Having thus described my invention,

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

1. The improved arrangement of the sharpening-stones *a* and straightening-collar *c*, with reference to the "circular cutter" C, as and for the purpose specified.

2. The parts mentioned in first clause, in combination with the adjustable frame I and feed-frame V, having set-screws X X, the same being all arranged and operating together as set forth.

The above specification of my invention signed by me, this 6th day of March, 1869.

EDMUND A. BRIMSON.

Witnesses:

FRANK BLOCKLEY,

ALEX. F. ROBERTS.