

A. F. ALLEN.

Improvement in Machines for Cutting Cork.

No 129,304.

Patented July 16, 1872.

Fig. 1.

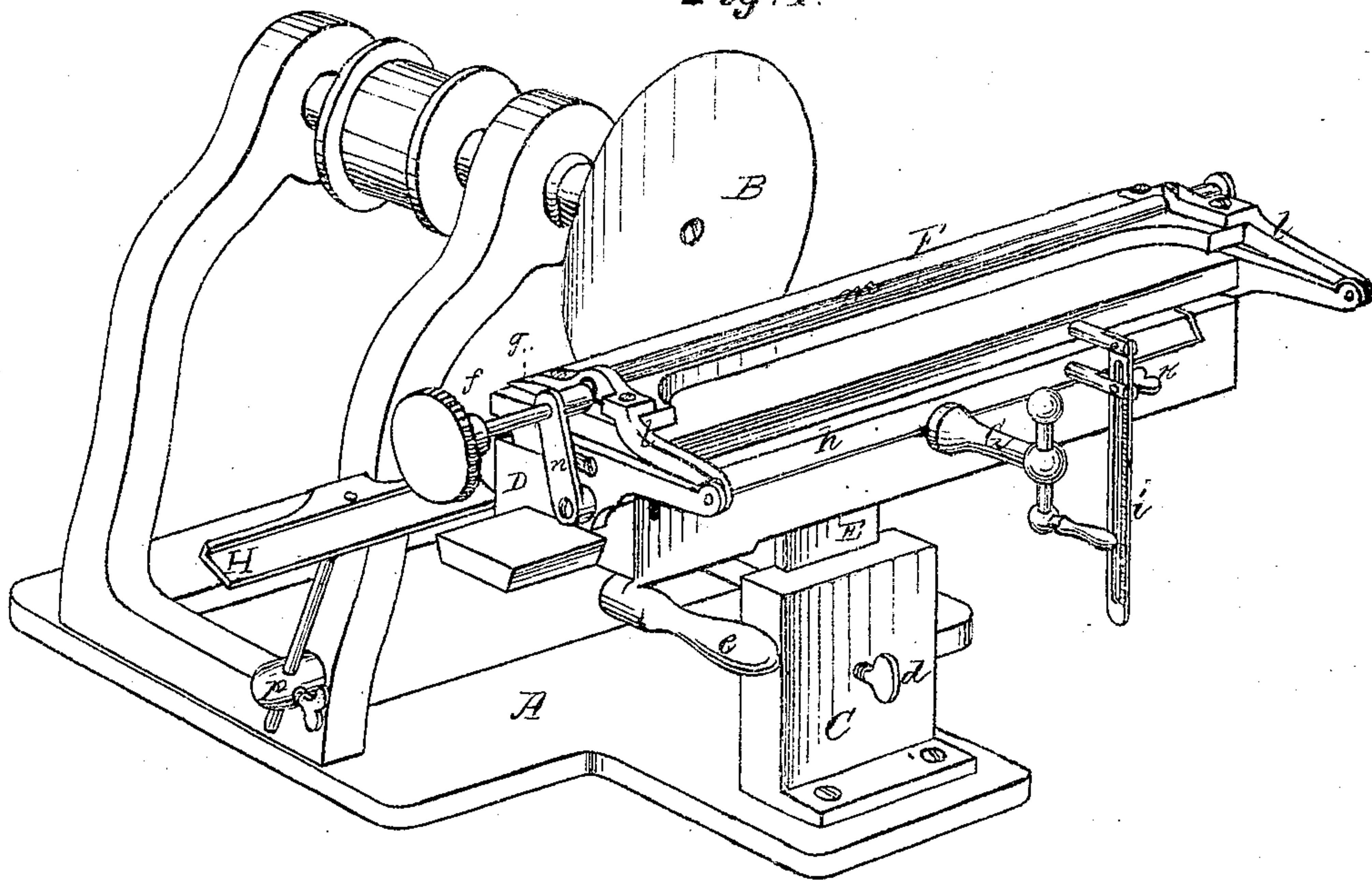


Fig. 2.

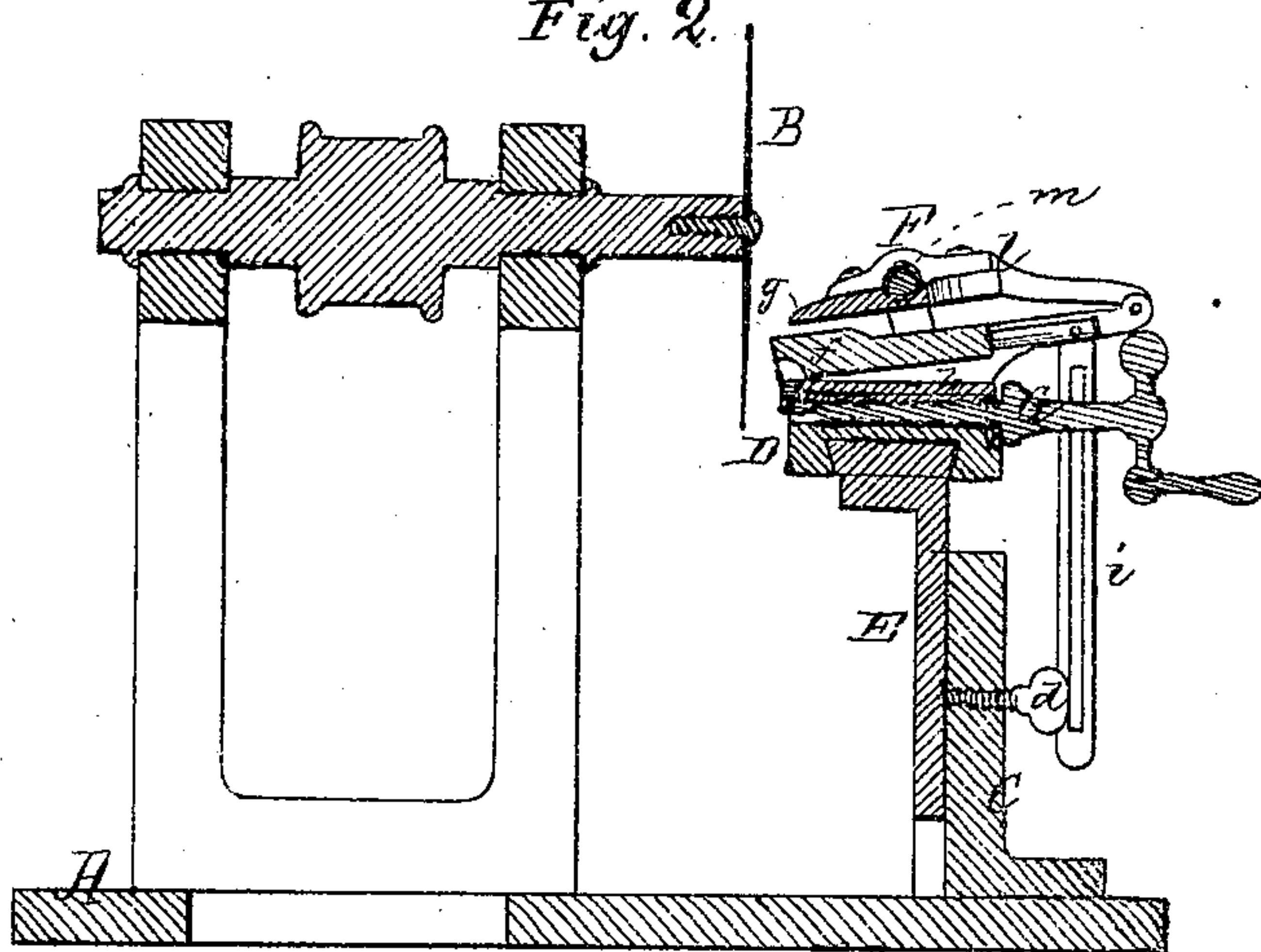
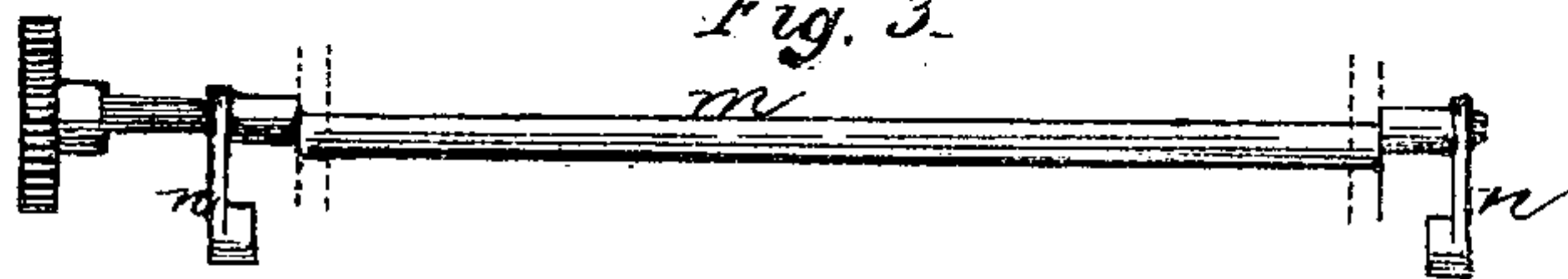


Fig. 3.



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ALBERT F. ALLEN, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN MACHINES FOR CUTTING CORK.

Specification forming part of Letters Patent No. 129,304, dated July 16, 1872.

To all whom it may concern:

Be it known that I, ALBERT F. ALLEN, of the city and county of Providence, in the State of Rhode Island, have invented a certain new and useful Machine for Skiving Cork-Wood.

My machine is especially adapted for use in the preparation of cork-wood preparatory to its application to the top rolls of spinning-frames, either as a covering therefor or as a foundation for receiving a covering composed of any other suitable material. It consists in a novel combination of a cutter and a table, which is provided with a suitable vertical-acting clamp, and is capable of being adjusted vertically and laterally with relation to the cutter and at any desired angle, and also in so combining and arranging the cutter and the table that one or the other or both may be moved in lines which are parallel with the operator's line of the cutter or the adjacent face of the table; and I do hereby declare that the following specification, taken in connection with the drawing furnished and forming a part of the same, is a clear and true description of a machine embodying my invention.

Referring to the drawing, Figure 1 represents one of my machines in perspective. Fig. 2 represents the same in cross-vertical section on the axial line of the cutter. Fig. 3 represents the clamp-shaft.

A denotes the bed-plate. B denotes the cutter. In this instance it consists of a sharp-edged disk, mounted on the end of an arbor, which is provided with a belt-pulley and bearings sustained in standards rising from the bed-plate. It is arranged to rapidly revolve. A straight-edged reciprocating cutter may be employed, although the rotary is deemed preferable. C denotes a fixed standard rising from the bed-plate for sustaining the table. D denotes the table. It is mounted on the top of an auxiliary standard, E, and is connected therewith by means of a dovetailed slide, clearly shown in Fig. 2. The auxiliary standard is mounted in and connected to the fixed standard C by a vertical dovetailed slide, and so arranged that it can be set at any desired height by means of the set-screw *d*, which passes through the fixed standard and engages with the auxiliary standard. The table is capable of a free, but steady and true, longitudinal movement, and should be provided with gibs

or other suitable means for compensating from time to time for any undue wear between the fixed and movable connections. The table is provided with a handle, *e*, for facilitating its movement. F denotes the clamp proper for holding the sheet or block of cork-wood. It consists of a pair of long flat-faced jaws, *f* and *g*, which are mounted by a hinge to a base, *h*, which is in turn connected to the top of the table by means of a dovetailed slide extending across the table at right angles to its length. An adjusting-screw, *G*, is so set on the table that it is free to turn thereon, and is secured thereto by a staple. Its threaded portion engages with a long half-nut, which is set in the under side of the base *h*. By turning the screw *G* the base and the clamp are moved toward the cutter or away from it. The lower jaw *f* is hinged to the base *h* at the edge adjacent to the cutter. On its outer edge it is provided with a slotted pendent arm, *i*, which is pivoted to a projecting stud. This arm passes downward through a slotted stud, and embraces with its slot a set-screw, *k*, in the slotted stud. By loosening the set-screw and raising the arm *i* the jaw can be set at any angle and secured thereat by the set-screw. The side of the pendent arm is graduated after the manner of a scale or rule, so that the angle at which the jaws are to be set may be readily determined. The upper jaw *g* of the clamp is pivoted to the lower jaw by projecting elbows *l*, which extend at right angles from the rear of each jaw at each end. The lower jaw *f* is stationary with relation to the upper. This latter jaw *g* is operated by a clamp-shaft, *M*, shown in Fig. 3 on an enlarged scale. This shaft is so bent or offset near each end that it has two axial lines. One axial line extends from the middle of the shaft toward each end, and is equal to the length of the clamp. At each end are two short lengths on the other axial line. At each end the shaft is connected to the lower jaw by pivoted links *n*, which are of such a length that they will draw on the shaft when it is turned in one direction, and lift it when turned in the opposite direction, after the manner of a cam. By this means the jaws are not only opened, but, when closed, clamped throughout their entire length by the uniform pressure of the clamp-shaft *m*, which is provided with a crank or burred wheel at

one end to facilitate the turning. *H* denotes an adjustable "strip-rest" for sustaining the strip of cork as it leaves the cutter. It consists of a straight flat tabular-surfaced structure mounted on an arm, which is held in an eye-stud, *p*, projecting from the frame, and provided with a set-screw for holding it at any desired elevation. The eye-stud *p* can be turned in its bearings, and thereby facilitate the adjustment of the "strip-rest," which should, of course, be so set that its upper surface will be parallel with the bearing-surface of the lower jaw.

For skiving cork in straight thin sheets the jaws will be set level and parallel with the table, and at such a height that the cut will be executed preferably below the axial line of the cutter. The sheets can be cut of uniform thickness by regularly advancing the clamp by means of the screw *G*. In getting out stock for roll-covering two beveled edges are cut to finish the covering at the end. The two abutting ends are also cut at corresponding angles, so as to secure a proper joint in the covering.

Angles to be thus cut are readily determined by raising the slotted arm *i* and securing it at the proper elevation, which can be readily determined by the scale thereon. The longitudinal sliding movement of the table can be dispensed with, provided that a corresponding movement be given to the cutter, but the method of operating the table, and leaving the cutter in stationary bearings, as described, is deemed preferable thereto, as greater accuracy in execution is secured.

Having thus described my invention, I claim—

The combination of the cork-cutting device with the reciprocating table, which is vertically and angularly adjustable, and the clamp for confining the cork-wood to the table, substantially as described, for the purposes specified.

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Witnesses:

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