G. S. Colburn,

Working Rattan.

No. 19,110. Patented Jan. 12, 1858.

Fig. 2.

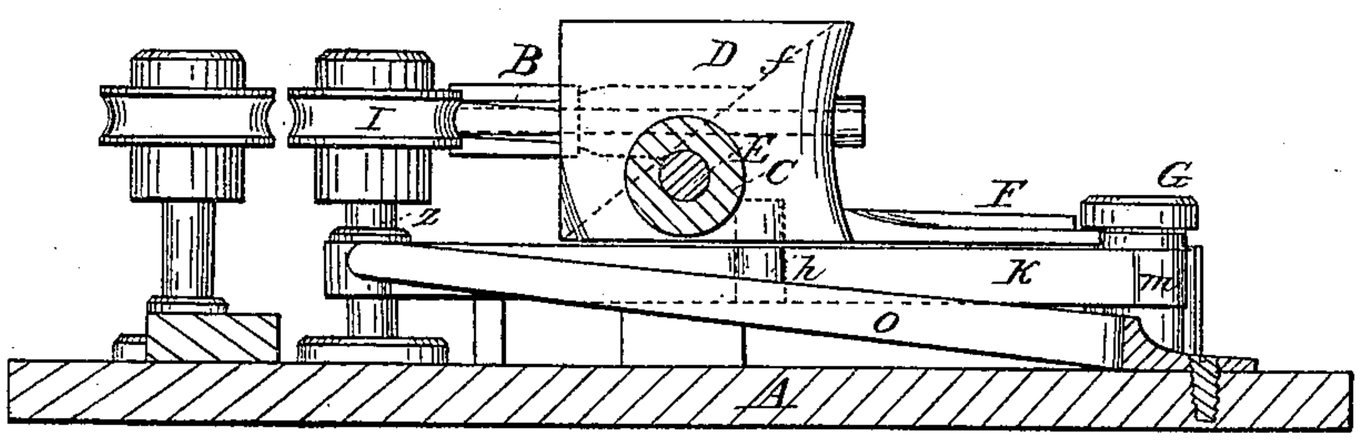
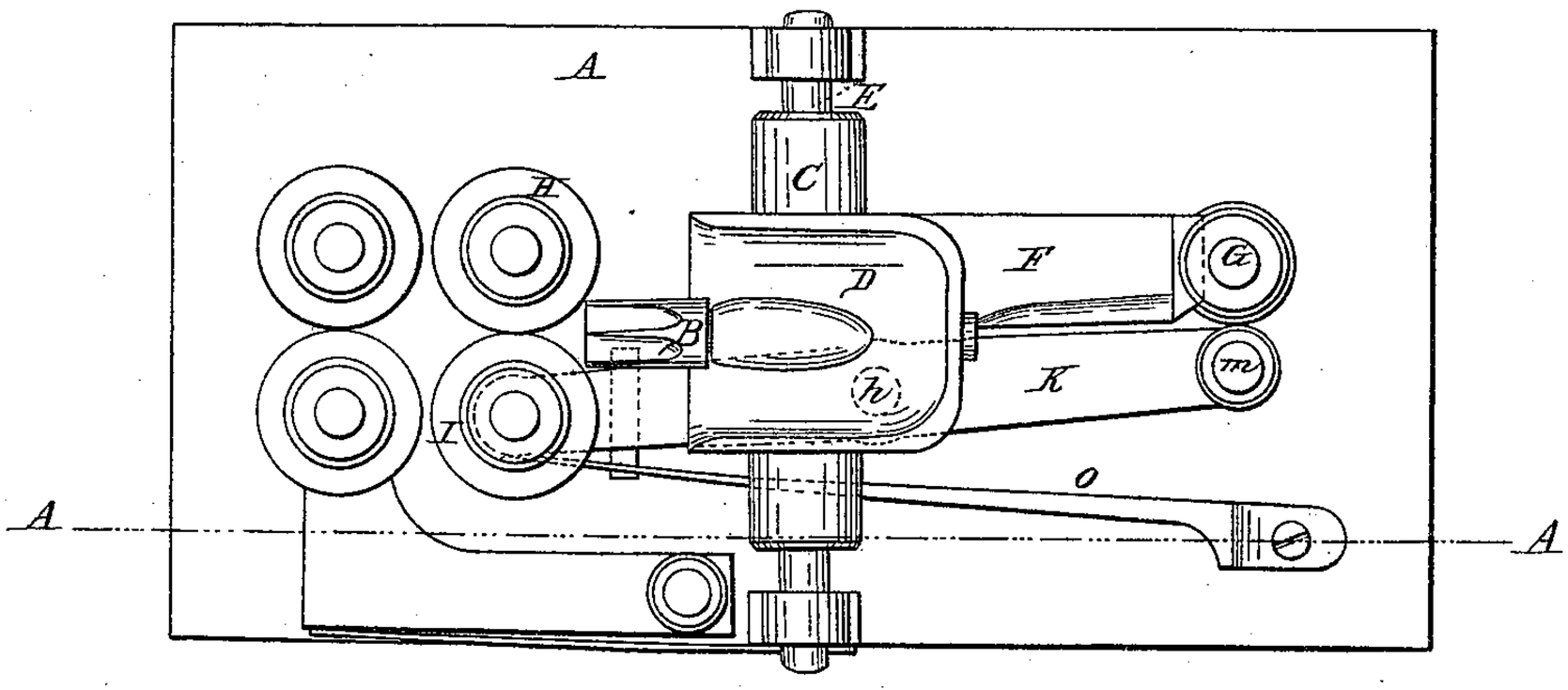


Fig. 1.



UNITED STATES PATENT OFFICE.

GEO. S. COLBURN, OF SOUTH READING, MASSACHUSETTS, ASSIGNOR TO CYRUS WAKEFIELD, OF SAME PLACE.

DEVICE FOR RETAINING IN PROPER POSITION THE SPLITTING-KNIFE IN RATAN-MACHINES.

Specification of Letters Patent No. 19,110, dated January 12, 1858.

To all whom it may concern:

Be it known that I, GEO. S. COLBURN, of South Reading, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Machines for Splitting Ratans, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan. Fig. 2 a vertical section upon the line A, A, of Fig. 1.

My invention has for its object to preserve the axis of the splitting knife constantly in the center of the ratan whatever may be the size of the latter, and this I accomplish without the employment of the guide heretofore used for the purpose.

In machines for splitting hoops the shaft of one of the feed rolls has been so connected with the splitting knife that the axis of the latter lies intermediate between the feed rolls. Such arrangement will in no wise answer for splitting ratans, as the movable feed roll pivoting around the foot of its shaft as a center, swings in a curve around this point, and not in the plane of revolution of the stationary roll, which it is absolutely necessary that it should do in order that the ratan may be guided with sufficient accuracy to the splitting knife.

To accomplish the desired end I have adopted the following device which I will now proceed to describe.

In the said drawings A is the bed of the machine, B, the splitting knife the construction of which need not be explained and which is secured to a block or trough D, the inclined bottom of which seen dotted at *f*, in Fig. 2 serves to lead out the strips, into which the ratan is split, the pith passing through a hole in the center of the cutter.

The block D, with its cutter is secured to a sleeve C that slides freely upon the rod E, and is steadied and guided in its motion by the arm F, the end of which slides in a groove in the top of a post or standard G. By means of this arm and standard the knife is prevented from varying from its true position in a horizontal plane.

H, is the stationary guide roller, I, the movable one which revolves upon a short shaft L, rising from a horizontal lever K. This lever is pivoted to the bed of the machine at *m*, and the roll I, is pressed up to the stationary roll by the spring O. That the knife B, may move horizontally a distance equal to one-half the distance moved by the roll I, a pin *h* rising from the center of the lever K, enters a hole in the block D, and thus this block with its knife is moved laterally a distance equal to one half of that passed through by the roll I. It will be perceived that by this arrangement the roll I, is preserved in the plane of rotation of the stationary roll whenever it is moved by the varying size of the ratan, while the splitting knife is held intermediate between the two, whatever may be the size of the stuff operated upon.

Claim—

I do not claim connecting a yielding feed roll to the splitting knife so as to maintain the knife midway between the feed rolls as in the patent of Jos. Sawyer of April 7, 1857, but

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

So connecting the roll with the knife that it shall always remain parallel with the stationary roll as set forth.

GEORGE S. COLBURN.

Witnesses:

LUCIUS BEEBE,

CHARLES S. BEEBE.