(No Model.)

J. SMEAD.

MACHINE FOR CUTTING TOBACCO.

No. 289,864. Patented Dec. 11, 1883.

Fig. 1.

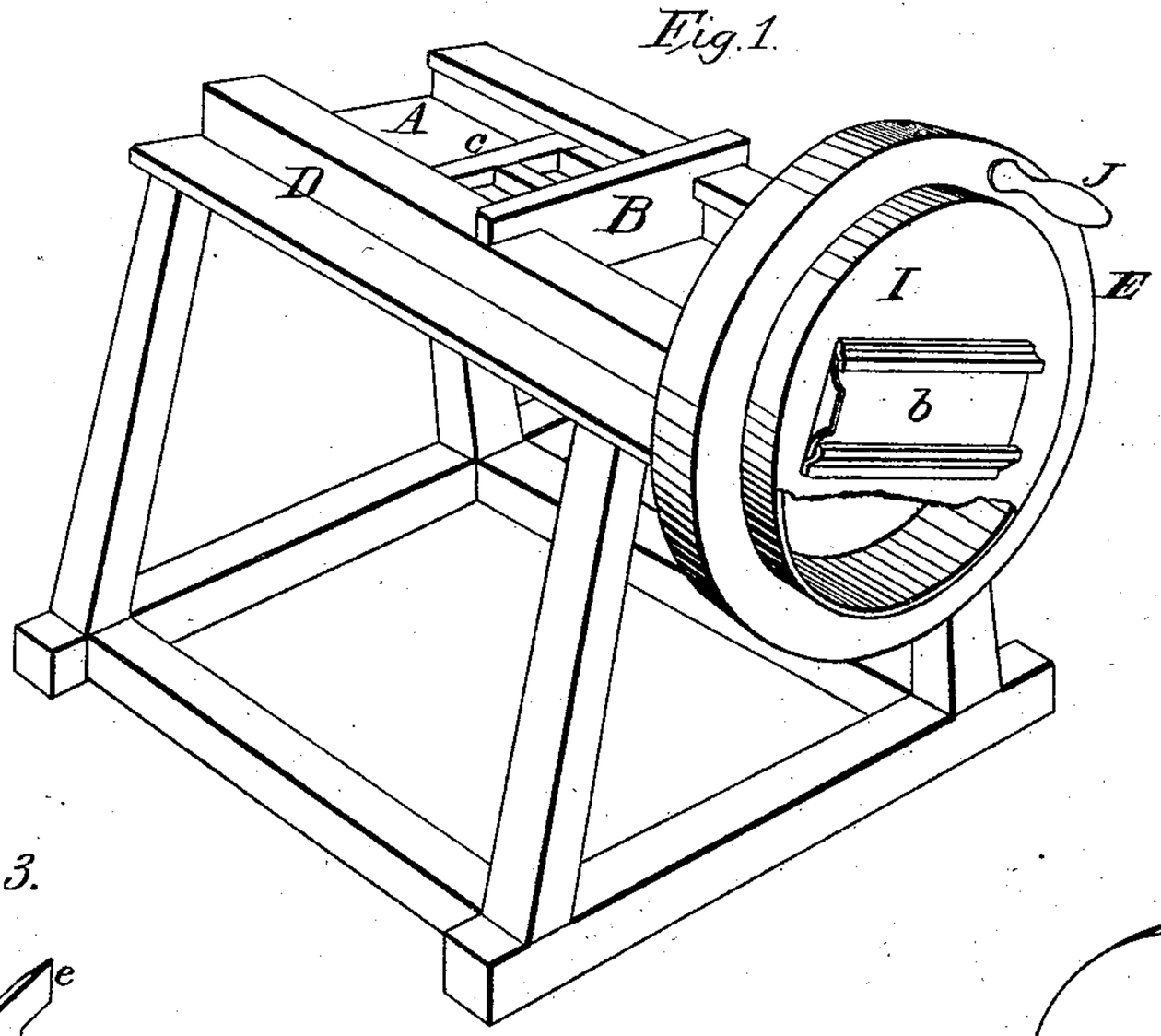


Fig. 3.

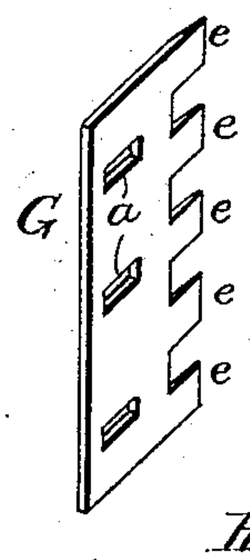


Fig. 4.

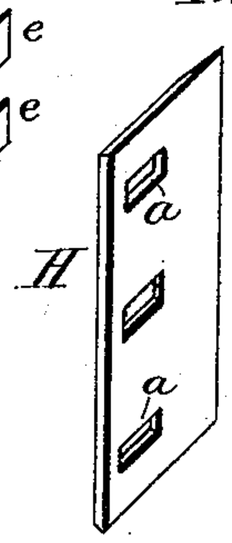


Fig. 5.

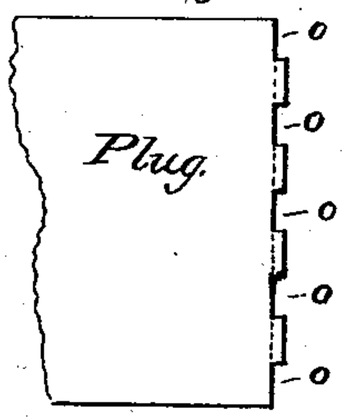
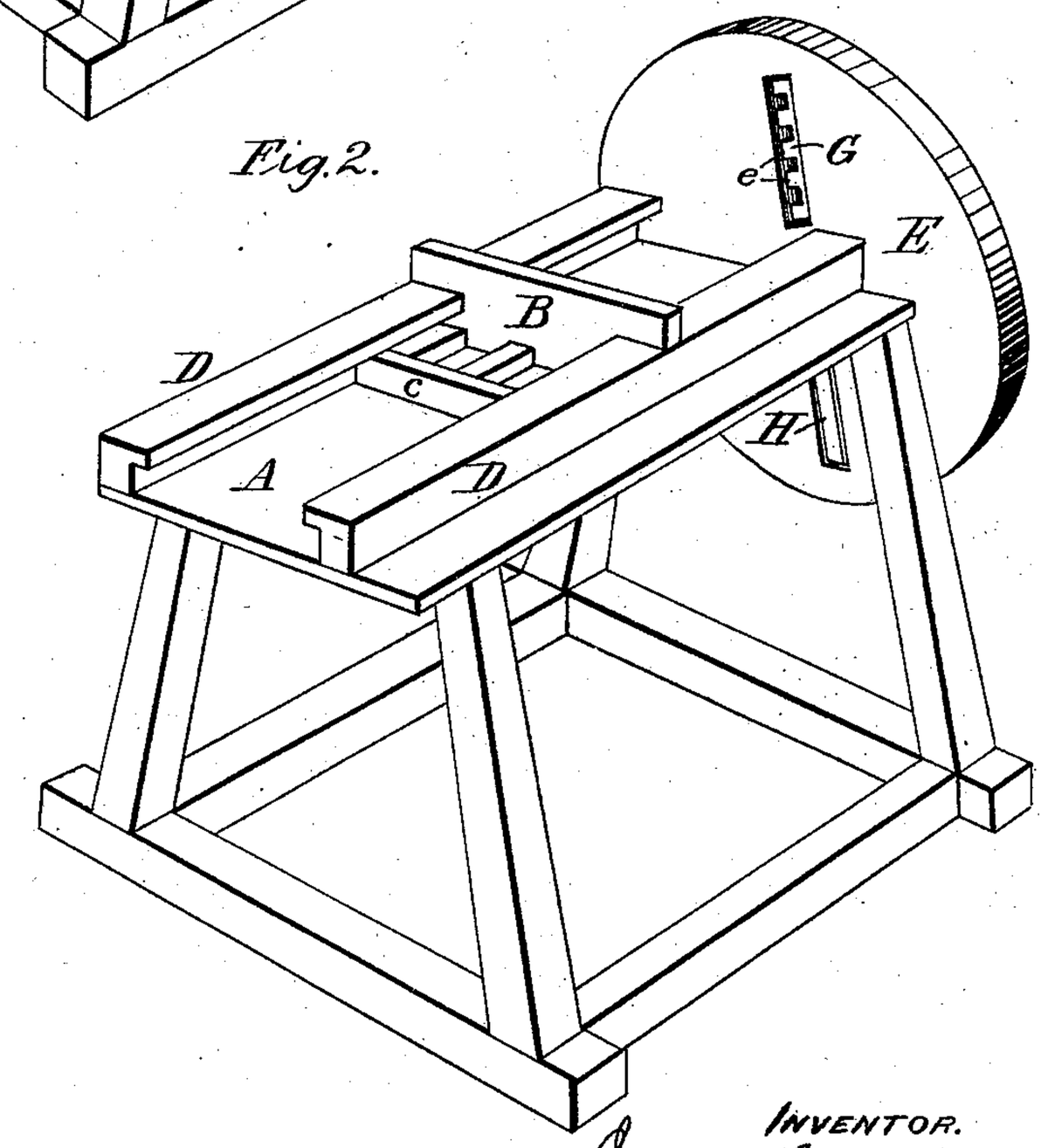


Fig. 2.



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MACHINE FOR CUTTING TOBACCO.

SPECIFICATION forming part of Letters Patent No. 289,864, dated December 11, 1883.

Application filed May 14, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN SMEAD, of Toledo, in the county of Lucas and State of Ohio, have invented certain Improvements in Machines for Cutting Tobacco, &c., of which the following is a specification.

My invention relates to machines for cutting tobacco; and the invention consists in a novel construction and arrangement of the cutting-blades, and also in the attachment to the disk which carries the blades of a receptacle for the cut material, together with certain details, all as hereinafter more fully set forth.

Figure 1 is a perspective view of my improved machine, viewed from the front. Fig. 2 is a rear perspective view. Figs. 3 and 4 are perspective views of the cutting-blades detached; and Fig. 5 is a plan view of a plug of tobacco, illustrating the manner in which it is cut.

The object of this invention is to provide a simple, cheap, and efficient machine for cutting plug-tobacco into small pieces suitable for smoking.

To construct my improved machine, I provide a flat bed or table, A, which is mounted on a suitable frame or support of any construction preferred, and at the front end of the bed I mount a vertically-rotating disk, E, the shaft of which may extend longitudinally underneath the bed A, and be supported in suitable boxes or bearings. This disk E is made of metal, and of the proper size and weight to serve as a balance-wheel and firmly hold and carry the cutting-blades, and also a box or receptacle for the cut tobacco, as hereinafter described. Upon the bed A are secured two grooved side bars, D, as shown, and a slide or block, B, having a handle, *c*, is arranged to slide freely back and forth between said bars upon the bed, to press the plug of tobacco forward against the disk E when it is to be cut. The handle *c*, which may be of any desired form or construction, is attached to the rear side of the slide B, so as to prevent the hand of the operator from being accidentally thrust against the moving blades.

As plug-tobacco is a hard gummy substance, and therefore difficult to cut, I provide a peculiar construction and arrangement of blades for that purpose. These blades are shown detached in Figs. 3 and 4 in perspective. The blade H, Fig. 4, is a plain, straight-edged cutting-blade, having a sharp beveled edge similar to those used in wood-working machinery, while the blade G, Fig. 3, has its cutting-edge provided with a series of notches or recesses, thereby forming a series of narrow cutting points or blades, *e*, these points *e* and the intervening recesses preferably being of uniform width, as shown clearly in Fig. 3. These blades thus constructed are secured in radial slots in the disk E, at opposite sides of the center or shaft, as shown in Fig. 2, so that each shall cut alternately as the disk is rotated. The result is that each blade alternately cuts but one-half of the width of the plug, as will be seen by examining Fig. 5, in which the plug is shown as having just been operated upon by the blade G, the narrow cutting-points of which cut out the portions shown by the recesses *o* as it passes by the end of the plug, and then as the blade H comes around it will cut off the projecting parts, as indicated by the dotted line, thus leaving the end of the plug cut straight across, ready for the blade G to again cut out the portions forming the recesses *o*, and so on continuously. As the blades are set in radial slots in the disk E, and as the shaft or center of this disk is below the face of the bed A, it follows that the blades have their edges arranged at an angle to the face of the bed A, as shown in Fig. 2, whereby they are made to begin cutting at one edge of the plug first, and to cut gradually from one edge to the other across the plug, thus imparting to them a shearing cut. By these means a plug can be cut with comparative ease, which could not be cut without the exertion of very great power if the knife were arranged to strike square down upon the top of the plug, so as to cut it all off at once by a directly-downward cut. It will be understood, of course, that the tobacco which is thus sliced or cut off by the knives G H will pass through the slots in the disk E, and would fall outside were no provision made to prevent it. In order, however, to catch and retain this cut tobacco, I secure to the exterior face of the disk E a box, I, as shown in Fig. 1, this box having a door, *b*, which can be opened whenever desired for the purpose of removing the cut tobacco in whole or in part when needed. I have shown this box

I as being round, and as having a sliding door, these being the simplest forms of construction; but it is obvious that they may be differently constructed, the only requisites being that the box shall cover the slots, so as to catch the particles as they are cut from the plug, and that there should be some way of getting at the contents of the box. Instead of making the box with an opening and a door, the box itself may be made detachable, a button or some similar simple device serving to hold one edge fast, the opposite edge being caught under a couple of studs, hooks, or similar fastenings; or it may be provided with a flange or projections having eccentric grooves or slots in it or them, arranged to lock the box fast to the disk when turned in a direction the reverse of that in which the disk rotates, so that it will not become loose by the rotation of the disk, but which will permit it to be easily and quickly detached by giving it a slight turn in the opposite direction when the disk is stationary.

As shown in Fig. 1, the disk E is provided with a handle or crank, J, for turning the same by hand, though it is obvious that, if preferred, the shaft of the rotating disk may be extended through to the rear end and have a crank applied at that end. The plan shown is, however, the simplest and most convenient, as it is in the proper position to enable it to be turned with the right hand, while the slide B is pressed forward by the left hand.

The intention is to make these machines of a comparatively small size, so they can be operated by hand, and thus be adapted for use by individuals, or be used in groceries or similar shops; but it is obvious they may be made larger and be operated by power, if desired. They can be made very cheap, and are exceedingly efficient for the purpose designed. While they are more especially intended for use in cutting up plug-tobacco, it is obvious that they may be used for slicing or cutting up other substances, and are especially well adapted for cutting such substances as are hard or tough, and therefore difficult to cut by ordinary means.

I am aware that machines have been patented for slicing vegetables and for cutting hay, &c., in which a disk or wheel is shown provided with bars carrying blades standing at right angles to the line of cut, and also blades which cut transversely clear across at each stroke, and I do not claim such; but

What I do claim is—

1. In combination with the bed or table A, the rotating disk E, provided with radial slots, and having the notched knife G and the plain or straight edged knife H secured therein, all constructed and arranged to operate substantially as shown and described.

2. In combination with the rotating disk E, provided with cutters or blades, and openings for the passage of the cut material, the box I, secured to said disk, for receiving the material as it is cut, as set forth.

3. The combination of the bed or platform A, provided with a slide, B, for feeding the material to the cutters, with the rotating disk E, having the cutting-blades G and H and the receiving-box I secured thereto, substantially as shown and described.

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