No Model.)

W. R. FOWLER.

CLOTH CUTTING MACHINE.

No. 259,840. Patented June 20, 1882.

FIG. 1.

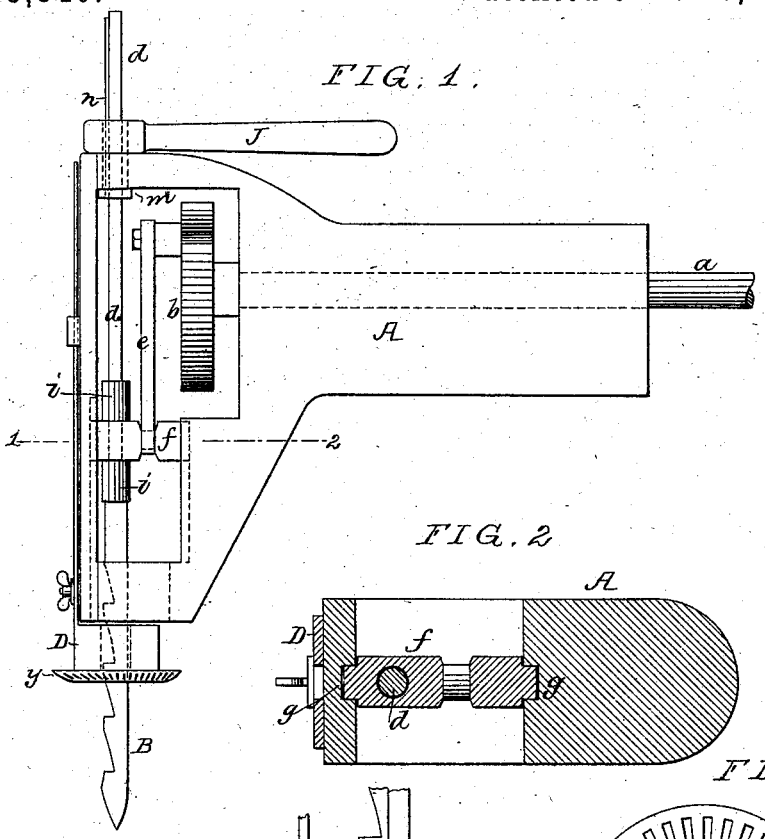


FIG. 2

FIG. 4.

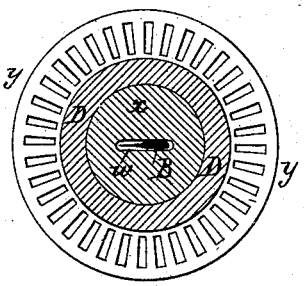


FIG. 3.

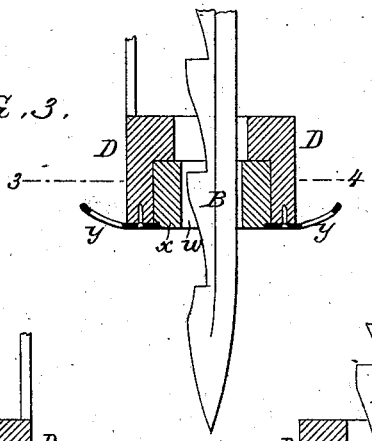


FIG. 5.

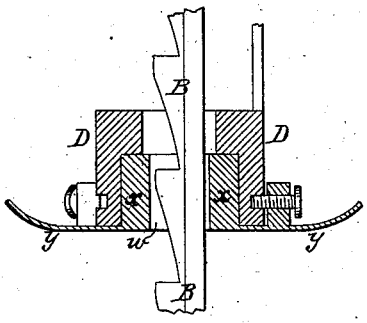
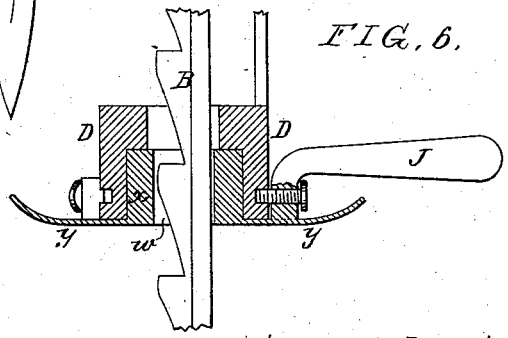


FIG. 6.



Witnesses:
Harry Drury
Harry Smith

Inventor:
W. R. Fowler
by his Attorneys
Howson and Jones

UNITED STATES PATENT OFFICE.

WILLIAM R. FOWLER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO MARTIN J. MYERS, OF SAME PLACE.

CLOTH-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 259,840, dated June 20, 1882.

Application filed November 21, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. FOWLER, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Cloth-Cutting Machines, of which the following is a specification.

My invention relates to certain improvements in or modifications of the cloth-cutting machine for which Letters Patent of the United States, No. 245,149, were granted to my assignee on the 2d day of August, 1881, my present improvements comprising simple and effective means whereby the knife and the slotted plate in which the knife works are caused to turn together.

In the accompanying drawings, Figure 1 is a side view of sufficient of the cloth-cutting machine to illustrate my improvements; Fig. 2, a sectional plan on the line 1 2; Fig. 3, an enlarged section of part of Fig. 1; Fig. 4, a sectional plan of Fig. 3 on the line 3 4, and Figs. 5 and 6 views showing other methods of carrying out my invention.

In Fig. 1, A represents part of one of the swinging arms of the machine, said arm having bearings for the driving-shaft *a*, and being slotted at the front end for the reception of the crank *b*, knife-rod *d*, and pitman *e*, as before. The pitman *e* is connected to a cross-head, *f*, guided in slots *g* in the arm A, as shown in Fig. 2, and through an opening in said cross-head passes the knife-rod *d*, suitable collars, *i i*, on the rod above and below the cross-head, insuring the proper vertical reciprocation of the rod with the cross-head without interfering with the free rotation of the rod in the said cross-head. This rotation of the rod is effected by a sleeve, *m*, confined vertically to but free to turn in an opening in the top of the arm A, the said sleeve being furnished with an operating-handle, J, above the arm, and having a central opening with key-seat for the reception of the knife-rod and a key or feather, *n*, thereon; or, instead of having a feather, the upper end of the rod may be made of square or other angular shape and adapted to an opening of corresponding shape in the sleeve.

To the lower end of the knife-rod is secured the knife B, which is so shaped as to cut on the upward stroke, and is adapted to a slot, *w*, in a plate, *x*, the latter being confined vertically to, but being free to turn in, the lower end of a presser-bar, D, which is so secured to the arm A as to permit of vertical adjustment in respect thereto to accommodate piles of cloth of different thicknesses, but has no other movement independent of said arm. In the present instance the lower end of the presser-bar is furnished with a projecting plate, *y*, having an upturned edge, and serving as a presser-foot, this plate also in the present instance being relied upon to keep the plate *x* in position in the opening in the presser-bar, a shoulder being formed on the lower edge of the said plate *x* to provide a bearing for the inner edge of the plate *y*, as shown in Fig. 3. This construction may be modified in various ways, however. For instance, in Fig. 5 I have shown the plate *x* and presser-foot *y* made in one piece, the whole turning freely on the lower end of the presser-bar, but being retained in proper vertical position thereon by means of set-screws carried by lugs on the presser-foot *y* and engaging with an annular groove in the bar. In either of these cases the knife is the only part to which power is applied directly to effect the turning of the same, the turning of the slotted plate *x* or slotted presser-foot plate *y* being effected solely by the action of the knife against the plate on one side or the other of the slot *w* in the same.

In Fig. 6 I have shown another modification of my invention, in which the handle is applied to the presser-foot instead of to the knife. The knife-rod in this case should be free to turn in the cross-head *f* and sleeve *m*, or in a bearing in the arm in place of the sleeve; or the knife-rod may be discontinued above the upper collar, *i*. In this case it is the turning of the presser-foot which causes the turning of the knife, the result, however, being the same as before—that is to say, the turning of the two parts together—the difference between the two plans being simply in the part to which the handle is applied.

A still further change in the construction of the machine within the limits of my invention might be made by substituting for the vertically-adjustable presser-bar D a rigid exten-

sion of the arm A, and hanging the slotted presser-plate or slotted plate *x* to the same, so that it is free to turn, the adjustment for different thicknesses of cloth being effected by raising and lowering the cloth-supporting table, or the plate being adjustable vertically in respect to, as well as free to turn on, said arm.

I claim as my invention—

1. The combination, in a cloth-cutting machine, of an arm or bar adapted to travel over the cloth, a slotted plate free to turn in or on said arm or bar, and a knife free to turn in bearings, and adapted to reciprocate through and to turn or be turned by the said slotted plate, all substantially as specified.

2. The combination, in a cloth-cutting machine, of a presser-bar vertically adjustable on the arm A, a slotted plate free to turn on or in said presser-bar, and a knife free to turn in bearings and adapted to reciprocate through and to turn or be turned by the said slotted plate, all substantially as set forth.

3. The combination of the arm or bar adapted to travel over the cloth, a slotted plate carried by but free to turn on or in said arm or bar, and a knife free to turn in bearings and adapted to reciprocate through and to turn the said slotted plate, as specified.

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

WM. R. FOWLER.

Witnesses:
HARRY DRURY,
HARRY SMITH.