(No Model.)

E. WICKSTEAD.

MACHINE FOR CUTTING MATERIAL FOR UMBRELLA OR PARASOL COVERS.

No. 262,522. Patented Aug. 8, 1882.

Fig 2.

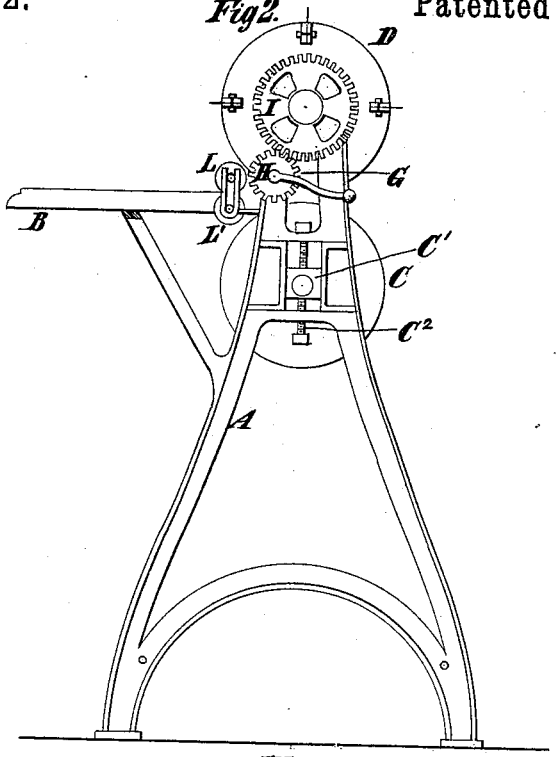


Fig 3.

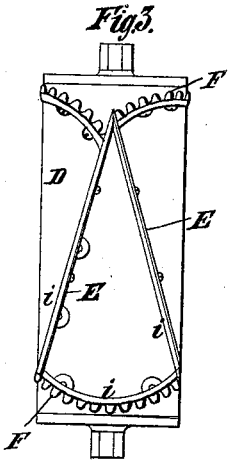
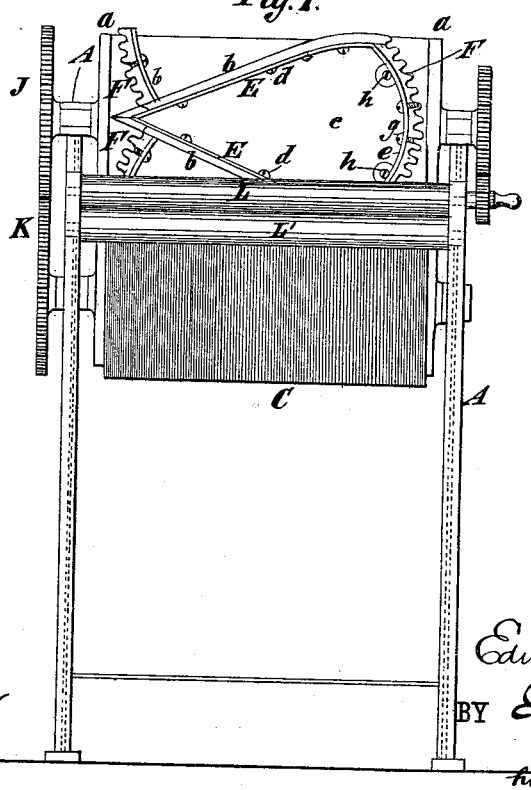


Fig. 1.



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UNITED STATES PATENT OFFICE.

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MACHINE FOR CUTTING MATERIAL FOR UMBRELLA OR PARASOL COVERS.

SPECIFICATION forming part of Letters Patent No. 262,522, dated August 8, 1882.

Application filed May 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWIN WICKSTEAD, of Jersey City, in the county of Hudson and State of New Jersey, have invented a certain new and useful Improvement in Machines for Cutting Materials for Umbrella and Parasol Covers, of which the following is a specification.

The object of my improvement is to produce a machine of simple and cheap construction and susceptible of being easily used for cutting the flaring-shaped pieces of material which are used in making umbrella and parasol covers.

My improvement consists in the combination, with a suitable bed or support for the material to be cut, preferably consisting of a roller, of a roller carrying knives arranged approximately in the form of triangles, which are alternately reversed around the circumference of the roller, and are arranged with their length approximately parallel with the axis of the said roller. The holders for the knives which form the bases or shorter sides of the triangles are adapted to be removed and replaced by others opposite different points in the length of the knives forming the longer sides of the triangles, and by this means I am enabled to readily adapt the machine for cutting different widths of fabric for larger or smaller covers with but little waste.

The improvement also consists in the combination, with a bed-roller and means for adjusting it vertically, of a roller carrying knives arranged approximately in the form of alternately-reversed triangles and disposed around the circumference of the roller, and other rollers between which material passes to said knives.

In the accompanying drawings, Figure 1 is a front view of the machine embodying my improvement. Fig. 2 is an end view of the same, and Fig. 3 is a front view of a roller of modified form for carrying the knives.

Similar letters of reference designate corresponding parts in all the figures.

A designates the frame of the machine, which may be of any desirable form and materials, and as here shown consists essentially of two side pieces of casting and connecting cross-rails or stretchers.

B designates a table over which the material to be cut is fed.

C designates a bed, here shown as consisting of a roller, which may advantageously be made of a number of disks of paper clamped side by side upon a shaft between two metal heads, as such a roller will present a very desirable surface for the knives to work upon. The journals of this roller are supported in bearings C', which are arranged in housings in the side pieces of the frame A and held in position by means of screws C^2. These screws may obviously be manipulated to adjust the roller into different positions.

D designates a roller, which carries knives E F, whereby the material is cut. Its journals are supported in bearings in the side pieces of the frame A. As shown, it consists essentially of two heads, *a*, a series of bars, *b*, extending between them, and webs *c*, connecting the bars. The bars *b* extend alternately at reverse angles to the axis of the roller, and serve as holders for the knives E, whereby the sides of the pieces of material desired are cut. Screws *d* or other devices may serve to secure these knives in place. The webs *c* afford supports for holders *e*, to which are secured the knives F, whereby the ends of the desired pieces of material are cut when it is necessary that they should be cut. The knives F may be secured by screws *g* to their holders *e*, and these holders may be detachably secured to the webs *c* by means of screws *h* passing through lugs extending from them and entering the webs.

It is obvious that knives E of various lengths may be secured to the bars *b*, and that holders *e*, of suitable size, with attached knives F, may be secured to the webs *c* in such position that their knives F will occupy proper positions at different points in the length of the knives E. Thus pieces of material of different lengths may be cut in the same machine, for use in making umbrellas and parasols of different sizes and with but little waste. The knives F may be pinking-knives, if desirable, as shown; but they may be of any other suitable kinds.

As umbrellas and parasols are made in various styles, some quite flat, some quite con-

vex, and some of a greater number of pieces of material than others because of the employment of a greater number of ribs, I prefer to make the roller D in a manner which will provide for adapting it to all these modifications. I have shown it in Fig. 3 modified to secure this end. Here the roller has a body of any suitable form admitting of the attachment by screws or otherwise of holders *i*, which are severally adapted to fit the body of the roller, and are approximately each of the shape of two of the longer sides of a triangle, corresponding approximately to the shape of the pieces of material to be cut. Knives E F are attached to these holders *i* by screws or otherwise. Obviously all necessary modifications may be made with the use of a roller and holders made as just described.

The roller D is driven by means of a pinion, G, on a crank-shaft, H, meshing into a gear-wheel, I, on one of the journals. Preferably the roller D and the bed-roller C are made to travel in unison by means of gear-wheels J K on their adjacent journals; but these may not be necessary in many cases.

Rollers L supported in open-top bearings L′ may be employed to keep the material to be cut in proper form to be cut. When employed the material will be passed between them. The material may be guided by hand, or adjustable guides may be employed to guide it properly when of different widths.

The machine may, in whole or in part, be found useful for other purposes.

I may in some cases find it necessary to remove the roller D and substitute for it a roller of larger or smaller diameter, so as to enable me to cut pieces of material of different sizes. The bed-roller C may always be adjusted to a position to suit the knife-roller employed.

I do not claim broadly the combination of a bed-roller and a second roller with knives on its periphery, and I am aware that knives have been attached to the head of a press and used in conjunction with a reciprocating platen for cutting pieces for umbrella-covers.

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

1. The combination, with a bed or support for material to be cut, of a roller carrying knives arranged approximately in the form of triangles which are alternately reversed around the circumference of the roller and are arranged with their lengths approximately parallel with the axis of the roller, substantially as specified.

2. The combination, with a bed or support for material to be cut, of a roller carrying knives arranged approximately in the form of alternately-reversed triangles, and holders for the knives which are at the bases or shorter sides of the triangles, adapted to be removed and replaced by others opposite different points in the length of the knives forming the longer sides of the triangles, substantially as specified.

3. The combination, with a bed-roller and means for adjusting it vertically, of a roller carrying knives arranged approximately in the form of alternately-reversed triangles and disposed around the circumference of the roller and other rollers, between which material passes to said knives, substantially as specified.

EDWIN WICKSTEAD.

Witnesses:
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