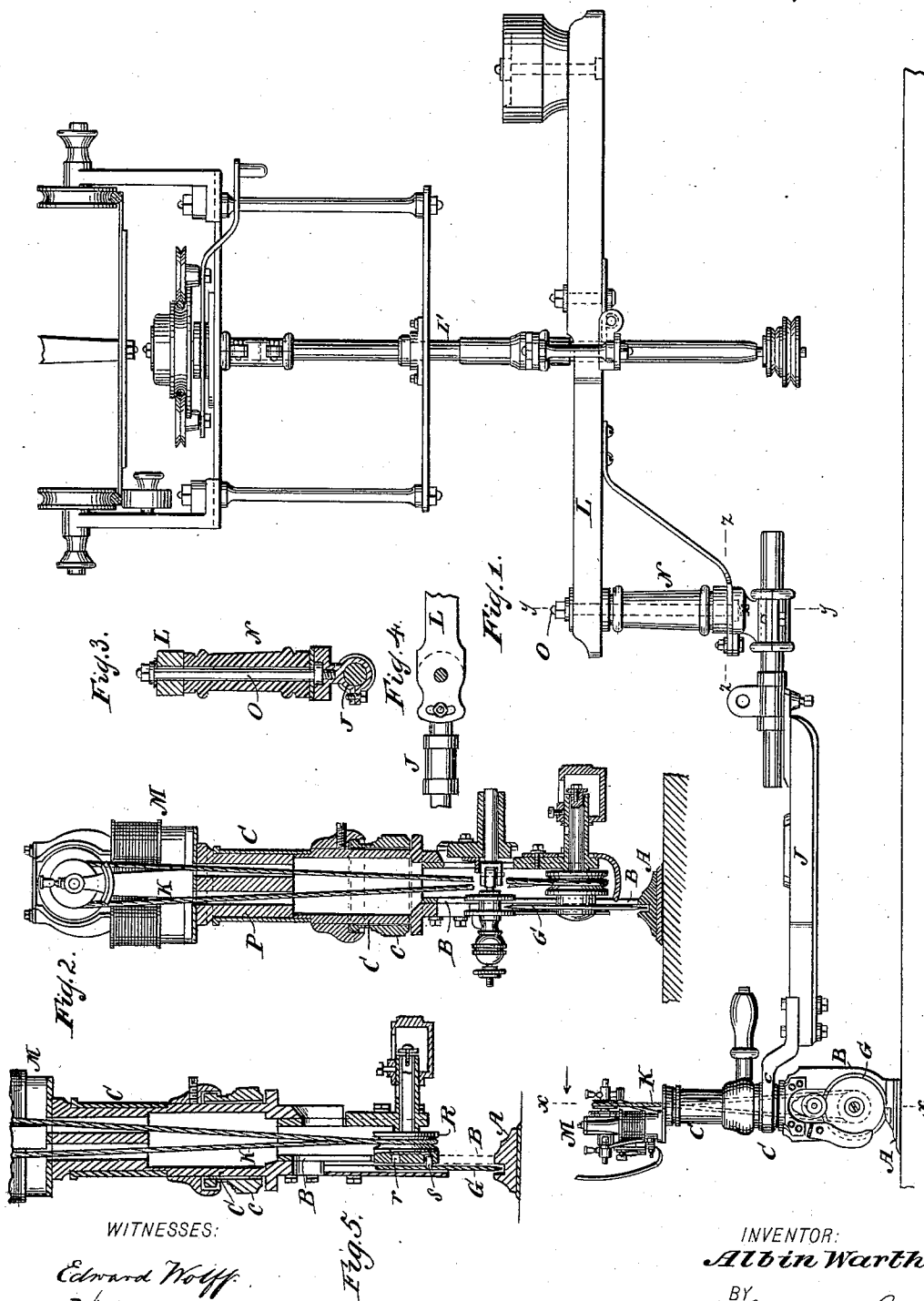


(No Model.)

A. WARTH.
CLOTH CUTTING MACHINE.

No. 469,073.

Patented Feb. 16, 1892.



WITNESSES:

Edward Wolff.
William Miller

INVENTOR:
Albin Warth.
BY
Van Santvoord & Hanff
ATTORNEYS

UNITED STATES PATENT OFFICE.

ALBIN WARTH, OF STAPLETON, NEW YORK.

CLOTH-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 469,073, dated February 16, 1892.

Application filed July 9, 1891. Serial No. 398,971. (No model.)

To all whom it may concern:

Be it known that I, ALBIN WARTH, a citizen of the United States, residing at Stapleton, in the county of Richmond and State of New York, have invented new and useful Improvements in Cloth-Cutting Machines, of which the following is a specification.

This invention relates to an improvement in cloth-cutting machines of that class in which the motor is supported by and moves with the standard carrying the knife and the cloth-lifting foot-plate. In machines of this class it is essential that the knife shall be guided so as to follow steadily and without fail the contours of the different patterns to be cut, and at the same time a very rapid motion must be imparted to the knife in order to accomplish the required amount of work, and my experience is that when the motor is placed on the top of the standard and a rapid motion is imparted to the knife below the weight of the motor above has a tendency to cause the machine to rock to and fro and to render it extremely difficult, if not impossible, to guide the knife so that it follows the contours of the pattern, particularly if the same are curved or angular.

The object of my invention is to steady the machine during the operation of cutting, and for this purpose I have placed the motor upon a circular guide which rises from the foot-plate and through the interior of which extends the belt for imparting motion to the knife, said circular guide being made to engage an arm which can swing freely round a pin, as more fully pointed out in the following specification and claim, and illustrated in the accompanying drawings, in which—

Figure 1 represents a side elevation of a cloth-cutting machine embracing my present invention. Fig. 2 is a vertical section in the plane xx , Fig. 1, on a larger scale than the previous figure. Fig. 3 is a vertical section in the plane yy , Fig. 1. Fig. 4 is a horizontal section in the plane zz , Fig. 1. Fig. 5 is a vertical section of a modification.

In the drawings, the letter A designates the cloth-lifting foot-plate, from which rises the standard B, which carries the knife G. To the standard B is firmly secured the circular guide C, which engages an eye c , formed on the arm J, which is connected to the arm L.

On the top of the circular guide is firmly secured a motor M—such, for instance, as an electromotor—from which motion is imparted to the knife G by means of a belt K, which extends down through the guide C.

In the example illustrated in Figs. 1 and 2 of the drawings a rotary knife is shown; but the belt K may be used to impart motion to a reciprocating knife carried by the standard B, as shown in Fig. 5, in which the pulley R is provided with an eccentric groove r , which engages a pin s , projecting from the knife G, so that when the pulley revolves a reciprocating motion is imparted to the knife.

The connection between the arms J and L may be effected by means of a hanger N and rod O, so that the arm J can freely swing round on said rod or the two arms may be joined in any other suitable manner. The arm L is free to swing round on the shaft L'.

In the example shown in the drawings the base-plate of the motor M is provided with a plug P, which fits the guide C and which may be hollow, so that the belt K can freely pass through the same or it may be provided with one or more channels for the passage of said belt. The guide incloses the belt K, so that the eye c can be readily applied to said guide and the cloth-lifting foot-plate A, with the standard B, the knife G, and motor M, can be moved so that the knife will follow the contours of the pattern without danger of interfering with the driving mechanism. At the same time the eye c and the arm L serve to retain the cutting-machine in an upright position, and the operative is enabled to guide the machine with ease and facility.

I do not herein broadly claim the combination, with a standard carrying a cloth-lifting foot-plate, a knife, and a pulley, from which motion is imparted to said knife, of a casing mounted on the standard and an arm constructed to swing or swivel in a spindle and to engage the casing, said pulley being adapted to engage a belt extending down through the casing; nor do I herein broadly claim the combination, with a standard carrying a cloth-lifting foot-plate and a bracket, of the tubular bearing secured to said bracket and the shaft mounted in said bearing and carrying the pulley and the knife, said pulley being adapted to engage the driving-belt, and a lu-

bricating-cup secured to the tubular bearing;
and, further, I do not herein claim the combination, with a standard carrying a rotary knife, of an oscillating spindle carried by said
5 standard and extending in a direction transverse to the plane of the knife and two grinding-disks situated on opposite sides of the knife and free to rotate on the spindle by frictional contact with the knife, as such combinations constitute the subject-matter of my
10 application for Letters Patent filed of even date herewith, Serial No. 398,970.

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

15 The combination, with the cloth-lifting foot-plate, the standard rising from the foot-plate,

and the knife carried by the standard, of a circular guide C, supported by the standard, a motor mounted upon the guide and geared with the knife through the interior of said
20 guide, and a movable arm J, provided with an eye which engages the guide between the motor and the foot-plate, substantially as described.

In testimony whereof I have hereunto set
25 my hand in the presence of two subscribing witnesses.

ALBIN WARTH.

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.