(No Model.) 2 Sheets—Sheet 1.

J. PHILIPPSOHN.

CLOTH CUTTING MACHINE.

No. 546,746. Patented Sept. 24, 1895.

Fig. 2.

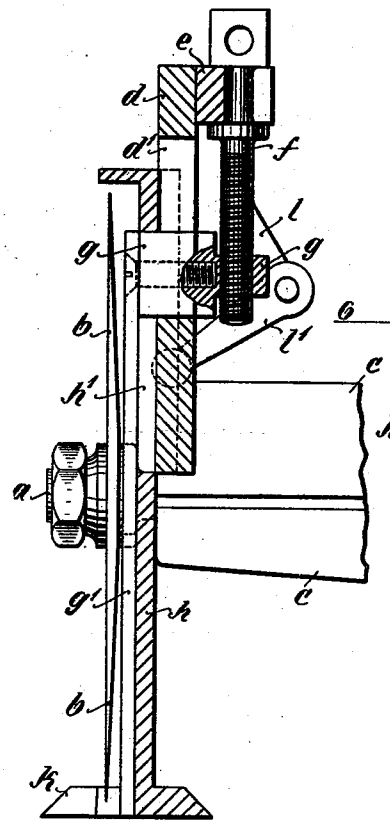


Fig. 1.

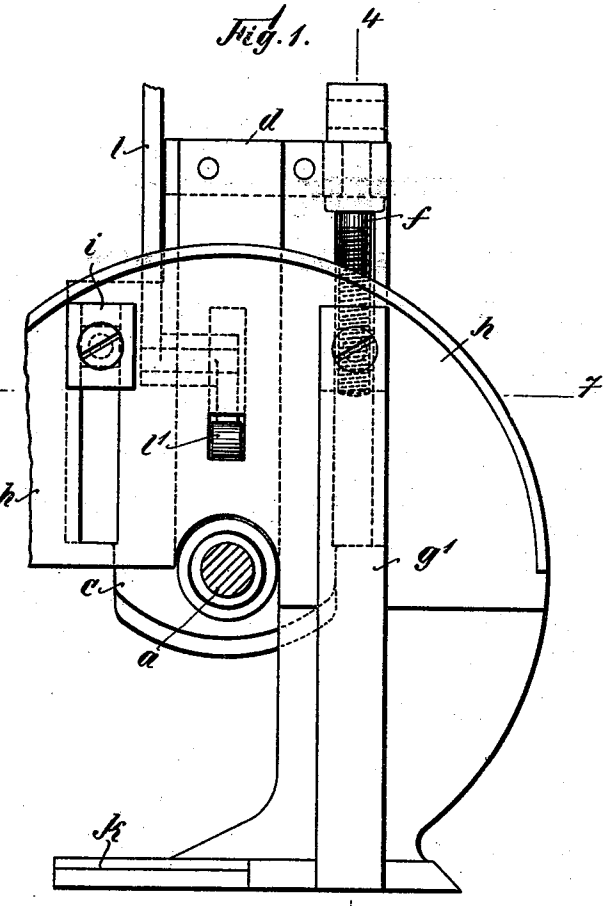
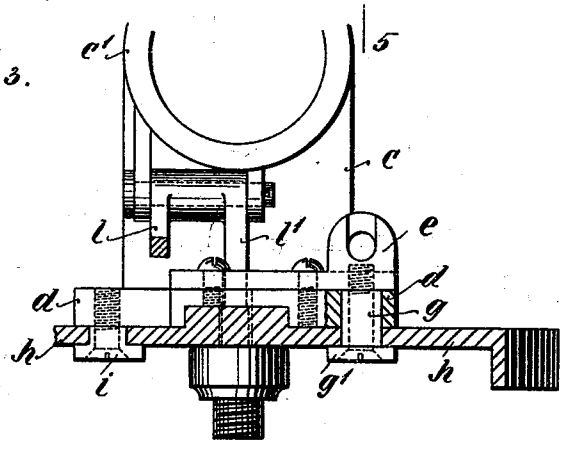


Fig. 3.



Witnesses
Johannes Furnisch.
Emil Kayser.

Inventor
Jacob Philippsohn.
by
Robert Heinle
Attorney.

(No Model.) 2 Sheets—Sheet 2.

J. PHILIPPSOHN.

CLOTH CUTTING MACHINE.

No. 546,746. Patented Sept. 24, 1895.

Fig: 5.

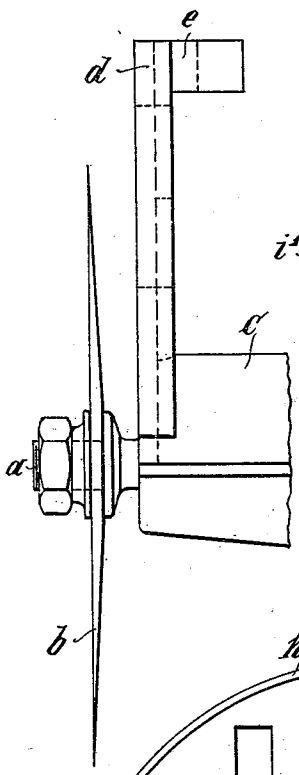


Fig: 4.

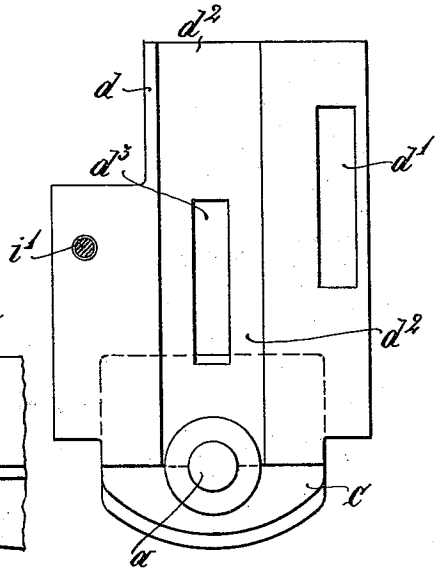


Fig: 8.

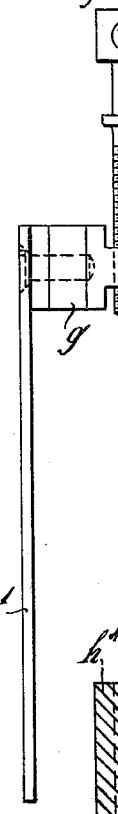


Fig: 9.

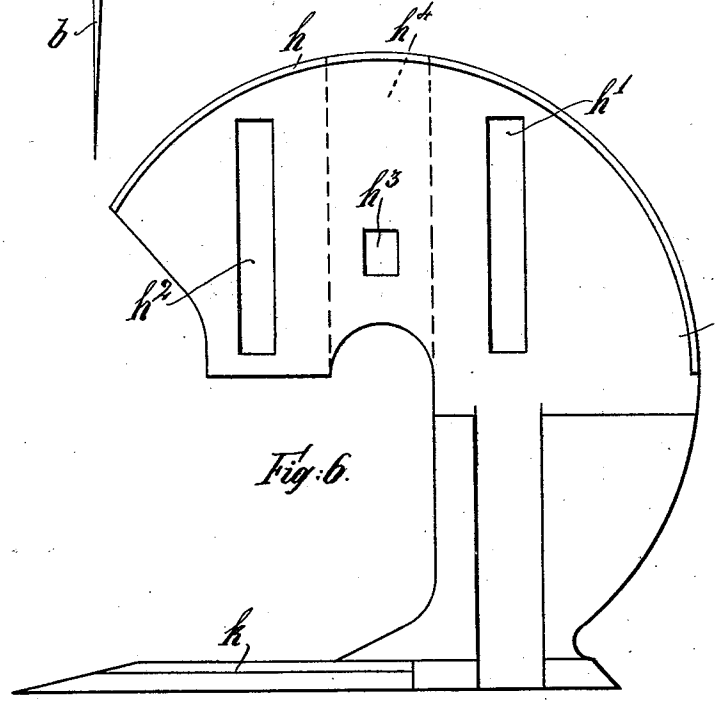


Fig: 6.

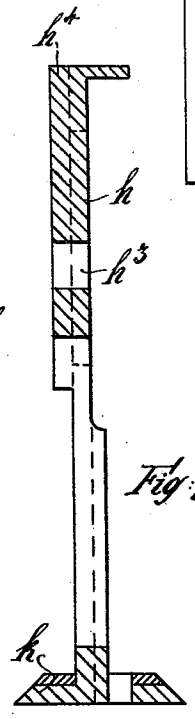


Fig: 7.

Witnesses:
Carl Rafsbach
R. Herpich.

Inventor:
Jacob Philippsohn
by Arthur Seipler
Attorney.

UNITED STATES PATENT OFFICE.

JACOB PHILIPPSOHN, OF BERLIN, GERMANY.

CLOTH-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 546,746, dated September 24, 1895.

Application filed July 24, 1894. Serial No. 518,473. (No model.) Patented in Germany February 1, 1893, No. 71,885, and June 9, 1893, No. 72,608, and in England May 23, 1893, No. 10,182, and June 28, 1893, No. 12,659.

To all whom it may concern:

Be it known that I, JACOB PHILIPPSOHN, a subject of the King of Prussia, German Emperor, and a resident of Berlin, in the Kingdom of Prussia, German Empire, have invented an Improved Cloth-Cutting Machine, (for which patents have been obtained in Germany, No. 71,885, dated February 1, 1893, and No. 72,608, dated June 9, 1893, and in Great Britain, No. 10,182, dated May 23, 1893, and No. 12,659, dated June 28, 1893,) of which the following is an exact specification.

This invention refers to cloth-cutting machines in which a circular knife adapted to be rotated and to cut a large number of superposed layers of cloth is combined with a foot adapted to take under the cloth, or under the lowest layer of the same, respectively, and to raise all the layers against the front edge (with regard to the direction of motion of the rotating knife) of said knife, so as to facilitate thereby the cutting of corners, angles, and curves.

My improvement in cloth-cutting machines of the kind referred to relates to the combination with said knife and foot of an adjusting device for the purpose of compensating the wear of the knife, as will all be more fully described hereinafter.

In order to make my invention more clear I refer to the accompanying drawings, in which similar letters denote similar parts throughout the several views, and in which—

Figure 1 is a front view of my improved device, the left-hand portion of the knife-guard being broken off. Fig. 2 is a vertical section taken on line 4 5 of Fig. 1. Fig. 3 is a horizontal section taken on line 6 7 of Fig. 1. Figs. 4 to 9 are details more fully described in the course of the description following.

Shaft *a*, Figs. 1, 2, 4, and 5, carrying the circular knife *b*, Figs. 2 and 5, has its bearings in the hollow casing *c*, Figs. 1, 3, 4, and 5, attached to the hollow column *c'*, Fig. 3. The latter forms the handle, by means of which the operator is enabled to guide the knife along the proper line of cutting. The means for rotating the knife and for enabling it to be moved in any desired line need not be described, as they are well known to every one versed in the art in question. Casing *c* is at its front part provided with a vertical plate *d*, Figs. 1 to 5, extending upward and carrying at its rear a bearing-piece *e* for a double-headed adjusting-screw *f*, Figs. 1, 2, 8, and 9. Said screw carries a slide *g*, taking through a slot *d'* of plate *d*, Figs. 2 and 4, as well as through a slot *h'* of the knife-guard *h*, Figs. 1, 3, and 6. Said knife-guard has a similar slot h^2, Figs. 1 and 6, arranged symmetrically to slot *h'*. Through said former slot takes a fixed piece *i*, Figs. 1 and 3, secured by a screw, Figs. 1 and 4, to plate *d*. Piece *i* therefore does not form a slide, as does piece *g*, and cannot be raised or lowered with regard to said plate *d*. In the position shown in Fig. 2 said slide *g* is in the lowest portion of slot *d'*, but in the highest portion of slot *h'*. In this position slide *g* is in one horizontal line with the fixed piece *i*, Fig. 1, and the knife-guard *h*, which is guided along plate *d* by means of a feather h^4, Figs. 6 and 7, taking into a groove d^2, Fig. 4, may be raised as much as allowed by the free length of the slots *h' h²*. Foot *k*, Figs. 1, 2, 6, and 7, is firmly connected with said knife-guard, so that on raising the latter the former is raised too.

The parts *h* and *k* (knife-guard and foot) are raised by means of a double-armed lever *l l'*, Figs. 1 to 3, held by brackets secured to the hollow column *c'*. The end of lever-arm *l'* takes through a slot d^3 of plate *d*, Fig. 4, and into a hole h^3, Figs. 1 and 6, of guard-plate *h*. Lever-arm *l*, when in normal position, diverges from column *c'*. On pulling said arm in the direction to said column the knife-guard, together with foot *k*, is raised, so that the several layers of cloth are exposed to a greater part of the cutting-edge, and are cut more by the vertical or nearly vertical portions of said edge than by the horizontal or nearly horizontal ones. This refers especially to the front edge, with regard to the direction of motion of the rotating knife, as stated already in the preamble. If the circular knife has been worn or reduced in diameter, respectively, by longer use, it becomes necessary to have foot *k* constantly lifted for a height corresponding to the respective degree of wear. In order to perform this, the adjusting-screw *f* must be turned, when slide *g* will be raised and will raise in its turn the

knife-guard as well as the foot. Irrespective thereof both these parts may be quickly raised or lowered by means of lever *l l'*, as aforedescribed.

In order to hinder the knife from cutting into the table-plate, I secure to the slide *g*, afore mentioned, a rod *g'*, Figs. 1, 2, 8, and 9, extending downward and taking through a suitable slit in foot *k*. By reason of this arrangement the knife can approach the table only as far as allowed by the respective position of said rod *g'*.

Having now described the nature of this invention, what I desire to secure by Letters Patent of the United States is—

In a cloth cutting machine having a rotatable knife provided with a movable knife-guard guided by a plate secured to the casing of the cutting-machine, and a foot attached to said knife-guard, and adapted to raise the cloth against said knife, the combination with said guide-plate, of a slide taking through vertical slots provided in the said guide-plate as well as in the said knife-guard, and having secured to its front a vertical stop-bar adapted to prevent the knife from cutting into the table; a threaded spindle connecting said slide with its guide-plate, and adapted to adjust by means of the said slide said stop-bar as well as the knife-guard according to the wear of the knife, substantially as described.

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

JACOB PHILIPPSOHN.

Witnesses.

FRITZ SPULING,

CHAS. H. DAY.