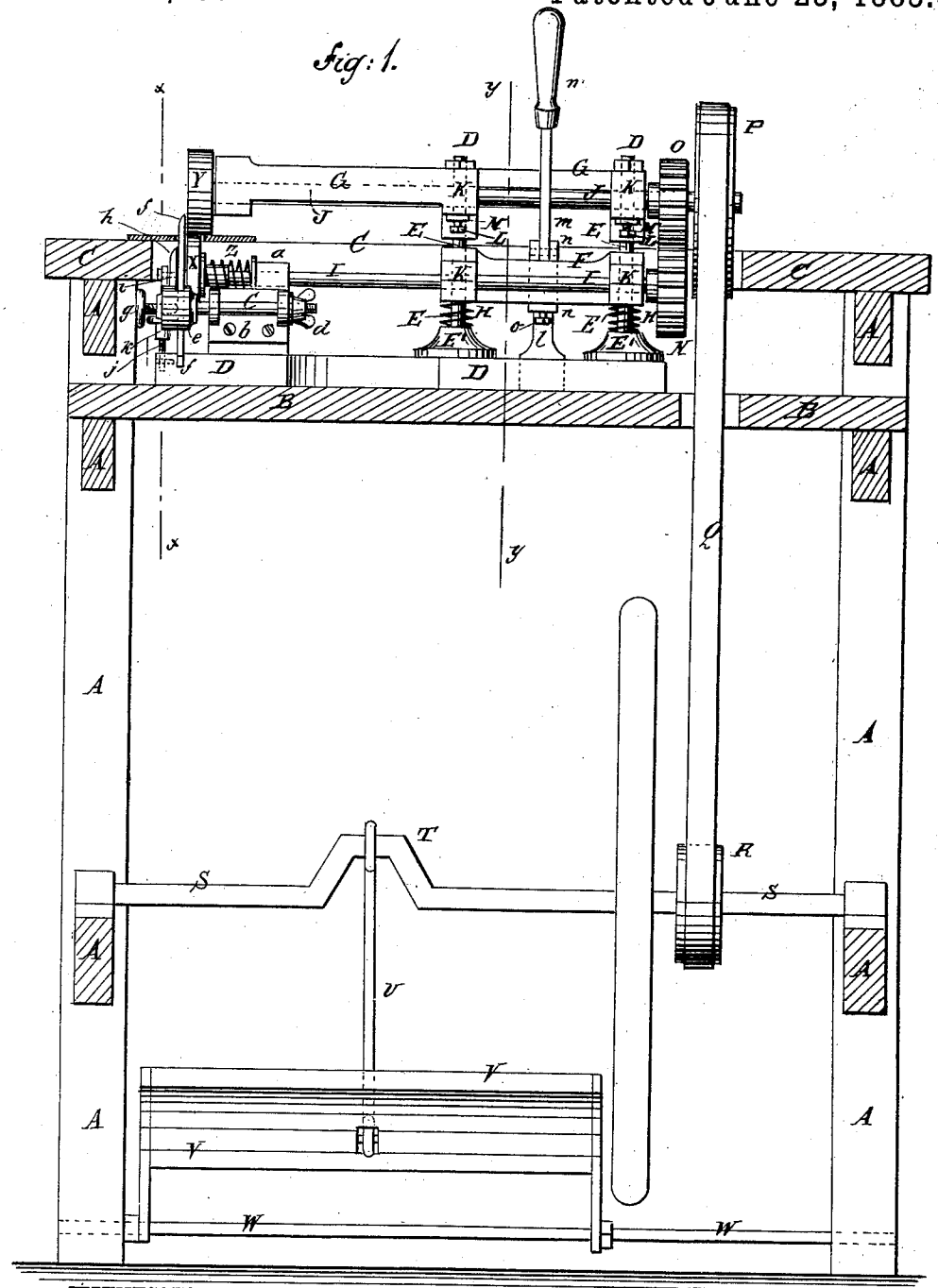
(No Model.) 2 Sheets—Sheet 1.

C. GOETTLER.

MACHINE FOR CUTTING CLOTH, LEATHER, AND OTHER SUBSTANCES.

No. 320,650. Patented June 23, 1885.

Fig. 1.



WITNESSES:

Chas. Nida.

C. Sedgwick

INVENTOR:

C. Goettler

BY Munn & Co.

ATTORNEYS.

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

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Fig: 2.

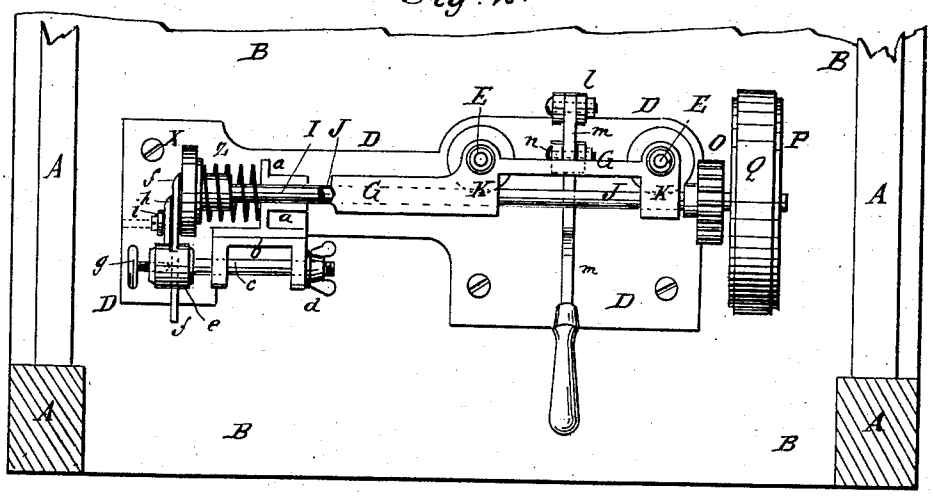


Fig: 3.

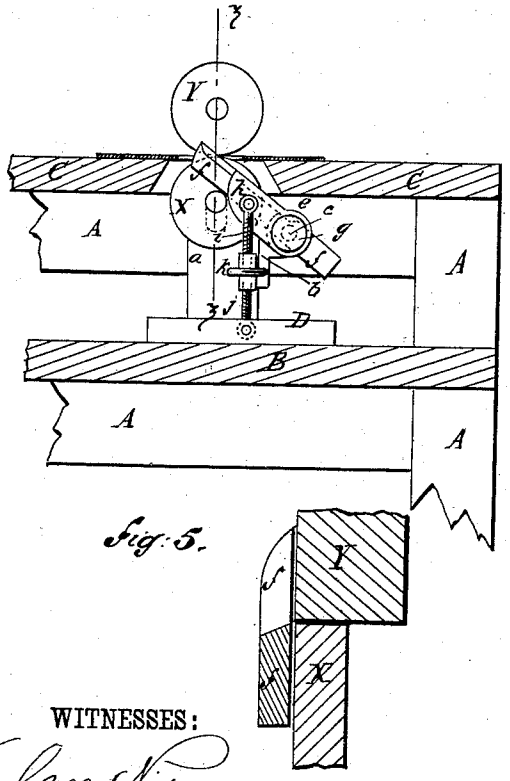


Fig: 4.

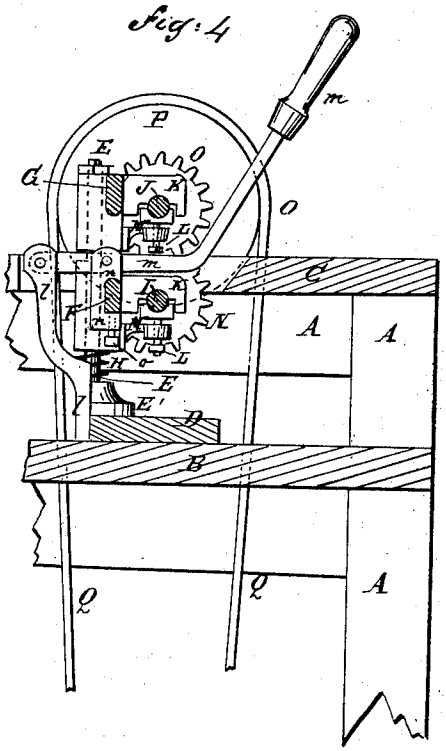


Fig: 5.

WITNESSES:

Chas. Nida.

C. Sedgwick

INVENTOR:

C. Goettler

BY Munn & Co

ATTORNEYS.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE

CHARLES GOETTLER, OF NEW YORK, N. Y.

MACHINE FOR CUTTING CLOTH, LEATHER, AND OTHER SUBSTANCES.

SPECIFICATION forming part of Letters Patent No. 320,650, dated June 23, 1885.

Application filed October 11, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES GOETTLER, of the city, county, and State of New York, have invented a new and useful Improvement in Machines for Cutting Cloth, Leather, and other Substances, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1, Sheet 1, is a side elevation of one of my improved machines, the frame and table being shown in section. Fig. 2, Sheet 2, is a plan view of the same, part being broken away and the table being shown in section. Fig. 3, Sheet 2, is a front elevation of the same, a part of the table being shown in section through the line *x x*, Fig. 1. Fig. 4, Sheet 2, is a sectional elevation of the same and a part of the table, taken through the line *y y*, Fig. 1. Fig. 5, Sheet 2, is a sectional elevation of a part of the feed-rollers and the knife, taken through the line *z z*, Fig. 3.

The object of this invention is to facilitate the cutting of cloth, leather, and other substances into strips and other shaped pieces, and promote convenience and accuracy in such cutting.

The invention consists in the construction and arrangement of parts, as will be hereinafter described and claimed.

A represents the frame of the machine, to the upper part of which are attached two tables or platforms, B C.

To the lower table, B, is attached the bed-plate D of the machine, the upper part of the said machine rising through an opening in the upper table, C.

E are two rods, upon the lower ends of which are cast, or to them are otherwise secured, feet or bases E'. The feet of the rods E are secured to the middle part and the rear end of the bed-plate D. The rods E pass through bearings formed in or attached to the ends of the bar F, and are attached to a bar, G. The bar F is held up by spiral springs H, placed upon the rods E below the said bar F.

I J are two shafts placed one above the other, and which revolve in bearings K, attached, respectively, to the bars F G. The upper parts of the bearings K are stationary and their lower parts are movable and are held up against the shafts I J by set-screws L passing through brackets M attached to the said bars, or to hangers attached to the bars, so that the wear can be readily taken up.

To the rear ends of the shafts I J are attached gear-wheels N O of equal size, and the teeth of which mesh into each other, so that the said shafts will be revolved in opposite directions and at the same speed. The journal of the upper shaft, O, projects and to it is attached a large pulley, P, around which passes a belt, Q. The belt Q also passes around a smaller pulley, R, attached to the shaft S, which revolves in bearings attached to the lower part of the frame A.

Upon the shaft S is formed, or to it is attached, a crank, T, to which is pivoted the upper end of the connecting-rod U. The lower end of the connecting-rod U is pivoted to the treadle V, which is pivoted to a shaft, W, attached to the lower part of the frame A, so that the machine can be operated by foot-power.

If desired, a pulley can be attached to the shaft S to receive a driving-belt from any convenient power.

X Y are the feed-rollers, the upper one, Y, of which is attached to the forward end of the upper shaft, J. The lower feed-roller, X, is placed upon the forward end of the lower shaft, I, and is connected with the said shaft by a tongue and groove, or other suitable means that will allow it to slide longitudinally upon the said shaft while being carried around by and with it in its revolution. The lower feed-roller, X, is held outward upon the shaft I by a spiral spring, Z, placed upon the said shaft, with its outer end resting against the end or hub of the said roller. The inner end of the spring Z rests against the bearing *a*, which is slotted vertically to receive the said shaft I, so that the shaft can have a free vertical but no lateral movement. The bearing *a* is attached to the bed-plate D, or to a support attached to the said bed-plate.

To the bearing *a* is attached a plate, *b*, having upon its ends lugs, which are perforated to receive the bolt *c*.

Upon the inner end of the bolt *c* is placed a

hand-nut, *d*, and upon its outer end is formed a cylindrical head, *e*, which has a transverse slot formed through it to receive the knife *f*.

The knife *f* is secured in place adjustably by a set-screw, *g*, which passes in through a screw-hole in the end of the head *e*, and rests against the side of the said knife *f*. With this construction the side of the knife *f* is drawn against the end of the upper roller, Y, by tightening the nut *d*, and the end of the lower roller is held against the side of the knife *f* by the spring Z, so that the material will be cut smoothly as it is drawn against the edge of the said knife by the said feed-rollers.

To the cylindrical bolt-head *e* is rigidly attached an arm, *h*, which projects along the outer side of the knife *f*.

To the outer part of the arm *h* is hinged the outer end of a right screw, *i*, and to the end of the bed-plate D is hinged the outer end of a left screw, *j*. The inner ends of the screws *i j* are inserted in a right and left nut, *k*, so that by turning the said nut in one or the other direction the arm *h* will be raised or lowered, and with it the outer end of the knife *f*, giving to the said knife a less or greater inclination, as the character of the substance to be cut may require.

The upper shaft, J, is so arranged that the lower side of the upper roller, Y, will be at or near the upper surface of the upper table, C, and the lower shaft, I, is held up by the springs H, so that the substance to be cut will be grasped between the adjacent faces of the rollers X Y, and will be carried forward by the revolution of the said rollers against the edge of the knife *f* and cut.

To a standard, *l*, attached to the bed-plate D, is pivoted the end of a lever, *m*, which is pivoted to lugs formed upon a block, *n*, secured to the bar F by a set-screw, *o*, or other suitable means.

The free end of the lever *m* projects into such a position that it can be readily grasped by the operator and operated to force down the bar F against the pressure of the springs H, withdrawing the roller Y, and instantly stopping the forward movement of the substance being cut.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

1. The combination, with the horizontal shaft J, mounted in fixed bearings and provided with the feed-roller Y, of the vertically-adjustable horizontal shaft I, provided with longitudinally-adjustable feed-roller X, means for rotating said shafts, and a knife held adjacent to the outer sides of the said rollers and at right angles to their shafts, substantially as set forth.

2. The combination, with the bed-plate D, provided with the vertical rods E E, of the upper horizontal bar, G, rigidly secured to the upper ends of the rods E, the lower horizontal bar, F, loosely mounted on the said rods below the bar G, springs H, interposed between the bar F and the bed-plate to move said bar vertically, the shafts J I, journaled in the fixed and adjustable bars, respectively, and a knife held adjacent to the outer sides of the said rollers and at right angles to the shafts thereof, substantially as set forth.

3. The combination, with the bed-plate D, the vertical rods E, the fixed bar G, shaft J, feed-roller Y, of the vertically-adjustable bar F, the shaft I, journaled therein, the box *a*, the feed-roller X, held to rotate with and slide on its shaft, the spring Z, interposed between the bearing *a* and the feed-roller, and a knife held adjacent to the outer sides of the rollers and at right angles to their shafts, substantially as set forth.

4. The combination, with the horizontal shafts I J and the feed-rollers X Y, of the bolt *c* in the plane of the said shafts, and provided with an adjusting nut, *d*, a head, *e*, a slot therein at right angles to the bolt, the knife passed through said slot, and the screw *g*, for securing the knife in position, substantially as set forth.

5. In a machine for cutting cloth, leather, and other substances, the combination, with the cylindrical bolt-head *e*, carrying the knife *f*, and the bed-plate D, of the right and left screws *i j*, and the right and left nut *k*, substantially as herein shown and described, whereby the knife can be readily regulated, as set forth.

6. The combination, with the horizontal shafts, the feed-rollers thereon, of a longitudinally-adjustable knife, and pivoted or rocking bearing therefor, and a screw or analogous device for operating said bearing, whereby a double adjustment is afforded the knife, as described.

7. The combination, with the bed-plate, the vertical rods E, and bracket *l* thereon, of the fixed and vertically-movable bars G F, the horizontal shafts J I, and their feed-rollers Y X, the springs H H, the lever *m*, pivoted to the bracket *l*, and also connected with the vertically-movable bar F for depressing said bar and its shaft, and the knife, substantially as set forth.

8. The combination, with shafts J I, having the rollers Y X, of the horizontal bars G F, provided with the bearings K therefor, open at their under sides, the brackets M, projecting from the bars G F, parallel with the bearings K, and set screws L, extending up through said brackets, the lower movable parts of the bearings interposed between the shafts and the set-screws, as described, and a knife or cutter, substantially as set forth.

CHARLES GOETTLER.

Witnesses:
JAMES T. GRAHAM,
C. SEDGWICK.