

(Model.)

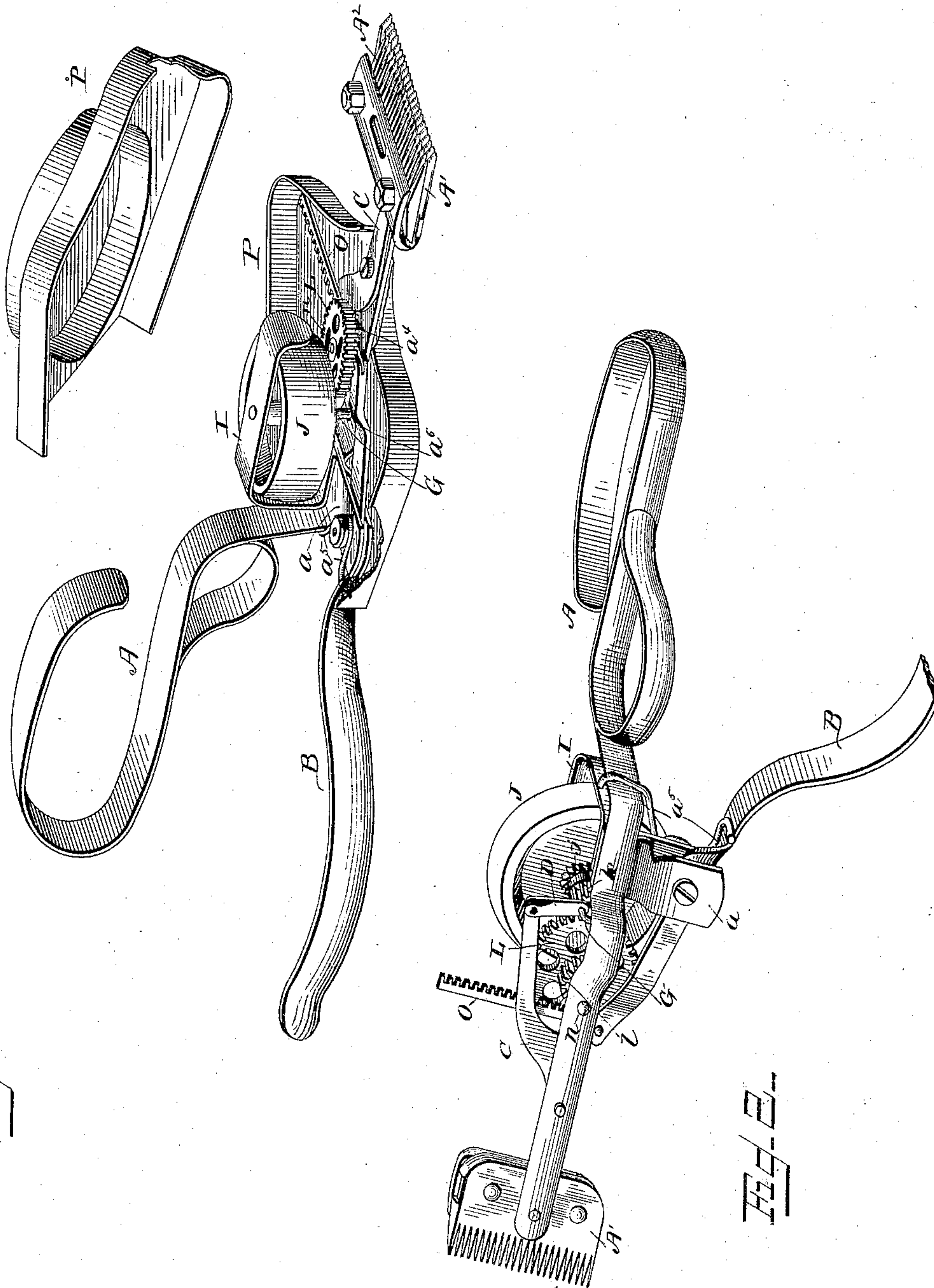
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W. W. MYERS

HAIR CLIPPING MACHINE.

No. 324,781.

Patented Aug. 18, 1885.



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WITNESSES
F. L. Curand
Arthur L. Morrell.

William W. Myers,
INVENTOR

By Louis Bagger & Co.
Attorneys.

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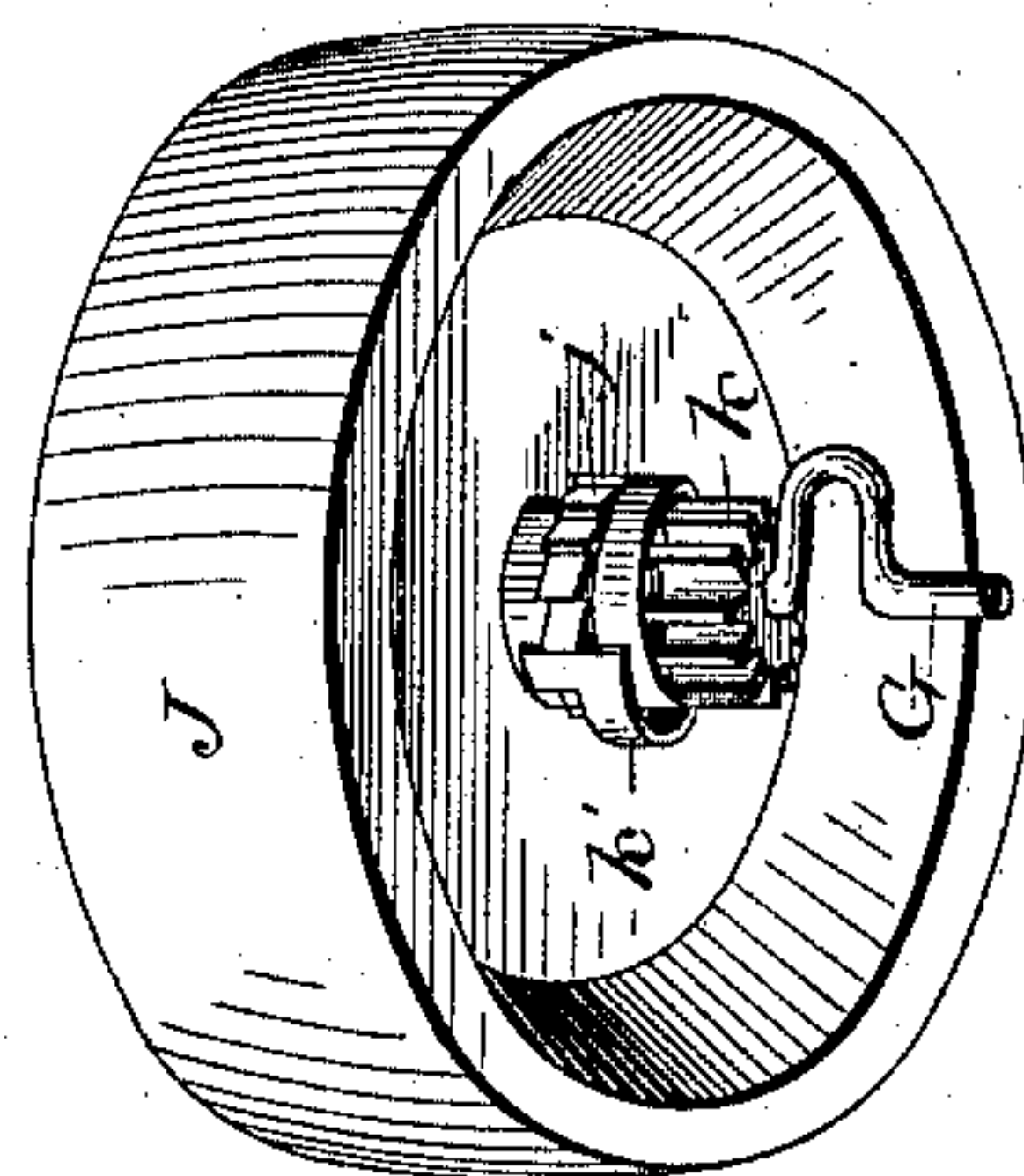
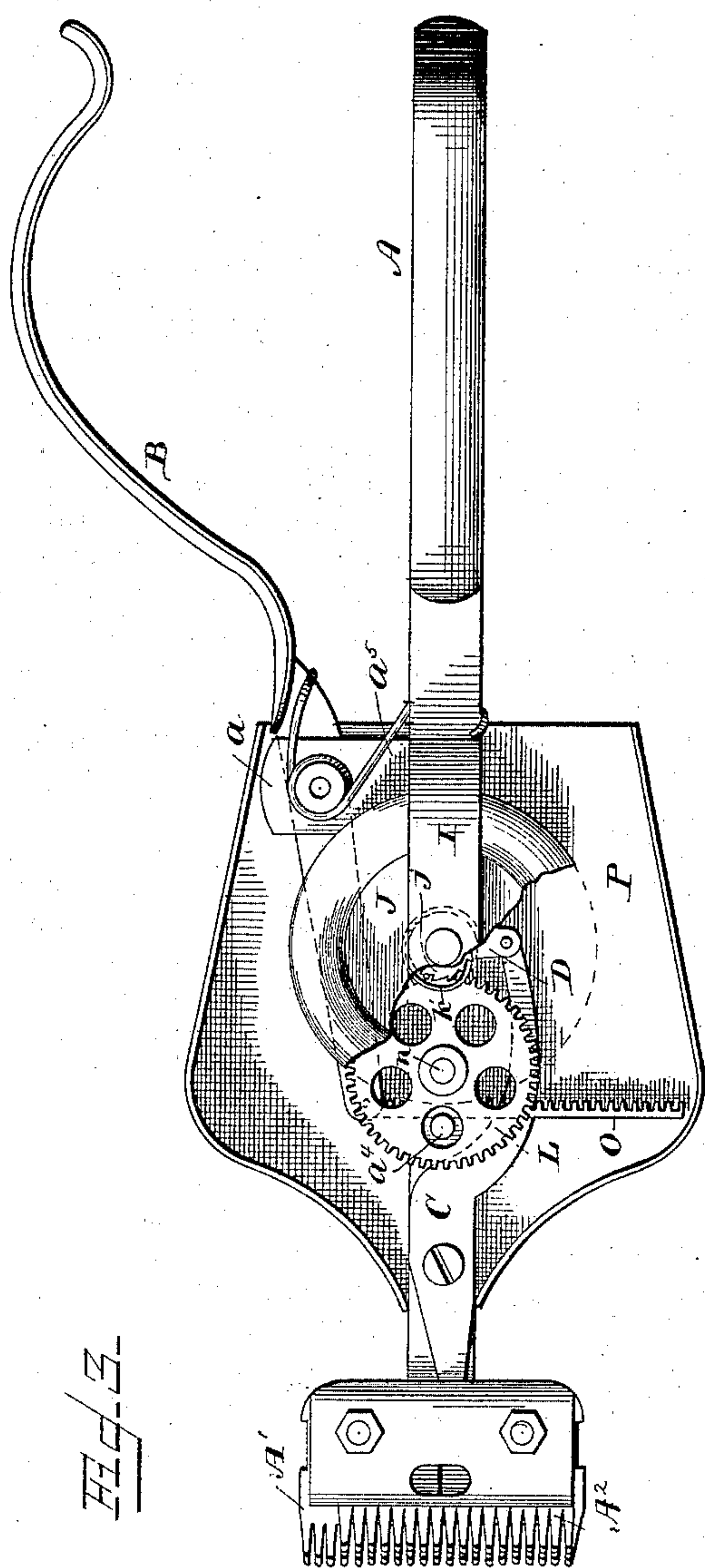


Fig. 3.

Fig. 4.

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F. L. Ourand
Arthur L. Morrell

William W. Myers,
INVENTOR
By Louis Bagger & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM W. MYERS, OF PORTLAND, MICHIGAN.

HAIR-CLIPPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 324,781, dated August 18, 1885.

Application filed May 12, 1885. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM W. MYERS, a citizen of the United States, and a resident of Portland, in the county of Ionia and State of Michigan, have invented certain new and useful Improvements in Hair-Clipping Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to that class of clippers which are adapted for use in clipping the hair or wool from animals, or for tonsorial purposes; and it has for its object the attainment of increased speed and efficiency, whereby more wool or hair may be cut from the animal in a given time and in a better manner without lacerating the animal.

To this end my invention consists in the construction of a clipper comprising a stationary handle carrying at its forward end the fixed toothed blade or section, the pivoted operating-handle, the pivoted arm carrying at its forward end the movable toothed blade or sickle, and the intervening mechanism through which the said pivoted handle operates the movable sickle, as will be hereinafter fully described, and pointed out in the claims.

Referring to the annexed drawings, Figure 1 is a perspective view of my improved mechanical clipper, showing the upper portion of the box or receptacle which incloses the operating mechanism removed. Fig. 2 is a perspective view of the clipper, taken from the under side thereof. Fig. 3 is a top plan view of the clipper with part of the balance-wheel broken away, and Fig. 4 is a perspective detail view of the balance-wheel and the crank-shaft upon which the said wheel is supported.

The same letters of reference indicate corresponding parts in all the figures.

Referring to the several parts by letter, A represents the stationary handle of the clipper, which constitutes the main frame of the machine, being curved at its rear end, as shown, for convenience in grasping the clipper with one hand and controlling the same,

and is provided at its forward end with the immovable toothed blade or section A'. An arm, a, projects at right angles from the middle portion of the said handle, and has pivotally secured between its free bifurcated end and the movable handle B.

C indicates the pivoted arm, which carries at its forward end the movable toothed blade or sickle A', which operates in conjunction with the fixed section A' to cut the wool or hair from the animal, the arm C being pivotally secured at about its center upon the forward part of the stationary handle A. The rear end of this arm (which curves somewhat to one side of the main handle) is pivotally connected by a pitman, D, to a crank-shaft, G, the lower end of which turns in a suitable recess, a', in the stationary handle, while its upper end is supported by the curved bearing I, secured at its lower end upon the stationary handle. Upon this crank-shaft G is secured a balance-wheel, J, of sufficient weight, and of a diameter sufficient to extend above and shield the more delicate portions of the operating mechanism. Upon the face of the lower hub of this balance-wheel is immovably and concentrically secured a toothed wheel, j, the teeth of which incline in the reverse direction to that in which the wheel itself rotates, while immediately below the balance-wheel is loosely journaled upon the crank-shaft the pinion k, having the spring-detent k', of the form shown in the detail view, Fig. 4 of the drawings, the operation of which will be hereinafter fully described.

A gear-wheel, L, having a pinion, l, secured concentrically upon its lower face, turns on a pivot, n, on the stationary handle, and is adapted to mesh with the loosely-journaled pinion k on the crank-shaft.

A toothed rack, O, is pivoted at one end between the bifurcated forward end of the operating-handle B, and works across the stationary handle A, to mesh with the pinion l on the gear-wheel L, being held in operative position during its movements across the stationary handle A by a pin, a', on the handle A. A suitable spring, a'', serves to throw back the free end of the pivoted handle into its open position when the operator releases the pressure of his hand from the same.

It will be seen that by pressing upon the free end of the pivoted handle B with the fingers of the hand which holds the stationary handle of the clipper the toothed rack O will be caused to pass across the handle A, thereby rotating the pinion *l*, with which it meshes, and causing the gear-wheel L to rotate. This gear-wheel in turn rotates the pinion *k*, loosely journaled on the crank-shaft, and as the free end of the handle B is forced in toward the stationary handle the said pinion will, through the intervening mechanism just described, be caused to rotate in the direction indicated by the arrow on the balance-wheel, Fig. 3, the free end of the spring-detent *k'* engaging with the straight side of one of the teeth of the wheel *j*, thereby revolving the balance-wheel in the same direction, as indicated by the arrow, the balance-wheel turning the crank-shaft G, upon which it is secured, and thereby, through the pitman D, operating the pivoted arm C, which in turn reciprocates the sickle or toothed blade A². When the spring *a*⁵ forces the free end of the handle B out at the close of its inward movement, the loosely-journaled pinion *k* is, through the mechanism just described, rotated in a reverse direction; but the free end of the spring-detent *k'* now slips over the inclined sides of the teeth on the wheel *j*, so as not to interfere with the motion of the balance-wheel, the weight of the said wheel causing it to continue its revolutions in the direction indicated by the arrow until the next inward movement of the free end of the handle B imparts to it additional momentum, so that the movable toothed blade A² is continuously vibrated.

It will also be seen that the pinion *l* is much less in diameter than the gear-wheel L, which it operates, which in turn is much greater in diameter than the pinion *k*, so that the blade A² will, through the intervening mechanism heretofore described, be reciprocated a number of times for each movement of the pivoted handle B.

The operative mechanism of the clipper is inclosed in the box or casing P, which serves to protect the mechanism from injury and keep it free from dirt and dust, while the blades A' and A² are made of such a size as to adapt them to the several uses for which the machine is designed.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of my im-

proved clipper will be readily understood. It will be seen that among its advantages are, a decided increase in speed and efficiency, and by its use a greater quantity of wool may be secured from the sheep in better condition (no double clippings being necessary) and in a much less time than is now required, without any danger of lacerating the animal.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a clipping apparatus, the combination of the stationary handle having the fixed cutter at its forward end, the crank-shaft having the balance-wheel, the pivoted arm carrying the movable cutter at its forward end, the pitman, the pivoted operating-handle, and intervening mechanism arranged to rotate the crank-shaft through the movement of the operating-handle, substantially as set forth.

2. In a clipping apparatus, the combination of the stationary handle having the fixed cutter at its forward end, the pivoted arm carrying the movable cutter at its forward end, the crank-shaft provided with the balance-wheel having the toothed wheel secured concentrically upon its lower hub, the pinion loosely journaled on the crank-shaft and provided with the spring-detent, the gear-wheel having the pinion secured concentrically upon it, and the pivoted operating-handle having the pivoted rack-bar, all constructed and arranged to operate substantially in the manner and for the purpose shown and set forth.

3. In a clipping apparatus, the combination of the stationary handle having the fixed cutter at its forward end, the pivoted arm carrying the movable cutter at its forward end, the crank-shaft provided with the balance-wheel having the toothed wheel secured concentrically upon its lower hub, the pinion loosely journaled on the crank-shaft and provided with the spring-detent, the gear-wheel having the pinion secured concentrically upon it, the pivoted operating-handle having the pivoted rack-bar, and the spring, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

WILLIAM W. MYERS.

Witnesses:

ELBERT A. REYNOLDS,
FRANK W. SUNMORE.