(No Model.)

T. LAMB.

SEWING MACHINE.

No. 335,365. Patented Feb. 2, 1886.

Fig. 1.

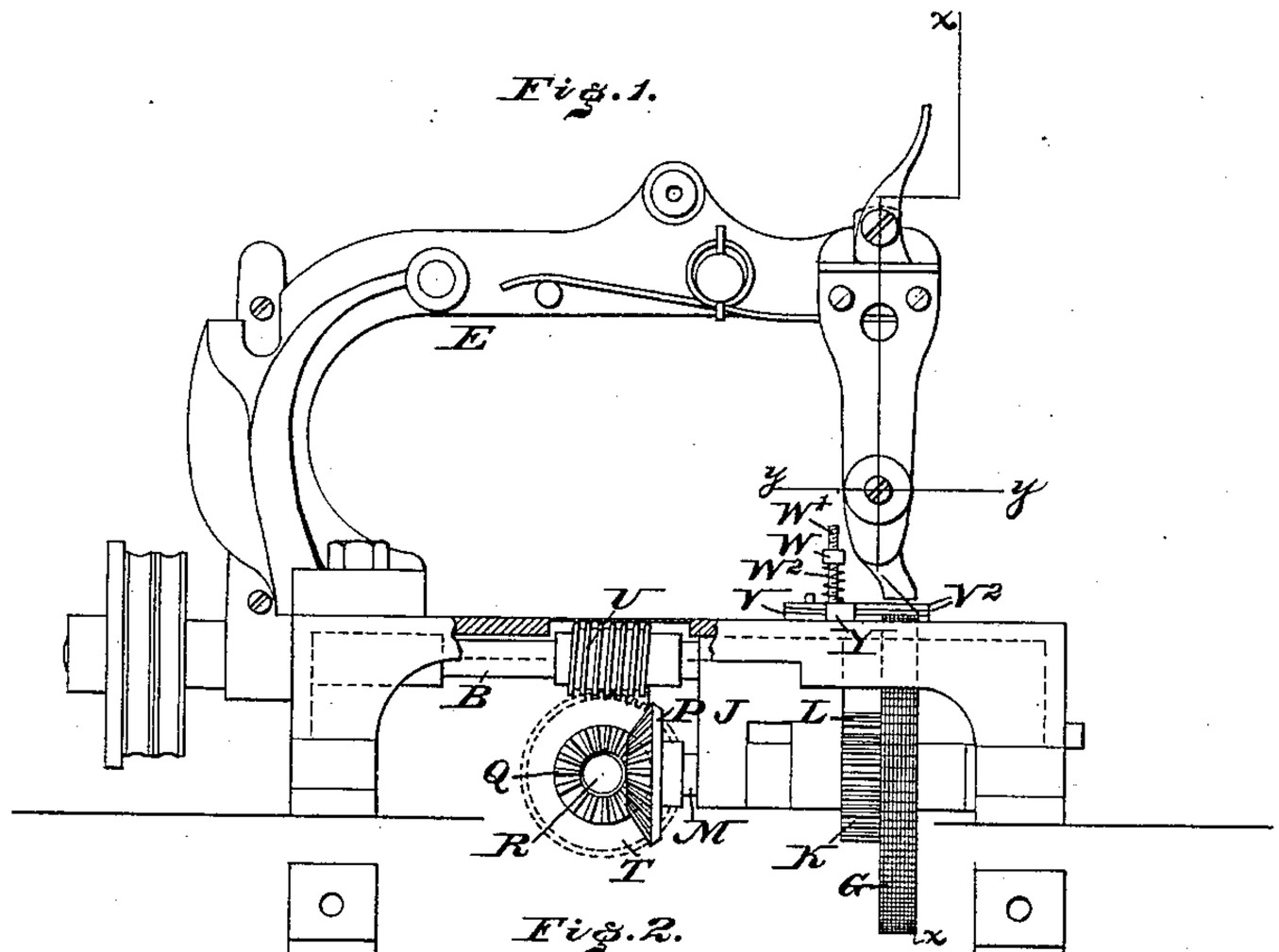


Fig. 2.

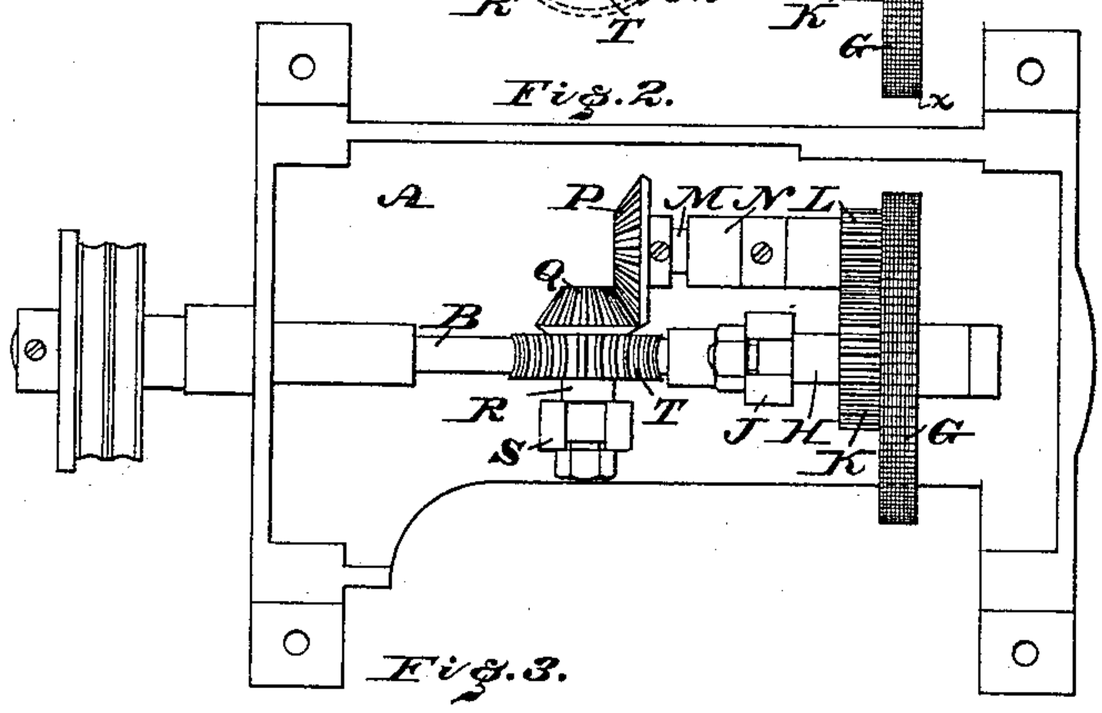
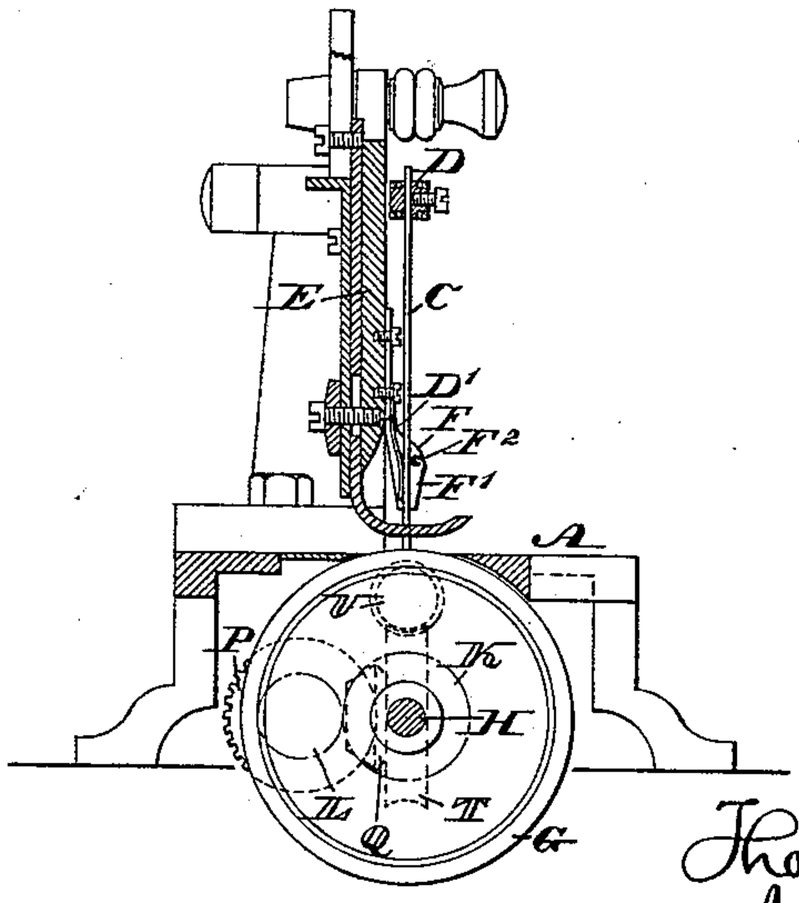


Fig. 3.



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THOMAS LAMB, OF PHILADELPHIA, PENNSYLVANIA.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 335,365, dated February 2, 1886.

Application filed September 3, 1885. Serial No. 176,044. (No model.)

To all whom it may concern:

Be it known that I, THOMAS LAMB, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Sewing-Machines, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 represents a side elevation of a sewing-machine embodying my invention. Fig. 2 represents a bottom plan view thereof. Fig. 3 represents a vertical section in line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a sewing-machine having a continuous feed, so that the feeding is constant, the needle being adapted to yield as it is carried along by the fabric or material, the motion of the latter thus being uninterrupted.

It also consists of a novel guide between which pieces of fabric or material to be sewed are passed and directed closely to the needle, and curling of the same is taken out or prevented.

Referring to the drawings, A represents the cloth-plate of a sewing-machine, and B the driving-shaft; C, the needle; D, the vibrating needle-arm, and E the goose-neck or support of said arm. The needle is lengthened and connected at its upper end with the arm D, which feature is not new at this time, said needle passing through a guide, F, which is secured to the lower end of the front portion of the support E, and has its slot or opening F′ lengthened in the direction of the proposed path of travel of the fabric while being sewed, so that the needle may yield or play in said direction.

G represents a feed-wheel, whose shaft H is mounted on a hanger, J, said shaft also carrying a pinion, K, with which meshes a pinion, L, whose shaft M is mounted on a hanger, N, and has secured to it a bevel-wheel, P, with which meshes a bevel-wheel, Q, the latter being secured to a shaft, R, which is mounted on a hanger, S. The hangers J N S are cast with or secured to the cloth-plate, the hangers J S being slotted to receive the respective shafts, whereby the latter with their connected parts may be adjusted or removed as desired.

To the shaft R is secured a worm-wheel, T, which engages with a worm, U, on the driving-shaft B. It will be seen that when power is communicated to the shaft B the gearing hereinbefore mentioned is rotated and the feed-wheel G is operated, the rotation of said wheel being continuous, thus causing a continuous advance of the fabric or material to be sewed to the needle. It is evident that owing to the continuous motion of the fabric the needle is carried along with the same from the instant it pierces the fabric until it leaves the same. This is permitted by the slot or opening F′, which, being extended in the direction of the cloth while being sewed, admits of the play of the needle, it being noticed that while the needle is held sufficiently firm at its upper end the lower portion has a slight play in the direction of the extension of the slot *f*, so as to be permitted to yield as it is pressed forward by the fabric or material into which it is inserted. When the needle emerges from the fabric or material, it is returned by a spring, D′, to its normal position, the limit thereof being a stop, F^2, in the slot of the guide F, the same consisting in the present case of a pin or bar secured to the guide and projecting into or across the slot thereof.

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

1. A sewing-machine having the driving-shaft B, with worm-gearing U thereon, a counter shaft, R, having a worm-wheel, T, meshing with said worm U, and a bevel-wheel, Q, meshing with the bevel-wheel P, mounted on a shaft, M, which shaft has a pinion, L, the shaft H having pinion K and feed-wheel G, the said pinion K meshing with said pinion L, all of said parts operating so as to impart a continuous rotary motion to said wheel G, substantially as described.

2. The feed-wheel G and means, substantially as described, for imparting a continuous rotary motion thereto, in combination with guide F, having the slot F′ and a yielding needle, substantially as described.

3. A sewing-machine having a feed-wheel,

with means, substantially as described, for imparting a continuous rotary motion thereto, a yielding needle and a spring adapted to control said needle in one direction, substantially as and for the purpose set forth.

4. A yielding needle, C, in combination with the guide F, having slot F′, spring D′, and wheel G, having means, substantially as described, for imparting a continuous rotary motion thereto, substantially as described.

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Witnesses:
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