

E. A. GOODES.

Improvement in Toy Sewing Machines.

No. 124,808.

Patented March 19, 1872.

Fig. 1.

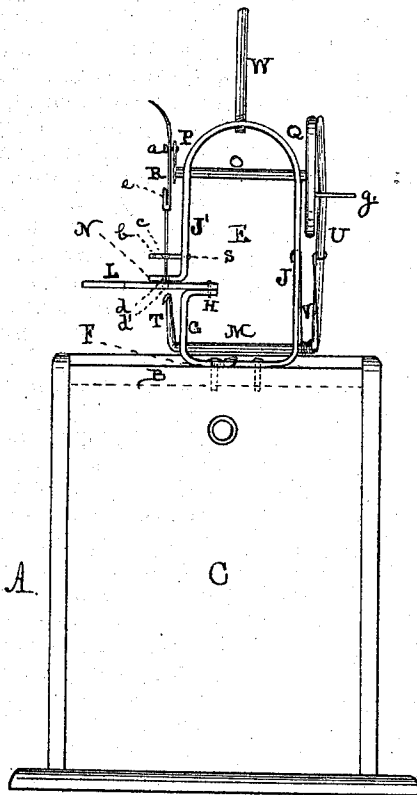


Fig. 2.

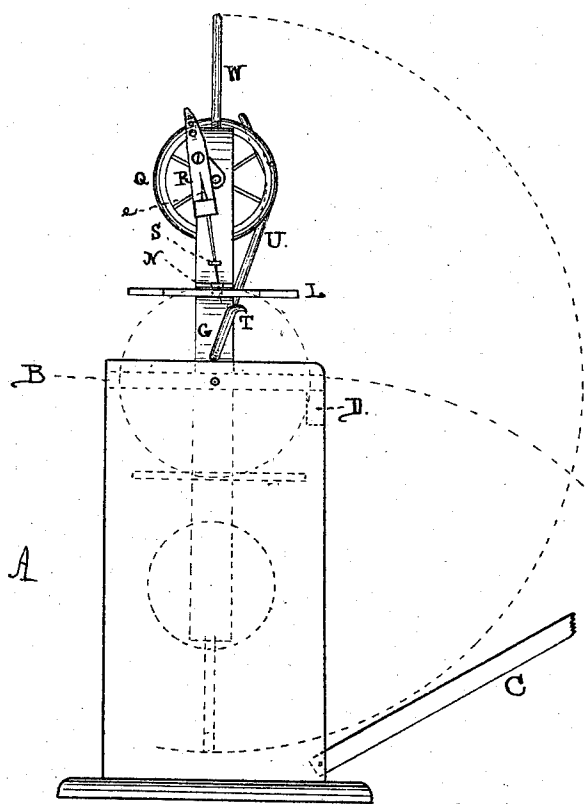


Fig. 3.



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# UNITED STATES PATENT OFFICE.

EBENEZER A. GOODES, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN TOY SEWING-MACHINES.

Specification forming part of Letters Patent No. 124,808, dated March 19, 1872.

*To all whom it may concern:*

Be it known that I, EBENEZER A. GOODES, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Toy Sewing-Machine; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand and use the same, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a front view of the device illustrating my invention. Fig. 2 is an end view thereof. Fig. 3 is a detached view.

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

This invention relates to a sewing-machine, which I denominate a toy sewing-machine; and consists in the combination of the frame, work-plate, presser-foot, looper, and the operating parts. It also consists in combining with the above a case for supporting the said machine and receiving it when not in use.

Referring to the drawing, A represents a case which is adapted to support the toy sewing-machine. The latter rests on the top piece B, which is hinged to the side or end pieces of the case. One of the latter pieces is also hinged to the relative adjacent portions of the case and forms a lid or door, C, so that the interior of the case is accessible. It is evident that if the door C is opened, the top B may be rotated, and thus bring the machine within the case where it will be readily protected, and convenient means of carrying or transportation of the toy are afforded. On the door C will be formed a cleat, D, which will firmly hold the top B, whether the machine is outside or inside of the case A, and a hook may be provided to prevent accidental displacement of the top and door. E represents the frame of the toy-machine. It consists of the parts F, G, H, J, J', and N, continuous of each other. The part F is horizontal, and bears the machine. The part G is bent vertically from part F, and the part H is at right angles with part G. The part H supports the work-plate L to which it is secured. The part J extends vertically at right angles with the part F, and in conjunction with the part G forms bearings

for a rod, M. The upper portion of part J is turned horizontally, and the frame continued as at J', downwardly, parallel with the part J, to the work-plate L, where it is again turned at an angle to constitute a presser-foot, N. The elastic nature of the frame permits the rising and causes the return of the said foot, as necessary for introducing, holding, and withdrawing the article to be sewed. By this construction I obviate the necessity of a jointed or sliding presser-foot. The parts J J' form the bearings for the driving-shaft O, one end of which carries a crank, P, and the other end a hand driving-wheel or crank, Q. To the crank P is jointed, as at *a*, a piece, R, forming the needle-bar and tension-regulator, which has a series of perforations, through which the thread is passed for producing the proper tension. Said piece is also curved outwardly, so that the thread will clear the joint at *a*. Attached to the frame E, just above the presser-foot, is a piece, S, which is perforated at *b c*. One of the perforations, *b*, is for the passage of the thread, and the other, *c*, acts as a guide and center for the oscillating needle-movement, to accommodate which the opening *c* is counter-sunk from the upper to its lower surface. A slot, *d*, is formed in the presser-foot, and a corresponding slot, *d'*, in the work-plate L, through which plays the needle while forming the stitch and feeding the material. The needle is secured in position by the following means: A groove, *e*, is formed for some distance along the middle of the bar R, from the bottom end thereof, and just above the end is made in said groove an opening, *f*, which passes through the bar. The bar is now bent across the opening and the lower end or limb turned upward. The needle is then inserted in the opening, and by pressing the bent parts firmly together the needle is securely held in place, its upper end resting in the groove *e*. The looping mechanism is formed by means of one end of the rod M, which is bent upward toward the work-plate and its extreme end turned to form a hook, T. The other end, U, of said rod is likewise turned up, and formed into such shape and located that it will time the looper with the movements of the needle. V represents a spring, which is attached to the looper-bar for causing the end U to press against

the handle *g* of the driving-wheel or crank *Q*. The thread-spool will be supported by a rod, *W*, attached to the frame *E*.

The machine being properly threaded, and the article to be sewed placed in position on the work-table or plate by raising the presser-foot and inserting said article thereunder, motion is then to be imparted by turning the hand-wheel or crank *Q*. The rotary movement of the latter causes the needle to descend and thus pierce the article or material to be sewed, and also through the medium of the needle-guide, causes the needle to feed the article forward the length of a stitch, while the handle *g* of the crank or wheel *Q*, pressing against the portion *U* of the looper-bar, forces the looper back beyond the needle, so that when the needle commences its upward movement and throws out a loop of thread, the looper moves forward and passes through the loop thus formed, and being set at an angle required for that purpose, it carries the loop directly across the slot in the work-plate, so that when the needle again passes down through said slot it will invariably pass through the loop, the shape of the arm *U* of the looper causing

the loop to be held stationary until the needle passes through the loop, when the looper moves back, casting off the loop and is in readiness for the next loop from the needle, the various movements being repeated in succession, forming the ordinary "chain-stitch."

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

1. A sewing-machine, consisting of the frame *E F G J J'*, work-plate *L*, presser-foot *N*, looper *T M U*, spring *V*, hand-wheel *Q g*, rod *O*, the needle, and the needle-bar *R*, constructed and operating substantially as and for the purpose described.

2. The combination with the above of a case, *A*, having a hinged top, *B*, which supports the machine, and a lid, *C*, whereby the machine may be inclosed in the case, in the manner described.

The above signed by me this 22d day of November, 1871.

E. A. GOODES.

Witnesses:

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ALFRED C. SAVIDGE.