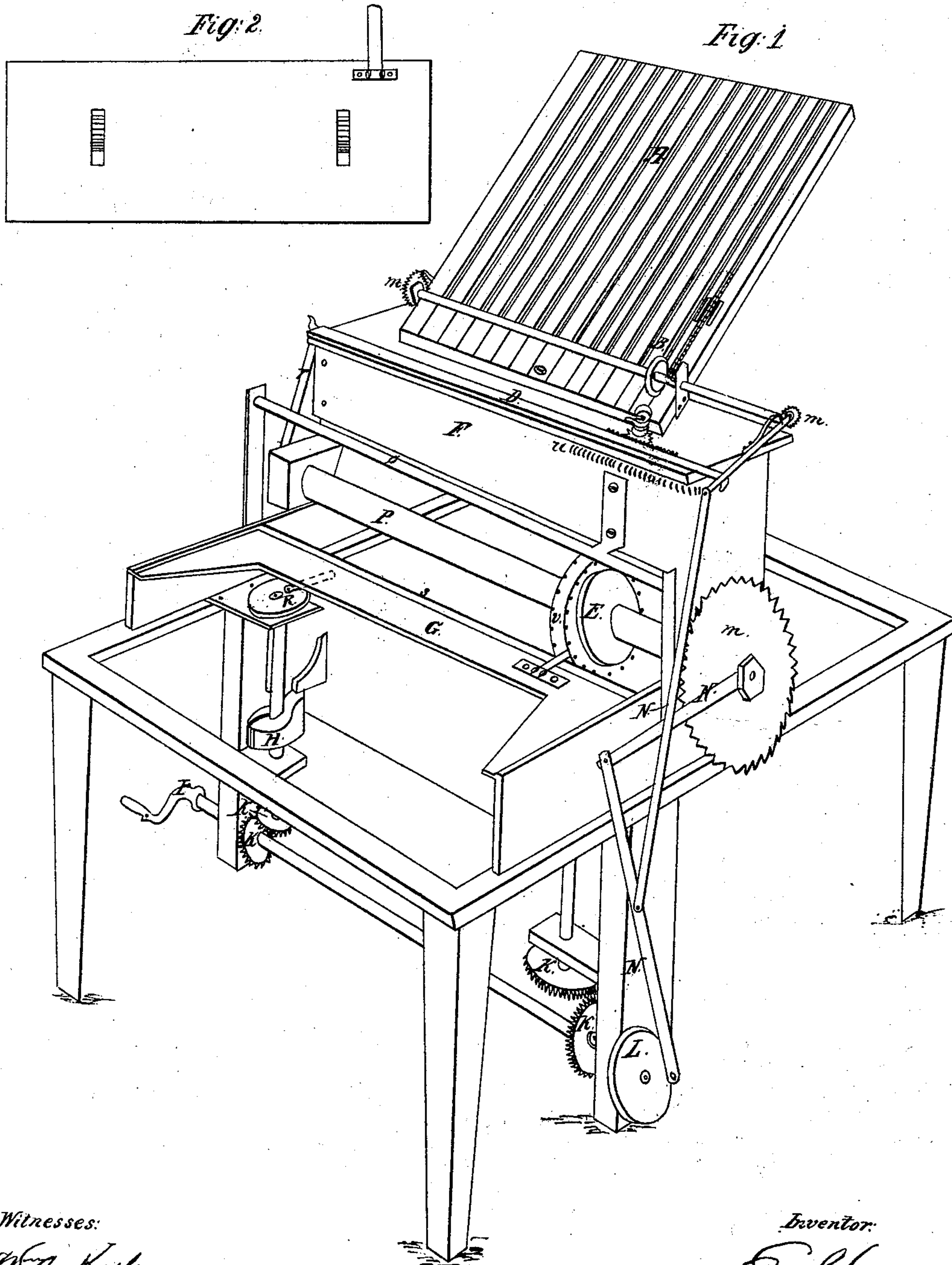


E. S. WOODFORD.
MACHINE FOR SEWING PINS UPON PAPER OR ANY OTHER MATERIAL.
No. 15,404. Patented July 22, 1856.



Witnesses:

M. A. Kiehl
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Inventor:

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UNITED STATES PATENT OFFICE.

E. S. WOODFORD, OF WINCHESTER, CONNECTICUT, ASSIGNOR TO JAMES
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MACHINE FOR SEWING PINS UPON PAPER OR ANY OTHER MATERIAL.

Specification forming part of Letters Patent No. 15,404, dated July 22, 1856.

To all whom it may concern:

Be it known that I, E. S. WOODFORD, of Winchester, in the county of Litchfield and State of Connecticut, have invented a new and useful Machine for Sewing Pins upon Paper or upon any other Material; and I do hereby declare that the following is a full and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the machine. Fig. 2 is a sectional view of the sliding plate, to which the perpendicular needles are attached that form the loop.

Letter A is a series of conductors. Letter B is the elastic separator. C is a turn-table. D is the ratchet-plate. E is the wheels with notches. F is the perpendicular conductors. G is the sliding plate, to which is attached the horizontal needles. H is a cam. I is a crank. K are cog-wheels. L is an eccentric. M are ratchet-wheels. N are levers. O is a roller. P is a shaft. R is a cam. S is a bar. T is a lever. *u* is a spiral spring. *v* is a shoe.

The pins are placed in a hopper attached to the upper end of the conductors A, and by a jarring motion a constant supply is shaken out upon the conductor. The body of the pin drops through the slot in the conductor and is suspended by the head. A column of pins in the conductor is thus pressing against the separator B, which is turned by lever N sufficient to let one pin at a time pass under it as often as is required, dropping down the conductor into the turn-table C. The point of the pin as it falls from the separator B strikes a bar, throwing the head over, laying it horizontally in turn-table C. The ratchet-bar S is now moved by lever T, carrying turn-table C around sufficiently to allow the pin (lying in the slot in said turn-table) to drop into the perpendicular

lar conductor F, on the top of which said turn-table C revolves. The pin now passes down the conductor F onto the periphery of wheels E. As wheels E are turned by eccentric L and lever N, the pins drop into the notches in the periphery of the wheels, and are brought down in front of the needles, to be sewed upon the paper. The paper is upon roller O, and passes down in front of wheels E, bar S pressing it against said wheels, folding the pins in the notches after they pass below shoe *v*. The sliding plate G, (and No. 2,) to which are attached the horizontal and perpendicular needles, is now driven forward and upward, sewing the pin fast to the paper, being still in the notches of the wheels. The feed motion is given to the paper by the partial revolution of wheels E, the pin last sewed being held in the periphery of said wheels by bar S, the wheels E receiving a constant supply of pins from conductors F, (as they revolve under them,) bringing them down against the paper to be sewed. The whole machine is operated by turning crank I.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The roller or separator (marked B) made of india-rubber or other elastic substance, also the turn-table (marked C) for receiving and changing the pins from one place or position to another, or their mechanical equivalents.

2. The combination of one or a series of conductors for supplying pins in any desirable position, and a sewing machine of any suitable adaptability for sewing pins upon paper or any other material; but I do not make any claim to either of these elements of the combination by itself.

E. S. WOODFORD.

Witnesses:

S. W. COX,
L. B. WHEELLOCK.