R. JONES.

SEWING-MACHINE.

No. 186,936. Patented Feb. 6, 1877.

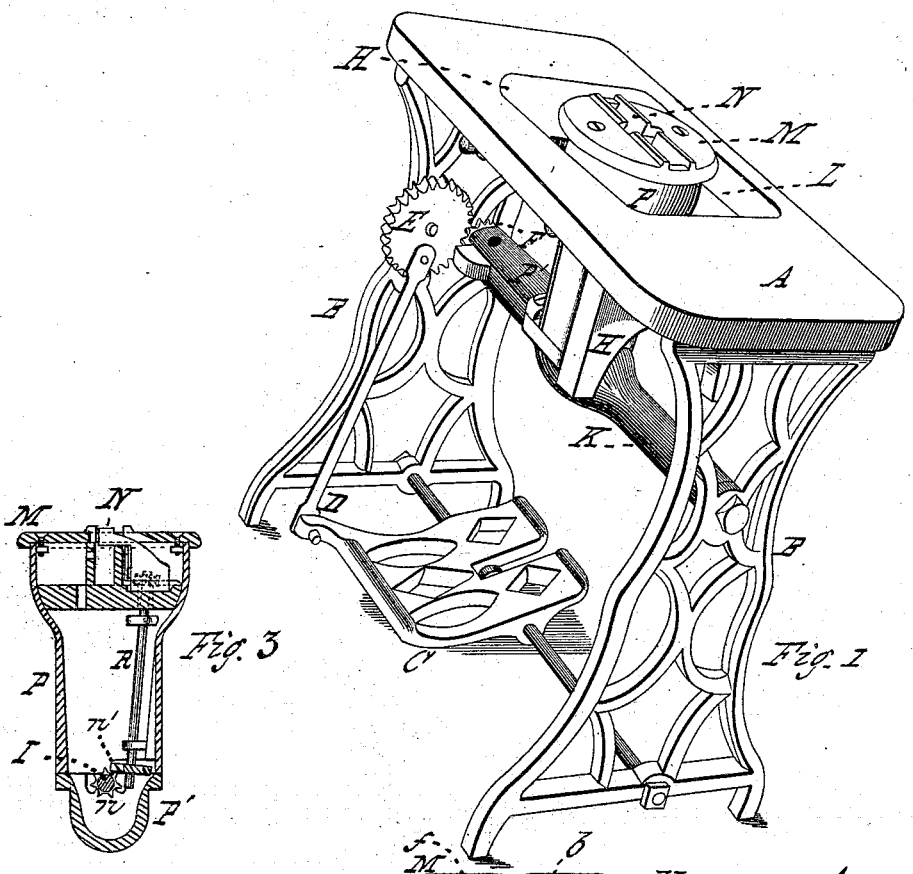

Fig. 1

Fig. 3

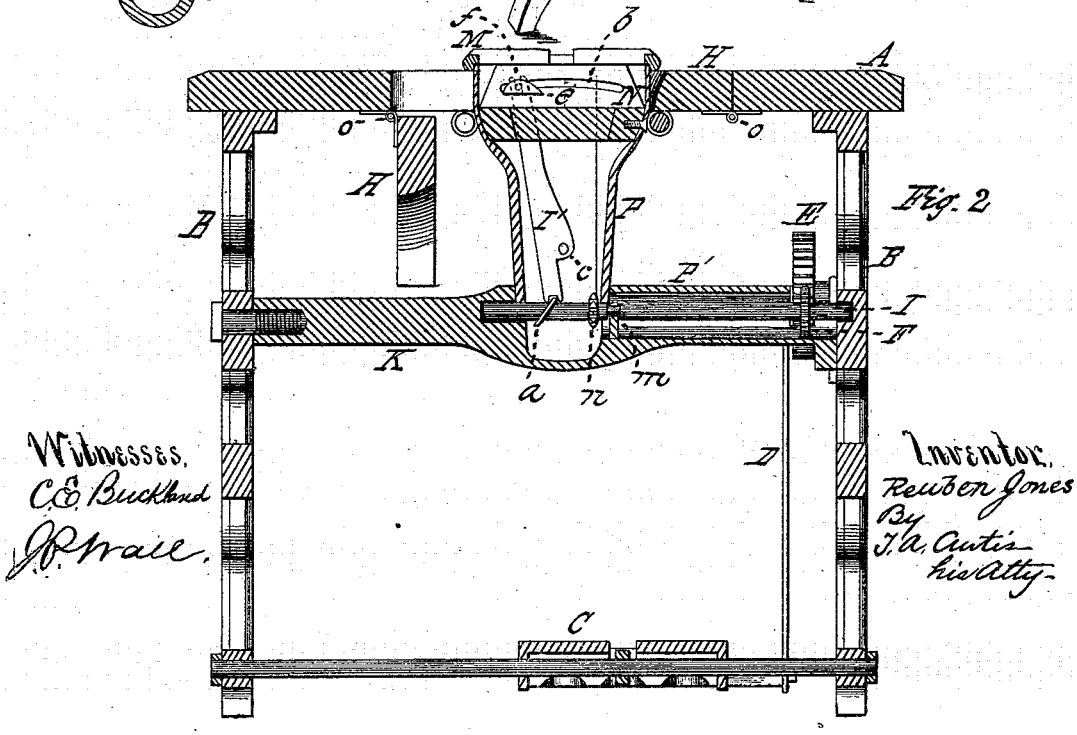

Fig. 2

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UNITED STATES PATENT OFFICE.

REUBEN JONES, OF WILBRAHAM, MASSACHUSETTS.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **186,936**, dated February 6, 1877; application filed August 25, 1874.

To all whom it may concern:

Be it known that I, REUBEN JONES, of Wilbraham, in the State of Massachusetts, have invented a new and useful Improvement in Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a perspective view of a machine made according to my invention. Fig. 2 is a vertical longitudinal section of the machine through the shuttle-race; and Fig. 3 is a transverse vertical section of the shuttle and feed-holding casing.

My invention has for its object a sewing-machine upon which repairs and other sewing upon tubular work may be done with greater facility than can be done upon the machines now in use; and to this end my invention consists of a machine provided with a brace extending from the leg at one end to that at the other, a part of said brace being provided with bearings in which rotates a driving-shaft, and which brace supports a hollow casing or stand, arranged to contain suitable mechanism for actuating the shuttle and feed; and it also consists of a work-table, having a hole therein, around the vertical casing, into which leaves are fitted and hinged, so that the vertical casing may be used to place work thereon, independent of the work table, or in combination with it, as hereinafter described.

In the drawings, A represents the wooden work-table, supported upon the ordinary legs B, and having a strong brace, K, extending from one leg to the other, and secured firmly thereto beneath the table. This brace is provided with a bearing at *m*, in which one end of the driving-shaft I may rotate, the other end rotating in a bearing in the leg B; and upon this shaft is a small gear-wheel, F, engaging with the toothed driving-wheel E, arranged upon a stud projecting from the inside of the leg B; and the wheel E is operated by a pitman connected with the treadle. The cloth-plate M is upon about the same horizontal plane as the top of the table, is of circular form, and is supported upon a circular vertical hollow casing, P, which is arranged to contain the mechanism to actuate the shuttle and feed; and this mechanism may be arranged as follows: N represents the shuttle-race, which is just beneath the cloth plate, and a slot, *b*, is made in one side of the race, through which is inserted a pin secured to the shuttle. This pin *f*, which moves the shuttle *e*, also engages with the upper end of the driving-lever I′, pivoted at *c*, the lower end of said lever engaging with, and operated by, a cam, *a*, upon the driving-shaft I, so that when the shaft is rotated, the driving-lever I′ is moved rapidly to and fro, and moving the shuttle *e*. Upon the shaft I is secured a spur-wheel, *n*, which engages with a similar wheel, *n′*, upon the lower end of the vertical shaft R, which, being connected with suitable mechanism at the upper end, operates the feed-bar, although it may be operated by a piece or a cam attached to the upper end of the driving-lever I′. The shaft I, cam *a*, driving-lever I′, spur-wheel *n*, vertical shaft R, are entirely covered and inclosed within the casings P and P′, which protects their working bearings from the accumulation of dust and dirt, and prevents soiling the clothes of the operator.

This particular arrangement of mechanism for driving the shuttle and feed I do not claim, however, as it is not an essential feature of my invention, and many other modifications and arrangements of driving mechanism may be used in the same casings P and P′, if desired. For this reason the details of construction of the shuttle, feed, needle-arm, and their connections with the lever I′ and shaft R are not shown, but will readily suggest themselves to any competent mechanic skilled in the art.

The table A of the machine has an opening, L, entirely around the cloth-plate M and its support P, and two leaves or doors, H, are fitted therein, and hinged at *o*, one on each side the cloth-plate, so that when these leaves are fastened up, the upper part of the cloth-plate and table form nearly an unbroken surface; but if it is desired to sew upon tubular work, such as the sleeve of a coat, or the leg of pants, in making repairs, the leaves H are let down, and an opening is thereby made in the table all around the cloth-plate, leaving

the latter substantially a horizontal plate upon the upper end of a cylinder placed in a vertical position.

By this construction and arrangement of the table, all the ordinary repairs of most of the common articles of wearing apparel may be made upon the machine with the facility and ease which hitherto has not been possible with the ordinary machines in use.

Having described my invention, what I claim as new is—

1. The hollow vertical casing P, arranged to contain the shuttle and feed mechanism, in combination with the cloth-plate M, and the brace K to support said casing, substantially as described.

2. The hollow casing P, in combination with the brace K, and the table A, having the swinging leaves H, whereby an opening may be left in the said table all around the said casing, and the latter be used independently of the table, and whereby said table may be made continuous with the cloth-plate on top of said casing as a support for work, substantially as described.

REUBEN JONES.

Witnesses:
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