H. A. MANLEY.

Treadles.

No. 153,359. Patented July 21, 1874.

Fig. 1.

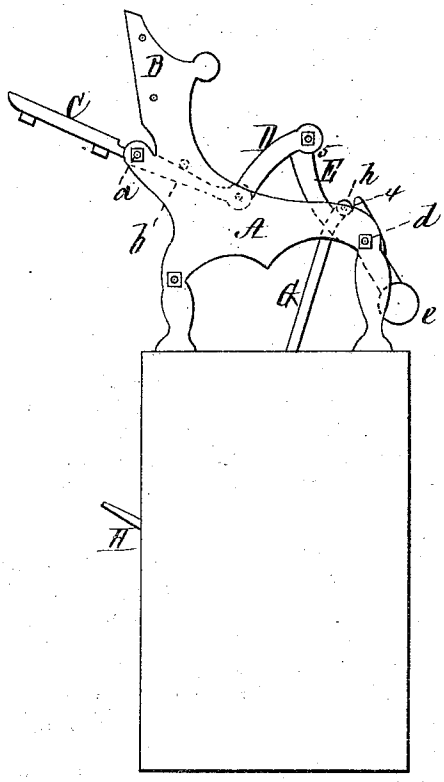
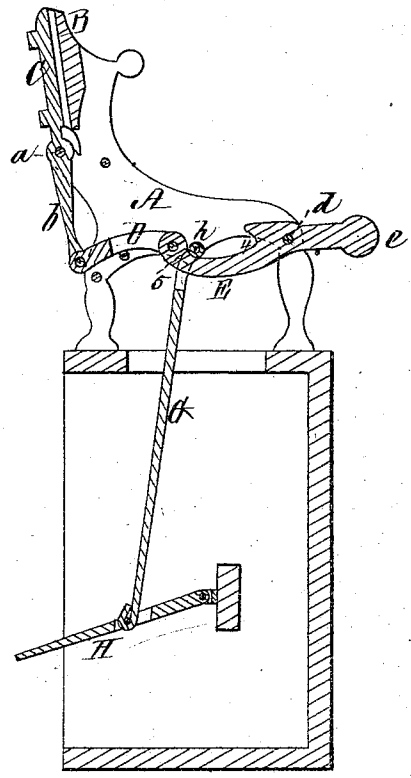


Fig. 2.



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UNITED STATES PATENT OFFICE.

HORACE A. MANLEY, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN TREADLES.

Specification forming part of Letters Patent No. **153,359**, dated July 21, 1874; application filed July 3, 1874.

To all whom it may concern:

Be it known that I, HORACE A. MANLEY, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Treadle Mechanism for Operating Printing-Presses, and for other purposes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side elevation of a portion of a printing-press with my improvement applied thereto. Fig. 2 is a vertical longitudinal section through the center of the same, the position of the platen being changed.

My invention consists in a rod operated by a treadle, the upper end of the rod sliding on, instead of being pivoted to, a lever connected with the platen of a printing or other press, or the movable jaw of other mechanism, by which construction a greater purchase is obtained, and a less movement of the treadle required, than heretofore.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A represents the frame-work of a printing-press; B, the bed; and C the platen pivoted at *a*. From the lower end of the platen extends an arm, *b*, to which is pivoted, at *c*, a curved link, D, to the upper end of which is pivoted a curved lever, E, pivoted on a rod, *d*, extending transversely between the two sides of the frame-work, the outer end of the lever E being provided with a weight, *e*, the link D and lever E forming a toggle-joint. G is a rod, the upper end of which is bifurcated, and embraces the lever E, a roll, *h*, secured between the bifurcations of the rod resting on the upper surface of the lever. The lower end of the rod G is secured to a treadle, H, and as the latter is depressed the rod draws down the lever, and at the same time slides thereon from the point 4 to the point 5, the motion of the lever being communicated through the link D to the platen C, which is thus brought up against the bed B, as required, the impression being taken when the roll *h* reaches the lowest part of the curve of the lever E, as seen in Fig. 2. On releasing the treadle the weight of the platen, assisted by the weight *e*, causes the parts to return to the position seen in Fig. 1. If the platen is sufficiently heavy the weight *e* may be dispensed with.

By the employment of a sliding connecting-rod, instead of one pivoted as heretofore, a greater purchase is obtained, a less movement of the treadle required, and but little power is required to operate the press, besides which the platen is made to open or travel farther away from the bed than heretofore, thus affording convenient access to examine the work and to ink the types.

I do not confine the application of my invention to printing or other presses, as it may be used to advantage for operating other mechanism—for instance, shears for cutting metal, cloth, or other material—without departing from the spirit of my invention.

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

The rod G sliding on the lever E, and operated by the treadle H, substantially as and for the purpose described.

Witness my hand this 1st day of July, A. D. 1874.

HORACE A. MANLEY.

In presence of—

P. E. TESCHEMACHER,

N. W. STEARNS.