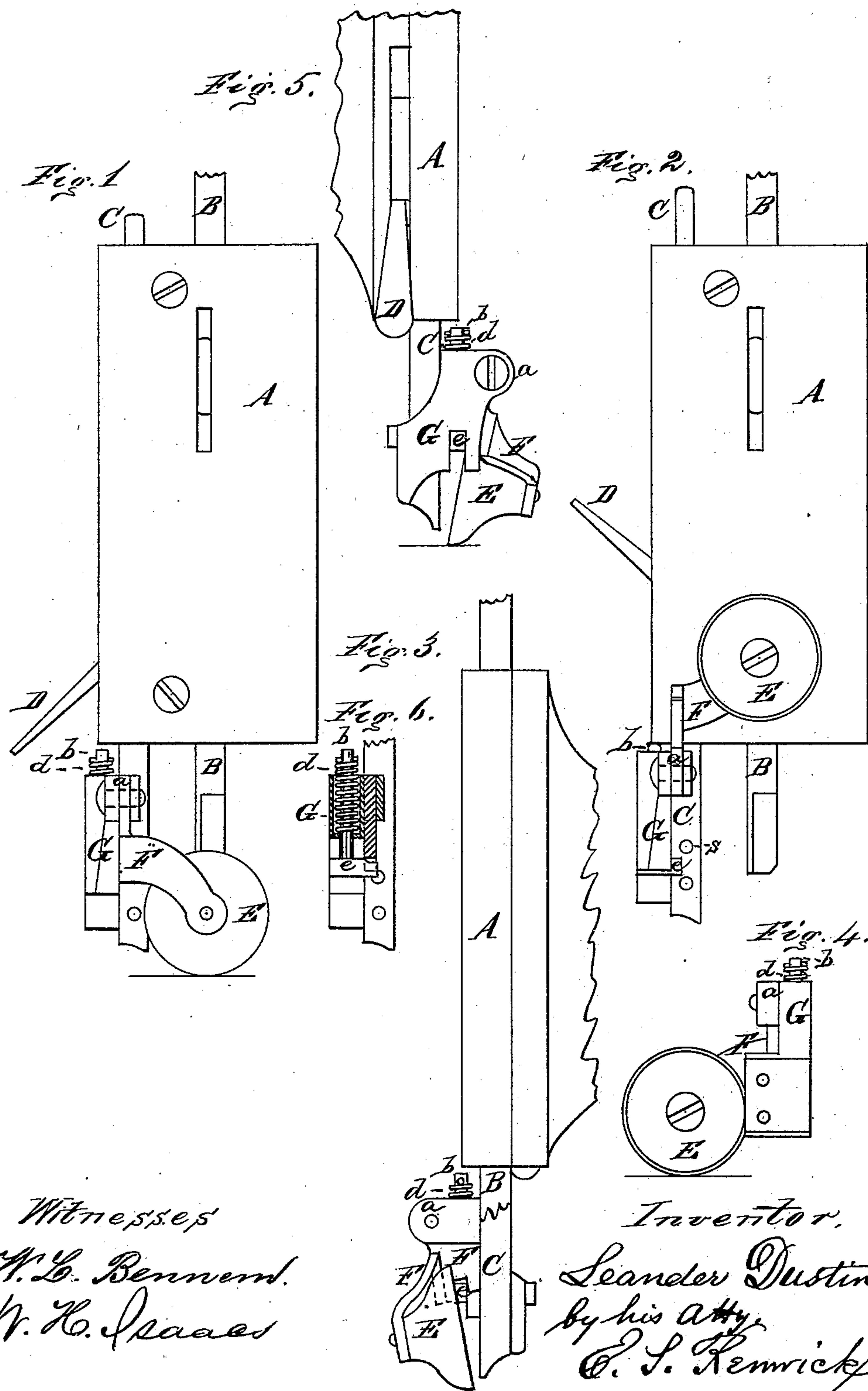


L DUSTIN.
Sewing-Machine.

No. 213,181

Patented Mar. 11, 1879.



Witnesses
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UNITED STATES PATENT OFFICE.

LEANDER DUSTIN, OF ELIZABETH, NEW JERSEY, ASSIGNOR TO THE SINGER MANUFACTURING COMPANY, OF NEW YORK CITY.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **213,181**, dated March 11, 1879; application filed November 17, 1877.

To all whom it may concern:

Be it known that I, LEANDER DUSTIN, of Elizabeth, in the county of Union and State of New Jersey, have made an invention of certain new and useful Improvements in Sewing-Machines; and that the following is a full, clear, and exact description and specification of the same.

The object of this invention is to enable a wheel presser-foot to be employed in a sewing-machine without inconvenience. A wheel presser-foot should be arranged with the rim of the presser-wheel in close proximity to the needle. When arranged in this position the disk of the wheel covers the side of the needle, and prevents free access to the needle, both for threading its eye and for setting it in the needle-bar.

In order that the use of a wheel presser-foot may not be attended with these disadvantages, I have made use of a presser-wheel which is combined with the presser-bar by means of a hinge-pivot, or its equivalent, and a bolt, catch, or other securing device, so that the hinge-pivot permits the presser-wheel to be readily turned out of the way or into place without affecting its connection with the presser-bar and with the spring by which it is borne downward upon the article being sewed, while the catch or bolt secures the presser-wheel in its place rigidly, so that the presser-wheel is as effective as if it were connected with the presser-bar and its spring without the intervention of a hinge or joint.

In order that the first part of my invention may be embodied I have so arranged and combined the bolt or catch of the presser-wheel relatively to the head of the bracket-arm, or other suitable part of the machine, and with the raising-lever of the presser-foot, that when the wheel presser-foot is raised by the lever usually provided for that purpose, the catch or bolt is disengaged from the stock of the presser-wheel, so as to free the latter and permit it to be turned out of the way. This arrangement and combination require but one lever to effect the two operations of raising the wheel presser-foot and of freeing the presser-wheel, and makes the manipulation of

a machine with a wheel presser-foot very easy and convenient for the operator.

In order that the invention may be fully understood, I have represented it in the accompanying drawings, and will proceed to describe the best mode in which I have thus far embodied it in a working machine.

Figure 1 of said drawings represents the head of the bracket-arm of a sewing-machine with my improvements applied thereto. Fig. 2 represents the same with the presser-wheel turned up. Fig. 3 represents an edge view of the said head and appurtenances. Fig. 4 represents an inside view of the presser-wheel attachment detached from the presser-bar, and Fig. 5 represents an edge view of the same, the reverse of that represented in Fig. 3. Fig. 6 represents a sectional view of the bolt-case.

The head A of the bracket-arm in the said drawings, to which my invention is applied, is that of a Singer sewing-machine. The needle-bar B is constructed to slide vertically in this head in the usual manner, and the presser-bar C of the presser-foot is also constructed in the usual manner found in Singer sewing-machines, and is fitted with the usual cam-lever D for raising it, and for permitting it to be forced down by a spring concealed within the cavity of the head. The presser-wheel E is connected with the lower end of the presser-bar by means of a hinge-joint, *a*, which intervenes between the stock F of the presser-wheel and the presser-bar C, so that the presser-wheel E may either be turned down to its operating position, as in Fig. 1, or be turned up, as in Fig. 2.

In order that the presser-wheel may be held rigidly in its operating position a spring-bolt, *b*, is provided. This spring-bolt has a T-head, *e*, one end of which engages in a notch formed in the edge of the wheel-stock F, while the residue of the head moves in a slot formed in the bolt-case G, and is guided thereby. The spring *d* is applied to the stem of the bolt. The upper end of the spring-bolt or catch is arranged a short distance beneath the under end of the head A, so that when the presser-bar is raised a short distance by its lever D

the upper end of the bolt-stem comes in contact with the said head, as seen at Fig. 2, and is thus prevented from rising farther, and that the continued upward movement of the presser-bar and wheel disengages the wheel-stock from the head of the catch, and thus frees the presser-wheel, which may then be turned upward on its hinge-joint. On the other hand, when the presser-wheel has been turned down and the presser-bar is lowered, by moving the lever D the spring-bolt is permitted to re-engage with the wheel-stock and secure the presser-wheel rigidly in its operating position.

In practice, I find it expedient to construct the bolt-case G separately from the presser-bar C, and with the wheel-stock pivoted to the bolt-case, so that the bolt-case, wheel-stock, and presser-wheel constitute a removable presser-wheel attachment for a sewing-machine.

This construction is advantageous, because it enables a wheel presser-foot to be used in a sewing-machine interchangeably with an ordinary sliding presser-foot, as circumstances render the use of one or other kind of presser-foot expedient, the change from the one kind of presser-foot to the other kind being readily effected by unscrewing the screw s, removing the one presser-foot, and then applying the other foot to the same presser-bar C, and securing the presser-foot so applied by screwing in the screw s.

If the presser-wheel is not required to be removable from the presser-bar, the bolt-case may be secured rigidly to that bar, and the hinge-pivot may connect the wheel-stock directly with the presser-bar instead of connecting it with that bar through the intervention of the bolt-case.

I do not claim, broadly, the connection or combination of a hinged presser-wheel with the presser-bar of a sewing-machine, and with some means of securing said wheel in its operative position.

I claim as my invention—

1. The combination, substantially as before set forth, of the head of the bracket-arm, the presser-wheel, and its hinged stock, the lever for raising the presser-wheel, and the spring-bolt, arranged to be stopped when raised, and to thereby free the presser-wheel.

2. The combination, substantially as before set forth, of the presser-wheel, the wheel-stock, the bolt, and the bolt-case, the whole constituting a presser-wheel attachment for a sewing-machine.

Witness my hand this 1st day of November, A. D. 1877.

LEANDER DUSTIN.

Witnesses:

W. L. BENNEM,
W. H. ISAACS.