

G. L. DU LANEY.

Improvement in Treadles and Stands for Sewing-Machines.

No. 132,261.

Patented Oct. 15, 1872.

Fig. 1.

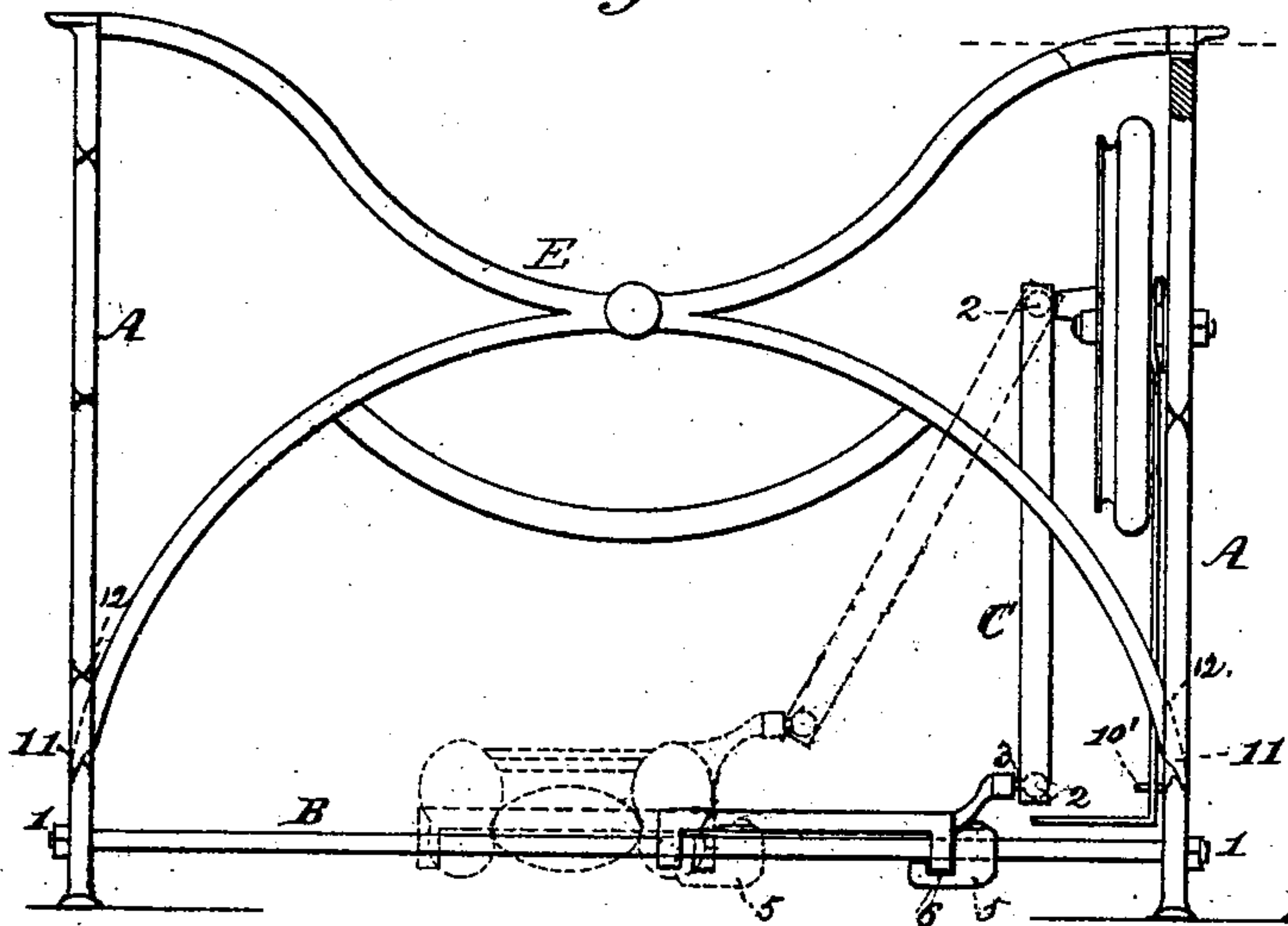


Fig. 2.

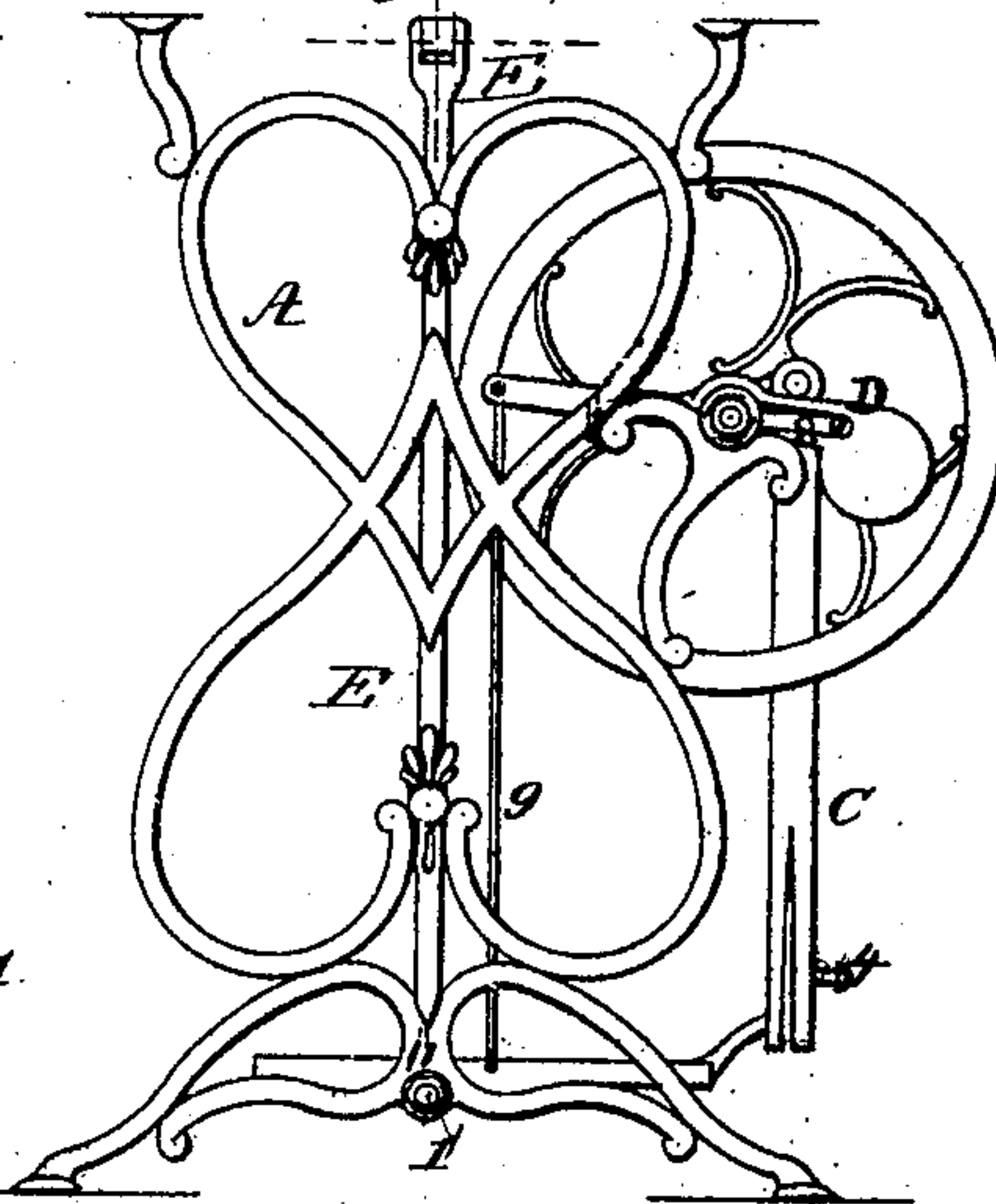


Fig. 3.

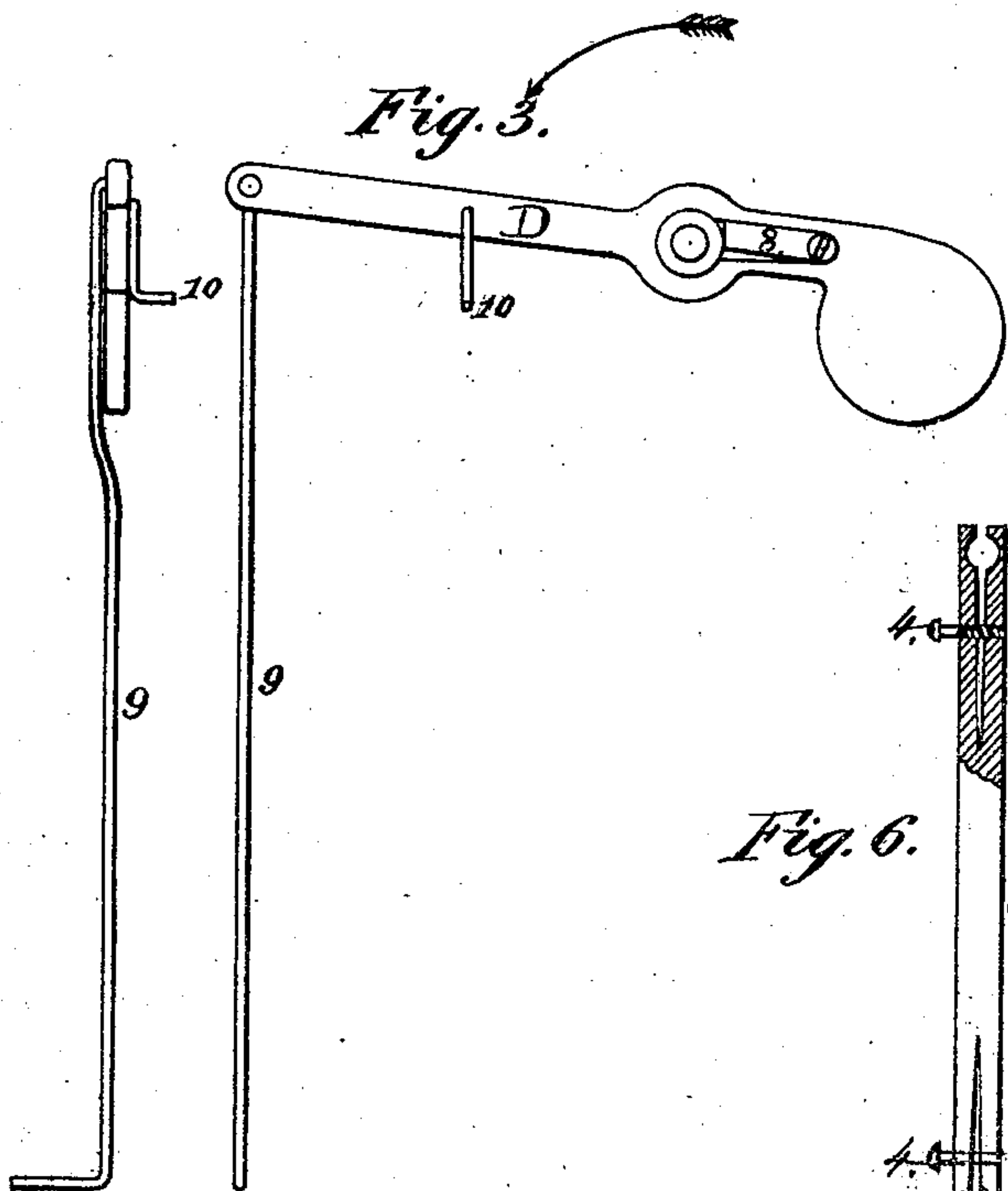


Fig. 4.



Fig. 5.

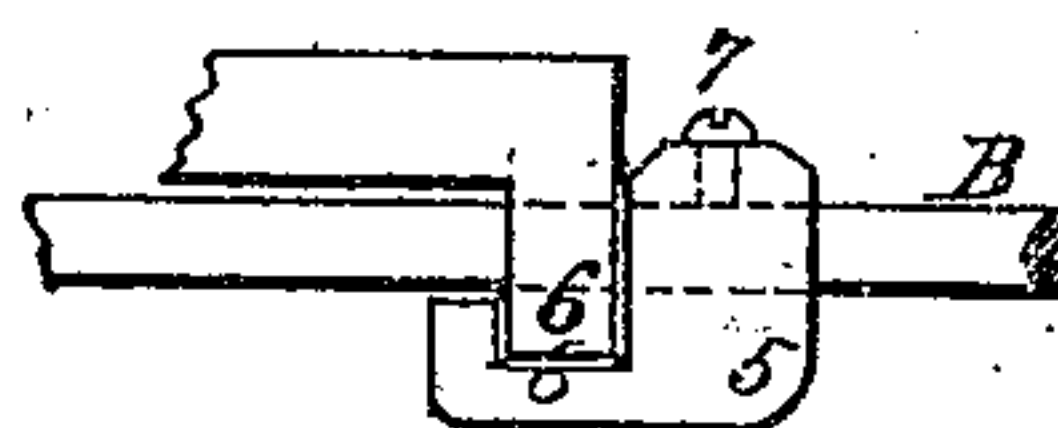


Fig. 7.

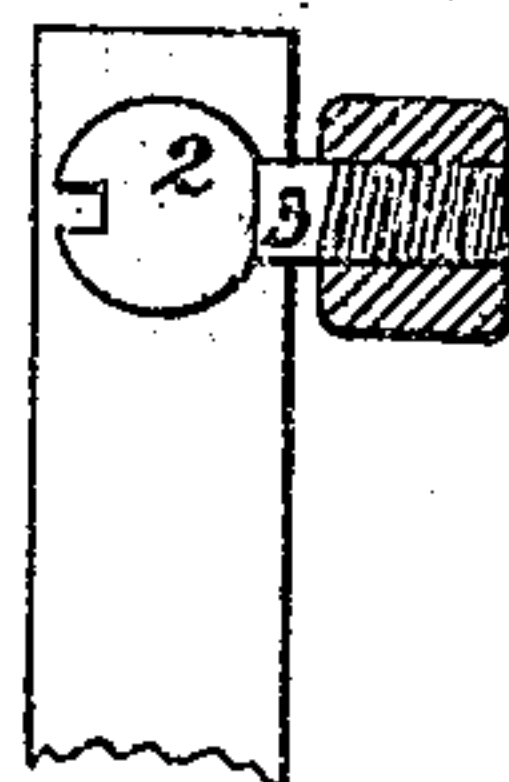
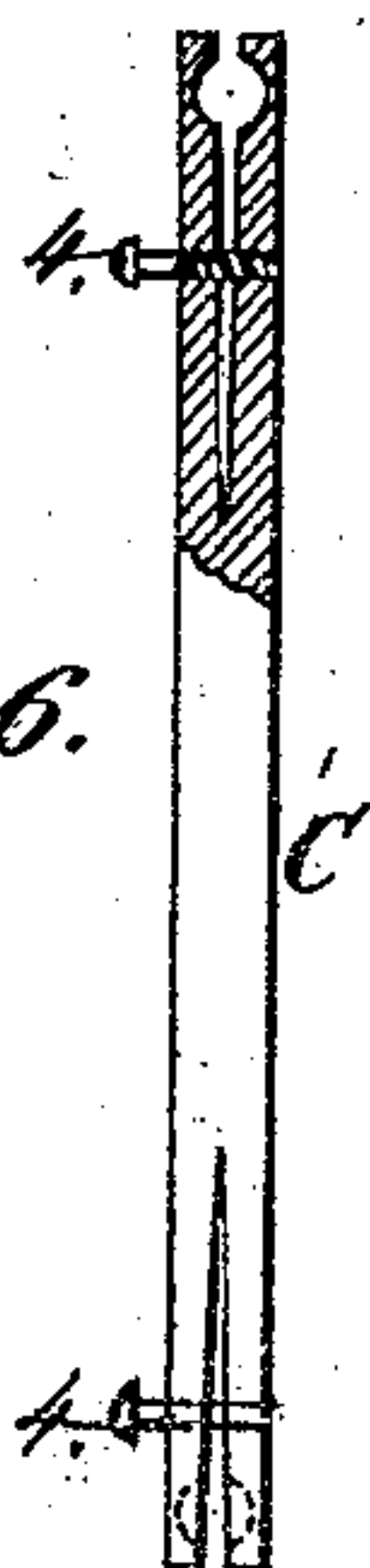


Fig. 6.



Witnesses.
Garvis Moulden
P. Halsted

Inventor.
George L. DuLaney.
by John J. Halsted
his atty

UNITED STATES PATENT OFFICE.

GEORGE L. DU LANEY, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN TREADLES AND STANDS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 132,261, dated October 15, 1872.

To all whom it may concern:

Be it known that I, GEORGE L. DU LANEY, of the city of Brooklyn, county of Kings and State of New York, have invented certain Improvements in Sewing-Machine Treadles, Stands, and Starters; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

My invention relates to an adjustable treadle, in the means for starting the machine and always in the right direction, and in a construction of the stand whereby the cross-piece may be securely connected to the uprights without the use of screws, bolts, or other equivalent device.

It is well known that with persons who habitually operate sewing-machines with the foot or feet for hours in succession, and continue to do so for weeks and months, (as in factories, &c.,) much fatigue is experienced because of the use of the same muscles of the foot and leg without opportunity to shift the position of the foot, and because the pitman, which always occupies the same position in a vertical plane, offers a barrier in one direction against moving or inclining the leg by way of temporary relief. To obviate this is one object of my invention; my improvement for this purpose consisting in so attaching the rocking-treadle to its rod or bar that it may readily be shifted thereon either to the right or left, and secured in its changed position, to give more freedom to the limbs of the operator, the pitman still continuing to perform its duties although assuming a laterally-inclined position as its lower end moves with the shifted treadle.

My improvement for preventing back motion of the driving-shaft consists in a gravitating lever having a pivoted piece, which swings to bite upon the shaft when the machine is inadvertently turned the wrong way and prevent any revolution of the shaft, while it frees itself when turned in the right direction; the lever having also a pendent-rod bent horizontally at its bottom, within reach of the foot, whereby the operator may readily with the foot press it down when commencing work to give a starting impulse to the fly-wheel, and not only ease

the starting but compelling it to start in the right direction.

My improvement in means for readily putting and holding to place the crossing-brace, which supports the upright or legs of the stand, consists in casting the cross-brace or girder with inclines or notches at its lower ends, which lodge upon or span or receive an edge of the uprights, and dovetailing their upper ends in grooves dovetailed horizontally in the tops of the uprights, so that when such cross-piece is lodged in its place the frame is securely held together, no bolts or nuts being used to connect them. This same provision also admits of separating these parts by merely lifting the cross-piece from its position.

In the drawing, Figure 1 is an elevation of a frame having my improvements, two different positions of the treadle and its pitman and pitman connections being shown; Fig. 2 is an end view; and Figs. 3, 4, 5, 6, and 7, detail views, Fig. 4 being a view from the top of the dovetailed connection of the cross-brace with the uprights.

A and A' represent the uprights, having a bottom connecting-rod, B, with bolt-nuts 1 1 to hold the same to place. C is the pitman-rod, split and socketed at each end, as seen, the sockets being adapted to receive and retain the ball-heads 2 2 of the bolts 3 3, by which it is connected both to the driving-wheel and to the movable or shifting treadle, and the splits serving to permit the introduction of the heads into the pitman-sockets, and also serving, by means of the adjusting-screws 4 4, to permit the tightening up of the pitman ends upon the ball-heads to any degree required. No appliances for this purpose, it will be seen, are required in addition to the pitman and the ball-headed screws, and the construction is thus reduced to the very extreme of simplicity, efficiency, and economy. To provide for shifting the treadle upon the rod B I employ a sliding sleeve, 5, having a notch or yoke, 6, adapted to embrace a part of the treadle, so that when the sleeve is shifted it shall carry the treadle with it. This sleeve is provided with a set-screw, 7, whereby it may be locked to its desired position on the rod B. The play of the pitman on its two globe-headed bolts is sufficient to al-

low of any degree of lateral movement of the treadle which may be requisite without any need of elongation of the pitman, and without interfering with the operation of the driving mechanism. D is a weighted or gravitating lever, within the outer face of which is lodged a pivoted piece or lever, 8, which has room to play freely on its pivotal center for a minute distance, far enough merely to insure its impinging tightly against the periphery of the wheel-hub when the fly-wheel may be turned the wrong way, and thus prevent back motion; but when the wheel is turned in the right direction the hub swings the piece 8 out of biting contact, so that it offers no impediment to free revolution. Depending from the other end of lever D is a swing-rod, 9, whose lower end is bent so as to extend a short distance horizontally and toward the treadle sufficient to permit the foot, whenever desired, to bear upon it to pull down the unweighted arm of the lever against the force of the weight, a stop-wire, 10, being provided on such arm, and which limits the movements of the lever by coming in contact with any adjacent portion of the uprights of the frame. A stop-pin, 10', limits the swing of the rod 9.

The operation of these parts is as follows: The operator, without using the hand to start the fly-wheel in the proper direction, and without the need of the usual and difficult effort of giving the first impulse to the treadle by the foot alone, simply rests the fore part of the foot for an instant on the horizontal part of rod 9, which, through the instrumentality of the piece 8, starts the wheel and moves the treadle, and the foot of the operator then continues the motion of the treadle thus properly commenced.

The devices for self-locking the uprights A A' to the cross-brace E are as follows: The lower ends of this brace are so shaped, inclined, or notched, as shown at 11, that when such notches or inclines rest upon the upper edges of any desired portion of the castings or uprights it shall tend, in a measure, to prevent the latter from falling either inward or outward. The upper ends of the brace E are, in

addition, each provided with a horizontal dovetail whose broader part is outward, these dovetailed parts being adapted to fit and lock in corresponding dovetailed cuts made in the top of the uprights A and A'. To put these three parts together the brace E needs only to be held in proper position relatively to the uprights and then dropped or pressed to place, so that the dovetailed parts shall connect and the notched or inclined parts assume their proper position on the edges of the uprights—say, for instance, at an angle (11) as shown, at which point it will be seen that the inclined inner edge of the brace when pressed down to its place pulls inward the uprights; and it will also be seen that in the form of casting shown for this particular upright the cross-brace at its outer edge comes in contact at 12 with the inner face or edge of the uprights when the latter are in their proper vertical position; but the general plan and system being given as above, it will be seen that the notch or incline or points of purchase upon the uprights may be varied by any mechanic without departing from the spirit of my invention.

I claim—

1. The combination, with the driving-wheel and its pitman, of a laterally-adjustable treadle, substantially as shown and described.
2. The combination, with the ball-headed screw-bolts, the pitman, and the treadle, of the adjustable yoked or notched sleeve 5 or its equivalent.
3. The combination, with the driving-wheel, weighted lever and its locking-piece, of the foot-rod 9, substantially as and for the purpose described.
4. The combination, with the driving-wheel, of the weighted lever D and its locking-piece 8, as and for the purpose described.
5. The combination, with the uprights A A', of the cross-brace E, notched or inclined, and dovetailed and secured to the uprights, substantially as shown and described.

GEORGE L. DU LANEY.

Witnesses:

A. MORGENSTERN,
E. HORAN.