

A. FONTAYNE.
Treadles for Sewing Machines.

No. 116,040.

Fig. 1

Patented June 20, 1871.

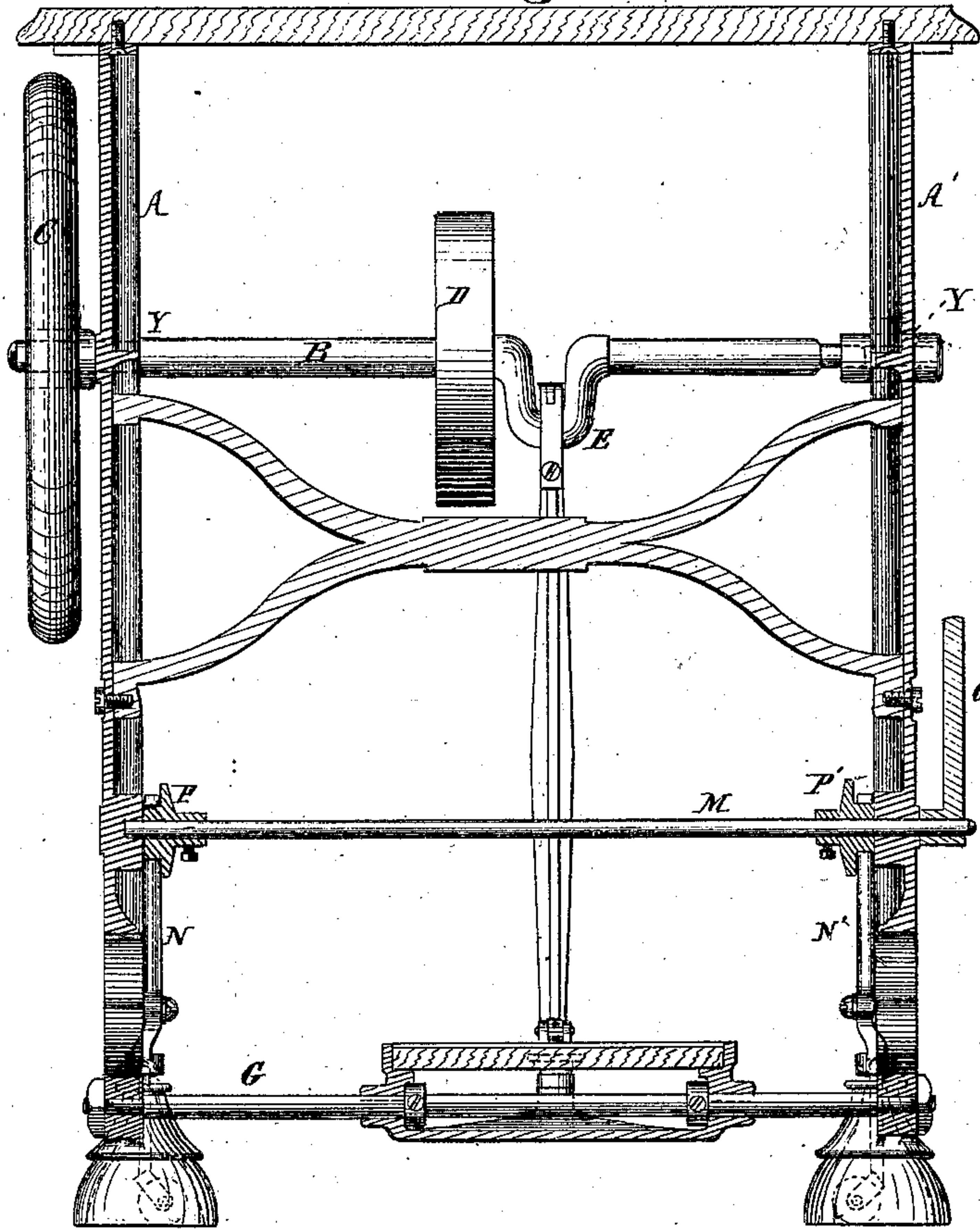


Fig. 4



Fig. 3

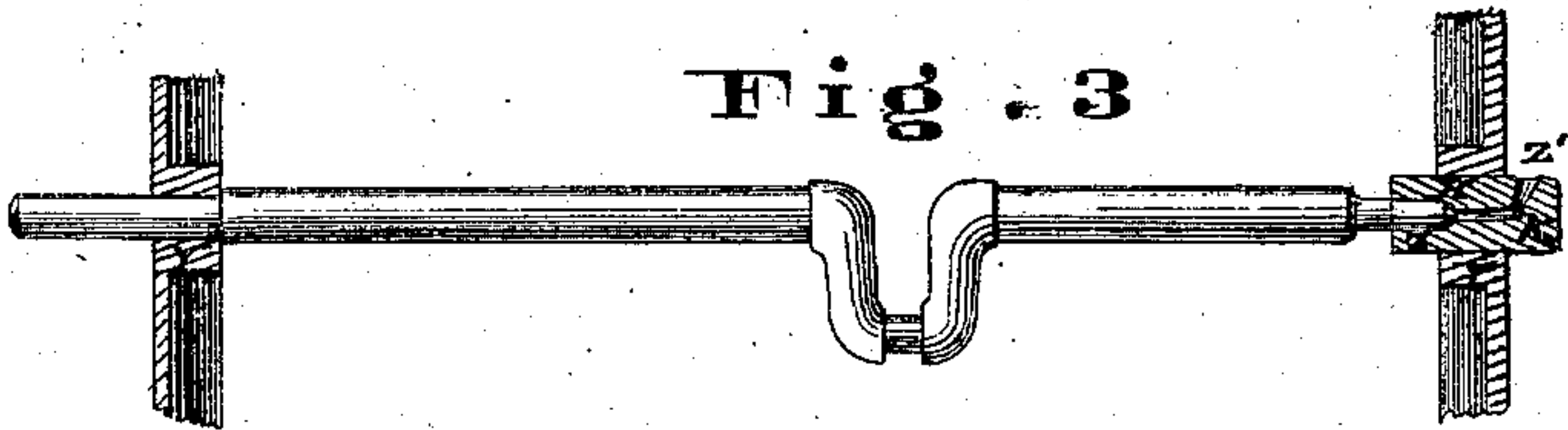


Fig. 5

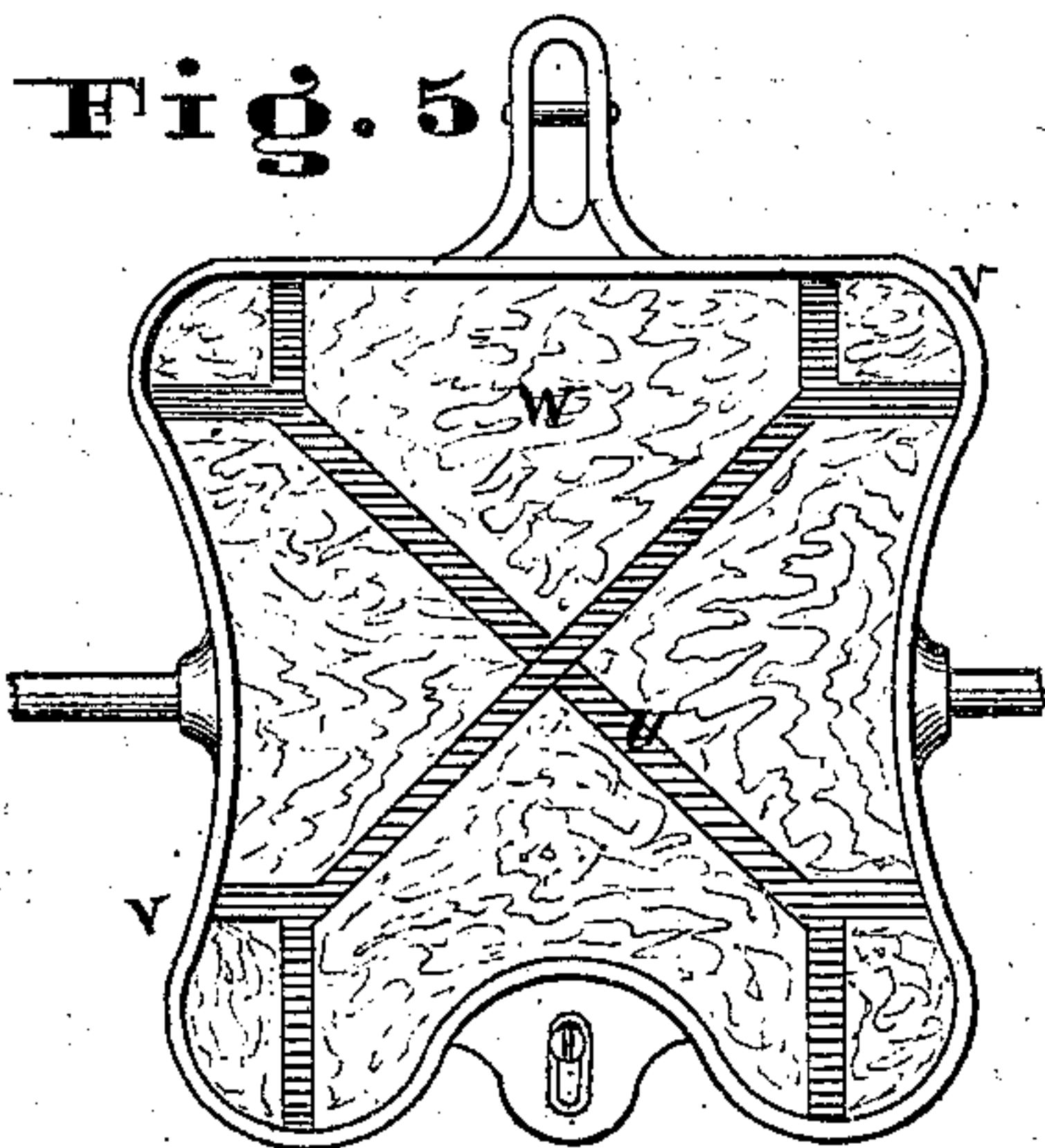
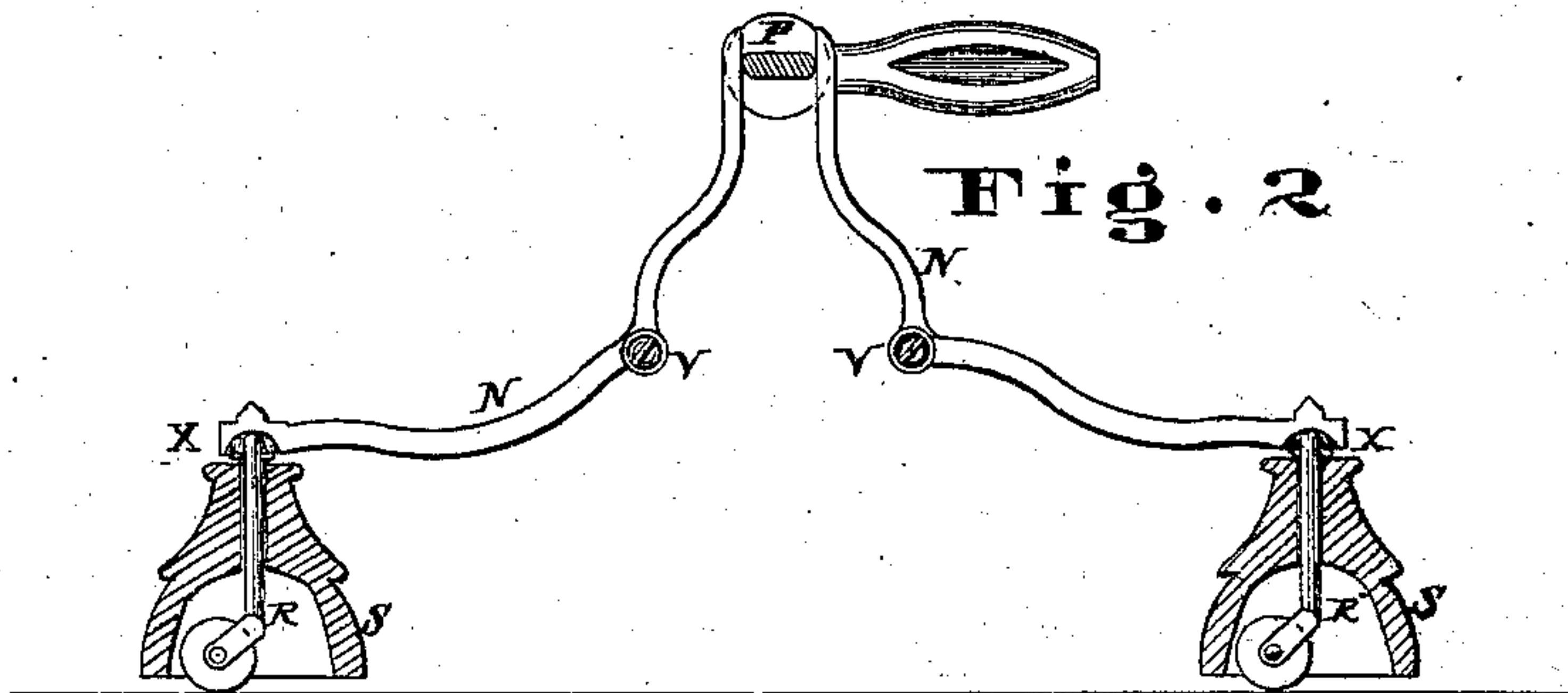


Fig. 2



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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN TREADLES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 116,040, dated June 20, 1871.

To all whom it may concern:

Be it known that I, ALBERT FONTAYNE, of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Sewing-Machines, of which the following is a specification:

The first part of my invention relates to an arrangement of levers, cams, casters, and caster-covers upon the legs of a sewing-machine, whereby said machine can be made stationary or easily movable on said casters, thereby dispensing with the necessity of lifting the machine in moving it. The casters, being concealed by the covers, improve the appearance of the machine. The second part of my invention relates, first, to boring the holes for the reception of the shaft or axle completely through the legs of the machine, whereby the third part of my invention becomes possible, and the machine can be more accurately put together; and second, to passing through one leg the axle or shaft, and through the other leg a device for journaling and oiling the shaft, and securing the durability of the journal and axle. The third part of my invention relates to the adjustment of the balance-wheel at the end of the axle or shaft, and outside of the legs, thereby affording increased facilities for turning the wheel in starting the machine, and also saving the dress of the operator from injury by the revolution of the wheel. The fourth part of my invention relates to a treadle of wood, covered by a soft material and supported by an iron frame, whereby such treadle is very strong and durable, and more conducive to health, is easier to use, and gives more friction to the foot than the common iron treadle.

In the accompanying drawing, Figure 1 is a vertical section through the center of that part of a sewing-machine which is below the table; and which embodies my improvements. Fig. 2 is a view of the mechanism for rendering the machine movable or stationary. Fig. 3 shows the axle or shaft, and in section that part of one leg through which the axle passes, and the journal-box in the other leg in which said axle turns. Fig. 4 is a plane section of part of the leg and a cross-section of the journal-box, showing how the journal-box is held in the leg by a set-screw. Fig. 5 is a plan view

of the treadle, showing a metallic frame, holding a carpeted wooden platform.

A A' are the legs of the machine. Through these at *y y* are bored holes for the axle or shaft. B is the axle or shaft, bent near the center, as usual, to form the customary crank E. One end of axle B passes through the hole Y in leg A and projects some distance beyond the leg. To this projection, and outside of the leg, is attached the balance-wheel C. D is the ordinary pulley attached to the axle B. The other end of this axle is turned down small for a journal-point, as shown at H. This point fits into a journal-box, K, at Z. This journal passes through the hole Y in the leg A', and is held in position therein by a set-screw in the leg. From the inner end of the journal-hole Z, a smaller hole, Z', passes through the box K nearly to its end, and then passes upward to the circumference of the box. This hole is used for oiling the journal H of axle B. M is a rod, one end of which works in a hole drilled in leg A, and whose other end passes through leg A' to this latter end; and outside of leg A' is attached a straight handle, by which the rods M may be turned. P P' are cams fastened to the rod M, one against the inside of A and the other against the inside of A'. N N' are bent levers, each turning on a pivot, V, for a fulcrum. One end of each lever rests against the edge of the cam P, while the other ends, made in a cup-shape, each fit over the point of a caster-pin, R. Each leg has at its bottom extremity two caster-covers, S S, of a bell-shape. Within each cover is a caster of ordinary shape, whose pin passes up through a hole in the top of the caster-cover. A little pin passes through the caster-pin above the cover and prevents the caster from dropping down. An arrangement of cam-bent levers, casters, and caster-covers, the same as that just described, is found upon leg A, and also operated by rod M.

The method of operating this device is simple. To raise the machine upon its casters, the operator turns the handle O a quarter of its arc of revolution and so that the cam presses apart to its full extent the adjacent ends of the bent levers, thus forcing apart the upper ends of the levers, and simultaneously forcing down their lower ends, which latter press upon the upper points of the casters, and thus raise

the legs and caster-covers from the floor and place the weight of the machine upon the casters. The machine can then easily be rolled to any point desired. To make the machine stationary, turn the handle back a quarter of its arc of revolution, and so that the cams are so turned that the upper arms can approach each other. This they will do because of the pressure of the machine upon the ends of their lower arms. As the upper arms approach each other, the caster-pins being fixed, the fulcrum points X X descend and bring the bottoms of the caster-covers upon the floor. The machine is then stationary and cannot be rolled about. It can only be moved by sheer force, lifting or dragging it along.

V is the treadle-frame, made of metal, and of sufficient strength to support the parts attached to it and the pressure upon the treadle. This frame oscillates upon a rod, G. W is a wooden treadle or platform for the feet, within and supported by the frame V. This platform is covered with a piece of carpet, U, which makes it soft and warm, and therefore more comfortable to the foot of the operator. The use of wood for that part of the treadle is a great desideratum to health. Wood does not chill the foot, while iron does. Wood is a non-conductor of heat, hence it leaves the foot of the operator at its normal temperature. Iron, being a good conductor, is usually too hot or

too cold for the normal blood-heat of the foot; hence the advantage of using wood rather than iron in the treadle is very obvious.

By boring the holes at Y Y completely through the legs I can put the machine together with great accuracy. To so put it together, I pass an iron rod of the size of the axle through the holes Y Y. The legs will then be held in line, and in a position proper for fastening the legs to the table. After being fastened the iron rod is removed, and the axle or shaft B inserted in its place. The axle B will now turn easily and without pinching in the leg A or the journal K.

What I claim as new is—

1. The combination of the leg of a sewing-machine, cam P, levers N N, and casters R R, substantially as and for the purposes specified.
2. The combination of the leg of a sewing-machine, journal box K, and axle B, substantially as and for the purposes set forth.
3. The adjustment of the balance-wheel C outside of the leg of a sewing-machine, and at or near the end of the shaft or axle M, substantially as and for the purposes specified.
4. The wooden platform W, within a metallic frame, substantially as and for the purposes set forth.

A. FONTAYNE.

Witnesses:

WM. G. HOSEA,
J. D. COX.