

(No Model.)

G. M. PALMER.
SEWING MACHINE.

No. 270,104.

Patented Jan. 2, 1883.

Fig. 1.

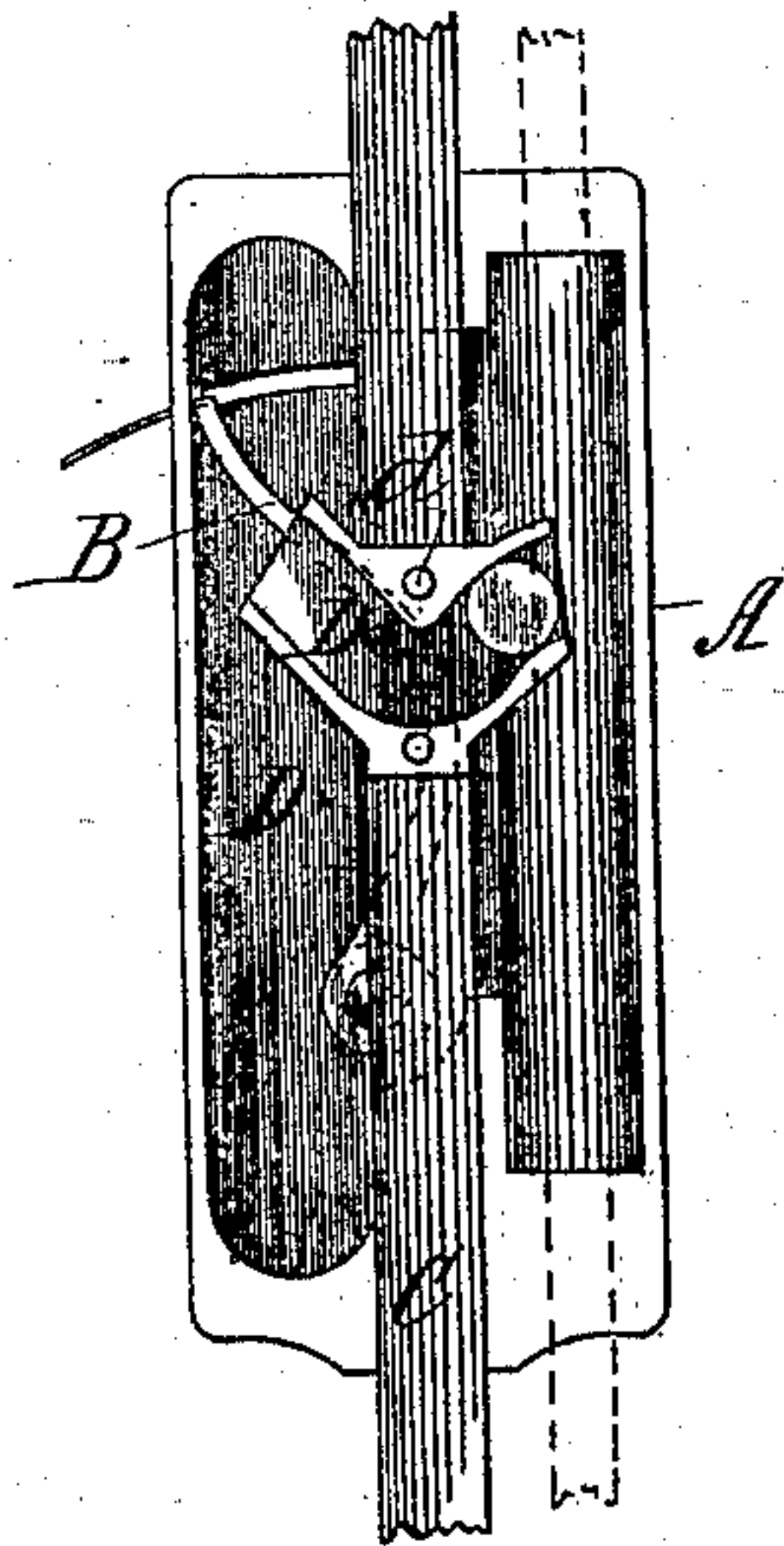


Fig. 2.

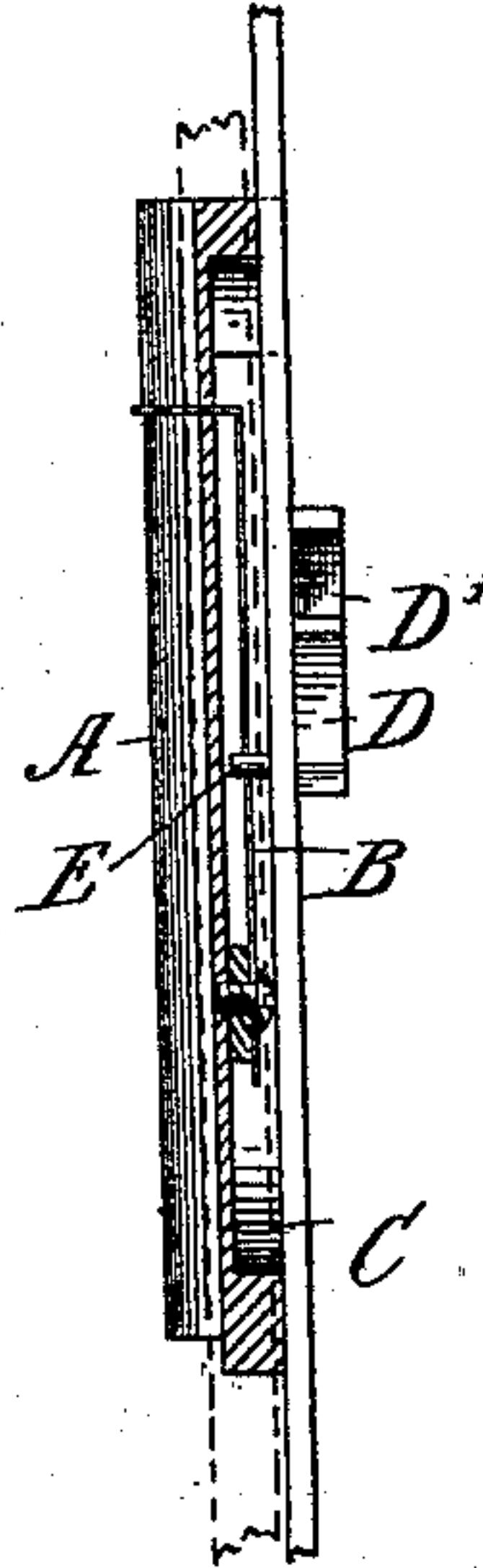
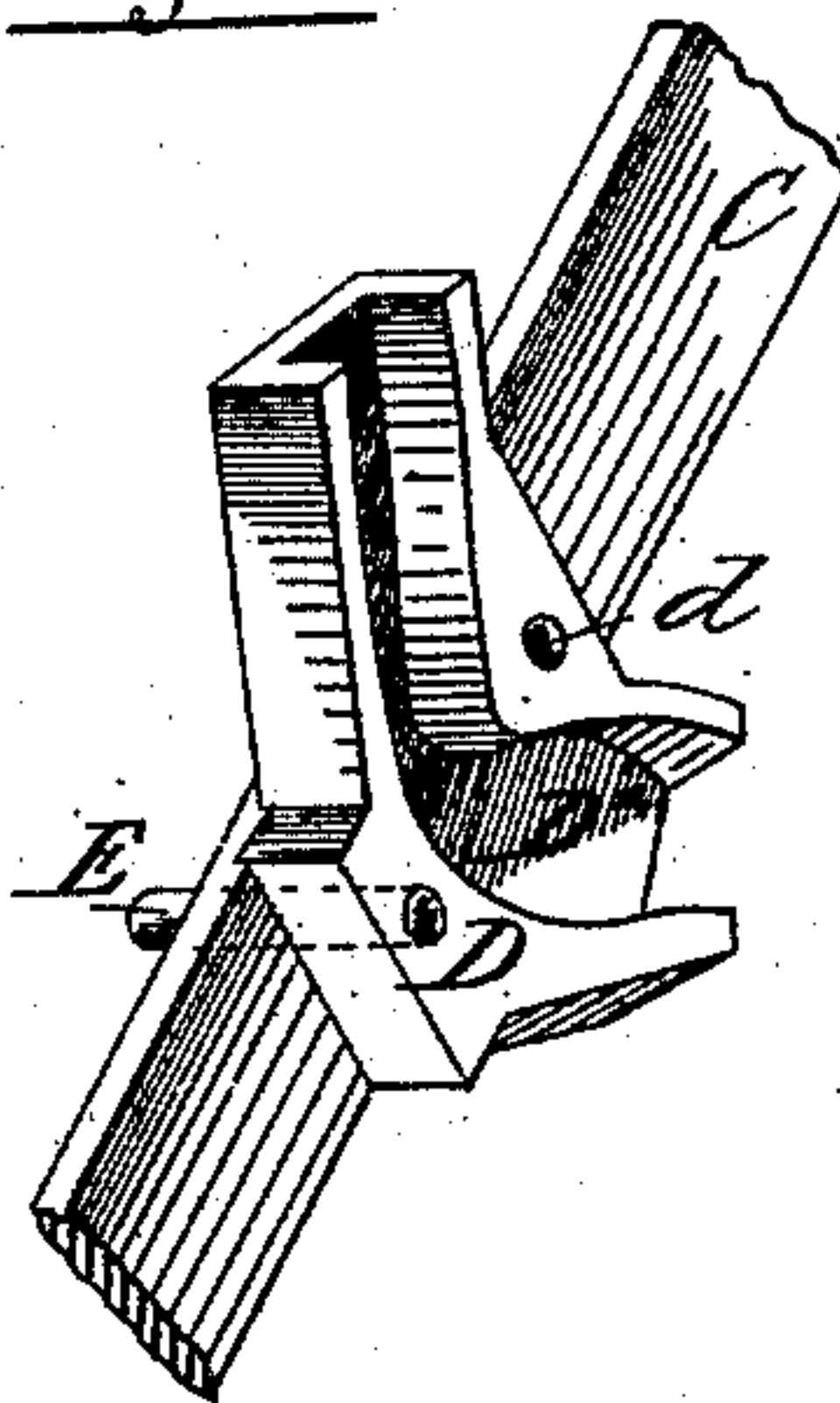


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE M. PALMER, OF PLATTSBURG, NEW YORK, ASSIGNOR TO THE
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SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 270,104, dated January 2, 1883.

Application filed August 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE MILLER PALMER, of the village of Plattsburg, in the county of Clinton and State of New York, have invented a certain new and useful Improvement in Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to an improvement in the mechanism for operating the take-up lever of a sewing-machine, and has for its object to lessen the number of devices commonly required on the needle bar, and to simplify their construction, insure accuracy and convenience in working.

In many sewing-machines at present manufactured the "heart-motion" cross-head, through which movement is imparted to the needle-bar, is attached thereto by two rivets—one on each side of the cam-groove in which the actuating roller works—and a separate hole has to be drilled through the needle-bar below said cross-head and a stud inserted therein, so as to project inwardly, which stud bears upon the edge of the take-up lever, and as the needle-bar moves vertically imparts motion to said take-up lever.

My invention consists in doing away with one of the rivets for attaching the cross-head to the needle-bar and substituting therefor a stud which will serve the double purpose of attaching the heart-motion cross-head and driving the take-up lever.

For more complete comprehension of my improvement reference must be had to the accompanying drawings, where similar letters of reference indicate like parts, and where—

Figure 1 is a view of the inside of a face-plate showing the general arrangement of parts according to my invention; Fig. 2, a sectional side elevation of the same, and Fig.

3 a perspective view of cross-head and part of needle-bar with stud in position.

A represents the face-plate, of any of the usual or desired constructions, B the take-up lever, preferably of the shape shown—viz., a regular continuous curve—but not necessarily confined to this shape.

C is the needle-bar, bearing as usual on the face-plate A, and having attached to it the heart-motion cross-head D by means of a rivet, *d*, at one side of its cam-groove D', and at the other by a stud, E, which passes through said cross-head and needle-bar, so that its end projects inwardly and bears against the edge of the take-up lever B. Motion is imparted through the heart-shaped cam-groove D and a roller in the usual way to the needle-bar, and as it slides up and down draws the stud E along the edge of the take-up lever and throws same back and forth in the same manner as at present, as will be readily understood.

It will be seen that by doing away with the old driving-stud, and making the stud E serve the double purpose of driving-stud and rivet, I save drilling an extra hole in the needle-bar, and, besides, it enables me to use a regular continuously-curved take-up lever with greater facility than could be done with the present device.

What I claim, and desire to secure by Letters Patent, is as follows:

In a sewing-machine, the combination, with the heart-motion cross-head, the needle-bar and take-up lever, of a stud passing through said cross-head and needle-bar, and serving also to actuate the take-up lever, substantially as set forth.

GEORGE M. PALMER.

Witnesses:

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