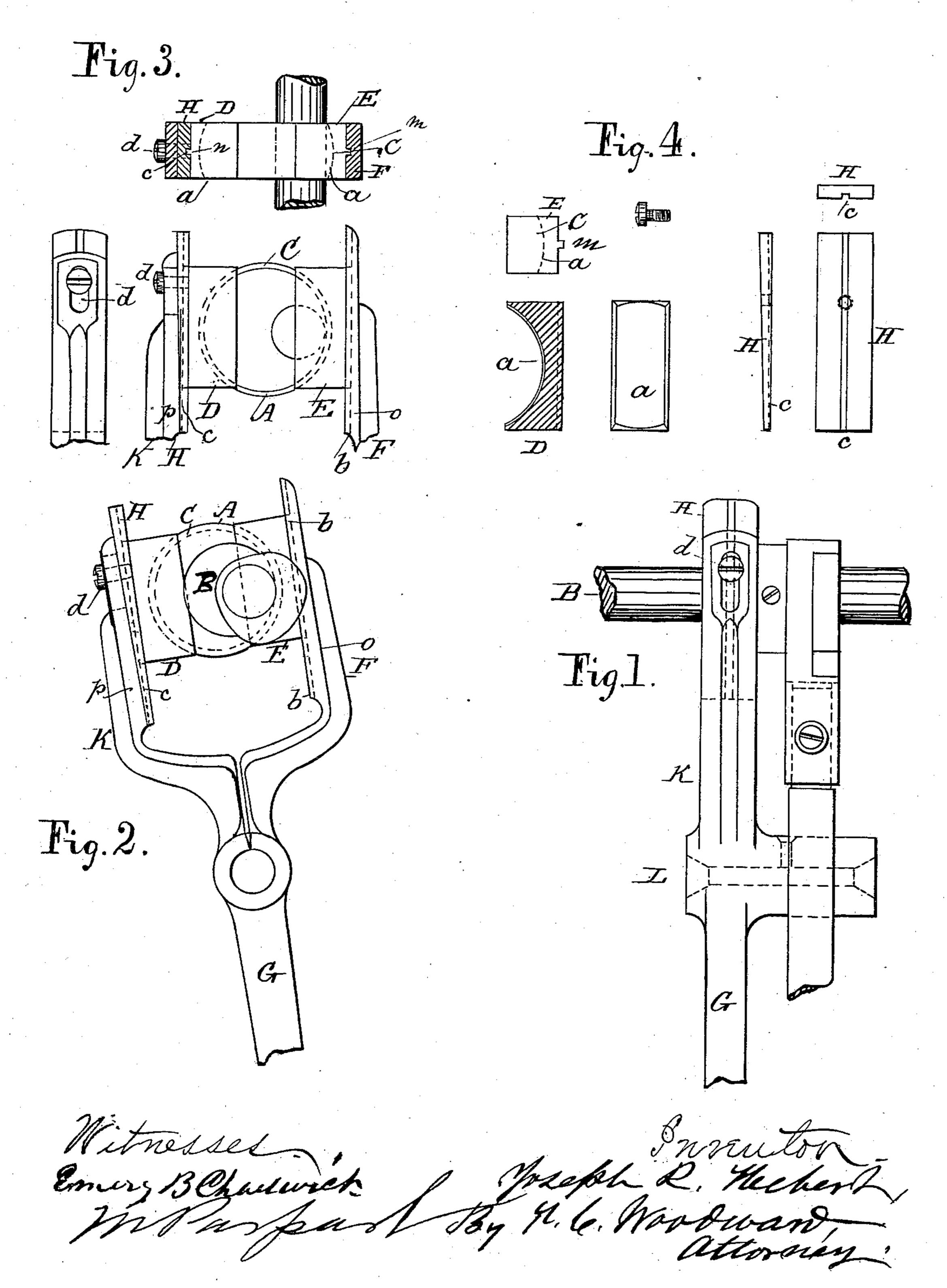
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SEWING MACHINE.

No. 268,227.

Patented Nov. 28, 1882.

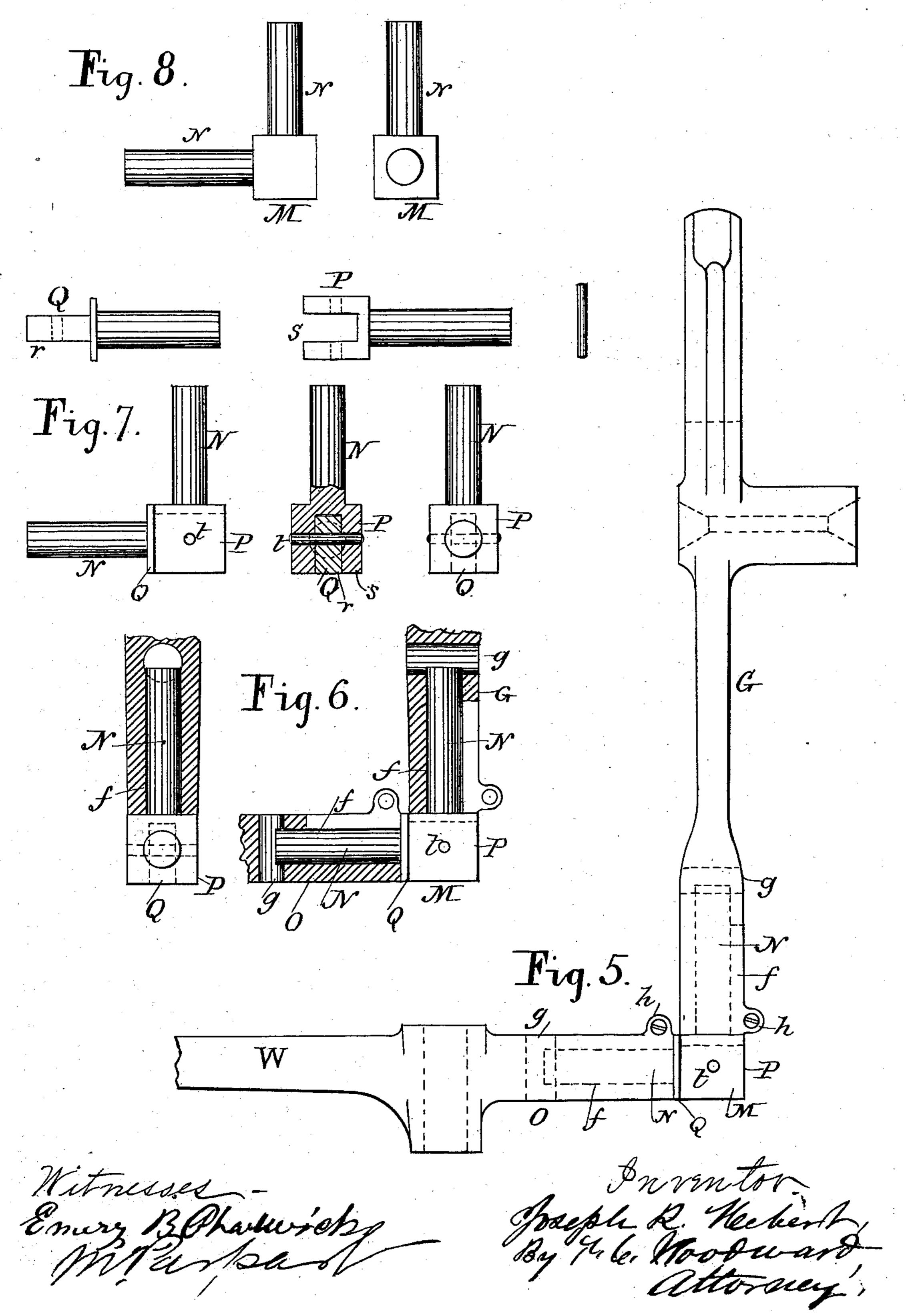


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United States Patent Office.

JOSEPH R. HEBERT, OF BROOKLYN, NEW YORK, ASSIGNOR TO ELIAS A. WILKINSON, OF NEWARK, NEW JERSEY.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 268,227, dated November 28, 1882.

Application filed May 6, 1882. (No model.)

To all whom it may concern:

Be it known that I, Joseph R. Hebert, of Brooklyn, New York, have invented new and useful Improvements in Sewing-Machines, 5 described in this specification and the drawings thereof.

The invention consists in improvements relating to the mechanism for operating the shuttle.

Figure 1, Sheet 1, is a front view of one of the improvements. Fig. 2, Sheet 1, is a side view of the same. Figs. 3 and 4, Sheet 1, are detailed views of portions thereof. Fig. 5, Sheet 2, is a front view of the other improve-15 ments. Figs. 6, 7, and 8, Sheet 2, are detailed views of the same.

In the form of construction shown in Sheet 1, eccentric A is placed on the driving-shaft. B. This eccentric has a rounded face, C, and 20 turns between shoes D E, having concave faces a a to correspond therewith. The shoe E is supported by a tongue, m, in a groove, b, in the prong F of the vertical lever G, and the shoe D is supported by a tongue, n, in a groove, 25 c, in the wedge H, which is adjustable by means of a slot and set-screw, d, in the other prong, K, of the fork.

In the usual form of construction it is necessary that the axis L of the vertical lever G 30 and the faces o p of the fork of the vertical lever should be parallel, or that the fork of the vertical lever should be self-adjusting, by means of a swivel-joint between the fork and the axis, to insure proper action by the eccen-35 tric, which heretofore usually has been made flat on the face. This improvement, however, obviates any such necessities, as the vertical lever, though not self-adjusting, has a position in relation to the eccentric, whether the axis 40 of the vertical lever and the faces of the fork thereof be parallel or not, the convex face of the eccentric and the concave faces of the shoes affording ample compensation for slight differences in construction. The shoes are 45 kept in their proper relation to the face of the eccentric to compensate for wear by means of the adjustable wedge.

In the form of construction shown in Sheet 2 an elbow, M, connects the vertical lever G

as to permit that freedom of movement necessary in transmitting the vibrating motion from one to the other, and which has heretofore usually been accomplished by a ball-and-fork connection. The levers have sockets ff, into 55 which the arms N N of the elbow are inserted, vents g g being made into the sockets at their inner ends for the escape of air and oil and to afford an easy movement to the arms of the elbow. The elbow is preferably made in two 60 parts, Q P, one having a tongue, r, and the other a fork, s, or otherwise pivoted together, as at t, so as to have a slight motion, when required, at the angle of the elbow. The sockets are preferably open at one side, and pro-65 vided with set-screws h h to compensate for wear and to secure the proper adjustment on the arms of the elbow-joint.

The details of construction and operation may be varied from that described and shown 70 within the scope of my improvement.

Bearing-plates and adjustable wedges were known when I made this invention; but I devised a combination differing materially therefrom and especially adapted to the fork of a 75 sewing-machine lever, so as to conveniently take up the wear without displacing the parts.

I claim as my invention—

1. The combination, in sewing mechanism, of forked lever G, having prongs F K, the 80 prong F having groove b, and the prong K having slot and set-screw d, wearing-shoes D E, having concave faces a a and tongues n m, adjustable wedge H, having groove c, eccentric A, having rounded face C, and driving-shaft 85 B, substantially as set forth.

2. The combination, in sewing mechanism, of a forked lever, wearing-shoes, an adjustable wedge, and a round-faced eccentric on a driving-shaft, the shoes being so connected to the 50 forks of the lever as to prevent their lateral displacement and permit their longitudinal motion, substantially as set forth.

3. The combination, in sewing mechanism, with the fork of a lever, of an eccentric round- 95 ed across the face, concave wearing-shoes adapted thereto, an adjustable wedge connected to one of the shoes by tongue and groove, and to one of the prongs of the fork by a slot 50 and the horizontal lever W in such a manner land set-screw, adapted to a driving-shaft, 100 whereby the wearing-shoes can be adjusted to the eccentric, substantially as set forth.

4. The combination, in sewing mechanism, of vertical lever G, horizontal lever W, elbow5 joint M, having arms N N, tongue r, and fork s, and adjustable sockets ff, having vents gf, substantially as set forth.

5. The combination, adapted to sewing mechanism, of a vertical lever, a horizontal lever, and an elbow-joint having arms entering adjustable sockets in the ends of the levers, the sockets having vents at their inner ends, substantially as set forth.

6. The combination, in a sewing-machine, of a vertical lever, a horizontal lever, and a distinct elbow-joint of two arms connected to-

gether in a yielding manner and connected by socket-connections with the adjacent ends of the lever, substantially as set forth.

7. The combination, adapted to sewing mechanism, of a vertical lever, a horizontal lever, and an elbow-joint, the arms of the joint connecting the adjacent ends of the levers by socket-connections having vents, substantially as set forth.

In testimony whereof I hereunto subscribe my signature, in the presence of two attesting witnesses, on the 23d day of January, 1882.

JOSEPH R. HEBERT.

Witnesses:

E. B. CHADWICK,
M. PARPART.