

F. R. MUENZENBERGER.
VIBRATOR.
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905,561.

Patented Dec. 1, 1908.

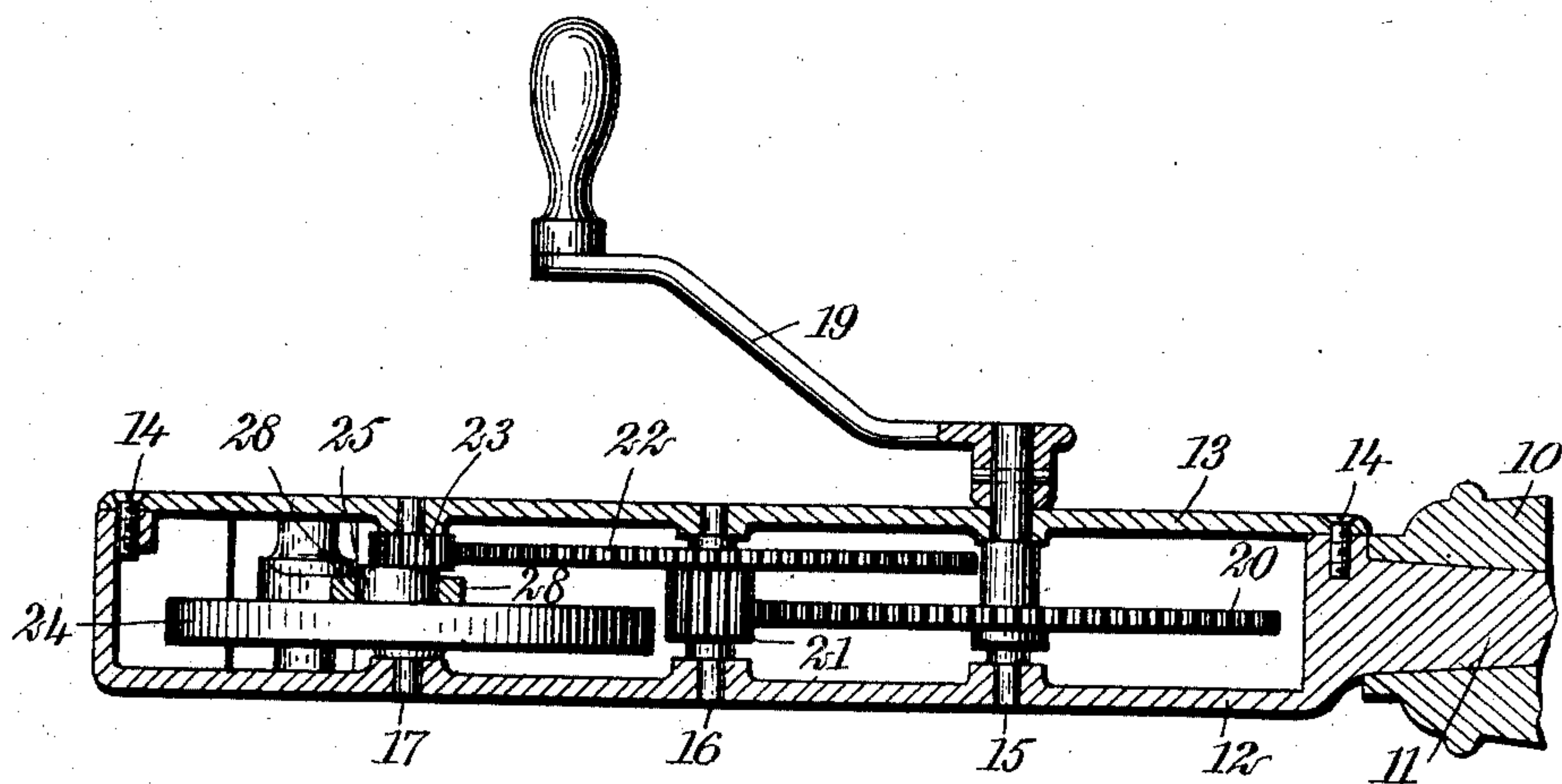
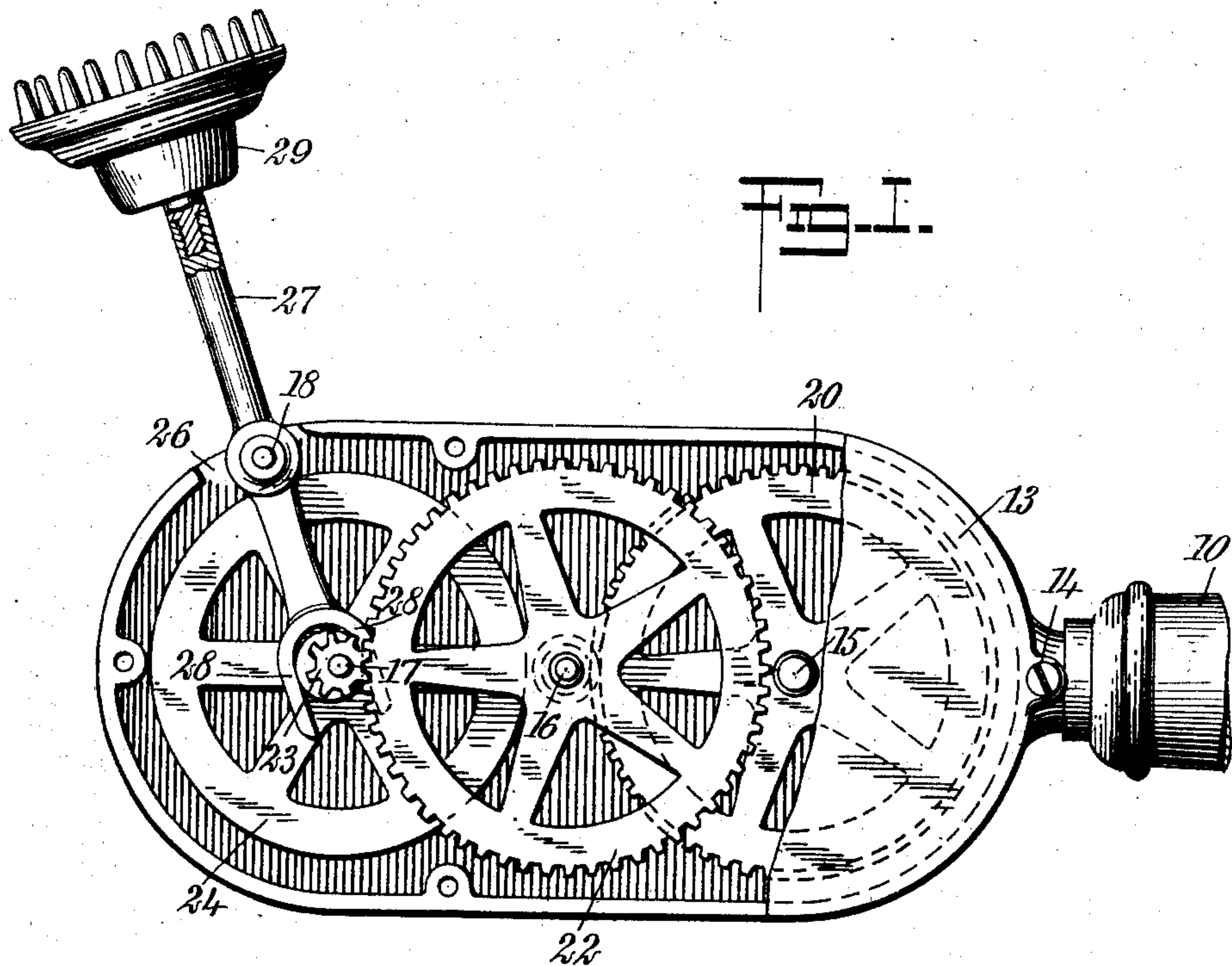


FIG. 2.

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FRANK R. MUENZENBERGER, OF NEW YORK, N. Y.

VIBRATOR.

No. 905,561.

Specification of Letters Patent.

Patented Dec. 1, 1908.

Application filed November 19, 1907. Serial No. 402,818.

To all whom it may concern:

Be it known that I, FRANK R. MUENZENBERGER, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Vibrator, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in hand-operated devices for giving vibratory massage, and relates more particularly to that type of device in which there is provided a vibratory arm having engagement with a cam, the cam being rotated by the aid of a series of gears, and the motion being rendered more uniform by a fly wheel or balance wheel rotatable with the cam.

The special object of the invention is to provide a device in which the gearing, fly wheel, and cam are mounted in a casing substantially in alinement with a supporting handle, and in which the vibrating arm extends from the casing at an angle to the general direction of the main supporting handle and moves laterally in a plane parallel to the plane of the gears, whereby any tendency of the gearing to vibrate with the arm, will be resisted by the supporting handle, as such vibration would be in the general direction of the length of said handle.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures, and in which

Figure 1 is a side elevation of a device embodying my invention, a portion of one side of the inclosing casing and the operating handle being removed; and Fig. 2 is a longitudinal section through the casing.

In the specific construction illustrated in the drawings, I provide a supporting handle or stock 10, secured to a shank 11, integral with a casing 12, inclosing the operating gearing of the vibrator. One face or cover 13 of the casing is removable and normally securely held in place in any suitable manner, as, for instance, by screws 14. The cover 13 is spaced a short distance from the opposite wall of the casing, and in the space between there are provided a plurality of transverse shafts or pivots 15, 16, 17 and 18. Each shaft or pivot is of a length substantially equal to the thickness of the casing, and its opposite ends are journaled in bosses in the opposite sides, as is clearly illustrated in Fig.

2. The shaft 15 extends to the exterior of the casing, and keyed or otherwise rigidly secured to the outer end thereof is a suitable crank 19, constituting an operating handle. Within the casing, the shaft 15 is provided with a large gear wheel 20, meshing with a pinion 21 on the shaft 16, and the shaft 16 bears a large gear wheel 22 meshing with a pinion 23 on the shaft 17; thus, as the operating handle or crank 19 is turned at a slow rate of speed, the shaft 17 is rotated at a very high rate of speed. The shaft 17 carries in addition to the gear 23, a large fly wheel 24 and a cam 25 rigid therewith and rotated by the rotation of the shaft.

The shaft or pivot 18 is pivoted at one side of the casing, adjacent the end farthest from the supporting handle or stock 10 and adjacent an opening 26 in one of the edge or circumferential walls of the casing. Pivoted upon this shaft or pivot is an arm 27, having one end thereof extending to the interior of the casing and terminating in yoke arms 28, engaging with opposite sides of the cam 25. The outer end of the arm is adapted to have any suitable form of massaging attachment 29 secured thereto. Preferably, the arm terminates in a threaded socket adapted for the reception of the threaded end of said massaging attachment, whereby the attachment may be readily removed and an attachment of a different character applied.

The arm moves in a plane parallel to the planes of rotation of the several gear wheels and pinions, and extends outwardly diagonally from one corner of the casing. In using the device, the massaging attachment is placed against the part to be treated while the implement is held or supported by the handle 10. Upon rotating the handle 19, the attachment is given a lateral movement in the same general plane as the casing and handle, rather than in a plane at an angle thereto, whereby less of the vibration is transmitted through the supporting handle 10.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

A vibrator, comprising an operating handle, a series of speed-increasing gears connected thereto, a fly wheel rotated by the last of said gears, a cam rotatable with said fly wheel, a vibratory arm pivoted intermediate its ends and having a yoke in engagement with the opposite sides of the cam, and

a supporting handle for said gears, cam, fly wheel, and arm, said arm extending at an angle to said supporting handle and movable laterally in a plane parallel to the plane of
5 said gears, whereby the tendency of said gears to vibrate is in the general direction of the length of said supporting handle and is resisted thereby.

In testimony whereof I have signed my name to this specification in the presence of 10 two subscribing witnesses.

FRANK R. MUENZENBERGER.

Witnesses:

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