

May 24, 1932.

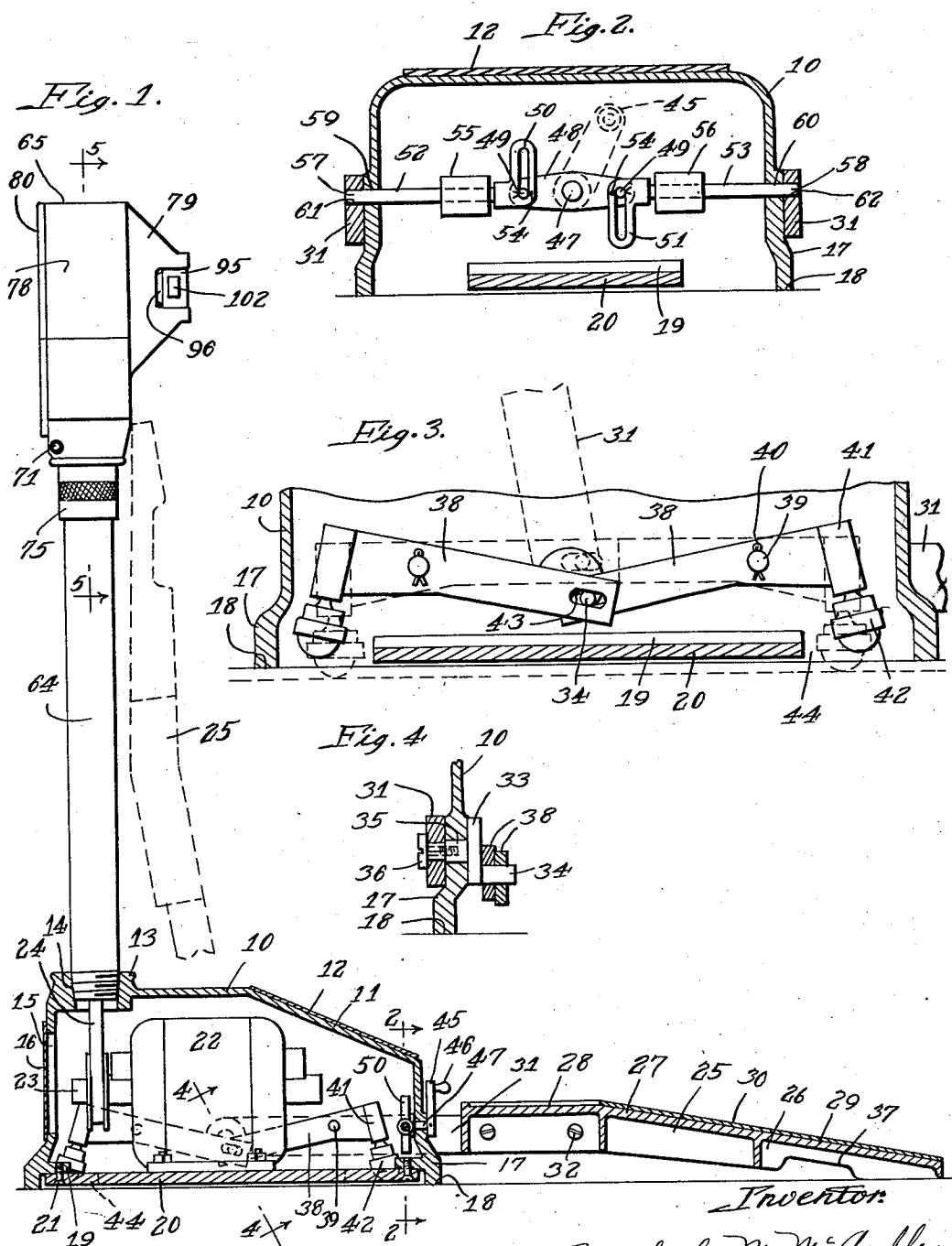
M. W. McARDLE

1,859,976

HEALTH EXERCISER

Filed Dec. 12, 1929.

2 Sheets-Sheet 1



By Michael W. McArdele
Wilson, Howell, McCanna & John

Atty's

May 24, 1932.

M. W. McARDLE

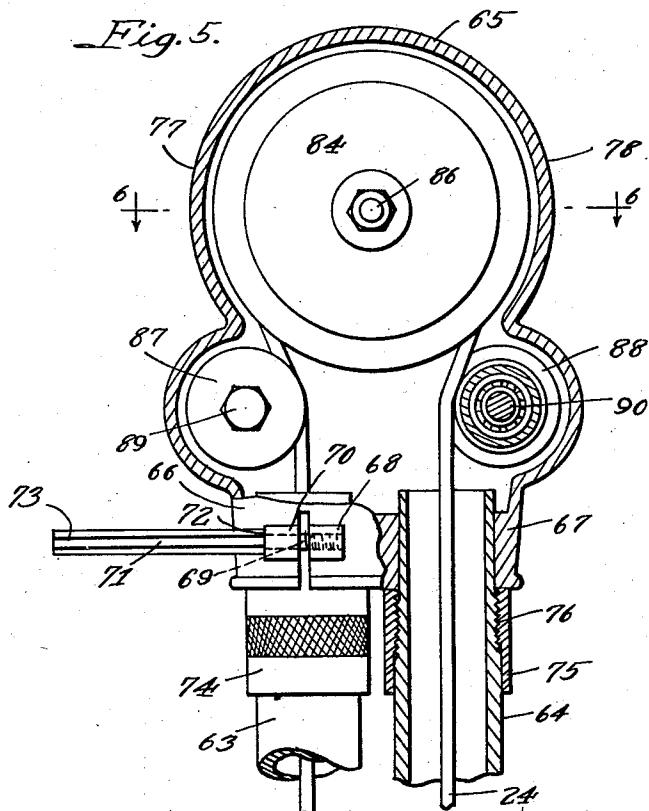
1,859,976

HEALTH EXERCISER

Filed Dec. 12, 1929

2 Sheets-Sheet 2

Fig. 5.



Patented May 24, 1932

1,859,976

UNITED STATES PATENT OFFICE

MICHAEL W. MCARDLE, OF CHICAGO, ILLINOIS

HEALTH EXERCISER

Application filed December 12, 1929. Serial No. 413,614.

My invention relates to health exercisers and has special reference to the type adapted for household use arranged to provide stimulation to various portions of the human body through oscillating movement thereof.

The general object of the invention is to provide a generally improved health exerciser of greater convenience and utility than has heretofore been known, wherein the driving motor is placed in the base of the machine which rests upon the floor and wherein a platform is provided, movable between an inoperative position above the base and an operative position into which it is fastened to permit the user to stand thereon, eliminating the necessity of fastening the machine to a suitable support during operation. In the inoperative position of the platform, the floor space occupied by the machine is substantially smaller than for other machines having platforms.

Another object is the provision of a machine which may be easily moved about within the house and placed in inconspicuous or concealed places when not in use.

I have also aimed to provide a machine which may be economically manufactured.

I have further aimed to provide an exerciser having improved means of operating an oscillating member characterized by the location of the motor in the base and the provision of enclosed intermediate mechanism for transmitting motion from the base to the oscillating member.

Another object is the provision of improved means for producing oscillating motion of the rocker arm.

Other objects and attendant advantages will become apparent to those skilled in the art from the following description and the accompanying drawings in which—

Figure 1 is a side elevation of the machine showing the base and platform in section, the inoperative position of the platform being shown in dotted lines;

Fig. 2 is a section on the line 2—2 of Fig. 1 showing the means for locking the platform in its operative position;

Fig. 3 is a section similar to that shown

in Fig. 1 but on a somewhat larger scale showing the caster arrangement;

Fig. 4 is a section on the line 4—4 of Fig. 1; Fig. 5 is a section on the line 5—5 of Fig. 1 showing the head in section;

Fig. 6 is a section on the line 6—6 of Fig. 5 showing the rocker arm and actuating mechanism, and

Fig. 7 is a section on the line 7—7 of Fig. 6 showing a vertical section through the rocker arm and rocker arm crank.

The machine consists generally of a base arranged to rest upon the floor and house the driving motor, an operating head supported from the base by suitable uprights, and a platform arranged to move between an operative position resting upon the floor and an inoperative position above the base. The operating head is driven from the motor in the base by means of a belt passing through the supporting upright. Movement of the platform from the operative to the inoperative position causes a plurality of casters to be forced out of the base, lifting the machine and supporting it upon the casters. Movement of the platform from the inoperative to the operative position causes the retraction of the casters letting the machine down solidly onto the base. Means are provided for locking the platform in its operative position.

Referring now to the drawings, Figs. 1 to 4, the numeral 10 indicates generally the base of the machine arranged to support the remainder of the operating mechanism. While this base may be of any desired shape I have found it convenient to give it a box-like shape, in order to completely cover the motor, and provide its front top portion with a downwardly inclined face, as indicated at 11. If desired, this face 11 may be provided with a pad 12 of corrugated material such as rubber or the like upon which the foot of the user may be placed, when using the machine as will presently appear. The base is provided, at the back of the top portion, with two bosses 13 having threaded openings 14 to receive the uprights presently to be described. An opening 15 may be provided in the back wall of the base through

55

70

75

80

85

90

95

100

which access may be had to the motor or to the belt. This opening may be covered by a plate 16 secured by suitable bolts, screws or the like. The sides of the base are flared somewhat near their lower edges, as indicated at 17, the lower edges 18 thereof being coplanar to provide a smooth contact with the floor. Ledges 19 project inward from the inner face of the base and serve to support the motor board 20 through screws 21. A driving motor 22 having a pulley 23 arranged to drive the belt 24 is supported on the motor board 20. It will be seen that the ledges 19 are so positioned as to support the motor board 20 a very small distance from the floor when the base rests upon its lower edge 18, whereby the assembled base possesses a very low center of gravity.

In order to provide a place for the user of the machine to stand and to stabilize the machine against forces which will presently become apparent, the platform indicated generally by 25 is provided. The platform consists of two parallelly disposed side portions 26 and a top portion 27 having a horizontally disposed part 28 and an inclined part 29. The platform may be covered on its top with a corrugated soft material such as rubber 30, if desired. Side arms 31 attached to the platform on either side by means of screws 32, lie along the sides of the base 10 and serve to support the platform 25 thereon. A crank 33 having an eccentric pin 34 is rotatably positioned in each side of the base 10 through a center pin 35 having a bearing in the side walls of the base. The arms 31 are positioned upon the center pins 35 at each side of the base 10 through screws 36, the crank 33 and center pin 35 being arranged to rotate with rotation of the arms 31. It will be seen that by this arrangement the operator may grasp the platform at the hand holes 37 and raise it from the operative position shown in full lines in Fig. 1 to the inoperative position shown in dotted lines in the same figure.

In order to provide a simple and easy way of moving the machine from place to place in the house and permit it to be moved to an inconspicuous place, I have arranged to have casters projected downward from the base of the machine when the platform is moved from its operative to its inoperative position. It should be observed that in this operation the platform is moved out of contact with the floor and the casters are simultaneously projected from the base, thus permitting the machine to be rolled along the floor. In order to accomplish this I have provided caster arms 38, two of which are attached on each side of the base to pins 39 positioned in the side of the base. The caster arms are arranged to rotate about the pins 39 and are held in position by cotter pins 40. Caster sockets 41 are positioned on the outer end of

the caster arms 38 and arranged to support casters of any suitable type, indicated generally by 42. Slots 43 having slideable engagement with the eccentric pin 34 of the crank 33, are positioned on the inner end of each caster arm. When the platform 25 is rotated from its operative position to its inoperative position the crank 33 will be rotated moving the eccentric pin 34 to the upper position in slots 43 and raising the inner ends of the 70 caster arms 38. When this occurs the caster sockets 41 will be moved downward projecting the casters 42 through openings 44 in the motor board 20, as shown in dotted lines in Fig. 3. Projection of the casters 42 cause the lower edges 18 of the base to be lifted free from the floor as indicated in dotted lines in Fig. 3. The whole machine may then be rolled along a level surface as will be obvious.

In order that the platform 25 may serve to stabilize the base 10 and hold it fixedly to the floor under the weight of the user during the operation of the machine, I have provided means for fixedly securing the platform to the base when the platform is in its operative position. To this end a crank 45 having a finger knob 46 is rotatably positioned in the front wall of the base 10 through a pin 47 fixedly connected to the crank. The inner end of the pin 47 is fixedly connected to a cross-bar 48 which is provided with a crank pin 49 on each end. The crank pins 49 engage slots 50 and 51 formed on the inner end of the rods 52 and 53, the rods being positioned on substantially the same horizontal center line. The slot 50 extends upward from the center line and the slot 51 extends downward therefrom in substantially the same plane. Cotter pins 54 maintain the crank pins 49 within the slots 50 and 51. The rods 52 and 53 are slidably positioned in bearings 55 and 56 attached to the front wall of the base 10, and have their outer ends 57 and 58 slidably positioned in openings 59 and 60 in the side wall of the base 10. Referring to Figs. 1 and 2, it will be seen that when the crank 45 is turned in a clockwise direction the bar 48 will be similarly turned, the pins 49 moving along the slots 50 and 51 and drawing the rods 52 and 53 inward, whereby the ends of the latter 57 and 58 will be drawn out of the openings 61 and 62 of the arms 31. In like manner when the crank 45 is turned in a counter-clockwise direction the rods 52 and 53 will be projected outward into the openings 61 and 62 of the arms whereby the platform 25 is held firmly in its operative position. When the rods 52 and 53 are withdrawn from the openings 51 and 62, as previously described, the platform 25 may be rotated to the dotted line position shown in Fig. 1. The casters 42 are simultaneously projected downward lifting the base from 100 105 110 115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 210 215 220 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300 305 310 315 320 325 330 335 340 345 350 355 360 365 370 375 380 385 390 395 400 405 410 415 420 425 430 435 440 445 450 455 460 465 470 475 480 485 490 495 500 505 510 515 520 525 530 535 540 545 550 555 560 565 570 575 580 585 590 595 600 605 610 615 620 625 630 635 640 645 650 655 660 665 670 675 680 685 690 695 700 705 710 715 720 725 730 735 740 745 750 755 760 765 770 775 780 785 790 795 800 805 810 815 820 825 830 835 840 845 850 855 860 865 870 875 880 885 890 895 900 905 910 915 920 925 930 935 940 945 950 955 960 965 970 975 980 985 990 995 1000 1005 1010 1015 1020 1025 1030 1035 1040 1045 1050 1055 1060 1065 1070 1075 1080 1085 1090 1095 1100 1105 1110 1115 1120 1125 1130 1135 1140 1145 1150 1155 1160 1165 1170 1175 1180 1185 1190 1195 1200 1205 1210 1215 1220 1225 1230 1235 1240 1245 1250 1255 1260 1265 1270 1275 1280 1285 1290 1295 1300 1305 1310 1315 1320 1325 1330 1335 1340 1345 1350 1355 1360 1365 1370 1375 1380 1385 1390 1395 1400 1405 1410 1415 1420 1425 1430 1435 1440 1445 1450 1455 1460 1465 1470 1475 1480 1485 1490 1495 1500 1505 1510 1515 1520 1525 1530 1535 1540 1545 1550 1555 1560 1565 1570 1575 1580 1585 1590 1595 1600 1605 1610 1615 1620 1625 1630 1635 1640 1645 1650 1655 1660 1665 1670 1675 1680 1685 1690 1695 1700 1705 1710 1715 1720 1725 1730 1735 1740 1745 1750 1755 1760 1765 1770 1775 1780 1785 1790 1795 1800 1805 1810 1815 1820 1825 1830 1835 1840 1845 1850 1855 1860 1865 1870 1875 1880 1885 1890 1895 1900 1905 1910 1915 1920 1925 1930 1935 1940 1945 1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030 2035 2040 2045 2050 2055 2060 2065 2070 2075 2080 2085 2090 2095 2100 2105 2110 2115 2120 2125 2130 2135 2140 2145 2150 2155 2160 2165 2170 2175 2180 2185 2190 2195 2200 2205 2210 2215 2220 2225 2230 2235 2240 2245 2250 2255 2260 2265 2270 2275 2280 2285 2290 2295 2300 2305 2310 2315 2320 2325 2330 2335 2340 2345 2350 2355 2360 2365 2370 2375 2380 2385 2390 2395 2400 2405 2410 2415 2420 2425 2430 2435 2440 2445 2450 2455 2460 2465 2470 2475 2480 2485 2490 2495 2500 2505 2510 2515 2520 2525 2530 2535 2540 2545 2550 2555 2560 2565 2570 2575 2580 2585 2590 2595 2600 2605 2610 2615 2620 2625 2630 2635 2640 2645 2650 2655 2660 2665 2670 2675 2680 2685 2690 2695 2700 2705 2710 2715 2720 2725 2730 2735 2740 2745 2750 2755 2760 2765 2770 2775 2780 2785 2790 2795 2800 2805 2810 2815 2820 2825 2830 2835 2840 2845 2850 2855 2860 2865 2870 2875 2880 2885 2890 2895 2900 2905 2910 2915 2920 2925 2930 2935 2940 2945 2950 2955 2960 2965 2970 2975 2980 2985 2990 2995 3000 3005 3010 3015 3020 3025 3030 3035 3040 3045 3050 3055 3060 3065 3070 3075 3080 3085 3090 3095 3100 3105 3110 3115 3120 3125 3130 3135 3140 3145 3150 3155 3160 3165 3170 3175 3180 3185 3190 3195 3200 3205 3210 3215 3220 3225 3230 3235 3240 3245 3250 3255 3260 3265 3270 3275 3280 3285 3290 3295 3300 3305 3310 3315 3320 3325 3330 3335 3340 3345 3350 3355 3360 3365 3370 3375 3380 3385 3390 3395 3400 3405 3410 3415 3420 3425 3430 3435 3440 3445 3450 3455 3460 3465 3470 3475 3480 3485 3490 3495 3500 3505 3510 3515 3520 3525 3530 3535 3540 3545 3550 3555 3560 3565 3570 3575 3580 3585 3590 3595 3600 3605 3610 3615 3620 3625 3630 3635 3640 3645 3650 3655 3660 3665 3670 3675 3680 3685 3690 3695 3700 3705 3710 3715 3720 3725 3730 3735 3740 3745 3750 3755 3760 3765 3770 3775 3780 3785 3790 3795 3800 3805 3810 3815 3820 3825 3830 3835 3840 3845 3850 3855 3860 3865 3870 3875 3880 3885 3890 3895 3900 3905 3910 3915 3920 3925 3930 3935 3940 3945 3950 3955 3960 3965 3970 3975 3980 3985 3990 3995 4000 4005 4010 4015 4020 4025 4030 4035 4040 4045 4050 4055 4060 4065 4070 4075 4080 4085 4090 4095 4100 4105 4110 4115 4120 4125 4130 4135 4140 4145 4150 4155 4160 4165 4170 4175 4180 4185 4190 4195 4200 4205 4210 4215 4220 4225 4230 4235 4240 4245 4250 4255 4260 4265 4270 4275 4280 4285 4290 4295 4300 4305 4310 4315 4320 4325 4330 4335 4340 4345 4350 4355 4360 4365 4370 4375 4380 4385 4390 4395 4400 4405 4410 4415 4420 4425 4430 4435 4440 4445 4450 4455 4460 4465 4470 4475 4480 4485 4490 4495 4500 4505 4510 4515 4520 4525 4530 4535 4540 4545 4550 4555 4560 4565 4570 4575 4580 4585 4590 4595 4600 4605 4610 4615 4620 4625 4630 4635 4640 4645 4650 4655 4660 4665 4670 4675 4680 4685 4690 4695 4700 4705 4710 4715 4720 4725 4730 4735 4740 4745 4750 4755 4760 4765 4770 4775 4780 4785 4790 4795 4800 4805 4810 4815 4820 4825 4830 4835 4840 4845 4850 4855 4860 4865 4870 4875 4880 4885 4890 4895 4900 4905 4910 4915 4920 4925 4930 4935 4940 4945 4950 4955 4960 4965 4970 4975 4980 4985 4990 4995 5000 5005 5010 5015 5020 5025 5030 5035 5040 5045 5050 5055 5060 5065 5070 5075 5080 5085 5090 5095 5100 5105 5110 5115 5120 5125 5130 5135 5140 5145 5150 5155 5160 5165 5170 5175 5180 5185 5190 5195 5200 5205 5210 5215 5220 5225 5230 5235 5240 5245 5250 5255 5260 5265 5270 5275 5280 5285 5290 5295 5300 5305 5310 5315 5320 5325 5330 5335 5340 5345 5350 5355 5360 5365 5370 5375 5380 5385 5390 5395 5400 5405 5410 5415 5420 5425 5430 5435 5440 5445 5450 5455 5460 5465 5470 5475 5480 5485 5490 5495 5500 5505 5510 5515 5520 5525 5530 5535 5540 5545 5550 5555 5560 5565 5570 5575 5580 5585 5590 5595 5600 5605 5610 5615 5620 5625 5630 5635 5640 5645 5650 5655 5660 5665 5670 5675 5680 5685 5690 5695 5700 5705 5710 5715 5720 5725 5730 5735 5740 5745 5750 5755 5760 5765 5770 5775 5780 5785 5790 5795 5800 5805 5810 5815 5820 5825 5830 5835 5840 5845 5850 5855 5860 5865 5870 5875 5880 5885 5890 5895 5900 5905 5910 5915 5920 5925 5930 5935 5940 5945 5950 5955 5960 5965 5970 5975 5980 5985 5990 5995 6000 6005 6010 6015 6020 6025 6030 6035 6040 6045 6050 6055 6060 6065 6070 6075 6080 6085 6090 6095 6100 6105 6110 6115 6120 6125 6130 6135 6140 6145 6150 6155 6160 6165 6170 6175 6180 6185 6190 6195 6200 6205 6210 6215 6220 6225 6230 6235 6240 6245 6250 6255 6260 6265 6270 6275 6280 6285 6290 6295 6300 6305 6310 6315 6320 6325 6330 6335 6340 6345 6350 6355 6360 6365 6370 6375 6380 6385 6390 6395 6400 6405 6410 6415 6420 6425 6430 6435 6440 6445 6450 6455 6460 6465 6470 6475 6480 6485 6490 6495 6500 6505 6510 6515 6520 6525 6530 6535 6540 6545 6550 6555 6560 6565 6570 6575 6580 6585 6590 6595 6600 6605 6610 6615 6620 6625 6630 6635 6640 6645 6650 6655 6660 6665 6670 6675 6680 6685 6690 6695 6700 6705 6710 6715 6720 6725 6730 6735 6740 6745 6750 6755 6760 6765 6770 6775 6780 6785 6790 6795 6800 6805 6810 6815 6820 6825 6830 6835 6840 6845 6850 6855 6860 6865 6870 6875 6880 6885 6890 6895 6900 6905 6910 6915 6920 6925 6930 6935 6940 6945 6950 6955 6960 6965 6970 6975 6980 6985 6990 6995 7000 7005 7010 7015 7020 7025 7030 7035 7040 7045 7050 7055 7060 7065 7070 7075 7080 7085 7090 7095 7100 7105 7110 7115 7120 7125 7130 7135 7140 7145 7150 7155 7160 7165 7170 7175 7180 7185 7190 7195 7200 7205 7210 7215 7220 7225 7230 7235 7240 7245 7250 7255 7260 7265 7270 7275 7280 7285 7290 7295 7300 7305 7310 7315 7320 7325 7330 7335 7340 7345 7350 7355 7360 7365 7370 7375 7380 7385 7390 7395 7400 7405 7410 7415 7420 7425 7430 7435 7440 7445 7450 7455 7460 7465 7470 7475 7480 7485 7490 7495 7500 7505 7510 7515 7520 7525 7530 7535 7540 7545 7550 7555 7560 7565 7570 7575 7580 7585 7590 7595 7600 7605 7610 7615 7620 7625 7630 7635 7640 7645 7650 7655 7660 7665 7670 7675 7680 7685 7690 7695 7700 7705 7710 7715 7720 7725 7730 7735 7740 7745 7750 7755 7760 7765 7770 7775 7780 7785 7790 7795 7800 7805 7810 7815 7820 7825 7830 7835 7840 7845 7850 7855 7860 7865 7870 7875 7880 7885 7890 7895 7900 7905 7910 7915 7920 7925 7930 7935 7940 7945 7950 7955 7960 7965 7970 7975 7980 7985 7990 7995 8000 8005 8010 8015 8020 8025 8030 8035 8040 8045 8050 8055 8060 8065 8070 8075 8080 8085 8090 8095 8100 8105 8110 8115 8120 8125 8130 8135 8140 8145 8150 8155 8160 8165 8170 8175 8180 8185 8190 8195 8200 8205 8210 8215 8220 8225 8230 8235 8240 8245 8250 8255 8260 8265 8270 8275 8280 8285 8290 8295 8300 8305 8310 8315 8320 8325 8330 8335 8340 8345 8350 8355 8360 8365 8370 8375 8380 8385 8390 8395 8400 8405 8410 8415 8420 8425 8430 8435 8440 8445 8450 8455 8460 8465 8470 8475 8480 8485 8490 8495 8500 8505 8510 8515 8520 8525 8530 8535 8540 8545 8550 8555 8560 8565 8570 8575 8580 8585 8590 8595 8600 8605 8610 8615 8620 8625 8630 8635 8640 8645 8650 8655 8660 8665 8670 8675 8680 8685 8690 8695 8700 8705 8710 8715 8720 8725 8730 8735 8740 8745 8750 8755 8760 8765 8770 8775 8780 8785 8790 8795 8800 8805 8810 8815 8820 8825 8830 8835 8840 8845 8850 8855 8860 8865 8870 8875 8880 8885 8890 8895 8900 8905 8910 8915 8920 8925 8930 8935 8940 8945 8950 8955 8960 8965 8970 8975 8980 8985 8990 8995 9000 9005 9010 9015 9020 9025 9030 9035 9040 9045 9050 9055 9060 9065 9070 9075 9080 9085 9090 9095 9100 9105 9110 9115 9120 9125 9130 9135 9140 9145 9150 9155 9160 9165 9170 9175 9180 9185 9190 9195 9200 9205 9210 9215 9220 9225 9230 9235 9240 9245 9250 9255 9260 9265 9270 9275 9280 9285 9290 9295 9300 9305 9310 9315 9320 9325 9330 9335 9340 9345 9350 9355 9360 9365 9370 9375 9380 9385 9390 9395 9400 9405 9410 9415 9420 9425 9430 9435 9440 9445 9450 9455 9460 9465 9470 9475 9480 9485 9490 9495 9500 9505 9510 9515 9520 9525 9530 9535 9540 9545 9550 9555 9560 9565 9570 9575 9580 9585 9590 9595 9600 9605 9610 9615 9620 9625 9630 9635 9640 9645 9650 9655 9660 9665 9670 9675 9680 9685 9690 9695 9700 9705 9710 9715 9720 9725 9730 9735 9740 9745 9750 9755 9760 9765 9770 9775 9780 9785 9790 9795 9800 9805 9810 9815 9820 9825 9830 9835 9840 9845 9850 9855 9860 9865 9870 9875 9880 9885 9890 9895 9900 9905 9910 9915 9920 9925 9930 9935 9940 9945 9950 9955 9960 9965 9970 9975 9980 9985 9990 9995 10000 10005 10010 10015 10020 10025 10030 10035 10040 10045 10050 10055 10060 10065 10070 10075 10080 10085 10090 10095 10100 10105 10110 10115 10120 10125 10130 10135 10140 10145 10150 10155 10160 10165 10170 10175 10180 10185 10190 10195 10200 10205 10210 10215 10220 1022

the floor, thereby permitting the machine to be moved over the floor with ease.

While the upright portion of the machine may be of any desired shape I have arranged 5 to provide two pipes or tubular members, indicated generally by 63 and 64, having their lower ends positioned in the threaded openings 14 of the base 10, in such wise as to receive the parallel flights of the belt 24 coming from the pulley 23. A head, designated generally by 65, is positioned on the upper end of the tubular uprights, as shown in Fig. 5. The lower end of the head 65 is provided with two split collars 66 and 67, the collar 66 15 being arranged to slide over the top of the cylindrical upright 63 and the collar 67 being arranged to slide over the top of the upright 64. Each of the collars 66 and 67 are provided with a projection 68 having a tapped and threaded opening 69 and a projection 70 through which the bolt 71 may pass. The bolt 71 is provided with a shank 72 arranged to bear against the projection 70 whereby rotation of the bolt will cause the 20 collar to be drawn together, tightening the collar about the upper end of the upright 63 or 64. The bolts 71 are provided with extensions 73 upon which various accessories used with the machine such as the strap or 25 belt may be hung, the extensions also serving as handles to be grasped in moving the device around. Screw threaded sleeves 74 and 75 are positioned about the uprights 63 and 64 near their upper ends and threaded 30 thereon as at 76. The collars 66 and 67 slide down over the end of the uprights 63 and 64 until they come in contact with the upper edges of the screw sleeves 74 and 75. The bolts 71 are then tightened, thereby tightening 35 the head 65 upon the uprights 63 and 64. However, should the belt 24, presently to be described, become loose the bolts 71 may be loosened, thereby loosening the head 65 on the uprights 63 and 64. The screw threaded 40 sleeves 74 and 75 are then turned to raise the head 65 to tighten the belt and place it under the desired tension.

The operating head, 65 which may be advantageously provided with side walls 77 and 78, a V-shaped front wall 79, and a removable rear wall 80 is positioned upon the uprights 63 and 64 as already indicated. A web 81 is formed on the inner face of the head 65 and serves to support a bearing 82 within 45 which a shaft 83 is journaled. A pulley 84 is fixedly positioned on the rear end of the shaft 83 by means of a key 85 and nut 86 threaded on the rear end of the shaft 83, the bearing 82 and shaft 83 being so positioned as 50 to support the pulley 84 vertically above the pulley 23 on the shaft of the motor 22 in the base 10. The motor 22 in the base serves to drive the pulley 84 through the belt 24 which passes upward through the hollow uprights 55 63 and 64. Idler pulleys 87 and 88 are posi-

tioned within the operating head 65 below the pulley 84 and to each side thereof and serve to direct the belt 24 inward so that the two flights thereof will operate in the hollow uprights 63 and 64 in substantially parallel relation, thereby preventing the belt from striking the sides of the uprights and permitting the uprights to be placed close together. The idler pulleys 87 and 88 are supported upon shafts 89 and 90 threaded into the front of the operating head 65 as shown in Fig. 5. The forward end of the shaft 83 is provided with a crank 91 and pin 92. The crank pin 92 has rotatable engagement with a bearing block 93 which in turn has slidable engagement with an offset sleeve 94, offset from the center of rotation of a rocker arm 95. By this arrangement rotary motion of the shaft 83 will be translated into horizontal oscillating motion at the sleeve 94. The rocker arm 95 is positioned in the front 79 of the operating head 65 in a slot 96. A pin 97 passing through ears 98 and 99 of the front 79, and through the rocker arm 95, permits the arm to rotate about its center at which point it is suspended by the pin 97, held in position by means of a set screw 100. Obviously, oscillating horizontal motion of the sleeve 94 will cause oscillating movement of the ends 101 and 102 of the rocker arm 95. A recess 103 is provided in the top of the bearing block 93 and has an opening 104 to the eccentric pin 92. This recess is arranged to hold a quantity of cotton or other absorbent material 105 which is saturated with oil whereby constant lubrication of the bearing is assured. A strap or band which is passed around the body of the user is adapted to be attached to the ends 101 and 102 of the rocker arm 95. It is through this strap that the oscillating movement of the arm 95 is transferred to the user. Since this strap forms no part of my invention it has not been described or illustrated, suffice it to say that depressions 106 are provided along the rocker arm to permit the ends of band or applicator to be attached at different distances from the center 97 to vary the throw of each oscillation. In use the strap applicator is wrapped about a certain part of the body. The user then draws away from the machine placing a tension on the strap whereby the oscillations are transmitted to the body.

Manifold advantages of my improved construction will have become apparent. The greater part of the weight of the machine lies within the confines of the base 10. In operation, this base is arranged to rest squarely upon the floor, the lower edges 18 thereof making contact with the floor. For this reason it will be seen that the device possesses a very low center of gravity. The platform 25 in its operative position is securely fastened to the base 10. The operator stands upon this platform when using the machine 130

and consequently holds the whole machine down upon the floor so that great strain imposed upon the ends 101 and 102 of the arm 95 do not tip the machine over. In some uses of the machine one foot of the operator will be placed upon the platform 25 and one foot upon the inclined face of the base, thus throwing the full weight of the body backward against the applicator. It will be clear that even in this position a portion of the body's weight rests on the platform and base and prevents the tension on the arm 95 from tipping the machine over. However, when the machine is not in use the lever 45 is rotated, releasing the platform 25 which may then be raised to its inoperative position. When this is done the casters 42 are automatically projected from the base 10, thus supporting the whole machine upon the casters and permitting it to be rolled about the floor at will. Through the screw threaded sleeves 74 and 75 provision is made for altering the tension upon the belt 24. Should the belt become loosened through use, the screw sleeves 74 and 75 may be moved upward, thus tightening the belt. It will be seen that because of the motor being positioned within the base 10, it is possible to substantially reduce the size of the operating head 65 beyond that otherwise possible.

All of the moving parts of the machine with the exception of the arm 95 are completely enclosed. There are no exposed parts from which the user may contract grease or dirt. Parts normally dangerously attractive to children such as the belt 24, are completely enclosed. It should be observed that a large percentage of the users of these machines are women who employ them in the home to keep their weight down. In many instances their duties involve the care of children, which must be done, among other times, when the machines are in use. It is, therefore, important that such a machine be so constructed as to be harmless to children playing about as well as to present no point from which they collect dirt and grease.

While I have thus described and illustrated a specific embodiment of my invention I am aware that numerous alterations and changes may be made therein without materially departing from the spirit of the invention and I do not wish to be limited except as required by the prior art and the scope of the appended claims, in which I claim:

1. A health exerciser comprising, a base, arranged to rest upon the floor and having its top formed to serve as a platform for the user, a head, an arm adapted to be oscillated, positioned upon said head, hollow upright means extending upwardly from the base for supporting said head upon said base with the arm disposed in a predetermined desired relation to the platform, a motor positioned with-

in said base and enclosed thereby, and means extending through said hollow upright supporting means connecting said motor and said arm to transmit motion thereto.

2. A health exerciser comprising, a base arranged to normally rest upon the floor, an operating head adapted to be supported above said base, a motor mounted on a fixed support within said base and having a pulley on its armature shaft, an arm positioned upon said head arranged to be oscillated about a central point, a pulley in said head, means operated by the pulley for oscillating the arm, a belt passing over said pulleys, at least one vertically positioned tubular upright arranged to support said head upon said base and enclose said belt, and means for adjusting the elevation of the head relative to the base whereby the tension on said belt may be varied.

3. A health exerciser comprising, a base arranged to normally rest upon the floor, a driving motor mounted on a fixed support in said base, a pulley positioned upon the armature shaft of said motor, an operating head adapted to be supported above said base, an arm positioned upon said head arranged to be oscillated, means including a pulley positioned in the head for oscillating said arm, a belt connecting said motor pulley and said last named pulley, at least one tubular upright arranged to support said head upon said base and enclose said belt, and a sleeve threaded upon said tubular upright serving normally to support the head thereon but also arranged when turned to raise or lower said head upon said upright and accordingly adjust the tension of the belt.

4. A health exerciser having an operating head, a supporting base adapted to normally rest upon the floor, at least one upright supporting said head upon said base, an operating mechanism positioned upon said head, and a motor arranged to drive said mechanism, one or more transporting members positioned in said base, a platform for the user movable from an extended operative position to a retracted inoperative position, and means operated in such movement of said platform for projecting said members from said base whereby said base is lifted from its normal position in contact with the floor and supported upon said transporting members to permit easy movement of the health exerciser from place to place.

5. In a health exerciser having an operating head, a base, and means for supporting the head upon the base, a plurality of caster arms pivotally positioned intermediate their ends within said base, casters positioned on one end of said caster arms arranged to be projected and retracted by movement of the opposite ends of said arms, a platform for the user movable from an extended operative position to a retracted inoperative position, and

means operated in such movement of said platform for simultaneously moving the free ends of said caster arms whereby said casters are simultaneously and uniformly projected or retracted to move said base between its normal position upon the floor and a position supported upon said casters.

6. In a health exerciser having an operating head, and means for supporting the head upon a base having the top front portion thereof formed outwardly and downwardly inclined relative to the head to serve as one platform for resting one foot of the user or for the user to stand upon, and a hinged platform upon which the user may stand or rest the other foot, connected to the base and arranged to move between an operative position in contact with the floor in front of the base when in use and an inoperative position above the base when not in use.

7. In a health exerciser of the character described, an operating head, a rocker arm adapted to support and actuate an applicator, a hollow base, hollow upright means for supporting the head upon the base, a motor mounted in the base, means operated by the motor and extending upwardly through the hollow upright support to operate the rocker arm, the base having a high rear portion to enclose the motor and having its front top portion inclined outwardly and downwardly relative to the head to provide a platform for the user, a second platform upon which the user may stand, arranged to move between an operative position in contact with the floor in front of the base in a predetermined desired relation to the aforesaid platform and an inoperative position above the base, and means for pivotally supporting the platform upon the base.

8. In a health exerciser of the character described having an operating head, a base, and means for supporting the head upon the base, a plurality of casters positioned within the base adapted to be moved between a projected position wherein the base is supported thereon and a retracted position wherein the base rests upon the floor, a platform attached to said base adapted to move between an operative position in contact with the floor and an inoperative position above the base, said platform being arranged to permit the user to stand thereon when in its operative position, and means for causing said casters to be projected when said platform is moved from its operative to its inoperative position and retracted when said platform is moved from its inoperative to its operative position.

9. In a health exerciser of the character described having an operating head, a base, and means for supporting the head upon the base, a platform upon which the user may stand, pivotally connected to the base and arranged to swing between an operative position in contact with the floor in front of the

base when in use and an inoperative position above the base when not in use, and means for fastening the platform in its operative position whereby to prevent relative movement between the base and platform and prevent tipping of the device.

10. In a health exerciser of the character described, having an operating head, a base, and means for supporting the head upon the base, a plurality of casters positioned within the base adapted to be moved between a projected position wherein the base is supported thereon and a retracted position wherein the base rests upon the floor, a platform attached to said base adapted to move between an operative position in contact with the floor in front of the base and an inoperative position above the base, said platform being arranged to permit the user to stand thereon when in its operative position, means for causing said casters to be projected when said platform is moved from its operative to its inoperative position and retracted when said platform is moved from its inoperative to its operative position, and means for locking said platform in its operative position.

11. A machine of the character described comprising a hollow base arranged to rest upon the floor, an operating head above the base, a hollow support extending upwardly from the rear portion of the base for supporting the head, a motor mounted in said base below the hollow support, means extending upwardly from the motor through the hollow support to the head to transmit drive to the latter, said base having the rear portion thereof high enough to provide an enclosure for the motor but having the front top portion inclined downwardly to serve as a platform for the user to stand upon or rest a foot.

12. A machine as set forth in claim 11 including a platform pivotally mounted on the base to swing from an inoperative position over the base to an operative position resting on the floor in front of the base and in a predetermined relation to the inclined platform provided on the latter.

13. A machine as set forth in claim 11 including a platform pivotally mounted on the base to swing from an inoperative position over the base to an operative position resting on the floor in front of the base and in a predetermined relation to the inclined platform provided on the latter, and means for locking the pivoted platform rigid with the base in its operative position.

14. In a machine of the character described comprising a hollow substantially rectangular base, an upright on the base supporting a head for operating an exerciser applicator, a pair of levers pivotally mounted on each of the opposed side walls of the base carrying casters on the free ends thereof approximately at the four corners of the base, each pair of levers having their other ends extending to

ward each other, a platform having arms reaching alongside the base and pivoted to the side walls thereof to permit swinging movement of the platform from a position resting on the floor in front of the base to a raised inoperative position over the base, and means having connection with the adjoining ends of each pair of levers at the opposite sides of the base for communicating oscillatory movement to said levers in the swinging movement of the platform to raised position, whereby to project the casters on the levers below the plane of the base, so that the casters assume the weight of the machine and the same is rendered easily portable.

15. In a machine as set forth in claim 14 wherein the upright on the base is hollow, there being means for operating the head extended through said upright from the base, a motor in the base removable through the open bottom thereof from its position between the levers on the adjacent side walls, said motor having detachable connection with the aforesaid head operating means, and a support for the motor removably secured in the bottom of the base and constituting a closure for the open bottom of said base.

16. A machine of the character described comprising in combination a hollow base the top of which is formed suitably to serve as a platform for the user to stand upon, a motor mounted in the base and having a pulley on the armature shaft thereof adjacent the rear wall of the base, a pair of tubular head supporting members mounted on the base in parallel relation to one another having the two flights of an endless belt extended therethrough for operative connection with said pulley, and a head mounted on the upper ends of said members having a vibrating member carried thereon and a pulley for operating the same disposed therein with the belt operatively engaging the same.

17. A machine as set forth in claim 16, wherein the head is slidably received on the upper ends of the tubular supports, the machine including sleeves threaded on said supports below the head to support the same thereon, said sleeves being arranged to be turned in either direction to increase or decrease the tension of the belt by adjusting the elevation of the head as a whole with respect to the base.

18. A machine as set forth in claim 16, wherein the head has two split collar portions slidably adjustable on the upper ends of said tubular supports, said head being arranged to be adjusted as to elevation with respect to the base whereby to vary the tension of the belt, and means for clamping the split collar portions on said supports in the adjusted position of the head.

19. A machine as set forth in claim 16, wherein the head has two split collar portions slidably adjustable on the upper ends

of said tubular supports, said head being arranged to be adjusted as to elevation with respect to the base whereby to vary the tension of the belt, and means for clamping the split collar portions on said supports in the adjusted position of the head, the said means comprising screws for drawing together the split portions of said collars, said screws being elongated at the head portions thereof and extending laterally from opposite sides of the head and adapted to serve as handles in the transporting of the machine.

20. A machine as set forth in claim 14 including means on the front wall of said base cooperating with at least one of the arms of the pivoted platform for locking said platform in rigid relation to the base in the operative position of the platform.

In witness of the foregoing I affix my signature.

MICHAEL W. McARDLE.