O. K. SLETTO.

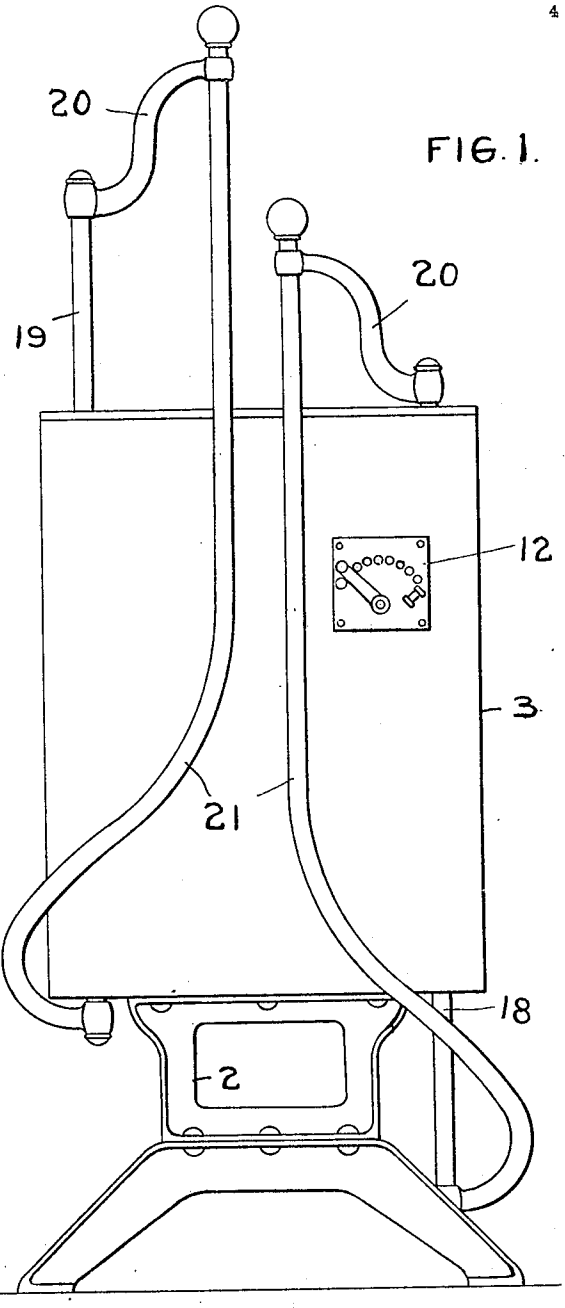
EXERCISING MACHINE.

APPLICATION FILED MAR. 10, 1908.

904,815. Patented Nov. 24, 1908.

4 SHEETS—SHEET 1.

FIG. 1.



WITNESSES.

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4 SHEETS—SHEET 2.

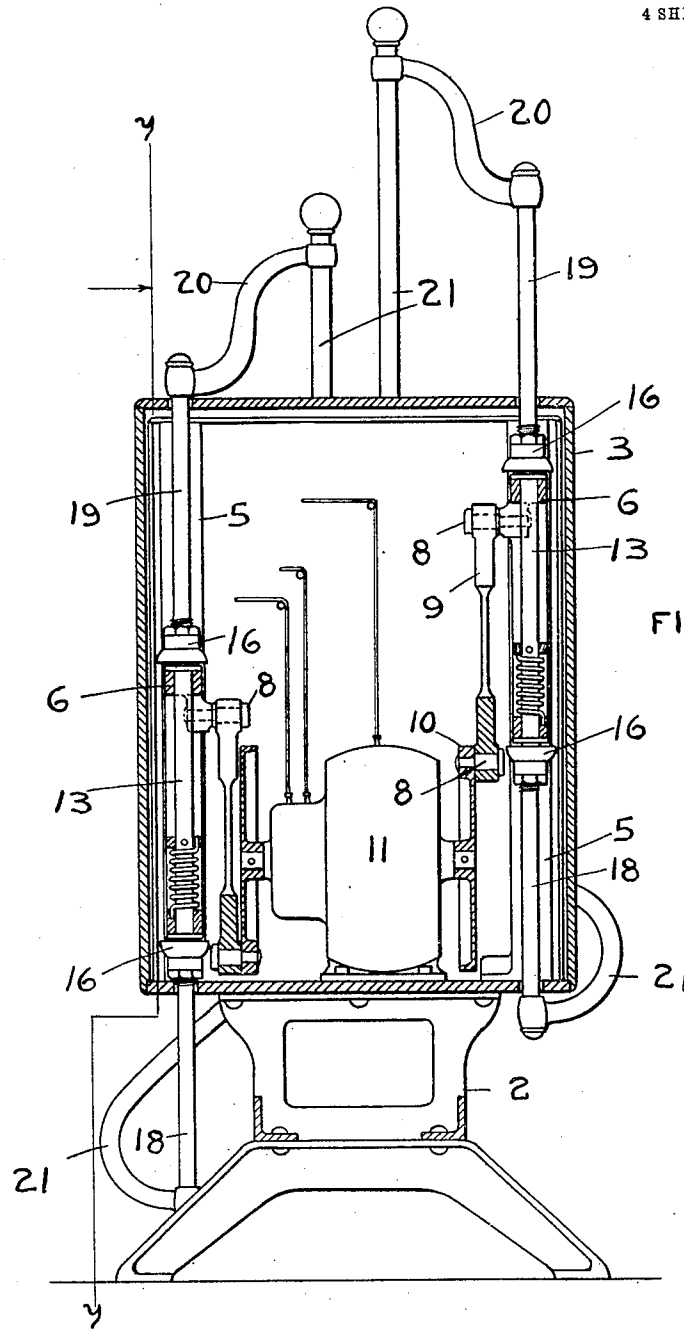


FIG. 2.

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4 SHEETS—SHEET 3.

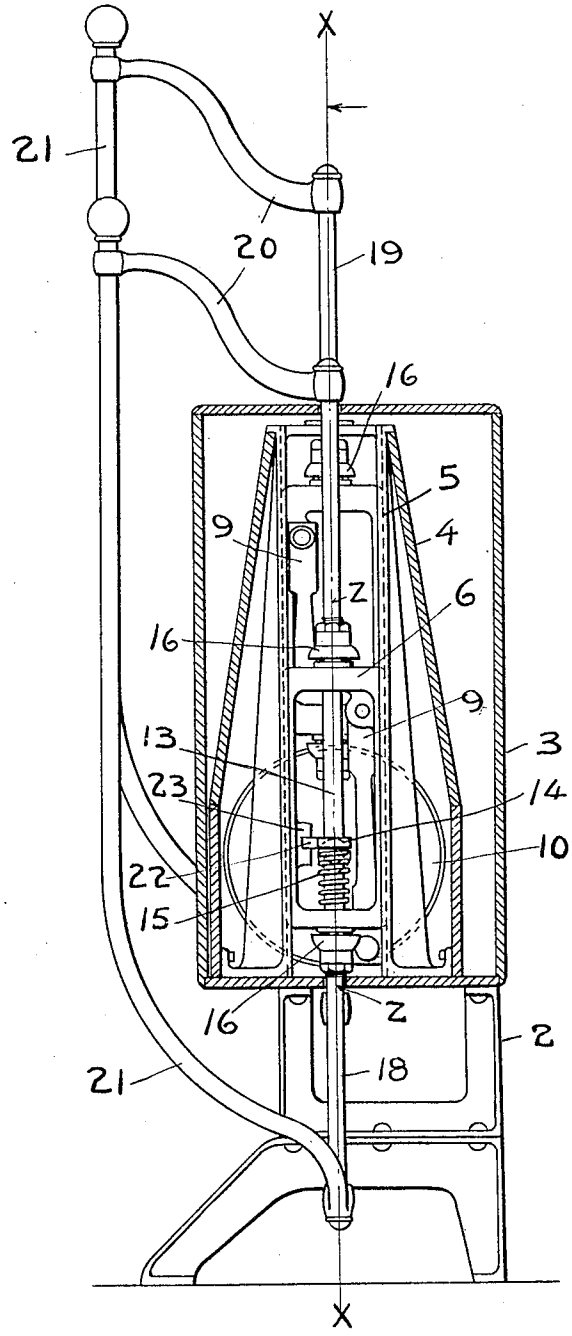


FIG. 3.

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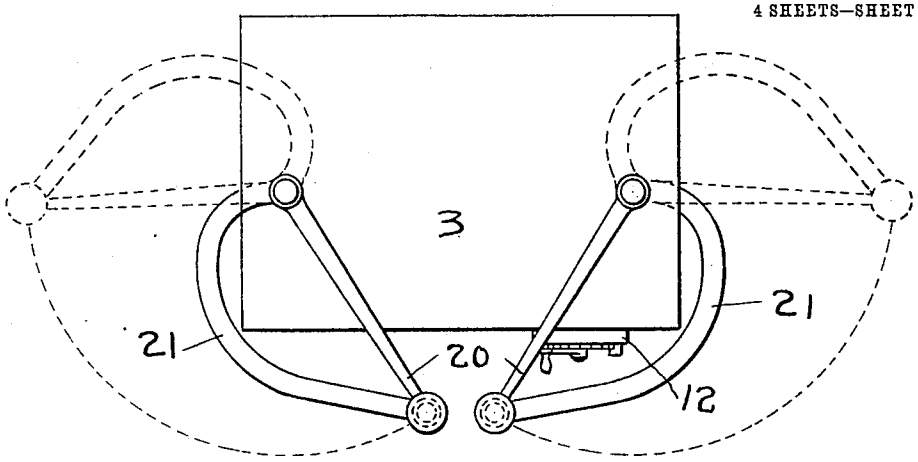


FIG. 4.

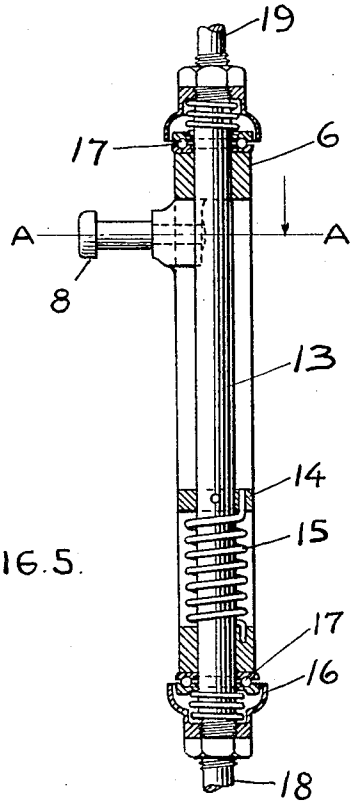


FIG. 5.

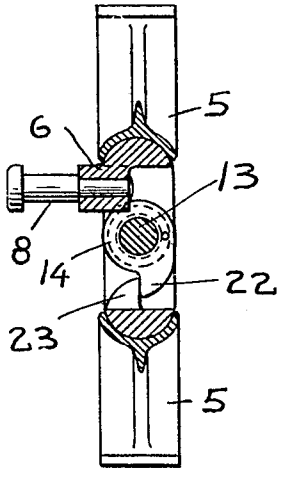


FIG. 6.

WITNESSES

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UNITED STATES PATENT OFFICE.

OSCAR K. SLETTO, OF BLACKDUCK, MINNESOTA.

EXERCISING-MACHINE.

No. 904,815. Specification of Letters Patent. Patented Nov. 24, 1908.

Application filed March 10, 1908. Serial No. 420,126.

To all whom it may concern:

Be it known that I, OSCAR K. SLETTO, of Blackduck, Beltrami county, Minnesota, have invented certain new and useful Improvements in Exercising-Machines, of which the following is a specification.

The object of my invention is to provide a machine by means of which a person can obtain a rapid and vigorous exercise of the arms and the muscles of the body affected by movement of the arms.

A further object is to provide a machine capable of adjustment for gentle or vigorous exercise, and hence adapted for the use of the strong or weak of both sexes.

The invention consists generally in various constructions and combinations, all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification; Figure 1 is a front elevation of a machine embodying my invention. Fig. 2 is a vertical sectional view on the line *x*—*x* of Fig. 3. Fig. 3 is a vertical sectional view on the line *y*—*y* of Fig. 2. Fig. 4 is a top view of the machine, the movement of the exercising bars being indicated by dotted lines. Fig. 5 is a sectional view on the line *z*—*z* of Fig. 3. Fig. 6 is a sectional view on the line *a*—*a* of Fig. 5.

In the drawing, 2 represents a suitable base supporting a casing 3 wherein the operating mechanism is arranged.

4 is a frame arranged within the casing 3 and provided with upward guideways 5 wherein cross heads 6 are adapted to slide. These cross heads are provided with crank pins 8 connected by pitman rods 9 with crank disks 10 on the shaft of a motor 11. This source of power is preferably electric though other suitable means may be employed if preferred. The usual wiring leads to the motor and a rheostat 12 on the front of the machine enables the operator to regulate the degree of resistance and the speed of the motor.

Within the cross head pipes 13 are journaled, each having a collar 14 secured thereon and a coiled spring 15 having one end inserted into a socket in the collar and the other end into a socket in the cross head. The ends of the pipes 13 are screw-threaded into caps 16 which have ball bearings 17 on the ends of the cross heads and pipes 18 and 19 have screw-threaded connections with the caps 16 and extend through the top and bottom of the casing 3 and are adapted to reciprocate therethrough following the movement of the cross heads.

Curved arms 20 are mounted on the upper ends of the pipes 19 and bars 21 are carried by said curved arms and have inwardly curved lower ends that are connected to the lower ends of the pipes 18. The collars 14 are provided with lugs 22 that are adapted to engage stops 23 and limit the rotary movement of the pipes 13. When this device is set in operation the cross heads will be reciprocated vertically and the rods 18 and 19 will slide in their guideways and a vertical movement will be imparted to the gripping bars 21. During this vertical movement the person grasping the bars 21 can rotate the pipes 13 against the tension of the springs 15 and at the same time resist if desired the vertical movement of the said bars. This combined vertical movement and oscillation of the bars will enable the person using the machine to obtain any desired degree of exercise, the speed of the vertical movement being regulated to suit the physique and needs of the person using the machine.

The machine may be made in any suitable size and its shape modified to suit the places where it is to be used. In various ways the details of construction may be modified without departing from my invention.

I claim as my invention:

1. An exercising machine comprising reciprocating bars and means for operating them, said bars being adapted to be grasped by the hands and being capable of lateral oscillation and means for resisting such oscillation.

2. An exercising machine comprising reciprocating cross heads and means for operating them, pipes mounted in said cross heads and capable of rotary movement, and means for resisting such movement, and bars arranged to be grasped by the hands and connected with said pipes, for the purpose specified.

3. An exercising machine comprising a suitable casing, vertically reciprocating cross heads arranged therein and means for operating said cross heads, pipes mounted in said cross heads and having a rotary movement independently thereof, means connected with said pipes and extending upwardly and downwardly therefrom and handle bars connected with said pipes on the outside of said casing and arranged to reciprocate vertically

therewith and capable of movement toward and from one another by the rotation of said pipes, and means for resisting such rotation.

4. An exercising machine comprising a casing, cross heads arranged therein and having vertical guideways, means for reciprocating said cross heads, means mounted in said cross heads and having a limited rotary movement, means for resisting such rotary movement and means adapted to be grasped by the hands and connected with said rotary means and having a reciprocating movement with said cross heads, and a lateral oscillating movement with said rotary means, for the purpose specified.

5. An exercising machine comprising a suitable casing, a reciprocating cross head therein, means mounted in said cross head and having a limited rotary movement, and means for resisting such movement, and a part adapted to be grasped by the hands and connected with said rotary means and having a reciprocating movement with said cross head, and a lateral oscillating movement independently of said cross head.

6. An exercising machine comprising a casing, vertically reciprocating cross heads mounted therein and means for operating the same, pipes mounted in said cross heads, spring devices for yieldingly resisting the rotary movement of said pipes, handle bars having connections with said pipes and arranged vertically outside said casing and capable of vertical movement with said cross heads and adapted to be moved toward and from one another to rotate said pipes in said cross heads, substantially as described.

7. The combination, with a casing, of an electric motor mounted therein, and having crank disks and pitman rods therefor and cross heads vertically movable in guides on each side of said motor, pipes mounted in said cross heads and having a limited rotary movement therein and means for resisting such rotary movement and vertically arranged handle bars connected with said pipes and adapted to move vertically with said cross heads and capable of lateral oscillation toward and from one another to rotate said pipes, substantially as described.

In witness whereof, I have hereunto set my hand this second day of March 1908.

OSCAR K. SLETTO.

Witnesses:
C. H. ALLEN,
J. JESSEN.