No. 745,154. PATENTED NOV. 24, 1903.

F. H. CHLADA.

EXERCISING MACHINE.

APPLICATION FILED AUG. 4, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1a

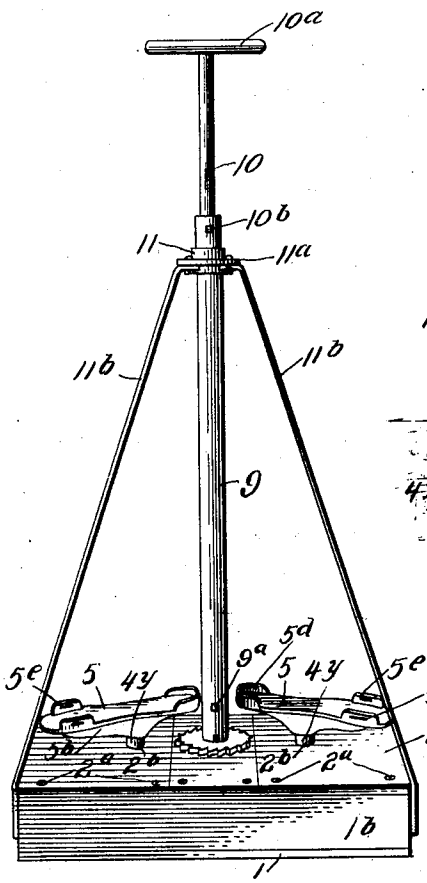


Fig. 1.

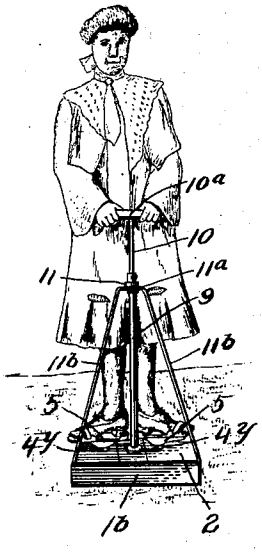


Fig. 2.

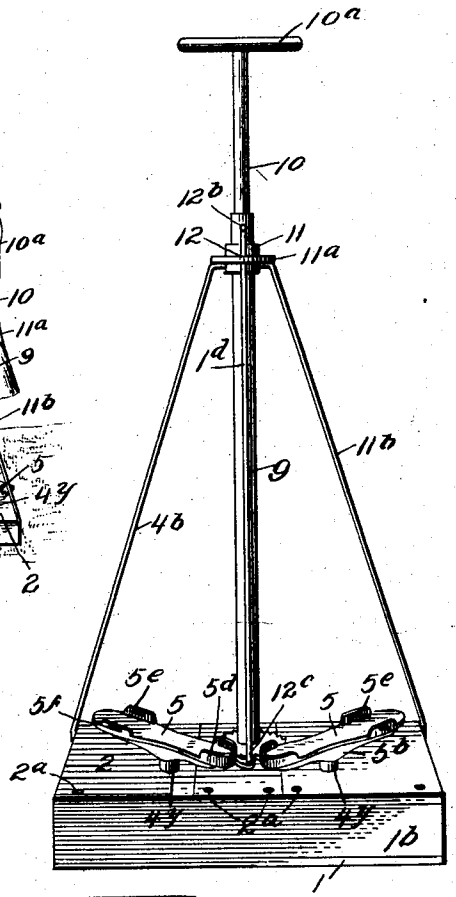
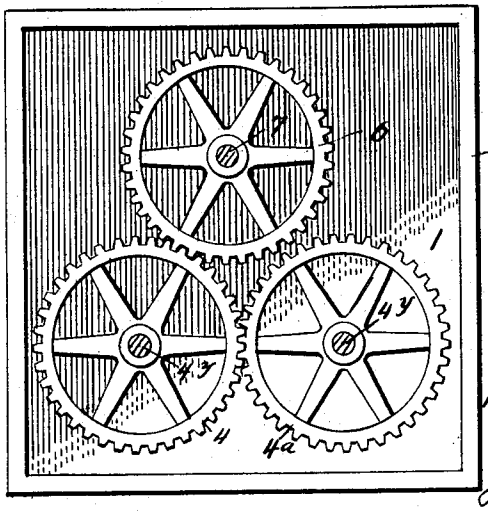


Fig. 5.



WITNESSES:

F. C. Gibson.

Louis Dietrich

INVENTOR

Ferdinand H. Chlada

BY

Fred G. Dieterich & Co

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 745,154. PATENTED NOV. 24, 1903.

F. H. CHLADA.

EXERCISING MACHINE.

APPLICATION FILED AUG. 4, 1903.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 6.

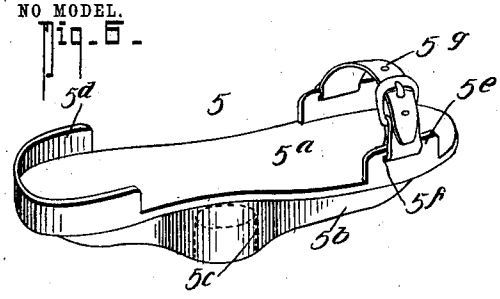


Fig. 7.

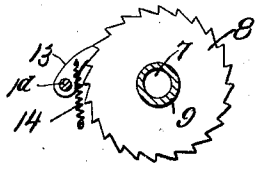
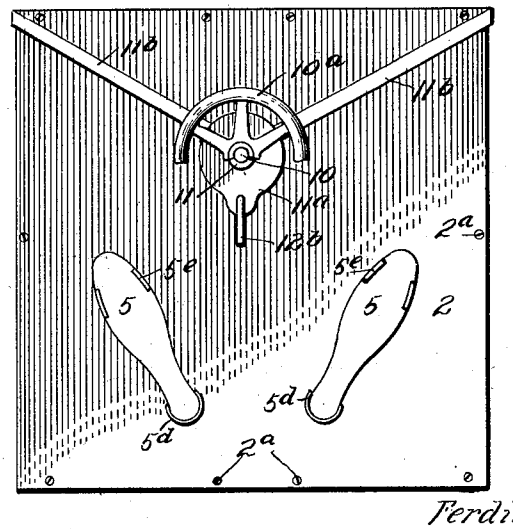


Fig. 3.

Fig. 4.



WITNESSES:

F. C. Gibson.

Louis Diederich

INVENTOR

Ferdinand H Chlada

BY

Fred J. Dieterich

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 745,154. Patented November 24, 1903.

UNITED STATES PATENT OFFICE.

FERDINAND H. CHLADA, OF OURAY, COLORADO.

EXERCISING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 745,154, dated November 24, 1903.

Application filed August 4, 1903. Serial No. 168,222. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND H. CHLADA, residing at Ouray, in the county of Ouray and State of Colorado, have invented certain new and useful Improvements in Exercising-Machines, of which the following is a specification.

My invention relates to that class of exercising-machines which are more especially adapted for strengthening and straightening deformed feet of persons, and it more particularly seeks to provide a device for curing the deformity known as "pigeon-toedness."

The invention has for its object to provide a device of this character of a simple and effective construction and which will effectively serve its intended purposes; and it primarily consists of a base or stand inclosing a train of gears to the shaft of two of which and on the top of the base is secured a pair of lasts or foot-receiving members and a means for rotating said gears to cause the lasts to spread the feet with the toes outward.

With other objects in view, which will hereinafter be apparent, my invention consists in the peculiar arrangement and novel combination of parts, which will be first described in detail and then specifically pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view showing my invention as applied for use. Fig. 1^a is a front perspective view of the machine. Fig. 2 is a similar view of the machine looking at the rear thereof. Fig. 3 is a longitudinal section thereof. Fig. 4 is a top plan view of the machine. Fig. 5 is a horizontal section taken practically on the line 5 5 of Fig. 3. Fig. 6 is a detail view of one of the lasts or foot-receiving members. Fig. 7 is a detail view of one of the last-receiving gears.

Referring now more particularly to the accompanying drawings, in which like numerals of reference indicate like parts in all of the figures, 1 designates a base or support, to the lower portion of which casters 1^a are secured, and the said base has vertically-disposed side and end portions 1^b to form a chamber 1^c and to which the cover 2 is removably fastened by screws 2^a, as shown, or by any other suitable fastening means. Mounted to turn in the bearings 3 in the base portion 1 is a pair of gear-wheels 4 4^a, having short shaft-sections 4^x 4^x, which coöperate with the bearings 3, and long shaft portions 4^y 4^y, which pass through the apertures 2^b 2^b in the cover 2 and having their outer ends squared to receive the lasts or foot-receiving members 5 5, hereinafter again referred to.

Within the chamber 1^c in mesh with one of the gears 4 is a smaller gear 6, having a central aperture through which the turning-shaft 7 is adapted to pass, the lower end of said shaft being round in cross-section to coöperate with the bearing 7^x in the base 1. The shaft 7 passes upwardly through the aperture 2^c in the cover 2, and the said shaft has a square portion 7^a, which passes through the square aperture and carries a ratchet-wheel 8, disposed on the top of the cover 2.

9 designates a hollow tubular member adapted to fit over the square end of the shaft 7, to which it is secured by set-screws 9^a, as shown, and the said tubular member is adapted to receive the turning-wheel shaft 10, which carries another turning-wheel 10^a, and the said shaft 10 is adapted for vertical adjustment within the hollow tubular member 9 and is held to its adjusted position by set-screws 10^b, as shown.

To hold the hollow tubular member in its vertical position, I provide a bearing 11, having a flange 11^a, to which the brace-rods 11^b are secured, and to which the pawl-releasing lever 1^a is fulcrumed, as at 12^a, and the said lever 12 has a hand engaging portion 12^b and a pawl-engaging portion 12^c, which passes downward and engages with the pawl 13, normally held in engagement with the ratchet 8 by the spring 14, as shown. The lower end of the pawl engaging portion 12^c is movable in the slotted guideway 12^b in the top 2 of the base 1. (See Fig. 3.)

By referring now more particularly to Fig. 6, it will be seen that the last or foot receiving members 5 5 consist each of a base portion 5^a, shaped to fit the foot of the operator, and the said base portion 5^a has a brace or strengthening-rib 5^b, having a squared aperture 5^c to receive the squared ends of the shafts 4^y 4^y. The base portion 5^a also includes a heel-guard 5^d and toe-guards 5^e 5^e, and the said toe-guards have apertures 5^f 5^f to receive the foot-straps 5^g 5^g, which are

adapted to hold the foot onto the foot-receiving member 5, for the purpose readily understood.

So far as described the operation of my invention can be best explained as follows: The operator mounts the machine, placing the feet onto the foot-receiving members 5 5, and then turns the turning-wheel in a right-handed direction until the feet are turned with the heels inward and the toes outward, the rachet and the pawl connection, with the turning-shaft, serving to hold the parts in said position as long as may be desired. To release the pawl from engagement with the ratchet to again allow the feet to resume their normal position, the operator grasps the handle portion to disengage the pawl from the ratchet, when the natural muscular force of the feet will serve to return the feet to the natural position. This operation may be repeated as often as may be found desirable and necessary to accomplish the desired results.

By making the feet-receiving members 5 5 detachable, as shown, the same can be removed to permit of substituting lasts of different sizes to suit the sizes of the feet of the particular operator, and by making the turning-wheel detachable the same can be raised and lowered to suit the desired height of the operator.

From the foregoing description, taken in connection with the accompanying drawings, it will be seen that my invention provides a simple and effective machine which will readily serve to strengthen and straighten out the feet of "pigeon-toed" people without injury to them in the slightest, and it is thought from the foregoing description, together with the accompanying drawings, the complete operation and advantages of my invention will be readily apparent to those skilled in the art to which it appertains.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an exercising-machine of the character stated, means for turning the feet of the operator with the toes outward, and holding the same in said position, and means for releasing said foot-turning means at predetermined times, for the purposes specified.

2. In a machine of the character stated, foot-receiving members, gear connections between said members, means for turning said members with the toes outward, as specified.

3. In a machine of the character stated, foot-receiving members, gear connections between said members, means for turning said members with the toes outward, said means including a turning-shaft having gear connection with first-named gears, as specified.

4. In a machine of the character stated, a hollow base or support, foot-receiving members mounted thereon, gears connecting said foot-receiving members and disposed within said hollow base, means for rotating said gears to turn said foot-receiving members with the toe portions thereof separated, said means including a hollow shaft having gear connection with said first-mentioned gears, as specified.

5. In a machine of the character stated, a hollow stationary base, foot-receiving members mounted to turn thereon, gears mounted within said base and having portions for engaging said foot-receivers, said gears intermeshing, a third gear meshing with one of said foot-receiver gears, a shaft connected to said third gear, a tubular member connected to said last-named shaft, a bearing for said tubular member at its upper end, a detachable turning-shaft mounted within said tubular member.

6. In a machine of the character stated, a hollow base, a pair of gear-wheels mounted within said hollow base and having shaft-sections projecting through apertures in the top of the base, foot-receiving members detachably connected with said shaft projections, a vertically-adjustable turning-shaft having gear connection with one of said gear-wheels for turning said gear-wheels and said foot-receiving members, means for locking said foot-receiving members to their turned position, as set forth.

7. In a machine of the character stated, a hollow base having a removable apertured top, a pair of gear-wheels mounted in said base adapted to mesh with each other and having shaft portions projecting through the top of said base, foot-receiving members mounted on said shaft projections to turn therewith, a third gear within said base adapted to mesh with one of said gear-wheels and having a shaft-section projected through the top of the said base, a tubular member and a ratchet mounted on said projecting-shaft portion of said third gear, a braced bearing for the upper end of said tubular member, a turning-shaft vertically adjustable in said tubular member and having turning-wheels, a pawl for normally engaging said ratchet.

8. In a machine of the character described, a hollow base having a removable apertured top, a pair of gear-wheels mounted in said base adapted to mesh with each other and having shaft portions projecting through the top of said base, foot-receiving members mounted on said shaft projections to turn therewith, a third gear within said base adapted to mesh with one of said gear-wheels and having a shaft-section projected through the top of the said base, a tubular member and a ratchet mounted on said projecting-shaft portion of said third gear, a braced bearing for the upper end of said tubular member, a turning-shaft vertically adjustable in said tubular member and having turning-wheels, a pawl for normally engaging said ratchet, and means for releasing said pawl at predetermined times.

9. In a machine of the character described, a hollow base having a removable apertured

top, a pair of gear-wheels mounted in said base adapted to mesh with each other and having shaft portions projecting through the top of said base, foot-receiving members mounted on said shaft projections to turn therewith, a third gear within said base adapted to mesh with one of said gear-wheels and having a shaft-section projected through the top of the said base, a tubular member and a ratchet mounted on said projecting-shaft portion of said third gear, a braced bearing for the upper end of said tubular member, a turning-shaft vertically adjustable in said tubular member and having turning-wheels, a pawl for normally engaging said ratchet, means for releasing said pawl at predetermined times, said means including a lever having hand engaging portion and pawl engaging portions, said lever being fulcrumed on said braced bearing, for the purposes specified.

10. In a machine of the character described, foot-receiving members, means for securing the feet of the operator to said members, gear connections between said foot-receiving members, and manually-operated means for imparting a rotary motion to the foot-receiving members, for the purposes specified.

11. In a machine of the character described, comprising foot receiving and holding members, means for imparting a rotary motion to said foot holding and receiving members to turn the toe portions away from each other, and the heel portions toward each other.

12. In a machine of the character described, comprising foot receiving and holding members, means for imparting a rotary motion to the holding and receiving members to turn the toe portions away from each other, and the heel portions toward each other, said means including gear connections between said foot-receiving members, and a manually-operated turn-gear for imparting motion to said foot-receiver gears.

FERDINAND H. CHLADA.

Witnesses:
THOMAS Y. BRADSHAW,
JOHN T. BARNETT.