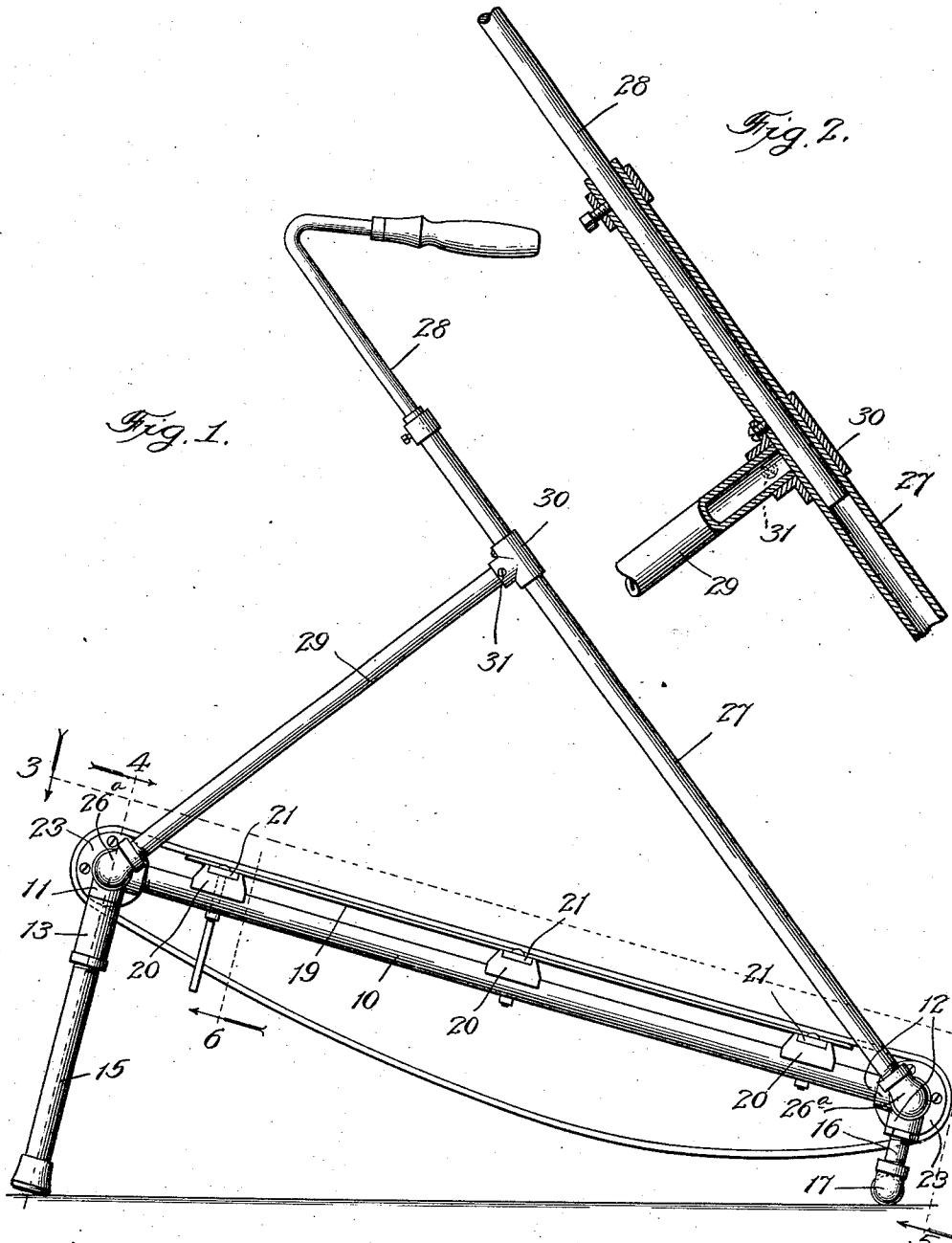


E. E. FLORA.
 EXERCISING APPLIANCE.
 APPLICATION FILED MAR. 1, 1913.

1,082,940.

Patented Dec. 30, 1913.

3 SHEETS—SHEET 1.



Witnesses:
[Signature]
Chas. H. Buell.

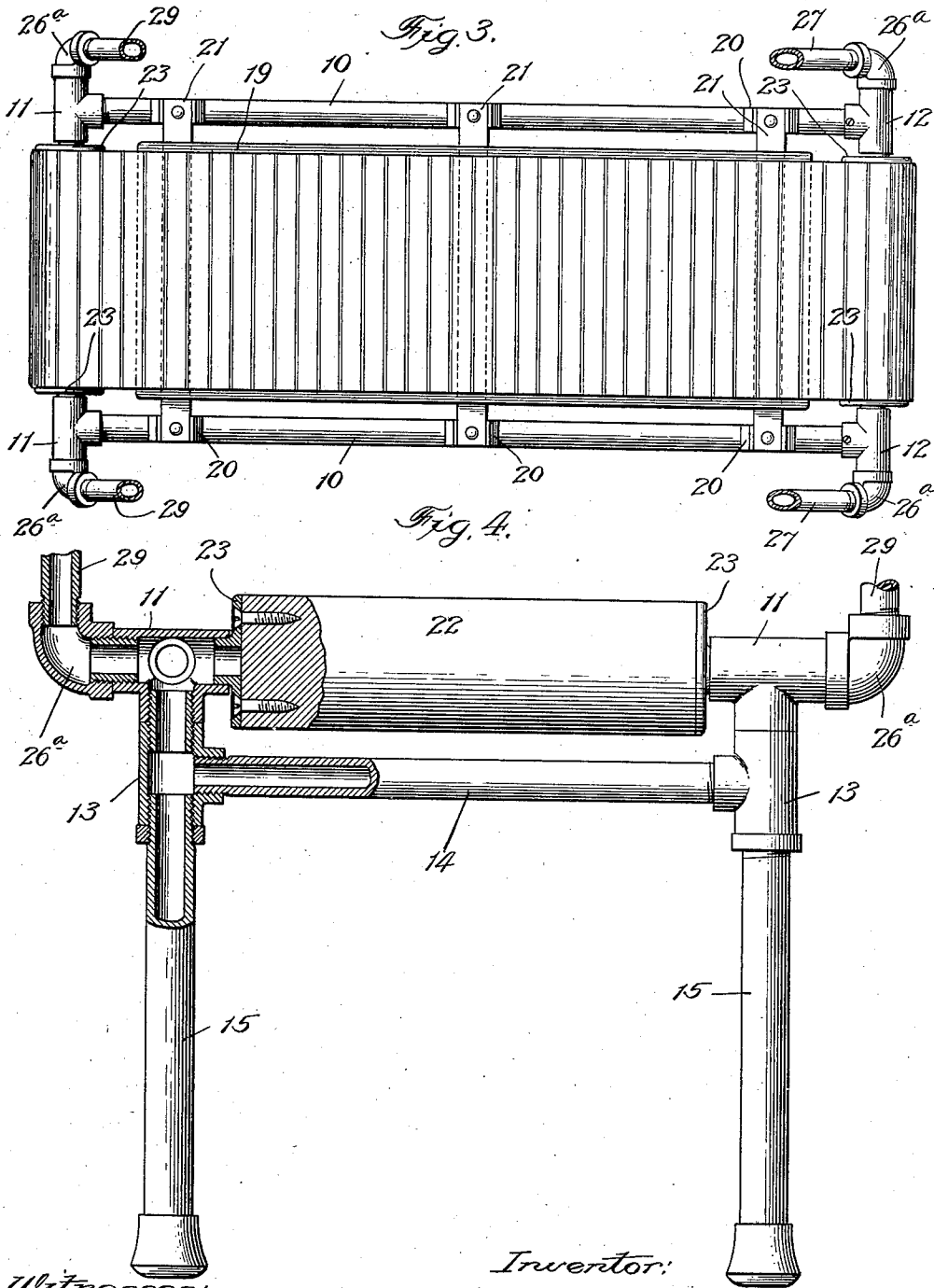
Inventor:
 Ellsworth E. Flora,
 By *[Signature]*, Attys. #

E. E. FLORA.
 EXERCISING APPLIANCE.
 APPLICATION FILED MAR. 1, 1913.

1,082,940.

Patented Dec. 30, 1913.

3 SHEETS—SHEET 2.



Witnesses:
[Signature]
[Signature]

Inventor:
 E. E. Flora,
 By *[Signature]*, Lee, Chilton & Wilson,
 Attys.

E. E. FLORA.
 EXERCISING APPLIANCE.
 APPLICATION FILED MAR. 1, 1913.

1,082,940.

Patented Dec. 30, 1913.
 3 SHEETS—SHEET 3.

Fig. 5.

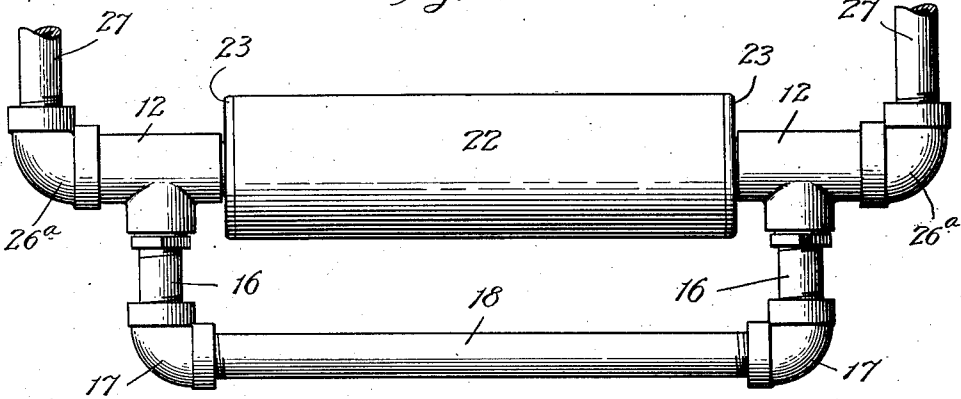


Fig. 6.

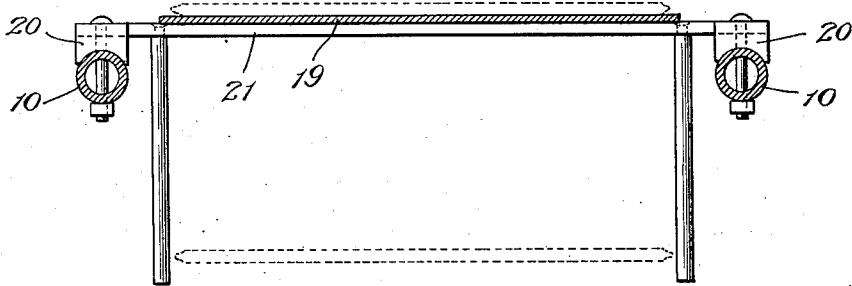


Fig. 7.

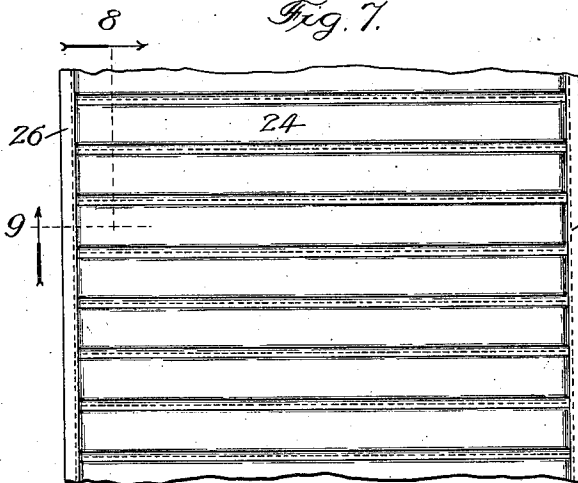


Fig. 8.

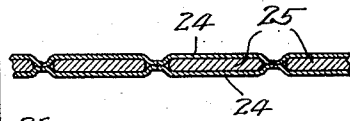
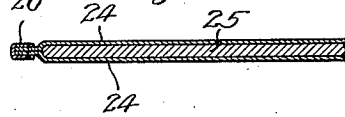


Fig. 9.



Witnesses:
[Signature]
[Signature]

Inventor:
 E. E. Flora,
 By *[Signature]*,
 Attys. #

UNITED STATES PATENT OFFICE.

ELLSWORTH E. FLORA, OF CHICAGO, ILLINOIS, ASSIGNOR TO SHARP & SMITH, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

EXERCISING APPLIANCE.

1,082,940.

Specification of Letters Patent.

Patented Dec. 30, 1913.

Application filed March 1, 1913. Serial No. 751,451.

To all whom it may concern:

Be it known that I, ELLSWORTH E. FLORA, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Exercising Appliances, of which the following is a specification.

My invention relates to certain new and useful improvements in exercising appliances, and is fully described and explained in the specification and shown in the accompanying drawings, in which:—

Figure 1 is a side elevation of my improved device; Fig. 2 is a detailed longitudinal section through one of the side or handle-supporting members and the lower part of the handle; Fig. 3 is a section on the line 3 of Fig. 1; Fig. 4 is a section on the line 4 of Fig. 1, showing certain of the parts in elevation; Fig. 5 is an elevation from the rear, as shown by the arrow 5 on Fig. 1; Fig. 6 is a section on the line 6 of Fig. 1; Fig. 7 is a plan view of a portion of the belt; Fig. 8 is a section on the line 8 of Fig. 7, and Fig. 9 is a section on the line 9 of Fig. 7.

Referring to the drawings, 10 are longitudinal side-bars in the form of ordinary pipes. At the front of said longitudinal side-bars 10 are members 11 and at the rear are members 12, each of said members being of standard pipe fittings of the type known in the trade as four-way Ts, that is, each has a transverse part forming two projections in line with each other and two other nipples at right-angles to said part and to each other. The said members are so placed that their transverse parts are parallel and at right-angles to the side-members 10, one projection of each of the members extending downward and the fourth projections of the two members extend toward each other to receive the side-members.

The downwardly-projecting parts of the members 11 at the front are attached to Ts 13, the stems or central parts of said Ts extending toward each other and receiving between them a front cross-bar 14. The lower ends of the Ts 13 receive legs 15, which may be screwed out for convenient packing as will hereinafter be set forth.

The members 12 at the rear receive, in their downwardly-projecting parts, pipes 16

at the lower ends of which are elbows 17 connected by a rear cross-bar 18. The parts thus far described therefore form a strong, rectangular frame which will rest, as shown in the drawings, upon the legs and the elbows 17 in an inclined position.

Attached to the upper surfaces of the side-bars 10 is a plate 19, which may be either of wood or metal, and which is in any event polished smoothly. The particular manner in which this plate is attached to the side-bars is immaterial, but in the devices heretofore constructed in accordance with the present invention, the attachment has been made by blocks 20 bolted to the side-bars and carrying cross-bars 21 which in turn support the plate 19, as illustrated.

The inwardly-projecting parts of the members 11 and 12 form journals for rollers 22, which may be made, in the manner here-in illustrated, of wood, with a standard fitting known as a floor flange 23 at each end, the projections of which flanges enter the members 11 and 12, as shown in Fig. 4. Around the two rollers and the intermediate plate 19 which, it will be observed, lies in substantially the plane of the tops of the rollers, is passed a belt, preferably of the form shown in Figs. 7, 8 and 9. This belt consists of two sheets of canvas 24, sewed together by transverse seams spaced apart to form pockets therebetween in which are placed transverse slats 25. The edges of the belt are then bound with bindings 26, as illustrated.

The outwardly-extending projections of the members 11 and 12 of the frame carry standard elbows 26^a. The elbows at the rear carry pipes 27 which extend diagonally upward and at their upper ends receive adjustable handles 28 of the form illustrated. The elbows 26^a at the front carry pipes 29 which extend upward and backward in a diagonal direction and enter Ts 30 intermediate the ends of a pipe 27, the Ts being reamed out to receive the upper ends of said pipes 29 which are held in place by set-screws 31.

In operating the present exercising device, the user stands upon the belt, facing forward, and grasping the handles, which are adjusted by sliding them in and out of the pipes 27 to the proper height to accom-

modate the user. Then, with the aid of the handles, which steady and partially support him, the user can run upon the belt, the upper surface of which will run back, sliding with relatively little friction on the plate. In its movement the belt is kept in alinement by pins 32 which extend downwardly from the plate 19, or its support, so that the belt will be held in a generally central position.

I am aware that it has heretofore been proposed to construct exercising appliances of the treadmill type, and of course no broad novelty is claimed for such construction. The aim sought in the present device is to provide a construction which shall be strong and thoroughly efficient for the purpose, which shall provide a comfortable surface to run upon, which shall be particularly cheap and which can readily be packed for shipment. It is manifest that the present device can be made strong and durable. In devices for a generally-similar purpose which have been proposed in the past, it has frequently been the custom for the belt to run over rollers forming the surface upon which it rests, and as far as I am aware, this has always been the practice, excepting in those cases where a very expensive belt with rollers along its edges was provided, which rollers could run in grooved guides. The construction of a belt with marginal rollers running in grooved guides is, of course, very expensive, and results in a heavy, unsatisfactory construction. On the other hand, the use of a bed of rollers which actually support the weight is very unsatisfactory because of the peculiar jar which is imparted to the foot of the user as the belt moves over the rollers. By using a smooth, slippery plate, as the bed upon which the belt is to run, this jar is entirely done away with, and the sensation to the foot of the user is much more analogous to that produced when running upon a track. Furthermore, the plate can be made springy, if desired, and can thus be made to yield slightly under the foot, as does an elastic and properly constructed running track. Thus, I have secured a belt-supporting bed which, not only is exceedingly cheap, far cheaper than any of the roller-systems heretofore proposed, but which possesses important advantages of operation.

It will be seen, when the present structure is considered from the point of view of its manufacture, that the entire frame-work is made of stock pipes and stock fittings. This makes it possible to build a device without the purchase or construction of any special tools, of the cheapest possible material and without carrying a quantity of parts in stock. These pipe fittings are all staple, they can be bought in any quantity on very short notice and they can be put together

with practically no machine work at all. I have expended much effort in the construction of the present device to confine its members to standard fittings, and the result is an exceedingly simple and cheap construction.

For purposes of convenient packing for shipment, the front legs are made removable as heretofore specified. The two handle-supporting sides are treated in the following manner: The handles are either removed, or pushed in as far as possible and turned toward each other. The set-screw 31 is then loosened and the pipes 27 are swung up so as to release the ends of the pipes 29. The pipes 29 are then swung down into the plane of the main frame, the pipes 27 following. The whole structure thus lies in a flat, rectangular space, its height is the same as that of the rear of the appliance, from the bottom of the elbows to the top of the belt which, in practice, is about 5½ inches. The entire apparatus can thus be packed in a box about 6 inches deep, approximately 20 inches wide and 3 feet long, a condition which makes shipping very easy, and in addition it can be put in condition for use by the purchaser by simply screwing in the legs, swinging up the pipes 27 and 29 to their proper positions and tightening up two set-screws, and of course, adjusting the handles in proper position for the user.

The present invention therefore embodies the broad feature of constructing a bed-plate for the belt in the manner described to secure the advantages sought; and secondly, constructing the frame as described so as to obtain the use of standard pipe-fittings with the attendant advantages. It will therefore be evident that as far as certain of the features of my invention is concerned, at least, great variations are permissible without departing from the spirit of the invention, although as to other points, the invention distinctly resides in the specific form shown. Therefore, and in view of these circumstances, I do not intend to be limited thereto, except as hereinafter pointed out in the claims in which it is my intention to claim all the novelty inherent in the construction as broadly as is permitted by the state of the art.

What I claim as new and desire to secure by Letters Patent, is:—

1. An exercising device having, in combination, a slippery bed-plate, an endless belt running around the same upon which the user can stand with his weight carried by the bed-plate, and parts elevated above the bed-plate to be grasped by the hands of the user.

2. An exercising device having, in combination, an inclined slippery bed-plate, an endless belt running around the same upon which the user can stand with his weight

carried by the bed-plate, and parts elevated above the bed-plate and on the sides thereof to be grasped by the user.

3. An exercising device having, in combination, a slippery bed-plate, an endless belt running around the same upon which the user can stand with his weight carried by the bed-plate, rollers at the ends of the bed-plate and within the belt, and parts elevated above the bed-plate to be grasped by the user.

4. An exercising device having, in combination, a slippery bed-plate, an endless belt running around the same upon which the user can stand with his weight carried by the bed-plate, rollers at the ends of the bed-plate and within the belt, means to guide the belt, and parts elevated above the bed-plate at the sides thereof to be grasped by the user.

5. An exercising device having, in combination, a slippery bed-plate, an endless belt running around the same upon which the user can stand with his weight carried by

the bed-plate, rollers at the ends of the bed-plate and within the belt, and adjustable handles at the sides of the bed-plate and above the same.

6. In combination in an exercising device an endless belt, means for supporting the same to receive the weight of the operator, and lateral handle-carrying members, each consisting of two tubes, one of which extends diagonally upward from one end of the device and has a handle at its upper end, and the second of which extends diagonally upward from the opposite end of the exerciser and is detachably connected with the first tube between the ends thereof, both of said tubes being adapted to be disengaged and swung down, for the purpose set forth.

In testimony whereof I have hereunto set my hand.

ELLSWORTH E. FLORA.

In the presence of two subscribing witnesses:

NELLIE B. DEARBORN,
A. C. FISCHER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."