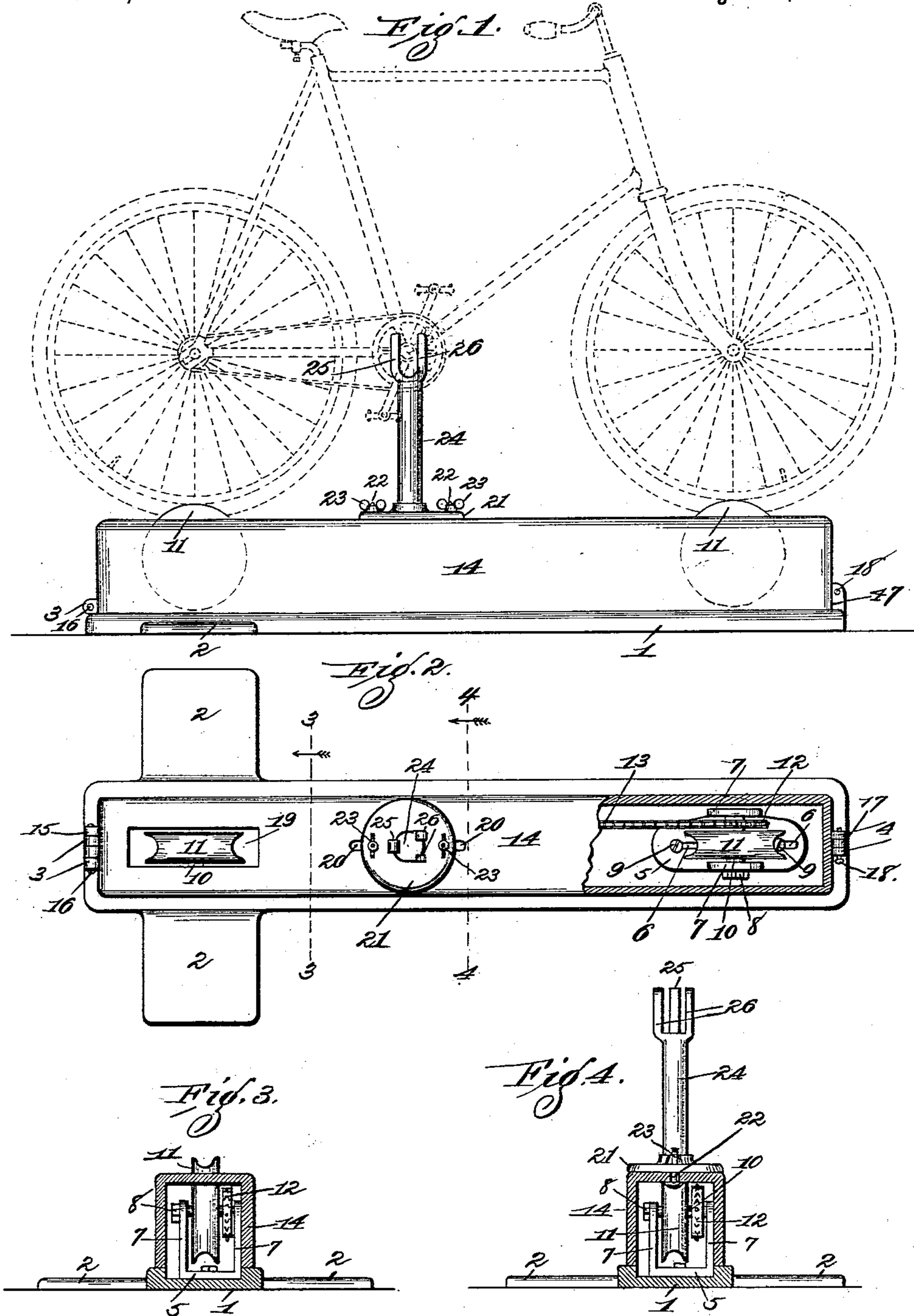


(No Model.)

C. W. FOX.
BICYCLE TRAINING DEVICE.

No. 560,061.

Patented May 12, 1896.



Attest
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UNITED STATES PATENT OFFICE.

CHARLES W. FOX, OF ST. LOUIS, MISSOURI.

BICYCLE-TRAINING DEVICE.

SPECIFICATION forming part of Letters Patent No. 560,061, dated May 12, 1896.

Application filed January 7, 1896. Serial No. 574,642. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. FOX, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Bicycle-Trainers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved bicycle-trainer; and it consists in the novel construction, combination, and arrangement of parts hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of my improved bicycle-trainer, a bicycle being indicated in proper position thereon. Fig. 2 is a top plan view of the trainer, a part thereof being broken away to more clearly illustrate the interior mechanism of said trainer. Fig. 3 is a vertical cross-sectional view taken approximately on the indicated line 3 3 of Fig. 2. Fig. 4 is a vertical cross-sectional view taken approximately on the indicated line 4 4 of Fig. 2.

Referring by numerals to the accompanying drawings, 1 indicates a suitable base of rectangular form, with the sides of which are formed integral laterally-projecting flanges 2, the same being for the purpose of preventing the base and parts carried thereby from overturning when a bicycle and rider are in position upon said trainer. Formed integral with this base at one end is a pair of lugs 3, the same being provided with horizontally-aligned apertures, and at the opposite end of said base is a pair of ears 4, having horizontally-aligned apertures.

5 5 indicate suitable cast frames, in which are formed horizontally-extending slots 6, and formed integral with the sides of said frames and extending upwardly therefrom are standards 7, in which are located horizontally-aligned bearings 8. One of these frames 5 is located on top and at each end of the base 1, and set-screws 9 pass downwardly through the longitudinally-extending slots 6 into said base 1, thus providing means for adjusting said frames longitudinally relative said base 1. Journaled in the bearings 8 are shafts 10, the same carrying grooved wheels 11 and sprocket-wheels 12, said sprocket-wheels 12 being connected by an ordinary sprocket-chain 13.

14 indicates a rectangular casing that is provided with a pair of perforated lugs 15 at one end, which coincide with the perforated lugs 3, and by passing a pin 16 through the coinciding perforations in these lugs said casing is hinged to the base 1. At the opposite end of the casing 14 is formed a perforated ear 17, that is arranged to pass between the perforated ears 4 of the base 1. A pin 18, passed through the coinciding perforations in the lugs 4 and ear 17, firmly locks the casing 14 to said base 1. Formed in the top of the casing 14 at points adjacent its ends are longitudinally-extending apertures 19, which are so positioned as that the tops of the grooved wheels 11 may operate through said apertures, and said apertures are of such length as that they will accommodate a slight longitudinal adjustment of the wheels 11. Formed at suitable points in the top of the casing 14 are longitudinally-extending slots 20.

A circular base 21 is arranged to be adjusted longitudinally upon top of the casing 14 between these slots 20 by passing bolts 22 upwardly through the slots 20, through the base, and locating winged nuts 23 on the upper ends of said bolts. Carried by the base 21 is a standard 24, at one side of the top of which is located a single upwardly-extending finger 25, while a pair of fingers 26 extend upwardly from the opposite side of said standard.

In the practical use of my improved trainer the frames 5 are adjusted longitudinally, so that the grooved wheels 11, carried by said frames, will accommodate the base of the wheels of the bicycle to be used, this adjustment being brought about by swinging the casing 14 over upon its hinge, loosening the set-screws 9 and moving the frames 5 toward or away from one another, as desired. A link or links may be removed or placed in the chain 13 to accommodate this longitudinal adjustment, and after the proper adjustment has been obtained the casing 14 is swung back to its original position, the pin 18 passed through the coinciding apertures in the ears 4 and ear 17 to secure said casing, and the base 21, carrying the standard 24, is now adjusted longitudinally upon the top of the casing 14 by manipulating the winged nuts 23 until the fingers 25 and 26, carried by the

upper end of the standard 24, are in proper position to pass between or engage that part of the frame of a bicycle in which the bearing for the sprocket-wheel is formed. The portion of the frame in front of said bearing is usually a single tube, and this tube readily passes between the fingers 26, while that portion of the frame immediately in the rear of the bearing is usually a pair of tubes between which the single finger 25 passes. When so positioned, the bearing of the bicycle-frame extends transversely between the fingers 25 and 26. These fingers are made of sufficient length to accommodate the frames of the different makes and sizes of bicycles. When the bearing for the shaft of the sprocket-wheel is properly positioned between the fingers 25 and 26, the wheels of said bicycle rest directly upon the peripheries of the grooved wheels 11. The rider now mounts the wheel in the usual manner, and as the pedals are operated the rear wheel will engage and be in frictional contact with one of the grooved wheels 11 and rotate the same, which rotary motion will be imparted to the opposite one of the grooved wheels 11, on which the front wheel of the bicycle engages by means of the sprocket-chain 13 passing around the sprocket-wheels 12. In this manner a result in every way similar to ordinary road-riding is obtained and the desired result accomplished. As a portion of a bicycle-frame is held by the fingers 25 and 26 the entire bicycle is held in an upright position and prevents the wheels of the bicycle from leaving the grooved wheels 11.

A bicycle-trainer so constructed is applicable for use by persons just learning to ride a bicycle, as well as for riders wishing to practice during seasons when outdoor riding is impossible.

The trainer is simple, strong, and durable, can be readily adjusted to accommodate any size or style of bicycle and occupies a comparatively small space when in position for use.

I claim—

1. A bicycle-trainer, constructed with a suitable base, a rectangular casing hinged

thereon, in the top of which casing are formed longitudinally-extending apertures, frames longitudinally adjustable upon the base, shafts journaled in said frames, grooved wheels carried by said shafts which wheels extend through the apertures in the casing, sprocket-wheels carried by said shafts, a sprocket-chain connecting said sprocket-wheels, a standard arranged for longitudinal adjustment upon the casing, and fingers formed integral with the upper end of said standard for engaging a portion of the frame of a bicycle.

2. A bicycle-trainer, comprising a suitable base, the rectangular casing 14 having the pair of perforated lugs 15 at one end, the perforated lugs 3 on said base, the pin 16 passing through the said perforations thus forming a hinge between said casing and said base, the perforated ear 17 at the opposite end of said casing 14, the perforated ears 4 on said base 1, the pin 18 passing through said ears thus locking said casing to said base, said casing also having longitudinally-extending apertures 19 one in each end, the cast frames 5, 5, having the horizontally-extending slots 6 and having standards 7 extending upwardly therefrom, the horizontally-alined bearings 8 in said standards, one of said frames being located at each end and on top of said base 1 and being adjustably attached thereto, the shafts 10 journaled in said bearings 8, the grooved wheels 11 and the sprocket-wheels 12 upon said shafts, the sprocket-chain 13 connecting said sprocket-wheels, the said grooved wheels 11 extending through the said apertures 19 in said casing 14, the standard 24 arranged for longitudinal adjustment upon the top of said casing 14, and the fingers 25 and 26 at the upper end of said standard for engaging and supporting a bicycle, all arranged substantially as and for the purposes stated.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES W. FOX.

Witnesses:

EDWARD E. LONGAN,
MAUD GRIFFIN.