

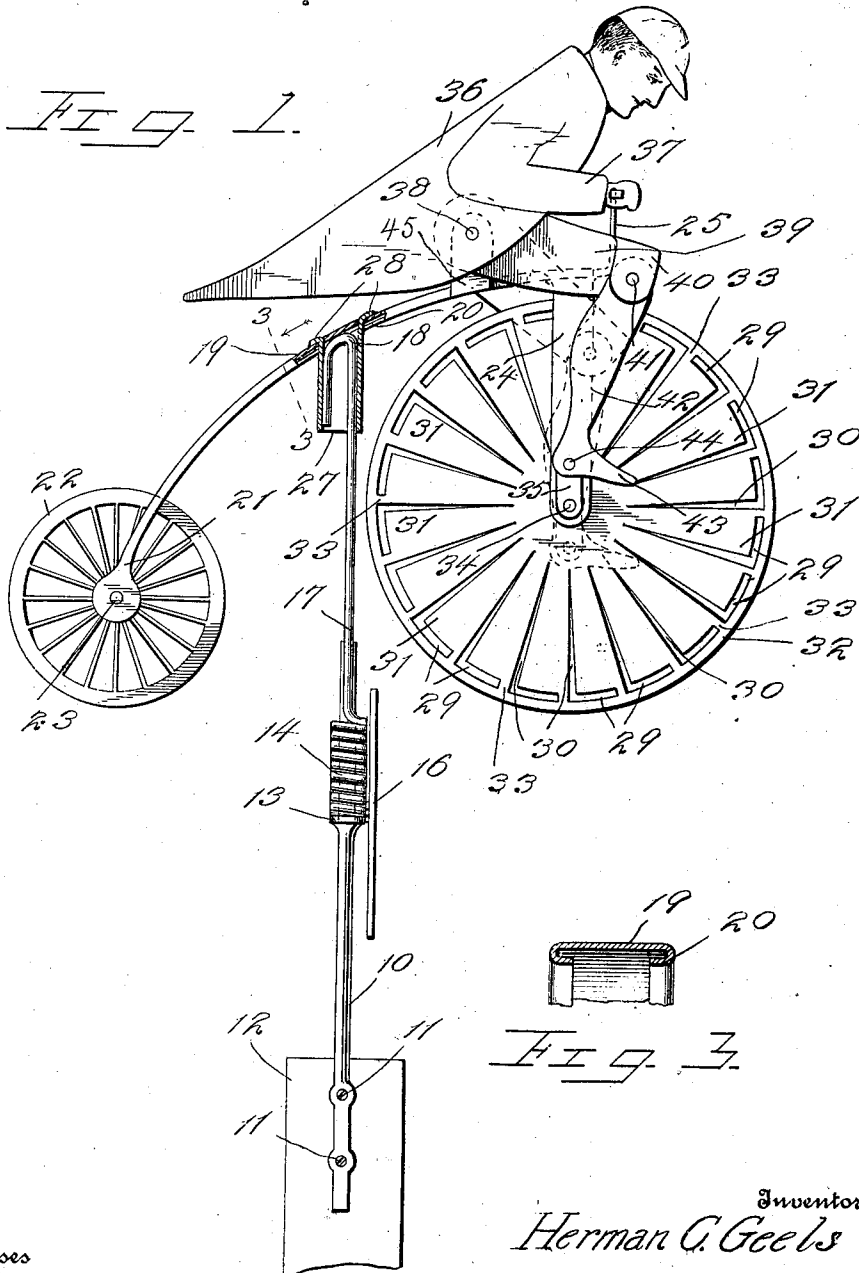
H. C. GEELS.
WIND WHEEL TOY.

APPLICATION FILED JUNE 27, 1910. RENEWED JAN. 18, 1912.

1,019,245.

Patented Mar. 5, 1912.

2 SHEETS—SHEET 1.



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Inventor
Herman C. Geels

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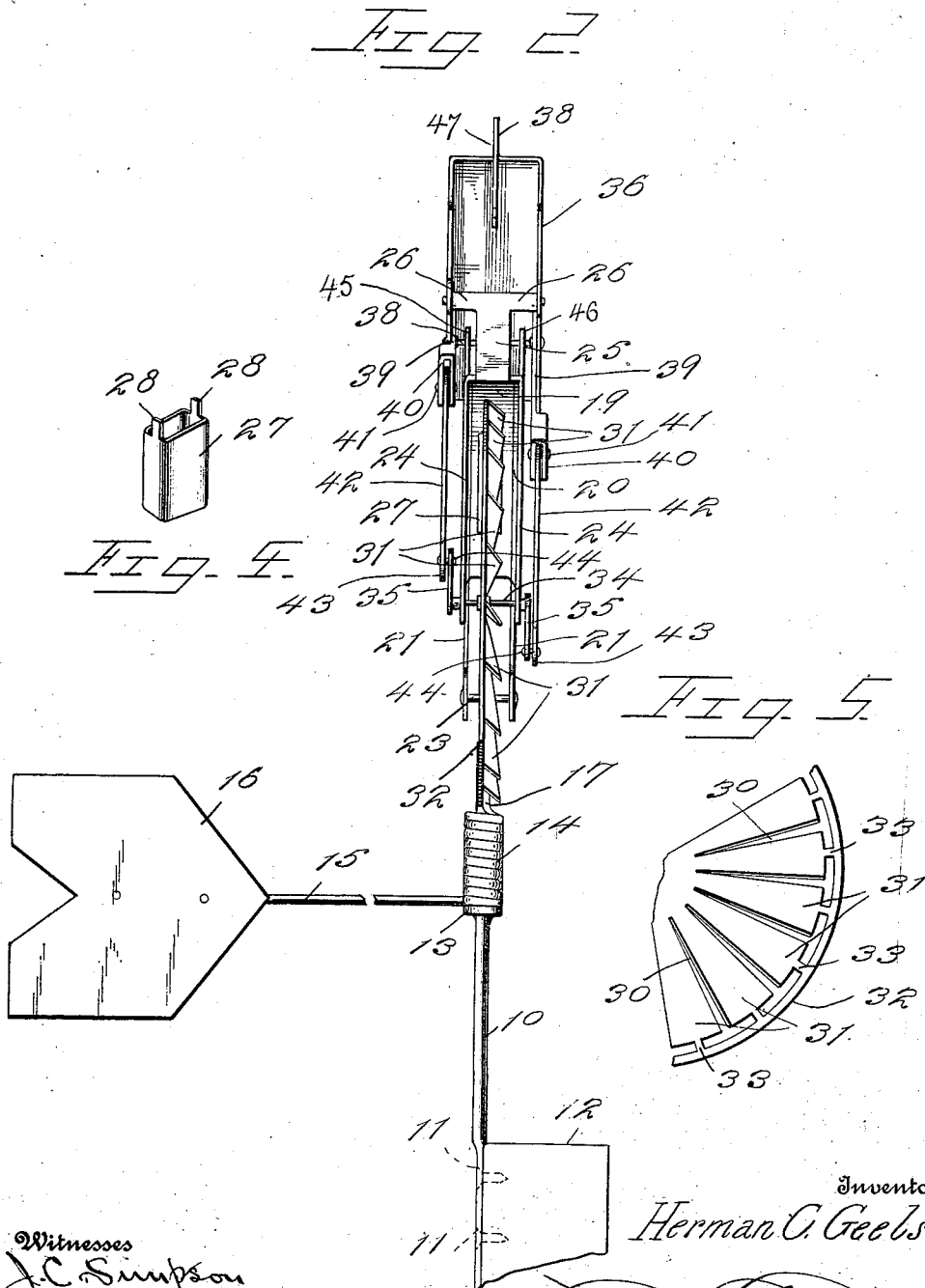
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UNITED STATES PATENT OFFICE.

HERMAN C. GEELS, OF DECATUR, INDIANA.

WIND-WHEEL TOY.

1,019,245.

Specification of Letters Patent.

Patented Mar. 5, 1912.

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To all whom it may concern:

Be it known that I, HERMAN C. GEELS, a citizen of the United States, residing at Decatur, in the county of Adams, State of Indiana, have invented certain new and useful Improvements in Wind-Wheel Toys; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to toys, more particularly to the class of wind-wheel actuated toys, and has for one of its objects to provide a simply constructed device wherein the figure of a man riding a bicycle is represented.

Another object of the invention is to improve and simplify the construction of the mechanism whereby the various movements are accomplished.

Another object of the invention is to produce a device wherein a limited number of parts are employed to produce the various features and movements.

With these and other objects in view, the invention consists in certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claims; and, in the drawings illustrative of the preferred embodiment of the invention, Figure 1 is a side elevation of the improved device, Fig. 2 is a front elevation of the same, Fig. 3 is a sectional detail on the line 3—3 of Fig. 1, illustrating the construction of the main frame, Fig. 4 is a perspective view of the standard socket detached, illustrating its construction and the means for coupling it to the frame. Fig. 5 is a detail view illustrating a modification in the construction of the wind-wheel.

The improved device comprises in general a standard 10 adapted to be connected to any suitable stationary support, but for the purpose of illustration is shown connected by screws 11 to a post 12. The standard 10 is provided with a stop collar 13 spaced from its upper end, and surrounding the standard above the stop collar is a combined vane and figure support formed from a single piece of wire coiled at 14 around the standard and resting by the lower helix of the coil upon the stop collar. The wire is bent at right angles to the standard 10, as shown at 15, to support a wind vane 16, while the wire is continued upwardly from

the upper helix in a vertical direction, as shown at 17 and turned over at the upper end, as shown at 18 to increase the width, the object to be hereinafter explained.

The figure which is supported upon the wire 17 is in the form of a man riding a bicycle, the main "back bone" portion of the bicycle together with the portion representing the forks is formed from a single strip of sheet metal and comprises an intermediate portion 19 having the edges rolled over as shown at 20 to increase the strength and stiffness. At its rear end the portion 19 is bifurcated to form two spaced side portions which are curved downwardly as shown at 21 to provide means for supporting a rear wheel 22 of any suitable construction, but preferably struck up from a single disk of sheet metal and mounted for rotation by a pin 23 between the forked portions. At its forward end the frame member is formed of two downwardly directed portions 24 spaced apart and representing the forward fork of a bicycle frame. The frame is conducted forwardly and thence directed upwardly, as represented at 25 to resemble the steering head of a bicycle and with outwardly directed portions 26 to represent the steering arms of a bicycle. The "back bone" member 19 is also provided with upwardly directed standards 45—46, as shown.

Connected to the main body portion 19 of the frame is a tubular member 27 to engage over the turned over portion 18 of the member 17, the socket member 27 having upwardly directed prongs 28 which engage through apertures in the central portion 19 of the frame and are thence bent in opposite directions to couple the socket to the frame. The socket corresponds in width to the turned over portion 18 and fits closely over the same, and thus provides an efficient means for mounting the frame upon the standard. By this means the frame is supported upon the member 17 and the latter is rotatable upon the standard 10 by means of the bearing produced by the coils 14. The horizontal portion 15 and the wind vane 16 stand at right angles to the frame 18 and its attachments, and thus holds the wind wheel in the wind, as hereinafter explained.

Mounted for rotation between the spaced members 24 of the frame is a wind wheel formed from a single plate of sheet metal and is constructed in a peculiar and novel manner. The plate from which the wind

wheel is constructed is provided with a plurality of segmental apertures 29 near its rim and with clefts 30 extending from one end of each of the apertures toward the center of the disk, whereby angular tongues or blades 31 are released which may be bent at an angle to the body of the blade, and thus produce a plurality of vanes which may be actuated by the wind and cause the disk to rotate. By this arrangement a coupling ring 32 is produced at the margin of the disk and each vane is coupled to the outer ring by a relatively small portion 33, as shown. In Fig. 1 the connecting portions 33 are located at each side of each vane, whereas in Fig. 5 the portions 33 are located centrally of the vane, but either construction may be employed without departing from the principle of the invention, as the same results are produced by both arrangements. Extending through the lower ends of the spaced portions 24 of the frame is an axle pin 34, and connected to this pin externally of the portions 24 are small arms 35 representing the treadles of a bicycle, the arms 35 being arranged to extend in opposite directions in imitation of the treadles of a bicycle. The body portion 35 of the figure or rider is formed of a single plate of sheet metal bent into U-shape and representing the body of a man in outline with the arms 37 integral therewith and united to the transverse portion 26 which represents the handle-bar.

Extending through the side members which form the body portion 36 of the figure and also through the standards 45—46 is a rod 38, and mounted to swing upon the rod are two members 39 which represent the upper portions of the legs of the figure. At the lower end of each of the leg portions 39 are extensions 40 which are bent over into parallel relations to the portions 39 and provided with pins 41 which extend through the two parts 39—40.

The pins 41 provide means for pivoting the lower leg portions 42 to the upper leg portions 39, and closely resemble the knee-joints of the figure. The lower leg portions 42 terminate in the representations of feet 43, the feet portions being pivoted at 44 to the treadles 35, as shown. By this means when the improved device is located where the wind can blow against the wind-wheel the latter will be revolved and thus correspondingly revolve the treadle members 35 and impart motion to the leg members of the figure in close imitation of the movements of a man riding a bicycle, the wind-

wheel being located in the same relative position as the forward wheel of a bicycle.

It will be noted that the improved device is constructed of relatively few parts, and can therefore be inexpensively manufactured from sheet metal, such as tin, each part being pressed up from a single piece. For instance the frame including the body 19, the rear forks 21, the forward portion 24 together with the standards 45—46, the steering head 25 and the steering bar 26 are constructed of a single piece bent into the required shape, while the body of the figure including the head and the arms is also constructed from a single plate of sheet metal bent into U-shape.

The head 47 of the figure is formed integral with one of the sides of the body and is bent at the neck to bring the head centrally of the body.

What is claimed is:—

1. In a toy of the class described, a stationary standard, a movable standard formed from a single piece of wire coiled centrally thereof around said stationary standard to form a bearing with one portion directed horizontally and provided with a vane and the other portion directed vertically with the terminal turned over in parallel relations to the vertical portion, a frame having a socket engaging over the turned over portion of the movable standard, a wind wheel carried by said frame, a figure mounted upon said frame, and means for operating the figure by the movement of said wind wheel.

2. In a toy of the class described, a frame formed of a single strip of sheet metal with the intermediate portion turned inwardly at the edges and with downwardly directed forward portions spaced apart and a bifurcated rear portion, a shaft extending through said forward spaced portions, arms carried by said shaft, a figure including a body supported upon said frame, upper leg members swingingly connected to said body and with turned over portions upon their free ends, lower leg members pivoted at one end to said upper leg members between said members and their turned over portions thereof and pivoted at their other ends to said arms, and a wind wheel carried by said shaft.

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

HERMAN C. GEEELS.

Witnesses:

DAVID E. SMITH,
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