No. 644,819.

Patented Mar. 6, 1900.

W. DIEBEL.

PEDAL.

(Application filed Nov. 30, 1898.)

(No Model.)

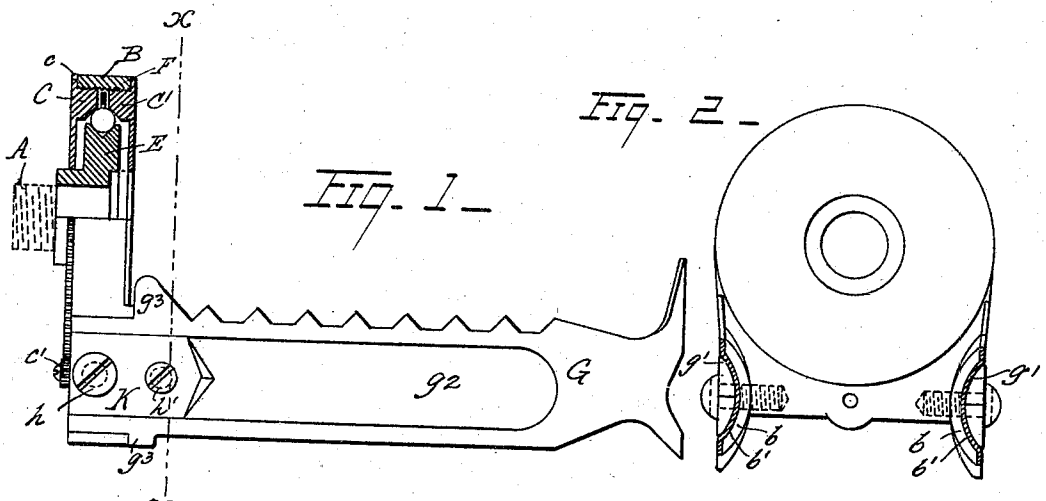


Fig. 1.

Fig. 2.

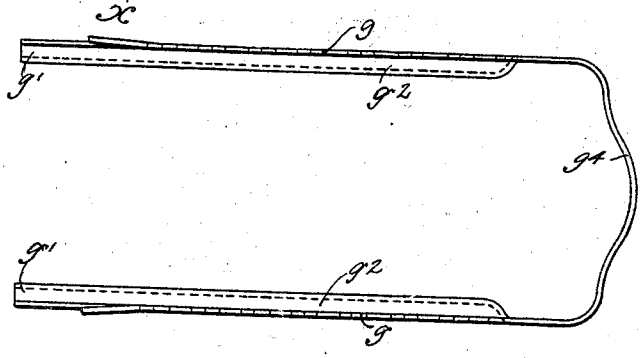


Fig. 3.

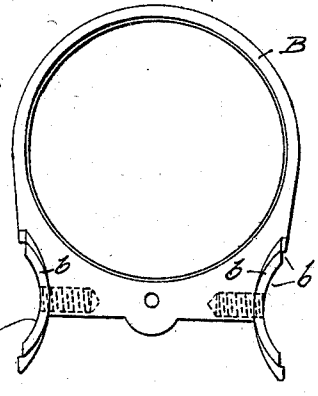


Fig. 4.

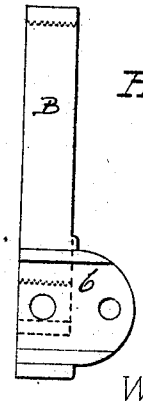


Fig. 5.

Witnesses.

Caleb J. Bieber

D. M. Stewart

Inventor.

William Diebel

by

W. M. Stewart

Attorney

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

UNITED STATES PATENT OFFICE.

WILLIAM DIEBEL, OF PHILADELPHIA, PENNSYLVANIA.

PEDAL.

SPECIFICATION forming part of Letters Patent No. 644,819, dated March 6, 1900.

Application filed November 30, 1898. Serial No. 697,851. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM DIEBEL, a citizen of the United States of America, and a resident of Philadelphia, Pennsylvania, have invented certain new and useful Improvements in Pedals, of which the following is a specification.

My invention relates to pedals for velocipedes; and it consists in the novel construction of the tread-piece and of its attachment to the separately-formed bearing-head of the pedal.

Figure 1 is a side elevation, partly in section, of a pedal embodying my improvements. Fig. 2 is a cross-sectional view on the line $x\,x$ of Fig. 1 looking toward the pedal-head. Fig. 3 is a separate plan view of the pedal tread-piece. Figs. 4 and 5 show the pedal-head separately.

In the preferred construction (shown in the drawings) I illustrate a swinging pedal having the single ball-bearing mounting shown and claimed by me in Letters Patent Nos. 582,183 and 598,197. The ring or ball-casing B, which forms the bearing-head of the pedal, is mounted upon the pivot-pin A, which is rigidly secured to the free end of the crank-shaft, said ring, as shown, being provided with relatively-adjustable bearing-disks C and C′, between which and an inner disk E, fixed to the pin or shaft A, is a single series of balls spaced by a ring F, all substantially as shown in said Patent No. 598,197, and the adjustment of the bearing-disks and the locking of the same in proper position are secured by means of the notched rim c and engaging catch c', all substantially as described in said Patent No. 582,183.

The pedal-head or bearing-ring B is provided exteriorly with a pair of clamping-ears $b\,b$ for the attachment of the special tread-piece G, hereinafter described. Each of these ears extends forward beyond the plane of the ring and has one face thereof suitably shaped, as indicated at b', to receive the correspondingly-formed end g' of the tread-piece.

The tread-piece G is formed in a single piece of sheet metal punched and pressed into straight shape in suitable dies and subsequently bent into U shape, as shown. The parallel portions or arms $g\,g$ are corrugated or concaved throughout their length, similarly to the ears $b\,b$, already described, as indicated at g^2, so that their ends fit said ears, as shown in Figs. 1 and 2, and are firmly clamped to the latter by means of suitable screws $h\,h'$ and convex plates K. The upper edges of these arms are preferably serrated, as usual, to provide a proper foothold and are formed with heels or stops g^3 to limit the movement of the arms $g\,g$ into the pedal-clamping ears $b\,b$. The cross-plate g^4 of the tread-piece is arranged, as shown, not only to firmly tie together the integrally-formed arms $g\,g$, but also to stop outward movement of the foot upon the pedal.

It will be noticed that my improved tread-piece is entirely devoid of any cross-bracing or support between the pedal-head B and its integrally-formed outer end g^4. The requisite lateral stiffness is secured by the corrugating or concaving of the parallel portions or arms $g\,g$, as described, while at the same time the rigid attachment of the free ends thereof to the pedal-head is facilitated and the ornamental appearance of the pedal enhanced thereby. A minimum of weight and maximum of economy are also practically attained in this construction.

What I claim is—

1. A swinging pedal, comprising a bearing ring or head formed with depending concave clamping-ears, a U-shaped sheet-metal tread-piece having corrugated or concave sides the free ends of which are seated in the concavities in said ears, and convex clamping-plates securing said free ends of the tread-piece to said concave ears, substantially as described.

2. A swinging pedal, comprising a bearing ring or head formed with concave clamping-ears extending forward beyond the plane of the ring, a U-shaped sheet-metal tread-piece having corrugated or concave sides the free ends of which are seated in the concavities in said ears, said tread-piece having heels or stops to limit the movement of said free ends into the clamping-ears, and plates having convex sides screwed to said ring or head and clamping said free ends of the tread-piece thereto.

Signed by me at Philadelphia, Pennsylvania, this 25th day of November, 1898.

WM. DIEBEL.

Witnesses:
CHARLES F. ZIEGLER,
GEORGE MACLEAN.