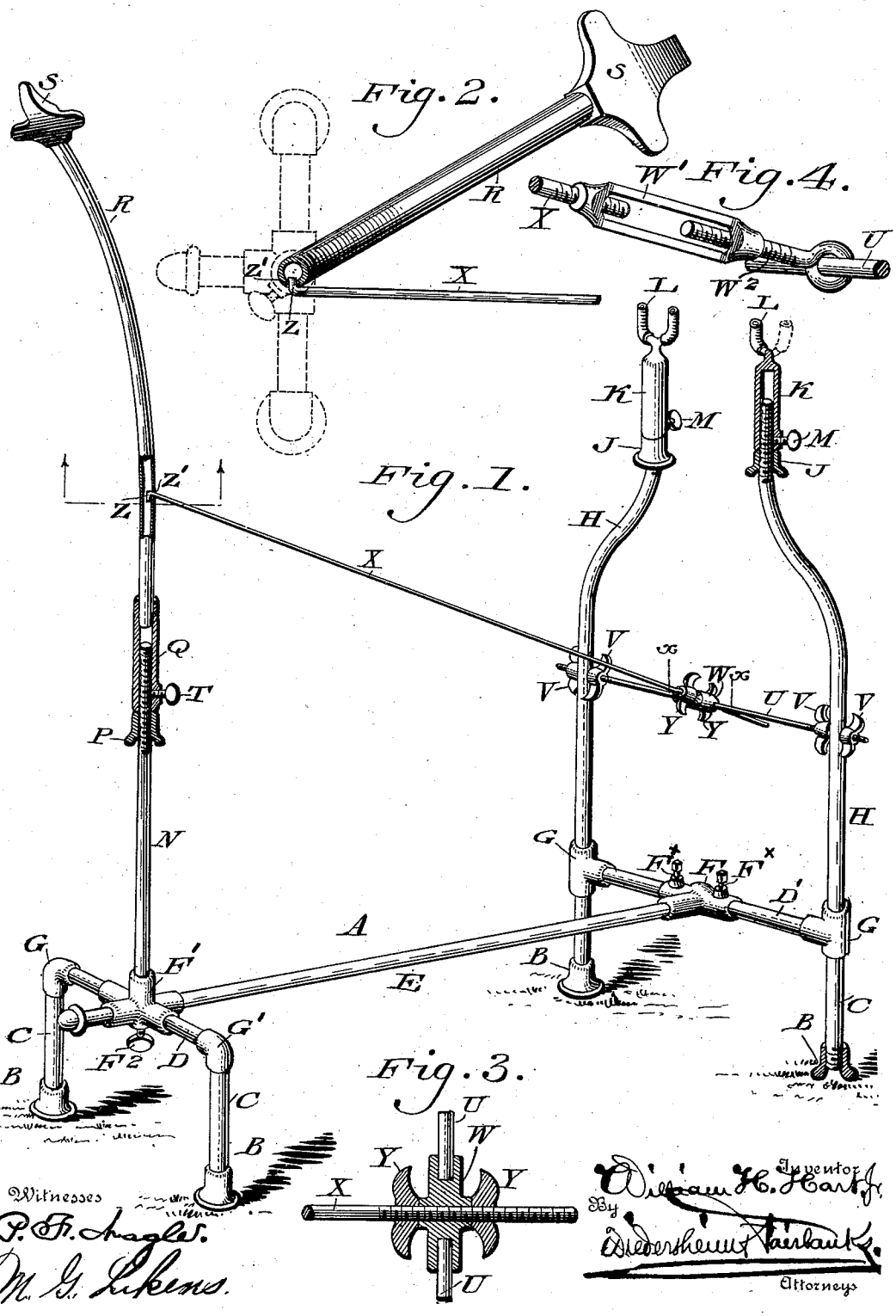
No. 663,226. Patented Dec. 4, 1900.

W. H. HART, JR.

BICYCLE STAND.

(Application filed Mar. 31, 1900.)

(No Model.)



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BICYCLE-STAND.

SPECIFICATION forming part of Letters Patent No. 663,226, dated December 4, 1900.

Application filed March 31, 1900. Serial No. 10,925. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. HART, Jr., a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Bicycle-Stands, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a bicycle-stand which is adapted to be adjusted in longitudinal and vertical directions and folded in compact form; and it also consists of other novel features, as will be hereinafter described, and all of which pointed out in the claims which follow the specification.

Figure 1 represents a perspective view, partly sectional, of a bicycle-stand embodying my invention. Fig. 2 represents a top or plan view of a detached portion thereof, showing a member of the stand in another position from that shown in Fig. 1. Fig. 3 represents a horizontal section of a portion on line $x\,x$, Fig. 1. Fig. 4 represents a perspective view of another portion of my invention.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates the base of the stand, the same consisting of the feet B, the legs C, the cross-bars D D′, and stretcher E, the latter extending from one cross-bar to the other and being connected with the cross-bar D′ by the coupling F and set-screws $F^{\times}$ and passing freely through the coupling F′ on the cross-bar D, it being adapted to be rigidly connected with said coupling by the set-screw F^{2}, by which provision said legs and feet may be adjusted to and from each other according to the desired length of the stand.

Rising from the couplings G of the legs C and cross-bar D′ are the standards H, whose upper ends are screw-threaded for engagement with the interiorly-threaded sleeves J, on which latter are rested the collars K, which also receive the upper ends of said standards H. On the top of said collars K are the saddles L, and at or near the lower parts thereof are the set-screws M, it now being seen that by properly rotating the sleeves J said collars, and consequently the saddles thereon, may be raised and lowered, and thus vertically adjusted to the requirements of a bicycle supported thereon.

Rising from the coupling F′ on the cross-bar D is the standard N, whose upper portion is screw-threaded and has fitted thereto the interiorly-threaded sleeve P, on which is supported the collar Q, which also receives the upper end of said standard N. Rising from said collar Q is the vertical flaring arm R, on the top of which is the saddle S. The collar Q is provided with the set-screw T, which is adapted to tighten against the standard N, it being evident that by properly rotating the sleeve P the arm R, and consequently the saddle S, may be adjusted in height according to the requirements of the bicycle.

U designates a brace-bar whose ends are passed through the standards H and connected therewith by the thumb-nuts V, which are placed on said ends and bear against said standards on opposite sides thereof, thus firmly connecting said bar with said standards and admitting of the nice adjustment of the saddles L in the direction to and from each other, as they are somewhat elastic in their nature, and so may be spread or brought together. At the center of the brace-bar U is the boss W, the same having an opening therein in the longitudinal direction of the stand for the reception of one end of the stringer X, which by means of the thumb-nuts Y on said stringer on opposite sides of said boss serve to connect said standards and admit of the longitudinal adjustment of the stringer. The end of the stringer opposite to the boss W has a hook or limb Z thereon, the same being adapted to enter the opening Z′ in the arm R, it being noticed that when the limb occupies said opening and the nuts Y are properly tightened the standards H and arm R are firmly connected, the bar U and stringer X providing a brace which strengthens and stiffens said parts, providing a strong structure, it being noticed that the entire stand is formed of few and inexpensive parts which may be separated and folded in compact form and afterward easily reassembled. By loosening the nuts T and Y the arm R may be rotated so as to bring the sad-

dle S to the side of the stand, as seen in Fig. 2, so that said saddle occupies less room than when in its operative position, which is outwardly or in the direction of the length of the stand, as seen in Fig. 1, owing to the forward curve or bend of the arm R, which provides greater room for the bicycle when the stand is in use. When the saddle is in the position shown in Fig. 2, the limb Z occupies the opening Z′, so that the stringer may hold the parts in compact form in this condition, the same as in the operative position shown in Fig. 1.

It will of course be understood that when it is desired to ship or store away the stand the various nuts, &c., may be loosened and the parts removed and folded upon each other, so that the same make a compact form and occupy a relatively small space.

In Fig. 4 I show a form of parts employed in lieu of those shown in Fig. 3, the same being employed for the adjustment of the stringer X, in which case I use the buckle W′, in one end of which the stringer X is fitted, the other end receiving the screw-eye W^2, the eye portion thereof receiving the cross-bar U, by which provision by properly returning the buckle the latter acts the same as the nuts Y, and so tightens and adjusts the stringer.

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

1. A bicycle-stand having a base, standards rising therefrom, and a laterally-adjustable arm rising from one of said standards, in combination with a stringer which is adapted to be connected with the standard opposite to said arm and having a limb which is adapted to be freely inserted in said arm in either of the adjusted positions thereof.

2. In a bicycle-stand, a brace for the standards thereof consisting of a stringer, a cross-bar connected with one of said standards, a boss on said cross-bar, said stringer passing through said boss and being connected therewith, and a limb on the opposite end of said stringer, the adjacent standard having an opening therein which freely receives said limb.

3. In a bicycle-stand, a base formed of legs, a stretcher connected at one end with the coupling F on the cross-bar D′ of the adjacent legs and passing freely through the coupling F′ on the cross-bar D of the opposite legs and tightening-screws $F^{\times}$, F^2, the screw $F^{\times}$ being on the coupling F and engaging the cross-bar D′, and the screw F^2 being on the coupling D and engaging the adjacent portion of the stretcher.

4. In a bicycle-stand, a base, standards rising therefrom, the upper portion of one of the latter having a rotatable flaring arm thereon and vertically-adjustable saddles on said arm and the other standards, in combination with a stretcher at the base coupled with the standards, and a stringer, one end of which is adjustably connected with one of the standards and provided at the other end with a limb which freely enters the opposite standard.

5. In a bicycle-stand, having standards and a base supporting the same, a brace for said standards consisting of a cross-bar whose ends are fitted in one of said standards, adjusting and tightening nuts engaging said standard, a boss on said cross-bar, and a stringer, one end of which is freely passed through said boss and provided with adjusting and tightening nuts which engage the opposite ends of said boss, the other end of said stringer being freely connected with the opposite standard.

6. In a bicycle-stand, a brace consisting of a stringer, a boss receiving said stringer and a cross-bar supporting said boss, said stringer being provided with set-nuts on opposite ends of said boss, the end of said stringer opposite said boss being formed with a limb which freely enters an opening in the adjacent standard, the latter being flaring and rotatable and adapted to have said opening receive said limb in the different positions of said standard.

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