

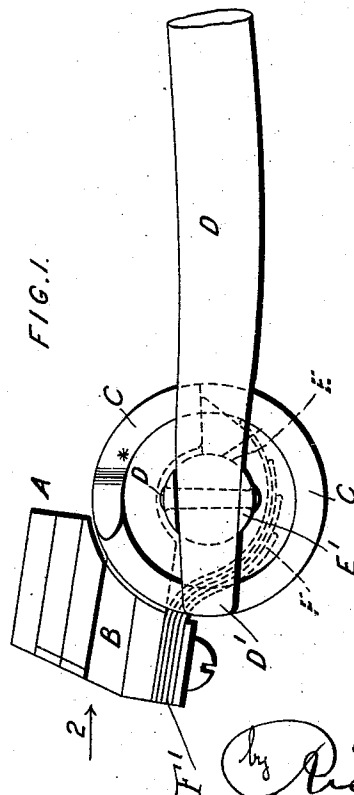
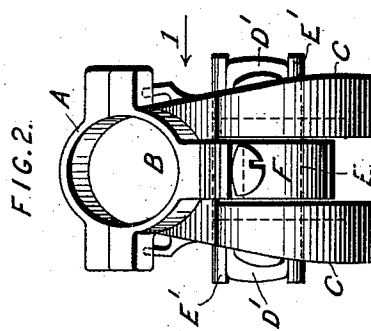
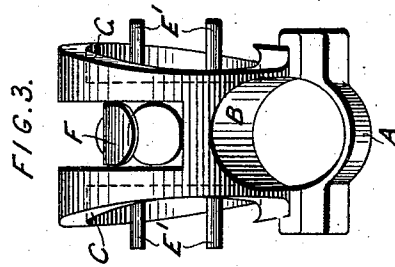
(No Model.)

4 Sheets—Sheet 1.

S. E. SPENCER.
BICYCLE REST.

No. 572,664.

Patented Dec. 8, 1896.



Witnesses
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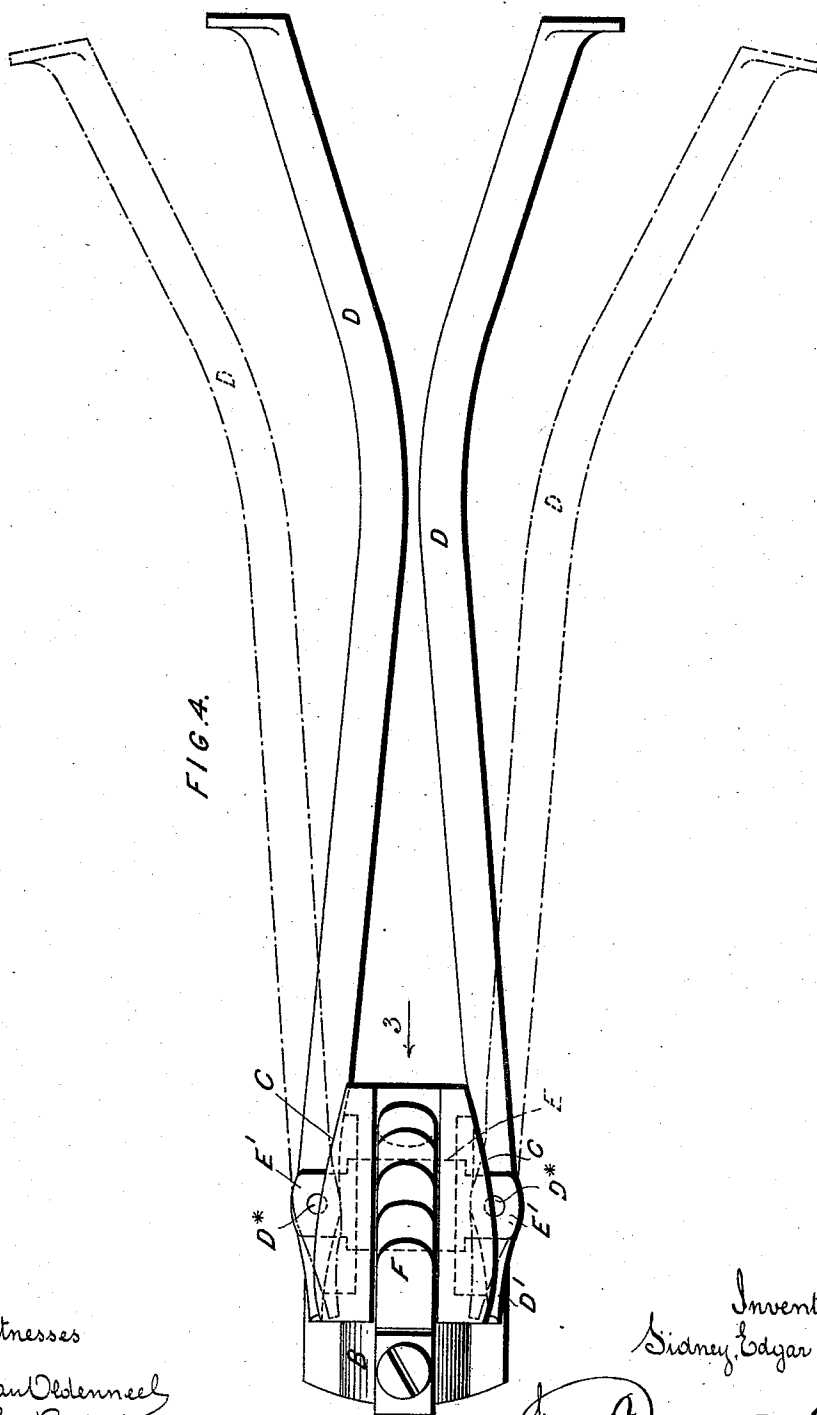
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FIG. 6.

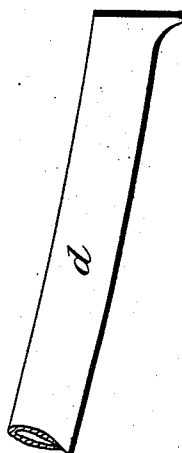
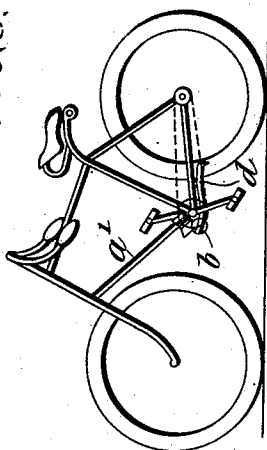


FIG. 5.

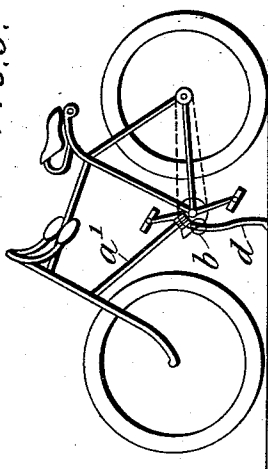
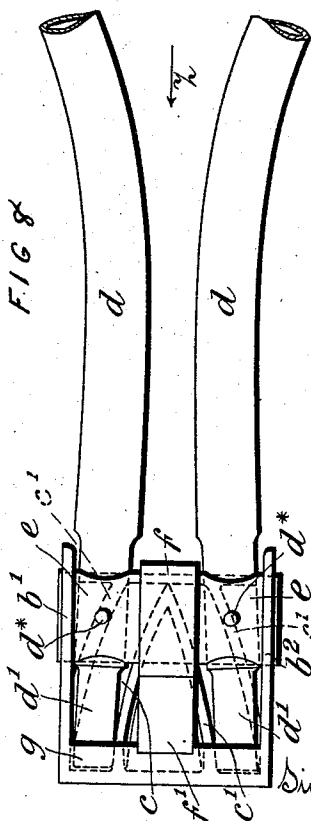


FIG. 8.



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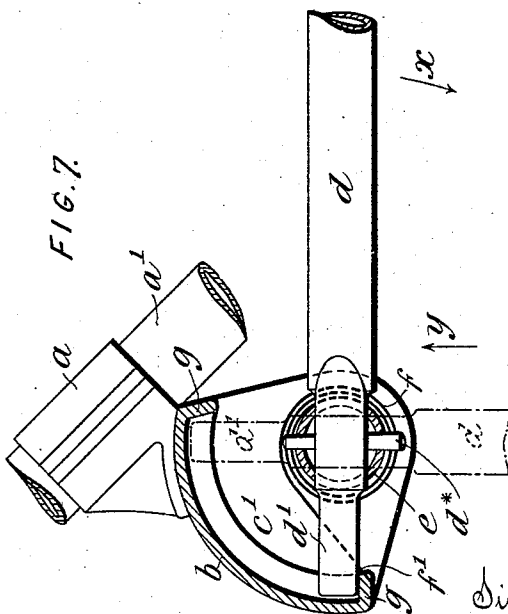
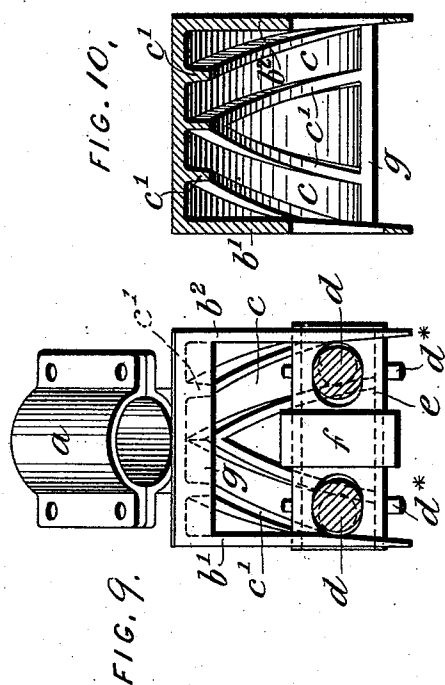
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UNITED STATES PATENT OFFICE.

SIDNEY EDGAR SPENCER, OF LONDON, ENGLAND, ASSIGNOR TO THE
AUTOMATIC CYCLE STAND, LIMITED, OF SAME PLACE.

BICYCLE-REST.

SPECIFICATION forming part of Letters Patent No. 572,664, dated December 8, 1896.

Application filed March 4, 1896. Serial No. 581,768. (No model.) Patented in England June 28, 1894, No. 12,558.

To all whom it may concern:

Be it known that I, SIDNEY EDGAR SPENCER, accountant, a subject of the Queen of Great Britain, residing at 6 Bow Lane, in the city of London, England, have invented a Stand or Rest for Attachment to Bicycles, (for which I have obtained the grant of Letters Patent in Great Britain, No. 12,558, dated June 28, 1894,) of which the following is a specification.

This invention relates to a stand or rest for attachment to bicycles in such manner that while same will be carried thereon clear of the ground it will be ready and in convenient position for use when the rider dismounts and wants to leave the machine standing alone, or at any moment when it is desired to leave the machine but retain it in an upright position independently of any separate stand or support.

The present invention consists of two legs so mounted on a hinge pin or shaft in a suitable bearing or device as to be adapted to swing through about one-fourth or other suitable part of a circle, and at the same time recede from or approach toward one another, means to cause such recession and approach of the legs, a spring adapted to normally keep said legs pressed in one direction, (*i. e.*, off the ground,) and a clamp or device for clamping or securing the appliance on or to any convenient part of the bicycle, all as will be hereinafter more fully understood and finally pointed out in the claims.

Figure 1 is a side view of the stand or rest detached from the bicycle, looking in the direction of the arrow 1, Fig. 2. Fig. 2 is an end view of same, looking in the direction of the arrow 2, Fig. 1. Fig. 3 is a view looking in the direction of the arrow 3, Fig. 4, the legs having been removed. Fig. 4 is an under-side plan of the appliance with the legs "closed," the position said legs would assume when "open" being shown in dotted lines. Fig. 5 is a side elevation of this stand or rest attached to the bicycle and in position supporting the bicycle. Fig. 6 is the position it automatically assumes when out of use. Figs. 7 to 10 show an alternative form of construction, viz: Fig. 7 is a vertical section showing the internal construction of the appliance re-

moved from the machine. Fig. 8 is a plan of the under side of the device, (*i. e.*, looking in the direction of the arrow *y*, Fig. 7.) Fig. 9 is an end view of the appliance, looking in the direction of the arrow *z*, Fig. 8. Fig. 10 is a similar view to Fig. 9 with the legs and spring removed in order to show details of construction.

Referring now to Figs. 1 to 4, A is a clamp for securing the appliance to the bicycle.

B is a cam-faced block or device having incline planes or cam-surfaces C C on each side face thereof. E is a shaft or axle journaled in said block B, each outer end of which shaft E is forked, so as to form a bearing E', in which are respectively pivoted at D^x the legs D, with the upper end D' of each leg extending beyond the point D^x where same is pivoted, so that the upper part of each leg D is thus held in close contact with or adjacent to the said cam surfaces or faces C C. Thus it will readily be seen that when said legs D are swung or moved round on their axis E therefore by reason of the curvature of the faces C C the said legs D will be rocked on their respective pivot D^x, and consequently the lower (or free) ends of said legs D will be caused to recede from or approach toward one another.

F F are leaves of a spring fixed at F' to the block B, the free end of said spring (leaves) bearing upon a projection fixed on the axle E, which latter when revolved (against the action of said spring) by the legs D thereby lifts the free ends of the leaves forming said spring F, which latter consequently exerts a strong tendency to force the axle E back again and thus force the legs into the closed position shown in Fig. 4, and also normally retains same firmly in such closed position.

The operation is as follows: The device is fixed to the bicycle (for instance, as shown in Fig. 6) in such manner that the legs are held up quite clear of the ground and also clear of the pedal-cranks. If now it is desired to support the bicycle by this rest or stand, the legs D are forced downward (this may be done by the foot or by hand) until said legs touch the ground, as shown in Fig. 5, and thereby raise the front wheel slightly or even clear of the ground, and at same time

said legs have been forced apart from one another, as shown in dotted lines in Fig. 4, by the inclined surfaces C, so as thus to form a wide base or support for the bicycle, which
 5 can now be left standing entirely alone, the back wheel and said two legs thus forming a kind of tripod support for the bicycle, the weight or pressure from said bicycle being now sufficient to keep said legs pressed against
 10 the ground or floor and thereby prevent the spring returning said legs into the position shown in Fig. 6 until the bicycle is moved or the legs otherwise freed from the ground, whereupon the spring F instantly returns the
 15 legs D into the position shown in Fig. 6 and there retains same.

Referring now to Figs. 7 to 10, the modification shown therein is as follows: *a* is the clip or attachment by which the appliance is secured
 20 on or to the part *a'* or any other suitable part of the bicycle. Any other suitable means for clamping or attaching the appliance in position may be used if desired.

b is a curved plate or device having side
 25 plates or cheeks *b'* *b''* thereon, and also this curved plate *b* on the under side has two converging guideways or channels forming what I term "camways" *c*, the side walls *c'* of said camways *c* acting on the inner end *d'*
 30 of each pivoted leg *d* as cam-surfaces to thus cause the two said inner ends *d'* to converge or diverge, as the case may be, and consequently expand the outer or free end of the legs *d* or contract same, as the case may be,
 35 as hereinafter explained.

The legs *d d* are pivoted at *d^x* on a pin or axis *e*, which latter is journaled or securely mounted in or to the aforesaid side cheeks *b' b''*, and the said pin or axis *e* is securely attached to the inner end of a coiled spring *f*, while the other end *f'* of such spring *f* is fixed to the curved plate or device *b* (or any other suitable spring may be used and one end thereof attached to the axle and the other
 40 end to some fixed part of or on the device *b*) in such manner that the said spring will, through the said pin or axis *e*, normally keep said legs *d* firmly pressed in the opposite direction to the arrow *x*, Fig. 7, the inner ends

d' of said legs coming to rest against suitable
 50 stops *g g*. Consequently when the legs *d d* are moved around in the direction of the arrow *x* into the position shown in dotted lines in Fig. 7 thereby the already-wound
 55 spring *f* is further wound and exerts a strong tendency to force back said legs *d* immediately same are released. Thus it will be seen that when the legs *d* are forced from the position shown in full lines to the position shown in dotted lines in Fig. 7 thereby the inner ends
 60 *d'* are forced by the camway *c* to converge, and consequently the outer ends of the legs *d* are forced apart to form a wide base for holding up the bicycle, while on their release the spring *f* will instantly force said legs
 65 back into their normal position, as before explained.

The movement of the inner ends *d'* of said legs is limited by the said stops *g* at each end of each camway *c*, or other suitable stops
 70 may be used if desired.

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

1. In combination, the block having the
 75 transverse pivot adapted to rotate therein and extending from side to side thereof, the supplemental pivots extending across the main pivots, the arms pivoted on the supplemental pivots to move with the main pivots,
 80 the cams on the block and the spring arranged within the block and between the laterally-swinging supporting-arms, said spring being attached to the block at one end and to the transverse pivot at the other end, substan-
 85 tially as described.

2. In combination, a block carrying a transverse rotary pivot-pin, the cross-pivots thereon, and the arms pivoted on the cross-pins and having short extensions beyond said pins
 90 and the cams on the block engaging said short extensions of the arms, substantially as described.

SIDNEY EDGAR SPENCER.

Witnesses:

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