(No Model.)

W. H. BENDURE & S. TILBERY.

SLEIGH ATTACHMENT FOR BABY CARRIAGES.

No. 485,781. Patented Nov. 8, 1892.

FIG. 1.

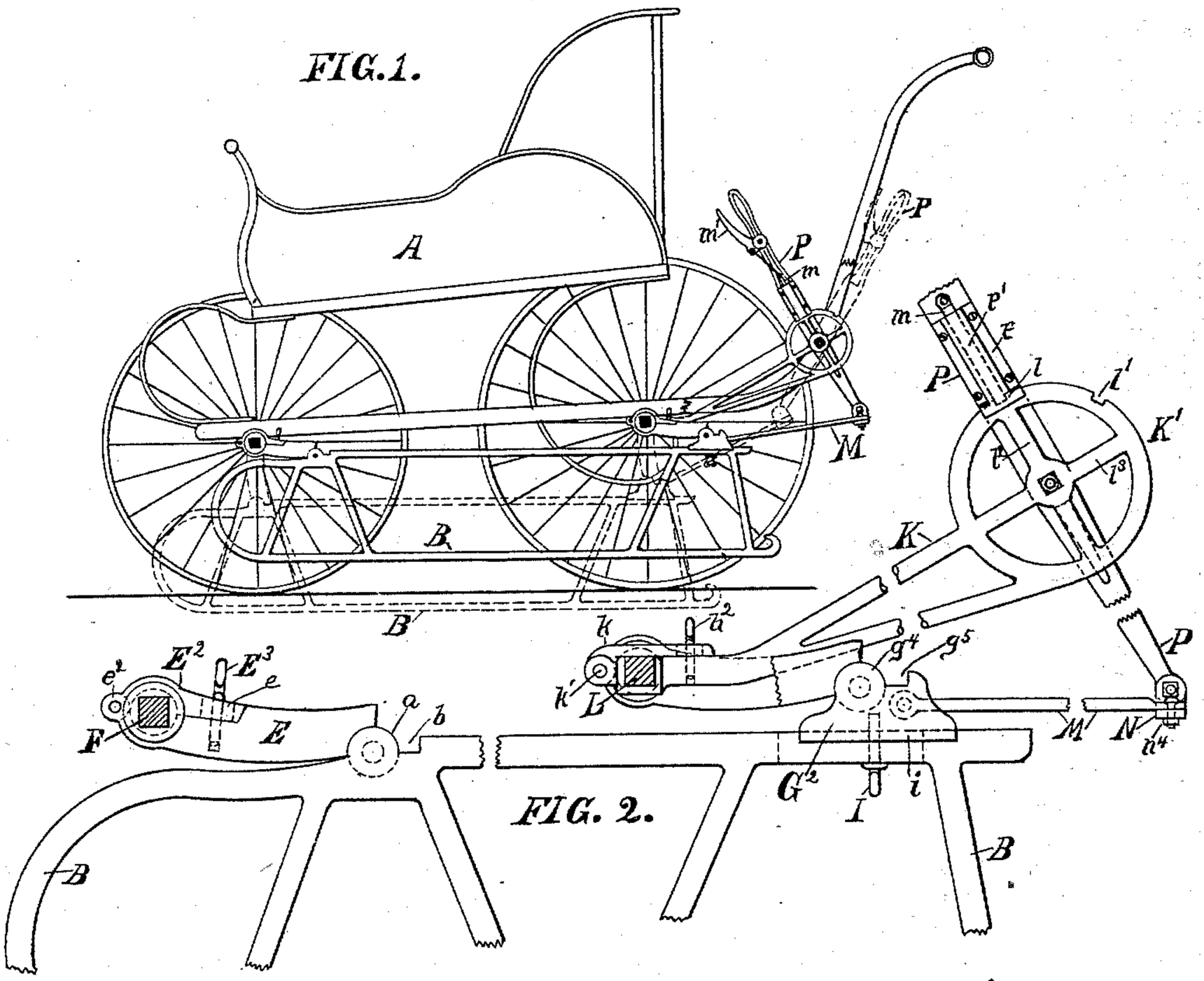

FIG. 2.

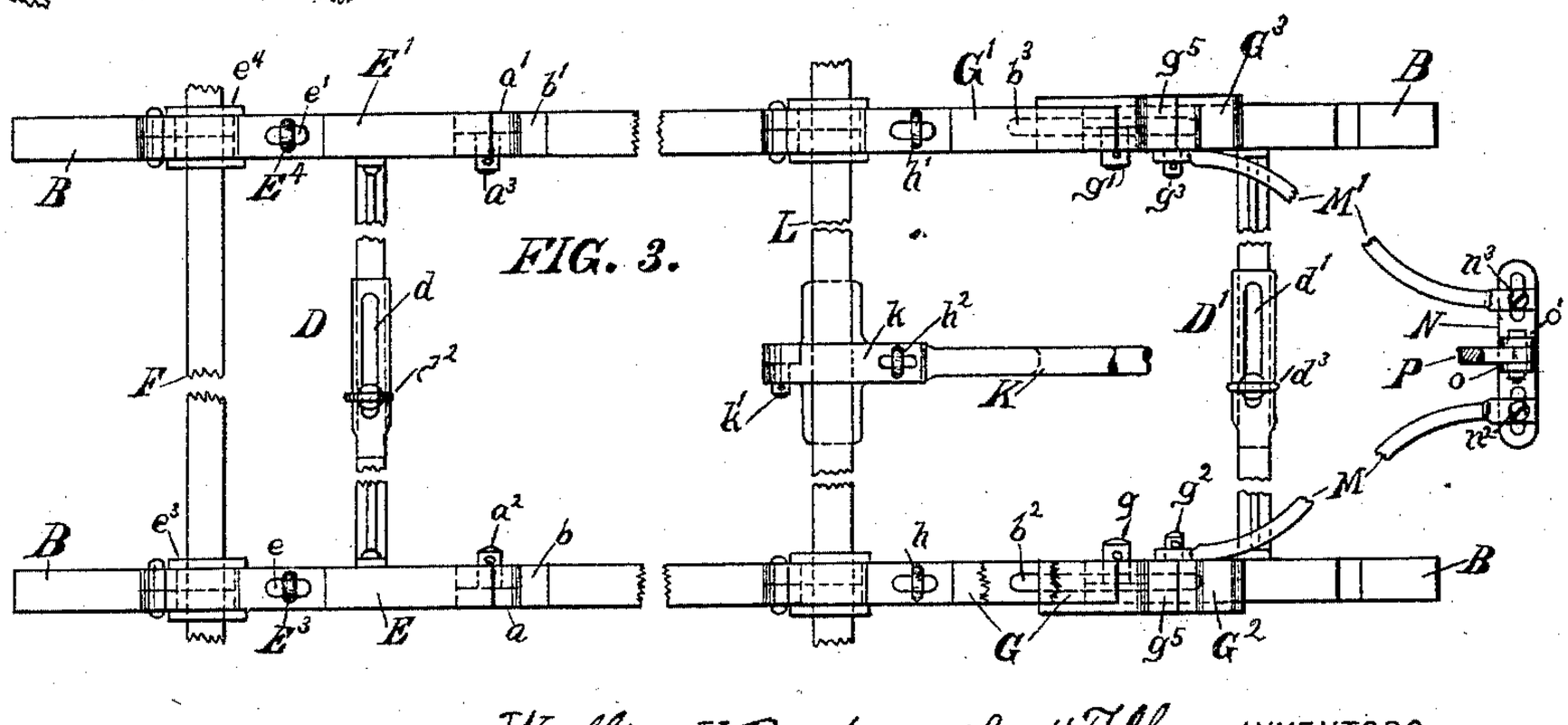

FIG. 3.

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UNITED STATES PATENT OFFICE.

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SLEIGH ATTACHMENT FOR BABY-CARRIAGES.

SPECIFICATION forming part of Letters Patent No. 485,781, dated November 8, 1892.

Application filed July 15, 1892. Serial No. 440,112. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. BENDURE and SCOTT TILBERY, citizens of the United States, residing at Fort Wayne, in the county of Allen and State of Indiana, have invented certain new and useful Improvements in Sleigh Attachments for Baby-Carriages; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to improvements in sleigh attachments for baby-carriages.

In the use of baby-carriages in cities and towns it is frequently desirable to have a sleigh attachment that can be readily attached or disconnected and easily operated; but the sleigh attachments now in use are either rigidly secured to the running-gears or the carriage-body, or else they are so cumbersome, unsubstantial, and inconvenient as to be of but little or no practical utility.

The object, therefore, of our invention is to remedy these defects by providing a light but neat and substantial sleigh attachment for baby-buggies so constructed and arranged as to be readily attached to said carriages or removed at pleasure by the simple adjustment of thumb-screws, and which is adapted to be easily and conveniently elevated or lowered when in use by the simple movement of an operating-lever.

Our invention consists in the novel construction and combination of the several parts, as will be hereinafter set forth, and particularly pointed out in the claims.

The objects of our invention are accomplished by the mechanism illustrated in the accompanying drawings, forming part of this specification, in which similar letters indicate corresponding parts in the several views.

Figure 1 is a side view of our invention in position on the running-gear of a baby-carriage, a portion of the running-gear being cut away to show more clearly the manner of attaching our improvement. Fig. 2 is an enlarged view of such portions of our invention as illustrate in detail the manner of securing the same in position for use. Fig. 3 is a plan view of such parts of our invention as are adapted for lateral adjustment to fit different-sized running-gears.

A is any proper baby-carriage of well-known construction, to the axles of which our improvement is secured.

The adjustable sleigh, the pivoted standards, and the operating-lever mechanism constitute the framework of our invention.

The sleigh B, having runners of any proper construction, preferably of metal, is provided with recesses b and b' and semicircular ears a and a', having projecting lugs a^2 and a^3, to which the forward standards are pivotally secured, Fig. 2, and the longitudinal slots b^2 and b^3, Fig. 3. The sleigh B is also provided with cross-pieces D and D′ in two sections, one part having a longitudinal slot $d\ d'$ and adapted to slide upon the other perforated part for the transverse adjustment of the runners, the two parts of said cross-pieces being secured in any desired position by the thumb-screws d^2 and d^3.

The forward standards E and E′, preferably of metal, are provided at their base with a perforated circular ear or lug, preferably of one-half the thickness of said standard and adapted for a pivotal connection with said projecting lugs, having the ears a and a' flush with said standards when in position. Each of said standards has its upper extremities fitted for inclosing the axle F of carriage A by the hinge E^2, pivoted, as above described, on the projecting lug e^2 and secured in position by the thumb-screw E^3. The longitudinal slot e in hinge E^2 permits the operator to readily disengage the hinge E^2 from the lug e^2 when desired by loosening thumb-screw E^3. We preferably inclose the axle F with the flanged circular boxing e^3 and e^4, upon which the hinged standards are firmly clamped, as described.

The construction of the rear standard G and G′ is exactly similar to that of the forward standards above described. Standards G and G′ are, however, provided with a metallic base G^2, to which said standards are pivoted and riveted, as before described. The base G^2 has a vertical retaining-flange i, a circular ear g^4, having a lug or pivot g^3, to which said stand-

ard is pivoted, a recess g^5, and a lug or pivot g^2 g^3, to which the hounds of the operating-lever are pivoted. Said base G^2 is secured to said sleigh by the thumb-screw I. The lever-bar K, also of metal, is adapted at its lower extremity to inclose and form a bearing on the axle L, said bar having an adjustable slotted hinge k, pivoted on the lug k' and secured in position by the thumb-screw h^2, Fig. 2. The other extremity of lever-bar K is preferably a circle K, having notches or recesses l and l' for the engagement of the spring-latch m and strengthening-diameters l^2 and l^3, though a notched quadrant or other equivalent device may be used. The hounds M and M′ are pivoted and riveted on the lugs g^2 and g^3 and so bent horizontally as to bring their outer extremities quite near each other and adapted to be adjustably secured to the slotted plate N in any proper manner, but preferably by the screws n^2 and n^3, and secured by a threaded nut.

Plate N is provided near its center with the elevated and perforated lugs o and o', between which the lower end of the hand-lever P is properly secured by a bolt or pivot.

The hand-lever P is secured to lever-bar K at the center of circle K′ by a suitable pivotal connection, thus arranging the weight between the power and the fulcrum. To the lever P is rigidly secured the longitudinally-slotted plate p, in which slot p' the spring-catch m, adapted for engagement with notches l and l', is adjusted, suitably connected to a handle m', which is pivotally mounted on the lever P at or near the upper extremity.

The manner of adjusting and the method of operating our improvement thus described are as follows: When during the winter season it is desirable to place our attachment in position for use, the forward standards E and E′, being permanently riveted on their respective lugs a and a', are adjusted in position on axle F by removing thumb-screw E^3, when said standard may be placed in position, as seen in Fig. 2, and the hinge E^2 readily replaced and secured by inserting and tightening thumb-screw E^3. The rear standards, being permanently riveted on the pivots or lugs of their respective bases G and G′, are secured to the axle L in like manner, when the said base may be adjusted and secured by tightening the thumb-screw I, Fig. 2, and the hinge k may in like manner be disconnected and replaced, inclosing said axle at a point equally distant from the extremities of said axle, as seen in Fig. 3. Thus by the simple adjustment of five thumb-screws our improvement may be secured to the running-gears of a baby-carriage in position for use. When our improvement is thus adjusted, it assumes the position shown by full lines in Fig. 1, the wheels resting upon the ground and the sleigh being suspended by the pivoted standards and the hand-lever being at right angles to the lever-bar.

When it is desired to make use of our improvement, the operator grasps the hand-lever P and withdraws the spring-catch m from its engagement with notch l of bar K by pressing on handle m'. The hand-bar P is then thrown back into the position shown by the dotted outline in Fig. 1, when the sleigh will be lowered to the ground and the standards elevated to a vertical position, the bases of said standards resting in the recesses b and g^5, Fig. 2, thus supporting the carriage with the wheels at a suitable distance above the ground. It will then be securely supported in that position by the engagement of the spring-catch m with notch l' of bar K, which takes place when the handle m' is released from the grasp of the operator. The carriage may be again gently and readily lowered to the ground and the sleigh attachment elevated to its original position by releasing the catch-spring m from engagement with notch l' and replacing it in engagement with notch l.

Our invention can be readily adjusted upon running-gears of different widths by the adjustment of the thumb-screw d in the slot d' and upon running-gears of different lengths by the adjustment of thumb-screw I in the slots b^2 and b^3. When the season in which our invention can be properly used has passed, it can readily and conveniently be disconnected from the running-gears by simply removing the thumb-screws E^3, E^4, h, h', and h^2.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. A combined sleigh attachment for baby-carriages, consisting of a sleigh-body having ears provided with lugs or pivots adapted for mounting, forward supporting-standards, longitudinal slots for the longitudinal adjustment of the rear standard-bases, and slotted cross-pieces adapted for lateral adjustment, forward standards pivoted on said lugs, adjustable standard-bases having lugs on their inner surface adapted for engagement with the rear standards and supporting-hounds, rear supporting-standards pivoted on said lugs, said rear and forward standards being adapted for clamping the axles of said carriage by a hinged connection, and a lever mechanism adapted for raising and lowering said sleigh and carriage and consisting of a lever-bar K, secured to the rear axle by a hinged connection and having at the end thereof a notched quadrant or circle, to which is pivoted a hand-lever P, having a catch-spring m and properly fulcrumed on the plate N, to which is rigidly secured the supporting-hounds M and M′, pivoted at their other extremity to the said standard-bases, all substantially as set forth and described.

2. In a combined sleigh attachment for baby-carriages, the combination of a sleigh B, having lugs a and a', standard-bases G^2 and G^3, adjustable in slots b^2 b^3 and having lugs g g' and g^2 g^3, and slotted adjustable cross-pieces D D′, with the pivoted standards E E′ and G G′, and the operating-lever mechanism

consisting of the lever-bar K, having a notched quadrant or circle K′, a pair of supporting-hounds M M′, having a pivoted connection at said bases G^2 G^3 and secured at the other extremity to plate N, and the hand-lever P, having a pivotal connection at said plate and also at the center of said circle K′ and provided with a spring-catch *m*, adapted for engagement with said quadrant or circle, all substantially as set forth and described.

3. The combination, in a sleigh attachment for baby-carriages, of the hounds M M′, the slotted plate N, the lever-bar K, having a hinge *k*, a thumb-screw h^2, and a quadrant or circle *k*′, with the hand-lever P, fulcrumed on plate N and pivoted to the center of circle K′ and provided with a spring-catch *m*, adapted for engagement with said quadrant or circle, all substantially as set forth and described.

Signed by us this 12th day of July, 1892.

WILLIAM H. BENDURE.
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Witnesses:
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S. C. LUMBARD.