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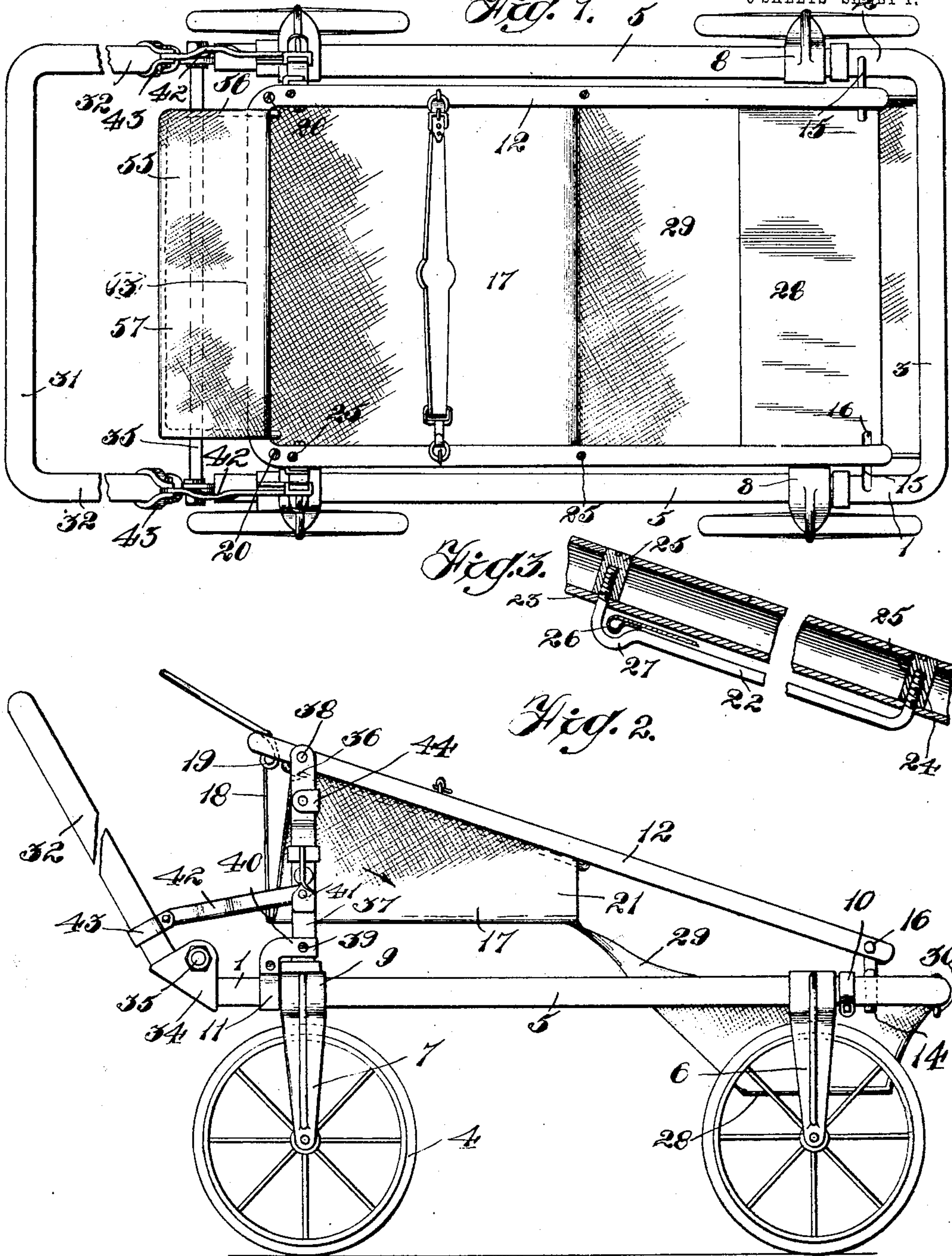
PATENTED OCT. 4, 1904.

A. E. MCGILL.
PERAMBULATOR.

APPLICATION FILED DEC. 19, 1903.

NO MODEL.

3 SHEETS—SHEET 1.



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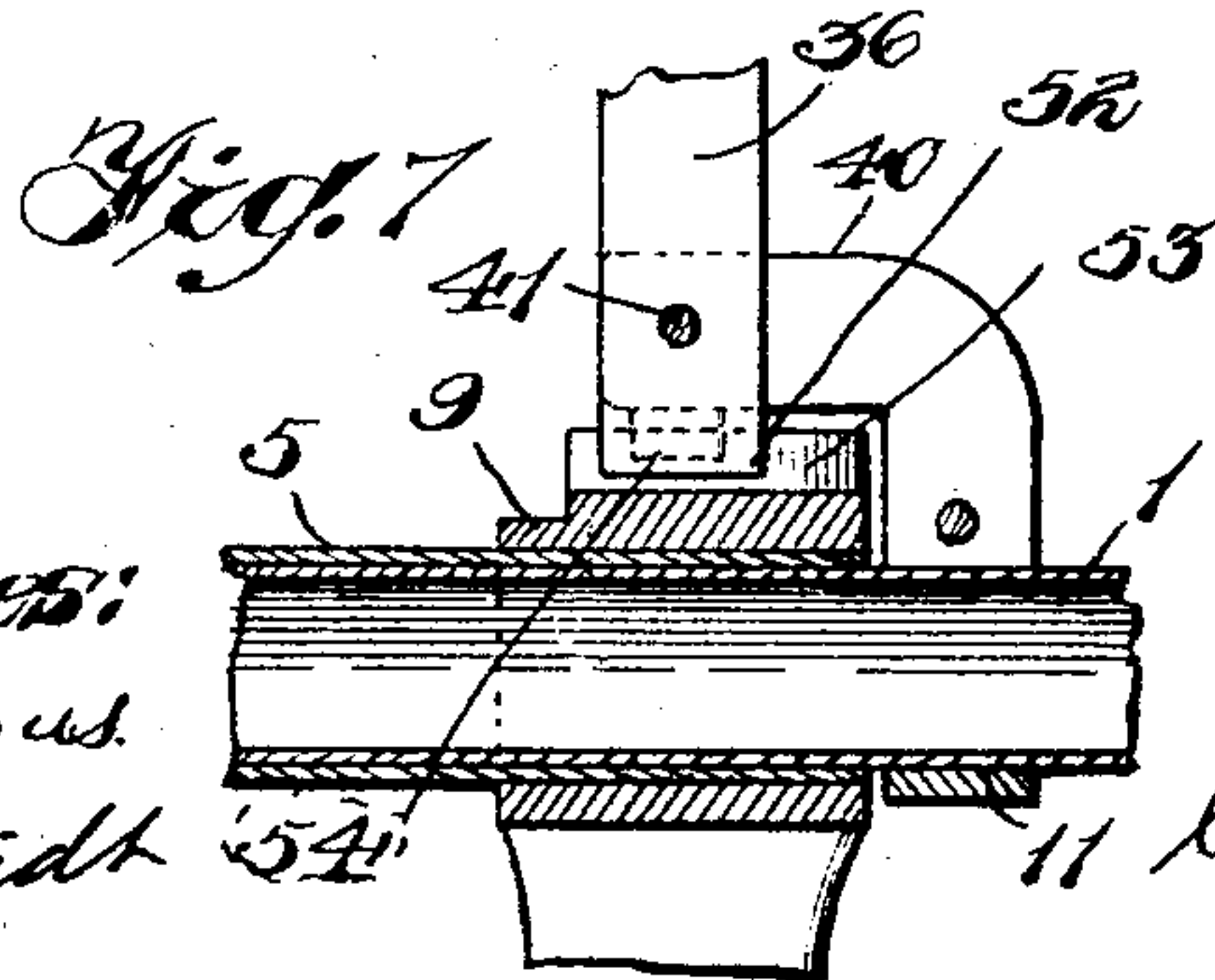
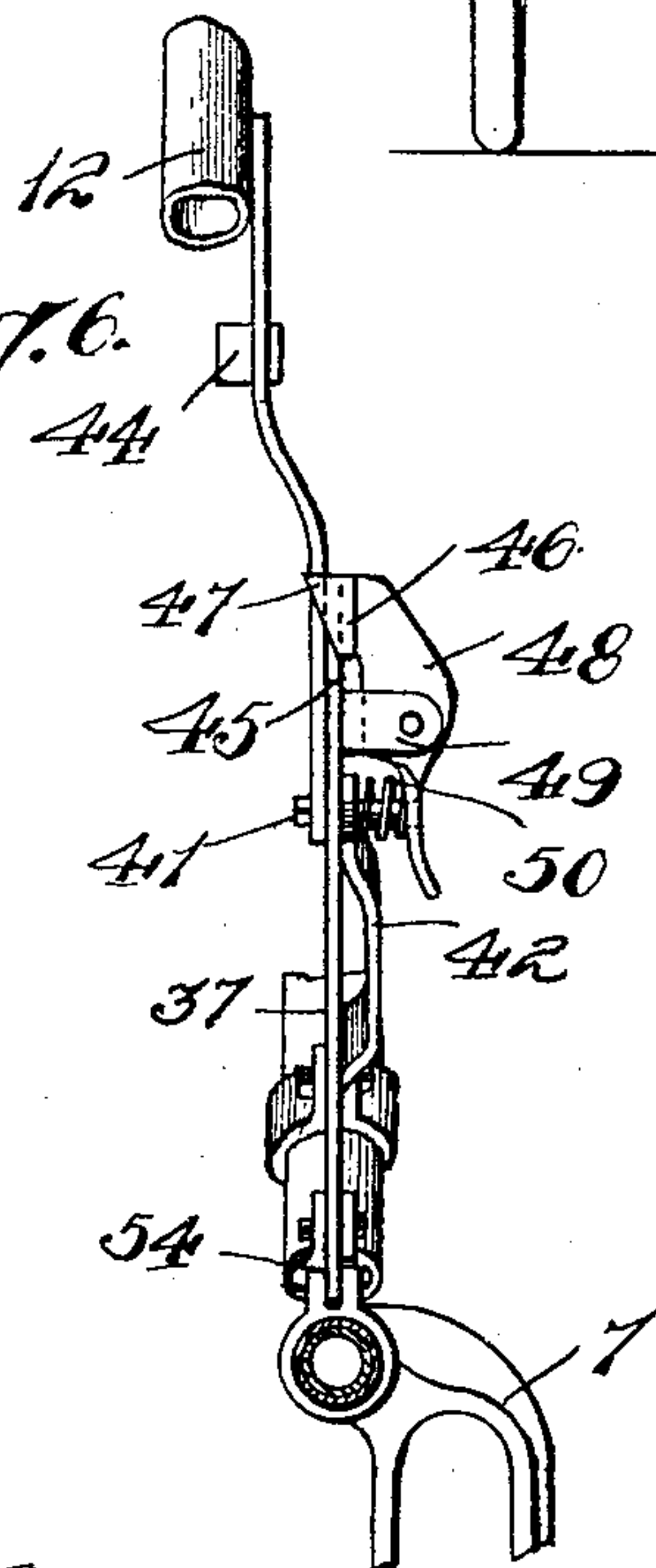
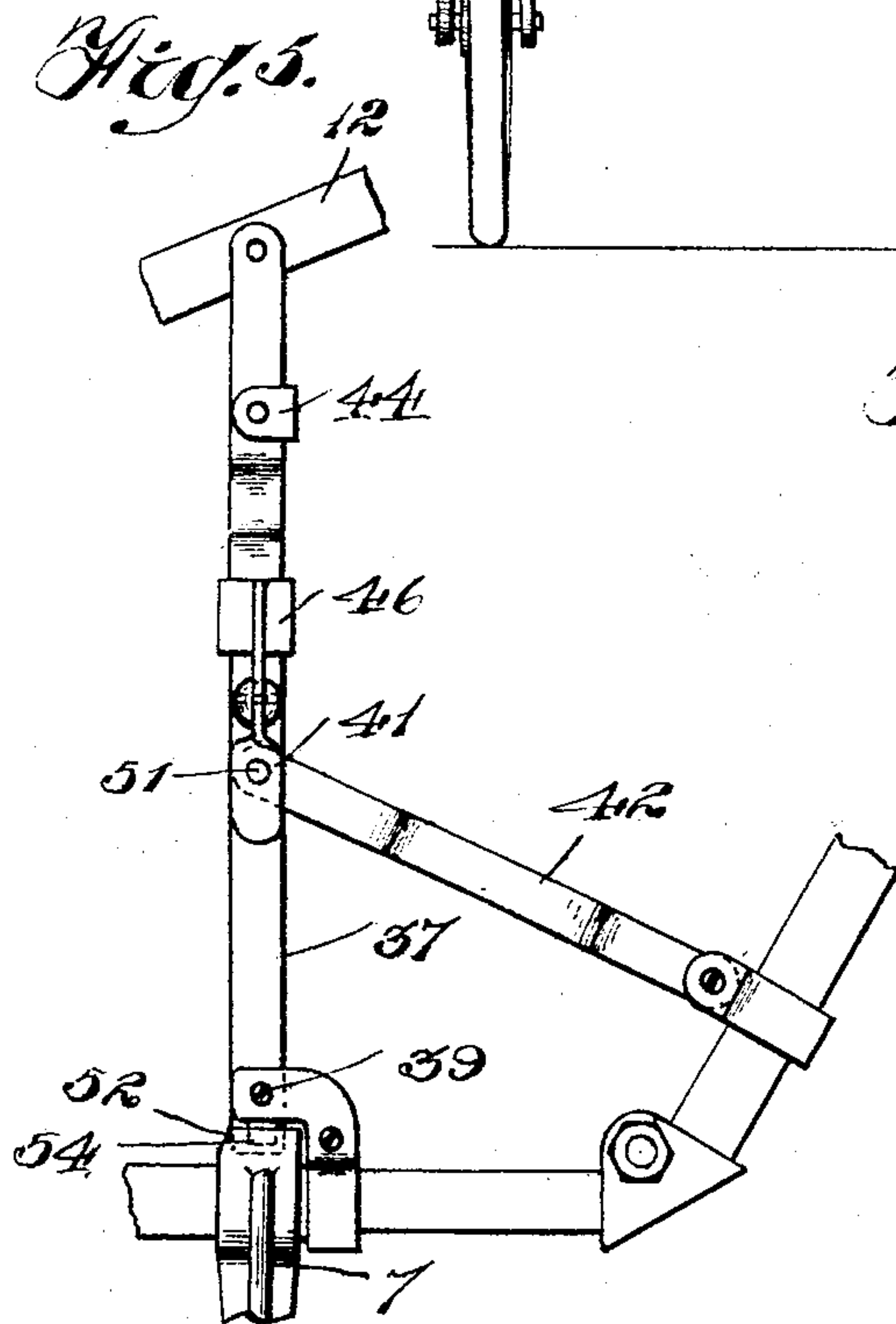
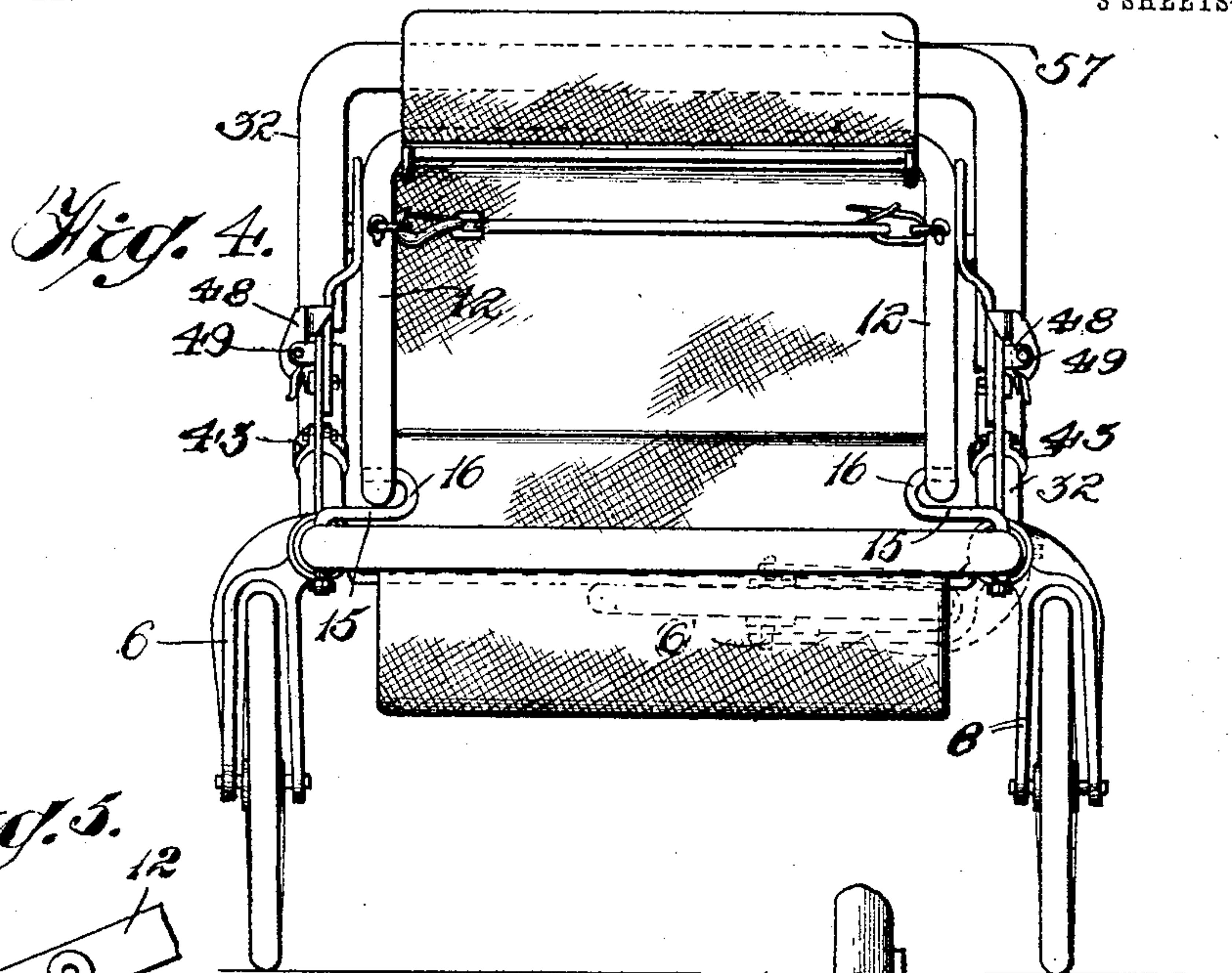
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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

Fig. 8.

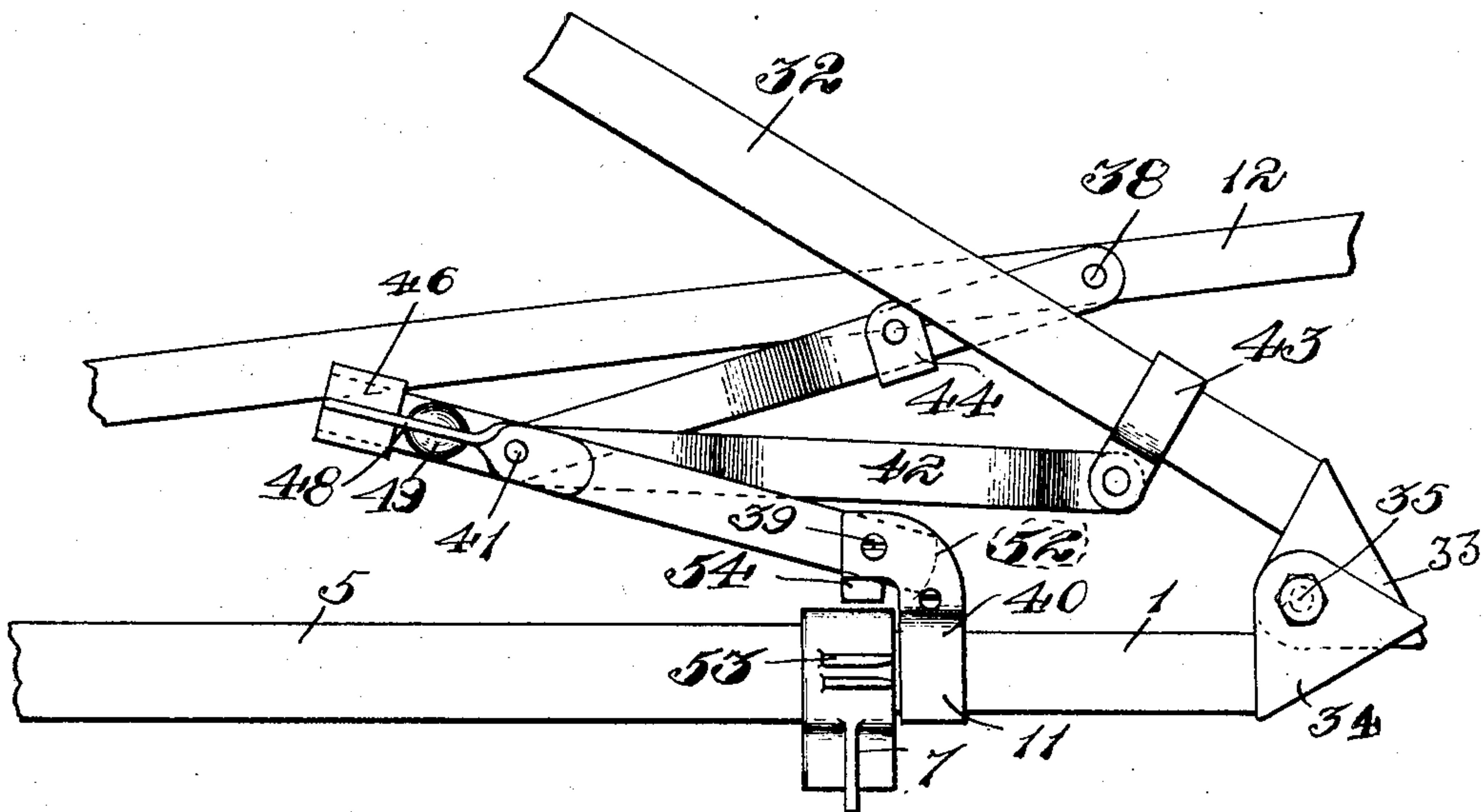
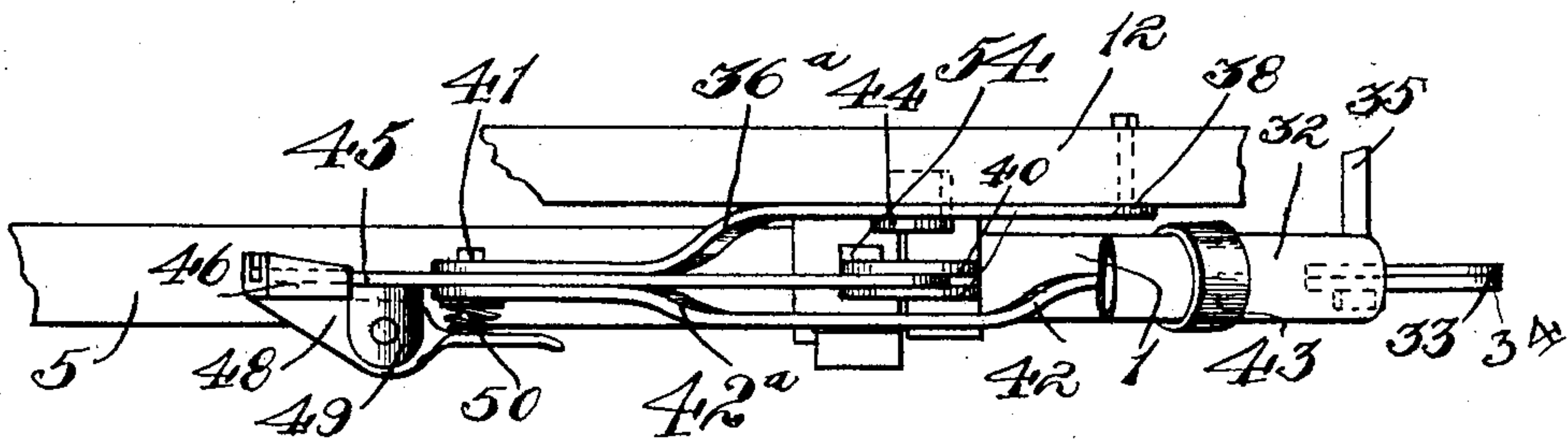


Fig. 9.



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UNITED STATES PATENT OFFICE.

ALBERT E. MCGILL, OF CHICAGO, ILLINOIS.

PERAMBULATOR.

SPECIFICATION forming part of Letters Patent No. 771,386, dated October 4, 1904.

Application filed December 19, 1903. Serial No. 185,866. (No model.)

To all whom it may concern:

Be it known that I, ALBERT E. MCGILL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Perambulators, of which the following is a full, clear, and exact specification.

My invention relates more particularly to that class of perambulators or go-carts intended for small children; and it has for its primary object to provide an improved, durable, and simple construction of perambulators or go-carts which shall be capable of folding into a compact form.

Another object of my invention is to provide improved and simple means whereby the hinged side support will be automatically raised and lowered by the raising and lowering action of the handle, a further object being to automatically raise the brace of the hinged side support into operative position.

Another object of the invention is to provide means whereby the raising of the handle will automatically lock the folding wheels in their operative position, and a still further object being to cause the raising of the handle from its folded position to automatically raise the seat-support and lock the brace thereof in position and simultaneously lock the folding wheels in their operative position.

With these ends in view my invention consists in certain features of novelty in the construction, combination, and arrangement of parts by which the said objects and certain other objects hereinafter appearing are attained, all as fully described with reference to the accompanying drawings, and more particularly pointed out in the claims.

In the said drawings, Figure 1 is a plan view of a perambulator embodying this invention. Fig. 2 is a side elevation thereof. Fig. 3 is an enlarged detail view of one of the bars for supporting the seat and the sides, the frame and a part of the seat being shown in section. Fig. 4 is a front elevation of the perambulator. Fig. 5 is an enlarged detail view of the seat-frame brace and wheel-locking mechanism shown in side elevation. Fig. 6

is a view of the same parts looking from the right in Fig. 5. Fig. 7 is an enlarged vertical longitudinal sectional view of the running-gear frame and wheel-fork sleeve, showing the lock holding the wheel-fork. Fig. 8 is a side elevation showing the perambulator partially folded, and Fig. 9 is a plan view thereof.

The frame of the running-gear is preferably constituted by a U-shaped member comprising two side bars 1 2, arranged on either side of the perambulator, and a cross-bar 3 extending across the forward end thereof, and, if desired, this running-gear frame may be composed of a piece of tubing bent to the proper shape. The four wheels 4 are rotatably mounted on the side bars 1 2 of the running-gear and the fore and aft wheels are connected together in such a manner that when one of them is turned in the act of folding it under the running-gear frame the other one will be also turned under, thus making it necessary to devote the attention to the operation of but one of the wheels only when setting the device up for use. This may be accomplished in any suitable way—such, for example, as arranging a sleeve 5 on each of the side bars 1 2 and rigidly securing to each end of each of these sleeves one of the wheel forks or supports in which the wheels are journaled. The front-wheel forks are indicated at 6 and the aft or hind forks at 7. The upper ends of the wheel-forks 6 are formed with collars or hubs 8, which are brazed or otherwise rigidly secured to the sleeves 5 at the forward ends of the latter, while the hind-wheel forks 7 are formed with hubs or collars 9, also rigidly brazed or secured to the after ends of the sleeves 5, and at each end of each of the sleeves 5 is arranged a stop collar or shoulder, the forward ones of which are shown at 10 and are rigidly clamped or secured to the bars 1 2, respectively, while the latter are shown at 11 and are similarly secured to said bars 1 2, thus holding the sleeve 5 against longitudinal movement while permitting of their rotation on the side bars, and consequently providing for the wheels being folded under the running gear-frame or turned downwardly and stood in an upright position for use, the

folding and unfolding action of the rear wheels causing the front wheels to simultaneously undergo similar movement.

Arranged over the running-gear frame is a second U-shaped frame composed of side bars 12 and a top cross-bar 13, which are both arranged at the rear end of the perambulator, the open ends of this frame 12 13 being arranged at the forward end of the perambulator contiguous to the cross-bar 3 and pivotally supported on horizontal pivots extending transversely of the perambulator in any suitable way, as by brackets having vertical stems 14, riveted or secured in the side bars 1 2, and inwardly-extending arms 15, which carry return-bends 16 at their inner ends, turning outwardly and extending through the ends of the bars 12, which are set above the arms 15 in such a manner that in order to place the bars 12 upon their pivots it is necessary to spread said bars, and they may be prevented from again spreading and becoming dislodged from their pivots by simply riveting or upsetting the ends of the pivots or by any other suitable expedient. The frame 12 13 constitutes a hinged seat-support, from the upper end of which the seat 17 is suspended in any suitable way, but preferably by a back member 18, composed of fabric or any other suitable material, secured to the seat at its lower end and secured around a rod 19 at its upper end, the rod 19 having its ends turned upwardly and secured to the cross-bar 13 by screws 20 or other suitable means, the sides of the seat 17 being supported by side members 21, composed of suitable fabric, secured at their lower ends to the seat and at their upper ends to rods 22, one of which is secured to the under side of each of the side bars 12 in any suitable way—such, for example, as shown in Fig. 3—wherein the ends of the rod 22 are shown with upwardly-extending bends 23 24, screw-threaded in hollow screws 25, which extend through the upper sides of the side bars 12 and rest upon their lower sides on the inside of the tube, said frame 12 13 being also composed of a piece of bent tubing. The rear edge of each of the members 21 is turned over or hemmed, as shown at 26, and this hem is utilized for preventing the member 21 sliding down the rod 22 by locating the hem 26 in an offset or bend 27 at the upper end of each of the rods 22, which serves to confine the hem, and thus hold the fabric from sliding or wrinkling. The seat 17 is shown as connected with a foot-rest 28 by fabric 29 or other suitable flexible material, which at the forward end of the foot-rest is continued upwardly and secured to a cross-rod 30, fastened to the under side of cross-bar 3 in any suitable way, the fabric 29 being bagged, so as to form sides to the foot-rest, if desired.

The U-shaped frame 12 13 is of less length and less width than the U-shaped frame 1 2

3, and hinged to the rear ends of said bars 1 2 of the running-gear frame is a third U-shaped frame comprising a cross-bar 31 and side bars 32, which constitute the handle of the perambulator, and the side bars 32 thereof are pivotally connected or hinged to the side bars 1 2 by suitable hinge members 33 34, the former of which projects downwardly from the lower edge of the side bars 32 when the handle is folded down, while the members 34 project upwardly from the side bars 1 2, whereby the handle may be folded down over the sleeves 5 and substantially parallel therewith, but at a slight distance therefrom, the forward ends of the side bars 32 of the handle resting upon the cross-arms 15 when the handle is thus folded down, and at this time the handle embraces or surrounds the seat-frame 12 13, so as to lie substantially in the same plane as said seat-frame, thus minimizing the bulk of the apparatus when folded up. The pivot of the hinges 33 34 is constituted by a cross-rod 35, which connects the side bars 1 2 and 32 together, and thus at once holds the handle and the running-gear from spreading, and this cross-rod 35 performs the further useful function of limiting the downward movement of the side frame 12 13, and thus preventing it from carrying the centers of the seat-frame brace into direct line with each other and locking them on dead-center, as will be presently described. When the handle is raised from its folded to its upright or operative position, it automatically raises the seat support or frame 12 13 to its operative position. (Shown in Figs. 1 and 2.) This may be accomplished by suitable means—such, for example, as a toggle-lever comprising two arms or links 36 37, one of which levers is preferably arranged on each side of the perambulator, the upper end of the link 36 being pivoted at 38 to the side bar 12 on each side and the lower end of link 37 being pivoted at 39 to a horizontal arm 40, projecting forwardly from one of the shoulders 11, while the connecting-pivot 41 of the toggle-links is pivoted to the forward end of an arm 42, whose rear end is pivoted to a collar 43, clamped on or secured to side bar 32 on each side of the handle, and this collar 43 is so positioned with relation to the center and the links 36 37 are so proportioned with relation to the movement of the arm 42 that when the handle 31 32 is pushed forwardly and downwardly to fold up parallel with the frame members 1 2 3, as before described, the seat-support 12 13 will be lowered by the toggles and the toggle-links 36 37, with the arm 42, will fold up therewith, the forward ends of the links 36 37 and the arm 42 at such time lying close together and between the sleeves 5 and side bars 32 of the handle thereover, while the after ends of the links 36 37 at such time will form a horizontal V

with relation to each other, the after end of the former extending upwardly at a slight incline to its pivot 38 in the same plane as the side bar 32, and in order that the link 5 36 may thus pass the side bar 32 without interference said link is offset or bent inwardly, as shown at 36^a, Fig. 9. It is important to maintain this angular relation of the links 36 37 when the device is folded up, so as to prevent the centers 38, 39, and 41 from falling into direct line and thereby locking and preventing the arm 42 from lifting the pivotal point or center 41 when the forward end of the handle is elevated. The cross-rod 35, before described, is useful in preventing the hinged seat-support 12 13 from descending so far as to bring about this locking action of the pivots; but as a further safeguard and a means of preventing the seat-support 12 13 20 from descending beyond a certain point with relation to the link 36 the latter is provided with an inwardly-projecting stop 44, which may be in substitution for or auxiliary to the rod 35. When the apparatus is folded up, 25 the arm 42 passes forward behind the bent arm 40, and to the end that it may not interfere therewith it is offset, as shown at 42^a, Fig. 9. When the handle 31 32 is elevated to its operative position, the toggles, preferably 30 on both sides of the apparatus, automatically lock, so as to avoid the possibility of the side frame 12 13 falling accidentally. An example of a suitable means for accomplishing this consists in extending the upper end of the 35 lower link 37 beyond the pivotal point 41, as shown at 45, and embracing this extension with a U-shaped lock-dog 46, having beveled sides or flanges 47, which are adapted to engage over and also embrace the upper link 36 40 when the links 36 37 are drawn into line by the arm 42, as shown in Figs. 2, 5, and 6, the beveled form of the flanges 47 enabling the lock-dog to slide over the link 36 while moving into alinement therewith. This lock-dog 45 46 is provided with a suitable operating-lever 48, pivoted in supporting-ears 49 on the afore-said extension 45, and the dog is held in engagement by a suitable spring 50, coiled on the outer extending end of the pivot 41, the 50 thumb-piece of the lever 48 being formed with a perforation 51 to allow it to be depressed without interference from the said extending end of pivot 41.

In the operation of the device the wheel 55 forks or supports 6 7 are first turned downwardly from their folded position into an upright position, and the construction is such that if the handle 31 32 be thereafter elevated into operative position such action will accomplish simultaneously the locking of these 60 wheel forks or supports and the elevating and locking of the seat braces or toggles, as before explained. This locking of the wheel-forks may be accomplished by such means,

for example, as a projection 52, formed on or 65 secured to the lower end of each of the links 37 and extending below the pivotal point 39, so as to constitute a bolt adapted to engage with one or more lugs 53, formed on the upper side of each of the collars 9 on the rear 70 forks when the link 37 is raised to its upright position. The movement of the forks 7 in being lowered from their folded to their upright position is limited and arrested when the lugs 53 arrive in proper position to be engaged by the lock 52 by any suitable stop, 75 such as 54, formed on the inner side of the bent arm 40, where it extends over the shoulder 9 in such a position with relation to the lugs 53 as to be engaged thereby. A pair of 80 lugs 53 is preferably employed on each side of the apparatus, so as to form a slot for receiving and accurately fitting the bolt or projection 52, and the rear or after end of this slot is flaring, as better shown in Fig. 8, so as 85 to insure the entrance of the bolt 52 thereinto.

If desired, the upper end of the hinged seat support or frame 12 13 may be provided with a hinged or removable head-rest composed of U-shaped frame comprising cross-bar 55 and 90 side bars 56 and a piece of fabric 57, which covers said frame, the lower ends of the side bars 56 being looped around the cross-rod 19 in such a way that when the head-rest is placed in the operative position (shown in Figs. 95 1 and 2) it will be supported by the cross-bar 13 and when not desired for use may be turned downwardly against the back 18 on the inner side thereof.

Claims to the construction of the running-gear frame and the combination and relation 100 thereof to the seat support or frame and the wheel-forks constitute the subject-matter of the claims of my pending applications, Serial No. 127,359, filed October 15, 1902, and Serial 105 No. 160,291, filed June 6, 1903, respectively.

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

1. In a folding perambulator, the combination of a running-gear frame, a hinged seat-support, a folding handle, a deflectable brace for said seat-support, and means for moving said brace and said support into position by the operation of said handle. 110

2. In a folding perambulator, the combination of a running-gear frame, a hinged seat-support, a folding handle, a deflectable brace for said support, a lock for holding said brace in position, and means for actuating said lock 120 and moving said support and brace into position by the operation of said handle.

3. In a folding perambulator, the combination of a running-gear frame, a hinged seat-support, a folding handle, a deflectable brace 125 for said seat-support, folding wheel-supports on said running-gear frame, means connecting said handle with said brace, and a lock

also connected with said handle for holding said wheel-supports against movement.

4. In a folding perambulator, the combination of a running-gear frame, a hinged seat-support, a folding handle, a deflectable seat-support brace, a folding wheel-support on said running-gear frame, an arm connecting said brace with said handle, and a lock comprising disengageable members one of which is secured to said wheel-support and the other to said brace.

5. In a folding perambulator, the combination of a running-gear frame, a hinged seat-support, a folding handle, a deflectable brace for said seat-support comprising a toggle-lever having its outer ends pivoted respectively to said seat-support and running-gear frame, and an arm connecting the inner pivot of said toggle with said handle whereby the movement of the handle will raise and lower said support.

6. In a folding perambulator, the combination of a running-gear frame, a hinged seat-support, a folding handle, a deflectable brace for said seat-support comprising a toggle-lever pivotally connected with said seat-support and frame, means carried by one member of said toggle for engaging the other and locking the members together, and means connecting said toggle with said handle.

7. In a folding perambulator, the combination of a running-gear frame, a hinged seat-support, a deflectable seat-support brace connected with said frame and seat-support and comprising a toggle-lever, one link of which toggle has a projection at its inner end, a beveled locking-dog carried by said projection and adapted to engage with the other one of the links of said toggle for locking the links against relative movement, and means connecting the toggle with the handle.

8. In a folding perambulator, the combination of a running-gear frame, a hinged seat-

support, a folding handle, a deflectable seat-support brace consisting of a toggle-lever, the outer ends of whose links are pivoted to said seat-support and frame respectively, adapted to fold up with said frame and seat-support, a connection between said handle and toggle, and means for limiting the relative movement of the links of the toggle when folding together for preventing the pivots of the toggle from falling into line when folding together.

9. In a folding perambulator, the combination of a running-gear frame, wheel-supports rotatably mounted thereon, a hinged handle, a lock for holding said wheel-supports in their operative position, and an operative connection between said handle and lock.

10. In a perambulator, the combination of a running-gear frame, an inclined seat-support frame arranged thereon, rods secured to the sides of said seat-supporting frame and extending longitudinally thereof on both sides of said frame, each of said rods having an offset at its upper end, and a seat-supporting fabric looped around said rod and having a welt at its rear edge engaging in said offsets for preventing the fabric from slipping longitudinally on said rods.

11. In a perambulator, the combination of a running-gear frame, a seat-support frame mounted thereon, a rod extending across the upper end of said seat-supporting frame on the lower side thereof, and a head-rest pivoted on said rod within the seat-supporting frame and adapted to be folded backwardly against the upper end of the seat-supporting frame whereby the head-rest is held in position, or to be folded downwardly and suspended from said rod when out of use.

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