(No Model.)

T. K. FORMAN.

CHILD'S CARRIAGE.

No. 409,677. Patented Aug. 27, 1889.

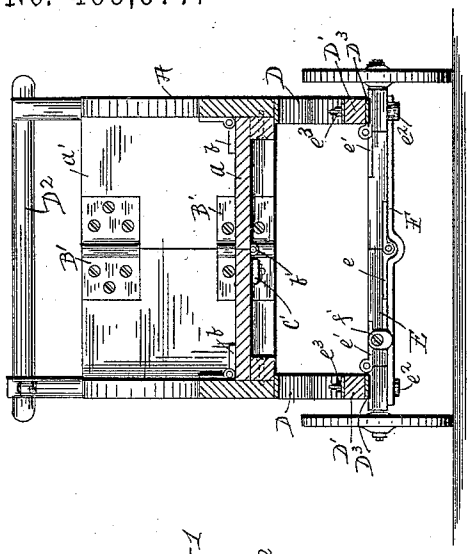


Fig 3

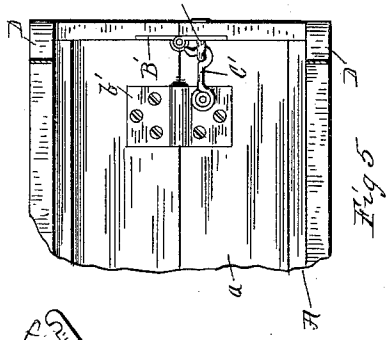


Fig 5

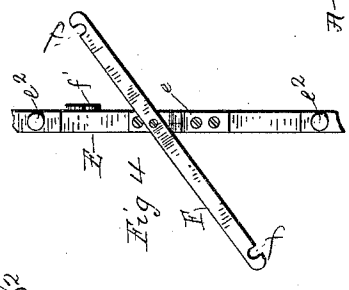


Fig 4

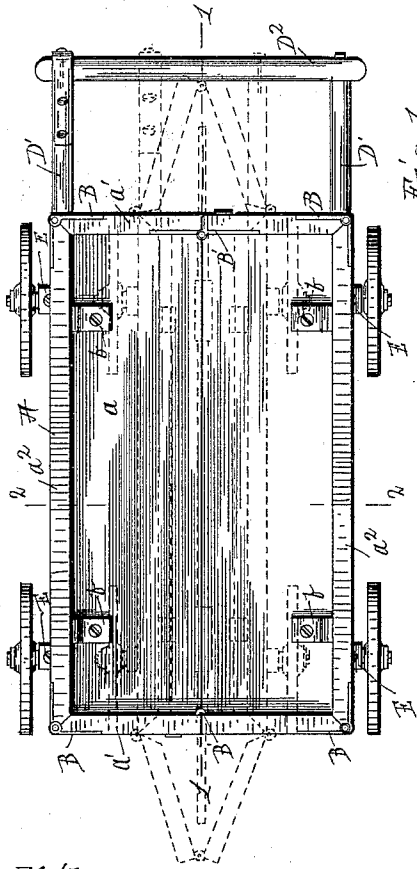


Fig 1

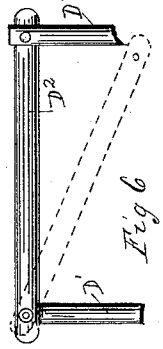


Fig 6

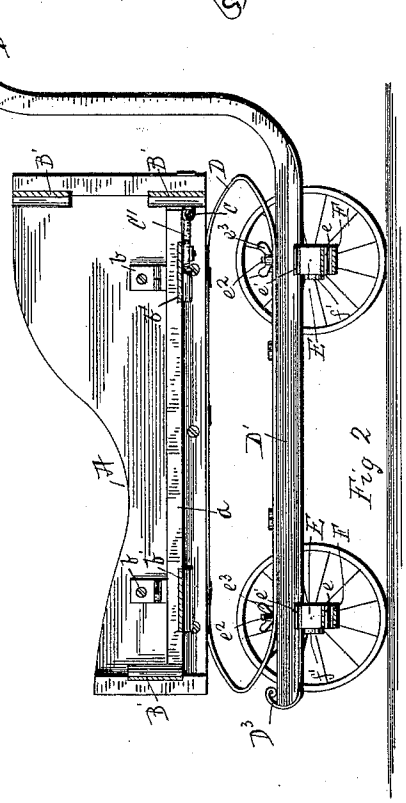


Fig 2

Witnesses

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UNITED STATES PATENT OFFICE.

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CHILD'S CARRIAGE.

SPECIFICATION forming part of Letters Patent No. 409,677, dated August 27, 1889.

Application filed March 21, 1889. Serial No. 304,190. (No model.)

To all whom it may concern:

Be it known that I, THOMAS K. FORMAN, a citizen of Canada, residing at Waukegan, in the county of Lake and State of Illinois, have invented certain new and useful Improvements in Perambulators or Carriages for Children, of which the following is a specification.

My invention relates to perambulators for carrying children; and its objects are to alter and improve the construction of such a perambulator so that when not in use its sides and the halves of its bottom, ends, and axles may be folded together, so as to reduce the space that it will occupy, and to make such other alterations in construction that by detaching the axles the perambulator will become a sleigh. I attain these objects by the contrivances illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a perambulator embodying my invention. Fig. 2 is a vertical longitudinal section of the same, taken on the line 1 1 of Fig. 1. Fig. 3 is a cross-section of the same, taken on the line 2 2 of Fig. 1. Fig. 4 is a detail bottom plan view of one of the axles of the same, showing the locking device for the axles. Fig. 5 is a detail inverted plan view of a part of the bottom of the perambulator, showing the locking device for an end-board of the same; and Fig. 6 is a detail view of the cross-bar of the handles. The dotted lines in Fig. 1 illustrate the perambulator when its sections are folded together.

Like letters refer to like parts throughout the several views.

Referring to the drawings, A is the body of the perambulator. This is made in halves, the section-line running longitudinally, dividing the bottom or bed *a* lengthwise and the ends *a'* crosswise.

B represents hinges which secure to each other the sides a^2 and ends *a'*. These are placed on the outer surfaces of said sides and ends, so the sections of the ends may swing outward.

B' represents hinges secured on the inner surface of the ends at their section-line, so as to permit the sections of the ends to swing outward.

b represents hinges fixed on the inner surface of the bottom and sides of the body, securing the former and latter to each other, so as to permit the sections of the bottom to swing upward, and *b' b'* are hinges secured to the bottom of the bed on its lower surface at the section-line, so as to permit the halves of the bottom to swing upward.

C C are staples secured to alternate parts of the ends below the bottom of the bed, and C' C' are hooks secured to corresponding parts of the bottom of the bed, so as to connect with the staples.

The body is secured upon the springs D. Upon the lower part of these the bars D' are secured. These are bent upward at the rear and extend to a suitable height to be used as handles. The cross-bar D^2 is pivoted at one end to one of these, and its opposite end and the end of the other bar are provided with any suitable means of fastening the one to the other temporarily. Metal bands or plates D^3 are secured upon the bottom of the bars D' and extend beyond the bars and curve upward somewhat at the front. Thus prepared the bars may serve as the runners of a sleigh when the axles and wheels of the perambulator have been detached from it. I expressly design my invention to be used as either a carriage or a sleigh.

E E are the axles of the perambulator. Each of these is made in four parts. The middle parts are connected by the hinges *e*, secured to the lower side of the axles, and said parts are connected also with the respective outer parts of the axles by the hinges *e'*, secured to their upper side. The said outer parts are secured beneath the bars D' by the bolts e^2, passing upward through said parts and bars. These are common screw-threaded bolts, and upon them the thumb-screws e^3 are used to fasten the axles and bars tightly together.

F F are bars pivoted, respectively, to alternate middle parts of the axles on their under sides. Notches *f* are made in them on opposite sides at such points as will bring said notches into coincidence with the bolts e^2 when the bars F are turned till they are parallel with the axles. When thus turned, the said bars are held firmly in place by the buttons *f' f'*, pivoted to the sides of the axles. The axles terminate in ordinary spindles

upon which wheels may be placed. Any umbrella-like shade can be secured in any suitable manner to one end of the body.

The perambulator is folded up in the following way: Remove the temporary fastening of the cross-bar D^2 and lower the free end of the bar till the bar is vertical, disconnect the hooks C′ C′ from the staples C C, turn the buttons f' f', turn the bars F F till they are at right angles with the axles, push upward on the axles and on the bottom of the body and outward on its ends, and then press all the corresponding parts together. Thus the folding is accomplished.

It is obvious that by reversing the above operation the parts will all be brought into normal position and there locked, rendering the carriage ready for use.

The advantages of such a carriage are obvious. When folded, it will occupy so little space that it can be easily carried while traveling, picnicing, &c. It will be found especially convenient by persons living in apartment-houses, where every inch of space must be utilized. It can be transported without inconvenience up and down stairs and in elevators, and can be kept in even a shallow closet when not in use.

The advantage of making the body of unyielding material throughout (instead of partly of leather, &c.) is that each part forms a strut-brace, tending to hold the different sections of the body in position when open.

The advantage of making the body as a whole capable of being folded without the necessity of first partially dismembering it is obvious.

The advantage of a bottom opening upward over one opening downward is the obvious fact that the child's weight is always present to keep the bottom down in place, thus dispensing with other and special bracing for that purpose.

The advantage of locking the end sections of the body to the bottom sections by the hooks C′ and staples C, located near the middle joints of both bottom and end, is that a single locking device (as shown, one hook and one staple for a given end) answers for both the bottom or bed and the end.

The advantage of an automatically and simultaneously folding complete integral perambulator-body over composite or incomplete bodies is that the operator is not obliged to build the carriage every time he uses it.

What I claim as new in my said invention, and desire to secure by Letters Patent of the United States, is—

In a perambulator bisected longitudinally and connected as to its corresponding sections by hinges, the combination of the bolts e^2, securing the axles to the bars D′, the bars F F, formed with the notches f f on opposite sides in a common arc with said bolts, pivoted to alternate sections of the axles, and the buttons f' f', pivoted on the sides of the axles, substantially as and for the purpose specified.

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Witnesses:
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