T. G. STAGG.

Folding Carriages.

No. 134,226. Patented Dec. 24, 1872.

Fig. 4.

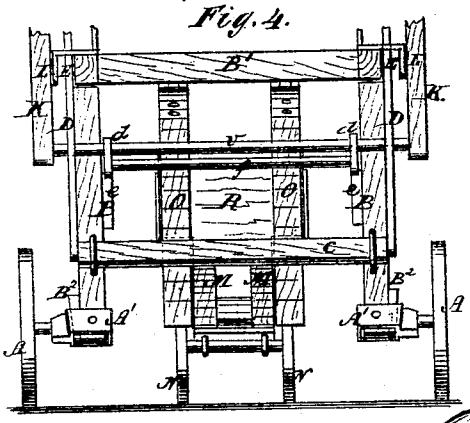


Fig. 1.

Fig. 2.

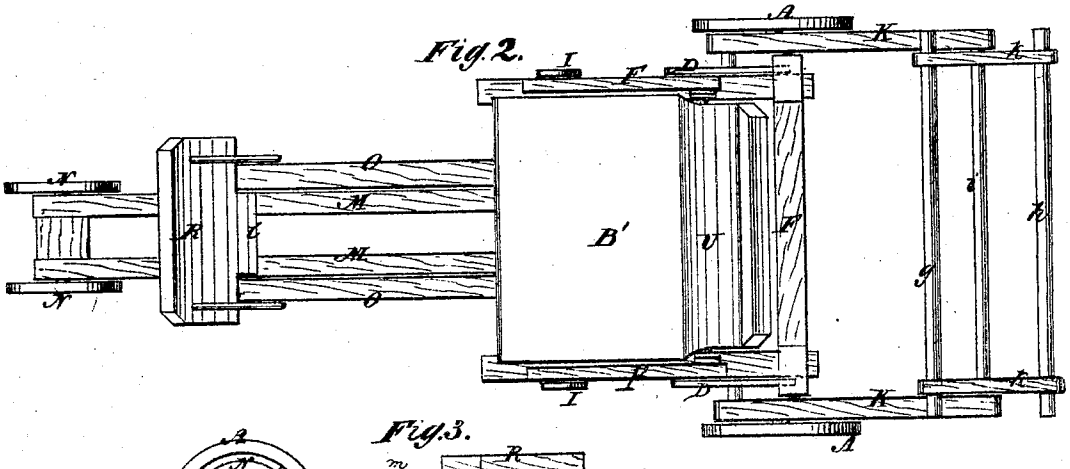
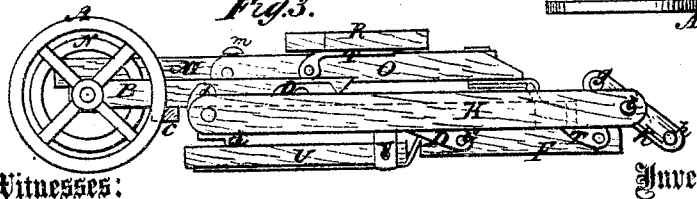


Fig. 3.



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AM PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

THOMAS G. STAGG, OF EAST NEW YORK, N. Y.

IMPROVEMENT IN FOLDING-CARRIAGES.

Specification forming part of Letters Patent No. **134,226**, dated December 24, 1872.

To all whom it may concern:

Be it known that I, THOMAS G. STAGG, of East New York, in the county of Kings and State of New York, have invented a new and Improved Folding-Carriage, of which the following is a specification:

My invention consists of a child's carriage with four, or it may be three, wheels, a folding-reach, seat-supports, seat-back, seat-arms, and a pushing or propelling frame or brake, all arranged in a simple and convenient manner, as hereinafter described, for folding the carriage in a compact package for storing away and carrying up and down steps or stairs, or along the street. It also consists of a novel arrangement of springs.

Figure 1 is a side elevation of the carriage when adjusted for use. Fig. 2 is a plan view of Fig. 1. Fig. 3 is a side elevation of it when folded up to be stored away, and Fig. 4 is a rear elevation.

Similar letters of reference indicate corresponding parts.

A represents the hind wheels mounted on the lower ends of the nearly-vertical standards B, comprising hind supports for the seat-bottom B^1. Said standards are connected rigidly a little above the lower ends by a cross-bar, C, and they have a long crooked arm supporting plates, D, rigidly fastened to the outside, which plates extend above the upper ends of the standards, and have the seat-bottom pivoted to them at E; also to the seat-arms F at G. They also project to the rearward of the standards below the place of connection to them, and downward along them, at H and I, to form slots J for the connection of the pushing or propelling arms K, which are pivoted to the rear extension of the seat-bottom at L, so that the seat-bottom may fold against the rear sides of the standards, and the arms K slide along the standards to allow it. M is the reach, connecting the cross-bars C of the rear standards B with the front wheels or wheel N, and supporting the front of the seat-bottom by the slanting arms or braces pivoted to the seat at P and to the reach at Q, and supporting the foot-rest R, which is pivoted to them at S, so as to fold down upon them. The seat-arms are supported at the front by the standards T pivoted to them and to the seat-bottom. The seat-back U is pivoted to the bottom at V to fold against the bottom, and is provided with front cord-stays W and back cord-stays X for supporting it and adjusting it forward or back to suit the rider. The reach is jointed at Y and hinged to the cross-bar C so as to fold together, and it is made fast when extended for using the carriage, as shown in Fig. 1, by a gravitating-catch on one part engaging a little plate or cross-bar, Z, on the other part. A tripping-cord, *a*, extends from this catch to the hind part of the carriage for pulling it back and unfastening the two parts of the reach conveniently when it is desired to fold the carriage. The propelling-bars are connected together at the lower end by a locking bar or rod, U, which has a catch, *d*, at each end, which drops above the end of a stop-plate, *e*, (shown dotted in Fig. 1,) on the inside of the standards B, to lock them in the working position, as represented in Fig. 1. These catches *d* are also connected together by a handle, *f*, consisting of a rod extending from one to the other, for use in detaching them simultaneously when it is desired to fold the carriage up. They are designed to engage with the stops and fasten the push-bars automatically. A pair of handles, *g h*, are mounted on the top cross-bar *i* of the push-bars K in oscillating bars *k*, so as to shift around the cross-bar in such manner that either one or the cross-bar *i* may be used as the handle to adapt it to the requirements of different persons as to height and position; also to fold up short in packing.

It will be seen that the catch-plates *d* not only lock the push-bars in position, but the seat-bottom also. These catches may be placed on the outside of the slotted plates D as well as inside the standards, if preferred. The foot-board R has a short extension, *l*, between the braces O, which comes against the reach M when the carriage is being folded up, and the reach folds between the braces O so that the foot-rest folds automatically.

For springs I propose to pivot a short axle with a clip, A′, to each standard B, so as to vibrate, and have a wedge or other shaped block of soft vulcanized India rubber, B^2, fitted in a space between a shoulder of the clip and the standard, as shown in Fig. 4; or a steel spring may be arranged with the axles and standards in any suitable way.

To fold the carriage up, the gravitating-catch

z is pulled back and disengaged from the plate z', the catches d are disengaged from the stops e by lifting the handle f, and the push-bars K are swung upward toward the seat-back and pushed down so that the rod U goes to the lower end of the slots J, which causes the seat-bottom to fold down against the rear sides of the standards at the rear of the pivots E, and the front part folds up against the seat-back, while the arms F fold up against the front of the back, and the bottom, back, and arms of the seat all come between the propelling-bars with the handles i g h at the top, and the braces O, reach, and front piece fold together on the front side, and are fastened by a button, m, on the rear end and under side of the rear joint of the reach, which consists of a single piece, and comes between the two pieces of the front joint so as to be retained by the button when turned across the said front part, as shown in Fig. 3. A catch, strap, or other equivalent fastening may be used instead of the button for confining the front wheels and reach.

When so folded up the carriage can be suspended by the handle, or the hand with the wheels on the ground, and thus pulled along very conveniently and lifted up or down steps.

To unfold it, the button is turned so as to unfasten the two parts of the reach, and it is suspended by the handle above the ground, which causes the front wheels to fall on the ground and roll along till the reach extends and is fastened automatically by the gravitating-catch z; then the hind wheels are let down upon the ground, and the push-bars pulled up and swung backward, which adjusts the seat, arms, seat-back, the push-bars, and the locking-catches d ready for use.

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

1. The standards B mounted on the hind wheels, the seat-bottom B^1, braces O, hinged and jointed reach M, and the front wheels N, combined and arranged substantially as specified.

2. The reach M provided with gravitating-catch z z' at the joint thereof, as and for the purpose described.

3. The push-bars K jointed to rear extension of seat and connected to standards B by slotted plates D, as and for the purpose described.

4. The combination, with the push-bars, of the locking-catches d, handle f, and stops for the catches, substantially as specified.

5. The seat-arms T and bottom B^1 connected with standards by the plates D, as and for the purpose set forth.

6. The arrangement of the extension l of the foot-board R for automatically folding it up by the reach, substantially as specified.

7. The combination of the axles A, clips and springs with the standard B, substantially as specified.

8. The button m or other equivalent fastening arranged with the jointed reach for securing the front wheels in the folded condition, substantially as specified.

9. The handle attachment jointed to the upper ends of the push-bars, substantially as specified.

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