(No Model.) 3 Sheets—Sheet 1.

J. A. CRANDALL

CHILD'S CARRIAGE.

No. 263,026. Patented Aug. 22, 1882.

Fig: 1

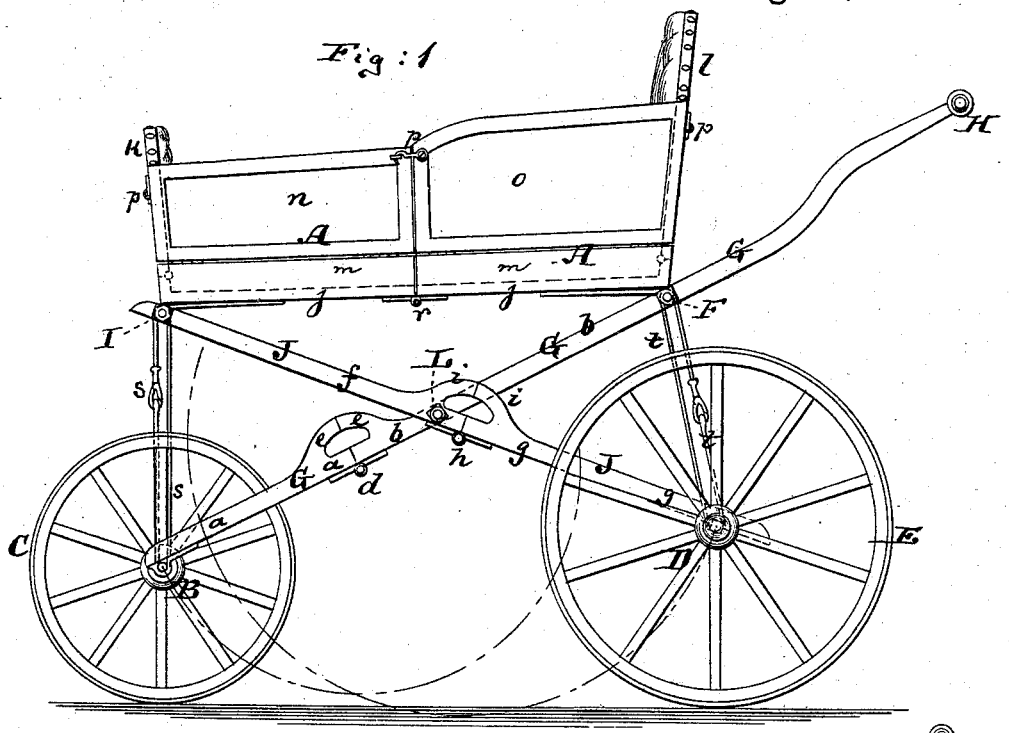


Fig: 2

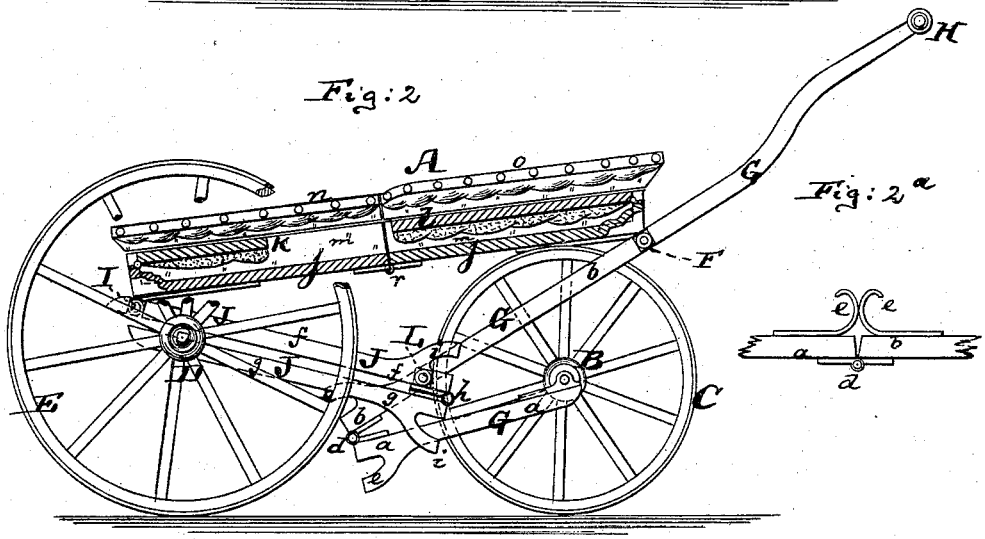


Fig: 2a

Fig: 3

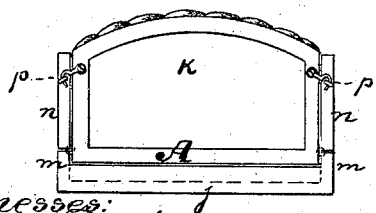
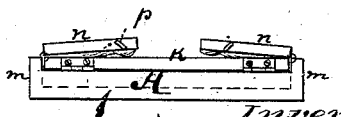


Fig: 4



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Briesen & Betts

(No Model.) 3 Sheets—Sheet 2.

J. A. CRANDALL.

CHILD'S CARRIAGE.

No. 263,026. Patented Aug. 22, 1882.

Fig: 5

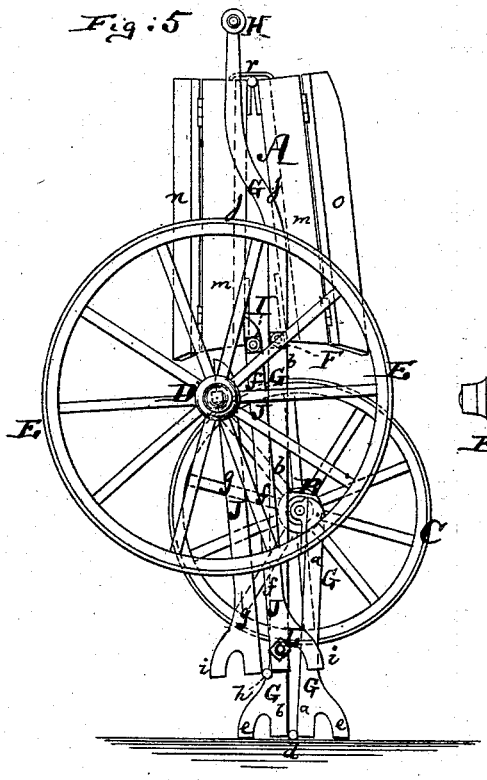


Fig: 6

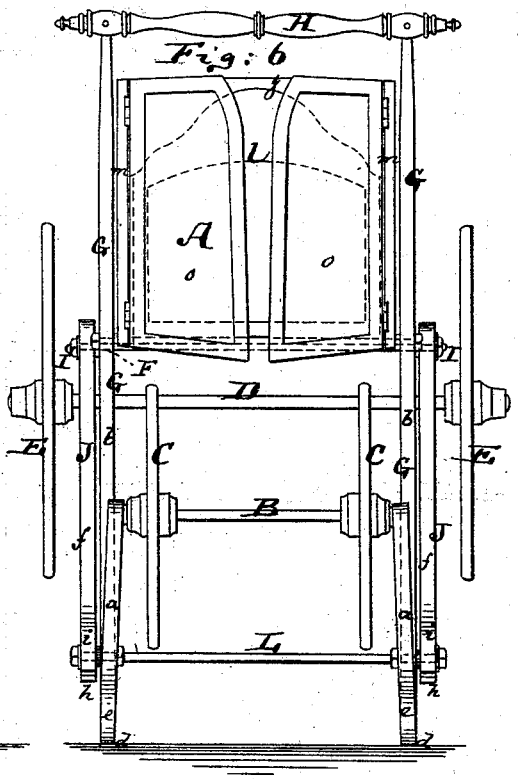
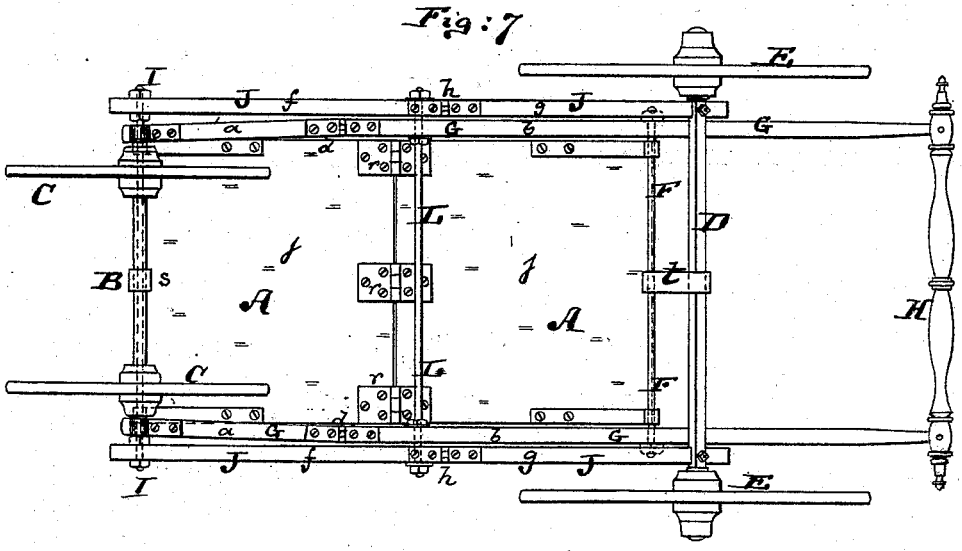


Fig: 7



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(No Model.) 3 Sheets—Sheet 3.

J. A. CRANDALL.

CHILD'S CARRIAGE.

No. 263,026. Patented Aug. 22, 1882.

Fig: 8

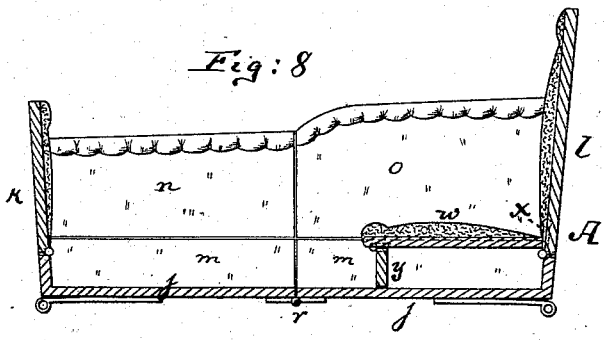
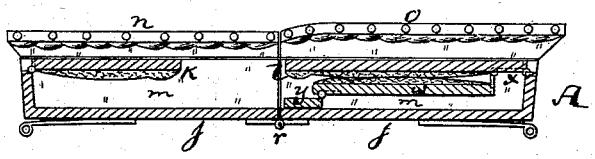


Fig: 9



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UNITED STATES PATENT OFFICE.

JESSE A. CRANDALL, OF BROOKLYN, NEW YORK.

CHILD'S CARRIAGE.

SPECIFICATION forming part of Letters Patent No. 263,026, dated August 22, 1882.

Application filed December 14, 1881. (No model.)

To all whom it may concern:

Be it known that I, JESSE A. CRANDALL, of Brooklyn, in the county of Kings and State of New York, have invented an Improved Child's Carriage, of which the following is a specification.

Figure 1 is a side view of my improved child's carriage. Fig. 2 is a side view, partly in section, of the same, showing it partly contracted. Fig. 3 is an end view of the carriage-body as the same appears in Fig. 1; Fig. 4, an end view of said carriage-body contracted as in Fig. 2. Fig. 5 is a side view of the carriage when it is entirely contracted or folded together; Fig. 6, a face view of said contracted carriage; Fig. 7, a bottom view of the carriage when in condition for use, as in Fig. 1; Fig. 8, a vertical longitudinal section of a modification of the carriage-body; and Fig. 9, a vertical longitudinal section of said modification, showing the carriage-body folded together.

The object of this invention is to construct a child's carriage so that it may be folded together for transportation or storage into a space occupying less than that occupied by the carriage when in use. To this end I construct the carriage-body so that its ends and sides can be folded inward and downward. I also provide the bottom thereof and the sides with joints which will allow it, when the ends and sides are folded down, to be still more contracted by folding one-half of the bottom against the other.

The invention also consists in jointing the bars or braces that connect the carriage-body with the axles of the wheels, and in other details of improvement, all as hereinafter more fully specified.

By the use of my invention much expense in casing carriages for transportation and much room will be economized, and the users can also store their carriages much more conveniently than heretofore.

In the example shown in the drawings the carriage can be so contracted that it will fill a space less than half that required when the carriage is in use.

In the accompanying drawings, the letter A represents the carriage-body, B the axle of the front wheels, C, and D the axle of the rear wheels, E. The front wheels, as is clearly shown in Fig. 7, are not as far apart as the body A is wide, and the hind wheels, E, are farther apart than the body A is wide. The rear end of the carriage-body A is connected by a transverse bolt or pin, F, with braces G, in which the axle B of the front wheels is hung, and which braces, moreover, extending rearward back of the body A, may be used to carry the handle H of the child's carriage; but said handle may be attached in any other suitable manner. The front end of the carriage-body A is connected by a transverse shaft, bolt, or bar, I, with braces J, in which the rear axle, D, is hung. It will be clearly perceived from Fig. 1 that these braces G and J are both inclined, and at the line of crossing they are all hung and swiveled to a transverse shaft, L. Each of the two braces G, although more than two may be used, if desired, is jointed, being composed of two parts, *a* and *b*, which two parts are connected by a hinge, *d*, the hinge being below the parts *a* and *b*, which it connects, so that when said parts are in line, as in Fig. 1, the weight of the carriage-body and their own weight will tend to keep them in line, and to continue them in the abutting condition of their ends. In order to insure the proper contact of these parts *a* and *b* and to take undue strain off the hinge *d*, I provide each of the said parts *a b* with an upwardly-projecting lug, *e*, the two lugs coming in contact with each other when the parts *a b* are in line, and serving thus to assist in taking the strain off said parts. But instead of making the lugs *e e* rigid, as indicated in Fig. 1, they may be made elastic, as in the diagram marked Fig. 2[a], in which case, when the parts *a b* are in line, or nearly so, as indicated in said diagram, the springs *e e* will come in contact with each other and give the proper elasticity to the supports of the carriage-body A. In the same manner are the supports J J, that connect with the hind wheels, jointed, each being constructed of two pieces, *f* and *g*, connected by a hinge, *h*, and each having the upwardly-projecting lugs *i*, substantially similar to the construction already described with reference to the braces G. I prefer to have the joints in the braces J behind and those in the braces G in

front of the connecting-shaft L, as shown in Fig. 1, or vice versa, to facilitate the proper folding of the carriage. The carriage-body A is composed of a bottom, *j*, to which the end-boards *k* and *l* are hinged at the respective ends. The bottom *j* has upwardly-projecting ledges *m* at the sides, and to these ledges are hinged the side-boards *n* and *o*, one pair of such boards *n* and *o* being at each side. There may be suitable hooks, *p*, for connecting the side-boards *n* and *o* of each pair with each other and with the end-boards *k* and *l* when the carriage is in condition for use. Instead of said hooks, other convenient catches or fastenings—such as bolts, latches, or the like—may be employed. The bottom *j* of the carriage-body is also made in two parts, the said two parts coming together in line with the division between the boards *n* and *o* of each side, a hinge, *r*, serving to unite said two parts at the bottom.

When the carriage is in condition for use, suitable straps, *s* and *t*, are used to connect the bolt I with the axle B and the bolt F with the axle D; or, in lieu of such straps, hooks or other connecting devices may be used; but straps are preferred.

In order to fold the carriage together into the condition shown in Figs. 5 and 6, I first unfasten the hooks or catches *p*, then fold the end-boards *k* and *l* inward upon the bottom *j*, and then fold the sides *n* and *o* inward upon said end-boards, all as indicated in Figs. 2 and 4. The projecting ledges *m* allow the side-boards to be folded upon the end-boards. Instead of having the ledges *m* at the sides, they may be at the ends, in which case the end-boards will fold upon the side-boards, either construction being the equivalent of the other. I next unfasten the straps *s* and *t* and turn the parts *a* backward on their hinges *d* and the parts *g* forward on their hinges *h*. (See dotted circles in Fig. 1.) This brings the parts of the carriage into the position shown in Fig. 2. I next swing the carriage-body backward toward the handle H on the bolt F, and thereupon fold the carriage-body together on the hinges *r*, thereby bringing the parts *g* and *f* substantially in line with the parts *a* and *b*, as is clearly shown in Fig. 5. The wheels C in this position are straddled by the wheels E, as shown in Fig. 6, and the entire carriage is brought into a very compact condition, in which, moreover, the lower ends of the parts *a b*, or their projections *e*, may constitute feet for sustaining the contracted carriage in an upright position.

In Figs. 8 and 9 is shown a modification of the carriage-body, which modification consists in the combination thereof with a suitable seat, *w*. This seat is connected by a hinged link, *x*, with the end-board *l*, and has at its forward end a hinged support, *y*. By this connection, upon folding the front brace, *y*, forward the end-board *l* can be turned upon the lowered seat, as shown in Fig. 9, yet by raising the end-board the seat will be lifted into condition for use, as in Fig. 8.

Many modifications of this invention can be substituted for the particular construction shown. I do not limit myself, therefore, to the particular arrangement and construction of the parts illustrated in the drawings.

It is not essential to my invention that the braces G and J should incline in the completed carriage; nor is it essential that the joints in them should be of the particular form shown, nor that the carriage-body should be contracted precisely as indicated; nor do I limit myself to a child's carriage, as my invention is equally applicable to carriages for grown persons, and also to sleighs, in which latter case sleigh-runners will be equivalent support for the wheels.

I am aware that stiff braces have already been connected by a bolt or pivot to make a partially-folding carriage. This I do not claim. By making the braces "jointed"— that is, each with a hinge in its own length—they can be doubled each upon itself, thereby obtaining the advantages which I have specified.

I claim—

1. In a vehicle, the combination of the vehicle-body with joined and jointed braces that connect it to the front and rear supports, all arranged to permit the folding of said braces and the consequent contraction of the vehicle for transportation or storage, substantially as specified.

2. In a vehicle-body, the combination of the bottom board thereof with projecting ledges *m* and with hinged side and end boards, all arranged so that all said boards can be folded inward, substantially as specified.

3. In a vehicle-body, A, the hinged bottom *j* and its hinge *r*, combined with folding side and end boards, substantially as specified.

4. In a vehicle-body having hinged bottom *j*, the combination thereof with the ledges *m*, separated side-boards *n* and *o*, and end-boards *k l*, substantially as specified.

5. The combination of the carriage-body A with the braces G and J, which are joined by a bolt, L, and each of which is also jointed, so as to be capable of being doubled upon itself, substantially as specified.

6. In a vehicle having jointed braces G and J, the combination of said braces with upwardly-projecting lugs or contact-pieces *e*, substantially as described.

7. In a vehicle, the combination of the body A with the shafts or bolts F and I, jointed braces G and J, shaft L, and front and rear supporting-axles, B and D, substantially as described.

8. The combination, in a vehicle, of a folding vehicle-body with folding and connected supporting-braces G and J, having joints *d* and *h*, and lower supports, substantially as described.

9. In a vehicle, the combination of the vehicle-body, which is hinged to jointed braces G and J, which connect it to front and rear supports, with the bolt L and connecting-straps *s* and *t*, substantially as described.

10. The combination, in a vehicle, of the body A, hinged to jointed and connected supports G and J, with the handle H, which is attached to projections of the hinged and jointed support G, substantially as described.

11. In a vehicle-body having hinged end-board *l*, the combination thereof with the hinged seat *w*, link *x*, and hinged supporting-brace *y*, substantially as specified.

JESSE A. CRANDALL.

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