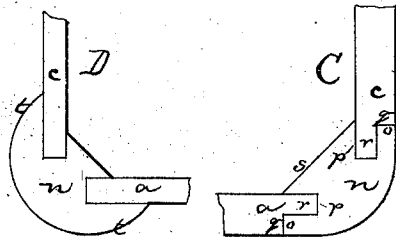
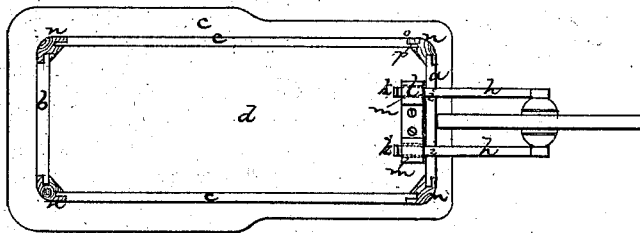
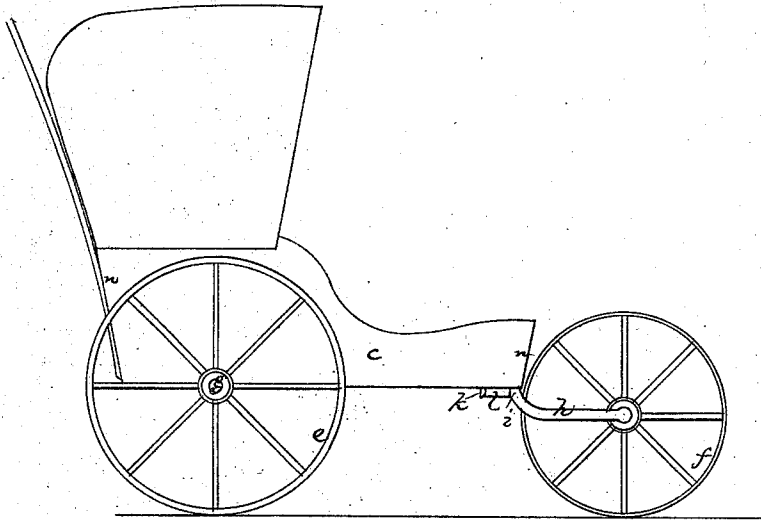


C. C. JOHNSON.

Improvement in Toy Carriages.

No. 131,688.

Patented Sep. 24, 1872.



Witnesses.  
Ab. W. Frothingham.  
S. B. Kiddet.

C. C. Johnson.  
By his Atty.

Crosby & Gould

# UNITED STATES PATENT OFFICE.

CHARLES C. JOHNSON, OF SOUTH GARDINER, MASSACHUSETTS.

## IMPROVEMENT IN TOY-CARRIAGES.

Specification forming part of Letters Patent No. 131,688, dated September 24, 1872; antedated September 21, 1872.

*To all whom it may concern:*

Be it known that I, CHARLES C. JOHNSON, of South Gardiner, in the county of Worcester and State of Massachusetts, have invented an Improvement in Toy-Carriages, &c.; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

My invention relates particularly to the construction of toy carriages and wagons, though applicable, to some extent, to children's carriages. The invention has reference, first, to the construction of the body; and consists in forming the body with rounded corners by using for each corner joint a connector having a curved outer face and a diagonal inner face, the diagonal inner face being innermost and facing the inside of the body and having two grooves or mortises, into which the ends of the adjacent boards fit and enter. The invention has reference, secondly, to the manner of connecting a third or leader wheel to the body; and consists in hanging the opposite ends of the wheel axle or gudgeons in bearings in the ends of curved cast-metal arms, the opposite ends of such arms being formed with horizontal top faces to fit against the under surface of the wagon or carriage body, a clamp-plate being provided with two grooves or recesses, into which the two straight parts of the arms fit, the clamp-plate being screwed against or up toward the bottom of the carriage-body and clamping the bearings or axle-supporting arms tightly in position.

The drawing shows, in bottom view and in side elevation, a carriage-body embodying my invention.

*a* denotes the front board; *b*, the rear board; *c c*, the two side boards; and *d*, the bottom of the body. *e* denotes one of the two rear wheels *f*, the leader or third wheel, the two wheels *e* running on the opposite ends of an axle, *g*, fastened directly to the bottom of the body, while the front wheel *f* turns on an axle-pin the opposite ends of which are supported in bearings

in the ends of arms *h*, these bearings being holes bored or cast in the ends of the arms in line with the axle. The two arms *h h* are cast independently, and each is curved and has at its end opposite the axle-bearing a straight arm, *i*, at the outer end of which is a projection, *k*. The straight arms *i* being placed against the bottom of the carriage-body, a clamp-plate, *l*, is placed over them, (recesses *m* in the plate fitting over the arms *i*,) and the plate being screwed to or toward the body, the bearings are thereby fastened in position. By means of the movable bearings the axle may be adjusted in position for the wheel to run easily and correctly, and the arms may then be fastened by the clamp-plate. Furthermore, by thus making the bearing-arms they have to be cast only with the axle-pin holes, (one in each,) instead of with such holes and holes to fasten the bearing to the body. Connecting the two adjacent ends of the front and side boards, and side and rear boards, at each corner of the body, is a corner piece, *n*. Said piece is a quarter-round on its outer surface, the two opposite sides of the curve running tangentially into the adjacent surfaces of the body-boards, and at each end of the curve is a square shoulder, *o*, from which extends a groove or mortise, *p*, the adjacent board being made with a shoulder, *q*, to fit against the shoulder *o*, and a tenon, *r*, fitting into the mortise, the inner surface of the corner piece or connector being diagonal, or extending straight across from tenon to tenon, as seen at *s*. The shoulders, tenons, and mortises being all formed to tightly and accurately fit the boards, are joined by the connectors, and, being glued together, need no nails or other fastenings to make them secure; and the corners of the body are smooth and free from fastenings, which are liable to get loose and form catches by which clothing will be torn. At C I show the joint enlarged, and at D a modification, in which, by making the outer surface of the connector with a swell, *t*, the edges of the boards *a b c* are kept of full thickness, the mortises which the edges enter being made of such width that the edges fit into them.

I claim—

1. The axle-bearing arms *h h*, formed as shown and described, and secured to the bottom of the body by the clamp-plate *l*.
2. The wagon-body having its side and end boards united by the connectors, said connectors being mortised and the edges or tenons of

the boards fitting thereinto, substantially as shown and described.

CHARLES C. JOHNSON.

Witnesses:

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