

No. 654,993.

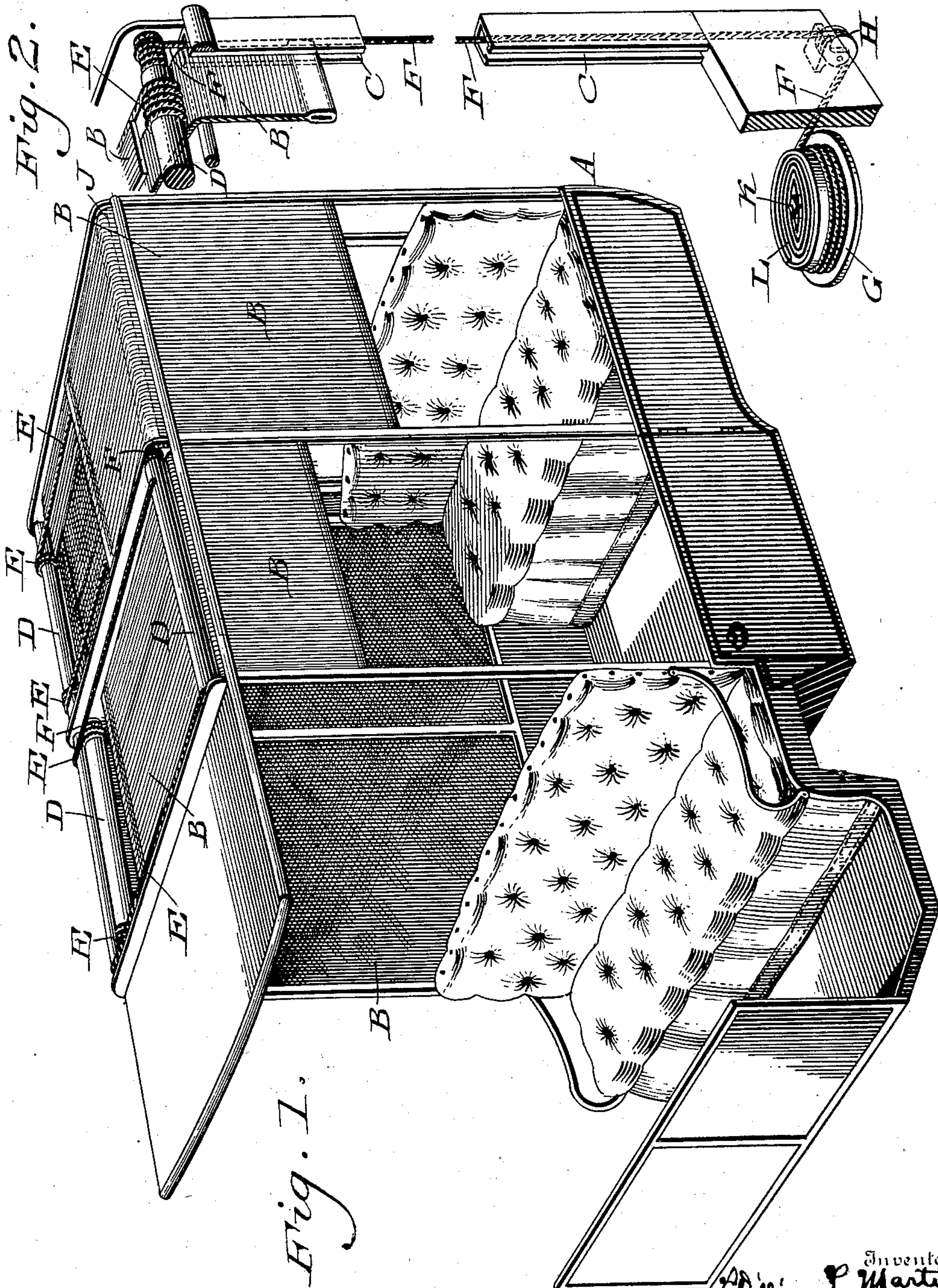
Patented July 31, 1900.

W. L. MARTIN.
CARRIAGE CURTAIN.

(Application filed Nov. 11, 1899.)

3 Sheets—Sheet 1.

(No Model.)



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3 Sheets—Sheet 3.

Fig. 6.

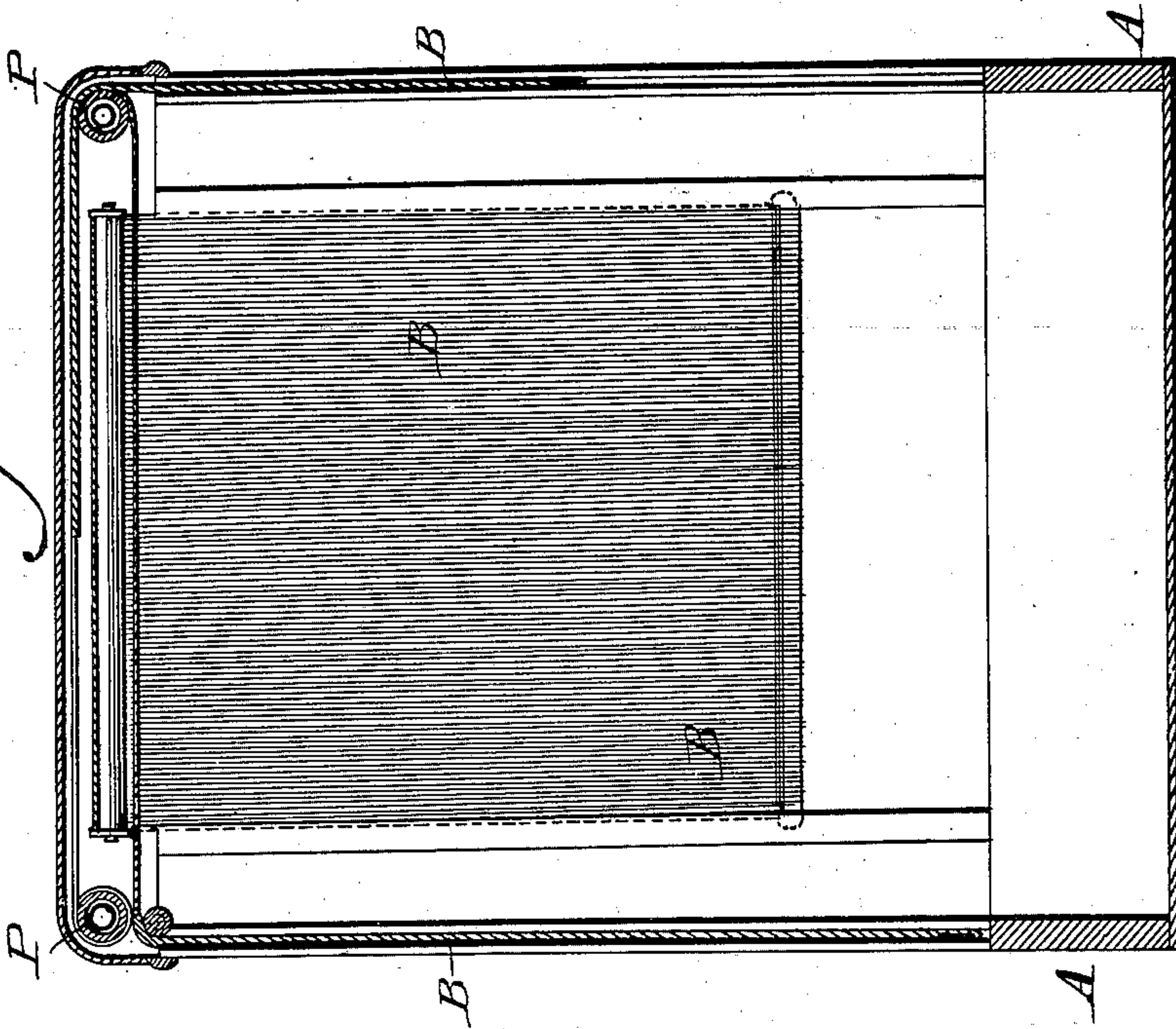
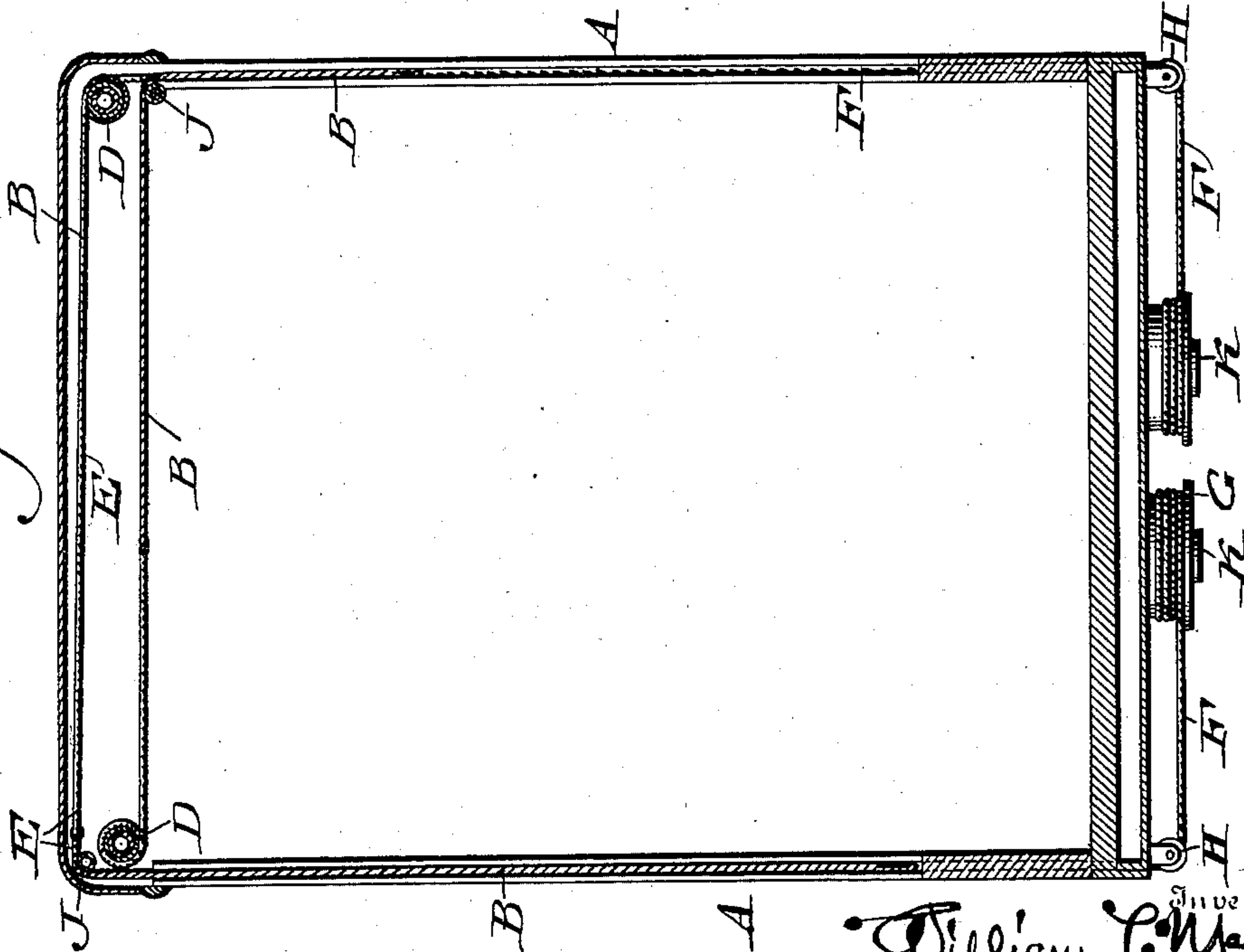


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM L. MARTIN, OF RANCOCAS, NEW JERSEY.

CARRIAGE-CURTAIN.

SPECIFICATION forming part of Letters Patent No. 654,993, dated July 31, 1900.

Application filed November 11, 1899. Serial No. 736,576. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. MARTIN, a citizen of the United States, residing at Rancocas, in the county of Burlington, State of New Jersey, have invented a new and useful Improvement in Carriage-Curtains, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a curtain for a carriage or other vehicle, the same embodying novel fixtures to effect the winding of the curtain and retain the same at any desired height.

Figure 1 represents a perspective view of a portion of a carriage and a curtain embodying my invention applied thereto. Fig. 2 represents a perspective view of the curtain and fixtures thereof and the adjacent portions of the carriage, certain parts being in section. Fig. 3 represents a vertical section of the carriage and partial longitudinal vertical section of the curtain and fixtures thereof. Fig. 4 represents a transverse vertical section thereof. Fig. 5 represents a horizontal section of a portion on line *xx*, Fig. 3, on an enlarged scale. Fig. 6 represents a vertical section taken rearward of that shown in Fig. 4 to illustrate the position of the rear curtain between the side curtains. Fig. 7 represents a section of a modification of Fig. 5.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates the body of a carriage, which, excepting the feature of my invention applied thereto, is of ordinary construction.

B designates curtains for the carriage, the same being disposed in the present case on the sides and rear thereof and formed of any suitable pliable or flexible material and guided in grooves C in the upright members or frame of the body A. In the top of said frame are mounted the horizontally-arranged rollers D, the same extending in the directions of the respective curtains and having connected with them the cords or chains E, the latter being attached to the respective curtains B, said cords and curtains being adapted to be wound upon and unwound from said rollers D.

F designates cords or chains which are connected with the rollers D, so as to be wound

upon and unwound therefrom, the same extending therefrom and being passed down the upright members of the frame of the body and connected with the spring-actuated pulleys G, which are secured to the bottom of the body of the carriage, said cords F being suitably guided around the rollers H on said body, it being noticed that said pulleys G are removed from the several rollers and independent thereof, whereby they are convenient for repairs and adjustment of the tension of the springs and adapted to be located at any desired place on the body of the vehicle. It will also be noticed that one of the cords E and one of the cords F are both connected with one of the rollers D, so that the draft exerted by the spring of the pulley G on the unwinding cord F rotates the roller D and the latter immediately winds the cord E thereon, while the draft exerted by a curtain in lowering the same unwinds the cord E therefrom, rotates the roller D, winds the cord F on the latter, and winds up the spring of the pulley G. The flexible connections are passed one under the other, so that they are movable clear of each other, and the rollers from which the curtains are pendent may be placed close to the sides of the vehicle. The cords of the opposite curtains are passed over or under the rollers D of the curtain of the other side and guided in their deflection from horizontal to vertical position over the rollers J, so that the curtain may slide or move free of its other in passing each other at the top of the frame of the body.

The spring-actuated pulleys G consist of pulleys proper, which are mounted on stationary shafts K, and springs L, coiled within the pulleys, and each secured, respectively, at one end to the body of the pulley and at the other end to the shaft K thereof, so that when the cords F are drawn in one direction the pulley will be rotated to unwind the spring, and when the cord is relieved of the draft the spring will be wound up, thus rotating the pulley and winding the adjacent portion of the cord thereon. Now, as the curtains are attached to said cords, when the former are raised to open the sides of the frame of the carriage the spring will be operative through the medium of the cords F to rotate the rollers D, thus winding the cords E thereon and

taking up the slack of the cords, so that the curtain will remain at the height at which it has been placed. The same is true when the curtains are lowered to close the carriage, for in either case the curtains and spring are balanced, and there may be some friction on the curtains by the walls of the grooves C to increase the holding action on the curtains.

In order to prevent displacement of the curtains from the grooves C, they are formed with the beads M, the same thickening the sides of the curtains where they occupy and are retained in said grooves, as will be seen in Fig. 5, or the faces of the curtains may be thickened, forming shoulders N near the side ends, which retain the latter in their grooves, as will be seen in Fig. 7.

In Fig. 6 I show the rear curtain with its roller between the rollers P of the side curtains, which rollers P and their flexible connections are slightly differently arranged from those in the other figures.

In lieu of cords or chains I may use tape, webbing, or other flexible connection for the curtains and pulley.

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

1. In a vehicle, a curtain, a roller therefor, a spring-actuated pulley independent of said

roller and a winding device extending from said roller to said independent pulley and connected with said parts.

2. In a vehicle, a curtain on a side thereof, a roller on the opposite side, a flexible connection for said curtain and roller, a spring-actuated pulley independent of said roller, and another flexible connection on said roller extending to said pulley.

3. In a vehicle, curtains on opposite sides thereof, rollers likewise on opposite sides thereof, flexible connections, each passing from the curtain on one side to the roller on the opposite side, an additional flexible connection on each roller, and a spring-actuated pulley independent of the respective rollers connected with said additional flexible connection.

4. In a vehicle, a curtain, a roller to which the same is attached, a flexible connection on said roller independent of said curtain, a spring-actuated pulley independent of said roller and having said connection secured to it and grooved members on the frame of the vehicle having said flexible connection and the sides of said curtain movable in the same.

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