(No Model.)

G. KROLL.

CONVERTIBLE CARRIAGE.

No. 538,970. Patented May 7, 1895.

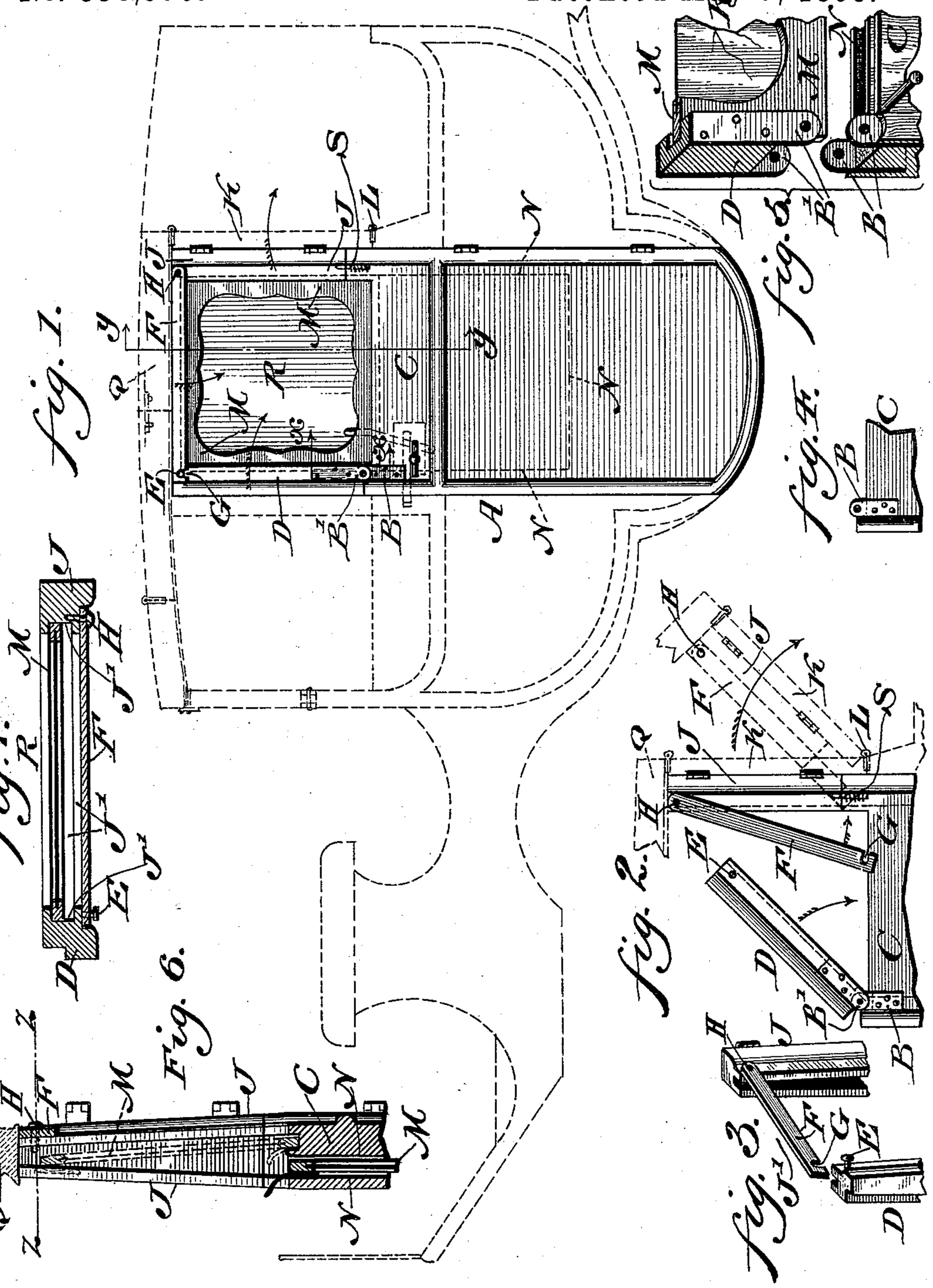

Fig. 1.

Fig. 5.

Fig. 4.

Fig. 7.

Fig. 6.

Fig. 2.

Fig. 3.

Witnesses
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CONVERTIBLE CARRIAGE.

SPECIFICATION forming part of Letters Patent No. 538,970, dated May 7, 1895.

Application filed August 1, 1894. Serial No. 519,144. (No model.)

To all whom it may concern:

Be it known that I, GOTTLIEB KROLL, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Convertible Carriages, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to an improvement in carriages, such as landaus, &c., which have the top made in sections, and consists of the novel construction of the doors of the same, whereby a portion of said doors can be quickly folded when it is desired to convert a closed carriage into an open one, the doors being also readily restored to their normal positions when a closed carriage is desired, the novel construction of the parts of said doors being hereinafter set forth and claimed.

Figure 1 represents a side elevation of a folding door for a convertible carriage embodying my invention. Fig. 2 represents a view similar to Fig. 1, but showing the door partially folded. Fig. 3 represents a perspective view of the upper portion of the door. Fig. 4 represents a detail to be hereinafter referred to. Fig. 5 represents, on an enlarged scale, a perspective and partly-sectional view on line *x x*, Fig. 1, the parts being separated from each other. Fig. 6 represents a section on line *y y*, Fig. 1. Fig. 7 represents a horizontal section of a portion on line *z z*, Fig. 6.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a door, the parts comprising the upper portion of the same being shown in their normal position in Fig. 1. B designates ears on the top of the lower portion C of said door, to which ears are pivotally secured the ears B′ of the side piece D, which has a longitudinal groove for the reception of the sash M, and a pin E near the upper portion thereof.

F designates a cross bar, one end of which has a notch or recess G, forming a catch, which is adapted to engage the pin E, while the other end of said bar is pivoted at H to the upright side piece J, which also has a longitudinal groove for the sash M, and is suitably hinged to the upright frame K the latter in the present instance being hinged at L.

It will be noticed that a space exists between the upper ends of the side pieces D and J, as will be seen at J′, Figs. 3 and 7. This however, is closed by the cross bar F, when in the position shown in Figs. 1 and 7, thus preventing to a great extent the ingress of insects, dust, drafts of air, &c., and imparting a finished appearance to the exterior of the door at the top thereof.

N designates a recess in the lower portion of the door A into which the window R is adapted to be dropped.

The operation is as follows, the parts in their normal condition being shown in Fig. 1: When it is desired to convert a closed carriage into an open one, the window R is dropped into the recess N, and the door A partially opened. The cross bar is then lifted as in Fig. 3, and allowed to fall as shown in Fig. 2. The portion K of the frame of the carriage to which the upright side piece J is hinged, is turned to the right on the hinge L, in the direction of the arrow, and the upright side piece D is also allowed to fall in the direction of the arrow on to the part C, whereupon the whole upper portion of the door frame will be removed to one side, as is evident. Especial attention is called to the several functions of the cross bar F, the same serving to hold the side pieces D and J in an upright position, and to substantially close any space in front of the top of the sash when the same is elevated, and the top of the carriage giving also a finished appearance to the door from the exterior, as is evident. At the joint of the lower end of the side piece J, and the adjacent part of the top of the lower portion C of the door, is located the spring-pressed bolt or dowel S, which serves to couple the above parts when they are in the positions shown in Fig. 1, said bolt however being readily overcome when said piece J is thrown back in the act of folding.

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

1. A carriage having a door, with the upper side pieces D and J each having grooves for a sash, and the cross bar F pivoted to the piece J and having a recess in its opposite end engaging a pin on the piece D, said bar being outside of the sash and closing the space be-

tween the tops of the said side pieces, substantially as described.

2. The door A, having the immovable portion C, the folding side pieces D and J, the cross bar F for the purposes described, pivotally secured to the side piece J and adapted to be connected with the piece D, and the frame K to which the side piece J is hinged, the above parts being combined substantially as described.

3. In a door for a convertible carriage, the side piece D hinged to the door, and the side piece J hinged to the frame K of the carriage, in combination with a device for detachably coupling said piece J with said door, substantially as described.

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