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G. J. QUINSLER & G. W. McNEAR.

HANSOM CAB.

(Application filed Aug. 18, 1899.)

(No Model.)

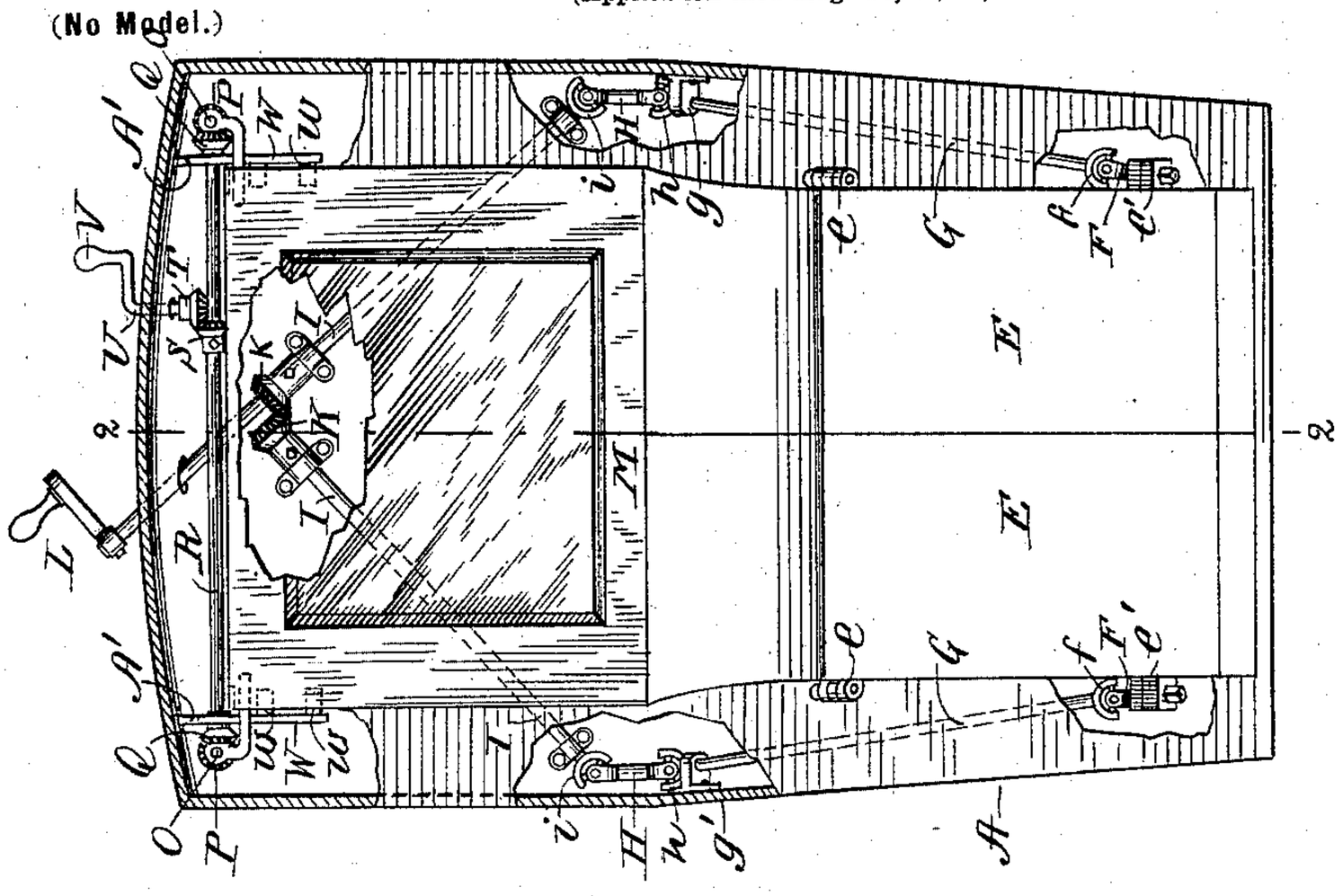

Fig. 1.

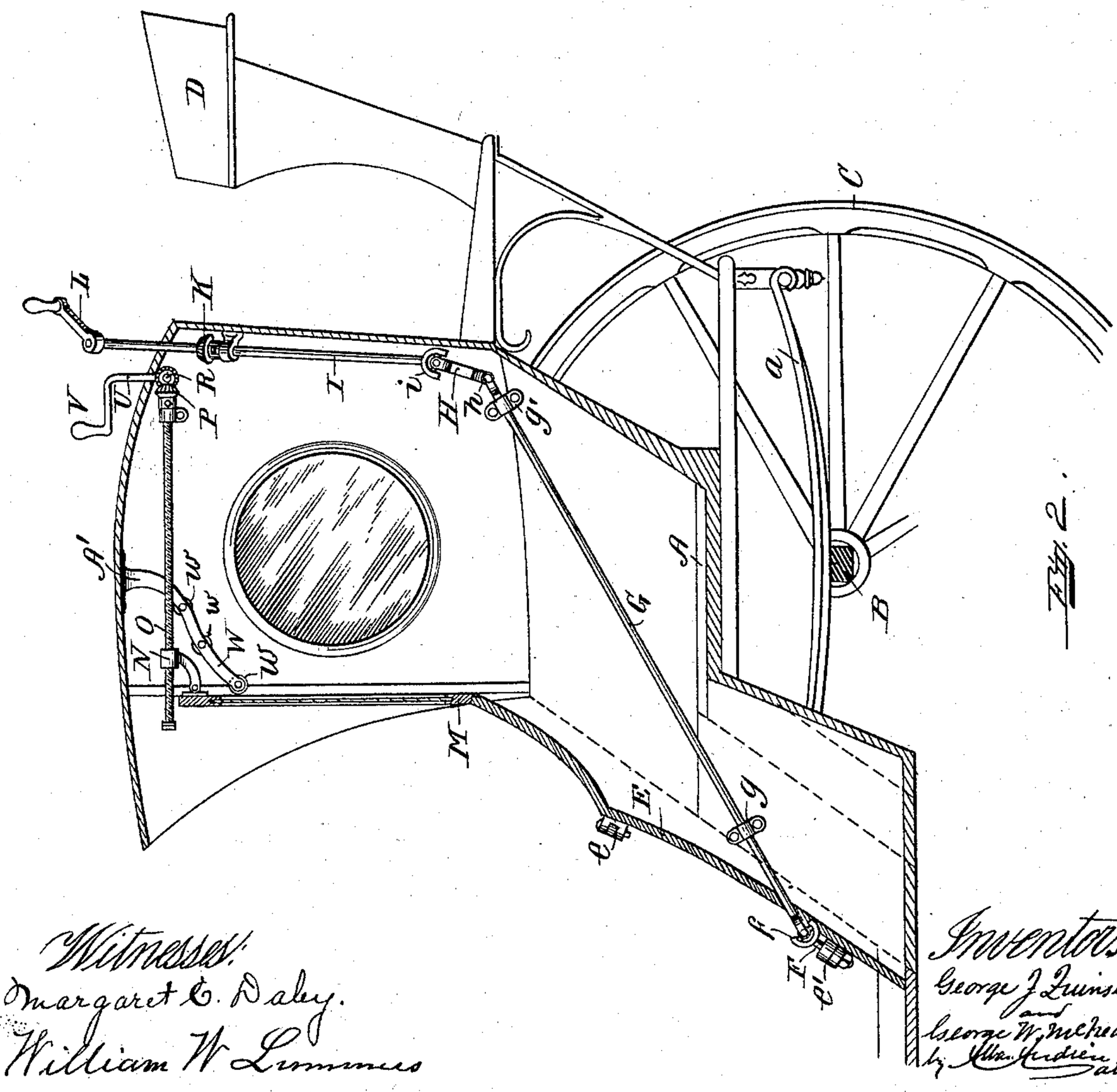

Fig. 2.

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UNITED STATES PATENT OFFICE.

GEORGE J. QUINSLER, OF BROOKLINE, AND GEORGE W. McNEAR, OF AUBURNDALE, MASSACHUSETTS.

HANSOM-CAB.

SPECIFICATION forming part of Letters Patent No. 638,141, dated November 28, 1899.

Application filed August 18, 1899. Serial No. 727,721. (No model.)

To all whom it may concern:

Be it known that we, GEORGE J. QUINSLER, residing at Brookline, in the county of Norfolk, and GEORGE W. McNEAR, residing at Auburndale, in the county of Middlesex, State of Massachusetts, citizens of the United States, have invented new and useful Improvements in Hansom-Cabs, of which the following is a specification.

This invention relates to that class of wheeled carriages known as "hansom-cabs;" and it consists in improved mechanism for operating the folding doors and front window-sash from the driver's seat, as will hereinafter be more fully shown and described, reference being had to the accompanying drawings, wherein—

Figure 1 represents a front elevation of a hansom-cab provided with our improved mechanism for operating the folding doors and front window-sash, parts of said view being broken away for the better illustration of the invention; and Fig. 2 represents a vertical section on the line 2 2, shown in Fig. 1.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In the drawings, A represents the carriage-body, supported on springs *a*, attached to the axle B, on which are journaled the wheels C.

D is the driver's seat, at the rear of the cab, as usual.

E E represent the folding doors, pivotally connected to the front of the body A by means of hinges *e e* near the upper portion of said doors, one leaf of said hinges being secured to the body A and the other leaf to the doors E E, as usual. The lower portions of the said doors E are pivotally connected to the body A by means of hinges *e' e'*, each having one of its leaves secured to the body portion A and the other leaf secured to the door. The leaves of each lower hinge *e'* are connected by a rod F, which constitutes a hinge-pintle. The leaves that are secured to the doors are rigidly secured to the hinge-pintles F, and the latter are universally jointed at *f f* to inclined rods or shafts G G, journaled in bearings *g g'*, arranged at the sides of the carriage-body, as shown.

The upper ends of the inclined rods or shafts G are preferably universally jointed at *h h* to links H H, which are preferably universally jointed at *i i* to shafts I I, journaled in bearings secured to the interior rear portion of the carriage-body, as shown.

The shafts I I are geared together at their upper ends by means of bevel-gears K K, and one of said shafts I extends through the roof A' of the carriage and is provided with a crank L, arranged in front of the driver's seat D, so as to enable the driver to open and close the doors E E simply by turning said crank to the right or left, as occasion may require.

If so desired, the links H H may be dispensed with and the rods G and I connected directly by means of a universal joint without departing from the essence of our invention. By this arrangement we provide a very simple and effective mechanism for operating the doors by the driver seated behind the carriage-body, as above described.

The mechanism for raising or lowering the front window-sash M is constructed as follows: To the upper inner portion of said sash M are pivotally connected a pair of nuts N N, which receive and are adjustable upon horizontal screw-shafts O O, located in bearings secured to the interior of the upper portion of the carriage-body, as shown. The said screw-shafts are free to be turned around their axes, but are prevented from moving longitudinally. To the rear end of each screw-shaft O is secured a bevel-gear P, the teeth of which mesh in the teeth of a similar bevel-gear Q, secured to a transversely-arranged shaft R, located in bearings in the rear upper portion of the carriage-body, below the top A', as shown. To such shaft R is secured a bevel-gear S, the teeth of which mesh in the teeth of a similar bevel-gear T, secured to a shaft or spindle U, located in a bearing in the top A' and projecting upward through the latter and provided at its upper end with a crank V, as shown. To the interior upper portion of the carriage-body are secured in a suitable manner a pair of brackets W W, provided with rollers *w w w*, on which the window-sash M is guided during the operation of opening and closing the same.

The operation of opening and closing the

sash M by the driver while seated on the seat D is as follows: To open or raise the said sash, the driver turns the crank V toward the right, causing the nuts N to travel on the screw-shafts O toward the rear of the carriage, and in so doing the sash is guided on the rollers *w w w* and caused to swing from a vertical to a horizontal position, and by a continuation of the rotation of said screw-shafts the said sash is moved backward, so as to assume a horizontal open position below the top A′ of the carriage. To lower or close the sash, it is only necessary for the driver to turn the crank V in an opposite direction, causing the sash to be moved forward and guided on the rollers *w w w* until it gradually assumes its vertical closed position, as shown in the drawings. The two parallel shafts O, arranged in the sides of the carriage-body and operating as described, enable the sash to be raised and lowered in a steady uniform manner without wobbling, as is the case where a single central shaft is employed for the purpose.

What we claim is—

1. In a hansom-cab, the combination with the carriage-body, and a pair of folding doors hinged to the carriage-body, of a pintle F arranged on each side of the doors and rigidly attached to the hinge-leaf of the door, a pair of inclined rods G, universally connected to said pintles, a pair of upwardly-converging rods I universally connected to the upper ends of said inclined rods and geared together at their upper extremities, and a crank L arranged above the carriage-roof for operating the converging rods, substantially as described.

2. In a hansom-cab, the combination with the carriage-body and the vertically-movable sash, of nuts N pivoted to the opposite side portions of the upper end of the sash, the parallel screw-shafts O arranged in opposite sides of the carriage-body and respectively engaging said nuts, pendent brackets W having guide-rollers *w* for guiding the sash, a transversely-arranged shaft R arranged in the rear of the carriage-body and having its ends geared, respectively, to the said parallel screw-shafts and a crank V geared to said transversely-arranged shaft for operating the same to simultaneously rotate both screw-shafts, substantially as described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

GEORGE J. QUINSLER.
GEORGE W. McNEAR.

Witnesses:
ALBAN ANDRÉN,
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