R. STEPHENS.

VEHICLE BODY.

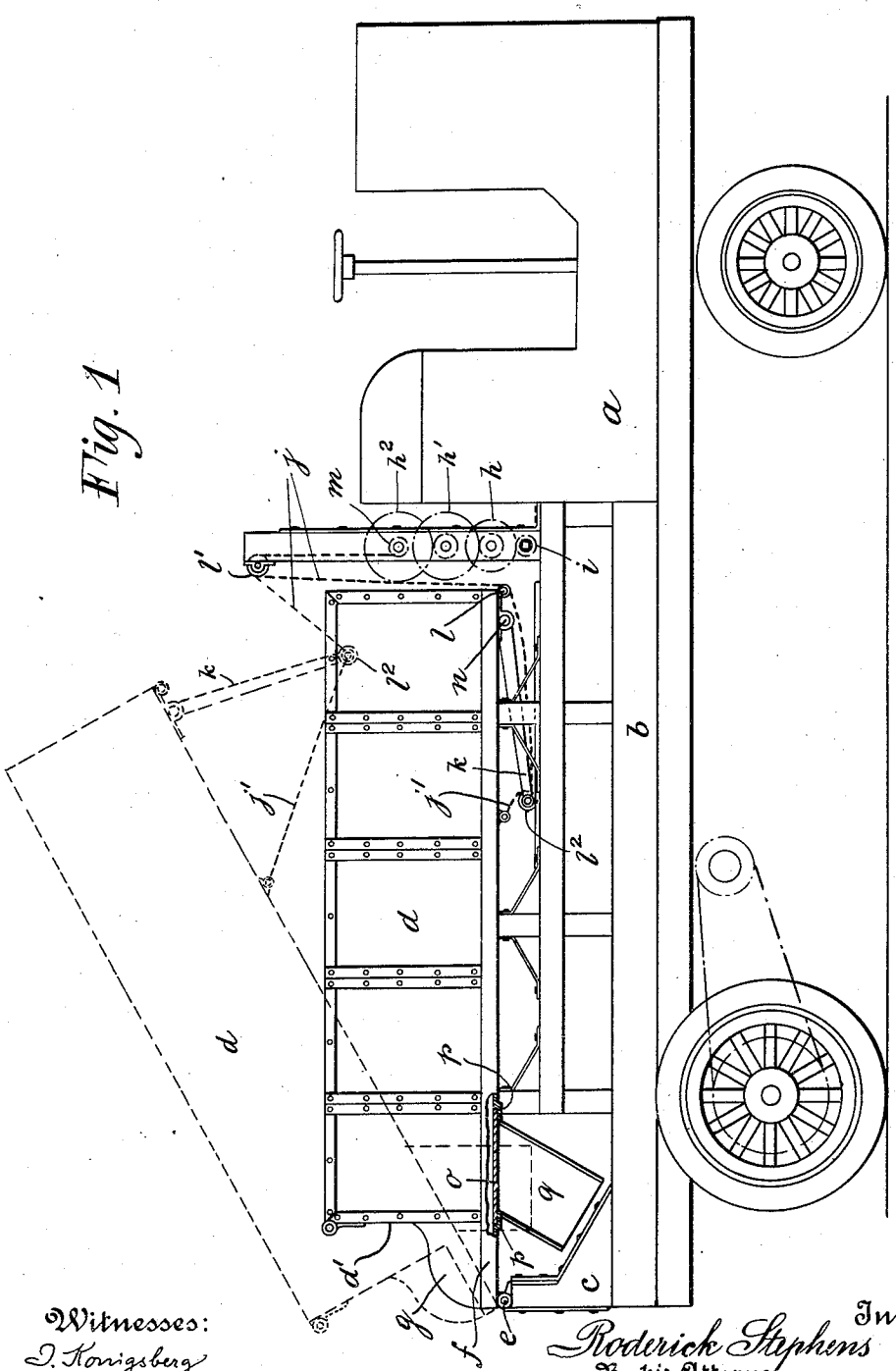
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1,093,952.

Patented Apr. 21, 1914.

2 SHEETS—SHEET 1.

Fig. 1



Witnesses:

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Inventor

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By his Attorney

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2 SHEETS—SHEET 2.

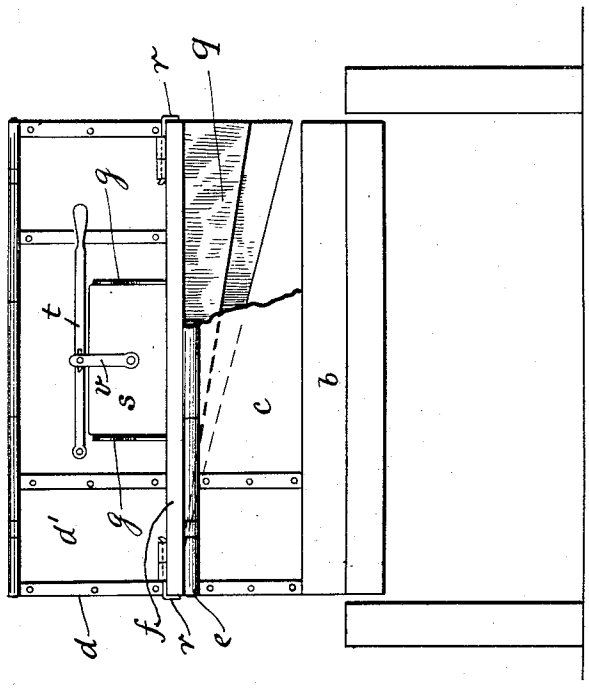


Fig. 2

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UNITED STATES PATENT OFFICE.

RODERICK STEPHENS, OF NEW YORK, N. Y.

VEHICLE-BODY.

1,093,952. Specification of Letters Patent. Patented Apr. 21, 1914.

Application filed February 11, 1913. Serial No. 747,660.

To all whom it may concern:

Be it known that I, RODERICK STEPHENS, a citizen of the United States of America, and a resident of the borough of the Bronx, city, county, and State of New York, have invented certain new and useful Improvements in Vehicle-Bodies, of which the following is a specification.

My invention relates to improvements in vehicle bodies and has especial reference to such bodies as are carried by heavy trucks, such as automobile trucks, and are adapted to the handling of such material as anthracite coal, bituminous coal, crushed stone, sand and the like. In such constructions it is very desirable, especially when designed for use in crowded city streets, to provide for both side and end discharge having a sufficiently great angle of flow to permit the ready movement of the contents of the body, both from within the body toward the discharge outlet and from the discharge outlet to the place of deposit. In many instances the place of deposit is a considerable distance from the discharge outlet, thus necessitating the elevating of the body, or some equivalent means, in order to obtain a sufficiently great angle of flow to cause the contents of the body to easily traverse the space intervening between the discharge outlet and the place of deposit. This is more difficult of accomplishment in connection with a side discharge than with an end discharge. One means of side discharge has been to provide a hopper shaped body with the discharge at the side; another means has been to tip the whole body along one of its lower longitudinal edges and to open up the whole side of the body as a discharge opening. In the first instance much valuable space is lost by reason of the shape of the body while in the latter instance the whole load is discharged at once and cannot be discharged gradually, as through the usual chute, because the contents of the body would lodge along the lower side of the body if a portion of that side was closed to provide for the chute discharge. By my invention I have provided a construction which combines the advantages of end discharge and side hopper discharge with proper angle of flow, without waste of space as in the hopper shaped construction and with the advantage of effective side chute discharge suitable for the handling of both anthracite and bituminous coal as well as other material.

In the following I have described, in connection with the accompanying drawings, a construction illustrating one way of practising the principles of my invention, the features thereof being more particularly pointed out hereinafter in the claims.

In the drawings, Figure 1 is a side elevation, parts being broken away and parts being shown in section, of an automobile truck and body to which the principles of my invention have been applied and Fig. 2 is a rear end elevation of the same, parts being broken away.

Similar letters of reference indicate similar parts throughout the several views.

The reference letter *a* indicates an automobile truck of any suitable design and construction, carrying a framework *b* of suitable material, preferably iron or heavy timbers, at the rear end of which is a base *c* of heavy construction.

d indicates the vehicle body of the ordinary flat-bottom, rectangular construction having its sides and ends erected at right angles to the bottom in the well-known manner; the body *d* is shown as pivotally mounted on base *c* by means of a hinge connection *e* of any suitable construction. In the form shown the bottom of the body is provided with a rearward extension *f* having guides *g*, *g*, at each side and the pivotal point is at the extreme end of said extension *f*. This particular form of construction is however not essential.

The body *d* is adapted to be elevated on hinge *e* resting on base *c* as a fulcrum by means of a train of gears *h*, *h'*, h^2 actuated by ratchet *i* in turn controlled by a suitable hand operated crank (not shown) in the usual manner. Chain *j* fast at one end to the lower end of folding leg *k* passes over idler *l*, thence over idler *l'* to drum *m* on gear h^2 to which drum the other end of chain *j* is fast. Leg *k* is pivoted at *n* to the bottom of body *d* and is held against too great outward swing by chain *j'* fast to the bottom of body *d* as shown. Leg *k* carries idler or roller l^2 at its free end, said roller l^2 acting as a rolling support for leg *k* until the body has been elevated sufficiently to break the contact between leg *k* and framework *b*.

The means described for elevating the body *d* is not essential to my invention as any other suitable means may be substituted therefor.

The rear end of the bottom of body *d* is

shown as provided with a sliding panel *o*, preferably extending entirely across the bottom from side to side thereof and supported in such manner that its upper surface will be flush with the bottom of the body. As shown the sliding panel *o* is supported and guided by angle irons *p*, *p*, carried by said bottom.

q is a hopper suitably supported beneath panel *o* and preferably arranged at such an angle thereto that, when the body *d* is elevated, as shown by dotted lines in Fig. 1, the hopper will stand at right angles to the frame of the truck so as to readily discharge into the usual removable chute (not shown) suitably supported in the usual way beneath the discharge end of the hopper. The bottom of the hopper preferably slopes upwardly and inwardly as shown in Fig. 2, the angle of the slope being such as to provide a suitable angle of flow for the contents of the body. The base *c* is shown as of such shape as to permit the hopper *q* to have clearance when the body is seated upon the truck.

The rear end *d'* of the body *d* is hinged at the top so that the whole end of the body may be opened by an upward swing, for quick rear end discharge. When in closed position the swinging or hinged end *d'* is held by suitable clamps *r*, *r*. Said rear end *d'* is provided with a sliding door *s* controlled by a lever *t* to which it is connected by a link *v*; this construction provides for the use of the usual removable chute (not shown) which may be suitably supported in the usual manner beneath door *s*. The guides *g*, *g* act to guide the contents of the body when the discharge is affected by opening the sliding door *s* as described.

It is clear that, by the construction described, I have provided a body having both a rear end quick discharge, a rear end chute discharge and a side chute discharge and that by pivoting the body at the end of the bottom of the body I get the greatest possible angle of elevation of the body. Furthermore, by the arrangment of sliding panel at the rear end of the bottom of the body in conjunction with its coöperating hopper, the contents of the body may be entirely discharged into said hopper and thence through the removable chute to the place of deposit. By such last named arrangement I also obtain the greatest possible angle of elevation for the side chute discharge.

I do not restrict myself to any of the details shown and described further than the scope of the appended claims demand.

What I claim and desire to secure by Letters Patent is:

1. A vehicle body, means for elevating one end thereof, a support at the other end thereof to which said body is pivoted, an opening in the bottom of the body adjacent the pivoted end, means for closing said opening and a hopper beneath said opening, said hopper sloping upwardly and inwardly from one side of the body toward the other side thereof.

2. A vehicle body, means for elevating one end thereof, a support for the other end thereof to which said body is pivoted, a sliding panel extending transversely of the body in the bottom thereof adjacent the pivoted end and a hopper beneath said panel, said hopper sloping upwardly and inwardly from one side of the body to the other and extending the entire length of said panel.

3. A vehicle body, means for elevating one end thereof, a support for the other end thereof to which said body is pivoted, means for discharging the contents of said body at said pivoted end in a direction parallel to the length of the body, an opening in the bottom of the body transversely of the body adjacent said pivoted end, means for closing said opening and a hopper beneath said opening, said hopper sloping upwardly and inwardly from one side of the body toward the other side thereof.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

RODERICK STEPHENS.

Witnesses:
ALEXANDER JOHN FRASER,
LOUIS H. SPEER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."