No. 705,824. Patented July 29, 1902.

S. T. DAVIS, JR.

AUTOMOBILE.

(Application filed Feb. 8, 1902.)

(No Model.) 2 Sheets—Sheet 1.

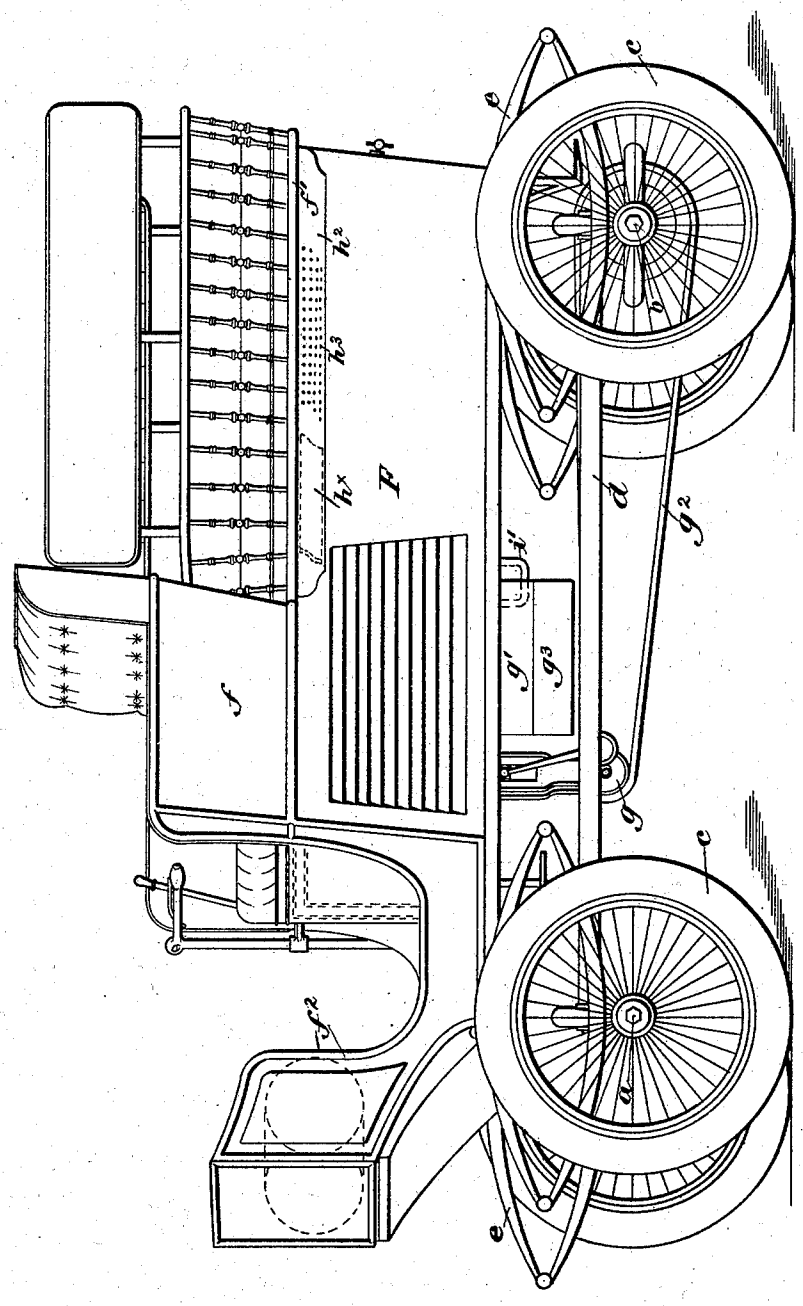

Fig. 1.

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Fig. 3.

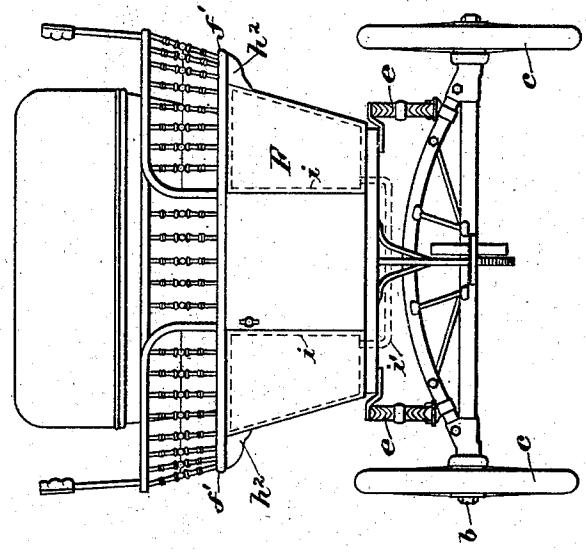
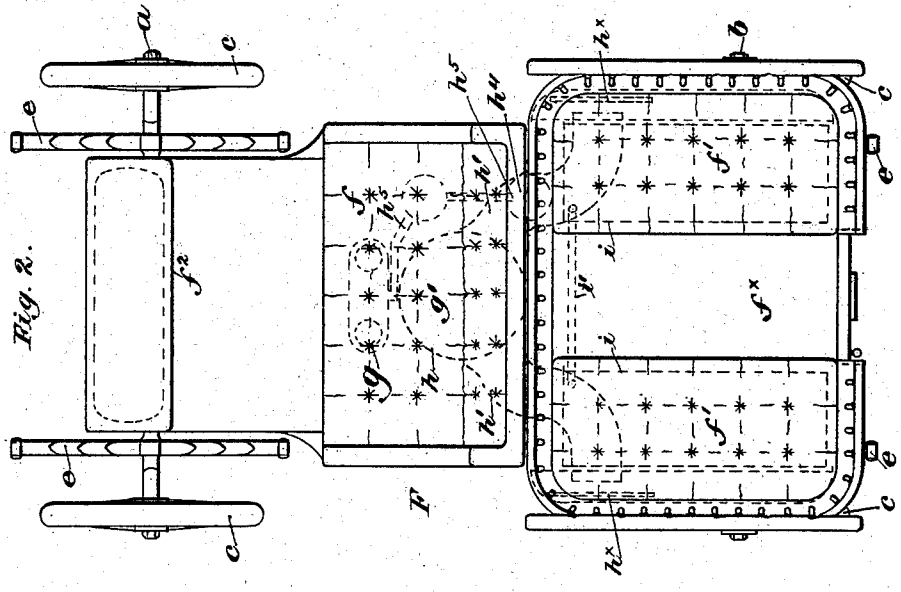


Fig. 2.



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UNITED STATES PATENT OFFICE.

SAMUEL T. DAVIS, JR., OF ARDSLEY-ON-HUDSON, NEW YORK, ASSIGNOR TO THE "LOCOMOBILE" COMPANY OF AMERICA, OF NEW YORK, N. Y., A CORPORATION OF WEST VIRGINIA.

AUTOMOBILE.

SPECIFICATION forming part of Letters Patent No. 705,824, dated July 29, 1902.

Application filed February 8, 1902. Serial No. 93,162. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL T. DAVIS, Jr., a citizen of the United States, residing at Ardsley-on-Hudson, in the county of Westchester, State of New York, have invented an Improvement in Automobiles, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to improve the construction of motor-vehicles, particularly such as are driven by steam.

My invention relates mainly to means for furnishing the required draft for the burner of the steam-generator of the vehicle and for disposing of the products of combustion therefrom.

My invention also comprehends a novel arrangement of water tanks or reservoirs.

These, with other features of my invention, will be best understood after a description of a vehicle made in accordance therewith.

In the accompanying drawings, Figure 1 is an isometric view of a vehicle, illustrating one embodiment of my invention. Fig. 2 is a top or plan view thereof on a smaller scale, and Fig. 3 a rear end elevation of Fig. 2.

In the particular embodiment of my invention illustrated in the drawings the running-gear may be of any desired type or construction, the same, as shown, comprising front and rear axles *a b*, wheels *c*, and perches *d*. Upon this running-gear are arranged the springs, as *e e*, which sustain the body F, of desired type or construction. As here shown, the body is of the well-known "wagonette" type, comprising a usual front seat *f*, extending transversely of the body, with parallel longitudinal seats *f' f'* in the rear thereof and arranged facing each other. Mounted upon the body and partaking of the spring-supported movements thereof are the engine *g* and boiler or steam-generator *g'*, of usual type and construction and shown as arranged beneath the front seat *f*, said engine being geared back, as by a chain g^2, to the rear or driving axle *b*. The usual burner g^3 is supplied in suitable manner with hydrocarbon fuel from a tank or reservoir contained in the dasher-box f^2.

In accordance with my invention the boiler *g'*, of desired type, (herein tubular,) has a hood *h*, (shown in dotted lines, Fig. 2,) provided with one or more (preferably two) divergent outlets *h'*, leading, respectively, to the sides of the vehicle-body, where they enter longitudinally-arranged flues $h^2 h^2$. These flues are provided, respectively, with proper outlets, preferably in the form of distributing-perforations h^3, in the side walls thereof. (See Fig. 1.) Within these flues h^2 and directly in front of the discharge ends of the outlet branches *h'* I have provided baffle-plates $h^\times$, (shown in dotted lines, Figs. 1 and 2,) which act to distribute the products of combustion or gas along the said flues h^2 and prevent the same from escaping in objectionable volume through the perforations immediately adjacent the ends of the outlets *h'*. In a wagonette or other type of body having laterally-overhanging portions, as the seats *f'*, these longitudinal flues may conveniently be arranged beneath said overhangs and as ornamental supports therefor, as here shown, although my invention is not limited in this respect.

The hood *h* referred to has a usual down-draft h^4, (indicated in dotted lines, Fig. 2,) through which when running the products of combustion may be discharged, aided usually by the exhaust from the engine discharged thereinto through a suitable exhaust-pipe h^5.

A construction such as described provides the desired upper or natural draft-flue for carrying the fire when the vehicle is not in motion and also supplies such air as may be desired to be mixed with the exhaust-steam in the flue h^4 when the vehicle is running to render such steam less visible.

The perforated walls of the longitudinal flues h^2 effectually prevent injurious side or back drafts, such as would extinguish the fire. There is provided all the necessary or desirable draft features, including such as are ordinarily provided by the usual cross-draft arrangement with which steam-motor vehicles are generally equipped; yet there is

saved the valuable foot or other space $f^{\times}$ between the seats or overhangs f'.

The boiler g' is supplied in usual manner with water from tanks $i\,i$, arranged, respectively, under the seats $f'\,f'$ of the body. These tanks are connected by a pipe i', carried under the body and which serves to maintain the same water-level in both tanks.

My invention is not limited to the specific embodiment thereof here illustrated, but may be variously embodied within the spirit and scope of my invention.

I claim—

1. A steam-motor vehicle provided with longitudinal side seats having a steam-engine and a steam-generator, the latter being provided with a plurality of draft-flues extending outwardly and then rearwardly to such a distance as to leave between said rearwardly-extended flues and between said longitudinal side seats an available and useful space.

2. A steam-motor vehicle, the steam-generator of which is provided with a plurality of rearwardly-extended longitudinally-arranged draft-flues having perforated side walls.

3. The combination with a motor-vehicle body having laterally-overhanging portions of a steam-generator carried beneath said body and provided with a longitudinal draft-flue arranged under one of said overhanging portions.

4. The combination with a motor-vehicle body having laterally-overhanging portions of a steam-generator carried beneath said body and provided with a longitudinal draft-flue arranged under one of said overhanging portions and having a closely-perforated side wall.

5. The combination with a motor-vehicle body having laterally-overhanging portions of a steam-generator carried beneath said body and provided with longitudinal draft-flues arranged respectively under the said overhanging portions.

6. The combination with a motor-vehicle body provided with longitudinal side seats of a steam-generator and a steam-engine carried beneath said body, the former being provided with a hood having flues extending divergently and rearwardly and longitudinal draft-flues communicating therewith and extending to the rear of said generator and contiguous to the sides of said vehicle-body and leaving an available and useful space between said flues and between said longitudinal side seats.

7. In a motor-vehicle the combination of a steam-generator a plurality of draft-flues extending outwardly and then rearwardly, having each a plurality of outlets at the side of the vehicle and a downdraft-flue in communication therewith.

8. In a motor-vehicle the combination of a steam-generator, a plurality of draft-flues extending outwardly and then rearwardly having each a plurality of outlets at the side of the vehicle, a downdraft-flue in communication therewith, and an exhaust-steam-supply device arranged in said downdraft.

9. In a motor-vehicle the combination of a steam-generator, a draft-flue extending rearwardly at the side of the body, having a plurality of side outlets, a downdraft-flue in communication therewith and an exhaust-steam-supply device arranged in said downdraft.

10. In a motor-vehicle, a body provided with longitudinal side seats, a steam-generator on said body, and one or more longitudinally-arranged draft-flues therefor, arranged under said seats.

11. In a motor-vehicle a body, a steam-generator, and a plurality of connected water-supply tanks therefor, arranged in the rear of said generator and separated to provide available and useful space between.

12. In a motor-vehicle a body provided with longitudinal side seats, a steam-generator, and connected water-supply tanks therefor arranged respectively beneath said seats, leaving available and useful foot-space between.

13. In a motor-vehicle, a body provided with a transverse seat, longitudinal seats in the rear thereof, and a dasher-box in front thereof, a steam-generator, a hydrocarbon-burner therefor and its fuel-supply tank arranged in said dasher-box; and a plurality of feed-water-supply tanks arranged beneath said longitudinal seats with useful space between.

14. A steam-motor vehicle provided with a body having a rearwardly-extending useful available space for carrying and transportation purposes, a steam-engine, a steam-generator therefor, the latter being provided with a plurality of draft-flues extending outwardly and then rearwardly contiguous to the sides of the vehicle to such a distance as to embrace between said rearwardly-extended flues said useful and available carrying-space.

15. A steam-motor vehicle the steam-generator of which is provided with a rearwardly-extended draft-flue arranged in a substantially longitudinal direction contiguous to the side of the vehicle and having outlet-passages at the side thereof.

16. A steam-motor vehicle, the steam-generator of which is provided with a draft-flue extending outwardly and then rearwardly in a substantially longitudinal direction having a plurality of outlet-passages at the side of the vehicle.

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

SAMUEL T. DAVIS, JR.

Witnesses:
J. A. KINGMAN,
FREDERICK L. EMERY.