No. 880,739. PATENTED MAR. 3, 1908.

M. M. JOHNSON.

AUTOMOBILE.

APPLICATION FILED NOV. 30, 1907.

Fig. 1.

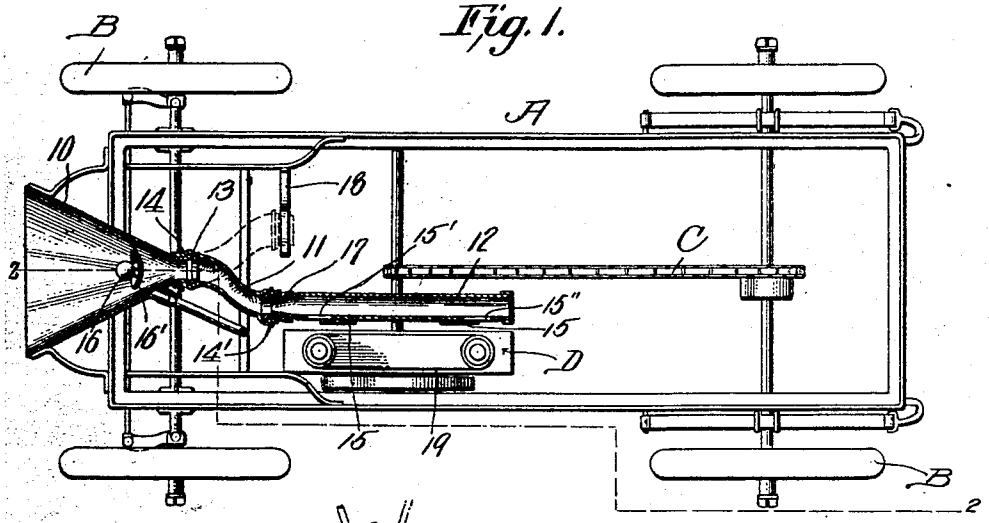


Fig. 3.

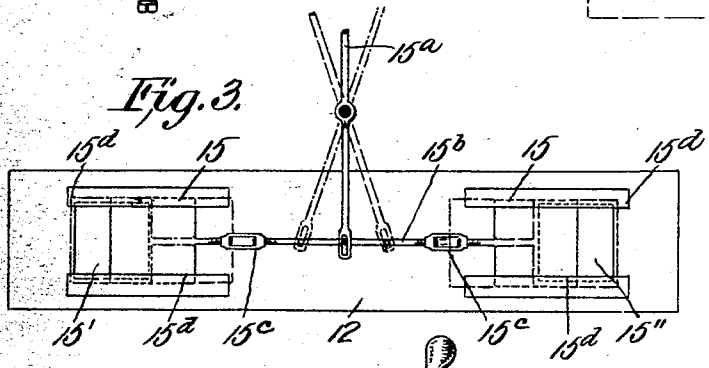


Fig. 4.

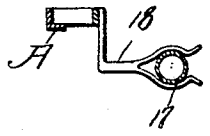
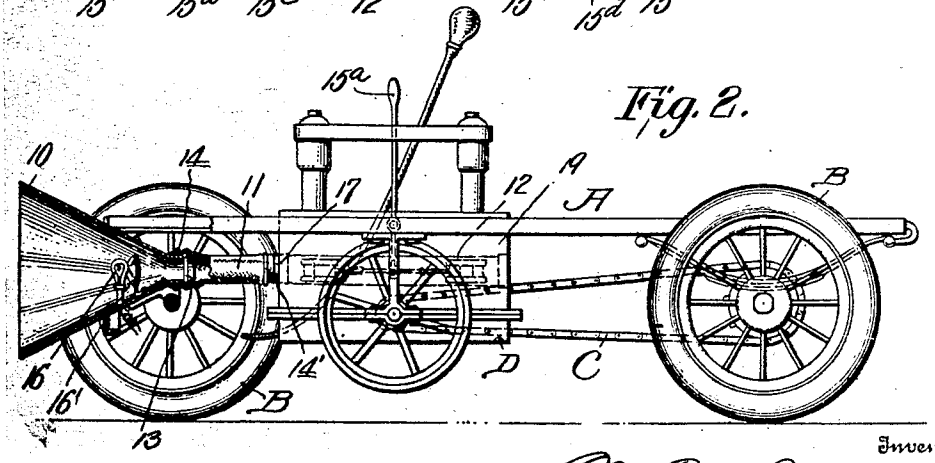


Fig. 2.



Witnesses

Alice M. Holmes.

N. J. Keim.

Inventor

M. M. Johnson.

By Beeler & Robb

Attorneys

THE NORRIS PETERS CO. WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

MANANDER MOTT JOHNSON, OF CLAY CENTER, NEBRASKA.

AUTOMOBILE.

No. 880,739. Specification of Letters Patent. Patented March 3, 1908.

Application filed November 30, 1907. Serial No. 404,603.

To all whom it may concern:

Be it known that I, MANANDER MOTT JOHNSON, a citizen of the United States, residing at Clay Center, in the county of Clay and State of Nebraska, have invented certain new and useful Improvements in Automobiles, of which the following is a specification.

This invention relates to automobiles, and among its objects it is aimed to improve the general construction of automobiles in such a manner as to provide means whereby instead of the head wind or the resistance of the air due to the rapid movement of the machine being a hindrance to the progress of the machine, the same will be utilized and turned to good account in the particulars hereinafter fully set forth.

The means which I utilize in carrying out the different objects of my invention are also employed, either as a whole or in part, to increase the effectiveness and desirability of the machine structure in a simple, compact, and efficient manner. Such means including, in addition to its function as a wind utilizer, devices to be employed as a reflector for the head light and also as a part of the automobile horn construction.

The foregoing and other objects of the invention will be hereinafter fully set forth and an illustrative manner in which the same may be carried out is disclosed in the accompanying drawings, in which

Figure 1 is a plan view of a conventional type of automobile running gear, with my invention applied thereto and shown partly in section; Fig. 2 is a vertical longitudinal section on the line 2—2 of Fig. 1; Fig. 3 is a diagram indicating the valve mechanism for the wind casing, and Fig. 4 is a detail on an enlarged scale to be hereinafter described.

In the following description and on the several views of the drawings similar parts are referred to by like reference characters.

Referring specifically to the drawings, A indicates any suitable conventional type of automobile frame construction provided with usual wheels B and driving mechanism C. The motor D may be of any desired type or construction, such as gasolene, steam, or the like, but the purposes for which my improvements are designed best adapt them for use in connection with explosive engines.

On the front end of the frame, and secured thereupon, I provide a large funnel 10 whose mouth opens forwardly and is or may be sufficiently large to substantially command the entire front of the body of the machine. The point or apex end of the funnel projecting rearwardly has secured thereto by any suitable means, a tube 11, by virtue of which I aim to utilize for any one or more of several purposes the blast of air through the funnel 10 caused by the rapid movement of the machine. At 12 I indicate a casing of any suitable conformation or construction located adjacent to the engine cylinders and with which the tube 11 is intended to communicate. It will be understood that the tube may be made of any suitable material, but for the reasons which will be apparent as this description progresses the same is preferably made of some flexible material such as duck, heavy canvas, rubber composition, or the like, and will be reinforced if necessary to provide sufficient firmness and strength for all practical purposes. As indicated the apex of the funnel is formed with a bead 13 about which the funnel end of the tube 11 is secured, as by a suitable clamp or binder 14. The casing 12 will be provided with as many valves or regulators 15 as may be deemed necessary or desirable for the purpose of supplying a blast of cold air to the several cylinders of the engine or elsewhere.

In Fig. 3 there is illustrated diagrammatically a suitable form of valve operating means for the casing 12. It is to be understood however that such illustration is suggestive only and that the valves and valve operating devices may be varied in specific construction according to the desire of the builder or as required by the demands of the trade. The construction illustrated provides a rigid connection between the valves 15 so that they may be operated simultaneously by means of a single operating lever 15^a. The said lever is connected with the valve connection 15^b by a pin and slot. The connection 15^b furthermore may be provided adjacent to each of the valves with a turn buckle or other suitable means whereby the length of the connection 15^b between the lever 15^a and the individual valves 15 may be varied so as to vary the resulting operation thereof with respect to the openings 15′ and 15″ of the casing 12. As indicated the valves 15 are mounted to slide longitudinally of the casing 12, and are held thereupon by flanges 15^d. With the valves arranged as shown, their normal position will be such that the openings of the casing will be sub-

itially equal. If desired to close one of openings or to reduce the amount of the ning the valve corresponding thereto be moved and such movement will cause orresponding enlargement of the opposite ning, as will be apparent by reference to l Fig. 3 and the dotted lines thereon. By use of the turn buckles 15ᶜ the aforesaid mal position of the parts and the relation the sizes of the openings may be varied ording to the necessities of any particular e. The tube 11 will preferably have a achable connection with the casing 12. a suitable means to provide such a con- tion I have indicated at 17 a thimble to ich the rear end of the tube 11 may be per- nently connected by the use of the clamp , said thimble having a snug fit upon the ward end of the said casing. Should it desirable for any purpose to temporarily hdraw the blast from the engine cylin- s and to utilize the same for the purpose emoving dust, dirt, gases, or the like from operating parts of the machine, the fore- ng means will provide for such detach- nt of the tube 11. As a suitable means to port the tube 11 and its thimble 17 when conn ted from the casing 12, I provide rac 18 mounted upon the frame of the chine. The tube 11 being of flexible terial and of any suitable length, will dily permit of such movement.

At 19 I indicate a conventional form of ket for the engine, which jacket may be any suitable character, such as for air, ter, or the like, the purpose being to pro- le a cooling medium for the engine. Such ucture is shown diagrammatically only for reason that it, *per se*, constitutes no part my present invention. In this connec- n it will be understood that such mechan- l just described exemplifies one of the aptations of my improved mechanism.

The funnel 10 may be constructed of any table material and I provide a bright highly polished inner surface therefor. ar the rear end of the funnel, and sub- ntially in line with the longitudinal axis ereof is mounted a head light of any suit- le construction, the same being indicated an electric lamp 16, having a small spher- l or parabolic reflector 16′ located between e same and the apex of the funnel, the mp and reflector being so positioned as not materially intercept the blast of air rough the funnel, the same following the rface thereof almost entirely. With the mp so positioned, the funnel 10 serves not ly as an effective reflector or magnifier for e light but also as a means whereby the es of the occupants of the vehicle are pro- cted or shielded from the blinding effect of e light. The conductors for the lamp 16 ll of course be made to pass through or into e funnel in any desired manner, and the lamp devices will be supported in place substantially as indicated. The funnel 10 serves furthermore as an effective attachment for the automobile horn apparatus, and as one of the means of carrying out this function I have indicated the horn tube as being directly connected with the said funnel near the rear end or apex thereof, the said tube opening directly into the interior of the funnel at said point. In lieu of the horn connection just described it may be preferred in some cases to employ the usual form of horn and locate it or the bell thereof entirely within the funnel 10. The construction is such that by the use of a comparatively small horn thus located the funnel 10 will insure a sufficiently loud blast for all practical purposes. It will be understood that the funnel 10 constitutes broadly an air receiver, the larger end of which is arranged toward the front end of the machine.

In connection with the manner of distributing the air from the funnel or receiver 10 it is to be noted that the usual water radiator mounted at the front end of the automobile is dispensed with. Should some radiating appliance similar to the above in its operation be found necessary or desirable for use, a special construction of the same in which the radiator means is arranged directly on top of the cylinders, and in the path of the air blast leading from the air receiver 10, would be employed.

Having thus described the invention what is claimed as new, is:—

1. In automobile construction, the combination of running gear, an air receiver supported thereon and having an open end arranged toward the front end of the machine, a motor, means for conveying air from the air receiver to different parts of the motor, and means for variably controlling the relative quantities of air passing to said parts.

2. In automobile construction, the combination of running gear, an air receiver supported thereon and having an open end arranged toward the front end of the machine, a motor, a valved casing, connecting means between the air receiver and casing, the latter being arranged to distribute air to different parts of the motor, and means for adjusting said connecting means so that air may be directed against mechanism separate from the motor.

3. In automobile construction, the combination of running gear, an air receiver supported thereon and having an open end arranged toward the front end of the machine, a motor, a cooling jacket for the motor, a distributing casing having a plurality of passages communicating with the cooling jacket, valves controlling said passages, means for operating said valves, and a tube connecting the distributing casing with the air receiver.

4. In an automobile construction, the com-

bination of running gear, an air receiver supported thereon and having an open end arranged toward the front end of the machine, a motor, a cooling jacket for the motor, a distributing casing having a plurality of passages communicating with the cooling jacket, valves controlling said passages, means for operating said valves, a tube connecting the distributing casing with the air receiver, and means for holding the tube in adjusted positions, either in connection with the distributing casing, or disconnected from the casing to supply air to other parts of the operating mechanism.

5. In automobile construction, the combination of running gear, an air receiver comprising a funnel arranged at the front end of the machine, means connecting the smaller end of the funnel with the operating mechanism of the automobile to supply air to the latter, the inner sides of the funnel being provided with a reflecting surface, and a light arranged within the body of the funnel as specified.

6. In automobile construction, the combination of running gear, an air receiver comprising a funnel arranged at the front end of the machine, means connecting the smaller end of the funnel with the operating mechanism of the automobile to supply air to the latter, the inner sides of the funnel being provided with a reflecting surface, a light arranged within the body of the funnel as specified, and a secondary reflector arranged in the rear of the light and in spaced relation to the inner sides of the funnel for coöperation with the latter.

7. In combination with an automobile, an air receiver mounted thereon with its open end toward the front of the machine, means for conveying air from said receiver to the operating mechanism of the machine, and sounding means connected with the air receiver aforesaid.

8. In combination with an automobile, an air receiver supported thereon and comprising a funnel the larger end of which is arranged toward the front end of the machine and the inner sides of which are provided with a reflecting surface, means connected with the funnel receiver to convey air received thereby to the operating mechanism of the machine, a light arranged within the body of the funnel so that its rays will be reflected thereby, and sound creating means connected with the air receiver near the rear end portion thereof.

In testimony whereof I affix my signature in presence of two witnesses.

MANANDER MOTT JOHNS.

Witnesses:
DENT Z. HOLCOMB,
H. H. HARVEY.