P. J. O'NEILL.

MOTORCYCLE.

APPLICATION FILED FEB. 1, 1919.

1,337,946. **Patented Apr. 20, 1920.**

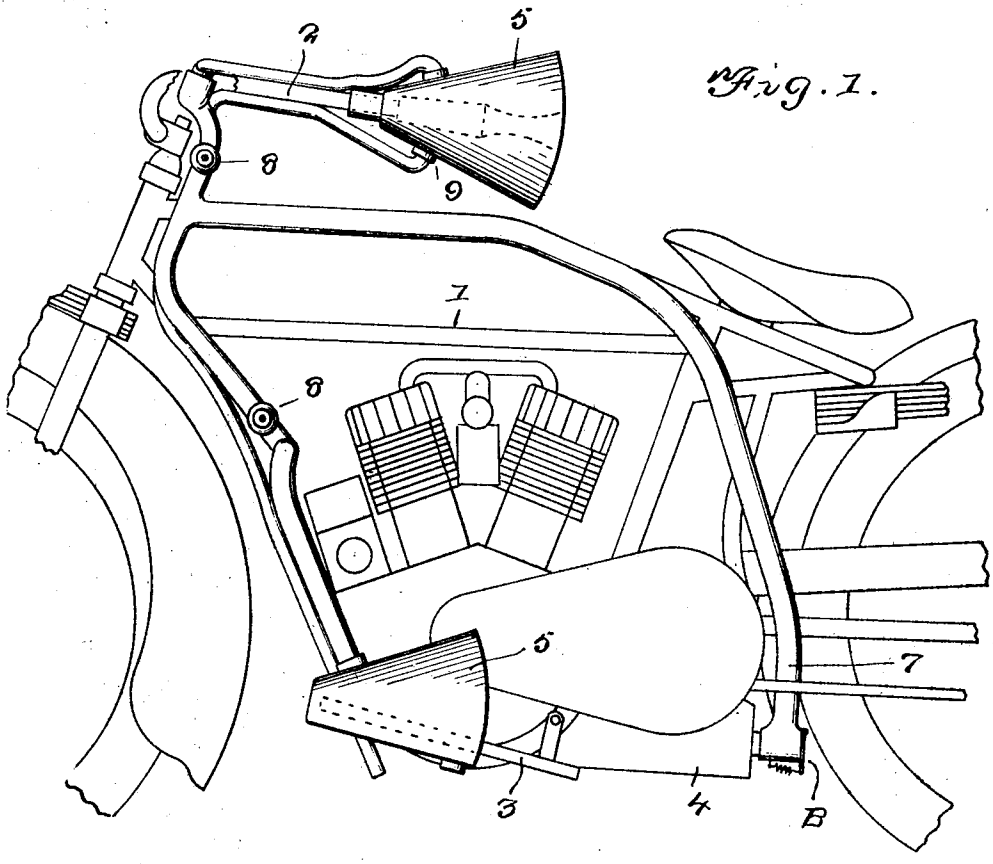
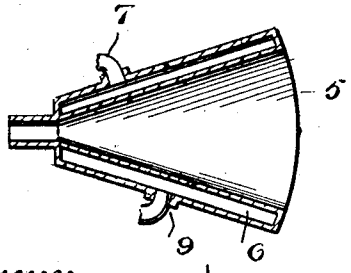


Fig. 1.

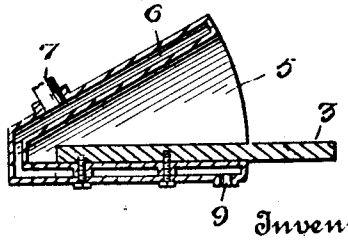
Fig. 2.



Witnesses

E. R. Ruppert.

Fig. 3.



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UNITED STATES PATENT OFFICE.

PAUL J. O'NEILL, OF DETROIT, MICHIGAN.

MOTORCYCLE.

1,337,946. Specification of Letters Patent. Patented Apr. 20, 1920.

Application filed February 1, 1919. Serial No. 274,458.

To all whom it may concern:

Be it known that I, PAUL J. O'NEILL, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented new and useful Improvements in Motorcycles, of which the following is a specification.

This invention relates to a novel construction of means for warming the hands and feet of a motorcyclist by the exhaust gases.

The object of the invention relates to the construction of the radiators for the foot rest and handle bars of the motor cycle and to the means for carrying the exhaust gases from the muffler to said radiators.

The invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a side view of part of a motorcycle showing my invention in place thereon.

Figs. 2 and 3 are detailed views of the radiator.

In these views, the frame of the motorcycle is indicated at 1, the handle bars at 2, the foot rest at 3 and the muffler at 4. 5 indicates the radiators which are placed on the handle bars and on the foot rest. As shown, these radiators are of substantially funnel shape so as to inclose the grip of the handle bars and the foot rest in such a manner that the feet and hands of the operator can be introduced into the radiators without interfering with the proper operation of the parts. Each radiator has its walls of double formation so as to leave a space 6 into which the gases circulate. If desired, I may place baffle plates in said spaces. The radiators are connected with the outlet of the muffler by the means of the piping 7, which is suitably secured to the frame bars of the machine. Valves 8 are placed in said piping to control the passage of the gases to the radiators. The radiators are supplied with the outlets 9. The radiators are secured in position by suitable clips or the like so that they may be removed and replaced, when desired.

I place an outlet B in the muffler controlled by a valve having a weak spring so that when the valves controlling the flow of exhaust gases to the radiators are closed the exhaust will overcome said spring so as to pass through the outlet.

It will be seen that the gases flowing through the radiators will heat the hands and feet of the operator and at the same time said radiators will act as shields to protect the hands and feet from the cold air.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understod that I may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claim.

What I claim is:—

The combination with a motorcycle of funnel-shaped casings attached to the frame thereof and surrounding the hand grips and the foot rests, said casings having double walls, inlet and outlet pipes communicating with the space between the double walls of the casings, valves in the inlet pipes, a pipe connecting the inlet pipes with the outlet of the muffler, said pipe having an opening therein and a spring controlled valve controlling said opening.

In testimony whereof I affix my signature.

PAUL J. O'NEILL.