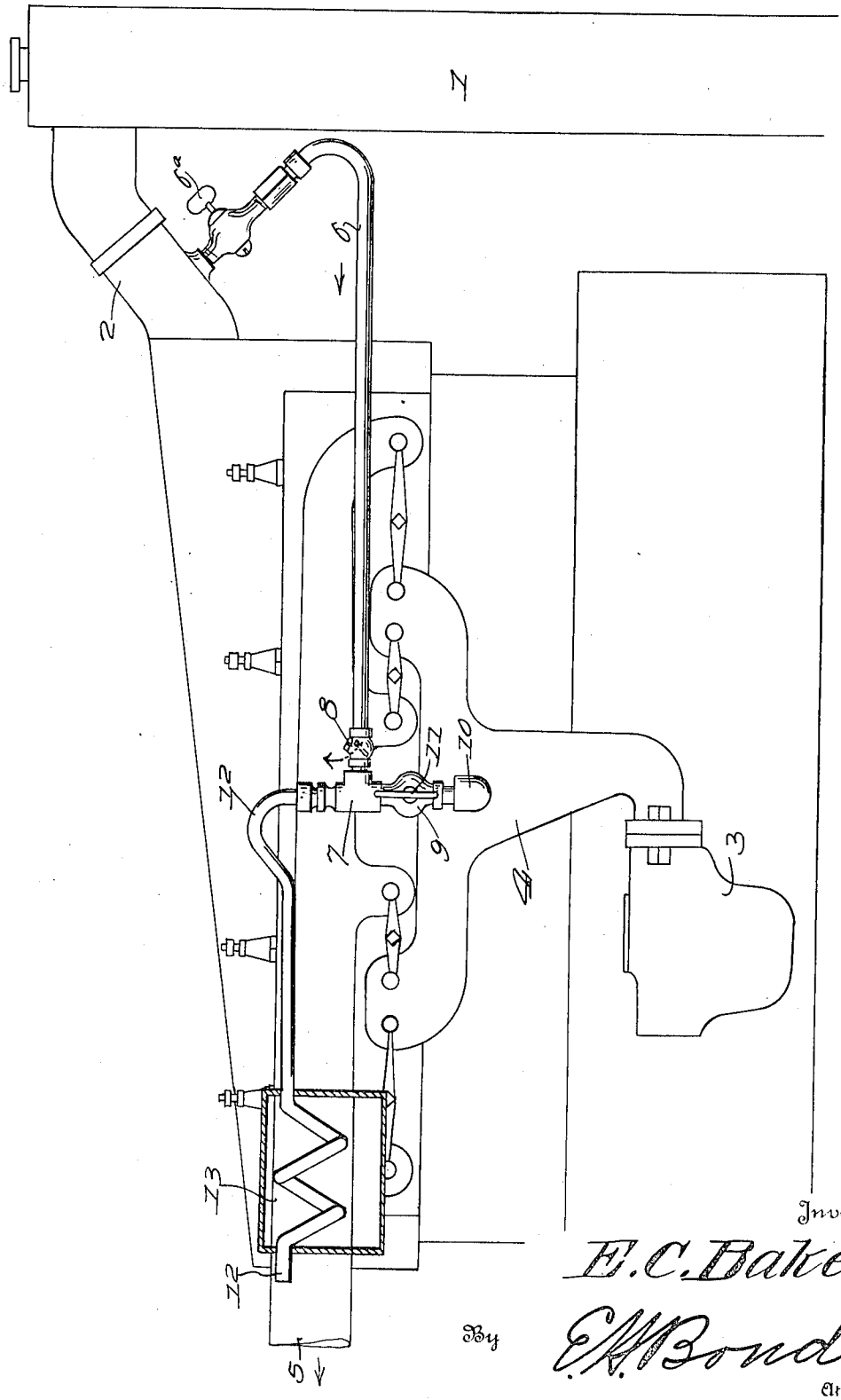
E. C. BAKER.

EXPLOSIVE ENGINE ATTACHMENT.

APPLICATION FILED JUNE 20, 1917.

1,291,718. Patented Jan. 21, 1919.



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EXPLOSIVE-ENGINE ATTACHMENT.

1,291,718. Specification of Letters Patent. Patented Jan. 21, 1919.

Application filed June 20, 1917. Serial No. 175,801.

To all whom it may concern:

Be it known that I, EARL C. BAKER, a citizen of the United States, residing at Sigel, in the county of Shelby and State of Illinois, have invented certain new and useful Improvements in Explosive-Engine Attachments, of which the following is a specification.

This invention relates to certain new and useful improvements in attachments for fluid driven motors or engines and it has for its objects among others to provide a simple, cheap, yet efficient, reliable and durable attachment which will not only remove and prevent accumulation of carbon, but will form a cushion for the piston or pistons, making the motor run almost silently or without noise, and which will also increase the speed and give greater mileage for a given amount of gasolene.

As is well-known, most of the gasolene on the market at the present time is of a poor grade and in many instances practically no better than the best grade of coal-oil. All coal-oil driven motors or engines require a certain part of water mixed with the coal-oil in order to obtain the best results. The same is true of the poor grade of gasolene.

This attachment works on a steam principle, being connected to the water jacket on the engine to feed a small portion of water direct into the intake manifold, together with a hot air attachment so arranged that when the air comes in contact with the water it will convert the same into a hot vapor, which, upon reaching the cylinder, turns into steam and increases the speed of the engine. I also find that by the employment of this attachment I materially cut down oil expense.

The invention is applicable to any type of engine and can be readily applied to engines already in use.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be particularly pointed out in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification, and in which I have shown a side elevation of an engine of known type and such parts as are necessary for a clear understanding of the present invention with portions in section.

Referring to the drawings,

1 designates a radiator, (or it may be any other source of water supply) 2 being the connection from the same to the water jacket of the engine, which latter may be of any of the well-known types now in use, or my improvement will be found applicable to any improved style of engine.

3 is the carbureter, 4 the intake manifold and 5 the exhaust. The other parts of the engine may be as usual and it seems unnecessary to illustrate or describe in detail any such parts.

6 is a pipe shown in this instance as connected with the connection 2 leading from the radiator and provided with a valve controlled by a suitable stem 6^a, for an obvious purpose. This pipe extends, as shown in the drawing, to the casting or casing 7 with which it is connected, and at some suitable point, adjacent this member 7 being found convenient, it is provided with an automatic check valve 8 opening in the direction of the arrow. This chamber or casting 7 is connected by a pipe 9 or the like with the elbow 10 or the like which connects with the intake manifold 4. The pipe 9 is provided with a valve controlled by the handle 11 to shut the water and air off to start the motor when cold.

12 is a pipe communicating with the atmosphere at one end and at the other end connected with the chamber or casting 7. The air entering this pipe is designed to be heated by the exhaust, and this may be accomplished in a variety of ways. In the present instance, I have shown (although I do not intend to be restricted thereto) a drum or enlarged cylinder or the like 13 through which the exhaust pipe 5 passes and through which also passes the pipe 12 so that the air is heated by the exhaust.

The drum or cylinder 13 forms a heating chamber in which the air is heated by the exhaust so that the air passing through the pipe 12 is heated.

In practice, the water from the connection 2 is fed through the pipe 6 to the casing 7, and, the valve in the pipe 9 being open, hot air is sucked through the pipe 12, being heated in its passage by the exhaust, and the commingling of this water and hot air creates steam which is introduced into the cylinders. The feeding in of the steam through

the manifold increases the speed of the engine, prevents the formation of carbon and removes any carbon that may have accumulated in the cylinder and thus increases the speed, as well as tending to silence the motor.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What is claimed as new is:—

An explosive engine attachment comprising a radiator, a connection between the same and the water jacket of an engine, a pipe connected with said connection from the radiator, a valve in said pipe, a casing with which said pipe is connected, an automatic check valve in said pipe, an intake manifold, a connection between said casing and the intake manifold, a valve in said connection, and a pipe leading to said casing, and means embracing said last-named pipe and through which the exhaust pipe passes, whereby the air passing therethrough is heated by the exhaust of the engine.

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

EARL CUBA BAKER.

Witnesses:

WILLIAM PAYNE MORRIS,

ALEXANDER W. BIGLER.