

MOTORS AND MOTORING: A Page Full of Interest to the Owner or Prospective Owner of an Automobile.

A Substitute For Gasoline

Remarkable New Fuel Invention.

Increasing costs of gasoline and repeated stories of the shortage of this universally used commodity makes any invention that promises to supplant gasoline of interest to everyone. The following article taken from an authentic publication in Webster City, Iowa, will be particularly interesting:

Without one drop of gasoline or oil of any kind and securing all power from the oxygen of the air, Arthur Bundy yesterday drove an Overland truck about the entire city the entire day and thus demonstrated beyond question the practicability of his invention—using the oxygen of the air for all power. The oxygen is drawn from the air by certain chemicals, which Mr. Bundy has compounded, and not only will it produce power but light and heat also are obtained by the same process.

The chemicals are inexpensive, and running the truck the entire day cost just 5 cents. "The chemicals are taken from the natural resources that are all about us," declared Mr. Bundy this morning. "They cost practically nothing, but they are not inflammable unless there is air pressure; not explosive, and a child may drink them and it will not hurt him."

Runs Smoothly

The generator containing the chemicals was placed on the side of the Overland truck and a small tube connects it with the large tubes of the car engine. A small air-hole in one of these tubes allows the air to pass in and a cap over this opening is regulated by the throttle of the machine. The more the cap is raised and the more air that is allowed to pass into the tubes, the faster the engine runs. There is not one drop of oil of any description used in this new process and the Overland which Mr. Bundy used yesterday, a model of about 10 years ago, runs as smoothly and evenly as the most expensive model car on the market to day.

At present the regular car engine is

being used, but the inventor now has under way an engine which will occupy only about one-third as much space and which is especially adapted to the oxygen power process. It will weigh not over eighty pounds, will have no spark plugs, no carburetor and the numerous other contrivances necessary on the gasoline motor. The engine is a series of rotary cells through which the air is forced by the chemicals and will occupy a space not more than 9x18 inches and will furnish one horsepower for each pound of weight.

Used As Heat

With the same chemicals to draw the air qualities, a flame with sufficient heat to cook over, or to warm a house, is produced and Mr. Bundy this morning also demonstrated this process. A. J. Peterson, cashier of the Webster City Savings Bank, and one of the promoters of the Bundy invention, plans to use these chemicals in his furnace this winter, and will order no coal if it is found sufficient heat can be produced to warm the house. The cost of heating with chemicals will be only a fraction of per cent. of that for heating with coal.

Making Heat

Demonstrating the heating method, Mr. Bundy took a small tank containing the chemicals, and over the end of this held a lighted match. There was no ignition. The inventor then attached a gas burner to one end of the tank and placed the other end to his lips, drawing the air in, and holding a lighted match over the gas burner, a clear blue blaze immediately leaped up. The burner itself, the iron frame, does not become hot from the blaze, but only above the blaze, where the oxygen is separated from the air by the chemicals, there is heat.

The benefits which will be derived from this invention, the saving which will be realized by its practical use will be invaluable to the world, and the fact that Mr. Bundy has a "real thing" is recognized now by those who at first scoffed at the idea.

"Of course it is not perfect," he declares. "There are numerous details

CLEAN VALVE CAP ESSENTIAL TO LONG LIFE OF AUTO TIRE

One part of an automobile tire which comes in for too little attention is the valve. Treated properly this inexpensive but highly important part of a tire's mechanism will function satisfactorily throughout the life of the tire, but when mistreated it often causes annoyance.

When a valve begins to give trouble it may be assumed in nearly every case as a practical certainty that dirt has worked into the valve and is the main cause for improper functioning, says the United States Tire company. This being the case, the principal attention a motorist need give the valve is simply to see that all dust and dirt are excluded from the interior of the valve.

There is a rather common belief that the valve cap is an unessential thing and that it makes little difference whether a cap is used or not. But this idea is entirely erroneous and motorists who do not use the valve cap are in danger of valve trouble. When the cap is not used there is a strong likelihood that dirt will work down into the valve and ultimately produce a valve leak.

LEAKING VALVES

Loss of power is not the only trouble that is caused by leaking valves. The hot flame which escapes past the valves distempers the valve stems, softens the valve springs, corrodes the stem bearing and forms a sediment that prevents free action.

The average length of life of an automobile is 6 1/2 years.

TRUCK LONGEVITY

Automobile records show that some old motor trucks, still running, have travelled in excess of 300,000 miles, more than six times the distance around the world.

to be worked out and perfected, but it will not be long before people will be cooking with air, heating their homes with air, and running automobiles and motors of every kind with air."

SPARK PLUG ILLS

It will sometimes be found that a certain cylinder is missing fire. If the plug has been examined and cleaned, and seems to spark well when the car is running on the level or down hill, but refuses to do duty when a hill is reached, it is an almost certain sign that the plug in that particular cylinder is short-circuiting, either from dirt or oil on the inside, or perhaps because it is cracked. The remedy is to change the plug for a new one.

HOW TO CLEAN VALVE STEMS

A very simple way of cleaning valve stems which are under suspicion of harboring carbon deposits is to inject a little kerosene in the air valve of a carburetor while the engine is running. In this way a little of the kerosene finds its way down the valve stems and softens and washes off the carbon. It is no bad idea to do this once a month or so.

MONTHLY INSPECTION

A man really ought to go over his car about once a month, inspecting all the nuts and bolts to see that everything is tight and shipshape. It doesn't take long and is insurance against breakdown or accident that is about as cheap as anything will ever be.

Keep up the proper air pressure in your tires. Underinflation and overloading together account for nine-tenths of the trouble.

OUR APPLE CROP WAS WORTH TEN MILLIONS

That 3,334,660 barrels of apples, valued at \$24,396,210, were produced and sold in Canada during the year 1919 is stated in a preliminary bulletin on last season's Canadian apple crop issued last week by the Dominion Bureau of Statistics and based upon information gathered by the fruit branches of the Dominion.

Nova Scotia, Ontario and British Columbia, in the order named, are the great apple producing provinces of the Dominion.

Nova Scotia produced 1,600,000 barrels valued at \$9,989,680; Toronto 878,860 barrels, valued at \$7,030,880; while British Columbia's production was 2,236,000 boxes, equivalent to 745,300 barrels, and valued at \$6,540,000.

The Quebec apple crop amounted to 70,500 barrels, valued at \$527,950, while New Brunswick produced for sale forty thousand barrels, worth \$307,400.

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