## **Engine Trouble** Often Traced to Improper Oiling tight.

Autoists Should Use Lubricant Prescribed by Design -Motors May Run 25,000 Miles With Care.

It is unfortunate that a great many owners receive the wrong information regarding engine lubrication, parts. After the first 1,000 miles and thereby remove many months the of useful life from the engine and and the engine is said to be "free." many extra dollars from their pockets. Imagine a combination of exremely fine fitted parts working at the his work for hours and days and in." the engine parts must work to a comes off the press this week this work for hours and days and even years. Imagine a crankshaft running fit. During this period bearings, fitted to a fraction of onethousandth of an inch, having to bear loads of many tons, trying to give a good account of itself with a volume of dirty, gritty, old oil passing over it. All interior engine parts are fitted more accurately than many parts in a high grade watch. Pistons and rings, camshaft bearings, connecting rod bearings etc., all are worked to close limits, and in order that they live long and run quietly during life they must always be well lubricated with the right kind

The selection of the right brand und grade was taken up in a pres rious article. The grade of should not be changed except for violent atmospheric changes-that is to say, summer and winter in most Without exaggerating, I believe that half the owners of automobiles change from a light or me lithe engine is assumed to be getting old. I know many owners who do this after the first year, and others it is right, who wait a little longer. An energine should never take any other monthly make the interior as clean never be changed except as needed interior of the engine.

for winter and summer conditions. The reason is easy to see when one understands the actions that take place within the engine.

New Engine Tight. The new engine is, as we say, ght. In order that the pistons,

get to a working fit, the engine i taken through a running period. You are told that a new engine should not be operated at high speed for continued periods until after the first 1,000 miles. The reason for this is that during the working period when the parts are fitthemselves, or, in other words adjusting their working surface, the clearances are small and the lubricant must work itself between tight parts have worked themselves in It is easier to crank it doesn't use so much fuel, it has more power and pep and runs quieter. Just like metal is scraped off cylinders, walls and pistons, bearing metal in dust form is removed from the bearings. These very fine metallic particles na-turally mix with the oil. Metal even of such fineness has a cutting action, 84th birthday. I look back down and it is for this reason that it must the long road of years and think be removed. If enough of it de-posits it may even clog an oil fine. That is why you are told to drain miles. It is wise, however, to drain worlds and clean the oil pan every 500 miles "All

After the run in period of the engine little if any wear will occur space, and about its inhabitants, hu-tor as many as 25,000 miles if lubri-man and otherwise, and this knowlcation is carefully watched. I know edge has helped to make me feel at of many cases of cylinders and pistons that have been used for over 50,000 miles without reboring or re- to feel at home on this planet, and placing because the oil was changed have as happy a life as mine has often enough. If you can keep the been, and you can do this, if you oil clean always you will give years will live the simple life, avoid tea um oil to a heavy engine oil when of additional life to the engine. Do not change the grade of oil; stick to one brand after you have decided

grade of oil than the one called for as a plate. Removal of the pan will Jolla, California." by the design, and this grade should afford an opportunity to inspect the

Was 84th Birthday Greeting to Every Child's Magazine Published rings, bearings and even the gears,

> Omaha is the recipient of the last message of John Burroughs, noted naturalist, who died last Tuesday. This message was sent to the society, which is composed of the readers of Every Child's Magazine,

Every Child's Magazine Audubon published in Omaha by Miss Grace John Burroughs was to be 84

cars old Sunday. And his last message was a birthlay message which he entitled, "The ov of Living."

It will appear in the April issue omes off the press this week, Here is his message:

"To my dear young friends of the Every Child's Magazine Audubon Time Draws Near.

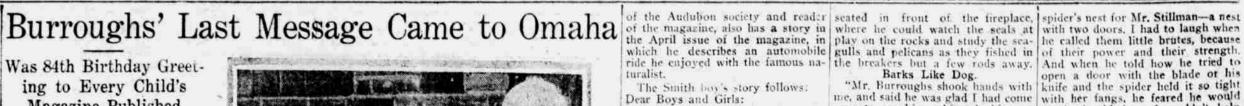
"As the time draws near for my what a good journey it has been.
"If I could live twice as long, I could not exhaust the beauties and your crankcase after the first 500 wonders of this best of all possible

home on our planet.

hope each of you will learn and coffee and tobacco and alcohol. and if you will learn the biograph-

"Your friend, John Burroughs, La In the same issue of the magazine fields, appears a tribute to John Burroughs "On

dren. He is never happier than when surrounded by his young friends, and ing is returned on their part, for they all love Burroughs. His home ical value of love and good-will at Riverby is visited by hundreds toward all things both great and of boys and girls, especially during the summer mouths when nature is at her best, and he can roam with them through the woods and "On his birthday the naturalist



"I feel as if I were acquainted with

you, and you with me, because Mr. Stillman has often told you about my field work with him, and of the many happy days we have spent together in the woods and fields. 'It has been lots of fun to hunt for

photograph the cunning baby birds, they barked at each other. While looked at the hafk, and told me so that the boys and girls who read Every Child's magazine, as well as ing near the house, Daddy took several popular eastern publications, may learn about the habits of owls, wild canaries, hummingbirds, orioles and other birds,

Gathers Berries.

"So I want to tell you about a lovely afternoon we spent with all got in our big car, and Daddy John Burroughs, when Daddy took drove up the steep side of the moun-John Burroughs, when Daddy took drove up the steep side of the mounts of the steep side of the steep side of the mounts of the steep side of the steep s I talked with the great naturalist last year. about the birds and seals and trap-

Hudson

and

Essex

Barks Like Dog.
"Mr. Burroughs shook hands

scals and their habits. He said he had named these hair seals "the hounds of the sea" because they bark like dogs. Then he took a walk we stood under a large palm growsome pictures for us.

"Before we left for a ride to the top of Mount Soledad, Mr. Burroughs introduced us to Ursula Burroughs, his ganddaughter, and Dr. Barrus' two nieces. Then

"As we rode along Mr. Burroughtold us how he trapped spiders at "When we reached Mr. Bur-roughs home, Dr. Clara Barrus, his secretary, led us to the library. There we found the dear old man of how I had found a rare trap-door

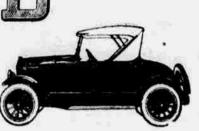
open a door with the blade or his with knife and the spider held it so tight me, and said he was glad I had come with her fangs, he feared he would over to see him. After looking at Mr. Stillman's photographs of birds and animals, he began talking about just the same experience with these

As we drove through the valley on our homeward journey I saw a large hawk flying over our heads, "It has been lots of fun to hunt for birds' nests, and help Mr. Stillman out in the ocean, and laughed when its powerful claws. Mr. Burroughs

about its habits.

When it was time to say good by to Mr. Burroughs, I told him how much I had enjoyed being with him, and that I wanted to be a naturalist like himself when I grew up. Then he patted me on the head, and said, "All that I ever had, and still have, may be yours by stretching forth your hand and tak-





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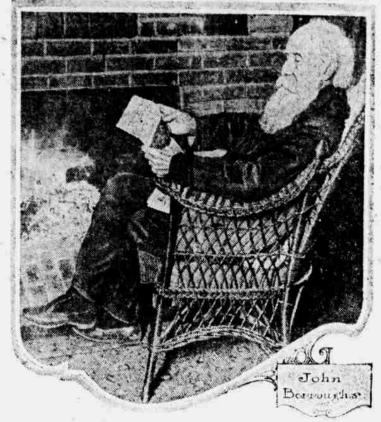
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under the heading, "Burroughs and receives thousands of All my life I have been trying the Children," written by Albert E. many representing entire classes or at present in San Diego, Cal.

Editor Stillman's tribute tollows: One of the most beautiful sides of the character of John Burroughs is his fondness and love for chil-

to find out what I could about this Stillman, editor of the Audubon de- whole buildings of school children. Car Performance big globe of ours swimming through partment of the magazine, who is Mr. Burroughs never neglects the children's letters. Dr. Clara Barrus his secretary, endeavors to send a letter of thanks to each admiring young friend. For several days before his birthday the postoffice at the lit-Makes Car Dividends tle village of West Park is swamped

with work, and the postmaster is forced to throw up his hands when his helpers bring in mailbags the letters from boys and girls. Honored by Children. April 3d is celebrated each year

the school children of West Park honor of the distinguished naturalist and poet, John Burroughs. Early in the morning they visit the woods and sun-warmed hillsides in search of pussy willows, hepaticas, arbutus, bloodroots and other springtime flowers. After gathering armfuls of the fragrant blossoms, the merry throng make their way to the village school to decorate the photograph of their good friend with graceful branches of pussywillows. Then the flowers are arranged into attractive bouquets.

When special exercises composed of singing, recitations and readings from Mr. Burroughs' writings are over, the children march in a long procession to Riverby, and enter his gate; the boys carrying large American flags, the girls bearing their love offerings of wild flowers. Gretted by Friend.

Arriving at the Burroughs home, the happy children are greeted by their genial friend, and invited to watch him sugar off. The naturalist visits the maple trees on his birthday to draw the sap, and boil it in a uge iron kettle over an open fire. After watching the interesting process of sugar-making, and eating their fill of the delicious saveets at the birthday feast, the naturalist's young friends are entertained with stories of birds, flowers, animals, insects and other outdoor life, gathered through the many years of his study of the wonders to be found

George Salkeld Smith, 12, member

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