

### CHARMING PLACE FOR WEEK END IS EASY TO GET TO

Battleground Lake, Hidden Away In Forest of Tall Pines, Is Delightful Little Body of Water.

### TRAVELING IS ENJOYABLE

Except for Few Places Roads to Resort Few Miles Northeast of Vancouver Are Not Bad.

Hidden away in a forest of tall pine trees, quiet and exclusive, where one may spend an enjoyable Sunday, holiday or week-end, lies a delightful little body of water, clear and sparkling, with a name that seems antagonistic to its quiet and serene surface—it is known as Battleground lake. This pleasant spot was sought out last Sunday by a party from the C. L. Boss Automobile company in a Maxwell motor car.

Fairly good macadamized roads alternating with short stretches of pavement, made traveling enjoyable except in a few places where the surface was choppy. Twenty miles northeast of Vancouver it may be found, by traveling the Fourth Plains road leading beyond Vancouver barracks, turning to the left a short distance beyond Orchard six miles out and following the main traveled road through Brush Prairie and the town of Battleground. After another left turn beyond this town a drive of approximately three miles brings one to a sign board which directs the motorist to the lake.

**LAKE PEEPS THROUGH TREES**  
A half mile up through a twisting road which calls for a shift of gears, and the lake peeps through the trees. It strikes one as peculiar that it is necessary to climb up hill to reach the lake. Up and up the motor winds until the pinnacle is reached. Then there is a short descent to an open space where machines may be parked for the day. The cars may, however, be driven to the very edge of the lake. A rain which fell last Sunday, however, rendered it inadvisable to attempt this as the steepness of the hill and the slickness of the surface promised difficulty in coming back.

After reaching the lake the reason for the hill climb is discovered. This body of water is a crater lake 500 feet above sea level. It has no visible outlet or inlet. Divers have determined that the water springs up in about its center, but just where the outlets are has never been discovered. A mile or two away on the sides of the mountain—streams gush forth on some of the farmers' homesteads. The depth of the water has never been satisfactorily determined either. A line 1800 feet long has been lowered in places and failed to touch bottom.

**WATER VERY SOFT**  
The water in the lake is very soft, and in the shallow northern edges, where bathing pavilions are situated, is warm and delightful for swimming. These bathing pavilions, with piers for boating, a dance pavilion, an ice cream and confectionery parlor, and a table tennis benches for the convenience of picnickers are all under the supervision of Captain J. W. Young, a Spanish-American war veteran.

### Injecting Water In Cylinders Far From Beneficial

The United States bureau of standards has completed tests of the effect of water injection into the cylinders of engines. The results arrived at have been summarized by the experts of the bureau of standards somewhat as follows:

"No appreciable effect is produced upon the power, fuel economy and general operation of a gasoline engine by the injection of water into the cylinders at rates varying from 0.03 to 0.04 pounds per brake horsepower hour. When water is injected at a higher rate than 0.04 pounds per brake horsepower there is an appreciable decrease in the power output, fuel economy and smoothness of operation."

"It is quite probable that in a badly carbureted engine, or an engine of defective design, in which the air has hot spots that cause preignition, the injection of water results in an increase of power. In an engine of this type, softening and slight reduction of carbon, this reduction not exceeding 25 percent and being most noticeable on the piston heads and valves. However, water injection at the maximum rate also causes a considerable reduction of power."

### 11,350 Miles of Road To Have Federal Aid

Projects for improving highways totaling 11,350 miles, to cost \$108,283,329 and on which federal aid amounting to \$43,076,176 was requested, have been approved by the bureau of public roads to date. This includes 1138 projects of which 512 miles have been completed at a cost of \$6,870,451, of which \$2,892,491 was paid in the form of federal aid by the government.

**Be Careful of Washers**  
In reassembling a fiber disk universal joint care must be taken to have the right number of washers separating the disks. Two washers separate each disk, and one each is under the head and nut of the bolt. The nuts holding the bolts should be kept tight at all times.

**Speedometer Drive**  
Don't forget the speedometer drive. This hard-working part needs a little lubrication, a few drops of oil once a week and the owner seldom remembers it. Given this little attention, the drive will operate quietly for a long period without other care.

**Slipping Belt**  
When the leather fan belt develops considerable slipping, it should be tightened. It is very probably because the rough side of the leather is against the pulley surface. The smooth side of the leather has a much greater traction adhesion.

### MOTOR CAR HUSTLERS IN ASSEMBLY



Group of the White company salesmen and factory division managers in front of the administration building of the White company at Cleveland, Ohio.

### Telegraph Poles And Hydrants No Bother to Fords

A recent newspaper dispatch from San Jose told of a Ford car in that city which collided violently with a telegraph pole a foot in thickness and broke the pole squarely off, so that it fell across the machine. When the pole was lifted off, the car was cranked up and went on its way, somewhat battered, but still in condition to operate. Not long ago photographs from Phoenix, Ariz., showed the feat of a Ford in that city which butted a street car off the track. The Ford smashed one wheel, but was otherwise practically uninjured. A San Diego Ford that was parked on a hill escaped from a street cleaner who was trying to move it, and ran for a block and a half, finally winding up against a fire hydrant. The car snapped the hydrant off and came to rest on it in such fashion that it deflected the young geyser from the main directly into the window of a drug store. The force of the stream shattered the plate glass and the drug store was almost washed away before the water was turned off. The Ford was dried off a little and driven away under its own power. At Redlands a Ford collided with a big multi-cylinder car of more than twice its weight. The big car was simply demolished, while the Ford was practically unharmed.

### Wisconsin Licenses May Reach 230,000

Predictions that Wisconsin will register at least 230,000 passenger cars during 1919 are made by A. J. Cobban, supervisor of motor registry in the department of state, on the basis of the number of cars licensed up to June 1, namely, 197,000. In addition \$100 trucks have obtained certificates. In 1918 the total car registry was 193,000, with 6800 trucks additional. Applications are being received at a rate which make it probable that the 1919 figures will be exceeded by 35,000 to 40,000, and the truck figures by 3200 to 3500.

### Real Questionnaire Must Be Filled Out

New Yorkers, when they apply for a license to drive an automobile or motor truck, will have to tell whether they have ever gone under any other name or alias, ever been convicted of a felony, ever been incarcerated in any asylum, use intoxicating liquors, are addicted to the use of morphine or any narcotic drug, are suffering from any nervous affection, and other personal matters. There are so many of these that a tempter has been aroused around the head of Francis M. Hugo, secretary of New York state.

**Gains Fast in Cars**  
There are 12,713 more cars in the District of Columbia this year than in 1918. During the last 11 months 38,878 license tags were issued, as compared with the same period for the preceding year. But 34,347 tags were issued during 1917-1918 less than the number in 11 months of this year.

**Magneto Failure**  
Irregular magneto action sometimes occurs because of end play in the armature bearings. The end motion of the armature may be sufficient to upset the action of the contact break and render the time of firing uncertain and irregular. Inserting a rubber washer to take up the slack is the correct remedy.



**PREPARE For That Long Trip Equip With Universal Tire Filler**  
RIDES LIKE AIR  
MORE MILES FOR TIRES  
ELIMINATES TIRE TROUBLE  
GUARANTEED 100,000 MILES  
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441 Hawthorne Ave.  
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### AUTOMOTIVE FIRE ENGINE IS LATEST

New Apparatus on Exhibition Is a Regular Fire Department Rolled Into One Machine.

C. W. Connell, manager of the White company in Portland, has on display in his local salesroom the last word in the way of an automotive fire "engine," the specimen being known as the Type B, triple combination, pumping engine, chemical engine and hose car. The plant is a whole fire fighting department in itself, combining in the one piece all of the various types of apparatus with the exception of the ladder truck, and even some ladder equipment is carried. Limitations in construction of hand drawn and horse drawn apparatus did not permit of such combination, but all obstacles have been overcome by the utilization of motive power, and as a result the White Type B plant is generally recognized by fire-fighting experts as being near perfection.

**STANDARDS ARE MET**  
Type B is constructed to meet the requirements of serviceability established by standard practices throughout the country, which recognizes the worth of medium sized pumps designed to deliver two standard fire streams with a safe margin of reserve power, well balanced, of minimum weight and substantially well built—to furnish that degree of dependability, flexibility and endurance so essential in fire department service. The many advantages of medium sized pumps are reflected in the large percentage of purchases of this type of fire chiefs all over the country. Type B pump is 600 gallons per minute, certified by the endurance rating test conducted by the national board of fire underwriters, which test shows a large margin of excess performance over the requirements.

**EXCEEDS REQUIREMENTS**  
The pump also has a record of a 60 hour night and day run, without a stop, delivering an average of 625 gallons of water per minute, establishing a world's record of endurance for heavy fire pumping engines. This test was made at the convention of the International Association of Fire Engineers, held at Chicago in June, 1918.

Mr. Connell has the engine on exhibition for the purpose of illustrating the feeling much attention from buyers as well as from experienced fire fighting men.

### Oldtime Auto Laws Sound Foolish Now

The absurdity of some of the early automobile laws is evinced by the following item which appeared in a motor magazine in 1900: "Recently a chauffeur whose machine was broken down was taken in tow by another horseless carriage, but a policeman appeared on the scene and placed him under arrest, because two vehicles form a train, and the circulation of automobile trains is forbidden."

**Warped Valve Stems**  
If there is a lack of compression and on examination the valve heads seem clean and perfect, give the valve stems a careful looking over to see if they have not become warped by the intense heat of that part of the engine.

### Massachusetts Jits Must Give Big Bond

Because of a regulation made by the public service commission governing jitneys there has been a lot of trouble in Massachusetts cities lately. The board, which has jurisdiction over railroads, trolleys, etc., came out and stated that jitneys should not be allowed to operate on the roads until they had filed a bond of \$2000 in some cases, or \$500 per passenger carried in others. Citiz and towns were asked to accept this interpretation through their local councils or selectmen, and then issue license to those who applied.



JOHN A. WALTER

**391 Stark**  
No Other Location  
Opposite Pittock Block  
Sells Tires on the  
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Again to His New Building  
13th and Stark  
**R. W. Lee**  
Auto Electrical Expert  
Guaranteed Service—Delco Repair Station  
Former location Sixth and Burnside, and temporarily at 409 Burnside  
Remember the New Location  
13th and Stark

### MOUNT TABOR PARK DELIGHTFUL DRIVE

One of the Most Beautiful Short Rides About Portland Is Little Known and Neglected.

Advertising pays in the matter of highways as well as in matters of mercantile business, but that is hardly any justifiable reason for the neglect shown by Portland people of some of the most beautiful short drives that the city has. For illustration the ride out to Mount Tabor park.

At the same moment that all the entrances to the nationally advertised Columbia river highway are jammed to a state bordering on the danger point with pleasure traffic, Mount Tabor park drive will be as deserted as a downtown street on a Sunday morning.

Taking The Journal as a starting point, one may cross either the Morrison or Hawthorne bridges going east to West avenue and then following that thoroughfare to the park entrance. From that time on the automobile follows a serpentine road which eventually at the crest of the hill, and by continuing the autoist will descend over another serpentine back to the entrance. The trip includes a birdseye view of Portland that is utterly dissimilar to that of the heights on the west side, and as beautiful at least as the better known west side elevation.

Especially after nightfall, the lights of the city show up to better advantage and they present an even more alluring sight for they seem to be closer without diminution of the impression of vastness. Time of drive out and back is 45 minutes.

\$25,000,000 for Arkansas  
Arkansas highway officials estimate that at least \$25,000,000 will be expended in hard surfaced road construction in their state in the next five years.

Twenty-eight Members  
Twenty-eight interstate highway associations have so far qualified for

### SERVICE TRUCK FOR TELEPHONE COMPANY



Third Republic truck sold to Pacific Telephone & Telegraph company for use in plant department, by Roberts Motor Car Co.

membership in the Associated Highways of marked highways, reaching States, to the borders of Canada and of America. They represent about 50,000 to nearly every part of the United States and to the coasts.

# 53 Republic Trucks Sold in June

List of buyers that know values

Warren Construction Co. . . . . 7	Marshall-Wells Co. . . . . 1
B. & O. T. Co. . . . . 3	Wadhams & Co. . . . . 1
Dennis Construction Co. . . . . 3	Haseltine & Co. . . . . 1
Foster & Kleiser . . . . . 5	Pacific Tel. & Tel. Co. . . . . 1
Willamette Valley Trans. Co. . . . . 5	Young & Northrup . . . . . 1
Oregon Milk Producers . . . . . 1	McCoy & Dietrich . . . . . 1
Riverview Dairy Farm . . . . . 1	C. M. Foster . . . . . 1
Edelweiss Dairy . . . . . 1	G. Cherigino . . . . . 1
Overlook Dairy . . . . . 1	A. Turtorice . . . . . 1
Albert Schulz . . . . . 1	S. Saratari . . . . . 1
Wm. E. Scott . . . . . 1	T. W. Riebhoff . . . . . 1
Jack Eatch . . . . . 1	M. T. Wright . . . . . 1
Vancouver Ice Co. . . . . 1	R. R. Neasey . . . . . 1
F. L. Evans . . . . . 1	Jersey Creamery . . . . . 1
W. Ray . . . . . 1	Philip Carter . . . . . 1
J. E. Reilly . . . . . 1	J. Okabo . . . . . 1
J. B. Mitchell . . . . . 1	Halfway Mercantile Co. . . . . 1
Robert Hunsaker . . . . . 1	R. Morris . . . . . 1
George Hoyt . . . . . 1	Saunders Bros. . . . . 1
	Jas. A. Warren . . . . . 1

**Roberts Motor Car Co., Inc.**  
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## Commerce TRUCKS

### Commerce Trucks Lead in Adoption of Pneumatic Cord Tires

Practical Government Tests proved conclusively, the superiority of pneumatic cord over solid tires for truck use.

**Pneumatic Cord Tires—**  
increase life of truck  
permit greater speed  
give better traction  
triple tire mileage  
add carrying capacity  
are more economical

Commerce trucks were the first to adopt pneumatic cord tires as standard equipment.

**1 TON <sup>1/2</sup> Ton Overload Capacity \$1500. 1 1/2 TON <sup>1/2</sup> Ton Overload Capacity \$1895**  
Solid Tires <sup>30 x 6 Pneumatic Cord Tires</sup> Chassis Only  
F. O. B. Detroit

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COMMERCE MOTOR CAR COMPANY, DETROIT, MICHIGAN