

GASOLINE OUTPUT TO BE INCREASED

Bureau of Mines Proposes
Plan to Refineries.

HUGE SAVING EXPECTED

More Complete Condensation of
Still Vapors is Outlined
for Conservation.

WASHINGTON, D. C., June 24.—Possibility of increasing the output of gasoline by 120,000,000 gallons through more complete condensation of still vapors at the petroleum refineries, was suggested today by the bureau of mines after an investigation by D. B. Dow, the bureau's petroleum engineer.

Mr. Dow estimated that 50,000,000 gallons were recovered from uncondensed still vapors at refineries in 1921.

"Application of the system to all refineries would give a possible gasoline recovery by this method of 170,000,000 gallons yearly," the bureau said in a statement.

Results Are Expected.
"The calculations of the bureau of mines are based on results obtained in refineries where general methods are more efficient than those employed in the hundreds of smaller skimming plants that have no recovery system. It is assumed that in the less efficient skimming plants, located in sections where the supply of cold water, so essential for condenser use, is scarce greater recoveries could be made than in the large refineries studied."

"This should be especially true of Oklahoma, north Texas, and Louisiana skimming plants, where summer temperatures are high and where cold water is scarce. A survey of these plants, it is believed, would show that their losses of uncondensed still vapors would be much higher than in the plants where the studies of the bureau of mines were conducted."

Loss Held Enormous.
"The magnitude of the loss from non-condensation of these vapors has been realized only by few refiners, judging from the number of plants that have recovery systems. The 18 refineries studied by the bureau of mines are obtaining 128,651 gallons of gasoline daily from uncondensed still vapors. These plants are situated in the various refining centers, other than the Pacific coast, and are running crude representative of all the producing fields east of the Rocky mountains. In addition, several are running Mexican crude. Information from California refineries indicates that on account of the smaller gasoline content of the California crude, there are no recovery plants of importance in that state."

"The average recovery of gasoline at the refineries investigated by the bureau of mines amounted to four-tenths gallon per barrel of crude oil charged."

Preventive Measures Important.
"Unless preventive measures are adopted, losses of gasoline from failure to condense still vapors will increase in the future, because crudes are being handled in the field with more and more care to avoid evaporation and will, therefore, contain much lighter and more volatile fractions than at present."

"Condensation of the vapors formed by heating crude oil is effected in the refinery by leading vapors through coils of pipe submerged in water. On cooling, most of the vapor becomes liquefied, but a certain amount of vapor, due to insufficient time for proper cooling or the fact that its condensing point is lower than the temperature of the water, will remain uncondensed. Also certain other fractions will not be condensed, for the reason that their liquefaction points are affected by the presence of other hydrocarbons. A small part of this uncondensed vapor is dissolved in the liquid that has condensed."

"Condensation of the vapors coming from the still into liquid is accomplished either by passing them through pipes or shells have large surfaces exposed to the water, or through coils submerged in water."

Temperature Big Factor.
"Atmospheric temperature is an important factor in the production of gasoline from uncondensed refinery vapors. It is found that during winter months, due to more complete condensation of the vapors, the production of the 'gas' plant will fall off to some extent. An unusual example of this is a certain skimming plant which produces about 4000 gallons of compression gasoline daily through the summer months, but drops to as low as 500 gallons per day in the winter. Ordinarily, the difference is far less, but there is always a tendency for production to drop in cooler weather."

"The cost of installing recovery plants will necessarily vary, depending on local conditions such as the distances between different stills which are sources of gas, the nature of gas, especially in regard to sulphur content, and the plant efficiency. However, a cost of approximately \$15 per gallon of gasoline (daily capacity) should be sufficient. The average cost of the gas plant is relatively low."

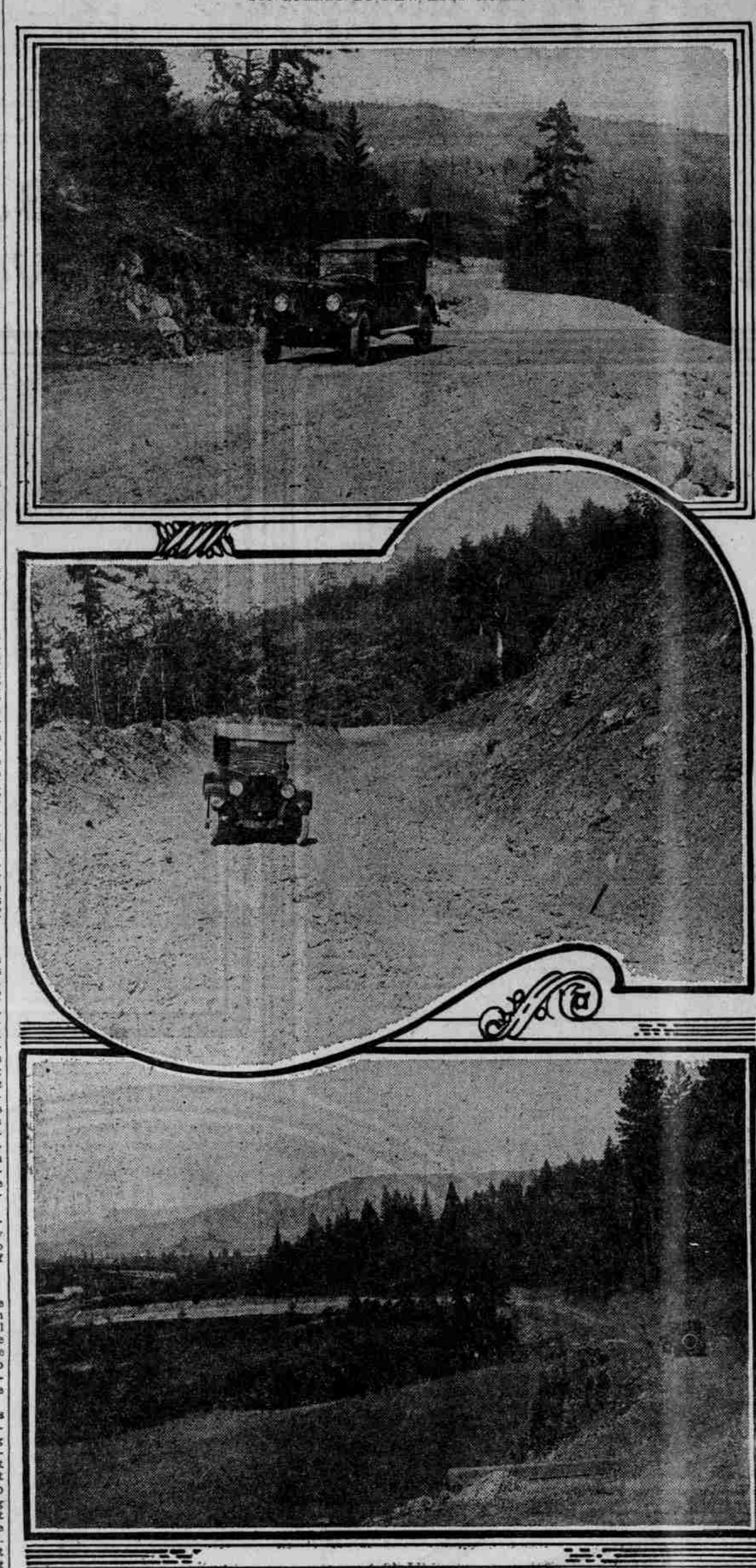
NORTH BANK ROAD WORK

(Continued From First Page.)

Glills stated, is the construction of a new grade eastward from the Underwood bridge to Lyle. Present plans provide for the letting of this contract this fall. As at present planned, this new route will follow the river bank practically all the way, most of the distance keeping in close proximity to the Spokane, Portland & Seattle railway line. This will mean that the road will not pass through the town of White Salmon at all, but will go through White Salmon station instead. Motorists for White Salmon will branch off the road at the latter point and climb the hill. This new location will do away with the stiff grade up to the top of the plateau upon which White Salmon is located. The entire new location from Underwood to Lyle will be 16 miles shorter than the present road.

North Bank Run North White.
The run up the North Bank road at the present time will be found well worth while, despite the fact that the road is blocked at Coombs, and the motorist will find excellent road all the way. The ideal road will be to make the run from Portland to Vancouver and thence to Stevenson, ferry from there to Cascade Locks and return to Portland over the Columbia River highway. This is an easy one-day trip with ample time to enjoy picnic luncheon on the way. The Stevenson ferry

BOOTH HILL, LONG BARRIER BETWEEN UPPER AND LOWER HOOD RIVER VALLEYS, TO BE CONQUERED BY NEW LOOP ROAD.



Views on new "valley trunk" up Hood River valley, which will form Hood River section of the Mount Hood long road, showing grading work already under way in the vicinity of Booth hill, where a new and easy grade is to be established. This hill, in the past, surmounted only by steep and rough roads, has served as a barrier between the two valleys, particularly in the winter months, when the roads were nearly impassable. The car in the photo is one of the new Jewett six models.

ROAD TO RAINIER GOOD

SEATTLE-TACOMA ROUTE TO
PARK NEVER BETTER.

Highway From Longmire to Big
Nisqually Glacier Undergoes
Much Improvement.

TACOMA, Wash., June 24.—Highway conditions from Seattle and Tacoma to the Rainier national park were never so good as now. The road is paved to Nisqually canyon—12 miles more paving than last year and no detours. Park visitors this year will find great satisfaction in road conditions, both inside and outside the park.

The road from Longmire to Nisqually glacier has undergone considerable improvement, and much widening and leveling has taken place above the glacier. In the near future two-way travel will be offered as far as Narada falls. A survey between Narada falls and Paradise inn for a two-way road has been completed, appropriations by congress for the work have been made and the project will be carried forward in the near future. So it is a matter of but a short time before two-way travel may be had all the way to Paradise valley.

National Park inn, at Longmire springs, opened its season on Saturday, June 17. An attractive weekly vacation plan, with many new and novel entertainment features, is being offered throughout the summer at the inn, giving high-class resort hotel service at low cost. Paradise inn will open on Saturday, July 1. The fifth annual ski tournament, at the inn has been set for July 2, 3 and 4. In event snow conditions prevent opening of the highway through to Paradise inn by July 1, automobiles will operate to Narada falls, 1½ miles from Paradise inn, and the balance of the trip will be made by saddle-horse, or foot, until the road is open for automobile.

The road is open now as far as Narada falls, but with warm weather it is believed the road will be opened clear to Paradise valley by July 4 at the latest.

Used-Car Business Expands.
The Portland Auto Sales company, which for the last year has been doing business at 355 Burnside street, removed last Friday to more commodious premises at the corner of Washington and Lowndes

streets, formerly occupied by the Lowndes garage. W. D. Cartier, manager of Portland Auto Sales, has been in the used-car business here three years under a 30-day guarantee system. Mr. Cartier has been in the automobile business altogether eight years, and is one of the best known men on automobile row engaged in handling second-hand cars.

FEDERAL FUNDS ARE ASKED
Western Lane County Development Wants Government Action.

EUGENE, Or., June 24.—(Special.)—The federal government is asked by the Western Lane County Poona grange to match all county bond road money to be expended in western Lane county.

At the last meeting of the grange a resolution was adopted to the effect that as the railroad land in western Lane county has been withdrawn from taxation, having been turned over to the government, thereby reducing the taxable wealth, and as the proposed bond roads will pass through the most productive and undeveloped parts of western Lane, the forest service and the federal government should match the money expended by the county on such roads. The county court is asked to act upon this matter at once.

Copies of the resolutions have been forwarded to Oregon senators and representatives in congress.

STAGE SERVICE IS STARTED
New Line Inaugurated Between Eugene and Belknap Springs.

Inauguration of a new stage service from Eugene to Belknap Springs was announced last week, and throughout the summer the service, amounting to two trips each way every day, will be maintained. Breddlove & Son, who were pioneer stage operators at Camp Lewis, Wash., where they maintained service for several years, have established the new McKenzie runs and have moved their equipment from Camp Lewis to Eugene. Under the plan as announced by the stage company stages will run twice a day from Eugene to Belknap Springs, a distance of 60 miles, and return. One car will leave Eugene each morning at 8 o'clock, arriving at the springs shortly before noon, while a second car will leave Eugene at 1 P. M., arriving at the springs at 4:40 P. M.

A tire that "bellies out" just above the point where it touches the ground should be inflated immediately until it is well rounded.

CROSSING SIGNS WANTED

COMMITTEE OF COAST STATE
OFFICIALS HAS SESSION.

Oregon and Washington State
Motor Associations Lend Aid
in Safety First Work.

Oregon's system of putting up danger signs at all grade crossings on all main highways throughout the state may be adopted by the three states of Washington, Idaho and California, while all four states may establish "safety first" courses in the public schools as a means of decreasing accidents on the public roads and at railroad crossings.

These two steps were discussed last Monday at a meeting of the committee formed a short time ago to devise ways and means by which the four states could co-operate in cutting down accidents at grade crossings and elsewhere. The committee, formed of officials of the four states, held its second session at Seattle at that time.

A report of the Seattle session was brought to Portland by A. E. Shearer, manager of the Oregon State Motor association, who motored to the sound city to attend the meeting. Mr. Shearer, with President Dyer of the Automobile Club of Western Washington, was invited to attend the session in an advisory capacity, the invitation being tendered largely in recognition of the interest which the Oregon state Motor association has taken and the pioneer work which it has done in safety first work among motorists.

Present at the session as members of the committee were Supervisor of Public Utilities Spinning of Washington, Secretary of State Jones of Idaho and Fred Williams, former public service commissioner of Oregon. Mr. Williams and Mr. Shearer motored to Seattle together. The California representative was unable to attend.

At the session, according to Shearer, the state of Oregon was complimented upon its work of placing danger signs at railroad crossings. As a result of the programme of the state highway department during the last several years dozens of crossings have been eliminated altogether while danger signals, some of them equipped with reflectors for night driving, have been installed at practically all the remaining crossings. The committee went on record as favoring similar action in the other three states.

Instruction along safety first lines for the children of the grade schools was also discussed by the committee and favored. It was felt that even instruction of a very elementary nature, of perhaps an hour a week or less, would prove of great value and would mean the cutting down of the number of accidents and thereby possibly the saving of life and limb.

MARMON WILL BE USED

BARNEY OLDFIELD TO DRIVE
LOCAL CAR AT TACOMA.

H. & E. Auto Co. to Supply Stock
Car to Pace First Lap at
July Fourth Race.

When America's greatest speed juggernauts circle the track for the start of the annual automobile race at the Tacoma speedway on July 4, they will be paced for the first lap by Barney Oldfield, veteran race driver now turned tire maker, at the wheel of a Portland Marmon car. This was assured last week when Nordsyke & Marmon company of Indianapolis telegraphed to the H. & E. Auto company, Oregon distributors for the Marmon car, asking them to supply the famous "veteran" one of the latest model Marmons. A. M. Colville, manager of the local company, welcomed the opportunity and immediately telegraphed back to the Marmon factory that the car would be ready. The opportunity to supply the Marmon pace car for the northwest classic is looked upon as a distinct honor, and was conferred upon the Portland distributor rather than upon the Seattle or Tacoma organizations largely because of the fact that Colville has for several years Pacific coast factory representative for the Marmon and only a few months ago entered the field here as a distributor. It is understood.

One of the new Marmons has already been picked out to serve at Tacoma, Colville said, and work will start at once decorating and going over the car, tuning it up to do the pace of 75 miles an hour or more than will be expected of it. No adjustments will be required as the Marmon to be used is built to do this speed, even as a stock car, but the entire car is to be made ready for the race in the last detail. A few days before the July Fourth event Colville will drive the car to Tacoma, where it will be turned over to Barney Oldfield.

The Marmon has served as pace-maker for so many of the leading races that it is now almost taken for granted that the Marmon is to pace the race. Two years ago a Marmon has paced at Tacoma, and the same make of car has also done the honors at Indianapolis on numerous occasions.

Barney, who for several years has served at nearly every big race in the country as pace maker, is himself a Marmon owner and always insists on using a Marmon car when he drives the speed hounds around the track for the beginning of the

race.

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DALL PISTONS
Weigh only 25½ oz. each. Can be used to make an exceptionally quiet motor. Annealed—takes a very high polish.

"Better Pistons Are Not Made." Pins, rings and bushings always in stock.

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FOUR SEMI-SPORT

The newest thing in motor cars is here—the Oldsmobile Semi-Sport. Don't fail to see it—it's so different.

Body, full stream line, four passenger. Color, Oldsmobile Carmine. Upholstery, genuine long grain black leather with black leather side rails. Nickeled radiator, Tuarc Disc steel wheels, demountable rims, or five cream-white wire wheels, optional. Cowl ventilator. Cowl lights. Klaxon horn. Cord tires. Alemite Lubricating System. Chassis is the famous, sturdy four cylinder model with extra long springs and deep frame. Engine valve-in-head type developing over 40 H. P. by actual block tests.

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BROADWAY AT COUCH.
Broadway 2270.



The 1922-23 4 cylinder Semi-Sport \$1265

250-mile grind at the Tacoma speedway.

\$2,000,000 Road for Arkansas.

A \$2,000,000 road has just been completed in the northern rural improvement district of Arkansas, near Pine Bluff, including 75 miles of asphalt pavement and two-course gravel compaction, from Stuttgart and other points to the Jefferson county line. Motor trucks will now be able to pass over this highway with heavy loads of rice from the 50,000 acres of rice lands in that vicinity, affording cheaper and quicker access to the markets. Plans are now on foot for constructing a connecting road with Pine Bluff through Jefferson county.

TACOMA Speedway

TICKETS

Now on Sale at
RICH'S CIGAR STORES

4th and Morrison 317 Washington St. 143 Broadway

and
OREGON STATE MOTOR ASSOCIATION
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The Greatest Classic
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Tacoma Speedway July 4th

15-World-Famed Speed Monarchs-15

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Ralph De Palma Cliff Durant Peter De Paolo
Roscoe Scharles Joe Thomas Ralph Mulford
Bennett Hill Leon Dury Art Klein
Jerry Wonderlick Frank Elliott "Howdy" Wilcox

EVERY ONE A STAR

250 Miles of Thrilling Sport—\$25,000 Purse

\$1.00 Field Admission

Race Starts 2 P. M.

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