Higher Ridges Pierced by 7 Lighted Tunnels.

BY CHARLES M. NOBLE

[Special highway engineer, Pennsylvania turnpike commission.] The Pennsylvania turnpike is man's latest achievement in overcoming the forces of nature. For the first time in history the formidable barriers of the Allegheny mountains are being broken down. This highway is constructed with a maximum gradient of only 3 per cent-that is, 3 feet of rise for each 100 feet of length. In order to avoid steeper grades it was necessary to pierce the higher ridges with seven tunnels, aggregating approximately seven miles in length. The tunnels are lined with steel and concrete, illuminated, and ventilated with fresh air furnished by powerful blowers.

Unlike the existing highway systems of the United States where design standards fluctuate every few miles, depending upon the date of construction, the turnpike has been designed and is being constructed as a single design problem. Complete uniformity in design character- TIRE CHANGING istics will be maintained throughou the entire 160 mile length of the

Will Have No Grade Crossings.

any kind cross at grade level or will kit of all 1940 Buicks. The device enany frontage or access be permitted ables the wheel and tire to be lifted along and within the 200 foot right from the outside of the car instead of of way, except at specific points which

The mountainous terrain required that the width of construction be One is a lifting jack and the other kept at a minimum in order that the project might remain within the limits of practical financial possibility but in spite of this it has been feasible to provide a 10 foot safety zone between the roadways carrying opposite direction traffic as well as 10 foot shoulders. This has resulted in a 78 foot graded width. It required the excavation of 24,000,000 cubic

Entrances at 10 Points.

Access to the turnpike is being provided at the terminals [Irwin on the Pittsburgh end, Middlesex on the Harrisburg end] and at eight intermediate points varying in distance from 8 miles to 35 miles apart. Except at the end points, where the toll booths are placed across the turnpike, the booths will be located on the access road which will con-nect with an adjoining feeder high-a stand for supporting the end of to stop at any point in the entire distance of 160 miles after having at the terminal booths.

financed by the purchase of Turn-pike commission 3% per cent serial conventional manner. bonds by the Reconstruction Fi- With the wheel lifted above the nance corporation in the amount ground, the stand is placed, by means of \$35,000,000 and an outright grant of \$26,100,000 from PWA. It will be operated as a toll highway until the bonds are paid, after which the entire improvement is to be turned fits the face of the backing plate, proover without cost to the state high- viding a broad contact and a firm way department as a free route. It and steady support. When the stand will be opened to traffic July 1, 1940. is in place the jack is removed, the

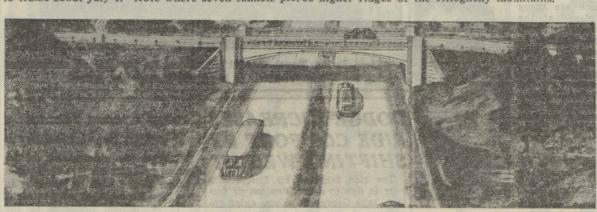
New Ventilator Filter Unit the tire is changed.

Evidence of grit-loaded dust entering the engines of parked cars led Pontiac engineers to insert a copper ribbon filter unit in the ventilator ment of all 1940 Buick engines. The outlet pipe. Tests disclosed that cars filter element has 8,000 to 10,000 mile parked in dusty parking lots collect capacity and is provided with a drain more dust because of a natural up-draft thru the ventilator outlet, with the floating oil pump inlet this which carries grit into the crankcase. filter provides a means for removing Addition of the new filter unit, ac- oil discoloration and keeping dirt, cording to the Pontiac engineers, sludge, water, and metal particles throws up another barrier against from reaching the vital parts of the

Longest Super in U. S.—160 Miles



On this relief map of Pennsylvania is shown the location of a \$60,000,000 toll road to be opened to traffic about July 1. Note where seven tunnels pierce higher ridges of the Allegheny mountains,



This artist's drawing shows the general design of the superturnpike, two one-way pavements separated by a 10 foot parkway. This is a typical viaduct for an intersection with a conventional highway. sedes, and the designers have applied controls, clutches, and generators also There are entrances to the super at only eight points between the termini 160 miles apart.

MADE EASY BY

NEW TYPE JACK At last an easier way to change a The turnpike is the longest grade tire has been developed. It is ac- switch. from beneath it.

New Buick Starting Switch RAIL ELEVATION

The 1940 Buicks have a simplified NORTHWEST SIDE

Averts Clashing of Gears PLAN PUSHED BY

By means of its new design, report that plans to elevate the North sure automatically fixes the proper separated highway in the United complished through a wheel lifting starter gears cannot be clashed even Western railroad tracks between Fos- spark position in the distributor. States. At no point along the entire jack of new design which is included if the owner inadvertently should ter to Ozark avenues will be announced as standard equipment in the tool operate the switch when the motor soon. High speed express trains going duction in the size of the fuel meteris running. It is so designed that as thru Gladstone Park, Edison Park, ing jets of the carburetor has helped in the intake manifold thru the start- ous hazard to motor travel, according power or performance. Two units comprise the new tool. ing of the engine, the starting circuit to F. Russell Lyon of the Norwood have been redesigned for the Sixty. the motor cools to normal operating nue, according to Ald. Michael P.

CADILLAC OFFERS 31 BODY TYPES IN FIVE SERIES

La Salle Styling Taken from 60 Special.

Cadillac is entering its 38th year with the most comprehensive line of automobiles in its

history, according to D. E. Ahrens, general sales Cadillac-La Salle division of General Motors. In all 31 body types being offered in the Cadillac line and the La Salle is being offered each of which in cludes several All the five new Cadillac series

bear a marked show the influence of the Cadillac Sixty Special which was brought out late last year. The Sixty Special has had an important affect on styling Special.

thruout the industry. the greater length to increase com-This model has no running and handling ease.

Greater economy in operation is as-sured on Cadillac-La Salle's eight cylcial vacuum spark advance. Oper-Civic leaders on the northwest side ated from the intake manifold, prespart throttle results. A minute re- A Winter Tip: Never Refill

La Salle Special Touring Sedan



New styling features the La Salle touring sedan which is on view at the automobile show,

in size and the gear shifting mechan ism has been made easier to operate. Altho the chassis of the La Salle family resemblance and their bodies and the La Salle Special are virtually identical, the Special's body style is based on that of the Cadillac Sixty

Mechanically, both series of cars Entirely new this year is the series are smoother and easier to drive than Seventy-two, which is mounted on a a year ago. At the same time carbu-139 inch wheelbase. The Sixty-two retion, manifolding, and distributor is three inches longer in wheelbase refinements reduce fuel costs up to 10 have been improved in major respects The Sixty Special is being re- in the interest of increased riding

The clutch is partly of a new design, more durable and easier to opersegments, acts to cushion clutch disc wide on a spring counterbalance for inder cars by several refinements. segments, acts to cushion clutch disc easy access to the engine compartto 25 per cent reduction in weight ment. When closed it is locked autowhich facilitates gear shifting. The matically, and it cannot be raised engine has been increased to 130 without a release operated by a knob

If your engine becomes overheated at Cicero Ave. and 67th St.



Hood of Chevrolet

hood of the 1940 Chevrolet. It opens

and a loss of water or antifreeze re- Sodium vapor lights are to be in-Front and rear spring suspension sults, never refill the radiator until stalled at 67th street and Cicero ave- cordingly, and for the motorist to

AGED PEDESTRIAN A BIG PROBLEM IN DRIVE FOR SAFETY

Education Cuts Toll in Ranks of Children.

BY CARL A. BARRETT [President, Illinois Automobile Club.] Student safety patrols, concentrated safety education and the vigilant efforts of organizations interested in reducing the appalling traffic accident toll, have succeeded in making Chicago a safer place for school children. But as the young become safer, the

aged become more of a problem. From 1922 to 1938 children between 5 and 14 years of age reduced their motor vehicle death rate 30 per cent. This was accomplished despite an increase of 104 per cent in the rate for

all other ages Accidents involving Chicago school children reached an all-time high in 1937-America's peak traffic accident year-when eight youngsters were

silled each month Pedestrians a Problem.

In sharp contrast to the rapid decline in child fatalities is the steady retrogression of the aged, especially the pedestrian. Persons over 55 years of age stand seven times more chance of being killed in a pedestrian traffic accident than do persons of all other age groups combined.

Improvement is lacking on Chicago's aged accident front. When one considers that less than 10 per cent of the city's population is over 65 years of age-school children greatly exceeding that figure-and that there are more than twice as many fatal Here is the new alligator-jaw type accidents to persons over 65 years as to those between 1 and 14 years, we get some idea of the magnitude of the accident problem to aged persons.

Higher Rate than Last Year. One hundred and eighty-eight aged persons were killed in 1937, an aver age of 16 per month; 148 during 1938 an average of 13 per month, and 128

14 per month.

The only apparent solution to this problem is for the elderly pedestrian to recognize his physical limitations exercise greater respect, caution and



Vehicles will not be required the axle when it is at the desired level above ground. On the top of reached the turnpike proper, except the lifting jack is a lug designed to hook under the beaded edge of the The Pennsylvania turnpike was wheel rim on the outside of the car.

stand supporting the axle load while

Keeps Dust Out of Pontiac Oil Filters Are Standard

in 1940 Buick Engines Oil filters are a part of the equip-

Mercury 8 Town Sedan

engine.



Finger-tip gearshift is a Mercury feature.



This Big, Beautiful 92 Horsepower TODAY/HUDSON SIX SEDAN

FOR YOU TO DRIVE, FOR ONLY ...

"Yes, sir! That price buys that car, just as she AMERICA'S SAFEST CARS ARE NOW AMERICA'S SMARTEST stands, including bumpers, double tail lights. clock, spring covers, spare wheel, tire, and state tax. It's the 1940 Econ-

MOST AMAZING LOWEST PRICED SEDAN EVER BUILT

price. It buys the car you see here-a big, beautiful 92 horse-including the lowest priced makes on the market. But be sure power Hudson Six Sedan-complete, ready to drive.

This Hudson, one of the roomiest cars built today, has finest type Independent Front Wheel Coil Springing, Center-Point Hudson, and you'll certainly want to look this car over before Steering, Patented Auto-Poise Control, Patented Double-Safe Hydraulic Brakes, Handy Shift at the steering wheel, Sealed Beam Headlamps - ALL the best 1940 features.

If you haven't priced automobiles lately, just take a look

That price isn't an "f.o.b. price." It's a genuine delivered around town, find out what you have to pay for a sedanthat price means actually delivered to you, fully equipped. Then you'll know why the wise buyers are changing to you do any buying yourself.

> Come in and take advantage of the greatest automobile value of the year-just tell us you want to see that new lowest priced Hudson Six Sedan.

ON TOP OF ALL THIS, WE'LL GIVE YOU A SWELL DEAL ON YOUR OLD CAR. Low time payment terms, of course.

car! One like it, out at the Bonneville Salt Flats, in Utah, made hard-boiled American Automobile Association Contest Board officials blink with amazement by going more miles per gallon than any other full-

Then husky drivers took another Hudson Six and drove it for 12 days and 12 nights-20,000 miles of murderous punishment at over 70 miles an hourproved that it can stand up as no other stock car ever did before-showed you what you can expect in long life, freedom from repairs.

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omy and Endurance Winner, Tool

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