double or single cylinder of horse power. This, however, mall item to be set against lvantages resulting from subcylinders, says a writer in don.

ne is not quite so thermally

as to actual figures is rather give an idea of how two e, one being a four-cylinder ratwo, both rated at twelve-

and having similar loads and ers, other factors also being ur would average twenty-two

llon as against the two-cylty-six miles. retors Obtain Results.

t is obtained with a good

buretor without any special I would not go so far as to represents the best possible, ood average example obtained wners who can handle their y, and who know all the tips waste of fuel.

ter of lubricating oil used in t is quite impossible to venfigures, but one would be on e in assuming that a four-would require double the

ed by a two-cylinder car. ore bearings and more cylinto be maintained in perfectly ondition. But even with the least economical system of he two-to/one proportion is

ially good lubricating system, ed mechanical supply to all ices and the surplus oil which into the crank case being nd over again, the oil con-

owance. On the other hand.

ould not be twice as much for the two-cylinder. majority of cars on the road, pe they may be, are overexcepting those which have matic devices. Very few car

\_to\_risk\_experiments\_on\_oil but it is, nevertheless, a would pay in the long run to careful observation the minity upon which the engine ly run. It is not always rec-

as an engine is more and it requires considerably less han when in its new condi-1,000 miles the running and aces, especially piston rings walls, have worked up to a

sh, and the merest film of tween them is necessary to ction. Granted, then, that linders an engine has for a the more fuel and oil will be ere no compensating advantet against these items? Unere are, and especially in the ear and tear of tires.

s Require Attention. eaking, the upkeep of a

# MOTOR RACES INCREASE TROUBLE WITH

## CHALMERS CITES GROWTH

AUTO BUILDER THINKS SPEED CON-DISAPPEAR WILL NEVER AND COMPARES AMERICAN AND EUROPEAN SMALL CARS.

Some men prominent in the automobile

world have said recently that motor car contests are an evil rather than a help to the industry as a whole, and that the time is not far distant when they will no longer be held. I can not agree with this opinion. I believe the next few years will see more automobile racing and other contests than any other similar operiod has witnessed. And I believe these great contests will be of benefit to the industry, because they will be governed by sensi-ble rules and in all probability managed by those who naturally have the most vital interest in seeing that contests are conducted under the most favorable con-

conducted under the most favorable conditions—namely, the manufacturers.

The result of most of the racing heretofore has been such as to lead the public to think that the Europeans "have it all to think that the Europeans "have it all over" us Americans when it comes to building motor cars. The real facts, however, are not by any means so discourag-Reverting to the small car matters as being of considerable immediate interest

to American constructors, upon the face of it, taking into account the extremely high speeds made in recent foreign small car races, it would appear that there ists abroad some magical touch of design, materials or construction far in advance of anything American. But this is not really the case really the case.
In the first place we must remember

that the character of European small car contests has been very different from anything over here. Here, except in the case of the last Savannah event, every effort has been put forward to limit the contesting cars to a construction at least approximately in accordance with the regular stock product of the manufacturer entering. Even at Savannah, where leeway was

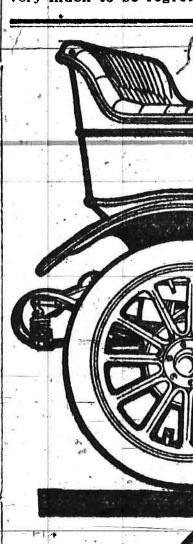
given the maker along lines of special construction, insufficient time was allowed between the dates of the announceALL THE

President Anderson o

Gives Motorists Adv Every once in a while

ufacturer hears of me state that their only re car is on account of th This mistaken idea-

ground principally on who are negligent in care of their tires, is mobile trade at large manufacturers in the vent interview with J dent of the Hartford pany, on this point, h very much to be regret



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han when in its new condi-1,000 miles the running and aces, especially piston rings walls, have worked up to a sh, and the merest film of tween them is necessary to ction. Granted, then, that linders an engine has for a the more fuel and oil will be ere no compensating advantet against these items? Unere are, and especially in the

### s Require Attention.

eaking, the upkeep of a car year or two is mainly a mat-Fuel and oil can always be if a prospective car owner overing a mileage per annum 0, he can write off within a what his oil and fuel ac-ce. He can be guided by the f others who drive cars about eight and power and strike an res, however, are the un-ntity. No one, however exbe, could honestly say to a car owner that his tires will t so many miles without rehing spent on them. But the btaining in the running of a rengine are appreciably more the life of the driving tire sle or two-cylinder, for the on that the driving stresses to the tire are so much is the rapidly alternating stresses transmitted from the n tell so much against the life But there is a further saying rarely receives due recognily because it does not show er or two, and that is in savd tear of gears. This is obse there is bound to be less gears required with a four d with a two-cylinder. we come to consider cost of parts adjustments and over-

the four-relinder shows up against the two or, threethe and this, I think, squat obvious Take the simpler price and one west alongs to replace a few of them.

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Even at Savannah, where leeway was given the maker along lines of special construction, insufficient time was allowed between the dates of the announce-ment and the running of the event to permit of the design, construction and test of any special racing car.

It must be remembered, further, in connection with this event, that for six or eight weeks the organization controlling 90 per cent of the contests throughout the country was holding over the head of each individual manufacturer the threat of disqualification should he permit a car to be entered.

#### Savannah Small Car Race.

Glance for a moment at the Savannah result—a foreign car of a make perhaps acknowledged abroad to be the equal of any car there built—this particular car, a special one built for racing, lightened even to the extreme extent of frame drilled full of holes, fresh from tests and trials in England, and sent here in perfect condition in ample time to work out over the course—this car in a distance of 196 miles and a total elapsed time of 3 hours. 43 minutes and 33 seconds gained a total of six minutes and twelve seconds over its nearest competitor, an American stock chassis, and ten minutes and twenty-two seconds over its next competitor, also an American stock chassis. It is a matter of record how much stelay from tire and other trouble was experienced during the race by the three cars. The behavior of the other foreign cars is also a matter of trecord:

It is conceded that the winning car ran beautiful race. It must also be comceded that the American fars finishing plus replacements. On a become and third were both faster than with dual braition their character winder, and that their delays wage the class from the property of the conferent or improper preparation in one case at least (the chirdle. It must also be considered that to make the third car eligible in the event was surremary to regulary the bare of the between his to governingly to be provingled. A bear was force without to the was flationing the stork chapes by being plication magicine manufacture statement public materia tibile professational account, and and

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The race was a fair one and was closely contested, the result being in doubt al-most to the finish. A little bad luck with tires and the result might have been different

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