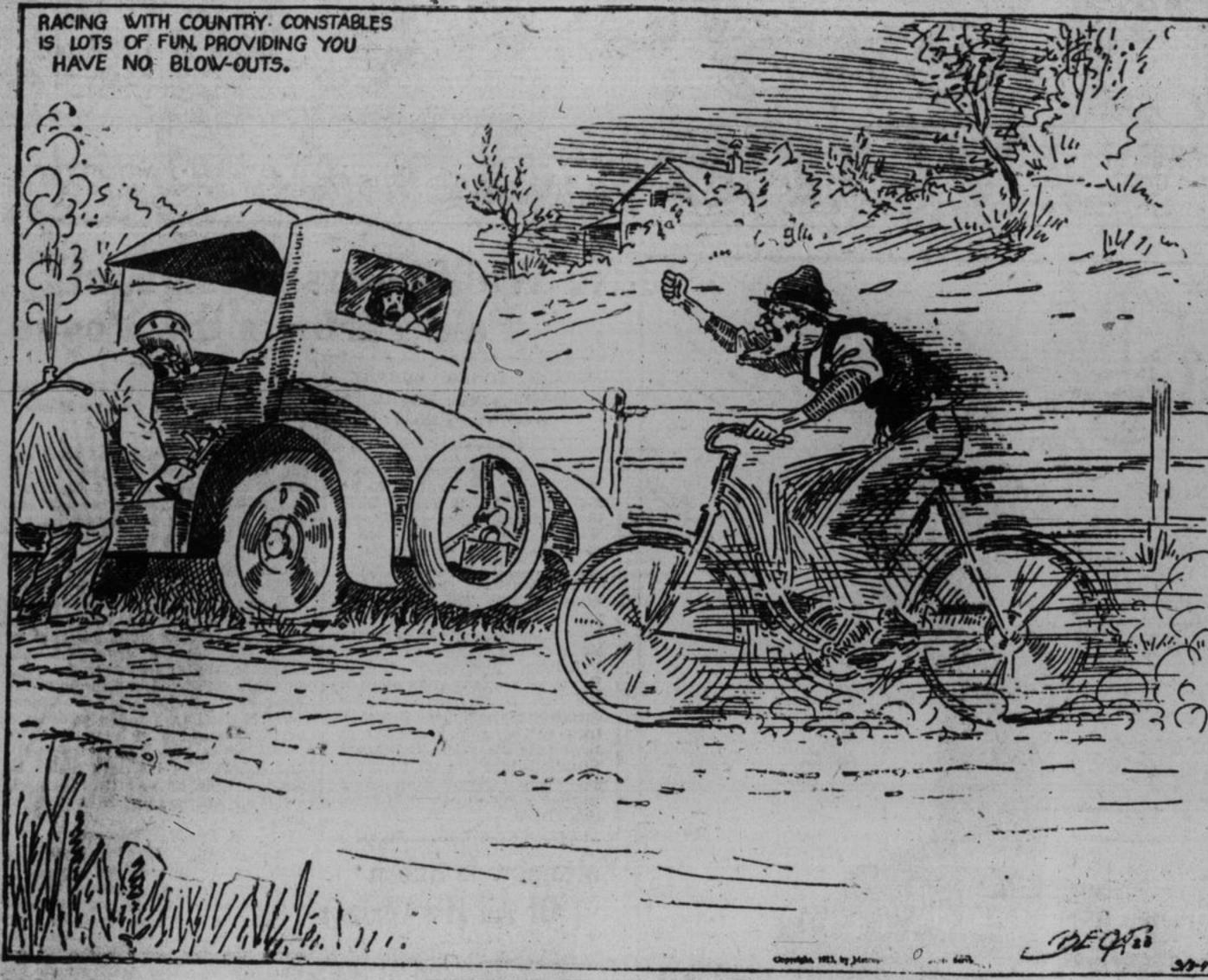
DOWN THE ROAD



THE TORTOISE AND THE HARE.

AUTOMOBILES DUE TO AN ACCIDENT

Early Kerosene Lamp Explosion Led to Better Distillation Processes.

The American automobile is the result of an accident, according to H. W. Jordon, research chemist, who in a statement describing the conquest of explosions by science issued by the Engineering Foundation urges intensive organization ot

industrial research. sens lamp," says Mr. Jordon, "there ions have been brought under the just the thing. Cut this about eigh- intense heat of the ignited gas takes too expensive for you, make them one. The idea is entirely erroneous the cells of a battery, a mortorist were many explosions, due to gaso- control of science, the Foundation teen inches long and close one end place. line, which the imperfect distilla- points out and are utilized contin- by tying with a cord or strip of tube. tion processes of that time left in ually in commerce, in industry and Deflate the tube to be carried, dust

warm, cut down the current a little.

BAD CASE OF OIL DILUTION

some extent, by preheating the fuel

BATTERY JARS BREAK

REPEATEDLY

Charging The Dry-Shipped Battery

the dry condition, is delivered by the freight people to its purchaser,

at some point remote from a battery service station, under which con-

ditions it may rest upon the owner to put it in action. Filling of the

battery with electrolyte and charging are the two operations required.

In the absence of different instructions, the electrolyte used should be

of about 1275 gravity, which is made by very gradually adding chem-

ically pure sulphuric acid to distilled water, in such an amount that

the mixture possesses the above named gravity, when cool. The cells

should be filled to the prescribed height with electrolyte and, after a

few minutes, enough more supplied to make up for the escape of air

10 or 12 hours to allow the electrolyte to permeate the plate material,

when a little more will be needed to restore the level. Charging should

be at the number of amperes stamped upon the name plate as the

"finish" rate; direct current, (as from a rectifier)" measured by an

ammeter, and passed in the right direction being required. Charge until the gravity reaches about 1290 and will rise no further, 48 hours being

sometimes required. If the cells become perceptibly more than blood

L. O. D. writes: For the past stress, the likelihood of jar breaksix months the heaviest and best cylinder oil that I can buy gets battery is subjected to jolting. You thin as water and black as ink better return this battery as de-

inside of two or three hundred fective and see if you cannot get

miles of use in my engine. Can an exchange at liberal terms, for gasoline get into the oil if the we believe the containing case is

bbles and bring the level right again. The battery should then set

IT OCCASIONALLY HAPPENS that a car, the battery of which is in

accumulated, for which there were few minor uses.

"But some engineering genius, remembering the force generated by the explosion of the old style kersene lamp, which blew husband and wise into the street—the first time two years, she testified set to work in to be had, but these are often lost and applied the newly discovered or misplaced. domestic power to the gasoline engina. One result was the automobile, now the fifth American indus-

"In the earliest days of the kero- Many kinds of physical explos- A section from an old truck tube is of cracking the cylinders when the the kerosene. To prevent these ex- in sport-For quarryig and tunnel- well with powdered soapstone or steers for no port.

plosions the oil was more carefully ing, for internal combustion enrectified. Huge volumes of gasoline gines and for firearms.

HOW TO CARRY YOUR

Under no circumstances should good condition, an extra inner tube be carried in a pasteboard box or loose among the they had been out together in over tools. An oilcloth bag is good if it

> lent bag for carrying the tube. Na- remained idle for several hours. The careful driving one can increase the turally this must be several sizes purpose of this is not to make start- mileage fully thirty per cent. larger than the tube to be carried. ing easier, but to decrease danger

the sizes they consider right.

TIGHT PISTONS SCRATCH

CYLINDER WALLS

1,500 miles of running, the engine. is still stiff, when hot. On re-

moving the cylinder head, I find two of the cylinders scratched appreciably to the sense of touch although hardly visibly. As yet there is no serious blow-by and no oil pumping. I have always "hebied" this angine as I have always

"babied" this engine, as I knew it was tight. What had I better do

to prevent matters from getting

Answer: The best thing you could do would be to take out the engine and have it limbered up on

a running-in stand, by external power, but this would be quite an

expensive job. If it were ours, we should run on gasoline to which one pint of cylinder oil had been

added to each five gallons of fuel and should use, instead of ordinary

oil, in the crankcase, oil-contain-

ing deflocculated graphite (not common flake graphite). We should keep on "babying" the engine, never allowing it to assume

or rings too tightly fitted and after injury.

mica, fold carefully and slip into the bag just formed. Close the other end of the bag by tying and you have an excellent carrying case for the EXTRA TUBE IN CAR tube, keeping it dry, cool, well protected against chafing and in very

An Ounce of Prevention.

and nights it prevents the full chil- two wheels, he can soon expect An old inner tube makes an excel- ling of the motor, even after it has blow-outs. It is estimated that by

Painting One's Own Car Worth Considering By Thrifty Owners Who Are Not Too Fastidious

THE FOLLOWING WILL be of no interest to the "finicky" motorist who is satisfied only with perfection in car finish, but it may be worth reading by the motorist, who is satisfied with car finish which will pass a casual examination creditably, who has a little extra time, who is disposed to economize rather closely and who doesn't wish to lose the use of his car for several weeks by taking it to a shop for a "real" painting job. Refinishing an open car, by the application of one of the many available brands of quick drying varnish paint, is a job which can be performed by any intelligent person and, if carefully done, will give it a respectable appearance for a year or more. Unless one has a tightly built garage, from which dust can mostly be excluded and which can be kept warm, good results will hardly be obtainable. First sweep the garage floor thoroughly, jack the car up on all four, remove the hood, front wheels, all lamps, tire carrier, number plates, etc. It does not pay to take off the mud guards, but the rear wheels should be removed, if this can be done readily. With medium sandpaper, smooth off the worst of the roughness of the old finish, the base coats of which must be in a fairly sound condition or else it will hardly pay to attempt the refinishing job. With plenty of clean waste and gasoline, go over the entire surface to be treated and remove the grease and dirt from it conscientiously, for if this is not done, the new paint will positively not hold. The cleaning of the wheels, axles and other prominent exposed parts is rather a dirty job and must be done thoroughly, but it hardly pays to clean and refinish many under parts or the under surfaces of the mud guards. Remember that dust floating in the air and lack of cleanliness of the surfaces are the two most important causes of failure. Don't use waste or other fuzzy material about the car after paint has been applied. Rest the hood securely on two horses, so that you can get at it conveniently and take other detached parts to a dust free room for treatment, if garage space is restricted. Refinishing with the old color is the easiest, but these prepared paints cover other colors very well, nevertheless. Go to a reliable paint store and get a sufficient amount of the brand of single-coat quick-drying, automobile paint, which they recommend most highly and be sure and get first rate brushes of

NO NEED TO WORRY

| battery on its support. This is a

new battery. What causes this?

Answer: The containing case is

relied upon to protect the jars

from breakage, as they themselves

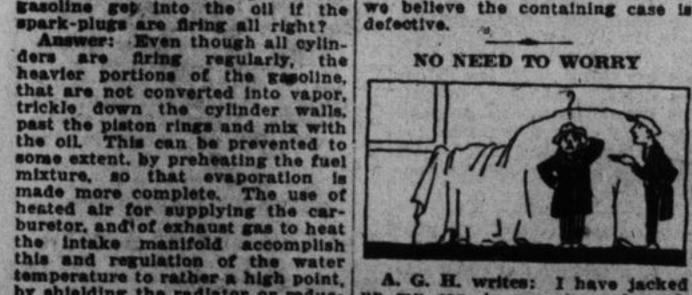
have very little strength, even

when made of the best material.

If the case is not very strong and

rigid and of perfect shape and

size to give the jars complete and



A. G. H. writes; I have jacked

by shielding the radiator or reducby shielding the radiator or reducting the circulation, is also effective. concrete floored garage for the rest. The more accurately the piston of the winter and have washed it . rings fit the cylinder walls, the less and covered it over completely. leakage of heavy gasoline constituents will take place past them. remain idle and do not run the engine from time to time, the cylinders and other parts will become rusty and that when I start to run it, the moving parts will become scored and warped and will have to be renewed. Is this true? Answer: You have been need-lessly alarmed. Your car should suffer no damage from lying idle. You better have the battery re-moved to a service station, where it can be cared for. Also, it will be L. K. S. writes: The jar of the engine over with the hand crank, a cell on the positive side of my few times. It would be a good idea storage battery has cracked three to crank the engine over, by hand, once in a while, during the idle placed as many times. It does not crack and begin to leak, while the battery is out of the car, but when I put it in place and drive a little ways, it breaks, although I take pains in properly mounting the good as ever when spring comes.

Questions of general interest to the motorist will be answered by Mr. Clough in this column, space permitting. If an immediate answer is desired, enclose self-addressed, stamped envelope.

its full load or speed and never permitting it to become fully A. E. B. writes: My car was heated up. By so doing, we believe delivered to me with the pistons it will loosen up without further

> CHASSIS LUBRICATION METHODS



D. L. writes: My 1919 car has grease cups only for lubricating the springs and steering connections and I am thinking of putting on something that is a little handier. Which of the different methods do you advise? Answer: Frankly we do not tnow whether the pressure sys-

tems for applying grease or heavy oil are to be preferred or whether some of the oil feeding devices are better. The question is by no means settled, although there seems to be a tendency toward the use of ordinary oil. The fact seems to be that good results are obtainable with both jubricants when effectively fed. Probably the manufacturer of your make of car is equipping his current models with one of the modern chassis lubricating systems and you would not go far wrong in applying this to your car.

Questions of general interest to the motorist will be answered by Mr. Clough in this column, space permitting. If an immediate answer is desired, enclose self-addressed, stamped envelope.

By Beck | MOTOR CAR EXPORTS SHOW BIG INCREASE

Trade Figures For January Show an Exceptional Increase.

Passenger automobiles exported by Canada during January numbered 4,666, with a value of \$2,530,-005. During January of 1922 the number was 1,344, with a value of \$904,667. The figures are those issued by the Department of Trade and Commerce.

The Pargest customer for Canadian automobiles last month was Australia, taking 1,800, while 1,564 went to the United Kingdom. British India took 257 and New Zealand 236: Some thirty-five other countries were customers for the remainder, including European, Asiatic, African and South American,

Australia was also Canada's largest customer for freight automobiles, purchasing 277 out of a total of 369 exported during January. British India took 50 and New Zealand 18. The 369 vehicles exported were valued at \$141,261, against 98 in January of 1922, with a value of \$43,962.

Automobile parts to the value of \$225,320 were exported from Canada in January, Australia being the purchaser for parts to the value of \$90,016. The United Kingdom's business accounted for \$43,149 worth, the other large importers being British India, Straits Settlements. Spain, Argentina and Denmark. Canadian-made parts, however, entered some thirty other countries. Increase in this business over January of 1922 amounted to \$37,000.

GLYCERINE HELPS TO GIVE VISION

A small quantity of glycerine applied to the windshield with piece of clean waste will help to keep the glass clear when driving in the rain. The water will not stick to the glass so readily, and a clearer vision will be obtained. If too much glycerine is used the effect will be worse.

Considerable increased tire mileage can be obtained through the careful handling of a car. If the If a blanket is placed over the driver starts and stops his car with hood during the cold winter days a jerk and tries to turn corners on

out of asbestos card. Then soak says the United States Tire Com- should always take the car out for them for several hours in linseed pany, and motorists who do not use a run immediately afterward. The No wind can do him good who oil, after which rub graphite into the valve cap may expect valve trou- jostling of the car on the roads and them. Don't merely dip them in ble. graphite, but rub it in. These can be used without shellac and they is every probability that sand and with the rest of the solution. Other will not tear when the joint is dirt will work down into the valve wise it will remain at the top and

Safety First

Because of the dangerous exhaust gas, which causes death due to suffocation, whenever any work is being done in the garage while the engine is running, the doors should be open to insure proper circulation of air, or a hose may be connected to the exhaust pipe to carry the gas to the outside of the garage.

When you find a youngster hanging on to the rear end of your automobile and skating along with you, stop and make him quit. It may save you and the boy a lot of trou-

Need of Tire Valve Cap. Don't make the mistake of taking it for granted that it makes little difference whether or not a cap

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For a short time only, we will put these Tires on at our Service Department FREE OF CHARGE.

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OHOROMOMOMOMOMOMOMOMOMOMOMOMOMOMO

Below: Rear seat cushion of a touring car driven 13,000 miles on many rough roads without Hassler Shock Absorbers. Above: Rear seat cushion of a similar car driven 13-000 miles on many rough roads with Hassler Shock Absorbers.

The cushions tell the story

COONER or later the bumping, jarring, jolting on both country roads and city streets will print their story of discomfort significantly upon the seat cushions of the best of cars.

-Sooner, if your car is not protected.

have Hasslers'. very much later, if you

It is this punishment, severe enough to go through the best of springs, leaving its impress upon cushions, that keeps repair shops busy on all makes of cars.

Just look again at these cushions from the Hassler protected car-smooth as ever after 13,000 miles! The Hasslers' not only took up shocks, and

saved the cushions - the whole car - from shocks, but they arrested rebounds, also. Your dealer knows these Hassler facts.



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is used on the tire valve and when a If copper-asbestos gaskets seem cap is lost to use the tire without

and ultimately produce a leak.

the passage of a charging current When the cap is not used, there through the cells will mix the water freeze during the cold weather.

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