### **OPERATING GOVERNMENT TEST CAR**



W. S. James and C. S. Bruce of the automobile power plant of the insean of standards, driving the test car used to determine the power output of the engine, combustion valve of the fuel, wind resistance, etc. This car is wise used in experiments to discover gasoline substitutes and is fitted with a gramera which automatically records the fuel consumption.

## **GRIME ON MOTOR CAUSE OF DECAY**

Greasy Accumulations Injurious to Various Connections and Also to Insulation.

The motorcar's spring cleaning constitues. An engine and chassis covarea with grease and dirt is a costly fastments which will save money in

Gean the engine, springs, transmiswhich some gasoline may be added. Wise a wooden backed scrubbing brush with no metal on it. Metal may touch electric terminals and cause a spark which will start a fire. A much bether job will result if the drip pan is memoryed while the engine is cleaned.

Cleaning Saves the Engine. In addition to looking better and being ensier to repair, a clean engine's and gaskets will not deteriorate nearly

me quickly. with the springs cleaned, oiling suggests itself. Be sure the grease cups on the springs are full and screwed fown so there will be pressure. That is not enough to save a rusted spring. Jack up the chassis and apply lubricant with a paint brush or a

meertgun. If the leaves of springs are rusted ingether, they usually may be pried agert with a screwdriver while the car meked up. Repair men diagnose as a "frozen" spring a condition in which all leaves are rusted into what appears be a solid mass. Soak the "frozen" spring in kerosene and try the screwdriver again next day.

Take Balky Spring Apart.

If the spring still balk , the best way is to remove it, tale it apart, mean the leaves with kerosene, lubrithem with graphite and grease

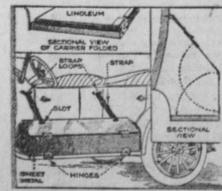
and reassemble them. Spring covers of leather and metal, retaining cups, and high pressure Imbricating systems are among recent Improvements which simplify care of springs. The various covers keep out and keep in lubricants so that springs rarely need attention. High pressure devices range in design from those in which a screw pressure exerts merific force to a handy affair like a mistol which "shoots" grease when the urigger is pulled.

### DEVICE HANDY FOR LUGGAGE

Two Strips of Iron Arranged on Running Board of Car Afford Storage Place.

The illustration shows a novel at-Inchment devised by a motorist for currying luggage on the running board of his car.

Two pieces of heavy sheet iron, sägbtly narrower than the running Board, are hinged to each other, and ome piece hinged to the outer edge of the running board, as shown. Two



Two Strips of Sheet Iron, Arranged on the Running Board, Provide an Ex- tight. sellent Attachment for Carrying Luggage, and Can Be Folded Down When Not in Use.

used to hold these pieces tightly over skidding. the luggage so that it will not be joited cost on rough roads. A piece of lin-Mechanics Magazine.

## RETARDED SPARK IS INJURIOUS TO AUTO

Overheated Condition Harmful to Pistons, Cylinders and Other Parts of Engine.

By William H. Stewart, Jr., President Stewart Automobile School.) You have all seen the fellow who runs his "steaming," clanking car should not stop with the body, top and around town. It looks for all the world like a baby locomotive, but perhaps he does not know that this overheated emenuragement to delaying simple ad- condition injures the pistons, cylinders, bearings and all internal parts of the engine. Shortly he learns this for himself-after he has paid a big when housing and other parts which ac repair bill for information that could cassiste sticky grime with kerosene, have been obtained from any instruction book.

If you run the car with the spark retarded, the engine will overheat and carbonize. A similar effect is caused by a crippled fan or an impeded water flow. If your engine overheats it is advisable to stop instantly and find the trouble. In an emergency a very wise thing to do is to pour an abundance of oil into the crank case. Your ex-Base connections, electric insulation haust will smoke, but the additional oil will offer protection to the inside of the engine until relief is at hand.

Clean the belt occasionally and rid it of the oil and gummy matter. Hitch up your garden hose and send its spray through the openings in the radiator, which probably is clogged with mud. Do this from the engine side of the radiator; otherwise you may short circuit the electric system. As a further precaution see that all hose connections are good and not partially closed on the inside, thereby retarding the water flow. This closing, though very slight, will retard radiation and cause trouble.

### GREASE RUSTY CAR SPRINGS

Jack Up Chassis and Apply Lubricant While Weight Is Off-Kerosene Cuts Rust.

Positive lubrication of springs may be secured without the purchase of additional accessories-jack up the chassis and apply lubricant while the springs are thus relieved of their weight. In this condition the spring leaves should open slightly in a fan shape. It may be necessary to spread the leaves a trifle with a screwdriver. knife, or any thin strip of metal. A few minutes' work with a squirt gun, filled with half kerosene and motor oil, will cut the rust and leave a film of lubricant between the leaves.

Sometimes a spring is rusted to the extent that it becomes "frozen" in a rigid mass. The only remedy is to take it apart, wash each leaf with kerosene and replace, inserting a heavy piece of wrapping paper thoroughly saturated with a good grade of graphite grease between each leaf.

# AUTOMOBILE & GOSSIP

pound of repair.

A weak clutch spring can be repaired temporarily by placing washers under it.

Nearly 2,500,000 workers are engaged in or directly affected by the automobile industry. . . .

French automobile builders are experimenting with a car driven by the heavy oil remaining in petroleum after the extraction of kerosene.

In some instances the stem of the water pump has become so worn, usually the annular grooves, that the pump cannot be packed to make it

Skidding is probably one of the most common causes of automobile accidents. Yet, if the driver is care-Beather straps, attached as shown, are ful, he should have no trouble from

Many cars are using excessive quantiskeum is glued to the outer side of the ties of gasoline in the motor because tor does just as satisfactory work as good row crops for the sile. If alfalfa wrip hinged to the running board, so of drugging brakes, caused by the a regular bean huller when a few cannot be grown, cow peas, soy beans that when the attachment is folded, brake mechanism being in such poor changes have been made to reduce the or peanuts are leguminous crops to Be lineleum is uppermost .- Popular | condition that the brakes do not fully | meed of the cylinder. release.

### Durum Wheats Are Spring Varieties

Differ in Adaptation and Yielding Ability and Resistance to Drought.

(Prepared by the United States Department There are twelve varieties of durum wheat commercially grown in the United States. They differ in their adaptation and yielding ability, resistance to drought and rust, and in the quality of their grain, as well as in their appearance. They are all described by J. Allen Clark and John H. Martin of the United States Department of Agriculture in Farmer's Bulletin 1304, "The Durum Wheat," just

The durum wheats are all spring varieties with thick, compact heads, long stiff beards and large hard kernels. They are grown principally in the northern Great Plains area, where they are best adapted because of their resistance to drought and rust, which enables them to outyield other spring wheats. During the past ten years the center of the durum acreage has moved northward and westward.

Used for Granular Flour. Most of the durum varieties have white (amber) kernels, and the grain is used chiefly for the manufacture of a granular flour called semolina, from which macaroni, spaghetti and other alimentary pastes are made. There usually has been an active foreign demand for this wheat, but the flour mills in this country were not equipped for satisfactorily grinding these wheats and there was little demand for the product on the domestic market. More recently, however, large mills have been constructed for grinding durum wheat exclusively. A considerable trade in semolina and durum flour has developed, and finally a large macaroni industry has been established. The industry now uses annually more than 20,000,000 bushels of durum, or nearly half the average annual production in recent years.

Kubanka Is High Yielding. Kubanka is the variety best adapted for all the varying conditions in the sections producing durum wheat. It is a high-yielding wheat, considerably resistant to rust, of good milling quality, and best adapted for making both macaroni and bread

Acme and Monad are two similar durum varieties which are very resistant to stem rust. Acme is the highest yielding durum variety in most of South Dakota, and Monad the best yielding variety in North Dakota, Both produce macaroni of a grayish color, considered by manufacturers less salable than that made from Kubanka wheat. Mindum is the most productive variety in Minnesota.

The distinguishing characteristic nd the adaptation of the twelve different varieties are discussed in the bulletin, which may be had free of charge from the United States Department of Agriculture, Washington,

#### Difficulties in Getting Good Start of Alfalfa

There are a few difficulties in the way of getting a good start of alfalfa in the spring, and when these are guarded against it is easier than to get red clover started. It is of but little use to seed alfalfa on land which is sour in both surface and subsoil, and even then it is risky until limestone has been applied. Alfalfa can secure the same food from humus as from limestone, but it can get it from the humus only as the humus decays, and during the dry part of the summer the humus may cease to decay sufficiently to supply enough food, and the alfalfa, perishes. If plenty of limestone is present the alfalfa may secure the same kind of food even when the humus does not decompose.

#### New and Effective Way to Protect Cucumbers

A new and effective method of controlling the striped cucumber beetles is recommended by the entomology section of the Iowa experiment station. This method consists of dusting the young cucumber plants with a material made of one part of calcium arsenate and twenty parts of gypsum. Plants should be kept thoroughly protected by frequent applications of this dust. This method has been found more effective than the old method of spraying the vines with lead arsenate. The calcium arsenate acts as a poison and the gypsum stimulates plant growth.

#### Dwarf Essex Rape Best All-Round Forage Crop

Dwarf Essex rape is one of the best all-round crops to grow for hog forage hogs and sheep. It is a good emergency crop which can be sown as early be put in any time up to the last of

#### Thrash Soy Beans With Common Grain Separator

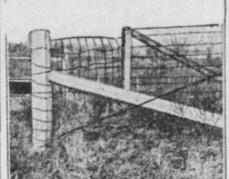
Soy beans may best be threshed with the grain separator, according to experiment station. The grain separa-

#### Lessen Fence Bills With Concrete Posts

Practically Permanent if Properly Made and Set.

The use of concrete fence posts is Community Refuses to Allow Them to one way of cutting down the tremendous bill which the American farmer has to pay for fences. Some authorities estimate that approximately one billion fence posts are used each year in the United States and that their total value is in the neighborhood of \$250,000.

Concrete fence posts when properly made and set are practically permanent, but a great deal of the durability of the fence as a whole is dependent upon the strength of the end posts and corner posts. The main strain of the



Reinforced Concrete Post Brace.

wire fence, which, to give the best service should be stretched very tight, comes upon these end and corner posts. If these posts are made large enough and are deeply set into firm soil, it may not be necessary to brace them, but should a brace be necessary a good way of providing it is shown in the illustration.

A concrete bar five inches square, reinforced with steel rods is cast, in a length great enough to reach diagonally from the base of the last line post to a point near the top of the corner post, where it fits into a notch provided for it. The strain which comes on the corner post is then transmitted to the base of the line post which is in turn supported by the earth so that it will not break off. Some wires extending from the top of the line post to the base of the corner post and twisted up tightly serve the double purpose of further supporting the line post and of preventing the brace bar from being dislodged.

#### Cocklebur Serious Weed Pest in Many Sections

In certain sections the cocklebur is a serious weed pest. Its competition with cultivated crops and its objectionable burs make the cocklebur very undesirable. It is comparatively easy to eradicate if proper attention is given to its control. Although an annual plant, a field infested with the cockleburs must be watched for two or three years if the burs are to be killed out, due to the fact that normally only one of the two seeds in each bur will sprout the first season, the other holding over until the second season.

#### Hasten Rate of Growth and Maturity of Chicks

The rate of growth and development of chicks can be influenced quite materially by altering their ration. The high-protein feeds, such as meat, tankage and milk, tend to hasten growth and maturity. Accordingly, if pullets are hatched so early that there is danger of their beginning to lay before the molting season passes, the feeds mentioned should be removed from the ration as soon as the chicks reach full growth. On the other hand, a free use of these feeds will help to overcome the handicap of late hatching.

#### Thinning Plants Is Hard Task for Many

Only a hardened professional or an amateur gardener calloused by long years of experience will thin his plants properly without some hesitation. The pulling up of so many seedlings seems wasteful, but usually from one packet of seeds many more plants than are needed are raised, and a few properly spaced so that they may develop to their full capacity in the long run will give far better returns than three or four times their number too thickly planted.

#### Failures in Securing a Good Stand of Alfalfa

When you fall to secure a stand of alfalfa, it's best to look for the cause of failure before wasting any more to take the place of or supplement the seed. Here are the principal reasons more permanent crops like clover and for failure in securing a stand of alalfalfa. It is good for calves, cattle falfa: (1) Sour land, (2) a poorly and horses but particularly adapted to prepared seed bed, (3) improper seeding, (4) poor seed. The quicker a farmer recognizes the factors which as the ground can be worked or may cause failure, the quicker he can correct them and make alfalfa a profitable crop on his farm.

#### Dairy Cows Profitable When Given Proper Feed

Dairy cows are not profitable unless fed properly. Ensilage and alfalfa hay the farm crops authorities of the Iowa | are the best cow feeds. The canes, kafirs, darso, feterita and corn are plant for dairy cow feeds.

## NO USE FOR AGED

In New Guinea Old People Are Summarily Dispatched.

Become a Burden and They Are Put Away With Expedition.

Guinea and the Bismarck archipelago. particularly in the matter of killing. is constantly coming into conflict with the white man's law and offers one of the most difficult problems that the white administrator is faced with solvin. The general attitude of Melanesians in regard to old people is a case in point. As old people approach decrepitude, they become a burden upon the village and every opportunity is taken to get rid of them. In some of the islands farther south off Australia, a general day is appointed for their ceremonial burial. Whether they happen to be dead or not makes no difference. Sometimes the old people actually march off to their own funerals, accepting their fate as the inevitable conclusion of old age; they even consider that it is the duty of affectionate children to honor them by thus outting a dramatic end to their lives, ifter they have passed the period of their usefulness. They are placed in a grave with tremendous ceremony the whole village taking part, and the earth is firmly stamped down over them, to the beating of many drums In the Bismarck archipelago, old people are occasionally taken into the oush, shut up in some isolated hut with a small supply of food and thus abandoned to slow death by starvation.

A peculiar case once presented itself for settlement on the west coast of New Ireland. A boy of nine was brought in for trial, accused of the murder of his grandmother. He had been taken aside, so he said, by a party of the elders of his village, who

"Why, you are growing up now to be a big fellow! It is certainly shameful that you should be a drain on the food stock of the village. We have altogether too many people dependent on us here. There are yourself and a great many other boys like you. and then there is that grandmother of yours. She does nothing but eat and eat, and it has finally come down to this: We have not enough food for all you people who loaf on the community. If your grandmother was dead, we might Le able to find enough food for you."

Pointing her out where she lay, a ground a hundred yards away, they handed the ax to the boy and told him that if he struck just where the front bone on her neck stuck out, and struck hard enough, she would instantly be killed. Terrified by the ordeal he had just been subjected to, dragged away from his playmates and confronted with the sinister and lowering elders, he took the ax, rushed over to the old woman and killed her as he had been instructed, with one blow. He was then promptly handed over to the police by the chiefs, who selzed on the occasion thus to rid themselves of two drains on their food supply.-From On Crime and Punishment in New Guinea, by R. W. Cilento, in Asia Magazine.

Bees Never Sting Some People. Jack Beater asks this question in

Adventure Magazine. He says: "I never had much fear of bees even as a kid. One Fourth of July when I was about fourteen, I experimented with several bee hives and some cannon crackers. The operation is simple. Slip up to the hive and insert the ing stuff that gets you by the heartcannon crackers in the main entrance. stung every one within a half-mile but | throughout all the ages." me. Why?

"Another time I was raking a hayfield was fenced and the gate was barely wide enough for a team to pass through. The team passed through all right, but the hayrake and I didn't, No sir, we stopped real sudden like. The horses were a mass of bees and I was very well covered myself. There to claw them off. But not one stung me. Why?"

### Limit of Dissatisfaction.

The troops had been marching at last they were lined up for inspection before a general.

In the evolution a young cavalryman who had recently enlisted was thrown from his horse into the mire, from which he emerged in a dreadful state. though uninjured except in his The general himself, who had wit-

nessed the incident, rode up, and, preserving his gravity with some effort. inquired of the trooper if he had suffered any hurt from the fall. "No," was the disgusted reply. "But

if I ever love a country again, you can kick me!"

Russian Military Service. Compulsory military service is in force in Russia, where all male citizens are liable to service between the ages of twenty and forty. Conscripts must spend a year and a half in the infantry, and two and a half years in the cavalry, artillery and technical forces, three and a half years in the air fleet and four and a half years in the sea fleet.



## **Become Prosperous**

and Independent

Write today, or call for par-

Qualified graduates are guaranteed positions assisted to open Marine Ilo Shops of their or Latest electrical equipment and up-to-date metho Foremost instructors. Bright, sanitary class roo

Suite 814 366 Fifth Ave. New York City

DAY and EVENING Rational School of Gosmeticians CLASSES Affiliated with MARINELLO School of Boauty Gilnion "Marinello Beauty Aids Used All Over the World"

## Beautiful Skin

soft, smooth, clear, "pink and white"—the matchless complexion of youth. Sulphur purifies. whitens and refreshes the skin. For beautifying the face and arms, use

Reshind's Stypic Cetton 25c

-Glenn's Sulphur Soap Contains 33% Pure Sulphur. At Druggists

## **ALLEN'S FOOT-EASE** FOR THE FEET

Sprinkle one or two Allen's Foot-Ease pow ders in the Foot-Bath and soak and rub the feet. It takes the sting out of Corns and Bunions and Smarting, Aching feet. Then for lasting comfort, shake Alien's Foot-Ease into your shoes. It takes the friction from the shoe, rests the feet and makes walking a delight. Always use it for dancing parties and to break in new shoes. Over One Million Five Hundred Thousand pounds of Powder for withered old crow, asleep on the ground a hundred yards away, they handed the ax to the boy and told the ax to the boy ax to Allen's Foot-Ease, Le Roy, N. Y.

## HEALTH

How to get and retain. Full particulars free. ZENDEJAS INSTITUTE Los Angeles, Cal.

\$13.00 Per 100 \$7.00 Per 50 S. C. WHITE LEGHORNS, BARRED ROCKS, R. I. REDS from carefully selected stock. Every chick as hale and healthy as the hour it was born. Immediate shipment and safe delivery guaranteed.

L. R. WALCK, R. R. 3. GREENCASTLE, PA. HAY FEVER or if you suffer from ROSE COLD your name and ad dress to E. K. Co. 701 Montgomery Avenue, Philadelphia, Pa

A Fable.

"Mine" (wrote the film publicity agent to his love) "is flaming superpassion, the real tender world-shakstrings, raw elemental throbs that grip light, and run like ---. Only I forgot and clasp and quiver and clutch. You to run. Well, the bees came out of the have never before conceived that such hive all right and, I believe, they a colossal super-love could be featured .

And she wrote back sadly, "You are getting tired of life. I miss the lyrical field with a two-horse rake, one of ecstasy of your earlier letters. Why those wide affairs. The rake raked up do you write so formally, so coldly? a nice-sized nest of ground bees. The I no longer stir you. Good-by."-London Answers.

Know Little of Domestic Animals.

St. Louis, Mo., being one of the centers of the live stock industry, was naturally astonished when some one suggested that a sheep, a cow and a were bees on my neck so thick I had pig be placed in the municipal zoo so that school children might know what the animals look like. Later a census of sixth-grade pupils disclosed that 40 per cent had never seen a sheep, that 17 per cent had never seen through a sea of mud for hours, when a pig, and that 12 per cent knew what a cow looks like only from pictures.

Tune up the lawnmower.

