

Where Costliest Perfume Is Made

Bulgaria, Home of Attar of Roses, Is Suffering From Shortage of Crop.

Washington.—Roses are not doing so well in Bulgaria this year. This is not the casual statement that it may appear. It amounts to a great deal more than a statement, for example, that California's poppies are suffering, that the blue-bonnet crop is not up to the standard in Texas, or that the daisies in Maryland are scarcer than usual. A bulletin by the National Geographic society's headquarters here tells why.

"Roses are not merely things of beauty in Bulgaria," says the bulletin. "They constitute a real crop, and mean as much to some parts of the country as cotton means in Georgia, or potatoes in Maine. It is literally true that the rose means bread and butter to thousands of Bulgarian country folk. Great fields of roses are grown that the petals may be made to yield each its infinitesimal share of attar of roses, the last word—and the most expensive—in perfumery.

"It is in the valleys on the southern slopes of the Balkans that roses have been grown for generations for the perfumery industry, for there the climate, soil and drainage are just right in normal seasons for this most exacting flower. Before the World War there were probably between 25,000 and 50,000 acres of rose gardens in the Bulgarian 'rose belt,' and the annual yield of the attar was about 150,000 ounces. But perfume was not greatly in demand in the German and Turkish world to which Bulgaria's exports were confined during war time, and roses gave way to the tobacco plant, whose particular fragrance was more appreciated by the millions of men under arms. Since the war rose-growing has recovered, but in no postwar year has the average climbed above 15,000.

Most Concentrated Product.

"Attar of roses is one of the most concentrated 'agricultural products,' if it may be so called, produced anywhere in the world. The countless rose petals grown on an acre yield only a few tablespoonsful of the fragrant oil. The

attar is in effect the materialized and captured fragrance of the rose, and probably 50,000 or more flowers must contribute their share in making each ounce of the completed product.

"The roses are largely gathered before sunrise, or at least before the dew has dried; for the moisture helps to preserve the fragrance. The peasants seem to enjoy their aesthetic job. Troops of gaily dressed girls and young men go through the gardens stripping the buds from the plants. They are dumped in piles before older women who sort them in readiness for their trip to the nearby factories. The buds are placed in retorts with about twice their weight of water and the liquid is then distilled. The resulting liquor is allowed to stand overnight in pans. By morning a thin film of a solid oil has risen to the top. This, the attar, is carefully skimmed off, and the remaining rose water is in most cases thrown away.

"The genuine attar of roses is so strong that its odor is not very pleas-

Enables the Blind to Read Music

Blind Printer Invents System by Which Sightless Musicians Can Read Notes Easily.

Jacksonville, Ill.—Five years ago L. W. Rodenberg, blind printer of the state school for the blind, began experiments to perfect a system of musical scores for the blind. In 1923 his device has been accepted by all the leading institutions for the blind in the United States, and the school at Jacksonville now publishes more music than any other institution in America.

Formerly when a blind musician would run his fingers over the embossed dots of his score, he could read only notes designed for the left hand without the slightest knowledge of

ant. When combined with other materials and so properly diluted, however, the fragrance is delightful. One drop is sufficient to give a pleasing rose odor to a gallon of cologne.

Has Reached \$100 an Ounce.

"In 1919 the United States imported over a thousand pounds of attar of roses from Bulgaria. Its cost there was only about \$150 a pound. The price of the attar is much greater, of course, by the time it reaches the consumer. The best grades have sold at times for \$100 or more an ounce.

"Though Bulgaria is perhaps the best known source of attar of roses, it has no monopoly of the production of this most highly prized of perfumes. In the celebrated Vale of Kashmir, in some parts of China, in some of the oases of Persia, in Egypt, and in Asiatic Turkey the flowers from many acres of roses are concentrated in much the same way. The industry has even invaded the west and is carried on near Leipzig, Germany, and around the famous 'City of Perfumes,' Grasse, in southern France."

Police Forbidden to Smoke.

Los Angeles.—August Vollmer, Los Angeles' new chief of police, has issued an order forbidding officers from smoking while in uniform and from smoking in the public offices of the various police stations.

BEADED BLOUSES APPEAR; SOME SMART ACCESSORIES

TO THOSE who are "listening in" on the latest word in styles as broadcast by fashion centers and relayed through the genius of many designers there comes the message that beading will be a favored adornment in fall blouses. Silk embroideries, of course, we have with us in great abundance, and a great number of embroidered styles will continue popular. Beading provides a somewhat brighter adornment than silk, and it is in keeping with the colors and materials favored

includes neckwear, veils, gloves, girdles, belts, jewelry, fans, umbrellas, besides many little articles for which fads come and go. Examples selected from some of the more essential accessories reveal their styles for fall, as shown in the illustration. It includes a veil, a pair of kid gloves, a girdle and three bags all prominent in current modes.

In veils there is a wide variety of patterns in which fine, large-mesh veillings are ornamented with silk em-



Cheerful Blouse With Bead Design.

or fall and winter—it is certain to keep pace with the advance of the season.

The cheerful blouse pictured here is of holly-berry red creep de chine, with bead design in white and green. Small round beads are used in making the pattern and long bugle beads in the same color decorate the cuffs and the hem line. The blouse is made with a combination collar which may be worn shown or snapped closely around a neck. The long set-in sleeves and bonnet tie at the side are both firmly established in the new fashion.

brodery in self color and endless variation in design. Sometimes the veil is almost entirely covered with embroidery, but usually a plain space is left in order not to interfere with the vision when the veil is worn over the face. Quite often the veil serves merely to decorate the hat, with perhaps a little of its edge falling over the brim edge. There are many patterns with floral motifs woven in and outline embroidery added as a border.

Gloves reflect the flair for elaboration in other apparel. Gauntlets in two colors of kid for street wear are represented in all displays, but plain



Some of the Little Necessaries.

are being developed in duvetyns, staid silks and a number of novel ones. In addition to beading, there is considerable interest in metal broes, applique designs of chenille, set braids and allover patterns of brodery. A rather startling over-use recently shown combined bright metal cloth with an embellishment of a rose pattern in green and red beads.

"A lady is known by her gloves and shoes," is a fashion adage it means more than it says. It is apt to emphasize the importance of all details in the toilette—things that may lift it out of the commonplace or add to it a touch of elegance even a superb finish. These accessories of dress command as much attention as their necessities do and attention to them is as well worth while. There is a long list of things that fit the privilege of women to wear—all belongings that lend charm and dexterity to their apparel and bespeak good taste and refinement. The list

chamois skin and chamollette are not unrivaled by the dressier kid. They are shown in white, chamols, gray, tan, beige, brown and black and their washable quality makes a firm demand for them.

Leather bags of all sorts in medium and small sizes remain the most practical and popular shopping bags. Dresser bags are made of moire silk or satin, while beaded bags in all sizes and various shapes divide honors with those of paisley or other fabrics, brightened with steel beads.

Sashes, belts and girdles need a small book to tell their story. One of the new girdles made of silk cord is pictured. It points the direction the mode is taking, with its very long tassels and embroidered ornaments.

Julia Bottomley
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Sickness.

Many of our infectious diseases are relatively recent origin and due to artificial, unnatural life of civilization, declares W. B. Scott, Princeton professor.

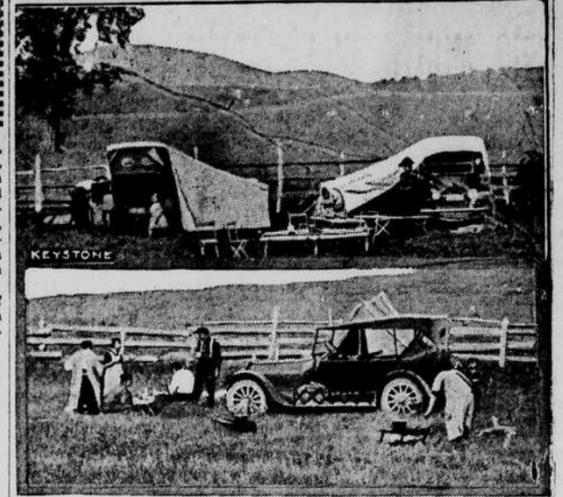
As man's history goes, typhoid is a stranger among diseases, Scott says. Typhoid never bothered Caesar's soldiers. It was 1823 before typhoid differentiated from typhus. Typhus, hotbed of yellow fever until latter of months ago, had no germs this disease as late as 1874.

We'll find a flu cure and preventive one of these days. Then nature will send along a new disease. She does, as fast as we conquer the old ones—competition, to keep us battling for existence. That battle breeds strength.

Lace Scarfs for Evening Wear.

In evening gowns of taffeta where the bouffant mode is supreme, the costume is not complete without its accompanying scarf or shawl of metal lace, which is a feature of these numbers.

REAL JOYS OF LIVING IN COUNTRY



When the sun begins to cast its rays right into your innermost bones, then is the time to pack up, take the bus and family, and shoot away to some quiet country place for a few days to taste the real joys of living. Here is a camping squad of autos and they all seem to be enjoying themselves while dinner is being prepared.

DISK CLUTCH IS EASY IN ACTION

Mechanism of Unusual Qualities and Unit of Almost 100 Per Cent Perfection.

(By ERWIN GREER, President Greer College of Automotive Engineering, Chicago.)

The disk clutch is a mechanism of unusual qualities. Simple, easy to operate, efficient and lasting. In view of the severe work which it has to perform and the excellent manner in which it does it, without attention, makes it a unit of almost 100 per cent perfection. There are times, however, when one of these clutches after a period will begin to slip. This slipping condition will usually develop after the first two or three months' service if it is going to slip at all, and I am now going to try to make it clear, the reason of this and how to overcome it.

This clutch of the dry disk type is made up of a number of disks arranged alternately with a steel plate against one fabric lined. The edges of the fabric-lined disks have a series of teeth cut around the outer diameter which mesh with corresponding grooves in the outer drum. The steel disks have keyways out in the edge of holes in the disks which engage in keys in the internal drum. When the clutch is engaged these disks are firmly compressed by two springs acting against the compressor plate.

Height of Disks.

The height of the total number of disks piled one on top of the other and arranged the same as when in the clutch should equal or be slightly in excess of the distance from the shoulder to the edge of the internal clutch drum. When a car is new the lined disks are bound to have high spots on them and after a few hundred miles' running these high spots will be worn down, resulting in a reduction in the measure of the disk assembly. When the reduction is sufficient to make the measurement of the disk assembly less than the measurement from the shoulder to the edge of the drum, then the compressor plate will strike the edge of the drum and the pressure of the springs will be against the drum instead of the disks, resulting in a slipping clutch.

To Correct Slipping.

To correct this slipping condition the only thing necessary is to add something to the disk assembly in order to increase the measure of the disk assembly. This can be done by installing one extra disk and the best place to put it is against the shoulder of the drum. One disk is usually sufficient to make up the required amount. Do not put too many disks in as there would be a possibility of the clutch not releasing properly. Very often when one of these clutches starts to slip the owner will pour gasoline on it or tighten the springs. This usually does not help much as in most cases slipping is caused by the condition just given.

Slipping of the clutch is also caused by improper pedal adjustment. The clutch pedal at all times should have a slight amount of play so that there is no doubt that the clutch is being held out by the pedal stop.

Do not pour oil in the clutch housing as it will damage the clutch lining, making it too soft. Keep the thrust bearing greased.

CARBURETOR MIXTURE TESTS

Driver Soon Can Tell If Correct by Opening Petcocks at Top of Cylinders.

You can tell if the carburetor mixture is correct by opening the petcocks at the tops of the cylinders (if the engine has them) one at a time and noting the color of the flame which emerges from the cylinder while the engine is running. If the flame is a faint blue the mixture is correct. If it is red, too much gasoline is being consumed, and if the flame is yellow the mixture is too lean.

An Emergency Pin.

In an emergency a temporary taper pin may be filed from an ordinary nail or a stiff piece of wire to replace a taper pin that has broken on the magnetic drive or in some other important location.

Bearings Lopsided.

When bearings begin to wear, they are soon knocked lopsided, depending upon the thrust of the engaging member. Even the slightest amount of wear will develop a knock which greatly hastens the end of the bearing.

EASIEST METHOD TO GET AT COMMUTATOR

Task Is Simplified by Use of Thin Wooden Paddle.

It is difficult to get at commutators as a rule, due to the small opening at the commutator end of a generator or starting motor. This requires that some simple tool be made to get at the commutator through one of the brush holder openings. The easiest way to do this is to take the cover of a cigar box or some thin wood stock and make a small paddle about 4 or 6 inches long and about half the width of the brush holder.

To use this simple arrangement for cleaning generator commutators first remove the most accessible generator brush and then wrap a strip of No. 00 sandpaper over the end of the paddle and use it through the brush holder when the engine is running as one would use a hand lathe tool. This will thoroughly clean the commutator and do it evenly. Under no circumstances use emery cloth or electrical cloth, as emery is a conductor and will short the commutator. Shorted armature windings on most machines will make themselves known by turning the segments of the armature a blue color. One shorted winding will make two segments 180 degrees apart or one-half way around the commutator change color.

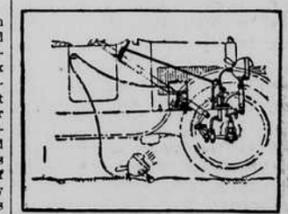
A dirty motor commutator causes arcing and heating. This is also true if the contact faces of the brushes are cut and not smooth. If this condition is found, it is best to smooth the faces of the brushes, as they will cut the commutator so badly in a short time that it will have to be refaced by taking a cut off of it in a lathe.

HEADLIGHT FOLLOWS BENDS

Lamps Controlled by Steering Mechanism in Such Manner That They Turn With Wheels.

In illustrating and describing an automobile headlight, the invention of R. L. Rice and W. M. Jordan of Hovey, Miss., the Scientific American says:

This invention relates to headlights for automobiles or similar vehicles, and has for its object to provide means wherein the headlights are controlled



Headlights Follow Wheels.

by the steering mechanism in such manner that they turn with the steering wheels of the vehicle whereby the road is illuminated even on the sharpest turns. Further objects are to provide means by which the lights may be controlled to remain stationary, or may be removed and used as a spotlight enabling the driver to readily carry out repairs.

AUTOMOBILE PAINTS

The pan under the engine is a unit which is capable of making considerable noise if it is not properly fitted and rigidly secured in position.

One of the most common complaints among car owners is the improper action of the clutch. The clutch throughout collar needs.

A handy screwdriver can be made from a shoe buttonhook by cutting off the hook end, then flattening this and shaping it to fit the heads of small screws.

With the aid of the oiling chart supplied with the car every grease cup should be inspected, filled if it is empty, and given a turn to insure pressure enough to force the grease into the mechanism.

High Oil Pressure.

The oil pressure gauge on the dash sometimes registers high oil pressure at slow engine speeds when the engine is first started. This is due to the congealed oil in the line leading to the gauge, and also in other parts of the lubricating system.

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