

## RESOURCES

## War Causes Shortage Of Famous Lavendar Scent

**H**ARDSHIPS of war in Britain now include a shortage of lavender oil, foundation of the famous English lavender water and other toilet articles. The lack is noted in a communication to *Nature* (Aug. 31), by H. S. Redgrove, of Pangbourne, Berks.

Although there is some domestically produced lavender in Britain, the bulk of the supply used in the toilet-goods industry has always come from France, which is now in no position to produce or export the scented plant. Lavendar growing has been tried with promising results in Kenya (Africa) and also in Western Australia, but these overseas sources have not been developed to the point of commercial production.

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## METEOROLOGY

## Hurricane Was Away From Ordinary Path of Weather

**T**HE HURRICANE that smashed across Nova Scotia on Sept. 16 and the famous 1938 hurricane that spread ruin in New England were storms off the beaten path of American weather.

If meteorologists used such language they might describe these abnormal storms as "flukes."

Usually the immense masses of whirling air, born in the Atlantic near the Cape Verde Islands, come west to the Caribbean region and then rush up the Atlantic Coast. There they are forced out to the sea by masses of high pressure air over the mainland. They vent their fury on the ships at sea.

Both the recent storm and the New England hurricane were guided by two such masses of high pressure air, one inland and the other a high pressure area out to sea that channeled the storms toward land and man's puny things there.

It is just unfortunate that such a condition of the atmosphere forced the 1938 storm over New England and this week's storm over Nova Scotia with its teeming Halifax port so vital to British supply efforts.

Ordinarily, explained R. Hanson Weightman, of the U. S. Weather Bureau, high pressure over the northeastern section of the country pushes such a hurricane out to sea about the time it has travelled northwards along the coast as far as Cape Hatteras. Then it travels

to the northeast and heads out to sea, where it is largely dissipated.

Once in a while, however, the high pressure area may move out to sea, and a channel is formed between it and one to the west. The air in a high tends to move counter-clockwise. At the western edge of the trough the winds are from the north while at the eastern edge they are from the south, thus guiding the storm on its way. The work of the Weather Bureau is to time and plot the movements of these areas, and the hurricane track that moves with them.

The famous New England hurricane, which occurred two years ago, was guided by a very slow moving high which remained off the coast, and caused this storm to move northerly, over the regions where so much damage was done. The conditions this year made the Nova Scotia hurricane move to the north northeast instead of northeast.

This seems to be a normal hurricane season, so far as numbers are concerned. Usually this period, from June to October, brings about a half dozen such storms.

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## CHEMISTRY

## Melamine, Once Rare, Now Used in Plastics

**M**ELAMINE, two years ago a rare chemical selling at \$40 per pound, and now listed at 55 cents per pound as a result of its production on a quantity basis, is the raw material of a whole new family of valuable resins used in paints and plastics. (American Cyanamid Co., Stamford, Conn.) Cups and saucers made of these plastics are not stained by coffee and can be dyed in light colors which do not fade. In paint, melamine resins give a porcelain-like finish which resists aging, discoloration and heat up to 300 degrees Fahrenheit.

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## INVENTION

## New Electric Stopwatch Counts Seconds and Tenths

**A**N electric stopwatch counts seconds and tenths of seconds just as the speedometer of your car counts the mileage of your trips. (Precision Scientific Co., Chicago) It is connected to the standard 110-volt A. C. lighting circuit. Pressing a button on the front starts and stops it, while a knob on the side is turned to reset it.

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# IN SCIENCE

## BOTANY

## Beautiful, Though Spectral, Are Indian Pipe Flowers

See Front Cover

**N**EITHER pallid giraffes from some weird African fairyland nor ghostly sea-horses from ocean's unexplored abysses are the objects pictured on the front cover of this week's *SCIENCE NEWS LETTER*; though these were suggestions of imaginative persons to whom the photograph was first shown. They are simply a group of Indian pipe flowers, found in moist woods near Washington by Science Service's photographer, Fremont Davis.

The Indian pipe plant belongs to that strange, varied brotherhood of flowering plants that have taken to the ways of fungi, live either as parasites preying on living organisms or as saprophytes feasting on the dead, and so have lost any need for the food-making chlorophyll that gives green color to most of the higher plants. The Indian pipe is saprophytic, thus to some extent justifying its somewhat macabre alias, "corpse plant"; though it feeds only on dead plant remains, not on actual corpses. It still retains leaves, though as can be seen in the picture these are reduced to mere flaccid vestiges, practically without function.

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## INVENTIONS

## Miniature Respirator Fits in Vest Pocket

**A**MINIATURE respirator for protection against breathing of smoke or dust is so small that it can be carried in the vest pocket. (H. S. Cover, South Bend, Ind.) The person wearing it can talk, eat, sleep, smoke, and even wear spectacles. The nose piece is of soft pliable rubber, which will fit a nose of any shape, and the filter is folded in such a manner that about nine square inches of filtration area is provided. Elastic loops, slipped around the ears, hold it in position.

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# CE FIELDS

## RADIO

### Antenna for Autos Curls Up Out of Way

**A** RADIO antenna for automobiles and other vehicles makes use of the same principle as the old tickler used to enliven parties (Berlin invention). These are the gadgets into which you blow, and a coiled paper tube unwinds, whistling as it does so. A butterfly's tongue operates in the same manner. The antenna uses a metal tube, and air is forced in from a hand pump to extend it. When a valve is opened, the air is released, and the antenna is recoiled.

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## ETHNOLOGY

### Indian Dictators Ran Wars In American Wild West

**S**PEAKING of war, as Americans inevitably do these days, here is how one of the most warlike American groups—Comanche Indians of the Wild West—ran their wars with a dictator expedition leader, volunteer followers, and some pretty astute psychology.

Comanches were war specialists, it appears from a study of their political and legal usages just reported by Dr. E. Adamson Hoebel of New York University. For a Comanche man or boy, the chief interest in life centered around war and raiding, Dr. Hoebel finds.

Any Comanche had the right to start a war. Unless he had enough influence to attract followers, the war party was apt to remain just a private fight. But if an Indian of strong reputation called for followers, a war was generally on.

Conscription was unknown among individualistic Comanches. Volunteers were literally drummed up by the would-be leader, who drummed and sang war songs in his tipi, hoping joiners would come to sing with him. Later, the recruits danced the war dance, each aided by a partner—the girl he would leave behind him.

Absolute dictator was the role assumed by the Comanche war leader, for the duration, and some raiding parties were gone more than a year, Dr. Hoebel points out. Comanches say that the system

worked because fighters went only with a leader of trusted ability, and were well aware that disobedience might bring disaster to all. A fighter who lost confidence simply went home. No instance of a Comanche war leader exerting force to control his men could be uncovered by the anthropologist.

Comanches made peace with the United States more than 100 years ago, but continued until the 1870s to rate Texas and Mexico as enemy soil, and fair ground for raiding. Capture of horses, love of adventure, and war honors were three attractions wars and raids offered to these Indians.

The war bonnet, highest fighting award, was won by Comanches generally for coups—exploits of killing enemies at close range with bravery. Wearing a war bonnet, a Comanche could never retreat, and his feathered headpiece made him a conspicuous rallying point in battles.

When Comanche raiders garnered in a herd of horses by stealth or fighting, they sought a safe distance to divide spoils. Apportioning the much-coveted horses, which were a badge of wealth, the leader gave first choice to his most able and helpful men. Then, the rest took theirs, provided there were enough to go around. And the leader, says Dr. Hoebel, was content with last of the pickings, or none, if need be. A reputation for fair division of spoils helped a war leader's prestige, and won him followers for another fight.

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## INVENTION

### Dated Eggs Possible With Automatic Stamper

**D**ATED EGGS are possible with a recent invention, which marks the date automatically as it is being candled. (U. S. Patent 2,213,009, Bernard Knopp, Bennett, Nebr.) As the candler holds the egg to the light a rubber stamp marks it.

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## CHEMISTRY

### Transparent "Glass" Shoes For Modern Cinderella

**T**RANSSPARENT shoes have recently been introduced. (Saks-Fifth Ave.) They are made from the same transparent flexible plastic that has for some time been used for belts, suspenders, wrist watch straps, etc. Some are clear, others colored, making many effects possible.

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## MATHEMATICS

### Higher Mathematics Now Aids National Defense

**H**IGHER mathematics have come to the aid of the national defense, it was disclosed at the University of Pennsylvania Bicentennial Conference. Capt. Leslie E. Simons, of the Ordnance Department, U. S. Army, told how statistical methods are being used to make the testing of samples of ammunition speedier and less expensive.

Hitherto it has been necessary to use up rather large samples of any given lot of ammunition, to get an idea of quality and dependability of the lot as a whole. In the new method, smaller samples are used, but all previous experiences with the same manufacturer are taken into consideration in calculating the results. If the performance of these small samples falls within the range of previous experience, only the first batch is subjected to further tests with large samples. If the initial test goes too far wide of previous experience, every lot may have to be subjected to the expensive large sample testing procedure. Thus there is an incentive to manufacturers not only to make the quality of their products high but to keep it high.

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## CHEMISTRY

### New Device Recovers Carbon Tetrachloride

**D**RY CLEANERS may now reclaim the carbon tetrachloride and other liquids that they use for their work with an automatic solvent still. (Circo Products.) The grease or oil-laden solvent is poured into the top of the still, which is electrically heated. The clean, distilled solvent is collected in one container, from which it may be drawn off, the oil or grease in another.

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## INVENTIONS

### Portable Electric Roaster Tells Temperature Within

**A** PORTABLE automatic electric roaster is now made with a device formerly used only on large ranges which tells by colored lights the degree to which the temperature control has been set. (General Electric Company.) The temperature, from 150 to 550 degrees, is controlled by a thermostat. The roaster can accommodate a 20-pound turkey.

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