

RESOURCES

Automobile License Plates May Be Good For Two Years

EXPECTING a shortage of steel, many States are considering issuing future automobile license plates for two or more years, according to information received by the American Automobile Association.

Michigan is considering two years, Connecticut, five years, and even a permanent license plate has been proposed. Each year, according to one plan, a small strip of steel showing the new year number would be bolted over the old number.

Another plan is to substitute paper stickers for the plates.

Use of a plastic in place of steel has not been considered because there is also a shortage of plastics.

Painting over the old plates must also be discarded because such painting would cost around eight cents against two to three cents for new plates.

While all these things are still under discussion, one thing appears quite certain, namely, that the old plates will be taken up when the new plates are issued, thus conserving the steel they contain.

Science News Letter, September 6, 1941

MATHEMATICS

Search for Mathematical Talent as Defense Measure

DEPARTMENTS of mathematics in our schools and colleges should seek out young men and women who have mathematical talent, whether they are taking mathematical courses or not. This is among the recommendations of the Subcommittee on Education for Service of the War Preparedness Committee of the American Mathematical Society and the Mathematical Association of America.

A shortage of engineers and physicists is declared at hand which should be brought to the attention of boys of mathematical ability in the high schools in order that they may extend their mathematical training. Even if they do not become engineers or physicists, the training will be of value to them.

Boys of intelligence, now in grades 11 and 12, who have not had substantial training in mathematics, the mathematicians recommend, should be offered an abbreviated treatment sufficient to train them for entrance into skilled industry, the Army or the Navy.

Opportunities exist in the Army and Navy for mathematically trained young men. For mathematically trained women there are semi-mathematical fields, as for instance, business statistics, accounting, and drafting. The continual drain on manpower, the committee says, may create openings for women in these fields.

Fundamental training in classical mathematics in lieu of short-cut emergency courses was recommended. The men should be over-trained rather than under-trained. The training required is in elementary and intermediate mathematics rather than in advanced mathematics. Very thorough advanced and technical training is given in the academies at West Point and Annapolis.

Science News Letter, September 6, 1941

ASTRONOMY

New Comet Spotted By Four Different Astronomers

A NEW comet is in the heavens. It was first discovered by Astronomer duToit at Harvard's southern station at Bloemfontein, South Africa, on July 18, and later independently spotted on July 25 by Astronomer Neujmin at Simeis Observatory in the Soviet's Crimea.

News of the discovery has been bulletined to American observatories by Harvard Observatory, which is the astronomical clearing house for this part of the world.

It has now been picked up by an astronomer in this country, Dr. George Van Biesbroeck of Yerkes Observatory. His data indicate that the comet is now in or near the constellation of Capricorn, which is almost due south and half-way from horizon to zenith at 9 p.m.

The duToit-Neujmin comet has also been reported by a Belgian astronomer, Dr. M. Delporte of the observatory at Uccle, near Brussels. Dr. Delporte's dispatch was relayed to Harvard College Observatory in this country through the international clearing house for astronomical information at Copenhagen, Denmark, which continues to function despite the war.

The comet was variously observed as of 9th, 10th, and 11th magnitude, too faint to be seen without a telescope. It is in the vicinity of the constellation of Aquila, the eagle. More observations will be needed to determine whether it will become visible to the unaided eye.

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IN SCIEN

ZOOLOGY

Scientists to Follow Fur Seal Herd to Sea

WHEN the great fur seal herd of the Pribilof islands next puts to sea, at the end of its breeding season, it will be accompanied by a group of scientists of the U. S. Fish and Wildlife Service, in a specially equipped vessel now being outfitted. Object of the expedition will be to obtain further data on the life habits of these highly valuable animals for use in their protection.

By international treaty in 1911, the United States undertook the supervision of the Pribilof herd, largest group of fur seals in the world, then threatened with extinction through reckless hunting at sea. Last October, Japan gave notice of intention to abrogate the treaty, which she had a legal right to do, but stated at the same time that she was prepared to conclude a new agreement.

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ORNITHOLOGY

Artificial Light Induces Pheasants to Lay Early

THE POULTRYMAN'S trick of using artificial light has been used successfully in getting early "settings" of pheasant eggs, by Prof. Thomas Hume Bissonnette of Trinity College and Albert George Csech of Shade Swamp Sanctuary at Farmington, Conn. (*Journal of Wildlife Management*, October.)

Mongolian, ring-neck and black-neck pheasants were used in the experiments. Lights were turned on above their pens at the beginning of January and continued until late in April. All three species began laying fertile eggs in February, while similar groups, left unlighted at night as controls, did not begin to lay until in April.

So determined were the light-treated pheasants to produce eggs that they often laid them in depressions in the snow, and on occasions the hen birds even became frozen into the ice on the floors at night and required breaking out in the morning.

Science News Letter, September 6, 1941

CE FIELDS

NUTRITION

Soldiers Help to Set New Food Fashions

TAKING a cue from the Army, civilians in the United States may soon be buying their groceries in the form of food powders in increasing quantity. Since a pound of potatoes in powdered form equals eight pounds of spuds in the round, saving which can be effected in precious transportation space is tremendous.

Newest dehydrated foods developed by the Quartermaster Corps' research laboratory in Chicago are pronounced far more satisfactory in flavor and food value when they are cooked than dehydrated beans, peas, and onions that were shipped overseas to the AEF in World War Days. War Department officials predict that soldiers will like these new condensed foods well enough to influence American food habits in general.

The dehydrated foods are especially important for troops in Iceland, Newfoundland and other distant posts, where transportation of bulky food is a problem.

The Department of Agriculture is working on a special program of research in California to improve methods and equipment for dehydrating vegetables, with special emphasis on such protective foods as tomatoes, leafy vegetables, carrots and green beans.

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FORESTRY

Forest Fires Detected With Polarized Light

FOREST fires will be spotted more easily if watchers make their observations through colored filters that polarize the light, experiments by George M. Byram, of the Appalachian Forest Experiment Station, Ashville, N. C., have shown.

The detection of distant forest fire smokes from high mountain lookout posts is made very difficult by the atmospheric haze which, even on clear days, obscures distant objects and makes them look blue. By the use of colored polarizing screens the haze can be penetrated.

Mr. Byram, in tests reported to *Science* (Aug. 22), used a red filter with polarizing screen. Red filters are in common use for cutting out the blue rays of the haze, but the addition of the polarizing screen greatly increases the effect.

He photographed from Mt. Mitchell in North Carolina high cirrus clouds almost 350 miles away in western Kentucky. Only the curvature of the earth prevented a range greater than this.

The polarizing screens used are similar in action to the polaroid sunglasses. When set in the proper way, a polarizing screen stops polarized light, allowing only ordinary light to pass through. The light of the blue haze is polarized to the extent of 50% to 70% on clear days. In use, the forest fire spotting screen is set to stop this light.

The blue haze and the polarization of the light are caused by very fine particles suspended in the air. When the particles are larger, the amount of polarization is less. Hence these screens are ineffective for penetrating fog, which consists of relatively large particles of water.

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INVENTION

Slot Machine Delivers Frankfurters on Rolls

FRANKFURTERS automatically cooked and delivered, together with a hot bun while you wait, after the insertion of a coin, is a novelty afforded by an invention recently patented. The frankfurters are electrically cooked as they pass down the machine, turning as they pass and never touching the grill. The apparatus is dust proof, provides means for removing the fat that drips from the sausages, and has other advantages. The only operation left to the consumer or the attendant is to place the frankfurter in the bun and lo—a hot dog. (*Edward L. Benedict, N. Y. C., Patent No. 2,244,670*).

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INVENTION

Plastic Garden Seeder Does Not Get Out of Order

AGARDEN SEEDER, made of plastic, operates by a master wheel with no chains or gears to get out of order. Disks permit accurate spacing of seeds and a special brush attachment prevents cracking or grinding of seeds. (*Gregg Mfg. Co., St. Paul.*)

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MEDICINE

U. S. Belladonna Root As Good as Bulgarian

BELLADONNA root extracts are good medicine for patients suffering the after-effects of "sleeping sickness" labelled parkinsonism, and U. S. Pharmacopoeia belladonna root is just as good as the Bulgarian variety first used when this treatment was introduced.

These, in brief, are the conclusions of reports from Dr. Howard D. Fabing and Dr. Meyer A. Zeligs, of the University of Cincinnati College of Medicine, and Dr. J. C. Price and Dr. H. Houston Merritt, of Boston City Hospital and Harvard Medical School. (*Journal, American Medical Association, Aug. 2*)

The treatment is not a cure for the condition, but brings about great improvement in about one-half the moderately severe cases and one-fifth or one-fourth of the very severe cases.

This seems like especially good news just now when belladonna root from Bulgaria may be impossible to obtain and when an outbreak of encephalitis or "sleeping sickness" in North Dakota threatens to leave more patients suffering the tragic after-effects of this disease. The particular effects for which the belladonna extracts are helpful are the rigid muscles, mask-like faces, peculiar gait and palsy.

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ORNITHOLOGY

More Birds in Pastures That Are Not Overgrazed

PROPERLY cared for grazing land not only keeps cows contented; it supports larger populations of small birds, Gale Monson of Albuquerque has discovered.

To study the relation of overgrazing to reduction in bird numbers, four 160-acre plots were selected. Two of them were within an area formerly overgrazed but now recovering its range value under the scientific management of the Soil Conservation Service. The other two were in a nearby area still subject to severe overgrazing.

Careful censuses of the bird populations of all four areas were made. It was found that the two overgrazed plots were home to 92 birds representing 12 small-bird species, while the scientifically managed, better covered plots yielded a count of 186, with 14 species represented.

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