SCIENCE NEWS

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A NEW STAR CAMERA

A NEW sky camera that enables engineers, surveyors, and astronomers to determine their location, by photographing the night sky directly overhead, was reported at the Washington meeting of the American Geophysical Union by Lt. Julius L. Speert, of the U. S. Army Air Corps.

The new camera takes a standard 4 by 5 inch plate and is set on a tripod so that it photographs a portion of the sky directly above, showing the stars in the vicinity of the zenith. Attached to this camera is another smaller camera, usually 35 millimeter size, which takes a picture of a clock at the same instant as the photograph of the stars is taken. With this information, the sky-photographer can determine his exact location.

To simplify the problem of identifying the stars photographed, a special light box has been developed. The light box contains a glass window which is illuminated from behind. Directly back of the glass plate there is a long strip of thin film mounted on two spools. On the film is drawn a special diagram covering the full region from the equator to the pole, and to the same scale as the photographic plates.

With the star photograph, and the time it was exposed known, and the approximate longitude of the point at which the exposure was taken also known, it is possible to determine the exact latitude within one or two seconds, by placing the photograph on the glass window of the light box and moving the film into the proper position.

With these data the stars may be quickly identified by referring to any competent star map or catalogue of stars.

ITEMS

A FAINT comet was discovered on May 16 by Dr. H. van Gent, of the Union Observatory at Johannesburg, South Africa. Located in the constellation of Vela, it was of the twelfth magnitude. Moving northward, the comet may eventually become high enough above the southern horizon for northern observatories to sight it. Further observations must be made, however, before it can be determined whether the diffuse-appearing comet is increasing or decreasing in brightness. At present it is far too faint to be observed by amateur astronomers. The position of the comet on May 23, as cabled to Harvard Observatory, astronomical clearing house for the United States, was at right ascension 9 hours 25 minutes, and declination minus 49 degrees 20 minutes. It was moving northward at a rate of about 42 minutes per day, and eastward with a speed of 2 minutes 36 seconds. Dr. van Gent also discovered a ninth magnitude comet last November.

PAIN and the dry socket condition that plague patients and dentists after a tooth has been pulled are often due to the patient's being undernourished and below par physically, Dr. Vernor H. Eman, dental surgeon of Grand Rapids, Mich., reports in the *Journal of Oral Surgery*, published by the American Dental Association. "The majority of patients for extraction are taken, we might say, literally 'off the street,'" Dr. Eman states. "They come in because they have a toothache or because, for some reason or other, and possibly without the advice of a physician, they have decided that certain teeth should be removed. A satisfactory and complete evaluation of the patient's physical condition is, under such circumstances, hardly possible. An undernourished patient is a poor risk for any operation, and that applies quite as definitely to minor as to major surgery. Undernourishment may be present, of course, for reasons other than deficiencies of diet, but the most impressive of all cases have been the dietary deficiency cases."

ONE out of every ten eye accidents can be blamed on attempts of amateurs to remove a particle lodged in the eye. More than half of the people forced to wear artificial eyes were victims of accidents, it was revealed in a survey on artificial eye wearers recently completed in nine major cities by Paul Gougelman, artificial eye manufacturer, in cooperation with the Greater Chicago Safety Council. Flying chips of wood caused 15 per cent. of all eye injuries. Falls around the home, and careless use of scissors, wire, nails and hammers accounted for a large number. On-the-job accidents, where pieces of steel entered the eyeball, accounted for one out of every seven eye injuries. The number of eye accidents in industry, however, is sharply decreasing with the use of modern safety devices such as goggles, safety masks and helmets.

A NEW heat-resistant plastic that can withstand boiling, and dry heat as high, has been announced by the Monstanto Chemical Company. Developed by Dr. Reid Fordyce and Dr. David T. Mowry, the new plastic has already found wide use in war work, particularly radar, radio and other military electronic equipment where materials of lightweight, suitable electric and great heat-resistant properties are needed. It is also being used for surgical instruments, since it can be sterilized. Dr. Charles Allen Thomas, director of Monsanto central research laboratories, describes the new plastic as "a thermoplastic, readily moldable in standard molding machines, and combining high resistance to heat with resistance to strong, corrosive chemicals, excellent electrical insulating properties, and high rigidity and strength." The new thermoplastic is a synthetic co-polymer containing carbon, hydrogen and nitrogen. Officers of the Monsanto Chemical Company are withholding any additional information about the new plastic, including its exact chemical composition, pending action on patents. The plastic has been given the commercial name Cerex. After the war, a wide range of civilian applications are possible, wherever heat-resistant qualities are in demand, such as dishes and utensils that are subjected to boiling water in washing.