

MEDICINE

Cancer from Glasses

Rimless glasses are believed cancer-producing because they conduct heat or chemical rays to the face. Lacquering the lens edge may prevent the danger.

► **CANCER** may be caused by wearing rimless spectacles. This discovery, plus a way to avoid the danger, is reported by four physicians of Jefferson Medical College in Philadelphia in the *ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY*.

The danger can be avoided by putting a lacquer, known as rim black, on either upper or lower lens edge of the rimless spectacles.

The physicians making these discoveries are Drs. Edward F. Corson, George M. Knoll, Herbert A. Luscombe and Henry B. Decker.

They report 12 cases of skin conditions near the eyes which they believe were caused by heat or chemical rays conducted to the face by the rimless spectacles. In nine of these the condition was diagnosed as cancer and in another case as keratoses, a precancerous condition. The other two were considered cases of chronic actinic dermatitis, meaning a skin disturbance caused by light rays.

Certain types of spectacle frames, and above all the rimless ones with round or oval lenses, were found especially responsible for transmission of light and for focusing it on the skin below the lower

ENTOMOLOGY

Airborne 'Hopper Fight

► **THE** grasshopper war in the West this year is almost entirely airborne. This is the first time man has met the enemy in the latter's own element, and there is good reason to hope that the change in tactics will be to man's advantage—if only his ammunition holds out.

The latter point is a matter of some seriousness, stated Dr. W. L. Popham, in charge of field operations for the U. S. Department of Agriculture, who has just returned to base in Washington for conference. In the area of greatest menace,

edge of the lens.

The character of the lens, whether thick, thin, sphere, cylinder or prism, was responsible for a certain difference, but the doctors found the same principle existed in all cases in which a wholly or partially unobstructed rim of the lens was present.

The route followed by the light beam could be blocked readily at either edge by use of the lacquer, they reported. When carefully applied this lacquer was hardly noticeable but it did cut off entirely the rays the doctors believe responsible for the damage to the skin.

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covering some 50,000,000 acres in 16 counties in northeastern Wyoming and southeastern Montana, pre-seasonal campaign plans called for combat over about 1,500,000 acres, with only moderately heavy infestation expected. However, deep snow last winter protected the 'hoppers' eggs, and there has been a heavy hatch and high survival. Upshot is that the infested area is four times as large as anticipated, with more insects per square yard.

Federal and state field forces are now concentrating on the original area because infestation is worst there, and they have speeded up operations to the point where they expect to have all the poison-bran bait now on hand distributed by mid-July.

There are three government-owned planes at work, and 30 additional ones under contract. Biggest plane is a C47, which can lay down the poison barrage over 20,000 acres a day, working with two shifts of pilots. It carries three and one-half tons of poisoned bran per load, and with mechanical loading can fly a maximum number of sorties per day.

Thus far the grasshopper outbreak has been confined wholly to rangeland, with about 20 species of the insects involved. The worst of them, constituting about one-fourth of the enemy forces, is the same species that caused vast trouble in the thirties, for it is an active migrant. Dr. Popham is not too much worried about its getting into crop raising areas this year, since the great wheat areas of the Plains, next in line for attack, are already being harvested. However, surviving hordes that get a chance to lay their eggs next fall could leave a heritage of trouble for 1950. This is one of the reasons why Dr. Popham is hoping that funds for more ammunition may be forthcoming in the next few days.

The Nevada outbreak is a peculiar one, Dr. Popham stated. Only one species is concerned. It has the peculiar habit of laying its eggs in a few extremely concentrated areas, and of migrating in dense hordes from the very beginning of the season. Starting in the southern part of Ne-



IMPRISONED LIGHT—The cone-shaped beam inside the bottle, called resonance radiation, is produced by atoms of sodium vapor that catch the incoming light from the left and toss it out of the bottle scattering it in all directions so that it can be seen. Dr. Daniel Alpert of the Westinghouse Research Laboratories, one of the scientists studying what goes on in fluorescent lamps, electronic tubes, and other gas-discharge devices, demonstrates how light can be imprisoned inside a bottle.

vada, it has moved clear over the state in the past nine years, until it now threatens to cross the border into Oregon and California.

Because it has thus far been confined entirely to semi-arid rangelands, attack on this species has not been considered eco-

nomically justified. Now it may be necessary to get after it with poison, to prevent serious consequences next year. Fortunately, this species has proven quite susceptible to modern poisons, in experimental baitings.

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partition wall constructions and 45 outer wall constructions.

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ENGINEERING

Homes at Noiseless Sites

► THE home builder of the future may be able to select his site by referring to a city map showing the location of the principal sources of noise. In order to secure his building permit he may have to show that he has picked a relatively noise-free location or that his designs provide for acoustical treatment that would insure that acoustic comfort is combined with the other comforts of home.

This is the prediction of Dr. Leo L. Beranek, vice-president of the Acoustical Society of America and technical director of the Acoustics Laboratory at the Massachusetts Institute of Technology.

There is no good reason, he says in a report to *PHYSICS TODAY* (July 1), why our city administrators should not be as concerned with acoustic health as they are with plumbing, lighting and heating problems. We must persuade city officials to prepare city codes and city regulations that govern the location of factories, highways, airstrips and other sources of noise.

At present, he points out, lax building codes have permitted speculative builders to construct apartments and row houses with acoustically transparent walls and resonant floors. If the husband in the family upstairs spills his change when taking off his trousers, the people below feel as though they can count it as it rolls to a stop.

Noise from highways and airplanes has blighted many housing areas which would otherwise be assets to cities. Dr. Beranek reported seeing on the highway between

Worcester and Boston a stretch where house after house is marked for sale—because of noise. One owner said, "Sometimes I awaken during the night with the terrified feeling that a big truck is driving through our bedroom."

Long range planning is needed, Dr. Beranek feels, in the fields of building design, city planning, noise evaluation and noise reduction, and as a basis for such planning, research is necessary.

He urges a central building research station, perhaps financed by the combined building industries, for an initial ten-year period. Out of this station would come ideas for the future that would combine the five essentials of building: Structure, design, lighting, heating and acoustics. England already has such a building research station, and the English have constructed over 100,000 housing units in accordance with a building code requiring types of floor and wall structure developed at this station. This calls for a two-inch floating concrete floor on a half-inch soft glass-fiber blanket over a four-and-a-half-inch concrete slab. Party walls are of two-and-a-half-inch cinder blocks plastered and separated by two-inch air space. Such construction cuts down on noise so that fewer than one tenant out of four complained of being disturbed.

In Holland, there is an experimental apartment house about a block long with 48 apartments. In this building, tests are being made of 38 floor constructions, 32

● RADIO

Saturday, July 23, 3.15 p.m., EDST
"Adventures in Science" with Watson Davis, director of Science Service, over Columbia Broadcasting System.

Dr. Pierre Auger, French physicist and head of the Natural Sciences Department of UNESCO, and other scientists will discuss "Report from UNESCO."

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