

as a smoothing agent for such products as facial creams and shaving creams. The stem is also a good source of ethyl alcohol.

The cattail flower, often thought of as the spike, is also valuable. During World War II, a Chicago company processed several million pounds of the fluffy, fibrous portion of the cattail spike to stuff life jackets, baseballs and mattresses. The fluff also was compressed into sound and heat insulator board.

The minute seeds have three possible uses. A drying oil, somewhat similar to linseed oil, can be extracted from them. This oil might be refined for cooking purposes. A

wax can be produced from this oil, and the seed meal that remains is a good cattle or chicken feed.

A tremendous yield of cattail "roots" can be obtained. Mr. March found that he could harvest 140 tons of rhizomes per acre near his home in Wolcott, N. Y. This is more than 10 times the yield of potatoes per acre. The dry weight, as measured by the tons of flour which could be produced, is 32 tons.

Farmers should not start harvesting their cattails, Dr. Reed warned, until there is a demand for them from industry.

Science News Letter, June 5, 1954

## ENGINEERING

## Study "Gay White Way"

► THE BRIGHTEST and probably shortest "gay white way" in the nation has been lighted by scientists at the University of California.

The strip, just 400 feet long, is an experimental laboratory where the scientists hope to learn how to improve roadway lighting. Some 60 lighting units of 20 different commercial types line the sides of the four-lane experimental thoroughfare.

Prof. Dan M. Finch, an electrical engineer in the University's Institute of Transportation and Traffic Engineering, is in charge of the investigations.

Prof. Finch said the roadway, reported to

be the most complete of its kind, was built because roadway lighting is becoming increasingly important and technical knowledge in the field is not well developed.

He pointed out that night driving has increased. He said that while night driving is only about one-third that of daytime, fatalities from after-dark auto accidents are three times as great. Also, many cities have street-lighting systems that are nearing the end of their serviceability, and should be replaced by up-to-date illumination.

The job to be tackled in the new laboratory will be a study of the visual effects of roadway lighting. Illumination measurements will be taken with a photometer to determine the amount of light reaching the surface of the road with different lighting systems.

A brightness meter will measure the amount of light reaching the driver's eye. A new instrument, called a "contrast meter," will measure how visible an object is in terms of the amount of contrast it presents against a background.

The roadway laboratory now includes incandescent, mercury vapor, sodium vapor and fluorescent lights. They are mounted on tall poles spaced about 50 feet apart on both sides of the road, and each pole bears five to six lamps. A cable grid structure allows changes in spacing of the lamps as needed.

In the future, different types of paving will be tested to determine the role of roadway surface in visibility. One 1,000-foot section will simulate conditions in a two-lane residential street. A second 1,500-foot strip will represent a street in a metropolitan area. The present black-top roadway represents a four-lane highway.

The research project is being sponsored and partly financed by the Illumination Engineering Society of America.

Science News Letter, June 5, 1954

California has almost 10% of all motor vehicles in the U. S.

Women, especially older ones, frequently drink less milk than the men and children in the family.

## ENGINEERING

## Fires Started by H-bombs Can Be Put Out by Blast

► THE HEAT of A-bombs and H-bombs may start fires, but the winds they create may also snuff out such conflagrations.

This is indicated in studies in the University of California at Los Angeles engineering department.

One phase of the study was concerned with the effect of the bomb on wooded areas surrounding urban targets. Simulated A-bomb blast winds were set off with special equipment, which contained materials found in wooded areas. These included pine needles and other leaves, punk (or chunks of rotting wood), and grass.

It was found that when the bomb's heat ignited the material, the fire was completely extinguished in most cases by the blast effect. The punk, however, continued to smolder and was rekindled with fanning.

Urban materials such as cloth and newspaper were also tested. The blast extinguished the newspaper fire. However, the cloth was pleated as it might be in curtains, and portions behind the pleats continued to smolder.

The research was sponsored by the U. S. Department of Agriculture Forest Service. A. G. Guibert, P. R. Dahl, V. N. Tramontini, S. F. Mulford and E. L. Venturini performed the studies.

Science News Letter, June 5, 1954

## PSYCHOLOGY

## TV Violence Symptom Of Our Social Ills

► THE MURDER and mayhem that children see on TV is probably a symptom, not a cause, of our social ills.

Dr. Franklin Fearing, professor of psychology at the University of California at Los Angeles, suggested here that a child's preference for violent TV programs may be an indication that he is not getting along well with his playmates.

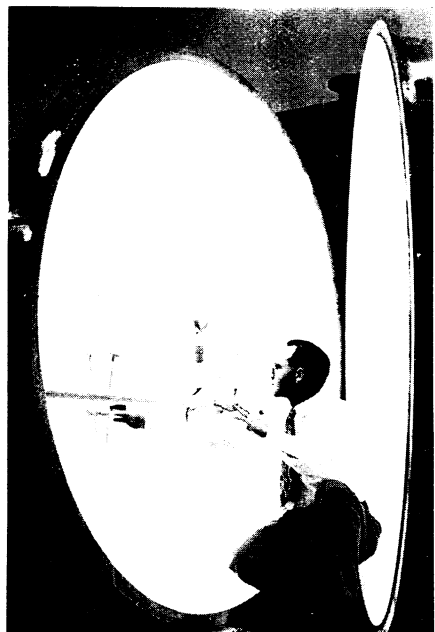
He turns to such programs because they momentarily help him to overcome his feeling of social inadequacy. His search for excitement or thrills may involve nothing more than a harmless, even healthy, safety-valve response.

In general, TV programs and movies tend to reflect existing attitudes in our culture rather than create new ones, Dr. Fearing believes.

"Current films often depict an atmosphere of general insecurity where everybody is afraid of everybody else," he said. "Uneasiness stirred up by the spectacle of a world full of deceit and unimaginable horrors is not allayed by a happy ending. The impression conveyed is that nothing can be done about it."

Psychological surveys of film content in pre-Hitler Germany and that in the United States today revealed a striking similarity, Dr. Fearing noted.

Science News Letter, June 5, 1954



"INTEGRATING SPHERE" — To measure the total amount of light coming from a light source, this sphere has been built at the University of California. Final adjustments to calibrate the test lamp on the left are being made.