

## SOCIOLOGY

## Local Community Is Called Key to Crime

► THE LOCAL community can either be a breeding ground for criminals or a positive force in crime prevention, depending upon action or lack of action by its citizens.

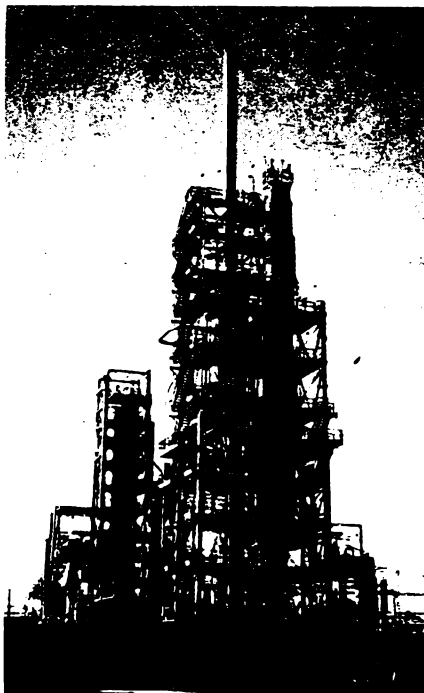
This is the theme of a new edition of "Principles of Criminology" (Lippincott) by two sociologists, the late Dr. Edwin H. Sutherland of Indiana University and Dr. Donald R. Cressey of the University of California at Los Angeles.

Long a standard work in the field of criminology, the book, now in its fifth edition, has been brought up to date by Dr. Cressey, who has made many contributions of his own to it.

The book also emphasizes the social antagonism which seems to mark all who have served time, a "nebulous something" that makes a man less desirable as a citizen than he was before he went in. It is the increasing awareness of such an effect that has led to development of prison group therapy in programs that are promising in criminal reformation.

As for TV, movies and comic books being an important factor in crime, the book points out that when a teen-age couple see a romantic picture they go out and make love. When they see a picture about crime and violence, they also go out and make love.

Science News Letter, March 26, 1955



**COKING TOWER**—The world's first commercial petroleum coking refinery stands 196 feet high. It can convert residual oil to gasoline and burner fuels and at the same time produce finely divided coke.

## CHEMISTRY

## Heavy Oil to Produce Coke and Gasoline

► HEAVY OIL, a cheap waste product of petroleum refining, will be used to make coke and gasoline in a new process.

The world's first commercial refinery to apply the revolutionary "fluid coking" technique was dedicated at Billings, Mont., by the Carter Oil Co.

In the process, heavy oil is mixed with finely divided coke particles in the plant's 196-foot refining unit. The coke particles grow when the tank is heated and at the same time light oil fractions boil off. These gases will be refined to gasoline and home fuels.

Part of the coke will be burned to heat the unit.

Produced at a rate of about 1,500,000 barrels a day in the United States, the heavy oil for the process is primarily a factory fuel.

Petroleum coke is not only a fuel, but is used to make anodes for aluminum manufacture, electrodes, calcium carbide and abrasives.

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## MEDICINE

## Cold, Distemper Viruses May Be Close Relatives

► THE VIRUS or viruses that cause the common cold may be close relatives of the dog distemper virus, research by Dr. John Adams, professor of pediatrics at the University of California at Los Angeles Medical Center, suggested. The research has been supported in part by the U.S. Public Health Service.

Several years ago a new form of epidemic respiratory disease was noted in infants. The pattern of the disease varied in severity from sneezing and a mild cough to extreme breathing difficulty and death from pneumonia.

An examination of tissue from infants who died of the infection revealed changes very similar to those in tissue from dogs that died of distemper.

Dr. Adams has been able to neutralize distemper viruses with human sera in living chick embryos and in young ferrets. This suggests that respiratory infections in the humans from which the sera were obtained had created antibodies which would kill or neutralize distemper viruses. Antibodies are usually specific to given agents.

Distemper, the commonest respiratory disease of dogs, is caused by a known virus. Many human respiratory diseases, including the common cold, are thought to be caused by a virus or viruses. The identification of the actual human virus is under intensive study in tissue culture.

"We may find that distemper and the common cold stem from the same family of viruses," Dr. Adams said.

Science News Letter, March 26, 1955

## PSYCHIATRY

## "Screening In" Important

► PSYCHIATRIC SCREENING out of unsuitable men from the armed services either at induction or early in training has proved successful in cutting down the numbers later given psychiatric discharges.

But as the manpower needs of the country have become more demanding, the reverse process of "screening in" has become increasingly important. At the same time it is more difficult, points out Dr. William A. Hunt, Northwestern University psychologist, formerly of the neuro-psychiatry branch of the U.S. Navy's medical department.

It is easy, Dr. Hunt points out, to predict disaster in the armed services for the low grade mental defective, frank psychotic and chronic severe psychoneurotic. A prediction cannot as easily be made for the borderline mental defective, the mild neurotic and the marginal behavior problem.

Yet if all these last were to be automatically eliminated on suspicion of future failure, many potentially successful recruits would be lost to the services.

The process of screening in, Dr. Hunt explains, involves the early detection of these marginally serviceable men and their selection for trial duty, supportive therapy, selective placement and other measures to help them adjust and make good in mili-

tary service. It is important to spot such men early in their service so that they may be helped.

Experience in the Navy indicates that some day the doctors need not content themselves with screening out the mentally ill; they may be able to pick the man who is in good mental health.

In the past, psychiatric selection has been a negative process. The doctor spotted those who were mentally ill or abnormal. If he could find nothing wrong with a man, that man was called "normal." In studies described by Dr. Hunt, the experiment was tried of having the doctor spot the normal men instead of the mentally ill. Normal men picked in this way were then compared with the "normals" left over when the unfit were screened out. The positively picked group had a lower rate of later maladjustment than the "negative normals."

"It looks," comments Dr. Hunt, "as though clinicians might be able to at least make a start toward identifying positive mental health, if forced to do so."

Dr. Hunt's report will appear in a forthcoming issue of *American Psychologist*.

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American housewives open an estimated 30,000,000 tin cans a day.