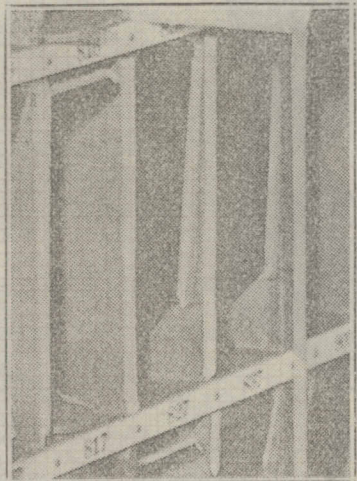


## Delivering Hotel Mail by Signals

MAIL and message service now is conducted in a modern hotel by electric signals. As the accompanying photographs reveal, the room clerk's mail cubbyholes are provided with metal flaps. When an envelope is inserted in the letter rack the flap is pushed back. This automatically causes a green light to flash in the room of the guest receiving the mail. The guest may then obtain immediate delivery of the letter or message to his room by pressing a button beside the green light. If the guest is out or asleep when the letter is placed in his box, the green light will remain illuminated. As soon as the guest presses the delivery button the signal is received by the bell captain, who dispatches a bellboy to deliver the mail. If the guest calls for the mail in person the green light in his room remains lighted until the clerk removes the letter from the rack, thus turning off the room signal.

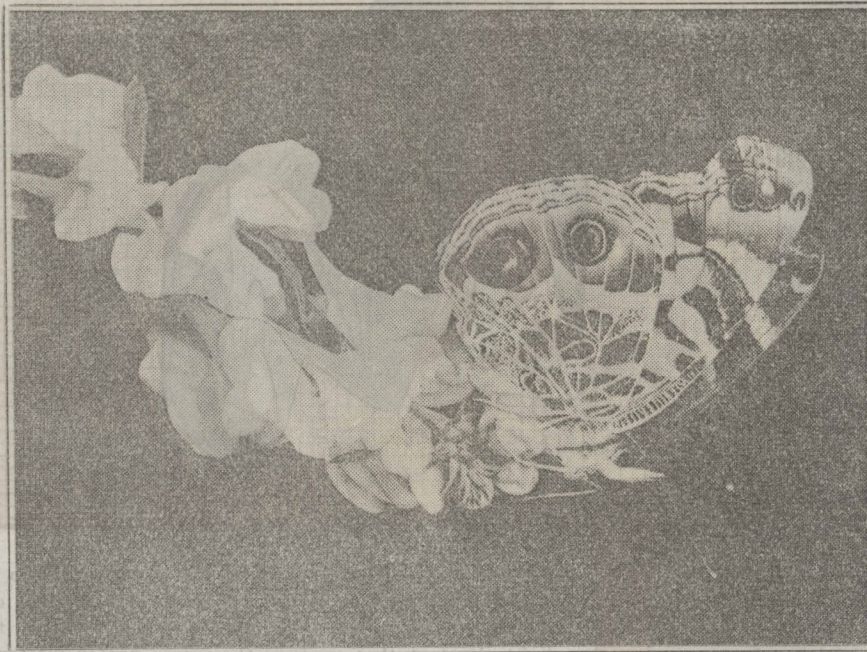


One of the mail cubbyholes with metal flap attached.



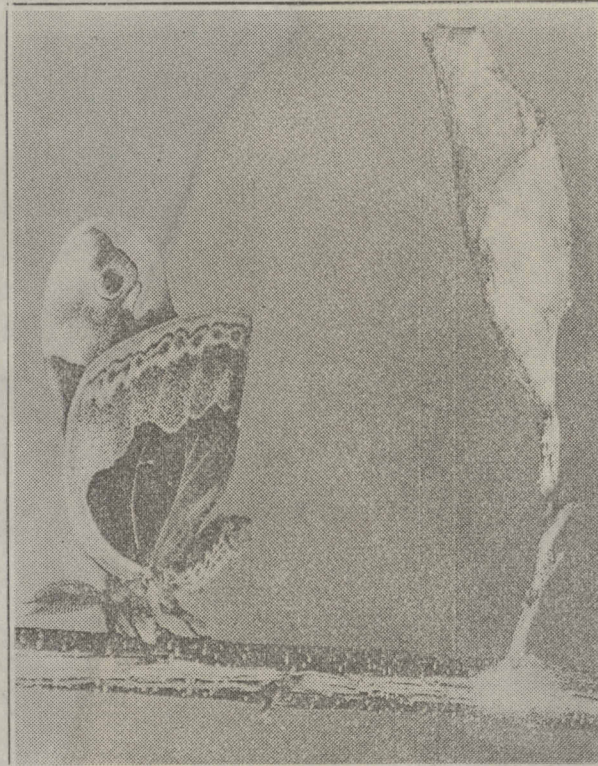
(Photos courtesy Bismarck hotel, Chicago.)  
When letter is inserted the metal flap is pushed back. This causes green light to flash in guest's room.

## Most Beautiful of Insects—the Butterfly



(Associated Press photo.)  
A beautiful painted-lady butterfly resting on a spray of flowers.

BUTTERFLIES are generally held to be the most beautiful of the insects. Not so beautiful, however, are the worms and the cocoons from which the butterflies develop. These two striking pictures adequately illustrate the beauty of the butterfly as contrasted with the ugly cocoon. Beautifully marked is the butterfly at the left.



(Acme photo.)  
The ugly cocoon produced this delicate moth, a beautiful velvety specimen.

(ADVERTISEMENT)

### Almost Killed By Gas

There is more than one way that gas can imperil life, as Mrs. Anna Northrup, Newfield, New York, can testify. She was "almost killed" by gas in her stomach. Then a friend told her of the Udga Treatment and today she is free from stomach suffering. She now gives credit for her recovery to the Udga Treatment, based on a famous stomach specialist's triple-action prescription. Its purpose is to neutralize excess acid, soothe and heal the inflamed stomach lining and stop pain. Already 54,169 letters praising the Udga Treatment have been received from victims of acid stomach, indigestion, heartburn, gas pains, belching and other symptoms of excess acidity. Write Udga, Suite 41, Foot-Schulze Bldg., St. Paul, Minn., for a free sample. The 7-day trial box of Udga Tablets is sold on a money-back guarantee of satisfaction by all druggists.

### Relieve Those ITCHY BLEMISHES

Irritating pimples and ugly itching blotches are greatly benefited in one night when time tested PETERSON'S OINTMENT is applied at bedtime. It's simple—inexpensive but amazingly effective. Get a 35c box of PETERSON'S from your druggist—and just try it. If the angry redness hasn't diminished by morning, if skin doesn't feel better, look better, if you are not truly amazed—druggists will refund your money. Use PETERSON'S OINTMENT also for eczema, eruptions, smarting, itching toes, cracks between toes. Stops itching torment in a few minutes. Try it. Sample Free. Write Peterson Ointment Co., Dept. T-28, Buffalo, N. Y.

### Hay Fever

New Way Amazingly Effective

Don't suffer—try HIMROD MEDICINAL CIGARETTES, the new scientific discovery. A few puffs bring speedy relief. Clear the nasal passages, lessen watery discharge of nose and eyes. Contain no tobacco or narcotics; non-habit forming. Always keep HIMROD MEDICINAL CIGARETTES handy and you'll suffer no more Hay Fever.

Get a package today at  
LIGGETT'S . . . WALGREEN'S  
and other good drug stores

## Floating Ambulance Beach Patrol



(Acme photo.)

THE playground department of the city of Los Angeles, Cal., boasts of one of the most efficient life guard services in the country. Recently the service was improved by the addition of a "floating ambulance," a motor yacht equipped with every device for life-saving and resuscitation work. The boat contains a supply of oxygen tanks, inhalators,

stretchers, and hospital first aid equipment. The boat is 33 feet long and has a speed of 15 knots. It is said to be the first equipment of its kind in beach patrol and life-saving work. This picture shows Guard Arthur Bergquist signaling a shore station as the boat speeds by on a recent test run off the beach at Venice, Cal.

## Science Measures Drunkenness

By C. Robert Moulton

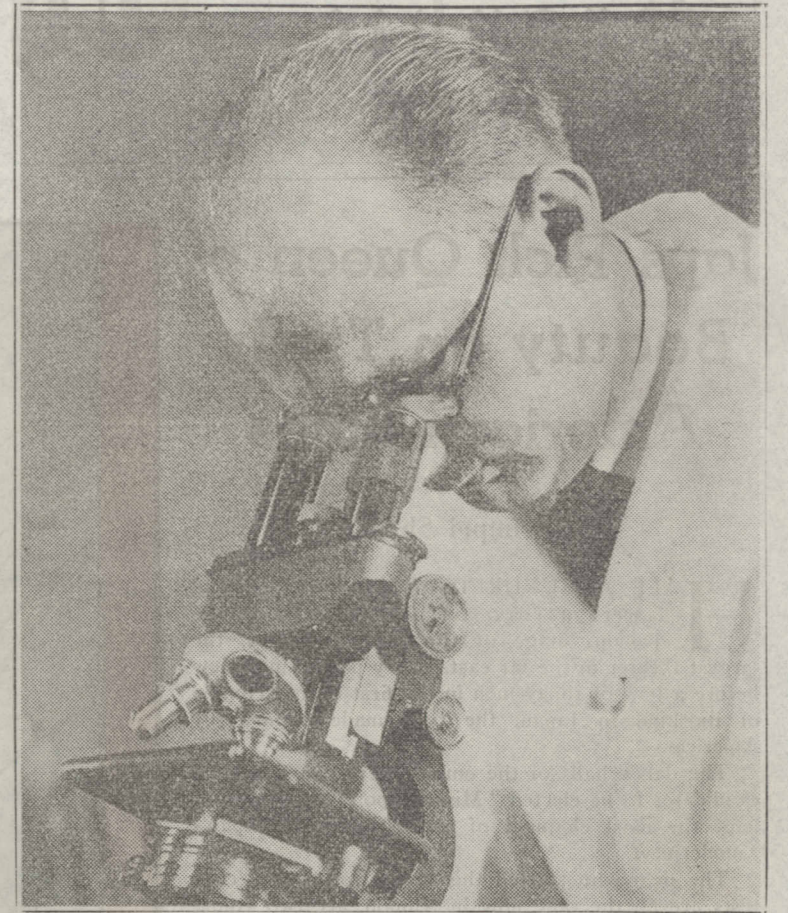
THE menace of the drunken driver to life and property is being recognized by a drive against reckless motorists. Apparently users of alcohol and the observers of users always will disagree as to the effects of its use on man, as well as to what constitutes moderate drinking as opposed to heavy drinking. The great majority of responsible people, however, agree that alcohol should not be used by anyone when such use makes the person a hazard to himself and to others—for example, when he drives an automobile.

What are the effects of alcohol on the human system, and how are they brought about? What effects have different quantities on eyesight and hearing, muscular coordination, nervous sensibility, and mental attitudes and responsibility? In answering such questions recourse should be had not to the expressions of experience of those who indulge, but to evidence obtained in chemical, physiological, and psychological laboratories.

Alcohol mixes with water in all proportions and readily dissolves or dissolves in fat or fatlike substances. It is not so good a fat solvent as ether or chloroform, but it dissolves fat readily enough to produce marked effects upon the nervous tissue, which always contains a fairly high proportion of fatty substances. Alcohol requires no digestion and is readily and rapidly absorbed from the stomach into the blood stream. The small intestine also readily absorbs alcohol, and generally none is left by the time the food residues leave this organ.

### Quickly Circulates

The blood stream transports the absorbed alcohol to all parts and organs of the body, which soon contain their share of this substance. In fact, in the course of one or two hours after the taking of alcohol in any form it may be considered to be distributed more



Coroner's Chemist C. W. Muehlberger of Cook county examining a blood sample under microscope as the first step in his scientific test to determine the extent of intoxication of a subject.

diluted whisky, gin, or brandy, when taken in one fairly large dose on an empty stomach, will promptly build up the alcoholic content of the blood and produce well marked symptoms generally within an hour. Some of the symptoms will continue for one, two, or more hours, and some will be shown even on the following day. The symptoms referred to are not necessarily those that the consumer of the alcohol can recognize and measure.

On the other hand, light wines and beers are more slowly absorbed, especially if taken with a meal; the alcoholic content of the blood does not become so great, and the symptoms are as a rule

ever, the specific gravity of blood is about 1.055, this figure is a little high. Emil Bogen, a pathologist of Olive View sanatorium, California, in semi-humorous vein gives the following table of alcohol concentration in the blood and its effects:

Less than 1 milligram per c.c.	Dry and decent
1 to 2 milligrams	Delighted and devilish
2 to 3 milligrams	Delirious and disgusting
3 to 4 milligrams	Dizzy and delirious
4 to 5 milligrams	Dazed and dejected
Over 5 milligrams	Dead drunk

Graduated milligram tubes illustrate the intoxication test.

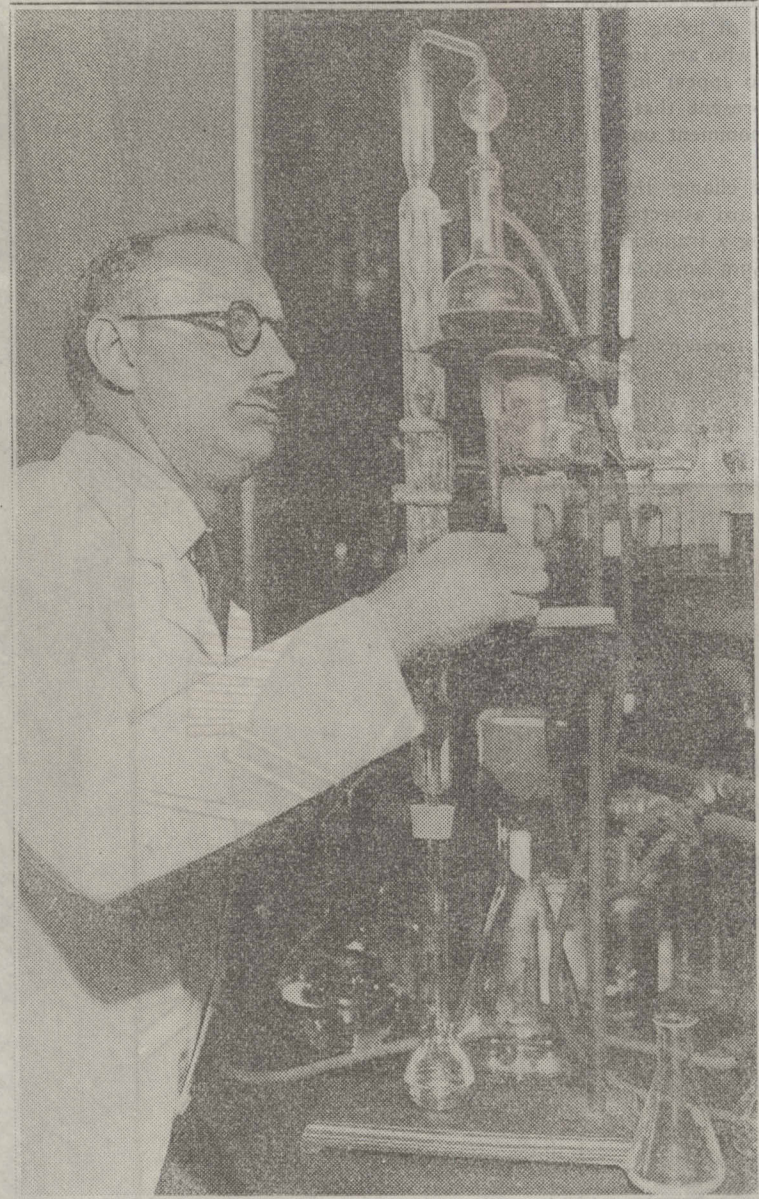
C. W. Muehlberger, coroner's chemist of Cook county, who is shown making blood tests for alcohol in the accompanying illustrations, has made thousands of tests to determine the extent of intoxication of persons involved in automobile accidents. He was one of the first scientists to apply the blood test as an infallible method. All other methods of measuring intoxication, he believes, are merely guesswork.

Prof. Erik Widmark of Sweden has analyzed the blood of about 1,000 persons arrested and suspected of drunkenness during two years. When the alcohol in the blood was about 1 milligram per cubic centimeter, 30 per cent of the subjects showed some signs of intoxication; with 1.4 to 1.6 milligrams, 70 per cent showed signs of drunkenness; while when over 2 milligrams were present, from 90 to 100 per cent were definitely intoxicated.

Dr. T. E. Friedemann of the University of Chicago, formerly of Northwestern university, states that his experience in general agrees with that of Bogen and Widmark. He places 1 milligram at about the lower limit of intoxication, shows that 2 milligrams give definite signs in most people, while 3 milligrams will make one as a rule very drunk.

### Moderate Dose Effect

In a recently published book on "Alcohol and Man" the effects of moderate doses of alcohol have been discussed at length. In addition to the well-known lessening of shyness, increasing of self-confidence, weakening of the bonds of convention, setting free of the emotions, and allowance of greater freedom of speech and motion, alcohol interferes with the process of logical, continued reasoning and the precision of movement. The eye-hand co-ordinations do not work well. One may have the feeling of alertness and concentration when in reality one perceives sights and sounds less distinctly and observes only a very limited field of phenomena around him. One is rather wrapped up in one's own feeling of contentment and well-being, which renders one less aware of one's obligations to others. The accuracy and speed of muscle movements is decreased, and the legs especially seem to be unreliable. If driving an automobile, the person does not feel like shifting gears or slowing down, and attempts to control the car by hand only.



Chemist Muehlberger is here shown completing the blood test, through which he determines scientifically whether a subject is intoxicated and to what degree. Other methods he scorns as being guesswork.

or less uniformly throughout the body. Some will even appear in the urine, and such fact is made use of by police courts at times. Most scientific observers agree that the amount of alcohol in the blood is the best measure of the fact of alcoholic intoxication and its degree.

When alcohol is absorbed the body soon can begin to use it by burning it for energy or heat. Under proper conditions it can replace rather fair amounts of other energy-yielding foods. The combustion, as it is called, is complete, and only water and carbon dioxide are left to be voided.

The rapidity with which alcohol is absorbed, as well as the intensity of some of its effects, depends upon the form in which it is consumed, the presence or absence of food in the stomach, the quantity taken, and the length of time during which it is taken. Thus rather concentrated sources, such as un-

milder even for equivalent doses of alcohol.

The quantity of alcohol which the blood may contain as a result of its use will appear small to the reader. Whisky, gin, or brandy usually contain about 50 per cent of alcohol, cocktails from 20 to 30 per cent, wines 8 to 13 per cent, strong ales 6 to 9 per cent, and beer from 6 down to less than 3 per cent.

In contrast to this, the blood will contain a few hundredths of 1 per cent when one first begins to feel its presence, while scientific authorities agree that as little as one-tenth of 1 per cent gives signs of intoxication. It is rather common for the alcoholic content to be expressed in terms of milligrams per cubic centimeter of blood. If the blood were only as thick as water, one milligram of alcohol per cubic centimeter of blood would correspond to one-tenth of 1 per cent. Since, how-