

CHEMIST TELLS BOOZE SECRETS

Edson, New York Expert, Tells of Task of Testing Hootch of All Kinds

800 SAMPLES TESTED

Moonshiners Color Fluid With Caramel, Much Raw Alcohol Used In Stuff

NEW YORK, Sept. 10.—Secrets of the "hootch" maker who manufactures synthetic whiskey or gin are as an open book to the government chemists who test the products of violators of the Volstead law.

Evidence seized from rum-runners and bootleggers is brought to them for examination. How the chemical tests are conducted was disclosed today by R. A. Edson, chief chemist of the government laboratory in the federal building. The walls of his offices are lined with shelves filled with bottles of every kind and description containing every kind of beverage forbidden by the Volstead act.

Stills Galore
A fringe of stills seized in raids decorates the top of the shelves and there is a big pile of them in a corner. "In the past year more than 8,000 samples of liquor, good, bad and indifferent, have been tested here and the results produced later in the federal courts."

The first thing to be done by the chemists when a sample of suspected liquor is brought in is to test it for alcohol. Usually the prohibition agents try to get at least half a pint of whiskey and a pint of wine for the chemists to work on. But occasionally an agent comes in with a small bottle of liquid which he explains is a drink of whiskey which he bought at a bar and had to hold in his mouth as he could spit out into a bottle without being observed by the barkeeper. And that is tested too.

Tests Intricate
When the sample is large enough the hydrometer is used to find the amount of alcohol present. The hydrometer is a thermometer-like instrument of glass with the specific gravities marked on it. It is floated in the sample and the markings read. Alcohol being lighter than water the hydrometer sinks farther in the mixture of alcohol than in plain water. The amount of alcohol can thus be accurately determined by reading the markings.

Small samples of booze are tested by means of the pycnometer. A quantity of suspected liquid is weighed and its weight compared with an equal amount of water. By means of a few computations the amount of alcohol can easily be found.

For rapid work on beer and wine with small percentages of alcohol the ebullimeter is used. The evidence is heated and the boiling point learned. Water boils at 100 degrees centigrade and alcohol at a much lower temperature. A mixture of alcohol and water boils at a lower temperature than water and thus chemists can rapidly calculate the amount of alcohol.

Color Analyzed
After a test for alcohol has been completed in the case of whiskey the color of the sample is tested. Whiskey that has been held in bond for some time has a color of its own due to the inside of the whiskey barrels being charred by fire before the whiskey is put in. The manufacturing bootlegger making an artificial whiskey of grain alcohol and water uses caramel made of burnt sugar to color his product.

The Marsh reaction shows if the color of the whiskey sample is genuine or artificial. A quantity of amylic alcohol slightly acidified with phosphoric acid is mixed with the liquid to be tested. Amylic alcohol being lighter than ethyl alcohol, as ordinary grain alcohol is called by the chemists, rises

LADY BARBER ON BOARD THE OLYMPIC.



Miss Emily Fish has started a hairdressing shop on the Olympic of the Currier line. Miss Fish does not cater to men, but deals only with members of her own sex. She is photographed dressing the tresses of Miss Winifred Taylor prior to the vessel's departure for Europe.

to the top of the mixture. If the whiskey is genuine the color will mix with the amylic alcohol and rise to the top of the mixture. If the color is due to caramel it will stay in the bottom of the mixture. Test is made for wood alcohol if there is any suspicion of its presence.

Much Alcohol Used
Mr. Edson said that 90 per cent of the liquor seized by the prohibition agents and brought to the laboratory to be tested is synthetic whiskey made of alcohol and water and a little color or just plain "hootch."

"We can usually tell whether the stuff is genuine or not by just smelling of it," he explained. The synthetic stuff has a distinct smell of raw alcohol which is not present in genuine whiskey no matter how bad it may be.

"Lately we have tested a number of samples of synthetic gin. It is made of alcohol and water with a little oil of juniper to give the characteristic gin flavor. But the juniper flavor is rarer than genuine gin and I don't think anyone gets much pleasure from drinking such stuff. The bootleggers usually put in too much of the oil of juniper."

Artificial Wine
"There is some artificial wine seized by the prohibition agents. It is usually made from alcohol and water flavored with fruit juice of some kind. The home-made wine that is submitted for test is very poor stuff. Usually there has been insufficient fermentation of the grapes after they are pressed and sometimes putrefaction has started. Some wine will contain 7 to 9 per cent of alcohol."

To Prevent Ferment
"The making of home-made grape juice is dangerous from the standpoint of the Volstead act unless precautions are taken to prevent fermentation and the consequent production of alcohol. The best way is to sterilize the grapes by pouring hot water over them or by boiling the juice. There is a wild yeast present on the grapes and floating in the air at grape-picking time and it is the wild yeast that starts the fermentation."

The government chemists have even tested Chinese wine or ngkai-py to determine for the government if it was suitable for human consumption. A large quantity of the wine consigned to Chi-

nese merchants here was held up by the customs officials on the ground that it smelled bad and was not fit for human consumption. The government's chemists found the wine was made from rice spirits and a decoction of herbs. They said it was all right for Chinese medicinal purposes so it was allowed to be brought in.

HESSIAN TROPHY FOUND IN N. Y.

Relic Discovered on Site of Old Camp Where Mercenaries Were Held

NEW YORK, Sept. 24.—A Hessian soldier's belt buckle has been found by historical workers excavating the site of the revolutionary war prison camp on the old Dyckman farm, near 203rd street.

The buckle, of bronze, is in a perfect state of preservation and officials of the field exploration committee of the New York Historical society, say it is one of the few Revolutionary relics of undoubted Hessian origin.

The buckle has been identified as part of the equipment of the Fuerst Frederick or Erb Prinz regiment of Hesse, mercenaries brought over by the British to fight Washington's continental. On the front of the buckle is engraved the monogram "F. F." surmounted by a crown. The original hook or belt holder is on the back.

The Fuerst Frederick regiment, originally 688 strong, took part in many engagements in the Revolution. It participated in the battle of Long Island, and was assigned to the left wing of Earl Percy's force at the battle of Fort Mifflin. Later the regiment was sent south and eventually was captured at Yorktown.

Upon the declaration of peace the survivors were returned to New York to await transportation home and during this period they were quartered in the hut cantonment on the Dyckman farm.

AGED MAN WINS AS CARPENTER

Brooklyn Resident Defies Undertaker by Working As House Builder

NEW YORK, Sept. 21.—Although entering his 72nd year with enough money to retire and take up golf, Frank D. Johnson of Brooklyn continues to erect houses all by himself and sells them.

For the last 50 years he has worked 10 to 12 a day at this pursuit and now is putting up a one-man house on Gravesend avenue. No hands but his own have touched the structure since he started it.

Last July while he was working on the house, it was struck by lightning. Digging himself out of the debris, Johnson rubbed home aches onto his bruises and was back on the job the next day.

Born in Boston of Revolutionary war stock, Johnson expects to live to 100. He has all but two of his original teeth and scarcely a hair has fallen from his head.

"I could have knocked off and taken it easy, but if I had done so I would now be reposing in some graveyard," was the way Johnson put it.

Besides being a stonemason, bricklayer, carpenter, plasterer, plumber, tinsmith, painter, paper-hanger, decorator, glazier, electrician, wood carver and cabinet maker, Johnson studied all the ins and outs of laws governing real estate, so as to save all title searching and allied fees.

IDLE RELIEF IS OBJECTIVE

Emergency Program Formulated at National Unemployment Conference

ADJOURNMENT IS TAKEN

Delegates Meet Again October 10 to Develop Permanent Action Basis

WASHINGTON, Sept. 30.—Formulation of an emergency program designed to effect the immediate relief of the nation's idle, variously estimated at from 5,500,000 to 5,500,000 persons, was completed today by the national conference on unemployment with the adoption of specific measures recommended by committees.

The conference then adjourned until October 10, when it will consider a permanent unemployment policy and suggestions for the return of business and commerce to normal. Meanwhile its committees will work on details of these subjects.

Task Community One
The conference found the task of meeting the unemployment emergency was primarily a community one with the responsibility of leadership and its solution resting on the mayors. Federal, state and municipal aid, however, was urged. Particular reference was made by the conference to the connection between prices and the solution of the country's economic questions.

"During the period of drastic economic readjustment through which we are now passing," the emergency program said, "the continued efforts of any one to profit beyond the requirements of safe business practice or economic consistency should be condemned. One of the important obstacles to a resumption of normal business activity will be removed as prices reach replacement values in terms of efficient producing and distributing cost, plus reasonable profit."

"We, therefore, strongly urge

all manufacturers and wholesalers who may not yet have adopted this policy to do so, but it is essential to the success of these measures when put into effect that retail prices shall promptly and fairly reflect the price adjustment of the producer, manufacturer and the wholesaler. When these principles have been recognized and the recommendations complied with, we are confident that the public will increase their purchases, thereby increasing the operations of the mills, factories and transportation companies, and consequently reducing the number of unemployed."

REINDEER ARE SENT TO NORTH

Seven Hundred Animals Are Sent to Baffin Land As Planned by Explorer

CHRISTIANIA, Sept. 24.—A representative of the Hudson Bay company recently paid a visit to Fimmark on behalf of the Canadian government and bought a herd of 700 reindeer which are to be shipped to Baffin Land.

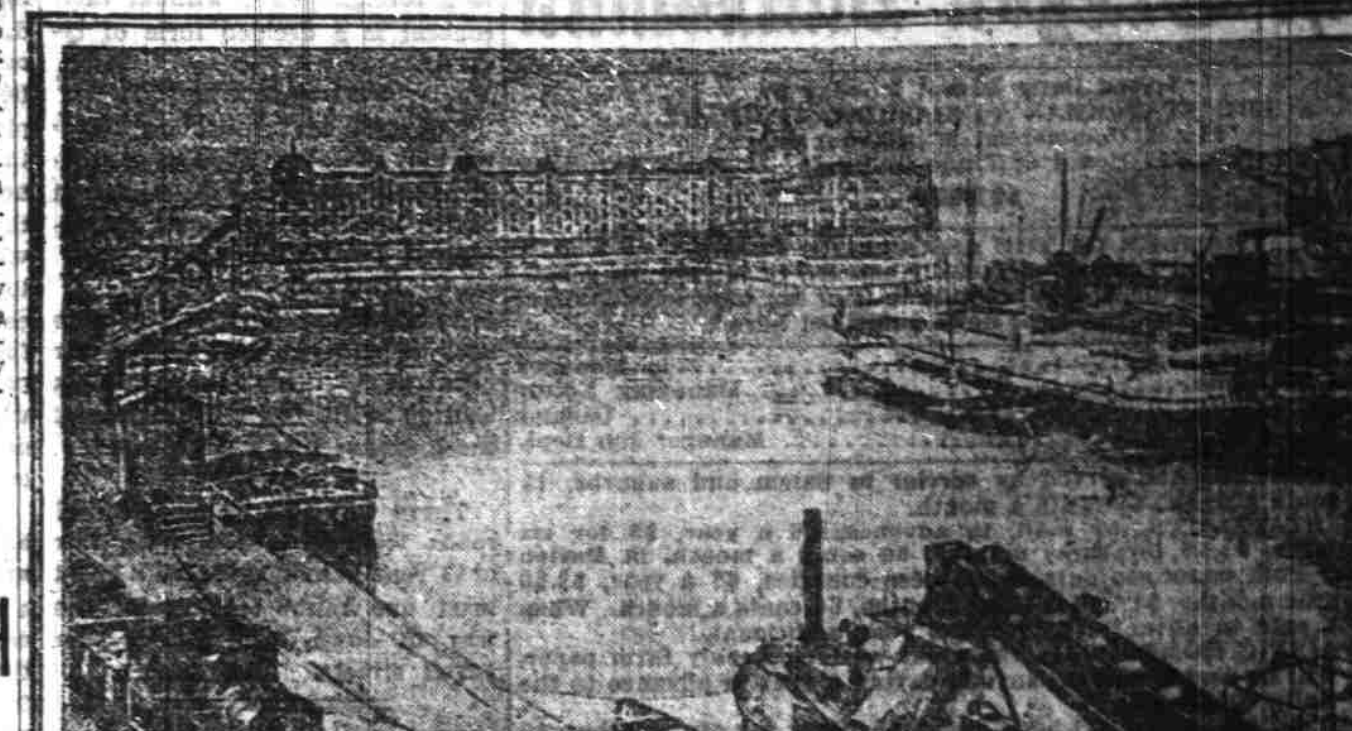
A number of Laplanders were also engaged to take care of the animals which will be despatched in September.

A plan for converting the Arctic Canada into a great wool, milk and meat producing area was presented to the Canadian government by Vilhjalmur Stefansson, the Norwegian explorer of the Canadian Arctic, more than two years ago.

His project involved the introduction into the Canadian north of large herds of reindeer and also the domestication and development of great herds of musk ox. He estimated that there were from 1,000,000 to 2,000,000 square miles of land available for grazing in a climate too severe for cattle but where reindeer and musk ox exist all the year round. In proof of his argument, he cited the introduction by the American government of reindeer herds into Alaska. The explorer declared that the growth of these animals in the far north would help to solve the food shortage then existing.

The Canadian government appointed a committee to investigate

SCENES NEAR WHERE BIG GERMAN EXPLOSION OCCURRED.



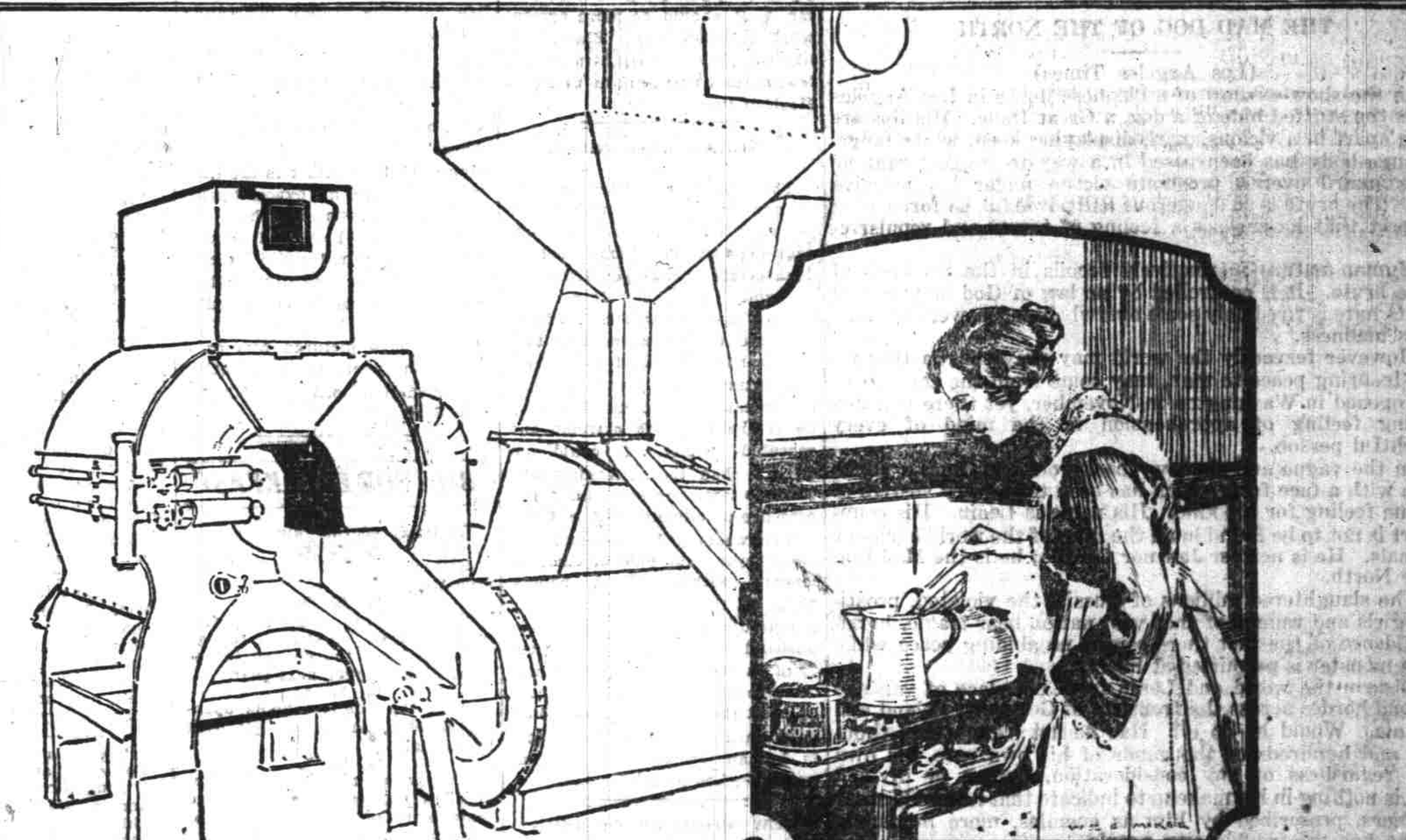
One thousand persons were killed in an explosion of artificial nitrogen at the Oppauer Works at Ludwigshafen, directly opposite Mannheim, on the Rhine. The upper photo shows a river view of the stricken city, while the lower photo shows a view of the toll house on the Ludwigshafen side of the bridge which connects this city with Anheim, on the other side of the Rhine.

his project. It was represented that there is an abundant growth of vegetation in the Arctic regions of Canada in the summer and that the musk ox and reindeer could graze on it throughout the entire year.

One morning Jorkins looked over his garden fence and said to his neighbor: "What are you burying in that hole?" "Just replanting some of my seeds, that's all," was the reply. "Seeds?" exclaimed Jordan angrily. "Looks more like one of my hens."

other: "The seeds are inside."—Home Friend.
"Do you really enjoy country life, old man?" "You bet I do." "What do you do with your self evenings?" "Oh, I come to town."—Boston Transcript.

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JOHN M. SCOTT,
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