ENGINEERING

Fire Battled Without Usual Water Damage

See Front Cover

CARBON DIOXIDE, the gas you exhale and which when solidified is the "dry ice" that keeps ice cream frozen, has been studied as a destructionless fire extinguishing agent in National Bureau of Standards tests which included deliberate gutting of an old building.

The gas is ordinarily generated in hand fire extinguishers to squirt out with water, but in the tests conducted by Dr. S. H. Ingberg of the Bureau staff the inert gas itself was used to blanket the fire and cut off the air's oxygen. It may some day come into regular fire fighting use in that form though these experiments were only partly successful.

Bureau scientists are seeking a fire extinguisher such as carbon dioxide gas which does not damage papers and furnishings as does water, the foam form of carbon dioxide extinguishers and other chemical agents. At present more damage is often done by the fire extinguishing material than by the fire. The Federal government is particularly interested because of its job of preserving intact and for as long as possible the enormous accumulation of public documents.

Gasoline fires in rooms in a building, which was slated for demolition to make way for a Social Security Board office, were the subject of the tests. Papers were stacked on metal shelves. They were not damaged by the gas. But the test blaze put out by the gas later blazed up again and the building was allowed to burn down.

Carbon dioxide did not prove to be a successful fire fighter in outdoor tests. Because it was blown by wind it failed to put out a 600-gallon gasoline blaze on a pool of water. In another open air test on kerosene, it put out the flames.

Science News Letter, July 22, 1939

BOTANY

Bees Pollinate Flowers In Russian Greenhouses

BEES will fly in Russian greenhouses to pollinate flowers, just as they do outdoors, according to Tass, Soviet telegraphic news agency. Experiments in the greenhouses of the Agricultural Exhibition of the Soviet Union showed that when bees were used for the pollination of hothouse cucumbers the crop was increased 40 per cent. over that obtained through the hand-pollination method.

Science News Letter, July 22, 1939

GAS FOR FIRE

Using carbon dioxide gas experimentally for fire extinguishing, these firemen are forcing the gas through a hose with special nozzle into a closed room.

MEDICINE

Lung Collapse Most Effective For Treating Tuberculosis

Critical Study of Thousands of Cases Shows This Method To Be Twice as Effective as Any Other

COLLAPSE of the lung for persons suffering from tuberculosis has been found to be twice as effective a treatment as other measures directed against the control of the disease by the Chicago Municipal Tuberculosis Sanitarium.

A critical study of 7,341 cases is reported by Drs. Frederick Tice and Allan J. Hruby of the Chicago institution. (*Journal, American Medical Association,* July 8)

Of the 7,341 patients observed over a 6½ year period 3,090 were subjected to lung collapse for more than three months, 337 for less than three months and 330 had pneumothorax attempted. The other 3,584 patients were controls.

Broadly, the results were twice as good with the treated patients as with the controls and were better still in comparison with the life expectancy of patients with open tuberculosis as revealed in the medical literature.

In Chicago, the Municipal Sanitarium has clinics scattered over the city and 23.4 per cent. of the patients were treated exclusively at these clinics.

The survival rate for patients treated at the clinics was not quite as good as for patients treated exclusively at the sanatorium, 66.5 per cent. as against 75.9 percent. Those who were in both clinic and sanatorium fared best.

Drs. Tice and Hruby believe that in small communities where a sanatorium is not practical the addition of a few beds to the clinic will serve as well.

Science News Letter, July 22, 1939