

be replaced by special fuel injectors to handle the petroleum product, Mr. Mock declared.

Chief modifications of a standard engine are to direct the high "flash point" fuel, which has a density 15 per cent. greater than gasoline, toward hot parts of the cylinder so that it may be readily vaporized. Starting an engine powered by it is at present a difficulty, because of the need for vaporizing the fuel, but the type of ignition employed to start house furnaces may prove satisfactory, the Bendix engineer continued. Suitable injection pumps, control devices and

other accessories are already available to the engine manufacturers who may desire to go ahead with the development.

Use of the new fuel may at the same time help solve two cooling difficulties faced by engine designers, and lead to larger engine cylinders. Heat needed for vaporization can be absorbed from otherwise overheated exhaust valves and pistons. Cylinders and pistons large enough to make 18 cylinders do where 24 would now be required may thus be made possible, Mr. Mock pointed out.

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lic Health. Necessary appropriations, Dr. Rajchman said, have been voted by the French chamber of deputies and now await approval of the French Senate which is expected shortly. Unless grave complications arise in Europe, the school will probably be set up this year.

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#### TECHNOLOGY

### Sterilizing Lamp Tenderizes Tough Hamburger Beef

**M**AKING a "poor man's filet mignon" out of tough hamburger beef is the newest feat of modern industrial science.

Germ-killing ultraviolet rays plus an application of air conditioning now make it possible to tenderize in a few days tough cuts of beef which formerly could be ripened only by weeks of "hanging." This method, worked out over a period of four years by scientists of the Mellon Institute for Industrial Research, enables the raising of all types of beef by one grade in the scale of ratings of palatability.

Trick of the method, devised by Dr. Marion D. Coulter, industrial fellow, is to use high temperature and humidity to bring about quickly the chemical enzyme reactions that turn the tough connective tissue in meat into a gelatinous material which is easy to bite through. It is the breakdown of the connective

#### PUBLIC HEALTH

## Refugees and Air Raid Plans Bring Europe Health Problems

### League Health Section Anticipates Coming Worries; International School for Advanced Study Planned

**R**EFUGEES; plans of all European governments to move city dwellers to the country as protection against air raids; and nutrition are the most important European health problems now facing the Health Section of the League of Nations, Dr. Ludwig Rajchman, recently retired director, told members of the Pan American Medical Association.

The refugee health problem involves hundreds of thousands in Europe and millions in Asia, Dr. Rajchman said.

The Health Section of the League of Nations, he explained, can help European governments plan extension of sanitary and public health services in rural areas so as to prevent epidemics or other threats to health that might arise when large numbers of urban civilians are moved to the country. Such moves are already planned by all the governments as precautions against loss of life in the civilian population during air raids.

One function of the organization, he said, is to give governments advice of this sort on special health problems or in connection with formulation of health policies. Another purpose of the organization is to think out in advance problems which may come before the national health services and to be ready to advise on such problems.

As part of its activities, the League has decided to organize a conference on rural health for all the Americas, to be held in Mexico City before the end of the year.

In view of the importance of the League's work in bringing together public health leaders for round table discussions of present and future problems, the French government has offered to set up in Paris an International School of Advanced Study in Pub-



**TENDERIZING RAYS**

*The germ-killing ultraviolet lamp above with air conditioning, cuts the time of the old fashioned "hanging" for making meat tender. Inspecting the device are its developers, Drs. Marion D. Coulter and H. C. Hentschler.*