dures will also go into use in Army and Navy hospitals.

Adoption of a short-time syphilis treatment program by the Marine Hospital at New Orleans, according to a story current in New York City, has already led to a great demand among sailors of the merchant marine for a berth on ships bound for New Orleans where, if they had syphilis, they could get treated for it in the shortest possible safe time.

On the six weeks treatment schedule at this and other Marine Hospitals, the patients are given hypodermic injections of 60 milligrams of Mapharsen three times a week for six weeks. Some of them may also be getting weekly injections of bismuth.

The schedule of treatment may be varied to suit the convenience of the patient and the doctor, from twice daily injections of smaller doses of Mapharsen (20 milligrams) for four to eight weeks through various combinations up to three weekly injections for five to ten weeks. Compressing the treatment to less than six weeks in general practice, Dr. Hogan warns, may be dangerous.

First of the speedy syphilis treatment schedules was the five-day drip method inaugurated by Dr. George Baehr, Dr. William Leifer, Dr. Louis Chargin, Dr. H. T. Hyman and associates of New York. With this method the arsenic drug is dropped into the patient's vein, drop by drop, all day long for five days. The treatment is discontinued at night and started again in the morning. Hundreds of patients have now been treated by this method and many of them cured, but the treatment is "many times more dangerous than standard clinic practice," requires the attention of expert doctors and nurses and may only be given to carefully selected patients.

The six-weeks treatment, representing a happy medium between the dangerous five-day drip and the safe, sure but tedious and costly 18 months standard treatment was worked out by Dr. Eagle and Dr. Hogan after experiments with rabbits. The total dose of arsenical drug needed to cure which can safely be given, they found, increases directly with the time over which it is given. The total amount needed to cure syphilis, however, varies slightly with the frequency of doses and length of time over which they are given. The 18 months schedule, it turned out, was safe and sure but wholly arbitrary.

Six weeks of treatment seems, from the early reports, to be as safe as the traditional 18 months. It is too early to say whether it is as effective. A few relapses have been reported, but no more than on the 18 months treatment. The six-weeks treatment has the further advantage over the five-day treatment of being suitable for any patient, and is now being given to those with latent syphilis as well as those in the early stages of the disease.

Further experiments with the one-day treatment, with the hope of showing among other things why 10 hours of fever can overcome the disease in even a few patients treated with relatively small amounts of the arsenical, are being carried on at Dayton by Dr. Kendell. Dr. Simpson and Dr. Rose are now serving with the armed forces.

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ZOOLOGY

Mountain Goats Shift Their Home to Black Hills

➤ LIGHT-FOOTED Rocky Mountain goats, found only in the United States and formerly confined to Washington, Idaho and Montana, are now living wild in the Black Hills of South Dakota, it is reported by the Forest Service.

Their new home is entirely accidental. When several of the shaggy game animals were brought to South Dakota for exhibition, two escaped into the hills. Although in a different environment, the fugitive goats have now multiplied to about 25 head.

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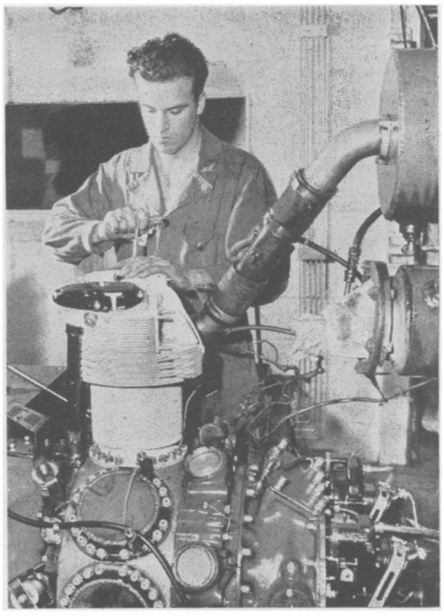

***SINGLE-CYLINDER TEST** stands are being used at Wright Aeronautical Corporation to speed production of new engines by testing designs in valves, pistons, spark plugs and other parts of the cylinder. Solid plates cover the other cylinder openings in the crankcase. Design features worked out on one cylinder can be applied effectively to a complete engine. This saves time and releases full-sized test cells for use on completed engines ready for installation in planes.*

ENGINEERING

Steam Does Double Duty

➤ BY MAKING steam do two jobs instead of one in the new synthetic rubber plants, electric power will be created, enough not only to run the entire plant and neighboring works, but with some to spare which will be added to the regular public utility lines to help supply other war industries.

This is reported by F. H. Stohr of the Westinghouse Electric & Manufacturing Company, which is making the turbine generators for this purpose.

Steam is plentiful about plants making butadiene and styrene for Buna S rubber, for it is needed in the chemical processes. By passing it first through a turbine and then through the chemical vats, all the necessary chemical work is done and a large amount of power is created as a "by-product," Mr. Stohr said. This power is in excess of the plant's needs, so that instead of taking precious power from the public utility lines, the plants will actually deliver power to them.

Three generators are now being built, one of 35,000 kilowatts, and two of 40,000 kilowatts. They take steam at 750 to 850 pounds per square inch and deliver it to the chemical line at 175 pounds.

These generators, and others to be built, will be installed in the first four large synthetic rubber plants in this country, scheduled for completion in 1943, Mr. Stohr continued. Output of all the Buna S plants at the end of 1943 is expected to be at the rate of 360,000 tons a year, and to approach the 1,000,000 ton-a-year rate in 1944.

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