

internal combustion engine when the latter was first introduced, it has now overtaken the most efficient of them all—the Diesel engine, which for many years was the world's most efficient engine, and still is for small plants.

There are many other possible sources of power, wind, tides, waves, internal heat of the earth, temperature difference between surface and deep-sea water, solar heat, and atomic energy. But all of these are in the experimental stage, at least as far as large scale commercial production is concerned. Only one of them shows promise—the wind.

A huge windmill has just been completed and put into operation on a mountain summit, 2000 feet above sea level, in Vermont. It generates 1000 kilowatts of electric power. This windmill, as shown by the illustration on the front cover of this week's SCIENCE NEWS LETTER, has but two blades like an airplane propeller. The blades are 16 feet in maximum width and 175 feet from tip to tip—the height of a 15-story building. These blades have been designed in accordance with the most modern aerodynamic theory. The pitch or slope to the wind can be varied according to the strength of the wind and is regulated by a governor that keeps the speed constant at 30 revolutions per minute in winds from 15 to 70 miles per hour.

These are some of the ways in which modern power engineers are saving fuel and steel for our war effort.

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SCIENCE CLUBS OF AMERICA

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NEWS OF CLUBS

JACKSON, Mich.—A Science Fair was held in the auditorium of the Jackson County Building, April 27-May 2. This Fair is sponsored by the Public Schools of the City and County of Jackson and the Local Recreation Council. The Fair Committee reports that the turn-out of exhibits and visitors was very gratifying. Merit awards contributed by wellknown Jackson business concerns, clubs and other associations, have helped to make this Fair an outstanding success.

SPRINGFIELD, Mass.—You have heard of an Aquacade and a Cavalcade, but did you ever hear of a "Technicade"? That is the name for their technical science show concocted by members of the Chemistry Club at the Technical High School. The recent "Technicade" included discussions and demonstrations of chemical warfare, incendiary bombs, explosives and projects showing the distillation of crude oil, chemistry of photography, spectroscopy and plastics. The club is sponsored by Alfred R. Lincoln, chemistry teacher.

CEDAR RAPIDS, Iowa—Instead of saying "here" when a member's name is called, each person announces his presence by quoting a short scientific fact. This method of answering the roll call is practised at the S.O.S. Club (Students of Science) at Woodrow Wilson High

School. Members of the club prepare exhibits for an annual science club convention, work on laboratory projects, show motion pictures and hold an annual picnic every spring and an initiation supper in the fall. The club, sponsored by Thelma Morton, also is affiliated with the State Junior Academy of Science.

BELLEVUE, Ohio—Heads of local manufacturing concerns frequently lecture to members of the Bellevue High School Science Club. This club meets every other week. At times motion pictures are exhibited to members to illustrate industrial processes and conservation programs; on other occasions laboratory and exhibit

projects take up most of the meeting period. Members of the club also exhibit at the Bowling Green State Science Convention. This club is a member of the Junior Academy of Science of Ohio. Herbert E. Wolfe, chemistry and physics instructor, is the sponsor.

Clubs are invited to become affiliated with SCA for a nominal \$2 for 20 members or less. You can become an associate of SCA for 25 cents. Address: Science Clubs of America, 1719 N St., N.W., Washington, D. C.

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