

ENGINEERING

Electricity via Channel

The European continent could transmit power to the British Isles through a submarine cable under the channel.

► **ELECTRIC** power could be transmitted from the European continent to the British Isles through a submarine cable under the Channel carrying high voltage direct current, Sir Harold Hartley, British power and electricity authority, declared in his presidential address before the British Association for the Advancement of Science in Birmingham, Eng.

Such a linking of the continental and British power systems would give a better balance between seasonal and other demands, Sir Harold declared. Direct current transmission of high voltage current has now passed the experimental stage, he said, and is waiting for development.

Recalling the more ambitious schemes of past years for a tunnel under the channel, the proposed power link could be of 250,000 kilowatt capacity and would then give both sides the equivalent of a large modern generating station as stand-by plant.

Looking farther into the future, the BAAS president declared that a way of converting the free energy of carbon oxidation (burning) directly into electricity is still one of the distant goals of research, although a young German doctor, named Mayer, as early as 1842 pointed out the inefficiency of the steam engine and the need of obtaining electricity by chemical means.

Due to the development of automatic controls and precision techniques that consume almost negligible quantities of current, Sir Harold predicted that such modern robots or automechanisms will become substitutes for the drudgery of the human brain.

"In the future one of the indexes of economic progress," he said, "should be, not the energy used per worker, but the output of goods and services per horsepower employed."

The problems that the world faces, as listed by Sir Harold, are:

The growing strain of increasing population.

The malnutrition and the endemic sickness of perhaps half the world.

The inequalities between the more forward and the backward peoples.

The gradual depletion of resources and their unequal distribution.

The human problem of changing the way of life and the outlook of many millions.

"These problems are the challenge to the science and engineering of our time," Sir Harold told the British scientists. "Only

they can solve them—if allowed, and if men's minds are bent on quest of plenty not on quest of power. The orderly solution of these problems must depend on a knowledge of conditions and the needs of each country, on a survey of its natural resources, its human geography, its economic structure and its capacity to produce and consume."

Science News Letter, September 9, 1950

ENGINEERING

Hot Air Distributed By New Ceiling Device

► **WIDE** distribution of heated air, in a factory, garage or store, is provided with a new ceiling or wall heater with diffusers containing both horizontal and vertical blades to direct the heat where wanted.

It is a product of the Trane Company of La Crosse, Wis., and is made in two types. One is called "Louver Cone" and the other "Louver Fin." They are flexible ac-

cessories for the horizontal propeller and vertical projection types of steam and hot water heating units.

These new heat distributors are designed to solve diffusion on the job by simple adjustments which can be made by the fingers without use of tools. The flow of heated air can be sent in almost any direction where needed in many different patterns.

The Louver Cone diffuser fits projection type heaters often seen in high-ceiling factory rooms, warehouses and drug stores. Projection type heaters are generally used to recapture the heated air that has collected near the ceiling and drive it to near the floor where needed.

The Louver Fin diffuser attaches to horizontal type heaters which are usually placed on the walls of the room. It circulates the heated air horizontally. This new type has seven horizontal and 56 vertical blades, each adjustable to send the heated air in various directions.

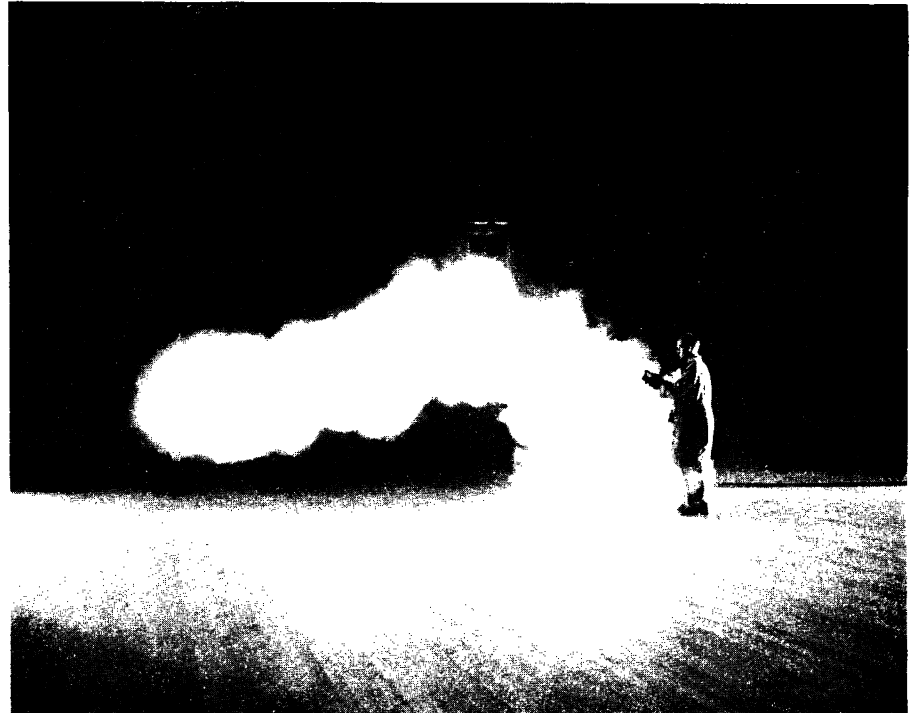
Science News Letter, September 9, 1950

PSYCHOLOGY

Voice, Gestures Express Emotions without Words

► **EVEN** if no words are used, emotions can be expressed through the tone of voice, gestures and other non-verbal methods of expression.

Wire recordings of interviews conducted



HALF AND HALF—With half its blades straightened and half turned to the left, the diffuser can direct air from a unit heater to blanket a doorway and cover a counter. This is a typical store use.