setups must be arranged with these conditions in mind.

One thing was emphasized by Mr. Shepard: In New England's new forests, growing conditions closer to those of nature will be sought than has been the practice in past years. The custom of growing evenly ranked masses of trees, all of the same species and all of the same age, which the world copied from nineteenth - century Germany, will be abandoned in favor of more naturalistic forests of mixed species and all ages.

Such forests, the hurricane showed, can stand against a high wind much more successfully than the uniform, even-aged cultivated timber stands. They are also more resistant to fire and to forest insect and fungus diseases. Finally, they are better homes for game animals and wild birds, and pleasanter places for human recreation.

Science News Letter, October 15, 1938

PSYCHOLOGY

Immature May Seek War Because of the Thrill

CHASING A THRILL is the pursuit of the very young.

Children want to coast down precipitous hills; they want to beat on tin pans, to ride on the merry-go-round and climb on a trapeze, or to be swung by their heels.

A little older, they have the same zest for bright lights and action. They go in for skiing, for speed-boat racing, for fast driving on crowded highways and for quarrelsome parties at night clubs.

Even war has its attraction because it brings excitement and violently disrupts all habits and routine.

Life that is too easy may lead to restlessness. The pacing of the floor by a caged animal or by an idle human is nature's way of trying to keep the organism fit. The undriven organism has a surplus of energy which must find outlet.

How maturity dulls this keen desire

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for a thrill is explained by Dr. Edwin R. Guthrie of the University of Washington in a new book "Psychology of Human Conflict" (Harper).

Older people learn to conserve their energy for useful purposes. Excitement is less readily produced and less necessary for producing action.

With repetition, excitement and enthusiasm normally yield to habit.

"Romantic love," said Dr. Guthrie, "in so far as we mean by that a state of excitement and emotional stir, gives place in marriage to calm acceptance and a household routine.

"The husband or wife of several years' standing who exhibits the symp-

toms manifest during courtship—the heightened pulse, agitation, loss of appetite, inability to keep the mind on a task—would be a subject for interference by friends or for consultation with a psychiatrist."

War news can crowd everything else from the front page. Even the long awaited cure for cancer, if found today, would be less exciting.

But those who have known war find in it no thrill; they remember only the horror and suffering. And an old war ceases to be even news. With excitement centered around Prague, people forgot what was happening in Spain or in China.

Science News Letter, October 15, 1938

ENGINEERING

Electrical Power Needs Should Increase 33 Per Cent.

THE NEEDS of the metallurgical and chemical industries for electrical power will increase 33 per cent. in the next five years, it is forecast in a survey published by the Federal Power Commission.

The chemical and metallurgical plants of the nation, and their allied industries, used well over 13,000,000,000 kilowatthours of electrical energy in 1936, the last year in which complete figures are available. In the next half decade, states the report, these same industries will probably require nearly 18,000,000,000 kilowatthours.

The 33 per cent. gain, the report emphasizes, is based on normal trends. It purposely omits, because of their unpredictability, any attempt to take account of potential wartime needs, major shifts in the business cycle or other extraordinary developments.

The anticipated gain in power of more than 5,000,000,000 kilowatt-hours is about equal to the present needs of such a city as New York.

Greatest gain in power use, in the next five years should be in the production of magnesium, the report indicates. While the average increase for all metal industry is expected to be 33 per cent. an expected power requirement increase of 156 per cent. for magnesium production is foreseen.

Next greatest power increase forecast is for calcium carbide production—a 100 per cent. gain. Other potential increases among industries include: electric furnace iron, 90 per cent; potash, 67 per cent; zinc, 65 per cent.

The increases, it is expected, will pull these industrial uses of electricity up nearer the "big three" of industry's electrical power users, the aluminum industry, copper production and heat treating by electricity.

To a layman electricity means light for his home and, to a smaller number, heat for cooking. But the Federal Power Commission, in its report, shows over 180 different products and processes which require electrical power. They range all the way from manufacture of safety glass and stove polish to rayon and refrigerants, without mentioning at all the many metals whose production depends on electro-chemistry.

Science News Letter, October 8, 1938

Brook trout bury their eggs in beds of clean gravel in autumn, generally in spring-fed headwater streams.

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