must have the same desired grain size in order to harden the same way so as to act identically in the unrelenting rush of manufacturing and assembly.

Steel is even challenging the light metals, such as aluminum, in the airplane and streamlined train field. Stainless sheets as thin as 4/1000 inch and up to 190,000 pounds per square inch tensile strength are being produced that steel may do its share in speedy transportation.

Science News Letter, December 17, 1938

CHEMISTRY

Chemical Society Asks News Of Any Suppressed Patents

THE AMERICAN Chemical Society, through a notice to members under the signature of Dr. Charles L. Parsons, secretary, has asked its members to report to the Society any cases of patents suppressed to prevent their further development and commercial exploitation.

Referring to recurrent reports of such suppressions, Dr. Parsons declares "this matter of the suppression of patents is one of great importance to the American people, and if the rumors are true, they should be informed thereof."

Suppression of patents has been repeatedly charged in connection with several recent proposals that the U. S. patent laws be revised to make such a practice impossible and to correct other abuses with which the present patent system is charged.

"Such information," Dr. Parsons states, "to be effective, must of course be accompanied by definite statement in sufficient detail for presentation to any congressional committee on patents before whom a representative of this organization may appear."

Such information as is gained, it is intimated, will be used when the Society, in conjunction with a number of other technical groups, appears before the Congressional committees on patents to consider basic changes in the law which are expected to be introduced at the next session of Congress.

Sponsored by Representative William D. McFarlane, one bill would limit to five years the absolute monopoly now granted for 17 years. At the end of five years, if the patent holder has engaged in monopolistic practices or has refused to develop the patent to the stage of commercial application, compulsory licensing would occur. Determination of whether monopolistic practice or of suppression has been resorted to would be in the hands of a Patent Office agency.

Science News Letter, December 17, 1938

GENERAL SCIENCE

Wrong to Use Darwin's Ideas To Justify Aggression

Retiring Editor of Nature Calls Ideal of Conquest By Force a Reversion to the Law of the Jungle

DARWIN'S evolutionary teaching, often cited in support of ruthless aggression and striving for power, is grossly misinterpreted when so used, declared Sir Richard Gregory, Bart., F. R. S., in a lecture in Washington, D. C.

"Evolution embodies the idea of social ethics and makes the welfare of the community the essential purpose of the life of the individual," he told his audience.

Sir Richard, for a great many years editor of the British science journal, *Nature,* gave the dedicatory address of the new Elihu Root Hall of the Carnegie Institution of Washington. The hall constitutes a memorial to the late American statesman, who was also a trustee of the Institution.

"Any nation or people which separates itself from the rest of the world in the name of race or religion, and cultivates ideals of conquest by force in order to assert its claims, is reverting to the law of the jungle and retarding the higher evolution of mankind," declared the speaker. He continued:

"The view that the sole function of science is the discovery and study of natural facts and principles without regard to the social implications of the knowledge gained, can no longer be maintained. It is being widely recognized that science cannot be divorced from ethics or rightly absolve itself from the human responsibilities in the application of its discoveries to destructive purposes in war or economic disturbances in times of peace.

"Men of science can no longer stand aside from the social and political questions involved in the structure which has been built up from the materials provided by them, and which their discoveries may be used to destroy. It is their duty to assist in the establishment of a rational harmonious social order out of the welter of human conflict into which the world has been thrown through the prostitution of the rich gifts with which they have endowed the human race."

In the course of his lecture, Sir Richard traced the history of the impact of scientific ideas on human beliefs and social behavior. The first well-developed science was astronomy, which reached a high state in Egypt and other nations of antiquity. Because of the supposed intimate connection between celestial bodies with divine beings, the religious implications of astronomy were developed very early and have been persistent.

When Copernicus laid the foundations of modern astronomical ideas, it seemed at first as though the very foundations of faith were cut away. Then came Newton, with his laws of the motions of the heavenly bodies.

"A great revolution of thought was involved in this substitution of permanent natural law for the conception of a world in which all events were believed to be reflections of the moods of a benign or angry God," said Sir Richard.

"The intellectual expansion thus brought about, together with the sense of justice which resulted from the existence and permanence of Law in Nature, profoundly influenced human thought and resulted in social changes which had the greatest civilizing effects.

Science News Letter, December 17, 1938

GENERAL SCIENCE

Photos of Sun and Moon Make Ceiling Decorations

See Front Cover

THE AUDITORIUM of the Carnegie Institution of Washington's new Elihu Root Hall is topped by ceiling transparencies made from spectroheliographs. These are shown on the front cover.

In the center, four feet across, is a combination of sun photographs, one taken with the violet light of calcium and showing the sunspots particularly well, and another taken with the red light of hydrogen showing the solar prominences.

The transparencies of the moon, each 20 inches in diameter, show the moon in eight phases.

All these photographs were originally taken at Mount Wilson Observatory.

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