This preference could hardly be a manifestation of ordinary heliotropism, because many of the white illuminations are much stronger in visible light than those which attract the insects.

One new set of visitors came this year—a great influx of brown moths. Thus far the green bugs have not arrived.

If the insects were mainly of varieties normally attracted by bright-colored flowers, one might assume that the superior attraction rested in the color; but this is not the case, with the exception of the moths.

The idea then occurs that possibly neon lights may emanate invisible rays which connect with the antennae of various insects and pull them to its source. If this be true and the radiations can be identified and suitable projectors manufactured, this might be a solution to the problem of crop pest eradication. It may be that different vibrations attract different species, but the evidence seems to indicate that neon lights give off rays which strongly attract insects of widely different types and that this attraction is many times more powerful than that produced by white light.

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COLOR SYSTEMS

THE Ridgway Colors and Nomenclature have been found quite practical for years by biologists, in particular mycologists and ornithologists, for the description of color and at the present time there are many references to Ridgway in the literature. However, an improved system is desirable as the Ridgway colors alter with age and are not reproducible.

Time and the work of many investigators has now shown that the Munsell Color System and notation of Professor A. H. Munsell is well established.[1,2] While the chips of the Munsell Color Book are not absolutely permanent, they are sufficiently stable to withstand normal usage, and a conversion table has now been published which gives the Munsell colors in terms of the ICI (1931) *xy* coordinate specification system which is based on absolute standards.

The large number of Ridgway color chips have simplified comparison and identification of colors. Although the number of Munsell colors is smaller the arrangement, even in the abridged book of color, makes possible close estimation. The alternative color arrangements of the standard book serve for closer checking.

Field work is facilitated, since the Munsell system is based on three distinct dimensions: hue, gray value and saturation (chroma). This makes possible the broad description of colors without comparison with standards, for the observer can readily indicate the limits of color range when he is doubtful.

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REPRINTS FOR EUROPEAN LABORATORIES

IN SCIENCE for November 7, Robert B. Dean suggests that since European laboratories are unable to obtain American or British scientific journals, reprints be sent by American scientists instead. Such reprints may reach certain laboratories, but not all. Since November, 1940, reprints and personal letters addressed to various scientists in occupied France have uniformly been returned with the notation that service has been suspended. Recently letters to Barcelona have been returned the same way. Reprints and correspondence seem to reach Belgium, Holland and the Scandinavian countries satisfactorily, and also Switzerland. Nothing, however, seems to get into or out of what was Czecho-Slovakia, Poland, Yugoslavia or Greece. There seems little use in wasting funds on shipments of reprints to these portions of Europe if the material is returned due to what appears to be a Nazi policy of intellectual as well as physical starvation.

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QUOTATIONS

A METONIC SPAN IN THE WORK OF THE CARNEGIE CORPORATION

METON was an Athenian astronomer of the fifth century B.C., remembered chiefly because of his division of time into nineteen-year periods. The writer, it must be confessed, first learned of his existence at the recent installation of Dr. John W. Nason as president of Swarthmore College through reference to the Metonic span of nineteen years' service by the retiring president, Dr. Frank Aydelotte. Since his own final report must of necessity deal rather with past experience than with future plans, and since the day of his retirement in November, 1941, also brings to a close a Metonic span in the service of the Carnegie Corporation, the writer has adopted the term as the subtitle of the concluding section of this report.

[1] See the five papers on the Munsell color system and bibliographies as published in *Jour. Opt. Soc. Amer.*: 573–645; December, 1940.

[2] J. J. Glenn and James T. Killian, *Jour. Opt. Soc. Amer.*: 609–616; 1940.

In 1922, the beginning of this particular Metonic span, American foundations had already made their place. The capital funds at their disposal had reached vast figures, and the sums distributed under the terms of their charters were correspondingly impressive. The Carnegie Corporation alone had voted more than $88,000,000, including a single gift of $5,000,000 to the National Research Council for building and endowment. Outstanding achievements were already to their credit: by the Rockefeller Foundation in public health and medical education, by the General Education Board in education in the South, by the Carnegie Corporation in library construction, by the Carnegie Institution of Washington in scientific research. In a number of fields foundations had developed influential leaders. They were in a position to enlist distinguished men as members of their boards of trustees, and under the able executives who had been called to their direction the foundations were becoming clearing houses for ideas, an educational service whose importance is often overlooked.

Throughout the Metonic span the attitude of the foundation has reflected the current intellectual and moral climate of the country; 1922 was a day of confidence and buoyancy. It was a day of big things with as yet unshaken confidence in what money could perform. Foundations enjoyed a large and steady income. The path ahead seemed clear. The Carnegie Corporation was carrying a load of over $40,000,000 voted against future income, cheerfully unaware of the gruelling but necessary task lying before it of reducing that load to its present figure.

The chief recipients of foundation grants were the endowed colleges and universities. State institutions were relatively neglected. Grants were mostly devoted to endowment for general purposes or to buildings. Only one profession, medicine, enlisted the interest of foundations, but this profession received immense sums. Large funds were given to a new type of independent non-teaching institution, for example, the Food Research Institute in Palo Alto, the Institute of Economics in Washington and the American Law Institute in Philadelphia.

In addition to institutional gifts, the foundations encouraged elaborate and expensive proposals for general studies, surveys and demonstrations, in which the recently developed techniques of educational and social measurement and appraisal were at times applied with more zeal than judgment. Under the stimulation of the World War I certain agencies concerned with social problems had built up large budgets and undertaken extensive programs; they had enlisted the services of ambitious and energetic officers who succeeded in persuading the foundations to contribute to the carrying out of their plans.

The conditional gift was in general favor. It fitted into the spirit of the times, and individual donors or other trusts could readily be found to comply with the requirements. Many such gifts were made in response to a series of institutional drives conducted under professional direction. For example, the finances of many colleges were strengthened by the joint action of the General Education Board and Carnegie Corporation in voting conditional grants for endowment.—*Dr. Keppel in his final report as president of the Carnegie Corporation.*

PROGRESS AT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

ALONG with maintaining our normal educational activities we have been able to initiate or put into effect some highly significant additions and improvements in our facilities and educational programs. Many of these have already been separately reported to the Corporation Visiting Committees since they resulted from recommendations made by these committees, and I will attempt here to brief only some of the most noteworthy ones.

For a number of years the visiting committee of our medical department repeatedly has recommended the addition of both a dental clinic and a psychiatric clinic to our medical service. During the year the Charles Hayden Foundation, upon recommendation of Mr. Willard Hayden, made a grant of $10,000 to equip and start a dental clinic which is now in operation. With the opening of school this fall we also initiated a psychiatric service. A physician trained as a specialist in this field is available for consultation and other services for a two-hour period twice a week.

Last January the corporation authorized a new degree, doctor of philosophy in industrial economics, based upon a new program of graduate study and research in the social sciences. Subsequently friends of the institute have contributed $8,000 for fellowships in this field, and last month the Rockefeller Foundation authorized a grant of $30,000, payable over three years, for a research study of the economic effects of technological change. This research, which requires a combined technological and economic approach, will seek to clarify the role of invention in the business cycle and will involve investigation of factors in an individual firm influencing technological change together with case studies of the effect of inventions on labor policies.

These developments reflect the steady growth of our work in social studies, particularly in relation to the economic and labor problems of industry. Our very active industrial relations section, which was established three years ago and which has been generously supported by industry, will play an important