to be revealed and interpreted by nature's own organ of the human mind. Besides science we have other forms of this inner relation between the mind and the universe, such as poetry, music, art and religion. The human spirit is not a pathetic wandering phantom of the universe, but is at home, and meets with spiritual hospitality and response everywhere. Our deepest thoughts and emotions and endeavors are but responses to stimuli which come to us, not from an alien, but from an essentially friendly and kindred universe. So far from the cosmic status of life and mind being degraded by the newer astronomy and physics, I would suggest an alternative interpretation of the facts, more in accord with the trend of evolutionary science. We have seen a macroscopic universe born or revealed to consciousness out of a prior microscopic order of a very different character. Are we not, in the emergence of life and mind, witnessing the birth or revelation of a new world out of the macroscopic physical universe? I suggest that at the present cosmic epoch we are the spectators of what is perhaps the grandest event in the immeasurable history of our universe, and that we must interpret the present phase of the universe as a mother and child universe, still joined together by a placenta which science, in its divorce from the other great values, has hitherto failed to unravel.

Piecing together these clues and conclusions we arrive at a world-picture fuller of mystery than ever. In a way it is closer to common sense and kinder to human nature than was the science of the nineteenth century. Materialism has practically disappeared, and the despotic rule of necessity has been greatly relaxed. In ever varying degree the universe is organic and holistic through and through. Not only organic concepts, but also, and even more so, psychological viewpoints are becoming necessary to elucidate the facts of science. And while the purely human concepts, such as emotion and value, purpose and will, do not apply in the natural sciences, they retain their unimpaired force in the human sciences. The ancient spiritual goods and heirlooms of our race need not be ruthlessly scrapped. The great values and ideals retain their unfading glory and derive new interest and force from a cosmic setting. But in other respects it is a strange new universe, impalpable, immaterial, consisting not of material or stuff, but of organization, of patterns or wholes which are unceasingly being woven to more complex or to simpler designs. In the large it appears to be a decaying, simplifying universe which attained to its perfection of organization in the far-distant past and is now regressing to simpler forms—perhaps for good, perhaps only to restart another cycle of organization. But inside this cosmic process of decline we notice a smaller but far more significant movement—a streaming, protoplasmic tendency; an embryonic infant world emerging, throbbing with passionate life, and striving towards rational and spiritual self-realization. We see the mysterious creative rise of the higher out of the lower, the more from the less, the picture within its framework, the spiritual kernel inside the phenomenal integuments of the universe. Instead of the animistic, or the mechanistic, or the mathematical universe, we see the genetic, organic, holistic universe, in which the decline of the earlier physical patterns provides the opportunity for the emergence of the more advanced vital and rational patterns.

In this holistic universe man is in very truth the offspring of the stars. The world consists not only of electrons and radiations, but also of souls and aspirations. Beauty and holiness are as much aspects of nature as energy and entropy. Thus "in eternal lines to time it grows." An adequate world-view would find them all in their proper context in the framework of the whole. And evolution is perhaps the only way of approach to the framing of a consistent world-picture which would do justice to the immensity, the profundity and the unutterable mystery of the universe.

Such in vague outline is the world-picture to which science seems to me to be pointing. We may not all agree with my rendering of it, which indeed does not claim to be more than a mere sketch. And even if it were generally accepted, we have still to bear in mind that the world-picture of to-morrow will in all probability be very different from any which could be sketched to-day.

SCIENTIFIC EVENTS

THE NATIONAL METAL CONGRESS

The Review, official journal of the American Society for Steel Treating, reports the meeting of the National Metal Congress at Boston, from September 21 to 25. The Institute of Metals and the Iron and Steel Divisions of the American Institute of Mining and Metallurgical Engineers met jointly at the Hotel Statler.

The officers of the Institute of Metals Division were: Sam Tour, *chairman;* Zay Jeffries, *past chairman;* J. R. Freeman, Jr., and C. H. Mathewson, *vice-chairmen,* and William M. Corse, *secretary-treasurer.* John L. Christie and E. M. Wise, respectively chairman and vice-chairman of the papers and publications committee of the division, were active in organizing the technical program for the meeting. The

officers of the Iron and Steel Division were: F. M. Becket, *chairman;* W. J. MacKenzie, *past chairman;* C. B. Murray, W. E. Ruder and F. N. Speller, *vice-chairmen,* and A. B. Kinzel, *secretary.* The program committee of this division consisted of C. E. Meissner, *chairman,* Walter Crafts, G. B. Waterhouse and Clyde E. Williams.

Members of the American Institute of Mining and Metallurgical Engineers registered outside the Georgian Room of the Hotel Statler on Monday morning. Starting on Tuesday morning there were six technical sessions, for which there were 23 important papers. On Thursday afternoon Dr. P. W. Bridgman, Hollis professor of mathematics and natural philosophy at Harvard University, presented the science lecture. His subject was "Recently Discovered Complexities in the Properties of Simple Substances." On Friday afternoon R. J. Cowan presented a paper on "The Development of Continuous Gas Carburizing," at a joint session of the American Society for Steel Treating and the Iron and Steel Division, at which the principal topic was nitriding and carburizing.

The Society of Automotive Engineers cooperated with other engineering societies by having a technical session at the National Metal Congress in connection with an exhibition. Technical sessions were held in the Georgian Room of the Hotel Statler on Wednesday morning, September 23. F. P. Gilligan, chairman of the Iron and Steel Division of the standards committee, presided. He had been active for many years in the society's work and is a past president of the American Society for Steel Treating.

The program of the session comprised three timely papers on important subjects, two of which dealt with the methods and costs of heat treating and made available valuable information bearing more on the economics of the subject than on its purely metallurgical phases. One of these two papers was presented by E. F. Davis, the metallurgist of the Warner Gear Company, and the other by Dr. Haakon Styri, of SKF Industries, Inc. The third paper at the sessions. which was read by F. W. Shipley, foundry metallurgist of the Caterpillar Tractor Company, was devoted to the metallurgical characteristics and advantages of alloyed cast irons, particularly for use in cylinder castings. The number of papers given at this session was limited by the society so that each might be presented in full and ample time allowed for general discussion.

The American Welding Society offered a technical program for their sessions at the congress. All their sessions were held at the Copley Plaza Hotel.

CLINICAL CONGRESS OF THE CONNECTICUT STATE MEDICAL SOCIETY

THREE hundred physicians were expected to attend the seventh annual Clinical Congress of the Connecticut State Medical Society, which was held at New Haven from September 22 to 24. Dr. Creighton Barker was chairman of the committee on enrolment. Equal emphasis and time were given this year to demonstrations and lectures, according to Dr. Barker. In general, morning meetings were devoted to presentation of papers and afternoon meetings to demonstrations of the subjects treated in the papers. All morning and afternoon sessions were concentered at the Yale School of Medicine for the first time in the history of the congress, and this proved to be a time-saver and convenience to those in attendance.

Of unusual interest was an address on infantile paralysis by Dr. William H. Park, of the New York City Department of Health. This paper, in which Dr. Park discussed findings in regard to the prevalence and spread of this disease and measures to be employed in controlling it, was given on Wednesday, at which time diphtheria control also was discussed by Dr. Park and by others, including Dr. Stanley H. Osborn, state commissioner of health of Connecticut, Dr. John L. Rice, health officer of New Haven, and Dr. William F. Wild, health officer of Bridgeport.

General interest centered on an address to be given by Dr. Linsly R. Williams, director of the New York Academy of Medicine, on the subject, "Is Medical Service a Necessity?" This address was given at a dinner meeting held on Tuesday evening at the New Haven Lawn Club, with Dr. Charles C. Gildersleeve, of Norwich, president of the State Medical Society, presiding.

The following papers were presented on Tuesday: "Medicinal Foods," by E. Monroe Bailey, chemist; "Tumors of the Large Bowel," by Dr. Daniel F. Jones, and "Functional Gastro-Intestinal Disturbances," by Dr. Thomas R. Brown. In the afternoon group discussions of these papers were led by Dr. Brown, Dr. Eugen Kahn, Dr. Jones and Dr. Joseph I. Linde, after which the following demonstrations were given: Medicinal foods, Dr. Bailey; gastric pouch experiments, Dr. George R. Cowgill; vitamin deficiencies, Dr. Lafayette B. Mendel; pathological lesions, Dr. Samuel C. Harvey and staff, and Dr. Raymond G. Hussey and staff; gastro-intestinal studies, Dr. William A. LaField and staff; test meal, Dr. Albert J. Sullivan; dental pathology, Dr. Bert G. Anderson; hypodermoclysis, Dr. Grover F. Powers and staff; congenital anomalies of the digestive tract, Dr. Ethel C. Dunham; carcinoma of the stomach, Dr. Ashley W. Oughterson. The dinner meeting, addressed by Dr. Williams, began at seven o'clock.

Papers given on Wednesday morning include: "Fractures of the Lower Extremity," by Dr. Philip Wilson; "Fractures of the Upper Extremity," by Dr. Clay R. Murray; "The Control of Diphtheria by Bacteriological and Immunological Methods," by Dr.