

from which becomes seriously affected whenever their reliability is brought into question. The ultra-conservative attitude of scientists which results from these and other causes is as obvious as it is deplorable.

As we look back over the past and, studying the advances of science, mark off upon the way the stations at each of which a new horizon has opened, it is easy to see that the successive marches, like the halts between, have been far too long. The attempt to reproduce from each station the entire panorama of the horizon has led to a sketchiness and an inaccuracy in the depicting of all remoter portions of the field, which might have been avoided had the viewpoint been promptly moved forward so soon as the nature of the nearer terrane had become firmly established. My appeal is, therefore, for an individual study of those theories of science with which each worker is concerned, and for an early decision upon their availability whenever a judgment is warranted. Accepted, if necessary, as working hypotheses to be rigidly tested by observation and experiment, the new ideas are infinitely to be preferred to those theories which have been found wanting under the tests either of experiment or of searching observation.

It might perhaps be asserted that the picture which I have drawn of the past and present of scientific theories is one not calculated to cause entire satisfaction; and I could hardly deny the truth of the assertion; but when, I would ask, has either an institution or an individual been other than benefited through a searching self-examination? Even the shock to our self-pride which came with the revelations of this bellum period is not fraught with permanent disaster. Since the condition existed, it is far better that we should

know it, and so far as may be possible provide against its recurrence in the future.

The encouraging feature of our entire survey is the evidence which it shows of a steady evolution toward better conditions; for no one can truthfully deny that the scientific world is to-day in a far better position than it has ever occupied in the past; and the outlook for the future is so much the more encouraging.

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#### HERBERT W. CONN

It has been said of America that it is peculiarly able to produce the right man at the right time when emergency calls. Herbert W. Conn was not only a cultivated scientist, but a personality, because he embodied in himself the initiation of a great movement in America. The science of bacteriology as developed in Europe through Pasteur and Koch attracted his attention in the early years of his education, and led him to feel that this science had a great function to perform in connection with milk and dairy products in America. In the early eighties his pioneer work was begun in milk bacteriology and was developed in his laboratory in Wesleyan University, and under his supervision in Storrs Agricultural Experiment Station, Connecticut. Whatever lines of influence have been developed through later years in the improvement of municipal milk supplies and in the improvement of sanitary conditions on dairy farms, when traced back to their sources, will show a connection with and a stimulation from the early milk bacteriology of Herbert W. Conn. He took part in the councils of those who established the certified milk industry, and assisted in framing the regulations which were first drawn up in the early nineties for the control of certified dairies. He suggested the production of sanitary butter through the pasteurization of cream, and the use of pure cultures of lactic acid bacteria. He was among the first to show the close relationship between unsanitary con-

ditions on dairy farms and the numbers and species of bacteria found in milk. The examination of municipal milk supplies for bacteria was directly stimulated by his work in showing the relationship of bacteria to the sanitary character of milk.

He was the founder and first president of the American Society of Bacteriologists. He was for many years a very active member of the American Public Health Association. During his latter years he became closely identified with the work of the New York Milk Committee as a member of the commission on milk standards appointed by that committee. While this commission was composed of twenty of the men most prominently identified with the improvement of municipal milk supplies in the United States and Canada, no member of the commission was more interested in its work or devoted more time to the same than Professor Conn. Through the work of this commission he recognized that many of the principles which for years he had been advocating could be put into practical operation. Among these he was most interested in the establishment of uniform laws and regulations for the control of public milk supplies through state and municipal authorities.

While Professor Conn's name will always be more closely identified with milk sanitation than with any other single subject, his work covered a much broader field. He was the author of numerous pamphlets and books on subjects related to biology and bacteriology. His textbooks on elementary bacteriology, hygiene and physiology are widely used by the public schools throughout the United States. His books on evolution were the first to put in clear and popular language the more important features of the philosophy of Spencer and Darwin and the modern theories on this same subject. His position as director of the laboratories of the State Board of Health of Connecticut, which he occupied during his latter years, brought him into contact with every phase of public-health work. He became identified in this way with the improvement of the sanitary condition of water supplies in the state of Connecticut, and with

the supervision of oyster beds. His knowledge and experience in the bacteriology not only of milk but of these other subjects led to his appointment as a member of the committees appointed to establish standard methods for the laboratory examinations and sanitary standards for their control.

As a man, he was always genial and easy to approach, and ready to give freely of his time for the discussion of public-health work. His many scientific associates recognized in him one who could be always relied upon to carry out more than his share of any work assigned to him. This activity he preserved to the last. His high personal standards of integrity and conscientiousness led him to be an ardent advocate of higher professional standards in public-health work, and to take an active part in the movement recently organized to secure fuller recognition of public-health service as a profession. The last work in which he took part before his death was as a member of the council of the newly organized American Academy of Public Health. His death was sudden and entirely unexpected not only by his associates, but by his immediate family. His personality and his numerous activities will make his loss deeply felt by the many organizations and scientific men with whom he has been associated. While carried away with his work still incomplete, he leaves behind him work already accomplished of such great importance not only to science, but to humanity, that it is a contribution that will endure.

C. E. N.

#### THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

##### REPORT OF THE COMMITTEE ON GRANTS FOR RESEARCH

By the settlement of the Colburn estate in 1916 the American Association for the Advancement of Science received cash and securities valued at about \$76,000, bequeathed by Richard T. Colburn, a fellow of the association, the income of which is to be devoted "to original research in the physical and psychic