

and having resources put at 10,000,000 Mexican dollars.

Of what might be called precious-stone material there is very little signalized; some opal is found at Tecali and Tlatlauqui, and azurite occurs in Acatlan. The so-called "Mexican Onyx" (an aragonite) of the district of Tecali in the state of Puebla is well known, and was already used by the Aztecs for ornamental purposes.

In the State College in Puebla, where courses of law, medicine and engineering are given, besides the customary preparatory studies, there are excellent collections illustrating physics, chemistry, bacteriology and histology, and also radiographic and radiosopic installations, as well as apparatus for wireless telegraphy. There is also a well-furnished natural history collection and an important museum.

The few items presented here may give a little idea of the quality of this monograph, though insufficient to indicate the wide field it so ably covers. It certainly merits to be consulted by all who are seeking information regarding one of the principal states of the Mexican Federation.

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#### THE TALKING MACHINE AND THE PHONOGRAPH

TO THE EDITOR OF SCIENCE: Professor Peckham's interesting account of the talking machine, as distinguished from the phonograph, in SCIENCE of November 9, closes with this statement:

It is not probable that any one had thought of a phonograph in the sense in which we use the term as early as 1772. Knowledge of electricity was not sufficiently advanced at that time.

This, I presume, is a mere slip of the pen, the writer thinking perhaps of the telephone while writing of the talking machine and the phonograph. Otherwise some of us who are engaged in other fields of science, and hence can lay claim to no special knowledge of physics, would like to have pointed out to us the connection between electricity and the ubiquitous phonograph.

J. VOLNEY LEWIS

#### SCIENTIFIC BOOKS

*Mental Adjustments.* By FREDERICK LYMAN WELLS, Ph.D. New York & London: D. Appleton & Co., 1917.

F. L. Wells wrote his book with a rather unusual background. Trained in the experimental school of Cattell and Woodworth, Wells took up his work at the McLean Hospital in 1907, where he returned after one year's work with Dr. August Hoch on Ward's Island and with considerable contact with Dr. Charles Macfie Campbell, to whom the book is dedicated. Coming from a school which might be frankly dynamic and objective, if it had the necessary philosophical courage combined with a desire for consistency, Wells found most valuable opportunities at the McLean Hospital owing to the excellent tradition established there by Dr. Hoch in the study of an uncommonly interesting type of patients; and even before he went to Ward's Island he had been concerned with association experiments and with problems which were bound to bring him into touch with the sphere of ideas of Freud and Jung. His studies of the last few years have shown a growing mastery of the psychopathological problems and the present book gives ample evidence of earnest and able collaboration along lines very characteristic of modern American psychopathology.

Eight chapters constitute this book of 331 pages. In "Mental Adaptation" he gives illustrations of types and problems of adaptation and in a way a forecast of the book. The discussion of "Use and waste in thought and conduct" leads the reader, in one of the best organized chapters of the book, to a very direct understanding of fundamental adaptive trends and their adjustments and supplements, many times crossing the boundary between the "motor" and "mental" varieties of behavior, "granting, indeed, that such a boundary exists." He gives a very good picture of the rôle of fancy and autistic thinking (*i. e.*, primitive fancy unconcerned about reality) and especially of the rôle of word-plays and of rationalization. He sums up the discussion by saying that "realistic thinking contributes mainly to making it possible to exist, and