

workman. There is no possible doubt that apprentices to trades require facilities to study the technics of their trades, and that these facilities ought to be found in every manufacturing town, besides which, both parents and employers should make it a duty to see that the opportunities are not thrown away. On the other hand, the fact should not be lost sight of, that it is only possible to follow practice, *i.e.*, practical work, in the works.

The following chapters on this subject are by different authors, and deal with the progress of technical education in this country and abroad, then we have an elaborate description of polytechnics by Mr. Quintin Hogg, and the last chapter gives a fair idea of technical education in the colonies. All these chapters together give the reader much information about this all-important subject.

Although it has not been possible to note more of the contents of this volume, yet we can say that it is one of a series of most useful books, and if subsequent volumes are kept up to the standard of Vol. I. they will constitute a valuable Encyclopædia of Technical Education.

N. J. L.

Wetterbüchlein. Von wahrer Erkenntniss des Wetters.
By Leonhard Reynman. (Berlin: A. Asher & Co., 1893.)

THIS is the first number of a series of reprints of rare books relating to meteorology and terrestrial magnetism, edited by Prof. G. Hellmann, and, owing to the support of the German Meteorological Society and to a large amount of gratuitous labour on the part of Dr. Hellmann, the works, of which only a very limited number will be printed, are to be issued in a very cheap but elegant form, and will no doubt be much valued by students of those subjects and by persons interested in early literature. The *Wetterbüchlein* is the oldest purely meteorological work printed in the German language. The first edition was published in 1505, but inquiries made by Prof. Hellmann of 115 libraries in Europe have failed to discover a single copy, and of the second edition printed in 1510 only one copy can be found, *viz.* the one in Dr. Hellmann's library, of which a facsimile is now reprinted, together with an introduction of forty-two quarto pages, giving a most interesting and masterly account of this work and of all the other editions excepting two, of which no copy can be found. The *Wetterbüchlein*, which ran through seventeen editions in fourteen years, was exceedingly popular in its day, and contains in fourteen chapters a large number of weather prognostications, some of which are of an astrological character, but by far the greater part are based on optical and natural phenomena. The chapters are naturally of unequal value, but some of them contain results of importance deduced from a large number of actual observations. Many of the chapters have been traced by Dr. Hellmann to be based upon proverbs known to the old classical writers, and the author has also quoted freely from a work by Guido Bonatti, an Italian astrologer, which was printed in 1491, and from one by Firmin de Bellevall, a French writer, which appeared in 1485; but no clue can be found as to the origin of a chapter entitled "Das wetter zu wissen durch die vier quart des jars / als Liechtenperger setzt." If any of our readers can discover the origin of this section we shall be glad to hear of it. The *Wetterbüchlein* was, to a great extent, reprinted in various editions of the "Bauern-Practick," which appeared in the sixteenth century and had a much greater sale. It also found its way to this country, an almost literal translation appearing in "The Boke of Knowledge of Thynges Vnknown . . ." published in London in 1585.

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LETTERS TO THE EDITOR.

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Prenatal Influences on Character.

THE popular belief that prenatal influences on the mother affect the offspring physically, producing moles and other birth-marks, and even malformations of a more or less serious character, is said to be entirely unsupported by any trustworthy facts, and is also rejected by physiologists on theoretical grounds. But I am not aware that the question of purely mental effects arising from prenatal mental influences on the mother has been separately studied. Our ignorance of the causes, or at least of the whole series of causes, that determine individual character is so great, that such transmission of mental influences will hardly be held to be impossible or even very improbable. It is one of those questions on which our minds should remain open, and on which we should be ready to receive and discuss whatever evidence is available; and should a *prima facie* case be made out, seek for confirmation by some form of experiment or observation, which is perhaps less difficult than at first sight it may appear to be.

In one of the works of George or Andrew Combe, I remember a reference to a case in which the character of a child appeared to have been modified by the prenatal reading of its mother, and the author, if I mistake not, accepted the result as probable, if not demonstrated. I think, therefore, that it will be advisable to make public some interesting cases of such modification of character which have been sent me by an Australian lady in consequence of reading my recent articles on the question whether acquired characters are inherited. The value of these cases depends on their differential character. Two mothers state that in each of their children (three in one case and four in the other) the character of the child very distinctly indicated the prenatal occupations and mental interests of the mother, though at the time they were manifested in the child they had ceased to occupy the parent, so that the result cannot be explained by imitation. The second mother referred to by my correspondent only gives cases observed in other families which do not go beyond ordinary heredity.

"I can trace in the character of my first child, a girl now twenty-two years of age, a special aptitude for sewing, economical contriving, and cutting out, which came to me as a new experience when living in the country amongst new surroundings, and, strict economy being necessary, I began to try and sew for the coming baby and for myself. I also trace her great love of history to my study of Froude during that period, and to the breathless interest with which my husband and I followed the incidents of the Franco-German war. Yet her other tastes for art and literature are distinctly hereditary. In the case of my second child, also a daughter (I having interested myself prior to her birth in literary pursuits) the result has been a much acuter form of intelligence, which at six years old enabled her to read and enjoy the ballads which Tennyson was then giving to the world, and which at the age of barely twenty years allowed her to take her degree as B.A. of the Sydney University.

"Before the third child, a boy, was born, the current of our life had changed a little. Visits to my own family and a change of residence to a distant colony, which involved a long journey, as well as the work which such changes involve, together with the care of my two older children, absorbed all my time and thoughts, and left little or no leisure for studious pursuits. My occupations were more mechanical than at any other time previous. This boy does not inherit the studious tastes of his sisters at all. He is intelligent and possesses most of the qualifications which will probably conduce to success in life, but he prefers any kind of outdoor work or handicraft to study. Had I been as alive then as I am now to the importance of these theories, I should have endeavoured to guard against this possibility; as it is, I always feel that it is perhaps my fault that one of the greatest pleasures of life has been debarred to him.

"But I must not weary you by so many personal details, and I trust you will not suspect me of vanity in thus bringing my own