

of our population die before the average age of marriage.

The possible remedies for the diseases of our social system are discussed. The increase of suicide, we are told in the very interesting discussion of the subject, is due to want of integration. We live in an age of rampant individualism, for which, however, socialism supplies no remedy. Religion has not the hold on man that it once had. Family life is less strong than it was, and tribes and village communities are things of the past. Men make away with themselves because they have no strong ties and no strong interests. In times of political commotion there are fewer suicides, apparently because there is plenty to think about. To a great extent the theory of want of integration explains the facts. But is our author right when he maintains that Roman Catholicism is a stronger integrating force than Protestantism? Is not the form of faith rather a symptom than a cause? The most go-ahead races have seceded from the church of Rome. The Roman Catholic peoples are more primitive and less industrial; and in this, as in most social questions, there are many factors to be taken into consideration. But however much we may disagree with some of Mr. Chatterton-Hill's conclusions, the book is a book to be read. F. W. H.

#### OUR BOOK SHELF.

*British Rainfall, 1906. On the Distribution of Rain in Space and Time over the British Isles during the year 1906.* By Dr. H. R. Mill. Pp. 100+280. (London: Edward Stanford, New, Price 10s.)

THE present volume is the forty-sixth of this valuable and unique publication; it gives, in various forms, the results of observations made at 4267 points in the British Isles. The plan of the work is the same as last year, being divided into two parts:—(1) original papers and organisation reports, (2) monthly and yearly rainfall tables, particulars of wet periods, and observers' notes on the principal meteorological occurrences of the year.

Dr. Mill gives an interesting discussion of the great snowstorm of December 25–26, 1906, illustrated by two maps; one of these shows the rate of movement across the country with greater detail than has probably been previously attempted. The area covered by the storm extended from the north-west of Scotland to the English Channel, the advance being least rapid in the north, where it was  $12\frac{1}{2}$  miles an hour, and most rapid in the south, where it was about 19 miles an hour; a motor-car could have kept out of the storm without exceeding the legal speed limit.

The frontispiece is a coloured map showing very clearly the relation of the rainfall of 1906 to the average of 1870–99. Generally speaking, the fall over the whole country in 1906 was near the average; Scotland had a pronounced excess, and Ireland a scarcely less pronounced deficiency. The timely revision and publication of such a mass of materials is only rendered possible by the interest taken by the staff in the work and by some valued voluntary assistance. The usefulness of the undertaking is recognised by such public bodies as the Meteorological Committee, the Metropolitan Water Board, and others, who pay for the information they receive, but the main burden of expense has been hitherto borne by the observers and those interested in rainfall investigations. We agree with Dr. Mill in thinking that no piece of work of equal magnitude is done so cheaply.

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*Le Feste Giubilari di Augusto Righi.* Pp. vi+143. (Bologna: Nicola Zanichelli, 1907.)

THIS little work is a *Festschrift* in honour of Prof. Righi, giving an account of the ceremony recently held to celebrate the completion of his twenty-fifth year of university teaching. This period really expired in 1905, but it was decided by the committee organising the fêtes to postpone the celebration so as to make it coincide with the inauguration of the new Institute of Physics at Bologna, which is placed under Prof. Righi's charge. The ceremony actually took place on April 12. Prof. Righi delivered his first lecture in the new building, choosing for his subject the "Hypothesis of the Electrical Nature of Matter." Prof. Blaserna, on behalf of the subscribers, then presented the lecturer with a bust of himself in bronze. Congratulatory letters and telegrams received from all parts of the world were subsequently read. The *Festschrift* contains Prof. Righi's lecture printed in full, together with all speeches, letters, &c., received. It is illustrated with many photographs of Prof. Righi and of the new institute. A complete list of Prof. Righi's scientific publications, numbering two hundred and seventeen in all, and a chronological review of his career are appended.

*The Half-tone Process.* By Julius Verfassner. Fourth edition. Pp. 348. (London: Iliffe and Sons, Ltd., 1907.) Price 5s. net.

THE author describes his work in a sub-title as being "a practical manual of photo-engraving in half-tone on zinc, copper, and brass, with a chapter on three-colour work." In preparing the new edition he has thoroughly revised the work, and added to it so that it describes as far as possible the making and proofing of half-tone blocks as at present practised. The subject is treated in a strictly practical way, obsolete methods and historical details find no place in it, nor does the author venture into the future. Apparatus that every worker must buy is not described with excessive minuteness, but such information as is necessary for using it to the best advantage is clearly set forth. No theoretical considerations are introduced, except in connection with such matters as the cross-lined screen and the management of electric arc lights, and then only in the simplest manner as being the best guide to the intelligent use of the apparatus. After ten chapters on appliances, the author describes with all necessary formulæ the operations of making the negative, printing, etching, finishing, mounting, and proofing the plates. The chapter on the three-colour half-tone process assumes a general knowledge of the principles involved, and refers only to the additional manipulation necessary. The two examples of three-colour work are not much credit to the process, but the other illustrations, which are numerous, are useful and good.

*The Alphabet of the Universe: Notes for a Universal Philosophy.* By Gurney Horner. Pp. 44. (London: Hayman, Christy and Lilly, Ltd., 1907.) Price 1s. net.

THE aim of the author of these "skeletal and informal notes" is "to find the one objective 'Something'—a quest in which humanity has hitherto been baffled and defeated." He is so obviously convinced that notwithstanding "the failure of Plato, Aristotle, and all later philosophers," he has really solved "the problem of the *Method of the Universe*" that he may perhaps be forgiven for allowing his "epoch-making discovery" to be announced in language which inevitably prompts the cautious reader to assure himself