

recessive Mendelian character, a conclusion which has a bearing on the question of intermarriage and the purity of the Jewish race.

One or two criticisms must be made on an otherwise excellent book. A number of misprints occur, and the author repeats himself occasionally in a way that must affect unpleasantly the attentive reader. Some of the quotations are naïve and often irrelevant to the main purpose of the book. The whole chapter on the mathematical problems of the Talmud is outside the scope of the book. In general, one must say that the author gives too much, and one often wonders whether he is writing about the Jewish child or the Jewish family. Finally, is it to be taken as a compliment to our French Allies that the author gives most of the "indecent" quotations in French? This prudery is perhaps out of place in a scientific book. But these minor imperfections can, no doubt, easily be remedied, and we hope that this excellent compilation will be rendered more perfect in a second edition, which the book richly deserves.

J. BRODETSKY.

#### OUR BOOKSHELF.

*The Linacre Lecture on the Law of the Heart. Given at Cambridge, 1915.* By Prof. E. H. Starling. Pp. 27. (London: Longmans, Green, and Co., 1918.) Price 1s. 6d. net.

In this lecture Prof. Starling has embodied the main results of the researches which he has carried out during the last few years on the work of the heart. The starting point of the investigation was the introduction by Knowlton and Starling of the heart-lung preparation by means of which the output and efficiency of the heart could be accurately studied under practically normal conditions. By this method the influence of changes in arterial and venous pressure on the output and volume of the heart, its oxygen supply, and its efficiency have been gradually worked out. The evidence obtained from this many-sided research has gradually led up to general conclusions of fundamental importance, one of which gives the lecture its title, and states that "the energy of contraction" of cardiac muscle "is a function of the length of the muscle fibre." In fact, the longer the fibres at the beginning of systole, the stronger is the force of the beat. This property of cardiac muscle, which is equally manifested by skeletal muscle, makes clear, for the first time, the real nature of the so-called "reserve power" of the heart. A rise of arterial pressure or an increase in venous inflow produces a greater diastolic volume of the heart—that is to say, an increased length of its fibres; the heart therefore contracts more forcibly, thereby maintaining its output against a high arterial pressure, or increasing its output when the venous inflow becomes larger.

This principle is not merely of physiological value, but also of far-reaching importance in pathology, and although the author only hints at this

aspect, it must have an enormous influence on the clinical treatment of many diseases of the heart.

*Plant Materials of Decorative Gardening: The Woody Plants.* By Prof. W. Trelease. Pp. 204. (Urbana: Published by the Author, 1917.)

PROF. TRELEASE'S object in this little hand- or pocket-book is an attempt to make it possible for a careful observer to learn the generic and usually the specific names of any hardy tree, shrub, or woody climber that may be found cultivated in the eastern United States—excluding the extreme south—or in northern Europe except in the more pretentious estates or botanical establishments. The manual, which is of a convenient size, has been very carefully and thoughtfully compiled. Some 247 genera and 782 species, with a number of minor forms, are dealt with—in all, 1150 distinct kinds of plants belonging to eighty-three natural families. The book opens with dichotomous keys to the genera, which have been found to work very well, and are followed under each genus by keys to the species, a description of each genus being given before the keys. In addition to the Latin names, the common names of the plants are also given.

For the gardens of eastern North America no doubt the keys to the species are ample, but for Great Britain in many cases they are too meagre. Under *Cotoneaster*, for instance, of the six species mentioned only one, *C. microphylla*, is commonly found in our gardens, while many familiar species cultivated in this country are omitted. *Berberis* affords another example, as our gardens are getting filled with new introductions from China, of which no mention is made.

The principle of the manual is good, however, and in such features as it may be lacking we have other books to hand which fill its gaps. One of its chief merits is the vast amount of information it compresses into a small space.

There is a useful glossary at the end, and also a carefully prepared index.

*Laboratory Glassware Economy. A Practical Manual on the Renovation of Broken Glass Apparatus.* By Prof. H. B. Dunicliff. Pp. x+92. (London: Macmillan and Co., Ltd., 1917.) Price 4s. net.

To overcome the great difficulty experienced by teachers of practical chemistry in Indian colleges in procuring supplies of glassware during the war, Prof. Dunicliff devised a number of easy methods of renovating and adapting to new uses damaged apparatus made of glass. In this workmanlike little book he describes the processes he has developed and explains how difficulties may be surmounted with success. Teachers in charge of chemical laboratories at home will find the volume very useful, and the uses for damaged calcium chloride tubes, broken test-tubes, flasks, retorts, burettes, and so on, will show them how they may both effect economy and maintain efficiency.