with small telescopes and home-made appliances, as well as to indulge in celestial photography. The author has evidently had abundant experience of this sort, and gives his directions with commendable explicitness and charming naïveté. In the first third of the book he gives descriptions of methods by which as amateur, having purchased his lenses, may make his own telescope or celestial camera, if he be so minded; he also provides for the needs of one who purchases a ready-made small telescope, and wishes to gain a thorough insight into its construction. Besides this, good advice is given about the construction of an inexpensive observatory. The remainder of the book is devoted to minute and careful instructions about how to make observations or photographs of the different sorts of objects which one finds in the sky. Here the author's experience in such work stands out very plainly, and enables him to give directions at once detailed, sound, and helpful. There are seventy-nine illustrations, many of which are from the author's own observations and photographs; they well demonstrate the excellent results which follow the skilful manipulation of small instruments. While very few persons in this country have telescopes in their back-yards, as Professor Hale and Mr. Burnham have had with such happy results, those who are so equipped will find their interest heightened and their work rendered more effective by reading M. Rudeaux's work.

Back-yard studies of the stars. When a book is written by a distinguished Frenchman, translated by a competent Englishman, and mar-

house, one naturally expects to find some merit in Such a book is Rudeaux's "How to Study the Stars" (Stokes). To be sure, the author's name is spelt in one way on the cover, and in another on the title-page; and the translator on rare occasions seems to miss the author's meaning, as in the sentence, "But these remarks have mainly a theoretical value, since their effect is usually realized in that portion of the plate which is rendered useless by the least instrumental distinctness" (pp. 325-6). However, a very few blemishes of this sort are simply the flies in the ointment; the ointment itself is very attractive. It is not too much to say that this is the best book in the English language in its particular field. Its aim is to teach and direct those who wish to make observations of celestial objects

keted in this country by an American publishing-