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THE ISSUE OF THE *Publishers' Weekly* for March 30 contains the spring announcements of American publishing-houses. This list shows comparatively few books of importance, — a fact very likely due to the tendency, on the part of the trade, to put off their best things and postpone their best efforts until fall. This has come about through the custom, at present prevailing in this country, of buying books only through one or two months in the year, which has led to a considerable demoralization of the trade of book-making. There are now in America sixty millions of people, using one language, the most of them able to read, and, on the average, more able to buy books than the people of any other country. The trade in reading-matter is certainly enormous, but it is largely confined to newspapers and periodicals; the newspapers especially growing bigger and bigger, until their Sunday issues supply for three or four cents more than a day's reading. For the time being they monopolize a great part of the reading-time of the week, and lessen in this manner the time available for books. Yet, taking all this into consideration, and remembering that in the thirty years since 1859 our population has more than doubled, and the proportion of illiteracy has decreased, there ought to be a great demand still left for books. There are certainly a large number of cheap editions supplied through the dry-goods dealers and similar channels of distribution; but it remains that the book-market is not of as high a class as was that of a generation ago. Just before

the war several of the existing houses and the predecessors of existing houses in New York, Boston, and Philadelphia, were almost at the culmination of their prosperity; and, besides these, there were a number of other publishing-houses of note or respectability whose names are honorable in the history of literature. It would be difficult to find now any publisher who would undertake at his own risk the issue of the many standard series of books which were so creditable to American book-production of thirty years back.

Publishers find in the present state of American literature little to encourage them; authors find in the present state of American literature little to encourage them. The largest houses are unwilling to take the risks which a generation ago their fathers in the business would have taken. The retailers of books have certainly not increased in number, and have apparently decreased. Take, for instance, the city of Salem, Mass., the home of Hawthorne, Prescott, Bowditch, and of many others who have made American literature famous, — a place whence some of the noted publishers in the American trade found their way to Boston and other places, a city of great intellectual activity. In old days it was well supplied with retail stores, some of which grew to be publishing-houses. The book-trade of Salem has not been displaced by a free public library. It is only within the last year or two that such an institution has been started. Yet only one book-store of any importance remains in Salem, and that is largely devoted to the sale of wall-papers, etc., and expects rather to take orders than to carry any considerable amount of standard books in stock. The live book-trade has gone almost entirely into the hands of an enterprising dry-goods house, who are members of the Syndicate Trading Company, and who handle at Christmas time and throughout the year a considerable quantity of books, but could scarcely be relied upon to perform the functions of the old-fashioned book-store, with its supply of standards on the shelves, tempting a customer to increase his library with books that are books. It can scarcely be said that the retail trade has gone to Boston, for the trade of Boston is not so wonderfully larger than it was in old times; and this state of things is more or less true throughout the country. Book-selling and book-buying have both suffered a decadence in quality as well as in quantity, except in the case of books of exceptional popularity. The size of editions is scarcely larger, if as large, as in the days when we had not a third of our present reading population.

ALUMINIUM AND ITS MANUFACTURE BY THE DEVILLE-CASTNER PROCESS.

ALUMINIUM was shown to be a distinct substance in 1754 by Marggraff. It may be ranked among the noble metals, because it does not tarnish, even when exposed to damp and very impure atmospheres; and until lately it was almost a precious metal, the price ranging as high as 60 shillings per pound. Indeed, even now, absolutely pure aluminium is scarcely to be obtained, the metal used in the arts being contaminated with from two to five per cent of iron, silicon, and other substances. The chemical symbol of aluminium is Al: its atomic weight is 27.4. Aluminium is very widely diffused over the earth. Its silicate forms the chief constituent of clays, and enters into the composition of a vast number of minerals, especially of felspars. Its fluoride, united with that of sodium, forms cryolite. A ferruginous hydrate is known as bauxite, and forms probably the most convenient ore from which to extract the metal.

The method now generally adopted in preparing aluminium was discovered early in this century by the eminent French chemist, Henri Saint-Claire Deville, and consists in reducing the double chloride of aluminium and sodium ($2\text{NaClAl}_2\text{Cl}_6$) by means of metallic sodium at a high temperature. The manufacture, therefore, resolves itself naturally into two parallel processes; the one comprising the preparation of the double chloride, and the other the production of metallic sodium. As sodium to the extent of nearly three times the weight of aluminium is required in the re-