

And because verse was the weapon of his age, he wielded it for purposes that today call for the novel, the epigram, the essay. This intellectualism is what Europe felt, this and his fearlessness and fundamental honesty, and all this England tried to ignore.

His imitators, it is commonly said, aped his mannerisms and lacked his genius. It would be truer to say that, in the Elizabethan sense, they lacked his wit. In Byron thought fuses at high tension: the result is often great rhetoric and sometimes great poetry. It is never feminine and caressing like Keats or Shelley. It is this masculinity in Byron that in a sense keeps him immoral. He is direct, vigorous, and brutal; it is no wonder that the Victorian age did not know what to do with him. And we, whose poets are over-concerned with technique and not concerned with ideas, we may well turn to the vigor of Don Juan and *The Vision of Judgment* to learn that the secret of immortality is not necessarily perfection of form but rather fundamental brain work.

HOWARD MUMFORD JONES.

Pierre Curie

Pierre Curie, by Marie Curie. New York: The Macmillan Company. \$2.25.

IN science we should be interested in things, not in persons," Madame Curie once said. If we may judge from the biography of Pierre Curie, written by his wife, this was the credo of these two exceptional individuals throughout their singularly united work. It has certainly been the basis of the selection of material for this book, which in addition to an account of Pierre Curie's life, contains several chapters of autobiographical notes by the author. For, on the personal side, it is distinguished by an austere reserve which occasionally makes the tone comparable to that of a shy child who keeps a diary at the solicitation of its parents. The only portions of the book where a deep emotional intensity is revealed are those dealing with the pilgrimage of work, and a few phrases which seem to break through in spite of the author when referring to the death of Pierre Curie. Notwithstanding this reticence and detachment there is conveyed the impression of two vivid and intense personalities who lived on the same plane of understanding and who had a unity of purpose in work and in life which enabled them harmoniously to transcend almost insurmountable obstacles. The difficulties which deflect and destroy the creative activity of those less perfectly adjusted, were reduced, in the case of M. and Mme. Curie, to incidents scarcely worth more than a passing mention. This account, so barren in the usual material of our present day biography and autobiography, reveals, by inference, a complete reversal of the usual proportions and values of life. The Curies were apparently never overpowered by material hardships, or discouraged during lonely years of unaided and unappreciated efforts. Voluntary isolation for the sake of work, the renunciation of material comforts ordinarily valued highly, were not regarded by them as sacrifices or occasions for self-pity. Their choice seems to have been as automatic and inevitable as a reflex muscular action. They found the burdens of celebrity more difficult to cope with than inadequate laboratory equipment. Work, their two children, and a few chosen human relationships were the elements which

the Curies selected as of primary importance in life. Above all they lived for work, and whatever interfered with work was a loss of life at its highest level. For them the golden period was that which Pierre Curie called "the great work days" when they were engaged in the discovery and isolation of radium. The account of the researches of these years is a thrilling story of the creative imagination in the quest of the unknown.

In 1891 Henri Becquerel had discovered the phenomenon of the spontaneous emission by uranium salts of rays of a peculiar character, and Madame Curie decided to undertake an intensive study of the sources of these rays. Madame Curie's researches, which she at first conducted alone, led her to develop the hypothesis that uranium and thorium contained in small quantities some substance which was more strongly radioactive than either of these elements; she concluded that this substance must be a new chemical element. Her eagerness to verify this hypothesis as soon as possible was so great that Pierre Curie abandoned the work on crystals in which he was then engaged. At the time they both regarded this as a temporary deflection of his activities and neither of them foresaw that this new element which they were seeking would develop into a mutual life work. In the beginning they did not know any of the chemical properties of the substance for which they were seeking; they only knew that it emitted rays, and it was by these rays that the search had to be conducted. This research involved the founding of a new method of chemical analysis which has since resulted in the discovery of a large number of radioactive elements. In 1898 they announced the discovery of radium. Although Pierre and Marie Curie were then confident that they had discovered a new element, its isolation was necessary if chemists were to be equally convinced. And this was a stupendous material task. Madame Curie thus describes the situation:

We were very poorly equipped with facilities for this purpose. It was necessary to subject large quantities of ore to careful chemical treatment. We had no money, no suitable laboratory, no personal help for our great and difficult undertaking. It was like creating something out of nothing, and if my earlier studying years had once been called by my brother-in-law the heroic period of my life, I can say without exaggeration that the period on which my husband and I now entered was the truly heroic one of our common life.

Their research was carried on in an abandoned shed which did not adequately protect their experiments from rain or dust; it was hot in summer and bitterly cold in winter. And yet Madame Curie says:

It was in this miserable old shed that we passed the happiest years of our life, devoting our entire days to our work. . . I shall never be able to express the joy of the untroubled quietness of this atmosphere of research and the excitement of actual progress with the confident hope of still better results.

Day by day their faith grew, the dream unfolded. Without bitterness Madame Curie says quite simply:

It had taken me almost four years to produce the kind of evidence which chemical science demands, that radium is a truly new element. One year would probably have been enough for the same purpose, if reasonable means had been at my disposal. The demonstration that cost so much effort was the basis of the new science of radio-activity.

Three years of transcendent scientific genius wasted for lack of "reasonable means." Yet the experiences of these difficult years did not prevent Pierre and Marie Curie from renouncing a potential fortune by refusing in any way to exploit their discoveries. When a practical American, in discussing this problem of inadequate material resources, once asked Madame Curie about patents she replied: "There were no patents. We are working in the interests of science. Radium is not to enrich anyone. Radium is an element. It belongs to all the people."

This was not the expression of a momentary Quixotic mood, but the logical outcome of a clearly defined attitude toward life and work. It is an inspiring vision of the relation of the scientist to an ideal state of society. But in reading this fascinating book, which is admirably translated by Charlotte and Vernon Kellogg, one is poignantly reminded that in our acquisitive world wealth is distributed with little relation to the real needs or capacities of individuals. While realizing fully the value of such an example, one questions whether humanity might not have been better served had Pierre and Marie Curie pursued a policy which would have relieved them from material difficulties and permitted their exceptional gifts to function without waste.

FOLA LA FOLLETTE.

Two Views of Erasmus

Erasmus, by J. Huizinga, Translated by P. S. Allen, in *The Great Hollanders Series*, edited by Edward W. Bok. New York: Charles Scribner's Sons. \$1.50.

Erasmus, a Study of his life, ideals and place in history. By Preserved H. Smith. New York: Harper and Brothers. \$4.00.

A BIOGRAPHER indulges, perforce, in autobiography. He is generally of less importance than the subject of his work, and apart from facts, dates and environments, can give his readers merely his own interpretation of the genius whom he would describe. The panorama open to the mind of Erasmus cannot be seen by every eye; the world will probably have to wait some time for an adequate appreciation of his talents. Meanwhile, any contribution to a better understanding of him is welcome.

The later and smaller of the two volumes before the reviewer is by a compatriot of Erasmus, J. Huizinga, professor of history in the University of Leyden. It is the opening volume of a new series, *Great Hollanders*, projected by Edward W. Bok. Mr. Bok explains that since the countries of the world are drawing nearer together as a result of the War and a new interest has been focussed on Holland, it is appropriate to treat in a group a few of those important figures in the history of the Netherlands whose influence played a large part in the development of American institutions. Erasmus is first in this list.

If the reader scents in this preface the familiar odor of propaganda, he will be happily, or unhappily, disappointed in the book itself. Except for the information that the Holland of Erasmus's day is not, geographically, what Americans know as Holland, nothing in Professor Huizinga's volume is pointed at conditions in our country. The story of Erasmus is presented, with due consideration of the labors of Dr. P. S. Allen, in a clear and

matter-of-fact style. The translation, despite occasional lapses into unidiomatic and even ridiculous English, offers no impediment to the reader's understanding. The author's estimate of Erasmus agrees in the main with views expressed by Roman Catholic historians. On the whole, though the book shows evidence of a careful study of Erasmus and exhibits a sane and sympathetic attitude towards Protestants and Catholics alike, there is little to justify its publication. American readers in search of a brief, authoritative and stimulating account of Erasmus can more profitably turn to the last edition of the *Encyclopaedia Britannica*, wherein is printed the essay of a man of letters, Mark Pattison, revised by a scholar, Dr. P. S. Allen. How the present volume will strengthen the bonds between Holland and America or hasten the day of universal peace it is hard to see.

In the second of our volumes, the author, who is professor of history in Cornell University, writes an interesting and well-documented account in a decent style. He has mastered what others have written about Erasmus, and with copious translations, some of them his own, he describes his hero in what is often the best way, by allowing him to speak for himself. Some of the poems are done into rough-shod verse, adequate to the original and generally pleasing, except when "melodies" rhymes with "ancient Greece," and when Orpheus, also in the exigencies of rhyme, presents Skelton with a guitar. The author pursues his theme into learned foot-notes and excursions. The volume, topped off with a full bibliography and a serviceable index, bears the aspect of a standard work.

The aim of Professor Smith is threefold. He first would sum up the many new facts bearing on the life of Erasmus; he would then exhibit the genius of his rational piety; and finally, he would explain, by the example of his career, the intricate relation of Renaissance to Reformation. The first of these aims has been performed, so far as the reviewer is capable of judging, exceedingly well; the result does not radically change the picture of Erasmus that previous writers have drawn. The third and largest of the problems is handled with the acumen that we expect from a philosophical historian like Professor Smith. Erasmus becomes a symbol of the course of history; he illustrates in his own experience the tendencies which, springing from the Renaissance, led first towards the Reformation and then away from it. If Erasmus is thus a microcosm of his times, one might seek in that fact a justification of his attitude. Not so Professor Smith, who believes in the righteousness of the Reformation and the nobility of Luther's character, despite its faults. The strongest part of the book is the description of the final conflict between Erasmus and Luther over the freedom of the will and the still deeper issues which aligned Protestants against Catholics in mortal strife. Erasmus emerges from the encounter, as Professor Smith narrates it, with no stain of cowardice on his escutcheon. His genial urbanity, which can condense into tartness at times, shines out against the boorishness of Luther's savage temper; the desire to throw his opponent's treatise under the bench is not the most subtle form of repartee. It does not answer Erasmus's remark that he could wish Luther a better disposition, were the latter not so well satisfied with the one that he had.

No less stimulating is the analysis of Erasmus's program of rational piety, which *mutatis mutandis* is today, asserts Professor Smith, the faith professed by large circles of our cultivated classes. Whether Erasmus redi-