

But however intensely magnetic these whirling cyclones may be, a simple calculation shows that they are far too distant to affect appreciably our most sensitive magnetic instruments. Yet the various curves exhibited indicate indisputably that some relation exists between solar activity, as evidenced, for example, by sun-spots, calcium flocculi, solar eruptions, prominences, etc., and the earth's magnetic fluctuations. The variations in the solar and the terrestrial magnetic phenomena follow each other closely. One of the most important of the inferences drawn is, that an increase in sun-spot activity is accompanied by a decrease in the earth's magnetization, or that the magnetization superposed on the earth's magnetic field during solar outbreaks is opposite to that of the earth's own field. It appears questionable whether the earth's magnetism ever settles down precisely to its former condition after the occurrence of a magnetic storm. The facts are not yet sufficient to draw a definite conclusion whether solar activity and magnetic storms stand to each other as cause and effect or whether they are both effects of the same cause.

Saturday afternoon was set aside for a "Symposium on Earthquakes," and the following papers were read: "Introduction, Classification, Discussion of Volcanic Earthquakes; Description, with illustrations, of the Charleston, S. C., and Kingston, Jamaica, Disasters," Prof. Edmund O. Hovey, New York; "The Present Status and the Outlook of Seismic Geology," Prof. William H. Hobbs, Ann Arbor; "Conditions Leading to Tectonic Earthquakes, Instruments Used in the Study of Earthquakes, Suggestions for a National Seismological Bureau," Prof. Harry F. Reid, Baltimore. Prof. Reid declared that the work of a national bureau would be very varied. It should collect data regarding all felt earthquakes, and make a geological examination, in special cases, of the regions where earthquakes occur. The instrumental records from the whole country should also be collected and studied to throw light on the nature of the earth's interior, and to discover the centres of earthquake disturbances in the surrounding oceans. This would require the general coöperation of many departments of the government.

Edwin Swift Balch explained why in his opinion America should re-explore Wilkes Land. Lieut. Charles Wilkes, U. S. N., first announced to the world in 1840 the existence of a great Antarctic continent, along whose shores he sailed for a distance of 1,500 miles, a coast known as Wilkes Land. It has not been visited again. Sir James Clark Ross, Sir Clements R. Markham, and Capt. Robert F. Scott, R. N., no one of whom has been there, declare emphati-

cally that Wilkes Land does not exist and should be expurgated from the charts. It should, therefore, be looked on as a patriotic duty for America to verify Wilkes's discovery and get a more careful chart of these shores. Besides geographical discoveries, many other branches of science would be benefited by an expedition to the Antarctic. None of our museums has specimens of the fauna or petrography, etc., of Antarctica, and such collections should be obtained. An expedition to verify Wilkes's discoveries would cost perhaps \$100,000; and the best way to start it might be to form an Antarctic committee, composed of representative scientists and explorers.

A paper on "J. J. Rousseau, a Precursor of Modern Pragmatism," was read by Prof. Albert Schinz of Bryn Mawr. He said that Rousseau, like modern pragmatists, starts from the assumption that an idea in order to be pronounced true must yield results, but meaning by results, useful results, or still more precisely moral results. Rousseau, like William James, develops a conception of truth by which he tries to displace the intellectual or rational conception of truth and replace it by a criterion varying according to circumstances. The "sentimentalism" or "rationalism" which Rousseau opposes to the "materialism" of his time, corresponds exactly to the "expedient" or the "humane arbitrariness" which William James opposes to "divine necessity" of modern intellectualism. There is a curious parallelism in the evolution of Rousseau's thought with that of James; and this circumstance will help us to account for their conception of truth and philosophy.

The meeting closed on Saturday evening with a dinner at which nearly one hundred members were present. President Keen presided as toastmaster and the following toasts were responded to: "The Memory of Franklin," President Francis L. Patton of Princeton; "Our Sister Societies," the British Ambassador and President Henry S. Pritchett of the Carnegie Foundation; "Our Universities," President-elect Lowell of Harvard; "The American Philosophical Society," President Keen.

ARTHUR WILLIS GOODSPEED.

A posthumous work of Dr. E. T. Hamy treats of "Les Débuts de Lamarck," with discussion of the work of Adanson, Jussieu, Pallas, Geoffroy-Saint-Hilaire, Cuvier, and other naturalists, most of whom were the author's predecessors at the Muséum of the classic Jardin des Plantes (3.50 francs, Guilmoto): "La Crise du transformisme," by Félix Le Dantec, continues this biologist's severe criticism of the hypothetical methods of Weismann, and, from the strictly mechanical point of view, forms a restatement of Lamarck's essential theory as distinct from Darwin's. Naturally the book runs counter to De Vries's theory of muta-

tions and to other doctrines which seem to have escaped from further reasoning into the realm of accepted traditions among most English writers. The influence of Professor Le Dantec's teaching on the younger scientific men of France ought to result in a different state of things.

## Drama.

### *Tragedy Queens of the Georgian Era.*

By George Fyvie. New York: E. P. Dutton & Co. \$4 net.

From the great mass of contemporaneous record—diaries, letters, memoirs, criticism, etc.—Mr. Fyvie has carefully extracted the various references to the personal and artistic careers of the most prominent actresses of the eighteenth and the early part of the nineteenth century, and put them in consecutive and convenient order. Thus he furnishes in one attractive and, on the whole, instructive book, information hitherto obtainable only in a long course of miscellaneous reading.

It was inevitable, perhaps, that it should be somewhat in the nature of a scandalous chronicle. The author starts out with the assertion that his object was biographical rather than critical, and many of his heroines were far more distinguished for their dramatic abilities than for their private virtues. Nevertheless, it may be doubted whether it is necessary now to rehearse at length the gossip which has been public property for more than a century. Mr. Fyvie seems to have included Elizabeth Barry in his list—although she does not belong properly to the Georgian era at all—for the sake of dwelling upon her notorious connections with Rochester, Etheredge, and others. The publication of the rejected Otway's despairing appeal has more justification. That Barry was one of the chief ornaments of the British stage for a quarter of a century is unquestionable. Whether Otway really experienced all the agony he expressed is less certain. Anne Bracegirdle, who inspired passion in many hearts, counting Congreve, Lovelace, and Nicholas Rowe among her suitors, was much more circumspect in her conduct than most of her fair associates. She must have been a bewitching comedian, but her name will live, perhaps, in history chiefly on account of her attempted abduction by Hill and Lord Mohun and the trial of the latter by his peers for his share in the murder of the unlucky actor, Will Mountford. Of the official proceedings in this notorious case Mr. Fyvie gives some interesting details. Nance Oldfield, like Peg Woffington, has been made a heroine of modern comedy, and her name is therefore more familiar to the general public than those of many of her rivals. She shone both in tragedy and comedy,

and must have exerted a most uncommon personal charm, inasmuch as her notoriously irregular mode of life was no bar to her reception in respectable social circles, or at court, which possibly is less remarkable. Her popularity and her prudence were proved by the large estate which she left behind her and the valuable art collection which she owned.

The acknowledged preëminence of Susannah Arne (Mrs. Cibber), in such diverse parts as Juliet, Constance, and Lady Macbeth, justifies Mr. Fyvie's high estimate of her, but it was scarcely worth while to dwell for so long on the sordid story of her wedded life with the infamous Theophilus Cibber, or the endless squabbles between Covent Garden and Drury Lane. The quoted letters of Garrick and others are, however, illuminative of the period. The paper on Mrs. Pritchard, who stands second only to Mrs. Siddons, is an excellent one, and full justice is done to Mary Ann Yates and Mrs. Spranger Barry. The stress laid upon the "shrieks" of the latter suggests that her vigor was at least equal to her inspiration. Elizabeth Pope enjoys the distinction of being the last, and one of the best, of Garrick's Cordelias. One of the freshest chapters in the book is that devoted to Mrs. Inchbald, an actress of only ordinary capacity, but a woman whose varied ability, generous character, and high courage entitle her to remembrance. Mr. Fyvie's account of Sarah Siddons is full and adequate, but, of course, he has no new information, or estimate, to give concerning her. He would have followed a more dignified course, if he had imitated some of her other biographers in ignoring the wretched Galindo episode, which, at the worst, appears to have been only the result of mistaken confidence in a designing rascal. It certainly ought not to be treated as a significant incident, in a consistently worthy life. Julia Glover and Eliza O'Neill, who complete the list, are of lower artistic rank than most of their companions, but the latter is notable as the original of the Motheringay in Thackeray's "Pendennis."

"The Writing on the Wall," by William J. Hurlbut, which was produced in the Savoy Theatre on Monday evening, has many of the characteristics of "The Fighting Hope," by the same author. In spite of its assumption of serious purpose, it is actually an inferior specimen of sensational and ultra-sentimental melodrama. Its violence and insincerity are emphasized by the artificial acting of Miss Olga Nethersole, whose indisputable natural ability is only discernible at rare intervals beneath the mass of her elaborate affectations. Briefly, the theme is the conscienceless greed of slum landlords, with an incidental attack upon the Trinity Church corporation; but the general treatment is so juvenile and

inexpert in its unreasonableness and its platitudinous preachments—not to speak of its essentially undramatic quality—that the excellence of the object counts for little. Miss Nethersole plays the entirely theatrical part of a saintly and deeply wronged wife and devoted mother, whose only child is burned to death at a Christmas-tree festival which she has prepared for the tenants of one of the filthy warrens owned by her husband, whose avarice, in repainting old fire escapes instead of providing new ones, is responsible for the catastrophe. Manifestly there is here the material for an effective drama, and it affords Miss Nethersole—at the moment of her realization of the child's fate—an opportunity for one of those manifestations of agonized emotion in which she excels. At this crisis she approached the truth of nature more nearly than at any other time, and was correspondingly impressive. Throughout the rest of the play her mannerisms were fatal to all illusion. The only really notable acting in the representation was that of William Morris as the grasping landlord. His portrayal of a hard, strong man, suddenly shattered to his foundations by the fear of imminent ruin, disgrace, and punishment, and the loss of all that had made life dear to him, was exceedingly striking and able. Mr. Hurlbut has a sense of theatrical situation, but has everything to learn about the true principles of dramatic construction.

An experimental performance of a somewhat adroit, translation of Brieux's "Les Hanneçons," made by Laurence Irving, was given by Mr. Irving in the Hackett Theatre on Tuesday afternoon, to the evident pleasure of a special audience. The piece is an intimate and veracious study of the daily squabbles of an ill-mated pair, living in illegitimate union, of which the moral seems to be that such voluntary bonds, however lightly assumed, are apt to become intolerable, but unbreakable, fetters. This is, in its way, wholesome teaching, but the main object of the play is amusement, not instruction, and the cynical humor of it all, with the frequent flashes of characteristic Gallic wit, provoked much hearty laughter. But the tale is, in its essence, sordid, unsympathetic, and not well suited for general public entertainment. It was well played, on the whole, by Mr. Irving and his wife, Mabel Hackney, the latter furnishing a lively sketch of a vixenish and jealous temper.

## Music.

### OPERATIC MANAGEMENT.

The end of Heinrich Conried's troubled career suggests the reflection that few positions are so difficult to fill to the satisfaction of everybody as that of an operatic manager. He has to defer to the social element among his patrons as well as to the wishes of the music lovers. He has to deal with a large number of singers of various nationalities, each of whom clamors for special privileges. The unions to which the orchestral players, the chorus singers, and the stage-hands belong are all likely to

harass him in turn, as they did Mr. Conried. He has to scour all Europe and America for new singers. He is likely to be stunned on finding that he has wasted a great deal of money on an artist who, while popular in Paris, London, or the cities of Germany, fails to please in New York. He has to arrange his repertory so as not to give the same operas too often on the same day in the week, or to deprive the subscribers of a certain week-day of the opportunity to hear this or that singer in a favorite rôle. He has to meet the assaults of all his artists, each demanding an advance in emoluments once a year; he is harassed hourly by the bugaboo of "sudden indisposition," which makes it necessary—to change the opera at the last moment. In short, uneasy lies his head as if he wore a crown.

In addition to these general tasks and tribulations, Mr. Conried had troubles of his own. At one time he was almost paralyzed with fear lest his most profitable tenor should be ostracised. Another time a California earthquake upset his plans and changed a big surplus into a deficit. An upheaval of a different kind nearly frustrated his plans for "Parsifal," but luckily he won, and put \$200,000 into his coffers. On the other hand, he lost the battle for "Salome," from which he had expected similar results; and this was one of the nails in his coffin. Overwork and other factors helped to undermine his health, and when he was asked to resign it was as much because of his impaired ability to discharge his manifold duties as because of the mistakes he was accused of having made. He had been chosen because of his success in managing theatrical and comic-opera companies, and in view of the fact that he knew very little about music or singing, it must be admitted he achieved some remarkable successes. His self-assurance was amazing. At a rehearsal of "Parsifal," when it was pointed out to him that his substitute for bells did not work well, he exclaimed: "Then Wagner composed that badly." He evidently believed with the German comic poet that—

Bescheidenheit ist eine Zier,  
Doch weiter kommt man ohne ihr.

Operatic management used to be a much less difficult and complicated affair in the good old times. Then all a manager had to do was to find a popular prima donna and the problem was solved. When Catalani was remonstrated with for asking so large a sum that it became impossible to employ other artists of talent, her husband exclaimed: "Talent! Have you not Mme. Catalani? What would you have? If you want an opera company, my wife with four or five puppets is quite sufficient." Matters had already mended somewhat in the days of the doughty Col. Maple-