the committee declare that they regarded it as essential that the whole of the evidence and their conclusions upon it should be made known together, for the sake of intelligent discussion. The report is temperately worded, but plain and positive in its verdict. It declares that the owners, officers, and crew of the Defender are free from the least suspicion of want of integrity and propriety in conduct; that Lord Dunraven's charge is not only not sustained by evidence, but is totally disproved; and that the circumstances he regarded as suspicious have been satisfactorily explained. The evidence advanced by Lord Dunraven was merely the opinion of various persons to whose eyes the Defender looked lower in the water on one day than on another, whereupon they surmised that additional ballast might have been put in. The committee point out that such a fraud could not have been committed without the knowledge of many persons, that so serious a charge could not but affect the integrity of the owners, and that there is, in fact, abundant proof that no such occurrence took place. As to Lord Dunraven's charge that the Cup Committee paid no attention to a request from him that the Defender should be remeasured on the evening of the race, or that the Cup Committee should put a representative on board to remain during the night, it was shown that no such request reached the Cup Committee, and that the gentleman by whom it was supposed to have been transmitted did not understand Lord Dunraven's message to have had the intent he now claims for it; nor does a memorandum of the message written at the time and then shown to Lord Dunraven and corrected by him bear out his present view. The investigating committee go so far as to say that they believe that if Lord Dunraven had remained to hear all the evidence taken he would have himself withdrawn the charge. The experience and high reputation of the members of the committee give their finding conclusive authority. Several English papers have recommended Lord Dunraven to admit that he was in error. What action the New York Yacht Club may take in the matter remains to be seen. The entire incident has been discouraging to those who hope to see outdoor sport free from bickering, unfairness, and overreaching. Our own papers have not always shown a courteous or kindly spirit in the matter, and have been far from emulating the dignity of the investigating committee. Not the least significant part of the committee's report is that expressing regret that part of the evidence should have been surreptitiously obtained and published by a newspaper whose owner is one of the oldest members of the New York Yacht Club. If the New York "Herald" has given its readers any explanation or apology for this disgraceful proceeding, we have not seen it.

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The discoveries by Professor Röntgen, of the University in Würzburg, are certainly among the most remarkable of our time. A full and scientific explanation of the matter is yet to be published. Briefly stated, he has found certain heretofore unknown rays of light or waves of ether, which he calls the X rays. Though they are not recognizable by the eye, these rays affect the photographic plate, and among other peculiar properties they have the marvelous one of passing through some solids and semi-solids, like wood, cardboard, and human flesh. In a lecture before the German Emperor Professor Röntgen photographed objects which were placed behind panels of wood and in wooden and cardboard boxes, the rays which photographed the objects passing through the wood or cardboard. The rays were also shown to pass through water without refraction. Reports are already printed of the application of the discovery to

medical purposes, calcareous objects in some of the human organs having been photographed through the body. The human bones, it is alleged, can also be photographed with these rays, which traverse the flesh somewhat as ordinary rays of light pass through glass. Thus, "Science" tells us, "Röntgen has put his hand between the tube and the dry plate in the closed camera; the photograph shows clearly all the bones of the hand without the flesh and skin, and the gold rings seem to hang in the air." In this country the experiments have been in some degree verified by Professor A. W. Wright, of Yale, and Professor Trowbridge, of Harvard. The former obtained, for instance, a dim photograph of coins which were inclosed in a purse, and the latter obtained on a photographic plate impressions of objects concealed in a wooden box half an inch thick. The Crookes tube is a glass tube in which a partial vacuum is created and then an electrical current passed, whereupon the tube is filled with a pale light. In performing experiments with these tubes peculiar rays have been noted about the cathode end (that of the negative pole), and it has long been known that these rays would pass through thin plates of metal. Professor Röntgen's rays seem akin to these "cathode rays," but with additional properties. The discovery is said to have been made purely by a chance observation. That it may have an important practical bearing on medical science and lead to a wider scientific knowledge in other directions is quite probable.



Joseph Barnby

The death of Sir Joseph Barnby in London on January 28 means not only a notable loss to the musical profession, but a genuine bereavement. His long and prominent connection with various large musical undertakings resulted in his being beloved and revered by myriads of singers and listeners, to whom the news of his death must be a personal grief. His portrait will be found on our cover page.

Born in York in 1838, the youngest of seven musical brothers, he grew up in music from babyhood. At eight he began a six years' service as a choir-boy in York Minster, at ten began lesson-giving, at twelve began organ-playing and choirtraining, at fourteen became music-teacher in a school, and at sixteen entered the Royal Academy of Music in London, where he graduated in 1857 with high honors. At the age of nineteen, therefore, he was a full-fledged musician. He at once entered upon public duties of importance. For four years he was back at York teaching, but in 1861 began his twenty-five years of labor as church organist in London, his chief posts being at St. Andrew's, Wells Street, 1863-71, and at St. Anne's, Soho, 1871-86. For seventeen years from 1875 he was director of music at Eton College, the famous boys' school on the Thames, opposite Windsor; and in 1892 became Principal of the immense Guildhall School of Music in London, the largest in the world, in which position he remained till his death. His most brilliant work was as conductor of various choral societies, first of "Barnby's Choir," later called the Oratorio Concerts; then in 1873 he succeeded Gounod in charge of the Royal Albert Hall Choral Society, the foremost choral organization of England, which he continued to lead till his recent illness; besides serving also the London Musical Society, 1878-86, in its purpose of presenting new or neglected works, and the Royal Academy of Music, 1886-88. From 1861 to 1876 he was one of the chief critics and advisers of the great music house of Novello, Ewer & Co. He held no academic degrees, but was knighted in 1892.

His published compositions include two cantatas, "Rebekah," brought out at Hereford in 1870, and "The Lord is King," at Leeds in 1883; several services, the first written at seventeen; many anthems, of which "King All-Glorious" and "O Lord, how Manifold," are the most familiar; several hundreds of hymn-tunes, very many of which have already entered into common use; many songs and part-songs, among the latter being the well-known "Sweet and Low" (to Tennyson's words). He was the musical editor of the important collection, "The Hymnary" (1872), and of other hymnals. He also prepared many noteworthy addresses and articles on musical subjects.

Though as a composer he does not rank among the greatest, since he seems not to have aspired to the more elaborate forms of instrumental and orchestral writing, he was always active in progressive undertakings, especially in the elaboration of choral services in parochial churches, in the giving in churches of the largest works, like the two best-known "Passions" of Bach, with full orchestral accompaniment, in the production on the grandest scale of new works, like Wagner's "Parsifal," Dvorak's "Stabat Mater," etc., or forgotten ones, like Händel's "Jephthah," and in the building up throughout England of the present universal interest in choral societies of amateurs.

He was thoroughly identified with the new ideas of musical education. His position at Eton was an influential one, and was diligently used for years together in making music something of a personal possession to the six hundred boys annually gathered there. His removal thence to the Guildhall School involved very large pecuniary sacrifice, but seems to have been dictated by a desire for a broader field as a popularizer of music. In choral leadership he was almost without a rival. The hold he had on his singers and his audiences was princely, and the spirit of catholicity, of artistic refinement, and of noble ideality with which he exerted his power cannot be too highly valued. He thus impressed upon the English musical world, on its choral side, the stamp of a vigorous, well-poised, and deeply earnest personality. In manner he was quiet and dignified, but he had the power of very sharp and determined expression on occasion. His capacity for work was great, his fidelity to appointed duties constant, and his patience and assiduity unfailing. He was accomplished as an organizer and administrator.

His style as a composer is not marked by great originality, nor were his works ambitious. He seems not to have desired to win fame for himself as a writer or an executant. He rather set himself to widen the musical knowledge, experience, and skill of others. Yet in many of his works, particularly his part-songs, he revealed an enviable aptitude for lyrical beauty of melody, for polished elegance of structure, and for a distinct delicacy and charm of poetic sentiment. His whole attitude toward sacred music was instructive and beneficial. He cast his immense influence on the side of dignity, solemnity, and spiritual truth in worship music. He helped to work great changes in the style of choir music in England, and perhaps dwelt upon its artistic perfection to an extent that reacted somewhat unfavorably at times on congregational music. But he was explicit in his declarations that the ideal church music is a balanced union of both expressive and impressive music.

Such a life as this is peculiarly worthy of affectionate remembrance and of enthusiastic honor for its devotion to

the cause of musical education, largely among those somewhat outside of professional circles, and for its conspicuous success in advancing the interests of music as a genuine factor in social life and in popular culture. It would be difficult to name any one on either side of the Atlantic who has done more to promote the science of song in the Church of God in the last half-century. It will be strange indeed if his death does not call forth from many quarters expressions of regard and admiration of which any artistic worker, or any religious ministrant, might well be proud in the highest sense.



The Educational Question in England

The action the Salisbury Government will take in the new session of Parliament on the vexed question of elementary education will be interesting from two points of view. In the first place, whatever course the Government adopts will involve a reopening in Parliament of the compromise of 1870; and, in the second place, a vote in the House of Commons is certain to bring with it a strain on the Tory and Liberal-Unionist alliance, and also a greater strain on the alliance between the English Radicals and the Irish Nationalists. One fact should be made plain at the outset. The demand for the reopening of the compromise comes directly and solely from the bishops and clergy of the Church of England and from the bishops and priests of the Roman Catholic Church. The two Churches are agreed in this demand. At the meetings and conferences which have been going on since the general election, their representatives have appeared on the same platform, and have also published their appeals side by side in the columns of the same newspapers. The settlement of 1870 established a public-school system of a dual character. Under it day-schools, partly maintained by the churches, were to exist side by side with board schools, maintained entirely out of public funds. It was a compromise in which all the advantages fell to the Churchmen. The result of it has been that, while Churchmen have not subscribed more than one-sixth of the cost of maintaining their schools, they have been left all this time in possession of their exclusive control and management. Board schools are controlled by popularly elected bodies; Church schools are managed by committees nominated by the clergymen, and in most parishes the management of the school is entirely in the hands of the clergyman. Some three million pounds sterling a year is paid out of the Imperial Treasury for the support of these schools; but none but Church people are accepted as teachers, the doctrines of the Church are taught, and the schools are under no local public control. The settlement of 1870 was an unsatisfactory one for the Nonconformists. It was forced upon them by Mr. Gladstone and the late Mr. Forster. Protests were made at the time; but ultimately the Nonconformists settled down to the new system. Most of their then existing schools were placed under school boards, and for a quarter of a century the Nonconformists have loyally worked to the compromise and made the most of the board schools.

In the large cities the Nonconformists and the friends of undenominational education have succeeded so well that the standard of education has been immensely raised, and in these places the board schools undoubtedly give a better education than is given in the Church or Roman Catholic schools. The board schools give this better education because the entire cost of it comes out of public funds, while, as has been shown, the Church schools are dependent to some small extent on subscriptions. In recent years

¹ The Outlook is indebted to the New York branch of this house for the photograph from which the portrait on our cover is drawn.