

History of "The Engineer"

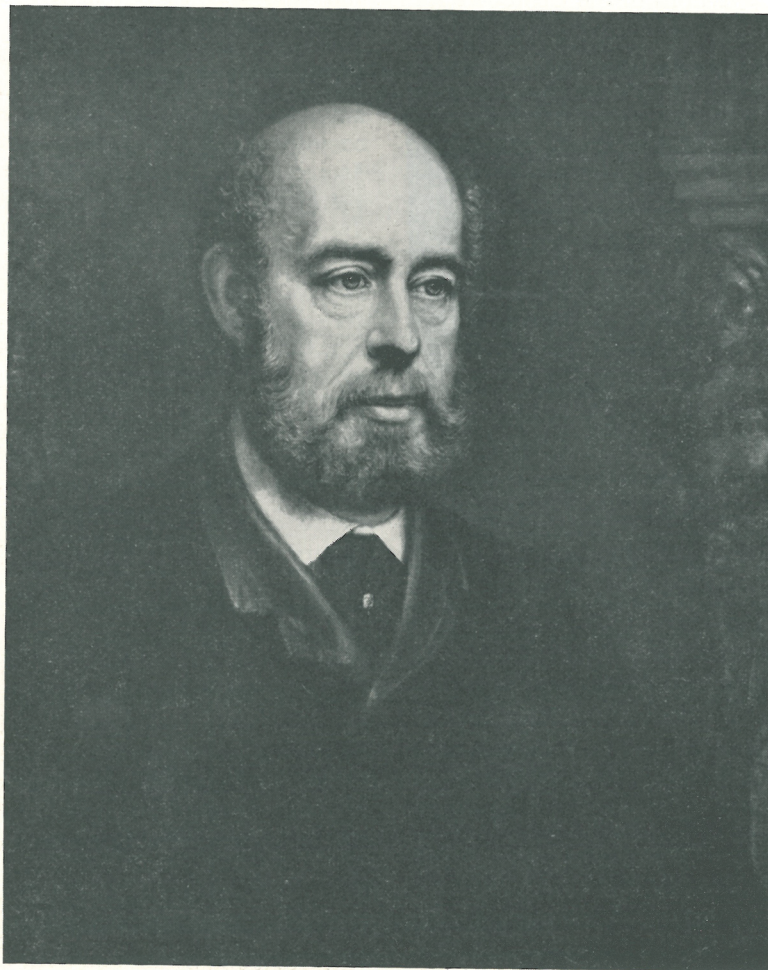
ONE hundred years ago to-day, on January 4, 1856, when the first number of THE ENGINEER appeared, there were but few periodicals in this country which made it their business to record engineering developments and achievements. Our oldest contemporary, we believe, is *Mechanics*, which goes back as far as 1823, in which year it was started under the title of *Mechanic's Magazine*. There were also a few other papers devoted almost exclusively to civil engineering and building, to railways, to mining, and to gas; some of them, happily, are already in their second century, but the rest have long since ceased publication. In the mid-nineteenth century, however, it was evident that there was a place for a technical newspaper for engineers, and it was to fill that place that THE ENGINEER was established.

The Great Exhibition of 1851 had given fresh impetus to engineering development, and the years immediately succeeding it brought a spate of inventions. These factors undoubtedly influenced the decision of Mr. Edward Charles Healey to found this journal. It has been suggested that Mr. Healey's financial interests in railways and in the Bourdon gauge, which had then recently been put on the market, prompted the starting of this journal. That may have been so, though there is actually no evidence at all that the editorial pages of THE ENGINEER were used to promote the financial interests of its founder. Certainly, the first issue of this journal contained a leading article entitled "The Mechanical Philosophy of Railways." That article opened with the comment: "Comparing our general system of steam locomotion with our previous system of horse locomotion, we are impelled to admit that the stewards of steam have done far less with their ten talents than the stewards of animal power did with their one talent, whether commercially or mechanically. Had the system of horse traction been conducted with a tithe of the mismanagement existing on railways it must have resulted in universal bankruptcy." Comment of that nature may have quickened by reflections upon railway investments! At this distance, however, it seems far more likely that the comment was in fulfilment of the promise, "To Our Readers," printed in the same issue, that THE ENGINEER would "express its opinions in such a manner, and on such evidence, as shall command confidence." From the start, this journal promised "strict impartiality," and declared that it would "take cognisance of all new works relating to the useful arts and allied subjects." It was in the firm belief that, by the diffusion of knowledge new knowledge is evolved, THE ENGINEER was launched. Realising that there was "certainly no want of scope for our exertions," we said "these we are prepared to put forth in good

faith and confidence." In attempting to look back over our first hundred years, we feel we may modestly record that in the whole of that period, THE ENGINEER has not deviated from the principles enunciated by its founder.

THE PROPRIETORS

Edward Charles Healey, the founder of this journal, has been described as a man of great strength of mind and character, and of him it has also been said that there was always "a smile, a question and a penetrating look." Reference has already been made to Mr. Healey's interest in railway development, and among his many friends were leaders in the sphere of railway



Edward Charles Healey, Founder of "The Engineer"

engineering, such as Robert Stephenson, Brunel and Fairbairn. Whether or not Edward Healey was interested in, or associated with, the publishing of other journals prior to this one has never been established. THE ENGINEER was "invented" when Mr. Healey was just over thirty; before us now there is a copy of the issue dated January 4, 1856, on the front page of which, clearly written and initialled by Mr. Healey himself, is the inscription "This is the first copy of THE ENGINEER printed. Taken off the machine table by myself." It marked the most outstanding achievement of Mr. Healey's career, and by his diligence and determination this journal quickly took its place as a technical weekly of importance.

For very many years the sole ownership of THE ENGINEER continued in the hands of its founder's family. That is no longer true; but continuity has not been broken,

for, happily, at this day there are direct descendants of the founder still taking an active share in the control of the paper. Edward Healey died in 1906, when he was nearly eighty-four, though he had retired some years prior to that date. In 1861 Mr. Healey took into partnership his elder brother, Mr. Elkanah Healey, who maintained his connection with THE ENGINEER until his death in 1893, in the seventy-eighth year of his age. Mr. Elkanah Healey was one of the three original directors of The Engineer, Ltd. upon the incorporation of the company in 1890, the other two being the founder and his only son, Charles—who subsequently became Sir Charles Chadwyck-Healey, Bt. Sir Charles, who succeeded his father in control of THE ENGINEER, was called to the Bar in 1872 and took silk in 1893. In addition to his distinguished career at the Bar, he took a leading part in the establishment of the R.N.V.R., being created a K.C.B. for his services. A baronetcy was conferred upon him in 1919 for his service on the Admiralty Transport Arbitration Board. Sir Charles died in 1919 and was succeeded in the title and in the chairmanship of The Engineer, Ltd., by the eldest son, Sir Gerald Chadwyck-Healey, who had joined the business in 1895. At the same time his brother, Oliver Chadwyck-Healey, became managing director. In the first world war Sir Gerald served as Director of Materials and Priority at the Admiralty, for which he was made a C.B.E.

In 1929, The Engineer, Ltd., amalgamated with Morgan Brothers (Publishers), Ltd., the proprietors of *The Ironmonger* and *The Chemist and Druggist*, founded in 1859. A new company was formed which retained the title of the latter of the two companies mentioned, with Sir Gerald Chadwyck-Healey as its first chairman, and Oliver Chadwyck-Healey as a managing director. Sir Gerald continued as chairman until 1948, though he did not retire from the board of directors until 1951. By that time, he had given fifty-six years of loyal and devoted service to the management of the paper founded by his grandfather; they were years which saw this country engaged in three wars, and which witnessed also the setbacks of the industrial depression in the early 1930s. Oliver Chadwyck-Healey succeeded his brother as chairman of Morgan Brothers (Publishers), Ltd., and Charles Chadwyck-Healey, Sir Gerald's younger son, is the assistant managing director of the company. Thus, a grandson and a great grandson of the founder of THE ENGINEER are closely concerned in the day-to-day conduct of the journal.

EDITORS AND BUSINESS MANAGERS

Surprisingly little is known about the first Editor of THE ENGINEER. His name was Allen—we have no record of his initials!

It can be assumed that, in the early years, Edward Healey made himself responsible for much of the editorial policy of his paper; the contents of the old volumes bear many marks of his forthright and independent views! Mr. Allen resigned in 1858, and was succeeded by Zerah Colburn, who has often been referred to as a man with a great genius for engineering and a brilliant pen. Colburn was born in the U.S.A. and came to this country in 1857 when he was a young man of twenty-five. He had received his engineering training on the Concord Railroad, was possessed of a remarkable memory, and contributed regularly to various American publications. Zerah Colburn's purpose in coming to England was to study railway development, and in particular the use of coal as a locomotive fuel. His articles on these and other subjects attracted the attention of the proprietor of *THE ENGINEER*, with the result that, in 1858, he was appointed to "an influential position on the staff." Colburn continued in that position for a couple of years and then returned to America, where he started, and ran for a few months, a journal entitled *The American Engineer*. He came back again to London in 1861 and resumed his work on *THE ENGINEER*. But genius though he must have been, Zerah Colburn displayed so many eccentricities that his resignation became inevitable, and towards the end of 1864 his association with this journal ceased.

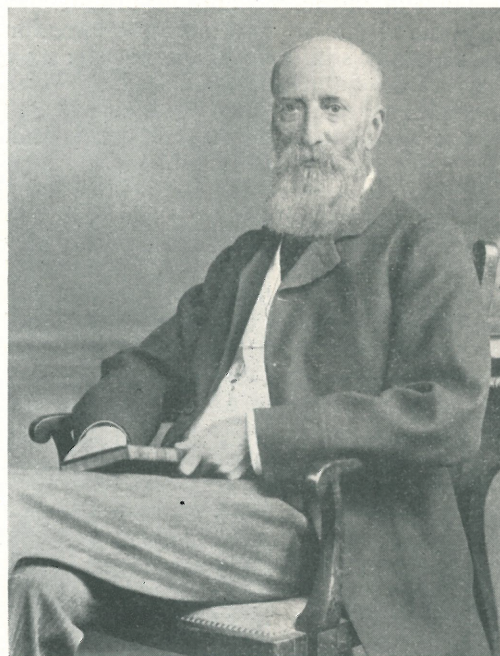
The appointment of the next editor marked the beginning of a dynasty! Vaughan Pendred, a young Irishman, came to England in 1862 to make his way as an engineer. He obtained a position with a small firm in Staffordshire which made traction engines and agricultural machinery, and there he gained some valuable experience. But his inclinations were towards a literary life, and for years he had written letters to the technical papers. For eighteen months or so, Vaughan Pendred was editor of the *Mechanic's Magazine*, and, then, he was invited by Edward Healey to take the editorial chair of *THE ENGINEER*. Vaughan Pendred began his editorship of this journal in 1865, when he was twenty-nine, and for the next forty years he devoted himself untiringly to its development and progress. His life's work is portrayed in the eighty or so volumes which were produced under his direction. He missed no opportunity of extending the field and increasing the influence of this paper, and he introduced several innovations which were a departure from such traditions of technical journalism as then existed. One of these traditions was the reliance on patent specifications for subjects for illustration. Vaughan Pendred held that the current practice of the day should be represented, and, not without some difficulty, he persuaded manufacturing engineers to permit him to publish drawings of their actual products. This development greatly increased the usefulness of *THE ENGINEER*. Pursuing the same idea, Vaughan Pendred took a further step and started the publication of *THE ENGINEER* "portfolio of working drawings" on tracing paper. This was long before the days of blue prints, and these tracings were enthusiastically received by our readers. Ultimately, however, their publication had to be abandoned mainly because of the precautions which had to be taken to prevent spontaneous combustion of the large piles of paper rendered transparent by a special preparation in which wax and other hydro-carbons played an important part.

Vaughan Pendred's impact upon *THE ENGINEER* was not, however, restricted to



Zerah Colburn, Editor 1858-1864

its illustrations. His own articles, and those of many distinguished contributors whom he gathered around him, were written in a terse and energetic style, and throughout bore the marks of practical common sense. In every matter concerned with the art and science of engineering, Vaughan Pendred showed a keen interest, and there can have been few matters which escaped the notice of the paper he edited! Not only was he a master of technical description and criticism, he was also, when occasion required, a forceful advocate of ways in which the work of engineers could be of increasing benefit to mankind. Thus, for example, in putting on record in 1872 a "Day of National Thanksgiving" for the recovery of the then Prince of Wales from an attack of typhoid fever, the Editor of *THE ENGINEER* stressed the necessity for expert attention to the problems of sanitation, refuse disposal and water purification! Or, when the question of moving the old Temple Bar from the Strand-Fleet Street boundary was being



Vaughan Pendred, Editor 1865-1905

discussed, Vaughan Pendred produced a detailed scheme in our columns—complete with a carefully prepared woodcut illustration—for transferring the whole structure to a site on the Embankment, at the foot of the Essex Stairs—a few yards away from our present offices! Matters of this kind, and many others, Vaughan Pendred consistently claimed, were affairs in which engineers

should take an active interest. Everything that he wrote was set down in fluent and dignified prose; yet his writing never became "heavy," for it was so frequently interspersed with flashes of the Irishman's wit.

In the late 1880s W. Worby Beaumont, a mechanical engineer with a special interest in road vehicles, joined Vaughan Pendred as assistant editor. The arrangement was on a part-time basis, as Worby Beaumont never put in more than half a day at the office! Vaughan Pendred's first full-time assistant was his second son, Loughnan St. Lawrence Pendred. He had completed his engineering training and had been engaged in French railway works, and in the Elswick ordnance works before joining *THE ENGINEER* in 1896. When his father retired in 1905, after a distinguished editorship of forty years, Lough. Pendred—as he was always known—succeeded him. His tenure of the editorial chair, extending as it did over the next forty-one years, was no less distinguished than his father's. Lough. Pendred carried the editorial responsibility for this journal under the stress of two great wars, and through the industrial depression of the 'thirties. He introduced changes of style and make-up, all of which were designed to increase the value of the journal to engineers and to ensure that it kept pace with modern demands. Although, perhaps, not strictly within the scope of this short history, it is interesting to record some of Lough. Pendred's many devoted services to the engineering profession. Upon the occasion of our Centenary, we are proud to remember that the then editor-in-chief of this journal was president of the Institution of Mechanical Engineers in 1930, the year in which that Institution received its Royal Charter; was a founder member and twice president of the Newcomen Society, and was also president, for two years, of the Institution of Engineers-in-Charge. In 1934, Lough. Pendred was created C.B.E. in recognition of his work for the profession of engineering. By that time his second son, Benjamin W. Pendred, had joined the editorial staff. He succeeded his father as editor-in-chief in April, 1946, a position which he continues to occupy. Thus for ninety-one years of its first century, the editorial conduct of *THE ENGINEER* has been the responsibility of three Pendereds—father, son and grandson.

But not only are there records of outstanding service amongst the editors of *THE ENGINEER*. The work of its managers on the advertising and publishing side is noteworthy. The first manager, or publisher as he was then described, was Bernard Luxton. After the first ten years or so, he was succeeded by George Leopold Riche, who, it is said, was "a fine figure of a man, with a handsome and dignified appearance." It is clear from the records of the time that Riche was also an energetic man of business, and that during his reign the number of firms using our columns for advertising steadily increased. In 1879, Sydney White, who was a nephew by marriage of the founder, joined the staff as Riche's assistant and shortly afterwards succeeded him as manager. Sydney White, like his predecessors, was a man of dignity whose kindness and courtesy were combined with a keen business ability. During the forty years or so in which he was manager of *THE ENGINEER*, he could count numerous of its advertisers and readers among his friends. He retired from his full-time duties for the paper in 1919, though he continued to serve as a director of The Engineer, Ltd., until 1929. Following Sydney White's retirement in 1919, Randal Slacke was appointed manager. He had had con-

siderable experience in the engineering industry, particularly in electrical engineering, and ably handled the increasing demands upon the advertising department as industry recovered from the stresses of the first world war. But, lamentably, early in 1922, Randal Slacke died as a result of an accident while hunting.

The next appointment to the office of manager was that of Arthur Ronald Vaughan, M.B.E., a marine engineer with an extensive knowledge of the whole of the engineering industry. He joined the paper in June, 1922, and continued as its manager until 1949, a period of twenty-seven years, during the last four of which he was also joint managing director of Morgan Brothers (Publishers), Ltd. He retired from the Board of the Company in June, 1955. During A. R. Vaughan's years as manager there were many and rapid developments in the art of technical advertising, especially in colour advertisements. It was his responsibility to introduce, in 1931, a new outside cover, in colour, for THE ENGINEER. Up till then, the outside cover had borne from the beginning the "Public Announcements" of Government establishments, municipal undertakings and similar organisations. When A. R. Vaughan relinquished the position of manager in 1949 he was succeeded by the present manager, E. J. Hague, O.B.E., who is also a director of Morgan Brothers (Publishers), Ltd.

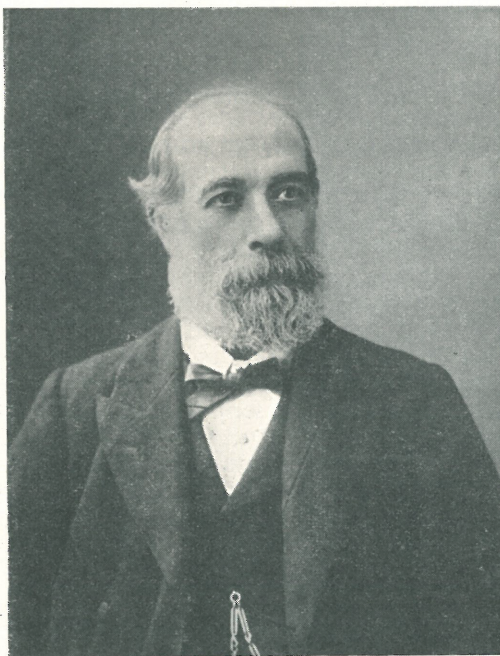
OFFICES

It is not without interest to recall that during its first century THE ENGINEER has occupied five different offices, four of them in the East Strand area of London. For the first two years, two establishments were maintained, the publishing office at 301, Strand, and the editor's headquarters at 32, Bucklersbury, in the City. Just how and why this arrangement was made is not known, nor is there any record of the method of communication employed between editor and publisher!

In 1858, however, both departments of the paper were brought together in offices at 163, Strand, a building whose exterior presents now pretty much the same appearance as it did then. The move marked a stage of our progress, and was explained in a leading article published on January 1, 1858. Therein we wrote: "Knowing our own shortcomings, the feathery part of our editorial pen bristles up like the coat of a frightened cat, prepared for an attack upon all quarters, saving our hind ones, from any section of our readers, young, old, or middle-aged, and to defend our rights, and offer explanations for all we have said and done during the past year, or for all we have left unsaid and undone, according to editorial privileges in such cases made and provided. . . . We flatter ourselves that we know what our readers want as well if not a little better than they do themselves, from the most solid and practicable even to the most ethereal and impractical of them; but the difficulty of collecting practical information being known only to ourselves, many of them may make a great mistake in drawing a conclusion from an occasional omission in our columns." With this bit of "sermonising" we told the readers of plans for the further improvement of THE ENGINEER, and went on to say that: "More effectually to work out our plans of improvement, we have considered it essential to concentrate our offices, both in the publishing and editorial departments, under one roof, and to this end we have succeeded in procuring commodious premises at 163, Strand (a few doors from Somerset House). In this sanctum sanctorum we propose to

preside over the mechanical genius of the country, to teach the young idea to shoot, so as not to miss the mark which should be aimed at, namely, the utilisation of inventions."

For thirty-three years THE ENGINEER made its headquarters at 163, Strand, and during that time we were able to claim that its circulation had reached "a point far beyond anything that could have been anticipated." To that we added "there is no place, we believe, in the world to which a newspaper can be sent to which THE ENGINEER is not regularly transmitted." In October, 1891, we remarked that "in engineering there is no going backwards; it is impossible to stand still." We made the further comment that



George, Founder of George Reveirs, Ltd.

"what is true of engineering is necessarily true of any journal which will satisfy the demands of engineers; and our readers may rest assured that we have no more intention of standing still than they have. . . . we must let the future speak for itself." These observations led up to the announcement that we had moved to 33, Norfolk Street, Strand. The development of the journal and the great increase in its business transactions had been sufficient in themselves, we explained, "to render the need for larger and in every way more commodious premises imperative." Thus, at 33, Norfolk Street, "in proximity to the Temple Station of the District Railway," we resided for nearly forty years. It is an address, we believe, which, during that period, became known to engineers all over the world.

The next move of premises was made in May, 1930. It resulted from the amalgamation, a year earlier, with Morgan Brothers (Publishers), Ltd. It was obviously desirable that all the company's publications should have their head offices at one address, and a modern building at 28, Essex Street, Strand, was therefore acquired.

OUR PRINTERS

No record of the development and progress of THE ENGINEER could be complete without some reference to the work of its printers, George Reveirs, Ltd. The founder of that business, George Reveirs, composed the original prospectus heralding the advent of this journal. He was then on the composing room staff of the printing house of Samuel Taylor, Greystoke Place, off Fetter

Lane. Soon after THE ENGINEER started, George Reveirs was appointed manager at the printers and in 1874 he purchased the business from Samuel Taylor's executors. By that time George Reveirs's son—also named George—was completing his apprenticeship at Greystoke Place, and subsequently he succeeded his father as head of the business. He, in turn, was succeeded by his son, George Leopold Reveirs, who, although now retired from the active management, remains a director of the company which has rendered long and loyal service in the production of this journal.

For the first three-quarters of the century the printing of THE ENGINEER was done in the works housed in some old buildings in Greystoke Place. George Reveirs, the First, the Second, and the Third, during their respective "reigns," looked upon THE ENGINEER press day and printing night as the most important period of the week. Always they were on the spot not only to advise, but also to give their expert assistance. Towards the end of 1930, George Reveirs, Ltd., transferred its business to the new and much larger works in Rosebery Avenue, where THE ENGINEER continues to be printed. There, among the composing-room staff especially, there are some who have worked on the printing of this journal for nearly half of its first century—and one at least longer than that. Their keenness to turn out a "good job" does not lessen. The only time during which the printing has not been done at the Reveirs's works was for a few months in the early part of the second world war. Then, following the advice of the Government, the printing was "evacuated" to William Clowes and Sons, Ltd., at Beccles, Suffolk. But the Reveirs's organisation remained responsible and several members of its staff were at Beccles throughout our six or seven months there to do the work to which they were so well accustomed.

The engravers also have made a notable contribution to the production of THE ENGINEER. Since the day of woodcuts—some examples of which are reproduced on succeeding pages—the blocks for our illustrations have been made by John Swain and Son, Ltd.

CONCLUSION

We are very conscious that this short history has become concerned mainly with people and places. But all the people and places mentioned have played a major part in shaping and shepherding THE ENGINEER through its first hundred years. Much more could be written about the work this journal has accomplished and continues to accomplish, in the role for which it was established in 1856—the recording and exposition of events and developments in the ever-extending field of engineering progress. Much could be said, too, about the content of its advertisement pages, about the developments in technical advertising and about the fact that among the many firms which regularly use those pages, there are still some who were "in at the beginning." Furthermore, there could appropriately have been some observations about the advances in make-up, typography and appearance that have been made in this journal.

As we look back over the years, so we look forward. On January 4, 1856, we remarked that "by judicious division of labour, and the co-operation which we hope to find. . . . we have considerable confidence that little will escape our notice worth placing before our readers." To-day, grateful for the co-operation which we continue to enjoy, our confidence remains "considerable"!