The last ten years of Wharton Jones's life in London did not produce any further contribution to science, unless we consider the two lectures on evolution delivered at University College, in October, 1874, and October, 1875, as real contributions to science. They were published in 1876 and were referred to when we were trying to form a preliminary estimate of his character and mental outlook. Here we need only remind ourselves of the line of his argument and of his unswerving orthodoxy by the following quotations: "The question of the **Origin of Man**, it must be concluded, is one entirely beyond the pale of Natural Science. But when, where, and howsoever his first advent on the earth took place, this much is certain, that there are no valid grounds in support of the thesis that he ever existed under any other presentment or embodiment than that of **Man**.

His opinion of Darwin and his followers is shown in the last paragraph of the first lecture. He has been comparing evolutionists to the Schoolmen of the dark ages, who "lost themselves in trying to make of the Philosophy of Aristotle what it was not," and he...
goes on: "The result in this case being as unprofitable as the Quiddities of the Schoolmen, we may, perhaps not unjustly, apply to the followers of Darwin the Poet's censure of the 'Sons of Aristotle':"

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They stand
Locked up together hand in hand,
Everyone leads as he is led:
The same bare path they tread,
And dance like fairies a fantastic round,
But neither change their motion, nor their ground."
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Darwin, Wallace, and Haeckel shocked many good people, or, at all events, disturbed their peace of mind, to an extent which it is now difficult for us to appreciate. To them, therefore, counter-blasts from men of science, like that of Darwin, Jones, or Haeckel, were welcome and soothing; but for his fellow workers it was sad to see one who had been so active a pioneer taking up such a stationary and uncompromising attitude, and showing in other ways that he was out of sympathy with the irresistible progress of science. This critical and irritable spirit was not the only cause of his silence. His mind seemed to have lost its elasticity, and besides, although he pursued his scientific studies to the last, he was becoming more and more occupied with family genealogies and his grievance against James Whatman for retaining the family heirlooms. This led to other historical investigations, the nature of which may be gathered from the final paragraph of the preface to the lectures on Evolution:

"Historical and ordinary anatomico-physiological researches have much in common in respect to method—the object of both being to ascertain facts and to trace out their concatenations and correlations. In lately editing for the Camden Society the Life and Times of my ancestral kinsman, brave old Bishop Bedell, of Kilmore—'Saint, Sage, and Hero' as he has been happily characterized by Mr. Gladstone, I followed, in a small way, the example of Niebuhr and Mommsen, inasmuch as I searched or had searches made in all directions, for original documents—wills, state papers, letters, and the seals thereto attached, parish registers, diocesan registers, tombstones, etc. In doing so, the aim was to obtain authentic information from genuine contemporary documents, in regard to the true reading of which there could be no doubt, and thereby to correct various current misconceptions. This, it is obvious, was merely the prompting of common sense and duty—although I believe that habits of scientific method in physiological and pathological researches may have materially aided the exercise [of] discrimination in my genealogical and historical inquiries."

The reader will not fail to notice the reason for dragging Irish history into an attack on Darwinism. It was to contrast his own way of going to work with that which he thought was adopted by many, if not most, scientific explorers.
Thomas Wharton Jones.

The outcome of these historical researches was a learned volume on 'The Life and Death (during the Rebellion of 1641) of his ancestral cousin, Bishop Bedell, of Kilmore.' It was issued by the Camden Society in 1872. The curious will find the full and characteristic title below in a footnote. A cousinship was claimed because the bishop's mother, Elizabeth Elliston, who died in 1641, was a far back ancestor of Jones's maternal grandmother. About a third of the book is a carefully edited reproduction of an extremely interesting old manuscript in the Bodleian, written probably by the eldest son of the bishop. This is followed by twenty chapters evidently representing a vast amount of genealogical research, to which are added three appendices which include two belated letters and a pedigree. This book is not merely an account of William Bedell and the direct and collateral branches of his family; it also includes a pretty wide survey of contemporary Irish history, well told and thoroughly readable. It is a period with which most of us are probably but slightly acquainted, but it has a special interest in the present distracted state of that country. We may, perhaps, glean from it this crumb of hope: that, as murder and other atrocities seem to be the normal expression of Irish discontent, they are likely to subside as they have so often done in the past. But as far as permanent peace is concerned such glances as this into the past are, it must be owned, by no means encouraging.

From this he passed to a more extensive study of Irish history and politics, which resulted in a small volume on "Rule in Ireland from St. Patrick to Cromwell," published many years afterwards. In the advertisement it is stated: "The following pages are extracted from a work in manuscript entitled—'Story of the Irish Rebellion of 1641, and its correlations with the contemporary Troubles in England and Scotland,' on which the author has been for some years engaged. Ventnor, I.W."*

It is a very concentrated piece of history; too full of facts related in quick succession to be interesting. There are a few, but not many, of Jones's own comments, from which it may be gathered that his sympathies were not all with Ireland as opposed to England. Thus he points out that Roman Catholicism was imposed upon Ireland by Henry II., but was not the original form of Christianity adopted by that country. This is, of course, no excuse for the harsh treatment of Irish Roman Catholics, but it

*A true Relation of the Life and Death of the Right Reverend Father in God, William Bedell, Lord Bishop of Kilmore in Ireland. Edited from a MS. in the Bodleian Library, Oxford, and amplified with genealogical and historical chapters, compiled from original sources, by the representative of the Bishop's mother's family of Elliston, Thomas Wharton Jones, F.R.S. Printed for the Camden Society, MDCCCLXXII.

† R. Medley, 38, High St., Ventnor, 1887, price 6d.
partly takes the sting out of one of the most cherished of Irish grievances. He also shows that some other Irish grievances are founded on complete misconceptions, and we learn without surprise that he himself was a staunch Unionist.

Unfortunately, historical studies, sometimes made vicariousely, brought no grist to the mill. On the contrary, they ate into what little grist may have been on the way. Jones never had a large private practice, and, as I knew him, his antiquated manner and appearance were by no means calculated to attract patients or to inspire their confidence. What little there may have been therefore dwindled completely away, and as none of his books, except perhaps the "Manual," can ever have been a source of much income, his circumstances became more and more straitened, and by degrees he fell into absolute poverty. His circle of intimate acquaintances had never been large, and his somewhat caustic pen and habit of very free criticism had brought some of his earlier friendships to an untimely end. Few therefore knew of his miserable plight when the exceptionally severe winter of 1880-1881 set in. It was bitterly cold. There was a succession of blizzards and the snow lay deep in the streets, or was piled up into walls six feet high or carted into huge heaps in the squares, the traffic for seven days being almost at a standstill; when, one day Mr. Tweedy (as he then was) was asked at a meeting of the staff of the "Lancet" whether the biography of Wharton Jones was ready, as it was reported that he had written to University College to say that he was prevented from attending, presumably from illness, and it was thought that at his age—he was then 73—an obituary notice might soon be required. Tweedy accordingly went to the little house in George Street where, as has been said, Jones had given rooms to a poor couple—husband and wife—who looked after him in return for their lodging. "To his horror he found his old teacher crouched over a fireless grate, his shoulders hunched up under a mass of shawls and shabby wraps, the picture of destitution. He was gnawing an old and uninviting piece of beef steak and a crust of bread, the wretched meal being all, as the woman of the house declared, that she and her husband could spare from their own scanty food-supply."* He was, in fact, not only very ill but penniless and starving. Tweedy forthwith enlisted the sympathy of his colleagues Dr. Sidney Ringer and Mr. Erichsen and other leading medical and scientific men, and in a few hours had collected a sum of £140, which was paid into the bank in sovereigns so that Jones might not know to whom he was indebted for the money which literally saved his life, though his most pressing needs had been already quickly

*From notes supplied by Mr. Victor Plarr, Librarian of the Royal College of Surgeons.
supplied by the kind care of Mrs. Ringer, who had had much experience as a nurse.

About this time his piteous case was presented by Huxley and Sir Joseph Fayrer to Mr. Gladstone. The civil list of pensions was then made up, but the promise was given that Jones's name should head the next list, and he received from this source £150 a year from October 31, 1881, to November 7, 1891. He also obtained the Tancred Pension of £80 a year in June, 1881, at the instance of Sir William Jenner, who was then President of the Royal College of Physicians, which he enjoyed till the time of his death.

Assured of this moderate but perhaps adequate income, and recognizing that he was no longer fit for his work at the College and Hospital, Jones sent in his resignation and was granted the title of Emeritus Professor. He gave up his house in London and settled down at Ventnor in the Isle of Wight, where, after life's rather stormy voyage, he spent the evening of his days in a quiet haven. It was ten years before the obituary notice was needed.

Here he lived very quietly and evidently most economically, for he left a substantial sum (about £800) at his death.

Dr. Robert Robertson, of Ventnor, who was Resident Medical Officer at the Consumption Hospital in 1881, and who attended him on the rare occasions when he needed medical advice, draws a pleasant picture of the sage in his retirement, his few old cronies and his simple life, which may be quoted almost in full.

"No. 2, Swiss Cottages, where Wharton Jones lived while in Ventnor, and where he died, is one of a pair of small cottages of three stories in Belgrave Road facing south and looking out on the English Channel. As in many houses in the town, the cottages have their lower story below the level of the road. And here the tenant of the two cottages lived, working the two cottages as one house, and letting off the two upper stories as lodgings. Mr. Jones occupied the tiny south sitting room and small south bedroom of the westermost cottage. From its sunny and sheltered situation, and from its convenience of access to the main road of the town and of the undercliff, it was very suitable for an old man who found walking difficult.

On any bright morning in the 'eighties' a little old man with round shoulders, wearing a hard felt hat well off his forehead, with long grey hair down over the collar of a rather heavy overcoat which reached nearly to his heels, might have been seen walking slowly in the sunshine, with the help of a stick, along the footpath in Belgrave Road.

Eyes sunk under a large forehead, a Hibernian mouth and heavy chin, and the complexion of a chronic invalid, made one look at him a second time if one passed him on the road.

If you visited him in his lodgings in the winter, you would find
him buried in an easy chair beside the fire with the temperature of the room about 70° Fahr., his head covered with an old peaked cloth cap, an overcoat on, his knees protected by at least two old rugs, and his feet in Wellington boots.

'You are looking at my boots,' he said to me on one occasion, 'I did order a new pair twelve years ago, but I remembered that my brother had an attack of apoplexy the day he put on a new pair of boots, so I countermanded the order.' It has been said that he was so afraid of taking cold that he would allow the sheets on his bed to be changed only twice a year. Judging of what I saw of his bedroom, I should say that that was probably untrue.

He lived very simply: 'Four ounces of lean beef steak daily, half at midday meal and half in the evening, with an ounce of chocolate after each meal, that is what I eat.' He was not unsociable. While he was able to walk so far he used to visit his friend the Rev. Clement Hue at 'the Cottage,' St. Lawrence, about one and a half miles (Mr. Hue was, I believe, the son of a former physician at St. George's Hospital), and it was there I first met him at a garden party in the summer.

On one of Wharton Jones's visits to 'the Cottage' he noticed that an old tortoise in the garden was going blind, and at his request the tortoise was taken daily to 'Swiss Cottage' to be under Jones's care until it was cured. ['Mr. Jones carefully dropping drops into the eye of the creature in spite of vigorous and sometimes successful attempts to bite him.']

He visited also at 'Aherlow,' the residence of Dr. and Mrs. Shaw, less than half a mile away. Dr. Shaw, an assistant surgeon at the battle of Miani, Scinde, had then gone into the Mint at Madras before leaving India. [The chaplain of the Consumption Hospital, the Rev. J. A. Alloway, says he well remembers the three old men spoken of as Abraham, Isaac and Jacob—Wharton Jones, Hue, and Shaw—walking up and down in front of his house with arms linked, talking as they went.]

He had visits, too, from his old friend Mr. Commissioner Kerr, his residuary legatee, whose daughter lived in Ventnor and still lives here.

It is possible that he had other friends unknown to me. Acquaintance with those mentioned, indeed, implies that he might have known anyone that he cared to know. But he was easily fatigued, and could hardly face the effort of much social intercourse.

On one occasion I asked an old gentleman, who was senior secretary of the Archaeological Society of Oxford, to call on him, but as he was deaf they failed to interest each other.

To Mrs. Shaw, one of the kindest of women, he owed much. Up to the last she was always calling to see how he was; calling
on me to suggest that I should see him, if he did not seem so well, and not failing to ask his landlady if he had all he needed. She was herself old. She had spent thirty years in India. Her husband was in poor health. But she always found time to think of the 'Professor,' as she always called him.

In spite of his years, Wharton Jones was still fundamentally a tenderhearted, sentimental Celt [a Cymric Celt] of volcanic temperament. Tears still came readily into his eyes, and Mrs. Shaw was quite sure that there had been a disappointment in his early days, and that he had sacrificed his hopes to the needs of his relatives. His voice softened when he spoke of his brother, but became surprisingly emphatic when he spoke of scientific subjects. I was warned by Mr. Hue, when he proposed to introduce me to him, not to mention such matters, as he was apt to get somewhat hot in speaking of them, and long afterwards, when referring to text-books of physiology just published, he exploded. 'These physiologists they EXCOGITATE! They excogitate!'

Dr. Robertson inherited, amongst other things, Jones's microscopes, one of which he has presented to the Royal Society of Medicine. It is a quaint little instrument, packed in a flat mahogany box 5½ inches long by 4½ inches broad. The stem screws into the middle of the box-lid. It has only one power. It has evidently been much used. The other was a good microscope of English make with movable stage, two eye-pieces and three objectives (¼-inch, ½-inch and 1½-inch), so he was as well equipped for his investigations as most of his contemporaries.

One wonders whether he had out his microscopes to verify his old observations or whether it was only in fancy that he "fought all his battles o'er again." Certainly he was not idle. His historical studies alone must have kept him busy and yet he found time to send no less than eleven communications to the "Lancet" between 1883 and 1889.

Their titles show how his mind was working; their substance that he was still alive to what was going on in the medical world, and more than sceptical about the methods and the accuracy of the "Professors" of the day. The list is not long and shall be given in full.

1883. "Observations on death from obstruction of the circulation through the lungs occasioned by Fibrinous Clots in the Pulmonary Artery."

1884. "Alleged emigration of white blood corpuscles from the interior of small vessels by boring through their walls." In this he expresses complete disbelief in the accuracy of Cohnheim's discovery; and says that what two Professors shewed him was not emigration at all, but something which he had himself seen and described long before.
In the same year he began a series of polemical papers which in characteristic fashion restate his confidence in the accuracy of his own work and hurl defiance at his opponents. 1885. "Proceedings calculated to impede the progress of scientific knowledge of facts in Nature." 1886. "The Darwinian working hypothesis examined physiologically." 1886. "Peroration to my reminiscences of fifty years' struggle in the footsteps of William Harvey to search out crucial facts in physiology." 1887. "The white corpuscle of the Blood. A supplement to my remonstrance addressed to Professors of Physiology against teaching in their writings, lectures, or occasional orations that white corpuscles of the blood emigrate from the interior of small vessels until they have verified it by actual observation of their own as a fact in Nature."

And finally, in 1889, "On the state of the circulation in the extreme vessels in atropine and cocaine poisoning." This was a supplement to his paper of July, 1885, and explains by references to his old work the appearances which had been reported as being present in atropine and cocaine poisoning. Amongst other things, he says that atropine does not dilate the pupil of a bird because birds have no dilatator iridis. The paper also contains his last word on the emigration of the white corpuscles, and it is characteristic of the man that he never swerved from the position he took up with regard to Cohnheim's discovery.

But this was not the end of his literary labours. In 1891, the year of his death, he published a Report* (already referred to at page 107) which recapitulates, in the course of about seventy pages, all his work on the circulation, and all his opinions about the work of others in this field. Those who have not the opportunity to read his earlier writings may with advantage study this report, only they must bear in mind the circumstances in which it was written, the age of the author and some points in his character which I have tried to make clear. There is no need to describe it here in detail, but the "advertisement" shall be quoted to show the frame of mind in which it was written. "The following pages are respectfully addressed to the General Council of Medical

* "Report on the state of the blood and the blood-vessels in inflammation, and on other points relating to the circulation in the extreme vessels: together with a report on lymphatic hearts and on the propulsion of lymph from them, through a proper duct, into their respective veins." London: Baillière, Tindall, and Cox. 1891.
Education—Universities and their Colleges—Colleges of Physicians, Colleges of Surgeons, and all other Authorities, who may consider the faithful instruction of Students of Medicine in a real knowledge of the phenomena of the Circulation of the Blood to be of paramount importance.” Not yet—he seems to say—do I see any sign of the Professors coming round to my views; but yet he does not despair, for on the title page we read these strange but hopeful verses:

"In yonder world, I do believe,
That Truth they still maintain;
But with the lies that here prevail,
Our Marshal fights in vain."

—Bismarck.

"Sham fails,
Truth prevails."

—Moltke.

He passed away, full of years, without any definite illness on Nov. 28, 1891, waving his standard almost to the last. I think it was the fighting spirit that deprived him of the meed of praise that was certainly his due. The mischief of most scientific contests is that they are waged not against a common foe but are disputes amongst allies as to the best method of advance. Jones was too apt, not only to maintain his own view with fervour, but to disparage overmuch the opinions of others, and when it was all settled, to complain that the soundness of his views was either grudgingly recognized or not recognized at all. Often, no doubt, the complaint was justified, but this was not the way to conciliate rivals or to cement friendships.

He lived so long after the close of his active career that few of his fellow workers survived him, and his departure was scarcely observed. We have referred to Sir John Tweedy’s excellent obituary notice in the “Lancet,” but his name does not appear in the Dictionary of National Biography—it was one of the overlooked, caruit quia vate sacro. And now it seems strange that this belated memoir should appear in an Ophthalmological Journal, because, though he was a great ophthalmologist, it is really as a physiologist that his name should go down to posterity. But how few there are, even amongst the most brilliant cultivators of this shifting science, whose names will be remembered. Their records are written on the seashore, and only a few beyond the wash of the tides. So small a proportion of “physiological facts” are permanent, and these are so soon overshadowed by exciting new discoveries, that their discoverers are often forgotten. It is hoped that these pages may help to recall the fact that Wharton Jones’s name is not the least worthy amongst this noble band of pioneers.

His private life, as far as we know anything about it, presents a somewhat low-toned picture. He seems to have missed, by so little, much that might have made him happy and successful. But this
little made all the difference. Doubtless, when absorbed in scientific work, his troubles were, for a time, forgotten; doubtless in early middle age, when his reputation was European, he enjoyed the appreciation of his teaching and the prospect of a brighter future than that which was in store for him; doubtless, also, his polemics were not altogether distasteful to him; but, when all is said, it is impossible to believe that, on the whole, he had more than a very moderate share of happiness or even of contentment.

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