

*Famous Norwegian Dermatologists

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The honourable president of the Organisation Committee of the Congress has done me the honour to invite some remarks about famous Norwegian dermatologists that I have known personally. I shall not give a deep analysis of their scientific work, but content myself by making a rapid sketch of their personalities as savants and as men, according to the image of them that still lingers in my memory.

Among the Norwegian dermatologists that I have known there are three who hold a position of capital importance, and who had a profound influence on the study of dermatology. They are D. C. Danielssen, Armauer Hansen and César Boeck.

The senior of the three was Danielssen, born in 1815. When I went to present myself for the first time after being appointed as assistant at the famous hospital of Lungegaard at Bergen, I was greatly looking forward to my first sight of the famous physician, already old, of whom I had heard so much but whom I had never seen. I anticipated a very dignified audience. Seated in his arm chair he gave me the impression of a very tall and strong man, and his long white flowing beard made me think of a patriarch. With great dignity, his face illuminated by a fascinating smile, his eyes clear and alive, he held out his hand and said: "welcome, my dear young friend." I had not been long with him before I found him most charming. That first impression was so strong that it always remained. On more intimate acquaintance one took account of all that he had accomplished in his long career, and understood that he possessed special qualities which had created strong personality and made him the recognised authority in many domains which he had become and continued to be even in his old age. In his fight for his ideas he was an adversary who knew how to make himself respected, and he was not always tender to those who sought to counter his plans. As a master he was excellent. Rich in ideas and initiative, he possessed interesting his assistants in the scientific questions in which he himself was interested, and towards the solution of which he was labouring. All his subordinates admired and loved him, for after the clouds of tempest came the radiance of the

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sun which quickly made one forget the claps of thunder. I have said above that he gave one the impression of being tall and strong, but in reality when on his feet he was small and slender. Moreover, he was troubled with a physical defect: he was lame. For this reason he disliked walking, especially in his old age, and always in the town he was known to all the world as he rode in his elegant little carriage.

But to get a complete image of Danielssen it is necessary to know a little of the history of his life. From early years he had conceived a strong desire to study at the University. But his family's poor circumstances—his father was a watchmaker—made this difficult, and at the age of 13 he entered as a pupil in the "Svaneapotheket" pharmacy in Bergen. There he took a keen interest in botany, a subject in which he always continued to occupy himself. But his scientific education took another direction. At the age of 17 he was obliged to leave the pharmacy on account of tuberculosis of the hip joint, which kept him in bed for a year and a half. But during this time the young man occupied his time in preparing for the entrance examination for the University. In 1838, when barely 23 years of age, he was *examinatus medicinae*, that is to say he passed the medical examination without a knowledge of latin. That language played an important role in all branches of scientific study at the University, but Danielssen showed clearly that he could make good without latin. He occupied himself with physiology and chemistry, and as assistant to J. J. Hjort, who later became chief physician to the section on skin diseases at the Rikshospital at Oslo (Christiania), he made a special study of cutaneous diseases. In the autumn of 1839 he returned to Bergen and with his usual energy set about studying leprosy. With difficulty at that time there had been found a favourable place for the study of this disease in the ancient hospital of St. Georges (St. Jörgen) which had existed for ages. This furnished rich material for study, but Danielssen suffered for want of a medical library. Fortunately C. W. Boeck, who in 1851 had become professor of medicine at the University, was one day in Bergen, from where he proposed to set out on a long voyage to study leprosy in Europe, Greece and America. The two doctors compared ideas and concluded a bond of friendship and collaboration which lasted till the death of Boeck in 1875. The first result of this collaboration, but also the greatest and most lasting, was the celebrated work of Danielssen and Boeck on leprosy: "*Om Spedalskhed*", with its large and splendid atlas, which was edited by the Norwegian State in 1847. It appeared in a

French edition : “ *Traite de la Spedalskhed ou Elephantiasis des Grecs*,” Paris, 1848. The historical part of this treatise was drawn up by Boeck, but it was the pride of Danielssen that the masterpiece—the atlas—was entirely from his native town of Bergen. This work was rewarded in Paris by the presenting of the Monthyon prize, the amount of which Danielssen and Boeck gave to the University of Oslo to be devoted to improving the study of skin diseases. As a supplement to this work Danielssen published in 1862 a remarkable book : “ Treatise on the Anæsthetic form of Leprosy.” Boeck and Danielssen published a further work “ Collection of Observations on Skin Diseases,” of which Danielssen edited the last number in 1892 in memory of his friend and collaborator, who had died before that date.

Among Danielssen’s other scientific works I shall content myself with mentioning his “ *Scabies crustosa* ”, published in 1844. In his old age he was indignant to find that certain authors designated this disease—*Scabies norvegica*. It is not confined to Norway, and it seemed to him an injustice to attach to it the name of his country only because he had been the first to observe and describe this disease.

As one would expect at that epoch Danielssen was an adept at humoural pathology, and to him leprosy was a change in the blood, a *dyscrasia sanguinis*, which was due to an accumulation of albumin in the blood. The blood sought to free itself from these harmful elements, and either deposited them in the skin where they formed tumours—*lepra tuberosa*—or in the nerves, where they produced *lepra anæsthetica*, and this ill state of the constitution was hereditary. Leprosy should therefore be combated by preventing lepers from reproducing themselves. They should therefore be isolated in hospitals; and thus all the leprosaria of Norway were built before the discovery of the microbe of leprosy. Danielssen was a witness of the triumph of cellular pathology and of bacteriology, but he doubted that it was really contagious. And he was persuaded that his doubt was well founded, because of the many times he had inoculated leprosy tissue in himself and several of his collaborators at the Hospital of Lungegaard with absolutely negative results. The last inoculation practised by Danielssen on himself is of such great interest that it is necessary to describe it in full detail. He inoculated himself subcutaneously with material obtained from empyema of the pleura of a leper. But it should be remarked that leprosy affection of the lungs is exceedingly rare, if indeed it exists at all. On the other hand, we know that tuberculous affections of the pleura are very common. It is

therefore very probable that Danielssen, instead of inoculating himself with the organisms of leprosy, actually did so with those of tuberculosis. The result of the inoculation was to produce a marked local infiltration without any generalised phenomena. This infiltration changed after a little into ulceration, which again healed up rapidly. If one remembers that Danielssen, in addition to having tuberculosis of the hip, also suffered from chronic pulmonary tuberculosis with haemoptasis, and had once expectorated a small piece of chalky material, there is little doubt in my opinion that he demonstrated "the phenomenon of Koch" prior to the discovery of the bacillus of tuberculosis by Koch.

It is very curious that, if we exclude the celebrated inoculations of Arning in the case of Keanu, there should have been only one undoubted positive result with inoculation of leprosy in man, that occurring in recent times. (*Un cas d'inoculation accidentelle du bacille de Hansen en pays non lepreux*. E. Marchoux. Int. J1. of Leprosy, Vol. II, No. 1, 1934.) If Danielssen is incontestably the founder of modern scientific research in leprosy, it is because he combined pathological with his excellent clinical examinations. These were, however, more macroscopic than microscopic. *Post mortem* examination of lepers was at that time new and caused an amount of distress and irritation quite understandable and excusable. In spite of all his remarkably and kindly powers of persuasion, Danielssen experienced great difficulties on the occasions of autopsies. But he was not a man to let himself be thwarted when he had determined to dig to the root of a problem. One day when he was engaged in an important case and was threatened with a knife by the relatives of the deceased if he made the autopsy, he called upon the prefect of police and persuaded him to provide a constable to be at hand during the operation. Thereafter he had no further difficulty with these examinations.

In the microscopic investigations of Danielssen there is a point of special importance. Already in his large treatise of 1847 he had described characteristic large cells crowded with brownish molecules which did not dissolve in acetic acid. These are the cells which later became so famous: *lepra cells* (Virchow), *brown elements* (Hansen), *leprous globules* (Neisser). For long Danielssen reflected much on the question of whether these cells with their granulation did not perhaps contain material specific to leprosy. And this was indeed the case, for these are what Hansen in the end proved to be *lepra bacilli*. But Danielssen was so uncertain of this fact that he submitted the question to

Rudolf Virchow when he came to Bergen in 1859 to study leprosy with Danielssen at the Lungegaard hospital. Virchow was of the opinion, however, that they must be a kind of fatty degeneration. Danielssen inclined towards the opinion of the great master; but in the end he regretted this very much: "perhaps I should have found the bacilli of leprosy if I had not let myself be convinced that it was due to fatty degeneration; no one should ever let himself be diverted even by an authority."

One should also mention another side of the work on leprosy done by Danielssen, viz. his endeavour to find a remedy for leprosy, then considered incurable. The results appear in the reports of the Lungegaard hospital from 1849 till his death. Though we may perhaps not agree that his results were due to the remedies he employed, yet it is no less certain that Danielssen has proved for long that leprosy is not incurable but that it yields to treatment to a considerable extent, a truth which seems to have been confirmed only in very recent times by those who have studied this disease.

Although famous as a doctor, Danielssen was also much distinguished as a zoologist, and he was for 40 years the heart and brain which directed the Museum of Bergen, and gradually transformed that scientific institute from a modest private collection into an establishment comparable with the best in Europe, and famous throughout the world. At this Museum there are now 10 professors working, the most of whom are engaged in the natural sciences, and it is only a question of time till it becomes the second university in Norway. Personally Danielssen occupied himself with zoology, sometimes in collaboration with the two famous zoologists—the most renowned in Norway—the Professors Sars, father and son. But here Danielssen turned his talent to most useful account by interesting the younger generation in scientific studies through his sincere friendship which endured even after he himself had attained old age. A striking example is furnished by the affectionate relationship between Danielssen and the celebrated polar explorer, Fridtjof Nansen, who in the beginning of 1880 became conservator of the Bergen Museum. When young Nansen planned his celebrated voyage to the North Pole in 1893 he would not leave Norway till he had taken a touching farewell of his old paternal friend then aged almost 80. And some of the last thoughts and wishes of Danielssen were towards the young and courageous explorer shut off by the ice near the North Pole.

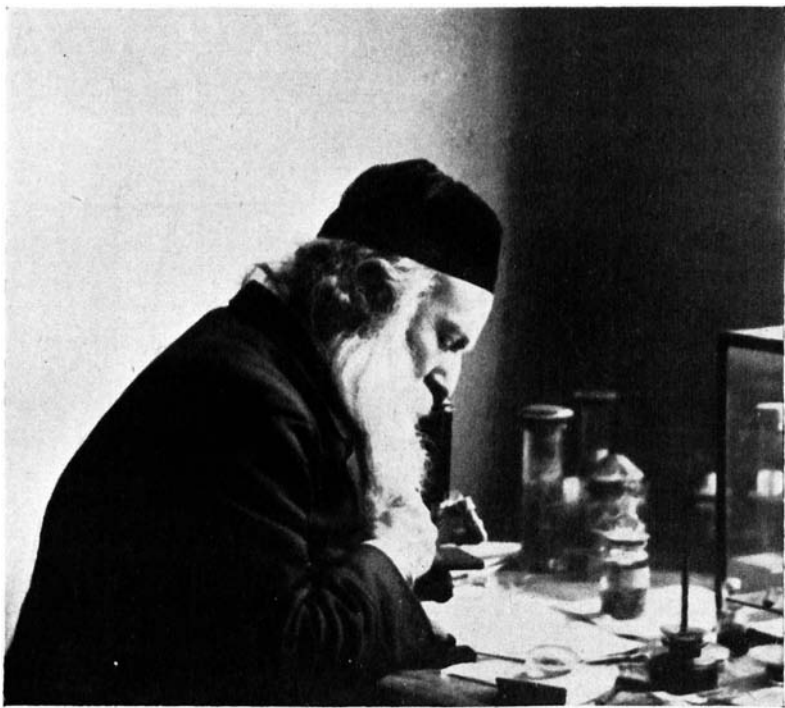
One is tempted to consider that all these activities I have related are sufficient for any one man however active and capable. But this is far from the case. Danielssen was a central figure in his native town, who interested himself in every form of enterprise and progress. For long years he was a member of the Committee of Management of the new theatre of the town, "*Den Nationale Scene*." And there also, as in everything else in which he was engaged, he made himself felt. He had a great influence as a critic, generally anonymous, of the theatre. He was in intimate relationship with the two Norwegian authors: Henry Ibsen and Bjørnstjerne Bjørnson, who during 1850 were the principals of the theatre at Bergen.

Danielssen interested himself also in politics. He was very radical for his time and he played a considerable role as member of the *Storting de Norvege* during a series of years filled with bitter political contests. He found himself in the extreme left and was one of the founders of the radical party. Till the end he maintained his radicalism and was fond of proclaiming that he was born on the 4th of July, the anniversary of the independence of the United States.

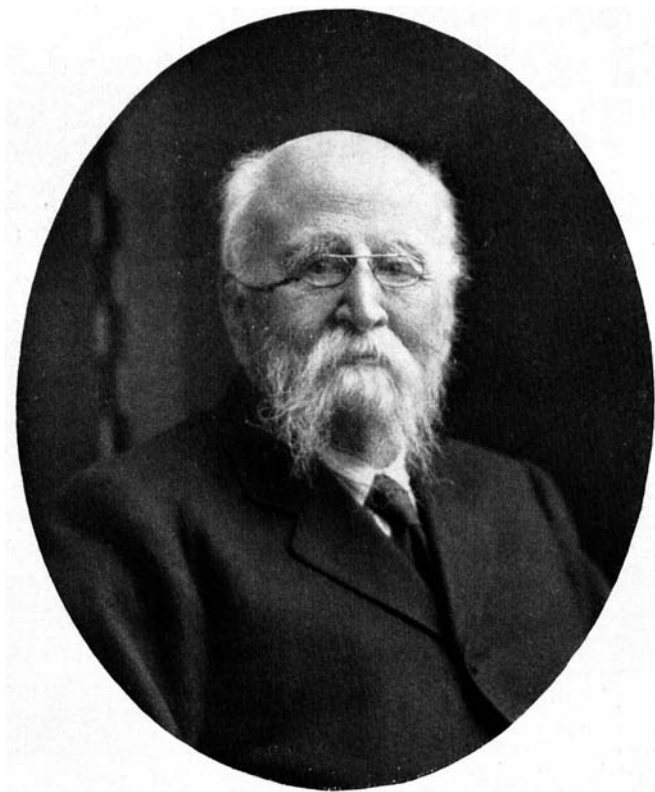
I must finish by stating that Danielssen was a doctor with a large general practice, perhaps the largest ever known in Bergen. But it is right to mention that he was one of those highly endowed personalities who possess the secret of remaining always young and find time for everything.

Danielssen died in 1894 at the age of 80 from pernicious anaemia, like his collaborator Boeck. This followed upon an attack of croupous pneumonia. In the end they pretended that he had died of chagrin at seeing that his theory about syphilisation, of which he had made himself a protagonist, was not as highly appreciated as he thought it should be.

At the autopsy they found, besides the old disease of his hip joint, marked tuberculous lesions of both lungs which had healed in the course of years. In the cicatrix of the inoculation with leprosy mentioned above there was nothing but scar tissue, and no sign either of leprosy or tuberculosis. Danielssen survived all his children; with one exception they all died of tuberculosis.



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