The physicist Karl Scheel, a son of the city of Rostock
Publicist in physics - Commemoration of his 150th birthday

By Werner Moennich, Hamburg, March 2016

(This german/englisch translation by Mrs. Henrike Wöhler on request of the abovementioned relative Werner Moennich)

March 10, 2016 marked the 150th birthday of Rostock's physicist Karl Franz Christian Scheel. He was born on March 10, 1866 in Rostock at Wollenweberstraße 10, and left important traces in the city, which, however, do not immediately leap to the eye.

His father was the master baker August Scheel and older brother to the later Privy Councillor of Commerce and Royal Danish Consul Wilhelm Scheel in Rostock. Originally, the Scheel family came from Schwaan. In the course of the 19th century, some family members were accorded citizenship in Rostock.

Karl was a bright boy, who grew up in Rostock in a cheerful family together with his three siblings. Across the street from his parents' house was the Ross bookbindery. Here, Karl learned the bookbinding trade and thus gained access to literature at a young age. This experience would later stand him in good stead in his journalistic work on physics. He also attended the "Große Stadtschule" grammar school, where he obtained his A-levels in 1885. This venerable building, which has survived up to the present day, is an architectural gem bearing eloquent testimony to Rostock's history. It now shelters the "House of Music".

The young man was fascinated by the natural sciences. He was especially interested in physics, which had become a centre of public attention at that time due to numerous developments and ground-breaking inventions. Karl's scientific curiosity was sparked. He began studying mathematics and natural sciences at the university of Rostock (where he was enrolled on April 15, 1885, according to the university archives). He continued his studies in Berlin, where he received his doctorate in 1890 with a thesis on

"The correlation of the expansion of water and temperature, analysed by means of the thermometric method".

However, he was not only a person who loved clear physical order, but he also thoroughly enjoyed life: He was a portly man full of bonhomie and as good-natured, cheerful and generous as his rotund form suggested.

Unfortunately, his union with his wife Melida remained childless. However, both of them always had a big heart for children, especially in the wider family circle. Visits to Aunt Melida and Uncle Karl were always pleasant and eventful: Aunt Melida always supplied plenty of cake and Uncle Karl invariably had a mischievous joke in store. He would then be archly ticked off by his dear wife: "Karl, my dear, what nonsense you are telling the youngsters!". Karl had a wonderful partner in crime in his smart tame gray parrot (unfortunately, its name has not been handed down), which was always a great attraction for the children of the family. Several family members love to recall the bird's ability to talk all kinds of "nonsense".

Uncle Karl often sat in his big woven armchair, from which he observed the family life with a benevolent eye, occasionally dozing off. His beloved parrot would then sit on the backrest and start gnawing it. A stern look and a harsh hand gesture from Uncle Karl were enough to make the exotic bird leave the cherished perch in a huff, well aware that "the fat one" was prone to nod off again – and there the parrot would be once more, happily continuing his gnawing undisturbed. This little spectacle repeated itself umpteen times to the great and unvarying delight of the children.

For years, Karl Scheel regularly spent his annual holidays with his beloved wife Melida, several family members and some physicist friends in Ilmenau (it is reported that he visited it some 50 times). In the early years of his life, the nature-loving young man roamed through his Mecklenburg homeland, but he likewise got to know the beauty of the Thuringian Forest through extensive hikes. This region with its unique natural beauty must have impressed and fascinated him so deeply that he remained attached to it throughout his life. Ilmenau, a tranquil, friendly town on the northern edge of the Thuringian Forest, may have inspired him creatively, not only because of its charming setting and the spa, but also due to the proximity of a number of scientific institutions. It is easy to imagine the stimulating "shop talk" that must have taken place between the intellectually rather illustrious company in such relaxed atmosphere and appealing surroundings inviting contemplation. Ideas and projects were concocted which later found their way into science and the public.

In Ilmenau, a memorial stone was erected on a hiking trail in Karl Scheel's honour in 1932, while he was still alive; in honours him not for his scientific merits, but for his loyalty to his annual holiday location.

Cf: "Die Henne" Ilmenauer Nachrichtenblatt of May 26, 1932, - The town honours a spa guest, place of honour for Privy Councillor Professor Dr. Scheel from Berlin - (PDF).

"His vantage point", complete with bench and memorial plaque (which was renewed in 1988), is still located on the Hertzer Promenade at the foot of the Lindenberg. The view of Ilmenau from this contemplative spot will continue to inspire and delight many a hiker.

Karl Scheel dedicated his scientific life to physics. He became a member of the Physikalische Gesellschaft zu Berlin (Berlin Physical Society) and initially began his professional career at the Physikalisch-Technische Reichsanstalt (PTR) as a scientific employee.

Later, he became managing director and secretary of the German Physical Society (DPG), of which he was made an honorary member in 1919. In 1913, he received the title Privy Councillor and took over the management of the technico-physical department of the PTR. In 1929, he was also awarded the honorary title of Dr. Ing. honoris causa by the Technical University of Stuttgart for his manifold publications in the field of physics. In addition, he received the Silver Leibniz Medal of the Prussian Academy of Sciences as a special award in 1931.

His extensive scientific journalistic activities and publications include essentially the following: As early as about 1902, he was editor-in-chief of the journal "Fortschritte der Physik" (Progress in physics) and editor of "Verhandlungen der DPG (Negotiations of the German Pgysical Society)"; in 1911, he published "Grundlagen der praktischen Metronomie" (Basics of practical metronomy) in "Die Wissenschaft - Sammlung naturwissenschaftlicher und mathematischer Monographien Heft 36"; from 1919 on, he collaborated on the editorial board of the "Zeitschrift für Physik" (Magazine for Physics), the world's leading physics journal in the 1920s; in 1923, he published the "Physikalisch Chemischen Tabellen" (Physical and Chemical Tables) together with Walther A. Roth; in 1924 and 1932, he edited "Physikalisches Handwörterbuch" (Pocket Dictionary of Physics) together with the physicist Hans Berliner; from 1926 to 1933 he was co-editor of the 24-volume "Handbuch der Physik" (Physics Manual, also known in professional circles as "Das blaue Handbuch" – The Blue Manual), together with e.g. the physicist Hans Geiger, the inventor of the Geiger counter.

Karl Scheel also became known as the author of numerous recognised scientific papers, for instance: "Fernthermometer" (Remote-reading thermometers) in "DINGLERS POLYTECHNISCHES JOURNAL Heft 1 Band 332. Berlin, 13. Jan. 1917. 98. Jahrgang" or "Die literarischen Hilfsmittel der Physik" (The literary tools of physics) in "Naturwissenschaften 13 (1925)" and many others. Literature by and about Karl Scheel is also listed in the catalogue of the German National Library. These Publications and working in various areas of physics are so numerous and are therefore not named individually at this point.

These activities received great recognition both nationally and internationally and testify to the enthusiastic and inspired curiosity of this Rostock native, Berliner by choice, and faithful visitor of Ilmenau.

Karl Scheel's scientific achievements consist above all in having made the many facets of the current developments and focal points of physical research accessible to a wide public. The promptitude and love of detail of these journalistic works testify to his tireless personal commitment. In this way, he succeeded in establishing physics as a central and universally recognised field of scientific development. His journalistic work thus paved the way for physics to become part of contemporary life. There probably is no physicist who does not, at some time or other in his career, come across the name of Karl Scheel.

He celebrated his 70th birthday on March 30, 1936 in Berlin with a large gathering, with his wife Melida, family members, friends and guests of honour, including lifelong companions such as the well-known physicists Ernst Brüche, Walter Grotrian, Max von Laue, Karl Mey, Max Planck, Carl Ramsauer and others. He died the same year on November 8 in Berlin. He is buried at the Luisenfriedhof III in the Lutheran Luisenkirchen Parish in Berlin-Charlottenburg.

In his obituary, Walter Grotrian describes Karl Scheel as the "faithful Eckart of German physics", aptly drawing a line between the deceased and a well-known literary figure from ancient legend and poetry. He thus characterises Karl Scheel as a brave, loyal and reliable comrade-in-arms and an honourable ambassador of physical science and research, to which his life was dedicated.

In accordance with the terms of his will, Prof. Dr. Karl Franz Christian Scheel is the founder of the Karl Scheel Student Award of the Physical Society of Berlin. Since 1994, it is annually awarded to the best A-level graduates from the Große Stadtschule Rostock (renamed Innerstädtisches Gymnasium Rostock in 2006), in the field of physics

He also endowed the Karl Scheel Award of the Physical Society of Berlin, annually awarded in Berlin since 1958 to scientists for outstanding scientific work.

All his life, Karl Scheel remained fondly attached to hometown and his Rostock family. The intensive and numerous family contacts reflect this love just as much as the endowment of the "Karl Scheel Student Award" to his former grammar school "Große Stadtschule" in Rostock, now traditionally continued at the “Innerstädtisches Gymnasium” in Rostock.

The commemorative plaque for Karl Scheel was put up again at the main entrance of the Innerstädtisches Gymnasium in summer 2014, in memory of this hard-working Rostock scientist. There is also a large commemorative plaque in one of the school’s physics labs with the basic life data and impressive achievements of Karl Scheel.

Numerous further reviews of Karl Scheel's work can be found in the members' journal of the Physical Society of Berlin (until 2001: "Physikalische Blätter", since 2002 "Physik Journal)".

These include:

„Der Karl-Scheel-Preis der Physikalischen Gesellschaft zu Berlin“ in - Physikalische Blätter Volume 47, Issue 2, Februar 1991, Pages: 126–127, G. Hildebrandt - http://onlinelibrary.wiley.com/doi/10.1002/phbl.19910470210/pdf

„Unser Geheimrat Scheel, Erinnerungen und Gedanken zur 100sten Wiederkehr seines Geburtstages“ in - Physikalische Blätter Volume 22, Issue 3, März 1966, Pages: 121–128, Ernst Brüche - http://onlinelibrary.wiley.com/doi/10.1002/phbl.19660220304/pdf

„Die Deutsche Physikalische Gesellschaft 1899–1945“ in - Physikalische Blätter Volume 51, Issue 1, Januar 1995, Pages: F-61–F-105, Armin Hermann http://onlinelibrary.wiley.com/doi/10.1002/phbl.19950510119/pdf

„Karl Scheel, Ernst Brüche und die Publikationsorgane“ in - Physikalische Blätter Volume 51, Issue 1, Januar 1995, Pages: F-135–F-142, Ernst Dreisigacker and Helmut Rechenberg - http://onlinelibrary.wiley.com/doi/10.1002/phbl.19950510122/pdf

„Ernst-Mach-Symposium am 11./12. März 1966 in Freiburg/Br./Frühjahrstagung des RV Württemberg-Baden-Pfalz vom 21. bis 26. März 1966 in Freudenstadt/Gedächtnissitzung zum 100. Geburtstag von Karl Scheel und Verleihung der Scheel-Preise am 4. März 1966 in Berlin/Hauptjahrestagung der Phys. Ges. in der DDR vom 14. bis 19. 4. 1966 in Leipzig“ in - Physikalische Blätter Volume 22, Issue 5, Mai 1966, Pages: 223–226, F. Kerkhof, N. N. Leipzig and H. R. Bachmann - http://onlinelibrary.wiley.com/doi/10.1002/phbl.19660220505/pdf

„Erinnerungen an Karl Scheel: Zum 20. Todestag“ in - Physikalische Blätter Volume 12, Issue 11, November 1956, Pages: 511–516, Professor Ernst Brüche -

http://onlinelibrary.wiley.com/doi/10.1002/phbl.19560121104/pdf

„Gedächtnisfeier für Karl Scheel in Berlin/Erste Deutsche Rheologentagung in Berlin/Zweite Internationale Konferenz über die Physik der tiefen Temperaturen/Achter Internationaler Kältetechnischer Kongreß in London“ in - Physikalische Blätter Volume 8, Issue 3, pages 132–139, März 1952, C. Ramsauer - http://onlinelibrary.wiley.com/doi/10.1002/phbl.19520080306/pdf

„Über wissenschaftliche Zeitschriften“ in - Physikalische Blätter Volume 8, Issue 3, März 1952, Pages: 122–130, Professor Ernst Brüche - http://onlinelibrary.wiley.com/doi/10.1002/phbl.19520080304/pdf

„Zeitschriften und literarische Unternehmungen: Aus der Vergangenheit für die Zukunft“ in - Physikalische Blätter Volume 3, Issue 5, Mai 1947, Pages: 148–151, Dr. H. Ebert - http://onlinelibrary.wiley.com/doi/10.1002/phbl.19470030504/pdf