

pelolithic, except in its upper portion, if the Portland and Purbeck beds are comprehended in the same stage. The Coral Rag is only an episode in the *pelolithic* series; it is absent throughout a distance of nearly 120 miles, and over this tract there is a complete passage from the Oxford into the Kimmeridge Clay, and a commingling of their respective faunas. No arrangement therefore will be natural which separates these two clays.

Lastly, if alternative names are required for the three stages of the Jurassic system, such as are suggested by Mr. Blanford for the similar stages of the other systems, I would propose the name *Clavinian* (from Clavinium, the ancient name of Weymouth) for the upper stage, the type of which is found in Dorsetshire and within easy access from Weymouth. For the middle stage or Gloucestershire Oolites, as they have been called, what more appropriate name can be found than one derived from the city which gives its name to the county, namely, *Glevonian*. For the lower stage the term *Liassian* already adopted on the Continent may perhaps suffice.

I append a tabular view of this classification, in which it will be seen that the Upper Jurassic simply combines what are now called the Middle and Upper Oolites. This arrangement has also the advantage of being in complete accord with that adopted by Credner for Germany.

JURASSIC.	{	Upper or <i>Clavinian</i> .	{	Purbeck group. Portland group. Kimmeridge Clay. Coral Rag. Oxford Clay.
	{	Middle or <i>Glevonian</i> .	{	Great Oolite and Cornbrash. Inferior Oolite. Midford Sands or Dogger.
	{	Lower or <i>Liassian</i> .	{	Upper Lias. Middle Lias. Lower Lias.

TRING, Oct. 2, 1884.

A. J. JUKES-BROWNE.

OBITUARY.

DR. FERDINAND VON HOCHSTETTER.

For. Corr. Geol. Soc. Lond., Director of the Imperial Mineralogical Museum, Vienna.

. BORN 30TH APRIL, 1829: DIED 18TH JULY, 1884.

AT the close of last year we recorded the death of the illustrious geologist Barrande (see *GEOL. MAG.* Dec. 1883, pp. 529-533). In Dr. Ferdinand von Hochstetter, Austria has again suffered a severe loss, and the world of science mourns the death of one of its most distinguished members. The subject of our memoir was born at Esslingen, Wurtemberg, on 30th April, 1829. His father was an Evangelical clergyman and Professor at Brünn, and published several Botanical works and a Handbook of Mineralogy. To his father was doubtless due his first impulses towards the study of Natural Science: for although he commenced his education

in the Evangelical Seminary at Maulbronn, and later on as an "Exhibitioner" at the University of Tübingen, he speedily recognized his true vocation as a Geologist. He always attributed his most valued scientific teaching in early life to Professor F. A. Quenstedt, whose suggestive instruction greatly influenced the direction of all his later work.

After obtaining his Doctor's degree, Hochstetter received a "Travelling Scholarship" which enabled him greatly to extend his scientific knowledge.

In 1852 Prof. von Haidinger invited Hochstetter to visit him in Vienna, and offered him a post on the Imperial Geological Survey of Austria. From this time Vienna became his home and the centre of his scientific labours.

From 1852 to 1856 Hochstetter was at first engaged as Assistant and latterly as Geologist-in-Chief on the Survey of South-west Bohemia, especially in the Böhmerwald, and in the Fichtel and Karlsbad Mountains.

His work in this district is considered amongst the best which the Survey has produced. It was published in the Annual Volumes IV. to VI. and resulted in making Hochstetter's name celebrated among geologists, and in establishing the reputation of the Austrian Survey. He popularized the work by articles "On the Bohmerwalde" (in the *Augsburg News*, 1855) and "On Karlsbad, its Geological Situation and Springs" (in 1856).

The next important period of Hochstetter's life, that from 1857–1859, was occupied by the "Novara Expedition," of which he was chosen as geologist. A voyage round the world with but short stoppages at distant and isolated stations might serve for general scientific investigation, but afforded but little opportunity for the geologist. How admirably Hochstetter turned these stoppages to account is seen by the first chapter of the Geology, forming vol. ii. of his Travels. This volume (with palæontological contributions by Prof. Reuss and Dr. Schwager) was published in 1866. Among the places noticed geologically may be specially mentioned Gibraltar, Rio Janeiro, Cape of Good Hope, the Island of St. Paul, New Amsterdam, Nicobar, Java and Stewart's Atoll in the Pacific.

In January, 1859, Hochstetter, with the consent of his chief, separated himself from the "Novara Expedition" at Auckland, having arranged with the Government of New Zealand to make a rapid survey of this British Colony. He first spent six months in gaining a general geological knowledge of the North Island, and devoted another three months to the investigation of the South Island. From thence Hochstetter returned *viâ* Australia, where he visited the Gold-fields of Victoria, back to Europe.

The scientific results of this undertaking appeared in the first volume of the "Geology of the Novara Expedition" (1864), viz.:— I. The geology of New Zealand by Dr. F. von Hochstetter, and II. The palæontology by F. Unger; K. Zittel; E. Suess; F. Karrer; F. Stoliczka; G. Stache; and G. Jäger: (and in the edition by J. Perthes, of Gotha, is added a topographical Atlas of New Zealand,

by Dr. F. von Hochstetter and Dr. A. Petermann). Hochstetter also published both in German and in English his "Travels in New Zealand" (Stuttgart, 1863). During the Novara Expedition he wrote and sent home reports of his travels which were published in 42 numbers of the "Wiener Zeitung."

Within two months after his return (on the 29th of February, 1860) Hochstetter was appointed Professor of Mineralogy and Geology in the Royal and Imperial Polytechnic Institute in Vienna, a post which he held until 1874. Here he published a Text Book of Mineralogy and Geology, which completed its 5th edition in 1884. In 1869 he was invited to study the geology of the country along the lines of railway then in construction between Constantinople and Belgrade, in company with the engineers and surveyors. The result of his researches, with appropriate maps and sections, appeared in the Jahrbuch der k.k. geol. Reich. Vienna (1870, Bd. xx. and 1872, Bd. xxii.), and was very fully noticed in the *GEOL. MAG.* Vol. VIII. 1871, pp. 466-473, and Vol. X. 1873, pp. 274-277.

In 1872 Hochstetter undertook with Prof. Toula a journey through Russia to Boguslow and Turjinsk on the eastern side of the Urals.

He was made president of the k.k. Geological Society of Vienna in 1867, a post which he held until 1882, when he resigned the chair through ill-health.

Hochstetter was selected in 1872 by the Emperor of Austria as tutor in natural history to H.S. Highness the Crown Prince Rudolph.

Some idea may be formed of the versatility of Prof. von Hochstetter's genius from the scientific subjects which are embodied in his publications.

Besides those already enumerated may be cited "‘Earth-oil’ and ‘Earth-wax’ in the Sandecer District, Galicia" (1865), "On the alleged Trachyt-find of Ortler" (1865), "Deep-soundings in the lake of Kärnten" (1865), "On the Slate-quarries of Maria-thal in Hungary" (1866), "On the Eozoon of Kruman," "On the Coal and Iron-works of Anina-Steyerdorf" (1867), "Section through the North side of the Bohemian Chalk Formation from Wartenberg to Turnau" (1868), "Reptilian Impressions in the ‘Rothliegende’ of Rossitz-Aslawan" (1868), "Rhinoceros-remains from Grassengrün in Bohemia" (1871), "Orthoclase crystal of Koppenstein in the Carlsbad Mountains" (1872), "Remains of *Ursus spelæus* in the Igritzer Cave in Biharer, Hungary" (1875), "*Cervus megaceros* of Nussdorf" (1875), "The Earthquake of Peru on Aug. 13th, 1868," and "The Tide-wave in the Pacific Ocean from 13th to 16th August," "Experiments on the internal structure of Volcanos and on the Miniature Volcanos of Schwefeld" (1870).

In 1876 he was made Superintendent of the k.k. State Natural History Museum in Vienna, and was occupied incessantly in its reorganization until the day of his death, July 18th, 1884.

His loss will be keenly felt by a large circle of friends in Austria and elsewhere, by whom Prof. Hochstetter was warmly appreciated and justly admired.

