

Journal of Agriculture, and the Transactions of the Highland and Agricultural Society of Scotland. N. S., No. XLVII. 8vo.
From the Society.

Almanaque Nautico para el año 1855. (San Fernando.) 8vo.—
From the Marine Observatory of San Fernando.

Jahrbuch der Kaiserlich-Königlichen Geologischen Reichsanstalt 1853. No. 3. (Juli, August, September.) 8vo.—*From the Institute.*

Transactions of the Royal Scottish Society of Arts. Vol. IV., Part 2. 8vo.—*From the Society.*

Proceedings of the Royal Society. Vol. VI., Nos. 91–101. 8vo.—
From the Society.

Boston Journal of Natural History, containing Papers and Communications read before the Boston Society of Natural History, and published by their direction. Vol. VI., No. 3. 8vo.

Proceedings of the Boston Society of Natural History. Jan. 1, 1851—Nov. 16, 1853. 8vo.—*From the Society.*

Proceedings of the American Academy of Arts and Sciences. Vol. III., pp. 1–104. 8vo.—*From the Academy.*

Monday, 15th January 1855.

DR TRAILL, Curator of the Library, in the Chair.

The following Communications were read :—

1. Some additional Experiments on the Ethers and Amides of Meconic and Comenic Acids. By Henry How, Esq. Communicated by Dr Anderson.

The author commenced by alluding to his analysis of amidomeconic acid in a previous paper, and to the objections urged against the formula he had assigned to it.

By referring to his former analyses, and to a later one, he showed that the empirical formula of the acid could not be that suggested by Messrs Wurtz and Gerhardt, but that his results could only lead to that which he had formerly given, namely—



The discovery of a new ammonia salt of this acid, differing from the yellow one formerly described, has led him to modify the rational formula of the acid ; and he now gives for the acid and its two ammonia salts the formulæ,

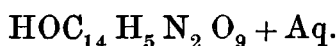
Meconamidic acid, $6 \text{HOC}_{84} \text{H}_{24} \text{N}_7 \text{O}_{63} + 9 \text{HO}$.

Yellow ammonia salt, $6 \text{NH}_4 \text{OC}_{84} \text{H}_{24} \text{N}_7 \text{O}_{63} + 3 \text{NH}_3 + 6 \text{HO}$.

White do. do., $6 \text{NH}_4 \text{O}, \text{C}_{84} \text{H}_{24} \text{N}_7 \text{O}_{63}$.

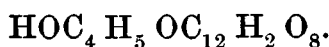
He added, however, that these formulæ deviated much from what analogy would lead us to expect ; and that this want of analogy with other compounds could only be cleared up by farther investigation.

He then described an amide, biamidomeconic acid, obtained by the action of ammonia on biethylated meconic acid. Its formula is—



He mentioned also the formation of a black oily substance, possibly the triethylated meconic acid.

The next section of the paper treated of the action of iodide of ethyle in comenic acid, which yields the substance formerly described as comenamic or ethylocomenic acid,—



This the author considers to be the true comenic ether. On trying to obtain an analogous amyle compound, he obtained what seemed to be the same ethyle compound.

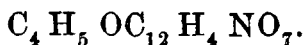
He next stated that comenic acid, heated to 300° F. with water for some days, undergoes entire decomposition, the products being carbonic acid, and a shining black solid, not yet examined.

He then described the action of hydrochloric acid on comenic acid and alcohol, which yield a curious compound, which crystallizes in long silky needles, and the formula of which is—



It is readily decomposed, yielding comenamic ether. It is therefore a compound of that ether with hydrochloric acid.

Comenamic ether is readily obtained from it by the action of ammonia on its hot aqueous solution. The ether forms colourless prisms, the formula of which is—



By nitric acid it is converted into binoxalate of ammonia. When heated, it melts at above 400° F., and on cooling, concretes to a crystalline mass, or sometimes takes the form of a pillared solid mass.

The paper concludes with a tabular list of the compounds described in it, with their formulæ.

2. On a Revision of the Catalogue of Stars of the British Association. By Captain W. S. Jacob, H.E.I.C., Astronomer at Madras. Communicated by Professor C. Piazzi Smyth.

After a brief allusion to the importance of catalogues of stars in general, as the foundation of exact astronomy, the circumstances connected with the publication of the important Catalogue of Stars by the British Association were mentioned.

Many of the materials were well known to be imperfect at the time of printing, but that step, it was thought, would strongly induce all astronomers to improve the defective portions.

This has since been found to be the case extensively, and the present paper is an important contribution to that end.

After mentioning his practical methods of ensuring the greatest possible accuracy, Captain Jacob describes the result of an examination of 1503 out of the 8377 stars of which the Catalogue of the Association consists, and states that the large number 55 are altogether missing in the sky, that 71 differ from their computed places by more than 2 sec. of time, or 10" of N.P.D.; but that the rest are all very exact, seldom differing by more than 0.2 of a second of time.

Some of the above cases of large difference, he thinks caused by proper motion, and recommends further observations at a future period, to settle the question.

3. Notice of Ancient Moraines in the parishes of Strachur and Kilmun, Argyleshire. By Charles Maclaren, F.R.S.E.

The first of the moraines referred to is in Glensluhan, a valley near Strachur, about two miles and a half in length, and two-thirds of a mile in breadth. It is bounded on the east, west, and south