2. On certain Laws of the Resistance of Fluids. By John Scott Russell, Esq.

3. Chemical Examination of the Tagua-Nut, or Vegetable Ivory. By Professor Connell.

This remarkable nut is now well known as being extensively carved into ornaments, having the high polish and general appearance of the finest ivory.

It is a seed or nut of a palm called *Rhytelephas macrocarpa*, which is found on the banks of the Magdalena river, in the republic of Columbia.

For analysis the fine turnings of the vegetable ivory were employed. These were well rubbed in a mortar successively with cold and hot water, and were then heated with hot alcohol. The constituents were found to be—

Gum,	6.73
Legumin or Vegetable Casein,	3.8
Vegetable Albumen,	0.41
Fixed Oil,	0.73
Ashes,	0.61
Water,	9.37
Lignin or Woody Matter,	81.34
	<hr/>
	100.

In the ashes were found phosphate of lime, sulphate of potash, chloride of potassium, carbonate of lime, and a little siliceous matter.

The following Donations to the Society's Museum were announced :—

14 Specimens of British land and fresh-water Shells. Presented by the Honourable Mrs MACADAM CATHCART.

Block of Sandstone, with organic remains imbedded in it, found in one of the dry docks at Leith, when enlarging it; originally from Rosyth Quarry, Fifeshire. Presented by Captain PATRICK DALL, R.N.

Portrait of James Mitchell, at the age of 46 years, well known, and described in the Transactions of this Society, by the late Professor Dugald Stewart and others, as the blind, deaf, and dumb boy. This portrait was given by his sister, Jane G. Mitchell, to, and was presented by, Sir THOMAS DICK LAUDER, Bart.

The following Donations to the Society's Library were announced.

- Proceedings of the Geological Society of London. Nos. 94, 95, and 96.—*By the Society.*
- Journal of the Statistical Society of London. Vol. vi. pt. 4.—*By the Society.*
- Journal of the Asiatic Society of Bengal. Nos. 50, 51, and 52.—*By the Society.*
- Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences de Paris. Tome xvii., Nos. 20, 21, 22, 23, and 24.—*By the Academy.*
- The Journal of Agriculture, and the Transactions of the Highland and Agricultural Society of Scotland. Jan. 1844.—*By the Society.*
- Elements of Agricultural Chemistry and Geology. By James F. W. Johnston, M.A., F.R.S.S.L. & E., &c.—*By the Author.*
- Transactions of the Institution of Civil Engineers. Vol. iii., pts. 2, 3, 4, and 5.
- Minutes of Proceedings of the Institution of Civil Engineers for Sessions 1840–41–42–43.—*By the Institution.*
- Flora Batava. Nos. 129 and 130.—*By the King of Holland.*
- Descriptive Catalogue of the Anatomical and Pathological Museum of the School of Medicine, Park Street, Dublin. By John Houston, M.D.—*By the Author.*
- Transactions of the Society instituted at London for the encouragement of Arts, Manufactures, and Commerce. Vol. liv.—*By the Society.*
- The Journal of the Royal Asiatic Society of Great Britain and Ireland. No. xiv.—*By the Society.*
- Tijdschrift voor Natuurlijke Geschiedenis en Physiologie. Uitgegeven door J. van der Hoeven, M.D., en W. H. De Vriese, M.D. Deel x., Stuk. 4.—*By the Editors.*
- Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Gottingen. Band 1.—*By the Society.*
- Nova Acta Academiæ Cæsareæ Leopoldino-Carolinæ Naturæ Curiosorum. Vol. xviii., Suppl. ii., et Vol. xix., Pars. ii.—*By the Academy.*
- Almanach der Königlichen bayerischen Akademie der Wissenschaften. 1843.—*By the Academy.*
- Twenty-third Report of the Council of the Leeds Philosophical and Literary Society. 1842–43.—*By the Society.*
- Bulletin de la Société Impériale des Naturalistes de Moscow. 1842, No. 4, et 1843, Nos. 1, 2, 3.—*By the Society.*