amylum congestum et simili candore, interdum multus, nonnunquam vero perpaucus. Sed non omnes arundines sive rami eum humorem continent, at ii dumtaxat quos Bisnager, Batecala et pars Provinciae Malavar profert. Hic autem liquor concretus interdum nigricans et cinereus invenitur, sed non ideo improbatur. Nam aut ob nimiam humiditatem, aut quod diutius ligno inclusus permanserit, hunc sibi colorem conciliat: non autem ob arborum incendium, veluti nonnulli putarunt. Siquidem in multis ramis, quos non contigit ignis, niger etiam invenitur."

Garcia also gives information as to the medical virtues of tabasheer, which were esteemed to be very important at that time: "Ceterum ex Medicorum tum Indorum, tum Arabum, Persarum, et Turcorum testimonio Tabaxir internis et externis convenit ardoribus, tum etiam biliosis febribus et dysenteriis: praesertim autem in biliosis fluxionibus utuntur; nostri vero trochiscos ex eo conficiunt addito semine Oxalidis."

Almost all præ-Linnean writers who mentioned tabasheer for the most part only reproduced what they found in Garcia's book. Joh. Bauhinus even identifies the name of tabasheer with the plant itself, which he calls in his "Historia Plantarum," i. 2, p. 222, "Tabaxir sive Mambu arbor, Tabaxir folio oleae." Rumphius in his "Herbarium Amboinense," of the year 1763, relates that he had never found any trace of tabasheer in the bamboos growing in the Molucca Islands, except on one occasion:—"Juniores arundines plerumque in inferioribus suis nodis semi-repletae utcunque sunt lympida aqua potabili, quae hisce in terris sensim evanescit, in aliis vero regionibus exsiccatur in substantiam albam et calceam, quae Tabaxir vocatur. Illud tantum addere debeo, mihi in Hituae ora moranti semel adductum fuisse per pueros meos substantiam albam, siccamque instar farinae amyli, quae in illa ora ab illis fuerat detecta, quantum recordor, in Bulu seru (*Beesha humilis*, Kunth, *Bambusa Fax*, Poir.) fistulis, dura autem erat, sicca, ac penitus insipida omnibusque Aethiopibus, quibus ostendebam, ignota, ipsiusque albido sensim in cinereum degenerabat colorem."

Further information on tabasheer is given by Piso, a well-instructed Dutch physician, in the year 1658, but I am inclined to think that he is wrong in identifying "Achar," a sweet dish celebrated in India as well as in Europe at that time, with the tabaxir of the Eastern peoples. But let us hear what he says:—"Novissimi autem stolones, qui maxime succulenti sunt et saprosi magni fiunt in Indiis, apud Advenas aeque ac Indigenas, quod bases sunt celebris istius compositionis 'Achar' dictae, quae in Europam invecta in deliciis habetur palutum doctis, et a me quoque non semel cum voluptate gustata est. At vero ubi hae Arundines procerae et annosae factae fuerint, liquores contenti substantia, color, sapor, et efficacia mutantur, atque paullatim protruditur foras et iuxta internodium vi Solis coagulatur ac instar pumicis albi indurescit, mox nativae suavitatis expers facta, peculiarem saporem cum parva adstrictione, eboris usti aemulum acquirit, vocaturque apud indigenas 'Sacar Mambu'—Tabaxir Garciae et Acostae—qui quo levior, albicantior ac glabrior eo praestantior: quo magis inaequalis atque cinerei coloris evadit, deterior habetur."

Though it is very probable that under certain circumstances almost all species of the genus Bambusa and its allies are able to produce tabasheer, but few are specially mentioned as capable of producing this interesting substance. All the species that I have found noted in the literature of earlier and modern times are the following: (1) *Bambusa arundinacea*, Retz, or the common bamboo; (2) *Bambusa spinosa*, Roxb., which is called by Burmann, 1737, in his "Thesaurus Zeylanicus," "Arundo indica arborea maxima cortice spinosa Tabaxir fundens"; (3) *Beesha humilis*, Kunth, which is Rumph's bamboo mentioned above; (4) *Beesha Rheadii*, Kunth, and (5) *Guadua angustifolia*, Kunth, the species from which Humboldt's specimen of tabasheer was taken. ERNST HUTH.

Frankfurt, Oder, April 17.

A Brilliant Meteor.

I SAW here this evening a splendid meteor; time, by London and North-Western Railway, 8.19. Its apparent point of origin was nearly south, and altitude 45° from the zenith; its path from east to west; finishing about west-south-west, some 30° from the horizon; duration at least four seconds. It increased in brilliancy until near extinction, when it quickly faded in a dull red glow, like that of the residuum from the fire-ball of a rocket. The head, of an apparent brilliancy three times that of a star of the first magnitude, had precisely the appearance of the incandescent spot of the oxy-hydrogen light, and the tail, very long, exhibited a red glow. Some neighbouring trees and the chimney of a house enabled me with a pocket compass to get the altitude and bearings approximately. ARTHUR NICOLS.

Watford, May 8.

THE following particulars relating to a very fine meteor may be of service in fixing its course if it was seen elsewhere:—

(1) Position of observation: the open space in front of St. Anne's, Soho.

(2) Size: three or four times > Venus.

(3) Colour: decidedly green.

(4) Path: it was first seen somewhere near γ Geminorum, and in two or three seconds disappeared slowly behind the houses in the direction of Aldebaran.

(5) Time of disappearance: 20h. 22m. 19s. May 8.

The time can be relied upon, as my watch was compared on Saturday and again this morning with G.M.T.

Saturn was just visible, and Venus, therefore, must have been very bright, yet she seemed quite dull and yellow by the side of the splendid fireball. MAURES HORNER.

28 Upper Montagu Street, W., May 9.

P.S.—γ Geminorum was of course invisible, and Aldebaran behind the houses.

ON Sunday, the 8th inst., at 8.23 p.m., a very brilliant meteor was seen here by a party of four persons, of whom I was one. When I first saw it, it was almost in the zenith, and appeared considerably larger and more luminous than Venus (which had been visible for some time), though of much the same colour. It crossed the sky in a north-westerly direction, and became invisible about 17° above the horizon. As it travelled, a brilliant trail of red light appeared behind it, which increased in length and brightness as it descended, being fully three times longer than the head, when it attained its greatest length.

The meteor was one of striking brilliance, and must have been specially so, as the sky which it crossed was still bright with the yellow glow of sunset. ISABEL FRY.

5 The Grove, Highgate, May 10.

Residual Affinity.

I WAS greatly interested in Prof. Armstrong's recent articles on "Residual Affinity," as it is a subject I brought before the Royal Society of Edinburgh fully nine years ago, as one of the main causes of solution, molecular compounds, &c. I was, however, somewhat disappointed with the conclusions he came to, and was tempted to exclaim in Scriptural language, "Ye did run well; what did hinder you that you are again entangled in the yoke of *bond*age?" Prof. Armstrong comes to the conclusion that HCl and NH_3 combine owing to the residual affinity of Cl for N. Now how can this be? If we regard it from a thermal point of view, we find that, in the combination of HCl with NH_3, 41,900 units of heat are given out, while the combinations H with Cl and N with H_3 give out 22,000 and 11,890 units respectively; that is, the residual affinity of N for Cl, as measured by heat, exceeds by about one-third the sum of the affinities of H for Cl and H_3 for N; and yet, under ordinary circumstances, Cl has very little affinity for N. Is it not more rational to conclude that the residual affinity is not confined to the negative elements, but extends to both, and that the combination of HCl and NH_3 is due mainly to the residual affinity of Cl and N for H? It is easy to understand that this residual affinity is so lowered in intensity that neither Cl nor N can retain unassisted more than one and three atoms; but when the energy of the H is reduced by combination with another body, each of them can then act upon it. That residual affinity exists in both positive and negative elements seems to me evident from the fact that the heats of solution of salts in water vary directly as the affinity of the metal for the O of the water and also directly as the affinity of the negative element for the H, as I have pointed out in my letter on "Laws of Solution," in NATURE, vol. xxxiv. p. 263. It seems strange to me that chemists will search out for occult causes of phenomena which can much more easily be explained by what is already known of