masses, many of an uniform size, separated by the above-mentioned clear, transparent channels.

The general appearance of this transverse section inclined one to regard the stone as built up of a number of conical spicules, with their vertices pointing towards the vertex of the stone.

This was confirmed by the fact that one of the stones, whilst melting, was squeezed between the thumb and finger, and immediately fell apart into three distinct spicules.

SAMUEL N. PLAYER.

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Dendritic Patterns caused by Evaporation.

I WAS glad to see the note (with illustrations) published in NATURE (June 23) on this subject. Among the specimens which I did not mention in my paper are two microscope slides similar to those described by Prof. G. H. Bryan. They are botanical slides from the collection in my laboratory at Bedford College, and as they were bought specimens, I was not certain that they had been mounted in glycerine jelly, although I believed it was probably the medium used. I therefore laid them aside for future work, and am now pleased to find the probability confirmed. I wished also to make further experiments on the relation of the structure to the included specimen.

I should like to point out, however, that although the medium does not contain recognisable particles in suspension, we may look upon the jelly as representing material in an extremely fine state of division, as it were, so that the principle of formation may be similar to that in the other slides described.

July 1.

CATHERINE A. RAISIN.

Solar Halo of July 3.

IN case it may interest your readers, I write to say that there has been a magnificent halo round the sun, lasting almost without interruption from 4 p.m. to 6 p.m.

It varied in intensity during the time of its visibility, and also in colour. When at its best it was distinctly bluish at its outer margin, shading through yellow to red; the more decidedly green and pink tints of the rainbow seemed to be wanting. But the most conspicuous feature of the apparition was the comparative darkness of the sky within the ring. The halo appeared as if fringing a dark storm-cloud; but that this was not really the case, was evident from the sun's appearance.

All day, in fact for several days past, the sky has been exceptionally much decorated with fantastic cirrus clouds, and this afternoon, at the time of the halo, veils of cirrus concealed almost all the blue; while a lower layer of cumulus clouds drifted up from the west and gradually obscured the sun, halo and all, for a time.

I do not know if the halo formed a complete ring round the sun, as trees partly concealed my view; but I was able to trace it for fully three-quarters of its circumference.

Bradfield, Reading, July 3. CATHARINE O. STEVENS.

A Monochromatic Rainbow.

A CURIOUS rainbow was observed here on Friday evening last. Heavy rain falling in a dark southern sky formed the lower portion of one limb of a bow, extending about 10° directly towards the zenith. The red band alone was visible, and lasted *after sunset* (which occurred at 8.40 for our horizon, and some ten minutes earlier below the Howgill Fells), for a full quarter of an hour.

A. J. K. MARTYN.

Sedburgh, July 3.

CAST METAL WORK FROM BENIN.

AMONG the spoils, interesting to ethnologists, brought back from Benin by the punitive expedition under Admiral Rawson, was a large number of elaborately carved elephant's tusks, some of them of remarkable length; various smaller objects in ivory; profusely ornamented wooden panels forming doors and looking-glass frames, and hundreds of objects of great multiplicity of design cast in metal, both in the round and in high relief. The wonderful technical skill displayed in the construction of the metal objects, their lavish ornamentation, much

of which is deeply undercut, and in nearly every case the high artistic excellence of the completed subject, have been a surprise and a puzzle to all students of West African ethnology. If they have now begun to recover from their surprise that work of such excellence, indicating skill born of long experience, should have come to light from among so barbarous a race, and that no whisper of its existence should have reached Europe, notwithstanding its great abundance (as attested by the numerous pieces exposed in London and provincial auction rooms, in addition to the hundreds of plaques and figures sent to the British Museum); there has, at all events, been as yet no elucidation of the mysteries—who were its manufacturers, where and when was it executed, and whence did they derive the knowledge of this art?

Although the city has been described as being, in the middle of the seventeenth century, "of greater civility than to be expected among such Barbarous People," none of the travellers who, within the past two or three hundred years, have left accounts of their visits to Benin, have described this metal work as a special feature of interest there. If the amount that has already found its way to Europe had been displayed in the king's or chiefs' houses, or in their public buildings, it could not surely have failed to attract attention and remark. The artificers and their appliances for the manufacture of works, on so large a scale, could hardly also, one would suppose, escape notice, or be passed over in silence, if observed. More than one traveller mentions seeing blacksmiths at work and turning out good workmanship, "considering the appliances they have"; but no foundry work or modellers in clay or wax are referred to.

Tusk-holders in the form of human-headed vases have certainly been alluded to; and the nearest approach to a description of the plaques is the "melted copper whereon are Ingraven their Warlike Deeds and Battels, kept with exceeding curiosity," mentioned in Ogilby's collection of African travels. Few, however, if any, of the plaques brought to Europe display warlike deeds or battle scenes. The accompanying illustrations are taken from examples lately acquired by the City of Liverpool, and described by Dr. Forbes in vol. i. No. 2 of the *Bulletin of the Liverpool Museums*—a recently established periodical, intended to make known the contents of the Derby (or Zoological) and the Mayer (or Ethnological) Museums, and the results of the investigations carried on in the laboratories attached to them.

Fig. 1 represents a small plaque, used as a lid of a box, or perhaps as a pendant, in which the king or some high personage is shown, supported by two slaves; while in Fig. 2, is illustrated one of the human-headed vases which sat on the altar in the king's principal Juju-house, supporting a carved elephant tusk. The head-dress of this figure is a network of coral strings with pendants, set off on both sides by rosettes of larger beads of a different sort. Encircling the neck as high as the lower lips are thirty-one coral ropes, forming the collar, which is the insignia of a high dignitary.

On the face may be observed his tribal marks, consisting of three raised weals over the outer corners of each eye, and of two long perpendicular lines running down the front of the forehead above each inner corner. These last probably represented ordinary tattoo marks on the brow, as they are represented by bands of iron, ingeniously let into the metal during the casting. In the same way the pupils of the eye are formed by round discs of iron. The whole figure has been very carefully chiselled over; and when it was newly finished, there is little doubt that the steel-blue tattoo lines and the glistening pupils gave to the face and eyes a very life-like appearance.

The projecting circular flange of the base has depicted