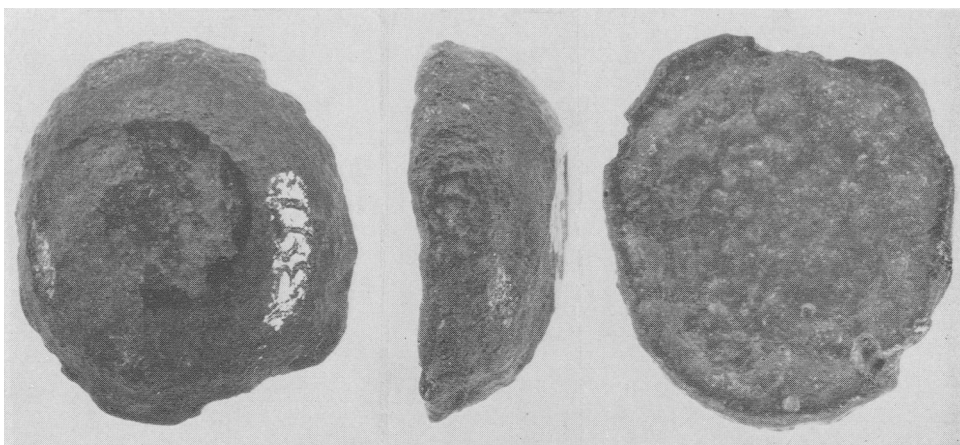


## SHORT COMMUNICATIONS

MINERALOGICAL MAGAZINE, JUNE 1969, VOL. 37, NO. 286

### The Nallah meteorite, Western Australia—A small oriented common chondrite showing flanged button australite form simulation

A SMALL meteorite found near Cocklebiddy, Western Australia by A. J. Carlisle in May 1968 shows oriented form simulating, in a remarkable manner, that of a flanged button australite. The locality of the find is  $31^{\circ} 58' \text{ S.}$ ,  $126^{\circ} 15' \text{ E.}$ , and the site is half a mile south-east of Nallah Nallah Rockhole (shown in fig. 22, p. 708 of McCall and Cleverly, 1968).



FIGS. 1-3: Fig. 1 (left). Anterior (convex) surface, showing a polished facet artificially prepared to reveal the chondritic texture. Fig. 2 (middle). Side view showing the convexity of the anterior surface. Fig. 3 (right). Posterior surface, showing the distinct flange, and the flat, rough surface enclosed within it. Maximum dimension 0.85 in., all three photographs on the same scale. 10391, School of Mines, Kalgoorlie collections.

The mass weighs only 4.617 g, is an entirely fusion-crust-coated 'button', with a sharply convex anterior surface, a distinct flange directed towards the posterior surface in ablation flight, and a more or less flat posterior surface, recessed within the enclosing flange (figs. 1, 2, and 3). The flatness of the posterior surface (as opposed to the typical convexity of the posterior surface of a flanged button australite) probably reflects the fact that the meteorite ablated was not spherical. The button is slightly

oval (0.85 × 0.75 in.), and the depth of the button is 0.3 in. There is no ring wave pattern. The fusion crust is chocolate brown and slightly rougher on the flat posterior surface. The specific gravity is 2.89, the low value reflecting, presumably, the large proportion of fusion crust. It is not proposed to cut this mass, but an area of scarring on the anterior surface has been polished and shows the typical character of a common chondrite, chondrules being clearly visible. The olivine has been determined by Dr. B. Mason at the Smithsonian Institution, Washington, on a sample of scratched-off powder from the meteorite, as  $\gamma$  (maximum) = 1.706, while the one orthopyroxene grain determined gave  $\alpha$  = 1.670. These values are consistent with classification as an olivine-bronzite chondrite.

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#### REFERENCE

McCALL (G. J. H.) and CLEVERLY (W. H.) 1968. *Min. Mag.* **36**, 691–716.

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## The Koso-sho 'meteorite'

IN 1946 this institution received in exchange from the National Science Museum, Tokyo, Japan, a small piece (18 g) of metallic iron, cut from a larger mass; it was labelled 'meteorite, Koso-sho, China', and was entered in the collection as no. 1433. When the cut surface was polished and etched it showed none of the features normally characteristic of iron meteorites. X-ray fluorescence analysis by Mr. J. Nelen of this institution showed major iron, minor chromium and manganese, and no nickel. We conclude that the specimen is a piece of manufactured iron, and is not a meteorite.

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