stones with a total weight of 107¾ lb. This is the best example of a meteoritic shower to be seen in the collection. The stones, ranging in weight from 5,245 grams (11½ lb.) to 17·5 grams, were collected over a track extending 41 miles west to east near Tenham station in the Gregory South district, and they had long remained in private hands. An unpublished chemical analysis, made in 1913 in the Government Chemical Laboratory at Brisbane, shows a striking similarity in composition to the Baroti (India, fell 1910) meteoric stone. Showers of meteoric stones have evidently been produced by the breaking up of a single large mass of friable material in the earth's atmosphere.

(3) " Some Unusual Twin-laws observed in Potash-felspars from Goodsprings, Nevada, U.S.A." By Dr. J. L. E. Drugman.

This locality is unique for fine, sharply defined felspars and the object of this preliminary note is to show the general possibilities of the occurrence for the confirmation of rare or new laws. Besides unusual variants in habit of the Manebach and Baveno laws, examples of other rarer laws and, possibly, new ones will be shown, e.g. twinning on face ($\bar{1}12$), on axis [$\bar{1}12$] and on [110], and on ?($\bar{3}02$).

CORRESPONDENCE.

THE PURBECK FAULT.

SIR,—Dr. Arkell is to be congratulated on publicly challenging the very possibility of the section at Ballard Head being due to an overthrust from the north. I have many times cudgelled my brains both on the spot and away from it to find any sequence of events mechanically possible which would admit of the slightest overthrust from the north to wind them up and leave such a section. But the considerations that always finally defeated my efforts seem to be equally fatal to Dr. Arkell's alternative proposal. For the whole length of Studland Bay the chalk is of very uniform character, firm and standing well in large blocks, but never hard and always readily sectile. This seems almost impossible in chalk through which has been transmitted a powerful horizontal thrust against an enormously massive and hard " horst " : and I am not sure that it is not more improbable in chalk that has had a series of bendings to and fro passed through it as postulated by Dr. Arkell's theory. Now chalk which has gone through such an experience *might* afterwards be reconsolidated with its original character ; but such an explanation is ruled out by the impossibility that such delicate and brittle fossils as *Crania*, or spines of *Cidaris*, or branching Polyzoa, which occur very consistently in great perfection, could have survived such an experience or be reconstructed after the inevitable splintering. The only direction in which I see any hope is in a theory which provides a final stage in which the fault which has preserved the chalk which supports the Tertiaries and emerges from beneath them to the north on the Puddletown-Bere line, from being involved in the upthrust to the south, shall open sufficiently

to allow the approximately horizontal chalk to the north to sink slightly and have its edges caught up along the fault. For the chalk north of the fault to retain so far its original character the gentlest form of bending, which is sagging, should be invoked.

A noticeable assertion by Dr. Arkell is that where the fault reaches the foot of the cliff the chalk south of, or below, it is younger than that north of or above it. Has he any evidence to support this relative dating? It is a point of cardinal importance, if it can be established.

A very great difficulty in this case is to remember constantly that the cliff line in Studland Bay is broadly parallel to the Purbeck fault, not at right angles to it, and therefore nowhere at any great distance from it, and that any dip visible in Studland Bay is mainly, if not wholly, attributable to the system of very broad undulations: with north and south axes, which carry the gently synclinal chalk underlying the Tertiaries out of sight between Corfe and Lulworth, and then bring it up to a very considerable height about Lulworth. In this latter block the chalk appears to be practically horizontal, the chalk around Wool not yielding *Magas pumilus* so far as is known and being therefore basal *mucronata* and that of Coombe Keynes and the edge of Lulworth Park yielding *Magas pumilus* but not much variety or abundance of other fossils and being apparently "lower *mucronata*" of Spencer while that on the high ground above Lulworth yields *Magas pumilus* with a variety of other fossils comparable with those of the chalk of Studland Bay, which is "middle *mucronata*" of Spencer, and being perhaps even somewhat richer and therefore presumably younger than the latter chalk. It would be very interesting to know if this chalk bends up sharply on approaching the Purbeck fault, as is strongly suggested by the behaviour of the *quadratus* chalk in Bat's Head.

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21st May, 1936.

THE GEOLOGY OF KAVIRONDO.

Sir,—In his paper on "The Geology of an Area in the Kavirondo District, Kenya Colony" (*Geol. Mag.*, January, 1936), Dr. Pulfrey says:—

"Previous to 1931 the Kakamega area, in the Central Kavirondo Reserve of Western Kenya, was almost unknown from a geological standpoint. Gregory had made brief references to it, but no detailed geological or petrographical examinations had been made of any part. Following on the discovery there in 1931 of alluvial and reef