similar patterns of strata in the moist-temperate belts is a question that offers itself for investigation. Which, that is to say, will be the escarpment-forming members of a heterogeneous series under different condition of weathering? According to Carey, sandstone beds at any rate are escarpment-makers and pelitic beds are weak in New Guinea, as they generally are in temperate regions. In some parts of northern New Guinea, I am informed, there are ridges bounded by great escarpments formed or capped by Tertiary limestone strata.[1] It thus appears that, in spite of the obvious rapidity of its destruction by solution, limestone remains a relatively resistant rock in that region.

Malaya lacks a cover of young sedimentary strata such as yield the prominent strike ridges of New Guinea.[2] On the older formations, and especially on the granite areas, Malayan weathering is rather sporadic and inconsequent in its selectivity. Quartz, for example, appears *sometimes* to be more susceptible to chemical attack than is feldspar. Though quartz is soluble to some considerable extent, granite is weathered much more rapidly than quartzite, however. So also are shales and schists. Instances quoted by Scrivenor show that erosion is much less far advanced (in the same cycle) on quartzite than on other terrains associated with it. Thus long continued erosion must leave quartzite areas in relief as residual ranges or ridges.

On reflection it becomes apparent that the peculiarity of Oahu valley sculpture depends but little on an indifference, if such there be, of tropical erosion to structure, for the domes of basalt thus dissected are, or have become, practically structureless. Oahu valleys are developed, so far as is known, only under two very special conditions, and a similar pattern of erosion is not to be expected except where these are fulfilled. The conditions are: (1) An initially rather steep slope of the surface on the flank of a dome, on which consequent drainage has developed; and (2) the essentially homogeneous nature of a pile of dome-building basalt flows. These are not only chemically homogeneous throughout (or sufficiently so to prevent selective weathering being very effective under any conditions), but also are almost without interbedded ash or scoria beds of " Vulcanian " origin such as make up much of the cones of other volcanoes and offer a much smaller resistance to erosion than lava flows as long, at least, as these remain fresh.

WELLINGTON, NEW ZEALAND. C. A. COTTON.
27*th March*, 1944.

RESTORATION OF DISTORTED SPECIMENS

SIR,—In my recent paper upon this subject, *Geological Magazine*, lxxx, 1943, p. 139, I did not give the proof of the photographic method which I described because it was too long and did not seem suitable for this journal. The proof will be found in *The British Journal of Photography* for 14th April, 1944, xci, p. 129.

CAMBRIDGE, PHILIP LAKE.
20*th April*, 1944.

[1] M. Ongley, oral communication.
[2] J. B. Scrivenor, *The Geology of Malaya*, 1931.