## MULTI-LINE FIXES

SIR,—I was very interested to read the two recent papers by Wing Commander Anderson (Vol. V, p. 103) and J. B. Parker (Vol. V, p. 235) in which the theory of probability was applied to navigational problems.

Mr. Parker contends that, for the experienced navigator, fixing by means of more than two position lines is justifiable only in astronomical work, where the chance of inconsistency is appreciable. But in my experience occasional large and non-random errors occur in d.f. and even in Gee, where perhaps some stations are not maintained to wartime standard.

There also appears to be a case for taking more than three position lines in circumstances when the chance of a blunder is high; for, if only three were taken, and one was erroneous, the whole fix would be rejected as giving too large a cocked hat. If four lines had been available, the incorrect one could be detected immediately by inspection. In view of this, and the small but undoubted gain in accuracy, should not more multi-line fixing be attempted in the air?

Yours faithfully,

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J. D. PROCTOR

## THE SHAPE OF THE MOON

SIR,—I have in more than one scientific journal in latter years drawn attention to the fact that whereas the yellowish disk of the Moon at night time appears flat, the white disk of the gibbous moon in daylight looks just what it is, globular. Similarly the dusky disk of the full moon when eclipsed bulges like a football. Physicists have declared the globular appearance illusory since the eye could not detect the Moon's curvature at so great a distance. But the scenic fact that the eye under the conditions specified does discern curvature shows either that the physicists have not probed the matter deeply enough or else that they are dangerously near quibbling. To put it in another way the Moon is not a cube and never looks it; but it *is* a globe and regularly looks it.

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