To sum up :

A focus-sharing triad of conics can be generated tricircularly in four distinct ways. Each pair of sides of the quadrangle formed by the radical centres of the four bases is a pair of common chords of two of the conics, and the corresponding diagonal point is the intersection of the two directrices associated with the common focus of these two conics. Three sides of the quadrangle which have one of the radical centres in common are three concurrent common chords of the set of conics.

The conclusion as to concurrence has become trivial, and it will not escape notice that since the radical centres are real points, this theorem determines the relevant common chords of the conics as real lines, whether or not there are real points of intersection on them.   E. H. N.

CORRESPONDENCE.

EXPERIMENT AND THE TEACHING OF MECHANICS.

To the Editor of the *Mathematical Gazette*.

SIR,—In his very interesting address of April, 1947, the retiring President has the passage : " It seems incredible that I finished a three years' course at the university in Mathematics without having entered a laboratory either at school or university, and yet we were taught subjects such as Hydrostatics, Optics, Electricity, Mechanics, and the like."

I deny that there is absurdity so far as Mechanics and Hydrostatics are concerned. The rightful prestige of the *thing* ' experiment ' is no reason for being awestruck or browbeaten by the *word*, and I think some august persons and examining bodies have been. There are two points. One is that merely by living the ordinary man has built up a system of intuitions on which basic ideas of Mechanics can be legitimately founded. The other is that there are such things as *mental* experiments ; Hydrostatics for example is full of them.

I do not of course assert that experiment in the teaching of Mechanics is necessarily valueless. It may make the relevant idea more vivid to a boy whose mental grasp is poor, and it may set up a useful association to make an idea stick in the early stages (so, indeed, might an apposite—or an inapposite—Stock Exchange story). And so on. But if a clever boy does find watching experiments a bore and a waste of time, he is entirely within his rights. (I believe the idea was tried in Cambridge, with the natural result.)

I may add that I expressed these views recently in a company of mathematicians and scientists, and not only was there no dissent, but one scientist volunteered the tentative opinion that some elementary science was in the same case.   Yours, etc.,   J. E. LITTLEWOOD.

1570. (70). THE EDUCATIONAL VALUE OF EXPERIMENT. It may be said that the fact makes a stronger impression on the boy through the medium of his sight, that he believes it the more confidently. I say that this ought not to be the case. If he does not believe the statements of his tutor, probably a clergyman of mature knowledge, recognised ability, and blameless character —his suspicion is irrational, and manifests a want of the power of appreciating evidence, a want fatal to his success in that branch of science which he is supposed to be cultivating.—Todhunter, *The Conflict of Studies*, 1873, p. 17.