

## PRINTING CONTRACTIONS.

To the Editor of the *Mathematical Gazette*.

SIR,—In connection with the style of printing contractions used in Queouille's book, of which you print a review on page 287, I think the attention of teachers of mathematics should be drawn to a recommendation of the Scottish Council for Research in Education published on pp. 10, 11 of their 22nd *Annual Report* (1949–50). It runs as follows :

*Periods*

"In the punctuation of contractions or abbreviations the policy, advocated by H. G. Fowler in *Modern English Usage*, for words the contracted form of which ends with the same letter as the uncontracted form, of omitting the period should be adopted : "Mr" instead of "Mr.", "hr" instead of "hr.", "yd" instead of "yd.", "qr" instead of "qr.". This principle should be extended to such terms as "min", "lb", "oz".

"Even where a contracted term forms an unabbreviated word, "number—no", "inch—in", the period should be omitted as the context usually indicates the meaning.

*Plurals*

"The plurals of contracted arithmetical terms, as advised by *Rules for Compositors and Readers*, should be written without the "s"; for instance, lb, oz, cwt, sec; and metric system terms—cm, gm—should be used for both singular and plural."

I venture to submit that in some cases, such as the one I refer to in my review, adoption of this recommendation may not add to clarity in mathematical texts. I have seen no reference elsewhere to this recommendation, and would be glad to know what is the feeling among other teachers of mathematics, particularly those teaching at the most elementary level.

Yours, etc., FRANK SANDON.

## UNITS IN DYNAMICS.

To the Editor of the *Mathematical Gazette*.

SIR,—In Mr. Welch's letter, *Mathematical Gazette*, No. 309, p. 181, he says that one school of thought is in favour of using gravitational units at first *without too much insistence on accurate terminology*.

He has no justification whatever for the words I have put in italics. I, like the others who advocate the early use of gravitational units, feel most strongly the importance of insisting on accurate terminology.

With beginners it seems wise to use the same units in Statics and Dynamics. Much trouble is bound to arise if in Statics we talk of a force of  $M$  gm.;  $M$  gm. is essentially a mass, the force is the weight of that mass, *i.e.*  $M$  gm.wt. I strongly urge that in both Statics and Dynamics care should be taken to speak of a force of  $M$  gm.wt., and to measure work in ft.lb.wt. (not in ft.lb.).

What muddled thought, or muddled teaching, can have led to such solutions as Mr. Welch gives? The pupil who has been brought up on gravitational units would write :

Let  $P$  gm.wt. be the required force.

Then  $P - \mu M$  gm.wt. produces  $\alpha$  cm./sec.

But  $M$  gm.wt. produces  $g$  cm./sec.

$$\therefore \frac{P - \mu M}{M} = \frac{\alpha}{g}.$$

$$\therefore P = \mu M + M \frac{\alpha}{g}.$$