Is it not true, however, that the real cause of the expenses of the big patent actions is not so much the law as the exceeding complexity of modern science and technical knowledge, coupled with the immense financial interests which to-day exist in business?

CARROL ROMER.

5 Crown Office Row, E.C.4, Nov. 11.

Much of the leading article in Nature of Nov. 9 involves the assumption that the purpose of patents is to encourage inventions, or even inventors. There may have been a time when that was true, though it must be remembered that the grant of a monopoly was originally a bribe for the disclosure of an invention, not a reward for making it; but it belongs to the remote past. It was a time when the same person could be inventor, workman, foreman, manager, and director, when organised research was unknown, and industry progressed unforeseeably by discontinuous mutations. In the completely different economic and intellectual atmosphere of the modern world, the patent machine has ceased to work according to the intentions of its designers and cannot fulfil the purpose for which they designed it. With our admirable English adaptability, the envy of all foreign observers, we have converted it to other purposes, not less vital to the community. Patents now serve to provide financiers with convenient weapons for their mutual warfare, and patent agents with a living. The British Science Guild wisely recognised the change when it constituted its Patents Committee mainly of those who regard an invention merely as the occasion for the issue of a legal document. Industrial scientists would be wise to recognise it too.

For in these days of trade unionism and rationalisation, no tinkering with patent law can enable an isolated inventor to fight an industry. In particular, what is the good of deciding the issue of validity once for all in the Patent Office, when the closely related issue of infringement cannot possibly be decided until it arises? The Patent Office may declare generally that the patent claims something validly, but that something can only be defined by particular instances. Attempts to deprive wealth of its influence in one direction only drive it to seek influence in another, and the search is never long; as many have asked before, if there were really justice between rich and poor, what would be the use of being rich? Instead of claiming rights of which the evolution of society has deprived us for ever, let us make the most of those that it has newly conferred on us. the foundations of the patent law were laid, no one could earn a salary by indulging his disinterested NORMAN R. CAMPBELL. curiosity.

155 Hagden Lane, Watford, Herts.

In reply to Mr. Carrol Romer's letter: it certainly is true that the Comptroller cannot give a certificate of validity or tie the hands of a higher court. The leading article was not intended to convey that impression at all. But it is also a fact that the carefully reasoned decisions, commonly running into 5000 or 6000 words, which are nowadays a feature of opposition proceedings, help the parties to see exactly where they stand, and often enable them to come to terms. In the event of an appeal, time (and therefore expense) is saved in the appeal proceedings by the

Comptroller's preliminary elucidation of the issues. Does Mr. Romer seriously maintain that the grounds of opposition are irrelevant to validity?

Mr. Romer seems to hold the view that the Comptroller does not enforce amendments, or otherwise exert his powers, except in such extreme cases as that in which an invention has been wholly and specifically described in a prior publication. That view is directly contrary to the writer's experience. There has been a strong tendency, especially in recent years, for the Comptroller's court to deal quite courageously in realities and not merely in words. Public appreciation of this policy seems to be indicated by the rapidly increasing use which is made of the Comptroller's jurisdiction.

As regards the cost of evidence: an economy would obviously be effected if such issues as documentary anticipation could be kept out of the High Court. Even if matters calling for a good deal of evidence were to be brought within the Comptroller's jurisdiction, a favourable precedent would be found in opposition proceedings based on the plea of

'obtaining'

In his last paragraph Mr. Romer surely is right in attributing the increasing cost of patent litigation to the increasingly scientific and technical character of industry. It follows that the High Court is ceasing to be a suitable place for the trial of many of the issues which affect validity. A judge's time is too valuable to be properly taken up with those crammingcourses in chemistry, physics, and applied mechanics through which the expert witnesses have to coach him; and patent law forms such a small fraction of the whole body of law that a technical training is more appropriate than a purely legal training for men who have to decide questions of technical fact. It is true that if mistakes made in the granting or refusal of a patent were to be rendered irrevocable, grants would be improperly made or refused, and that would be a serious evil. But the existing state of things is an incomparably *more* serious evil. The risk of minor injustices is preferable to the actuality of major abuses.

Dr. Campbell's statement that "the grant of a monopoly was originally a bribe for the disclosure of an invention" appears to require revision in view of the actual history of the matter. The writer is inclined to agree, however, that if the minds of the British Science Guild Committee had not been biased by a practical knowledge of their subject, their report would probably have been characterised by a high degree of novelty, though it might have fallen short in point of subject-matter and utility.

After all, the battle is not always to the strong, even under existing conditions. If the patent system were to be 'tinkered up' with courage and foresight, the duration of High Court proceedings might be considerably shortened, and then the salaries to be gained by indulgence in disinterested curiosity might come to be levelled up to a more satisfactory general average than that at present available.

THE WRITER OF THE ARTICLE.

## The Permeability of Plant Cell Membrane to Sugar.

This communication deals with a glucose effect on the permeability of cell membranes to sugar molecules as studied by the intensity of respiration when leaves of Artocarpus Integrifolia were injected with varying concentrations of glucose solution. The investigation developed as a very interesting by-product of other investigations on respiration. Though the important

<sup>&</sup>lt;sup>1</sup> The fees paid to a few leading counsel always attract attention, but the fees paid to patent agents are much larger in aggregate; their function, if patents had retained their original purpose, would have been equally parasitic.