

man had fallen upon a method which scarcely differed from his except in its forms of words and symbols.

It is not known how far Collins was in the confidence of Leibniz, but it has been noted that following Collins's death in November, 1683, appeared the *first publication* of Leibniz's calculus, in the "Leipzig Acts" for 1684, essentially as it was given to Newton in 1677.

Additional force is given to the supposition that Leibniz saw Newton's compendium in 1673 by the similarity of the circumstances to those which relate to German propaganda as it has been disclosed by the recent war, a similarity so striking, that one hardly realizes that the period concerned is practically two and one half centuries nearer the origin of such methods. But the letter of "noble frankness" with the unquestioned facts which throw light upon it, are alone sufficient to bar Leibniz from the honor of an independent discoverer, for no other reason than that, as we say in the law, he does not come into court with clean hands. ARTHUR S. HATHAWAY

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THE POOR DIENER

How many of us have not felt as we closed an article that we may have thought good, perhaps expressing perfunctory thanks to our patron or instructor or some other figure in the seats of the mighty who took a few minutes time to send us some preparations or cultures prepared by some one else in his laboratory, that there was a hardworked, somewhat pathetic humbler figure back of it all to whom our thanks are far more due than to any of these?

When you take down from the shelf a carefully cleaned, carefully sterilized, cotton-plugged flask and fill it up for your own purposes, and then cheerfully discard it and take another because you got in a tenth of a centimeter too much, when you finish up a couple of hours brisk work and then carry out a trayful of pipettes to the "dirtroom" to be washed up, and leave around a staggering array of dirty glassware too bulky to bother to take out yourself, when you pile up on the sterilizing

bench a great lot of used, gone and forgotten cultures for some one else to autoclave, then remember the poor diener.

When you toss over a foul sample of sputum with a "Here Jim, stain this up and look for the bugs," or hack out a bloody mess of tissues from a dead guinea pig and hand them over with a curt "Shove these into Zenker, George, and run 'em through as fast as you can," give credit where credit is due. These are not operations that can be carried on by any old man in the street; these are true science.

Dozens of procedures which we learned with difficulty in school days, we turn over to dieners and technicians, who learned the art from other dieners and technicians and carry it on in a clean-cut mechanical way better than we could do ourselves. God help science if all the dieners should unionize and go on a strike to-morrow.

E. R. L.

SARANAC LAKE

SCIENTIFIC BOOKS

RECENT PALEOBOTANY IN GREAT BRITAIN

THE following survey of paleobotanical researches published in Britain during the war is necessarily superficial; it is, moreover, obviously impossible to draw a clearly defined line between work done in the period immediately preceding the outbreak of hostilities and work completed since August, 1914. No mention is made of papers which, though primarily concerned with recent plants, include references to extinct types. In spite of the fact that national work of one kind or another has absorbed, wholly or in part, energies normally devoted to scientific research the record of achievement amply justifies the statement that the progress of paleobotanical enquiry has not suffered any serious check. Much has been done towards quickening the spirit of research in pure science as well as in relation to problems of great economic importance: the foundations of paleobotanical knowledge have been considerably strengthened and, with the access of greater opportunities and revived interest in research which we confidently expect in the days to come, the results gained during the period of storm and