that the moistening process, as outlined, is performed, as a rule, during the flight from flower to flower. Indeed, upon reflection, one feels convinced that this would be the most convenient interval in the ceaseless work of the proverbially busy bee for performing this function, while at the same time the instinct to do it then, once acquired, would ensure its accomplishment when and as often as necessary. I intend to dust with flour the hind metatarsi of bees entering flowers, and also those of bees leaving flowers. If the former retain more flour than the latter, the theory that the moistening takes place during the flight from flower to flower will be demonstrated.

Probably the kinematograph will be able before long to reproduce the whole process of pollen-collecting at a speed slow enough to be followed by the human eye.

Ripple, Dover. F. W. L. SLADEN.

Microscope Stands.

MR. J. W. OGILVY, in his reply (NATURE, February 8) to one of my questions, does little more than reiterate his former statement that the German instruments are superior, and are produced in better organised works. This seems to introduce the question of workmanship, which has not, to my knowledge, been brought under consideration. The discussion seems to be one of design.

Mr. Ogilvy also appeals for proof of superiority to the number of Continental instruments in the various technical laboratories. Even if the number in use is larger, this cannot be accepted as proof of their superiority. The number of chromatic "Abbe" condensers must be much larger than of other condensers, but this does not prove that it is the best condenser. I do not think it has been proved that the most intelligent users are to be found in the various technical laboratories. The last paragraph of "F.R.M.S.'s" letter is proof of what I mean.

Now, with regard to the sprung fittings, Mr. E. M. Nelson, writing in the current issue of *The English Mechanic*, says:—"I have always considered springing to be a most important point in microscope construction."

The question seems to be this: "Which instrument, the English or the Continental, is, by virtue of its design and workmanship combined, capable of affording the scientific worker the greatest facilities for work of a critical character?"

I venture to think that the answer to this question by our most eminent workers would not be so much in favour of the Continental type as Mr. Ogilvy seems to imagine.

Boston Spa, near Leeds. JOHN A. L. SUTCLIFFE.

As the writer of a letter on "Microscope Stands" in NATURE of February 22, I wish to add that the term "Continental firm" used in connection with the remarks on horseshoe base with extended rear toe, mechanical stage on a rotating principle, and machined slide bearings should include the American manufacturer.

F. R. BRAND.

Meteor-showers.

THE following meteor-showers become due in March; their arrangement is according to the principal maxima:—

Epoch March 1, 12h. (G.M.T.), fifth order of magnitude. Principal maximum, March 2, 13h. 5m.; secondary maximum, March 1, 9h. 30m.

Epoch March 5, 20h. 30m., eighteenth order of magnitude. Principal maximum, March 4, 12h. 35m.; secondary maxima, March 4, 9h. 30m. and 19h. 35m.

Epoch March 5, 21h., twenty-fifth order of magnitude. Principal maximum, March 6, 7h.; secondary maximum, March 5, 0h. 30m.

Epoch March 9, 22h. 30m., twenty-second order of magnitude. Principal maximum, March 8, 20h. 45m.; secondary maximum, March 8, 3h. 30m.

Epoch March 9, 3h. 30m., ninth order of magnitude. Principal maximum, March 9, 19h. 50m.; secondary maximum, March 9, 20h. 40m.

Epoch March 11, 8h. 30m., first order of magnitude. Principal maximum, March 10, 23h. 10m.; secondary maxima, March 10, 0h. 5m. and 16h. 50m.

Epoch March 12, 13h., ninth order of magnitude. Principal maximum, March 12, 12h. 50m.; secondary maximum, March 11, 13h. 40m.

Epoch March 13, 16h., twentieth order of magnitude. Principal maximum, March 13, 1h.; secondary maximum, March 12, 8h. 50m.

Epoch March 19, 22h., tenth order of magnitude. Principal maximum, March 18, 17h. 45m.; secondary maximum, March 18, 9h. 10m.

Epoch March 21, 10h., eighteenth order of magnitude. Principal maximum, March 19, 14h. 30m.; secondary maxima, March 17, 19h. 25m., and March 18, 4h. 30m.

Epoch March 19, 2h., approximately second order of magnitude. Principal maximum, March 20, 15h.; secondary maxima, March 19, 6h. 50m., and March 22, 10h. 50m.

Epoch March 22, 2h. 30m., tenth order of magnitude. Principal maximum, March 22, 3h. 20m.; secondary maxima, March 23, 16h. 25m. and 22h. 45m.

Epoch March 23, 21h., thirtieth order of magnitude. Principal maximum, March 24, 17h. 30m.; secondary maximum, March 26, 12h. 55m.

Epoch March 26, 14h., eighteenth order of magnitude. Principal maximum, March 26, 5h. 40m.; secondary maxima, March 26, 2h. 20m. and 11h. 30m.

Epoch March 27, 14h. 30m., twentieth order of magnitude. Principal maximum, March 27, 10h.; secondary maximum, March 27, 4h.

Epoch March 27, 4h. 30m., approximately first order of magnitude. Principal maximum, March 28, 22h. 45m.; secondary maxima, March 27, 12h. 10m., and March 28, 6h.

Though meteor-displays are distributed, apparently, pretty evenly over the month, yet there are periods of special intensity. These periods, which are four in number, comprise the dates March 2–4, March 9–13, March 20–22, and March 26–28. Heavy meteor-falls are due on the nights of March 2 and 4.

Dublin. JOHN R. HENRY.

EXAMINATIONS IN SECONDARY SCHOOLS.[1]

THE Consultative Committee of the Board of Education has, for the second time, made a report on examinations in secondary schools, and, though opinions may differ as to the precise value of the recommendations which the committee now makes, everyone must congratulate the members on the valuable information they have collected and the clearness with which they have shown once more the existence of a great evil, and the arguments for and against various methods of dealing with it. The report which the committee made seven years ago has been followed by a small improvement, but secondary education in this country still groans under the burden of a needlessly complicated system of examinations, which are the cause of the gravest injury, not only to secondary schools, but to all branches of higher education which depend so largely on the foundation laid in these schools.

One of the saddest points brought out in the report is the extent to which young children are at present submitted for examinations, notwithstanding the efforts of the Board of Education and certain local education authorities to prevent this. Thus a return supplied by the Lancashire Education Committee shows that nearly half of 1070 pupils of certain schools in the county submitted for external examinations during a given year were below the age of sixteen. Unfortunately, the ancient Universities of Oxford and Cambridge are amongst the greatest offenders in the matter of providing such examinations, for it appears that in their local examinations alone more than 20,000 children under sixteen were examined in 1908.

It is shown that the results of these examinations are largely used, more particularly by inferior schools, as a means of advertisement, and that this system is aided by the ancient universities by an arrangement

[1] Report of the Consultative Committee of the Board of Education on Examinations in Secondary Schools. Cd. 6004. (Wyman and Sons.) Price 2s. 6d.