

Notes.

An ingenious individual made a calculation the other day which should be interesting to carbon workers, as indicating that they never need be in want of one of the first necessities in their work. It must have been obvious to all during the recent arctic weather, when the snow was lying unmelted for weeks upon the ground, that the surface of that snow became blacker and blacker each day until it was difficult to imagine that it had ever been white. The ingenious one referred to took the trouble to collect the black surface of this snow for a space of eight inches square, and, after drying the product, he weighed it, and found that he had obtained just two grains of carbon. This quantity certainly would not go far towards the production of a carbon enlargement. But our experimenter was also given to statistics, and knowing the extent of the metropolitan area, and assuming that the same quantity of smut fell upon each part of it impartially, he was able to arrive at the astounding conclusion that one thousand tons of soot had deposited itself upon that area in about ten days. Economists ought now to call upon carbon workers to lower their prices.

We now know, if we did not know it before, where our black London fogs come from, by which photographers lose much more than they would gain if the heavens rained chemicals of greater value than carbon. It is difficult to point to any cure for these disastrous occurrences, so long as the open fire is maintained as one of the Englishman's most cherished rights. Perhaps some day electricity will give us a better and cleaner method of obtaining heat for our houses. In the meantime, advances are being made in the construction of effective gas stoves, and the increasing adoption of these will, at any rate, mitigate the nuisance to a certain degree. It is melancholy, but to some extent amusing, to note that every year, so surely as the fogs come round, the same abortive remedies for dealing with them are trotted out. Smoke abatement forms at these times the subject of innumerable newspaper articles, stoves which consume their own smoke are invented, lauded to the skies, and as soon forgotten. Perhaps the spring-time makes us all so light-hearted that we forgot too soon the dark days of the metropolitan winter.

Eikonogen is a developer which has, since its comparatively recent introduction, met with many admirers, both among professional and amateur workers. It is undoubtedly valuable in bringing out detail in negatives which have received a short exposure, or which have been taken in dark places. For portraiture it gives a delicacy and colour to the negative which are appreciated by both printers and retouchers, hence it is used exclusively in some of the first studios. Eikonogen has recently made its appearance in a new form—that is to say, it is made up into "cartridges." These each hold enough of the developer proper,

together with sodic sulphite, to meet the demands of half-a-dozen average sized plates. For tourist photographers and travellers—the terms are really interchangeable, for all travellers carry a camera now-a-days—these "cartridges will be found most convenient, for they only require admixture with a given quantity of water to be ready for use. Most tourists prefer to leave development of their plates until they are home again, and surrounded by the conveniences of their dark rooms; but most of them know the advantages of trying a plate or two *en route*, and eikonogen in its new dress will help them to do so without the encumbrance of bottles among their luggage.

A method devised by Messrs. Lumière, the well-known manufacturers of photographic plates, of obtaining micrographic projections which will throw up, by a different colouring from that of the background, the interesting parts of the picture without using hand-painting, is described in *La Nature*. A gelatine proof is first made in colouring material. The printing and development are conducted in the same manner as recommended for all carbon papers, but so managed that the proof shall be very faint, hardly visible. To obtain the colouring, the watery solutions of colours employed in micrography—violet and blue, magenta and red—are used. The solution is poured on the picture, and the gelatine is penetrated in a few seconds, the background remaining lighter than the picture, which takes a vivid tint identical to that of the microscopical preparation if the tinting has been carefully chosen. When the colouring is too intense, it must be abundantly washed in water, and the discolouring will slowly and effectually take place. In certain cases alcohol may be used.

It is also possible to obtain double colourings, as in microscopical preparations. In a microbe preparation, for instance, the microbe is frequently coloured in red, and the background blue. To secure this result, the gelatine print is first of all treated with an intense red tinting, but one which is not affected by the subsequent discolouration. A proof is thus obtained coloured entirely in red, the microbe being of a dark red, and the background of a light red. The discolouring is then gone on with until the background loses its tint. It may be treated then with the colouring which one wishes to give it, a faint solution being employed. The editor of *La Nature* says that a series of projections of microbes made by Messrs. Lumière, when projected on the screen, showed very well that the positives obtained by this method produce an effect superior to that of proofs in black obtained by the ordinary process.

Old-fashioned people will probably ridicule the notion that it is possible to know when the planet Mars is visited by a snow-storm. This attribute of winter is, however, the latest news from the planet in question. Prof. Pickering has lately taken fourteen photographs of Mars on two successive days. On the second day