

This solution, after the addition of a little potassium bromide, certainly possesses a developing power, though not a very high one; gelatine plates developed by it render only the high lights effectively, while the ordinary oxalate developer, prepared by mixing together potassium oxalate and iron sulphate, after a shorter exposure, produces an image with much better and fuller detail.

If borax is added to the ordinary oxalate developer in a perfectly neutral state, no action can be observed; but when the developer has at the commencement an acid reaction, it is improved by the addition of borax. This is no doubt due to the fact that the acid reaction lowers the energy of the oxalate developer, and that through the slight alkalinity of the borax this acid reaction is removed. Borax is only alkaline in a very small degree, so that it does not cause the plates to fog. Our own experience is that the boro-oxalate developer, when in the dilute state above described, is less effective than the old ordinary oxalate developer, and when concentrated to the same strength as the latter, is not one whit superior to it. The boro-oxalate solution, moreover, grows turbid much sooner than the ordinary oxalate developer.

The phosphate developer produced by the solution of ammonium oxalate, sodium phosphate, and ferrous sulphate, grows turbid by standing or during the process of development, even more than the boro-oxalate developer. It is also less effective than the latter, and on that account less to be recommended.

Carey Lea attributes many advantages to the sulphite developer; he considers it to be equal in power to the borate, and either of them to be superior to the ordinary oxalate developer. For ourselves, however, we were unable to obtain equally satisfactory results, though we prepared the solution according to Mr. Lea's own formula:—

Neutral potassium oxalate	... 440 grains
Neutral sodium sulphite...	... 60 "

Dissolve in as much hot water as will make 6 ounces, and when the solution is complete, add ferrous sulphate, 160 grains. Then shake until the solution is complete." He further recommends that this solution, before using, should be diluted with from three to four parts of water, and that a little potassium bromide be added.

Having tried this developer, we cannot say that, in the diluted form, as recommended by Mr. Carey Lea, it possesses any great power, but in a state of concentration it can be employed with effect, though not to the same extent as the ordinary oxalate developer. In fact, we found that there is no marked difference between the action of this sulphite developer and that of the ordinary oxalate developer when in the same state of concentration.

The above-mentioned boro-oxalate, phosphate, and sulphite developers, though they are not equal in effect to the oxalate developer, are, at any rate, quite serviceable; but the same cannot be said, according to our experience, of the boro-tartrate developer, for which Carey Lea gives the following formula:—

Neutral ammonium tartrate	... 200 grains
Borax	... 50 "
Water	... 3 ounces

When fully dissolved, add—

Ferrous sulphate...	... 50 grains
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Of this solution Lea says:—"This is a powerful developer, and gives exceedingly good images. In power it seems equal to the borate developer made with potassium oxalate." In all our own experiments, however, we found this solution to work exceedingly slowly, and to possess a very inferior developing power. To obtain with it even a semi-developed image the plate must be exposed for more than ten times so long as is required when working with the ordinary oxalate developer. We cannot, therefore, by any means recommend this developer.

As Mr. Carey Lea himself confesses that the other deve-

lopers described by him are not so good as those above mentioned, it does not appear necessary to go into further details concerning them. All these new developers are more complicated in preparation than the ordinary oxalate developer; almost all are inferior in power, and not one is better.

Let us add, in conclusion, that we cannot agree in the opinion that the oxalate developer made by boiling has a different mode of action from that prepared by mixing with ferrous sulphate. In the course of a considerable number of very careful experiments we found that both kinds have the same active power, provided they possess the same percentage of active ferro-oxalate.

Notes.

Dr. Hermann Vogel, of Berlin, is just now in London.

Mr. Mungo Ponton, who has just died at the age of seventy-eight, was a Fellow of the Royal Society of Edinburgh. He may be regarded as the last of the fathers of photography.

Next Wednesday the British Association meet at Swansea under the presidency of Professor Ramsay, the Director-General of the Geological Survey of the United Kingdom. Mrs. Crawshay, we see, maintaining her late husband's character for hospitality, has invited a number of the members to spend a day at Langorse Pool, Brecon.

"Why don't you publish your portrait of Gladstone?" we asked a photographer the other day; "it is one of the finest that has been taken of him." Our friend shook his head. "There is not sufficient smoothness and glaze to suit the public; if I were to pencil away the markings on the forehead, and smooth the furrows between nose and cheek, the picture would sell, no doubt, but I should spoil my negative." And our friend preferred to keep his negative.

It is only the deeply-rooted liking for French plum-box portraits over again. In Paris the carte émaillée was popular ten years ago; it is popular still. Sitters ungrudgingly pay fifty per cent. more for pictures with a glaze of gelatine and a broad marginal line of vermilion. There is an "article de Paris" look about the finishing touch, and the result a smart, showy object; and as there are many more Veneerings in this world than people with artistic taste, it is but natural that "bonbon" pictures should command a ready sale.

There was no more inveterate foe to retouching, glazing, and vermilion lines than Rejlander. At the same time, he was ready to give their producer his due. Such portraits, he acknowledged, were often very bright and pretty, and indicative of considerable skill; they had a finish and nattiness about them that could not fail to please, but—they did not represent art. Need we add that Rejlander died a poor man?