

bulk. If more be taken, yellow fog will result. Both preparations will keep for years, if filtered from time to time, and they be kept in well-stoppered bottles.

### PLATINUM TONING.

BY M. BRUNEL PAUL.

THE divers formulas for toning silver prints have, up to the present time, been objectionable on account of giving a bath of but little permanence. Now the chloride of sodium giving stability to the chloro-platinites used in toning yields good results, as practice has shown. In consequence I was led to compose the following formula:

Chloro-platinite of soda	...	...	2 grammes
Chloride of sodium	...	...	2 "
Bitartrate of soda	...	...	1 gramme

Dissolve cold in one litre of distilled water. The bitartrate of soda added to the present formula serves to render the bath slightly acid; toning cannot be obtained in alkaline baths. A bath thus prepared keeps for a long time without decomposition, and gives very beautiful tones. To make use of it, it suffices to plunge the prints, previously separated, in water. First we obtain tones that are purple, brown-purple, brown, and finally of the brilliant black of India ink. The print should be removed as soon as it reaches the point of the tone desired, as in drying it becomes darker. If it were allowed to remain too long a time in the bath, it would become grey, dull, and without relief. Coming from the toning bath, place in a bath of hyposulphite of soda at twenty per cent., followed by abundant washings. Once dry, the print is unchangeable, and has a black tone of a most beautiful effect. Landscapes toned by this process are especially beautiful. This toning succeeds with all the sensitive papers furnished by dealers: albumenised, salted, &c.—*Photo. Gazette.*

PHOTOGRAPHIC CLUB.—On July 15, Meteorological subjects will be discussed; July 22, Report of Convention Delegates. Saturday outing to Kew Gardens; rendezvous at Kew Gardens Station at 3 p.m.

COPYRIGHT LAW.—From a letter of inquiry received at the Treasury Department, it is inferred that some persons think the copyrighting here of a photographic reproduction of a foreign painting or other work of art bars any later comer from the privilege of photographing the same thing and copyrighting his works. Librarian of Congress Spofford, who issues all copyrights, said that this was a decided mistake. Any person who chooses to secure a copyright of a photograph of the work of a foreign artist can do so by making application and paying the fee. That will prevent any other person from reproducing the copyrighted photograph, but it does not hinder anybody from taking an exactly similar photograph of the same painting and getting his photograph copyrighted. Mr. Spofford said that his duty in issuing copyrights was purely ministerial, and he has nothing to do with the question of infringements; but he is, of course, thoroughly familiar with copyright law. Mr. Spofford pointed out that the uniform decisions of the courts have been that infringement of copyright is the appropriation of the work of the person protected by copyright. The copyrighting of a city directory, for example, prohibits any other publisher from taking the names from the directory and publishing them, but it does not prevent him from collecting the same names, publishing them in the same alphabetical order, and obtaining a copyright for his work. So the person seeking to copyright a photograph must not, by reproducing some other person's photograph, appropriate that person's work. He must take the photograph himself. The new copyright law makes no change in this respect.—*New York Times.*

### PRELIMINARY, SECONDARY, AND SUPPLEMENTAL LIGHTING.

BY DR. J. M. EDER.

AT a recent meeting of the Photographic Society of Philadelphia, Mr. J. F. Sachse read a paper with the above title, being a translation from Dr. J. M. Eder's "New Exhaustive Handbook of Photography" (Part 2, Vol. I., pp. 313-320). The reader said the subject will, without doubt, be a revelation to the professional and amateur who knows nothing beyond the commercial dry plate of the present day. In days gone by the proceeding was technically known as "flashing." Our object in reproducing the article in its entirety is a two-fold one; first, to call the attention of our readers to the exhaustive nature of Dr. Eder's labours; and secondly, to recall the possibilities of this almost forgotten method of bringing out a negative which would otherwise be lost or valueless. In our own experience we have frequently resorted to this practice, and have rarely lost a plate. Whenever we find a plate undertimed or coming up too slowly, we simply pour off the developer and expose in the tray from two to ten seconds before the ruby glass, then again pour on the developer. In extreme cases we have repeated the operation as often as four times, and almost always with satisfactory results. Again, when we had reason to believe beforehand that we were undertimed, an exposure of two-thirds second in front of the ruby light before development proved of service. The former plan, however, is by far the safest. It is a proceeding, however, which requires care and judgment, and should not be resorted to unless all other manipulations of the developing agents fail to be effective. Still, in our own practice, the method as stated has proved successful with at least three makes of dry plates of varying degrees of rapidity.

(a) *In the Negative Process.*—If a Daguerreotype plate, wet collodion, or gelatine dry plate, after a short exposition in the camera, is subjected to an exposure of several seconds over the whole surface in a weak, diffused light, a favourable result will be attained.

If the exposure in the camera was gauged so short that the development resulted in an imperfect image, this supplemental general lighting continues the first action of the light so far that it results in a substantially better or perfect picture. This action was first noticed over forty years ago with Daguerreotype plates. Becquerel credited this continued action especially to the red and yellow rays, and denominated them as *continuing rays* (*rayons continuaturs*); while to the green, blue, and violet rays he attributed the primary cause of the action, and called them *creative rays* (*rayons excitateurs*).

This view was, however, soon found to be erroneous, and Moser was one of the first who recognised the fact that all the rays can commence and complete the action; later, it was even proved that, in actual practice, it was just the subdued rays of the violet end of the spectrum which were the most active.

In the photographic practice, it has been repeatedly proposed to expose the plate in the camera for a shorter period than called for by ordinary conditions, and then subject the plate for a short time to a diffused light. This proceeding is called secondary lighting.

A similar effect is attained if the plate is subjected to an exposure of a weak diffused light before being placed in the camera (preliminary lighting), or if weak diffused light is introduced into the camera during exposure