

# THE PHOTOGRAPHIC NEWS.

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### ACID CONDITIONS OF THE TONING BATH.

THERE can be little doubt that the introduction, a dozen years ago, by Mr. Waterhouse, of the alkaline gold bath, for conducting the toning process separately from that of fixation, in place of the mixed bath of hyposulphite of soda and gold for fixing and toning at the same time, was a great step in photography, as materially contributing to the permanency of prints. But considerable doubt has been felt by thoughtful experimentalists as to whether the term, implying the necessity of alkaline conditions, and the condition itself when present, ought not to rank amongst the category of popular errors. In our own practice, and in our teachings, we have generally insisted on neutrality, whilst Mr. Bovey has unhesitatingly pointed out the superiority of an acid bath. In the majority of the most popular and useful formulæ for toning baths, the aim is either to secure a neutral or an acid solution. In the lime bath, for instance, the solution is neutral; whilst in the acetate bath, one of the most extensively used of any, a slight trace of acid is present when the bath is ripe for use.

The real object of adding an alkali to a solution of chloride of gold to render it fit for toning purposes, is to get rid of free hydrochloric acid, the presence of which is mischievous in several ways. It tends to bleach the print and to produce mealiness, and it also retards the precipitation of the gold on the print. In many of the toning baths the salt added to the gold solution simply neutralizes the free hydrochloric acid, and if added in such proportion as to cause an alkaline condition, the toning bath will not keep. When a salt like acetate of soda is added to the solution, it is slowly decomposed by the free hydrochloric acid which is neutralized, acetic acid being liberated, which does not bleach the print, and facilitates the deposition of gold. In the platinum toning bath, which we recommended some time ago, the solution was neutralized, and then rendered acid with nitric acid, and was found to answer exceedingly well. We have just been favoured by Dr. Liesegang with some examples of a gold toning bath made on precisely similar principles, the details of which he gives on another page. The results are admirable, and the bath described seems to possess qualities which strongly recommend it to photographers for general use; it seems, therefore, well worthy the attention of our readers.

### PRINTING THROUGH COLOURED GLASSES.

THE use of coloured glasses, or retarding media, through which the light is transmitted for printing from imperfect negatives, has received considerable attention of late in Germany and America. Old photographers are well aware of the increased brilliancy of the impressions

obtained from weak negatives by printing in a weak diffused light; but some members of the German Photographic Society in New York have carried the matter much further, and, as it is alleged, with considerable advantage. Our Philadelphia contemporary, reporting a recent meeting of the Society, says:—

“The committee for the best method of printing weak, undertimed negatives, laid numerous prints before the meeting. Mr. E. Krueger had tried glasses of different colours, of which the dark blue gave the best result; but it was inferior to ground glass, which, moreover, has the advantage that the prints made under it, either in sun or shade, won't show any bubbles or scratches which might be on the glass used for the negative.

“Mr. Kretschmer obtained a very strong and brilliant print under an iodized and silvered plate. He prepared the same by simply coating a glass plate with very weak iodized collodion, sensitized it in the silver bath, washed well, and let dry.

“Mr. Schoem covered the negative with a thin porcelain plate. The contrasts in the prints made without and with this plate were very remarkable; more so, indeed, than the contrasts of the first named dodges.

“The committee received a vote of thanks for their labours and exhibition of their interesting specimens, and Mr. Schoem's method was declared the most successful one.

“Mr. Youngman remarked, in relation to the committee report, that porcelain plates, especially of larger size, are very expensive, and consequently not practical, on account of being easily broken when used for printing purposes. He suggested, as a substitute, to mix some milk with gum arabic to a proper consistency, and to coat a glass plate with the mixture. By elevating one end a little, in letting it dry, it will get the superior advantage over porcelain plates of being thicker on one end than on the other, which will enable you to cover the weakest part of the negative more than the stronger one. A glass prepared in this manner can also be used as a focussing glass in the camera—a very desirable knowledge for a travelling photographer in case of an accident. Mr. Youngman stated further, that in short exposures he had lately tried, with pretty good results, to colour the negative by using a yellow or red aniline colour in the developer.”

### WEAK V. STRONG PRINTING BATHS.

A COMMITTEE of the American Photographic Society appointed to investigate the relative value of strong and weak printing baths have recently presented their report to the Society, its general tenor being, as our readers will see, in