

THE PHOTOGRAPHIC NEWS.

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CAMPHOR IN COLLODION.

A PARAGRAPH recently appeared in the *Athenæum*, and has since been quoted in some other journals, describing some experiments with gun-cotton, published by Professor Seely in New York, which, although interesting in a chemical point of view, may mislead photographers unless accompanied by further information. Professor Seely points out that whilst ordinary gun-cotton or pyroxyline is insoluble in alcohol alone, the addition of a little alcohol at once produces solubility. The value of camphor in aiding the solubility of gun-cotton in various menstrua is well known in this country, and has been rendered available in the manufacture of xylonite, as described in our last volume; and the addition of camphor to collodion for photographic purposes was the subject of a patent in this country about sixteen or seventeen years ago.

At the last meeting of the Liverpool Amateur Photographic Association we notice that Mr. Green, calling attention to Professor Seely's experiments, made a suggestion which was excellent in itself, and which, if the premises had not needed qualification, might have been very valuable. He thought that that singular fact, to which the paragraph in question referred, might be of much importance to photographers, as it might enable them to dispense with ether, which, comparatively with alcohol, was a very unstable compound. It might also shorten the exposure, by keeping the film of dry plates in a better condition for the action of the developer. He thought it might also act like oil of cloves, and similar hydrocarbons, in facilitating reduction of silver from its compounds; and, if so, might in that way shorten exposure. Mr. Green's conjecture very accurately represents the actual facts. The action of camphor in collodion is very similar to that of oil of cloves and other bodies facilitating the reduction of silver. A dozen or fifteen years ago we made a tolerably complete series of experiments on the effect of various additions to collodion—camphor, wax, glycerine, glycerine, grape sugar, honey, gallic acid, resins, and various essential oils. It is not necessary to recount all the details of our experience here; it is sufficient to say that the temporary advantages gained by the use of some of these substances was more than compensated by the subsequent losses. With camphor, at the rate of one grain to each ounce of collodion, as used in Cutting's patent process, the advantage gained, either in sensitiveness or vigour, was less palpable than with many other substances, whilst the disadvantages were very definite. The first defect which attracted attention in a negative taken with the camphorated collodion was the complete opacity of the film throughout. Camphor being an opaque gum, the collodion film in which it is present dries white and opaque, giving the appearance of fog to the image.

It is true that after varnishing, this disappears; but it is inconvenient, and deceiving to the eye, to have to deal with a negative presenting this fogged appearance. The bath used with collodion acquired a tendency to fog, and the collodion itself was not stable.

Our object in recalling these experiences is not to discourage experiment. We believe that it is always interesting and instructive to repeat old experiments in the light of fresh knowledge. We simply mention these facts by way of caution to the experimentalist, and to suggest that his operations should be conducted on an experimental scale, that he may not risk the injury or derangement of large quantities of material which may be working well now, but might, by incautious experiment, be rendered useless.

AMERICAN PHOTOGRAPHIC EXHIBITION.

THE next American Photographic Exhibition, held under the auspices of the National Photographic Association, will open in Philadelphia on June 6th. Our American friends are especially anxious to receive contributions from the Old World, and every arrangement will be made to give ample space, and good position and light, to foreign contributions. A grant from Congress allows the entrance and return of foreign specimens free of duty. Photographers who desire that what they send should be sold on their account, and not returned, will receive the best attention to their wishes. In all cases, two itemized invoices should be sent by mail, and notice as to date of shipment, name of steamer, &c. Packages should not be sent later than April 15th; but if sent at any time earlier (and the earlier the better), they will be carefully stored. All packages should be addressed as follows:—National Photographic Exhibition, care Edward L. Wilson, Secretary, Philadelphia, U.S.A.

We hope, in the course of a week or two, to be able to announce that arrangements are made to send all the cases to one person in London, who will pack the cases sent to him in one or more large cases, and undertake the shipment, in which case the National Association will pay the freight to America. For the credit of England, and the perpetuation of the fraternal feeling existing between American and English photographers, we hope that a fine collection of photographs may be sent from this country, and we urge the matter on the attention of our readers.

PHOTOGRAPHY AND THE ECLIPSE.

IN spite of delays, mismanagement, and mishaps, the photographic observations in connection with the English eclipse expedition were not altogether a failure. Our readers are familiar with the delay in the preparations