It is to be expected that affiliation will strengthen the Parent Society and the affiliated branches alike, to the advantage of photographic science and art ; to contribute to this common end, the Photographic Society of Great Britain offers to the members of the affiliated societies the following advantages :—

1. The use of its rooms and offices, 50, Great Russell Street, W.C., for the meetings of delegates forming the affiliation committee, and for the meetings of the sub-committee it may appoint.
2. The services of the assistant-secretary, and the provision of stationery, postage, &c., for the conduct of federal affairs.
3. Admission of members of all affiliated societies to courses of technical lectures, which the Photographic Society of Great Britain hopes to organise, at half the charges made to non-members.
4. The use of the dark room at 50, Great Russell Street, W.C., by affiliated members upon payment of a small charge for the use of chemicals.
5. Affiliated societies will be supplied with two transferable season tickets for the Society's annual exhibition.
6. Two copies of the "Journal and Transactions" will be supplied to each affiliated society.

The general rules now suggested are few and simple, but may serve as a basis for an approved code.

GENERAL RULES.

Affiliation shall be by the council of the Photographic Society of Great Britain.

All societies shall be eligible, whether London, Provincial, Colonial, or Foreign.

Each affiliated society shall be entitled to appoint a delegate, who, in conjunction with a certain number of members to be appointed by the Photographic Society of Great Britain, shall form the affiliation committee, with the right to vote in all matters in which the committee may deal.

The affiliation committee shall have power to nominate certain of their number to supervise and carry on the work of affiliation on such general lines as may meet the approval of the council of the Photographic Society of Great Britain.

The affiliation committee shall have power to make such laws as may be required for conducting the different branches of affiliation work.

The votes of the affiliation committee may be taken in writing on any important subjects which require decision between the annual meetings.

The annual subscription shall be one guinea, payable on election, in advance, on January 1st in every year. Any society whose subscription may be three months overdue shall cease to be a member of the affiliation, but may be reinstated by the council on satisfactory explanation and payment of arrears.

SOME NEW ADDITION COMPOUNDS OF "THIOCARBAMIDE" WHICH AFFORD EVIDENCE OF ITS CONSTITUTION.*

BY J. EMERSON REYNOLDS, M.D., F.R.S., PROFESSOR OF CHEMISTRY, UNIVERSITY OF DUBLIN.

Methyl and Ethyl-Ammonium Salts and Thiocarbamide.—The general results of the experiments in this direction were unexpected, as it was found that methylammonium salts combine with thiocarbamide, but those of ethylammonium do *not* under any conditions yet realised. I shall first describe the experiments which led to the definite combination.

Three grams of pure methylammonium bromide were dissolved in the smallest possible quantity of strong alcohol, and added to a boiling alcoholic solution of 7·8 grams of thiocarbamide. Combination took place on continued heating, and the solution when cooled became nearly solid, owing to the separation of a felted crystalline mass very similar in appearance to that afforded by ammonium bromide and the amide under similar conditions. This product was pressed, washed, and recrystallised, and when so purified was found to melt sharply at 138°, or 35° lower than the melting point of the ammonium bromide compound (173—174°).

On analysis, it afforded the following results :—

0·427 gram gave 0·1915 AgBr.
0·3897 „ „ 0·8642 $BaSO_4$.

The compound is, therefore, $(H_4N_2CS)_4(CH_3)H_3NBr$, which requires—

	Theory.	Found.
S	30·76 per cent.	30·48 per cent.
Br	19·23 „	19·08 „

Methylammonium chloride gave a similar compound with thiocarbamide, but it was not examined in detail.

Experiments with ethylammonium salts led to negative results so far as direct union with thiocarbamide is concerned. Ethylamine from various sources was used in the preparation of the salts, and the conditions were varied to a much greater extent than in the previous experiments, but without effect.

As long continued heating to the boiling point of absolute alcohol under atmospheric pressure did not determine combination, 2·5 grams of the pure bromide and 6 grams of thiocarbamide were sealed up in a tube with sufficient alcohol to dissolve the whole at 70°. The tube and its contents were then heated at 110° for two hours, but on cooling no evidence of combination was obtained. The heating was repeated for three hours, but the temperature was maintained at about 135°. On cooling, the contents of the tube now became nearly solid, and the mass resembled the ammonium bromide compound in appearance. When the solid contents were twice recrystallised from alcohol, the product was found to contain bromine and sulphur, and it melted at 175—176°, or very slightly higher than the ammonium bromide compound which it so closely resembled in appearance, and on analysis it proved to be that body.

0·2056 gram gave 0·098 AgBr.
0·2732 „ „ 0·1285 H_2O and 0·1245 CO_2.

	Theory for NH_4Br compound.	Theory for $NEtH_3Br$ compound.	Found.
Br	19·98 p. c.	18·60 p. c.	20·28 p. c.
C	11·99 „	16·76 „	12·42 „
H	4·96 „	5·58 „	5·22 „

The determination of carbon was made because of the wide difference in percentages of that element.

There is no doubt, then, that ethylammonium bromide and 4 mols. of thiocarbamide do not directly unite when heated with alcohol at 135°, but rather afford the ammonium bromide compound, with ethyl oxide as a necessary bye-product, according to the equation $4H_4N_2CS + N(CH_3)H_3Br + C_2H_5{\cdot}OH = (H_4N_2CS)_4NH_4Br + (C_2H_5)_2O$.

SUMMARY OF THE FACTS.

It has been shown that—

1. Thiocarbamide combines with ammonium bromide, iodide, and chloride at the temperature of boiling alcohol, and forms characteristic compounds of the type $(H_4N_2CS)_4H_4NR'$. But no compounds could be formed under the conditions specified which contained *less* than four molecular proportions of the amide to one of the ammonium haloïd salt.

2. The following mono- and di-substituted thiocarbamides failed to afford any compounds with ammonium

* Continued from page 509.