However, the reaction did not take place according to the above equation, but the tellurium and the mercury combined in the final reaction, with the formation of monochlorbenzene.

$$(C_6 H_5)_2 Hg + Te Cl_2 = 2C_6 H_5 Cl + Hg Te.$$

From this change I was led to expect the formation of the desired body, Diphenyltellurid, by the double decomposition of Diphenyl-mercury, by means of metallic tellurium alone—and the expectation was happily confirmed by experiment.

$$(C_6 H_5) Hg + Te_2 = C_6 H_5 Te C_6 H_5 + Hg Te.$$

If tellurium and mercury-diphenyl in the proportions by weight indicated by the equation be heated together in a sealed tube filled with CO_2 gas, 4–5 hours, at a temperature of 200° Cent., there results a grayish black crystalline mass, saturated with a thick, heavy oil.

This oil, by extraction with ether and purification by rectification, was found to be Diphenyltellurid, 78 per cent. of the theoretical quantity.

Thus I succeeded in preparing the, till then unknown, diphenyltellurid.

The method is a general one.

Dreher and Otto* studied the action of sulphur upon mercury-diphenyl and were of the opinion that diphenyl-sulphide was formed only at a *red heat*.

However, the corresponding sulphides and telsurides may be obtained with the greatest ease by heating mercury-diphenyl with sulphur or selenium to 200° C. under the conditions given.

Camphoric Acid. By W. A. Noyes.

In a paper presented to the Academy last year two acids, which were called cis-campholytic acid and cis-transcampholytic acid were described. The cis-campholytic acid has now been reduced and a dihydro acid obtained from which the α-brom derivative has been prepared. This, on treatment with alcoh lic potash yields the cis-campholytic acid again, thus proving conclusively that the double union in the latter is in the β position.

Xylyllic acid, $C_6 H_3 \begin{cases} CH_3 & 1. \\ CH_3 & 3. \\ CO_2 H & 4. \end{cases}$ has been reduced by means of amyl alcohol and sodium and the α-brom derivative of the hexahydro acid obtained, was prepared. The latter, on treatment with alcoholic potash, does not give either of the

* Berichte der Deutschen Chems., Gesell, 2. 543.

campholytic acids. This furnishes quite conclusive proof that the formula for camphor proposed by Armstrong* is not correct.

The preparation of the acid, $C_6H_3\begin{cases}CH_3 & 1.\\ CO_2H & 2.\\ CH_3 & 3.7\end{cases}$ has been undertaken and by a study of its derivatives it is hoped to secure proof of the truth or falsity of Collie's† formula for camphoric acid.

Note on Milk Inspection. By Geo. W. Benton.

The milk supply of cities is becoming a matter of scientific interest. Formerly milk sophistication consisted of skimming or watering or both. More recently various well authenticated rumors of the employment of chemists in the preparation of adulterants, and the marketing of preparations which enables the creamery to substitute foreign fats for milk fats have caused increased attention and greater care in their examination. The inspector, devoid of scientific skill, relies upon the lactoscope, the lactometer, the hydrometer and the Babcock machine, instruments sufficiently accurate and reliable for the cases of skimming and watering for which they were made, but entirely unreliable when taken alone in the detection of the preparations made by chemists for the express purpose of deceiving those using the instruments.

In my two years' experience in the work of milk analysis, abundant evidence of the untrustworthiness of ordinary inspection came to my notice. Besides the watered and skimmed milk, samples of pure cream, common herd and Jersey milk, were passed upon and pronounced suspicious by the ordinary methods in the hands of the inspector. And, finally, it became necessary, in view of the fabrications employed, to do away with such tests, and subject everything to a more searching examination, as the only sure way to get at the truth.

A case in point came under my observation in December, 1892, as follows:

An inspector brought in a sample of milk which, by his testing instruments, gave evidence of being rich, but the appearance, on close examination, was not in strict conformity with the other indications, and he submitted it for analysis. Results attained were as follows, the data taken from my notes made at the time:

A careful physical examination showed the milk to be abnormally thick for milk, but not for cream. A portion, on standing several hours, failed to show a

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* Ber. d. Chem. Ges. (16, 2260.)

† Ibid. 25, 1116.