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effected with the formation of the hydrazone-hydrazide, a quantity of the pyrazolone, melting at 110°, was treated with phenyl hydrazine at 160° in a paraffin bath. On crystallizing, a compound was obtained, the melting point of which was found to be 190°, and gave the following numbers on analysis:

 $0.2268~{\rm gram}$ gave $0.5490~{\rm gram}$ CO₂, and $0.1088~{\rm gram}$ H_2O.

0.0697 gram gave 12.8 ccs. moist nitrogen at 23° and 746 mm. Calculated for $\rm C_{23}$ $\rm H_{24}$ $\rm N_{6}$ $\rm O_{2}$

C = 66.34%, H = 5.75%, N = 20.19%.

C = 66.01%, II = 5.32%, N = 20.46%.

The same compound was prepared by treating oxymethylene succinic ester with two molecules of phenyl hydrazine, which gave the same compound melting sharply at 190°, and a nitrogen determination gave a nitrogen content of 20.55%.

It is therefore evident that the pyrazolone obtained by the treatment of oxymethylene succinic ester with one molecule of phenyl hydrazine, on the addition of another molecule of the reagent, splits according to the following :

H.C.
$$CH_2 COOC_2 H^{v}$$

H.C. $CH_2 COOC_2 H^{v}$
 $H_2 CONH NHC_6 H_5$
 $H_3 CONH C_6 H_5$
 $H_4 CONH NHC_6 H_5$
 $H_5 CH_2 CONH NHC_6 H_5$
 $H_5 CH_2 CONH NHC_6 H_5$

giving the hydrazone-hydrazide of formyl succinic ester.

EXPERIMENTS WITH FORMYL PHENYL ACETIC ESTER.

As formyl phenyl acetic ester shows such a marked tendency towards ketolization in dissociating media, it is of interest now to ascertain what effect substituted hydrazines would have on solutions of the ester which had been allowed to stand for some time. For this purpose a quantity of formyl phenyl acetic ester was heated at 70° for some hours in order to convert it completely into the enol form and one gram of the ester was dissolved in 50 ccs, respectively of methyl alcohol and of henzol. After 24 hours standing the calculated quantity of phenyl hydrazine freshly distilled was added and the mixture allowed to stand 48 hours. On the addition of the reagent, the methyl alcohol solution became slightly coloured, the benzol solution inside of ten minutes was a deep yellow, and on standing 24 hours the colour of the methyl alcohol solution was deep yellow, while that of the benzol was deep green. There appeared to be in the benzol drops of water deposited.

The solvents in both cases were distilled off at the room temperature, by placing the receivers connected with the flasks containing them in a freezing mixture, and evacuating. The methyl alcohol solution left a

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found.