The column was washed with 60 ml. of benzene then eluted with ether. Infrared analysis of the residue obtained by removal of the solvent from the ether eluate revealed a broad absorption band at 2500-3500 cm.\(^{-1}\), characteristic of carboxylic acids, as well as a broad band at 1100-1300 cm.\(^{-1}\), characteristic of esters. The carbonyl absorption appeared at 1740 cm.\(^{-1}\)(ester) and 1705 cm.\(^{-1}\)(acid). Distillation of this material in a micro-Hickman still at 175°C./0.15 mm. afforded an analytical sample, \(n_D^{20}\) 1.4680, of trans-3(3-carbomethoxyethyl)-cyclopentylpropionic acid.

Anal. Calcd. for \(C_{12}H_{20}O_4\): C, 63.13; H, 8.83.
Found: C, 62.98; H, 8.97.

IX. Acylcin reaction of reclaimed trans-dimethyl ester 70.

Apparatus and procedure.—In order to minimize contamination of the starting material by the cis isomer, the trans-dimethyl ester 70 used in this reaction was recovered from previous condensation attempts. Recovered 70 was purified by filtration through activity I alumina in petroleum ether. The pure trans-dimethyl ester 70 (9.7 g., 0.04 mole) in 100 ml. of dioxane was reacted with 3.7 g. (0.16 g. at.) of sodium dispersed in 200 ml. of dioxane following the procedure described in condensation VI. Workup in the usual manner afforded 10.0 g. of crude product. The crude product was placed on a 2.2 x 25 cm.