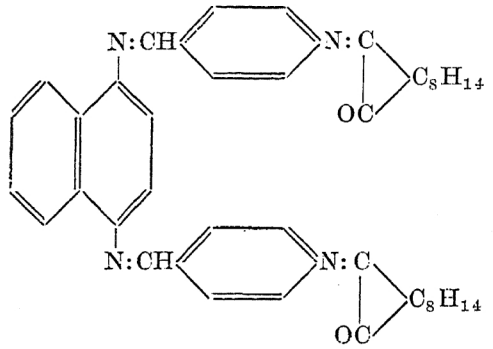
Bisiminocamphor Derivatives with Exalted Optical Activity.

FORSTER and Thornley (*J. C. S.*, **95**, 942, 1909) observed that bisiminocamphor derivatives display remarkably high rotatory power, and this was later ascribed to an optimum association of azethenoid groups, conjugated linkages and a benzene ring within a narrow molecular compass (Forster and Spinner, *ibid.*, **115**, 889, 1919). B. K. Singh and his collaborators have prepared

1 : 4-naphthylenebisiminocamphor and *pp'*-bisiminocamphordiphenylamine, with molecular rotations 13416° (pyridine) and 14231° (ethyl alcohol), respectively. These two compounds were known so far to possess the highest molecular rotation. We have now prepared 1 : 4-naphthylenebisiminobenzyl-



ideneiminocamphor, in which the number of conjugated double linkages has been increased to seventeen; and the molecular rotation reaches 22050° in pyridine for the mercury yellow line, 5780. This compound has been obtained by condensing *p*-acetaminobenzaldehyde with 1 : 4-naphthylenediamine, removing the acetyl groups by dilute hydrochloric acid in alcohol, and condensing the resulting bisaminobenzylidenenaphthylenediamine with camphorquinone

The bisiminocamphor derivatives of *pp*-diaminodiphenylcarbamide and *pp*-diaminodiphenyloxamide show molecular rotations 8911° and 12094° respectively in chloroform.

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August 28, 1933.