

Table I. Well depth parameters for three potentials having an infinite scattering length and an effective range of  $2.5 \times 10^{-13}$  cm.

	$V_0$ (Mev)	$a$ ( $10^{-13}$ cm)
Square well Repulsive core ( $c = 0.4$ ) plus square well	16.37	2.5
Boundary condition ( $c = 0.88$ ) plus square well	35.41	2.1
	22.41	2.243

with core radius  $0.4 \times 10^{-13}$  cm and effective range<sup>5</sup>  $2.5 \times 10^{-13}$  cm. This comparison is shown in Fig. 2. It is found that the phase shift can be reproduced to within  $1/2$  degree for laboratory energies between 0 and 250 Mev, if  $c = 0.88 \times 10^{-13}$  cm. This is a remarkable result, considering that both of these phase shifts are quite different from those for a pure square well also shown in Fig. 2. The parameters for the three potentials are given in Table I. There is every reason to believe that the surprising correspondence between boundary condition and repulsive core potentials shown in Fig. 2 is not restricted to a square well attractive potential, and this point is now under further investigation.<sup>6</sup>

\*This work was supported in part by the Office of Ordnance Research.

<sup>1</sup>Gammel, Christian, and Thaler, Phys. Rev. 105, 311 (1957).

<sup>2</sup>K. A. Brueckner and J. L. Gammel, Phys. Rev. 109, 1023 (1958). This article also contains an extensive bibliography of earlier work.

<sup>3</sup>This cancellation simplifies the application of the Brueckner theory to the nuclear many-body problem, as will be discussed in a forthcoming paper.

<sup>4</sup>Somewhat different boundary condition potentials have been considered by H. Feshbach and E. Lomon, Phys. Rev. 102, 891 (1956), and by V. F. Weisskopf, Proceedings of the Pittsburgh Conference on Nuclear Structure, June, 1957 (unpublished).

<sup>5</sup>J. M. Blatt and J. D. Jackson, Phys. Rev. 76, 18 (1949).

<sup>6</sup>M. H. MacGregor (private communication).

#### ERRATUM

TRAPPED ALBEDO THEORY OF THE RADIATION BELT. S. F. Singer [Phys. Rev. Lett. 1, 181 (1958)].

On page 182, the fifth line below Eq. (7) should read "is  $\sim 100 (cd)^{-1}$ . At 1000 km altitude  $t \sim 3 \times 10^{10}$ ".

In Footnote 8, the first part of the sixth line should read " $\cos^2 \lambda_0 = 1 - \Delta h (R_E + h)^{-1}$ ";".

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