Page 133, in Exercise 1, after ". . . consists of" insert "the group represented by $E$ repeated 60 times."
" 138, footnote. Replace 6° by 7°.
" 182, line 20. The second of the set of numbers given, namely 6, should be 3.
" 182. At end of footnote marked * write: Jordan's method is to express suitable powers of the solutions of the linear differential equation as rational functions of $x$ and of all the roots of a certain algebraic equation. The degree of this equation will then generally be lower than the corresponding degree found above. See *Crelle*, vol. 84, pp. 93, 112.

H. F. BLICHFELDT.

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## REMARKS ON ELLIPTIC INTEGRALS.

IT is known that an elliptic integral of the first kind is everywhere one-valued, finite, and continuous on its associated Riemann surface, while the elliptic integral of the second kind is algebraically infinite, and the elliptic integral of the third kind is logarithmically infinite at certain points of the surface. This is a characteristic distinction of these integrals and is essential in their study. It is also true of the hyperelliptic and abelian integrals.

The Legendre form of the integral of the first kind is

$$F(k, \varphi) = \int_0^\phi \frac{d\varphi}{\sqrt{1 - k^2 \sin^2 \varphi}}.$$

When $k = 1$, this integral becomes

$$F(1, \varphi) = \int_0^\phi \frac{d\varphi}{\cos \varphi} = \log \tan \left( \frac{\pi}{4} + \frac{\varphi}{2} \right).$$

If further $\varphi = \frac{1}{2}\pi$, it is seen that the complete elliptic integral

$$F_1(1) = F\left(1, \frac{\pi}{2}\right)$$

is logarithmically infinite, while $F_1(0) = \pi/2$.

As this is the only possible chance, remote though it be, for an integral of the first kind "to claim kin" with one of the third kind, I don't see why a gentleman from Alabama, where relationships are cherished, the connection often being even more remote, should suffer a "jolt" (see the BULLETIN, Febru-