

- Arts. 1-14. Definitions and Elementary Properties of the Theta, Omega, and Elliptic Functions.  
 15-23. Arithmetical Theory of Binary Matrices.  
 24-34. The Transformation of the Theta and Omega Functions.  
 35-45. Geometrical Representation of Binary Quadratic Forms.  
 46-51. Geometrical Representation of the Modular Functions  $\Phi\omega$  and  $\Psi\omega (= \phi^s\omega, \psi^s\omega)$ .  
 52-58. The Modular Equation.  
 59-62. The Equation of the Multiplier.  
 63-73. The Modular Curves.  
 74-82. Theory of the Modular Functions  $\phi\omega$  and  $\psi\omega$ .  
 83-88. Theory of the Modular Function  $T\omega = (1 - \chi^{2^s}\omega)^2 \div \chi^{2^s}\omega$ .  
 89-90. The Differential Equation of the Modular Equations and Curves (this last section somewhat incomplete).

A good deal of the same ground is gone over in Weber's *Elliptische Functionen und Algebraische Zahlen* (8vo, Brunswick, 1891), a work which exhibits in a very compendious form the higher parts of the theory of Elliptic Functions, and which well deserves to be carefully studied.

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NOTES.

THE Annual Meeting of the AMERICAN MATHEMATICAL SOCIETY was held in New York on Friday afternoon, December 28, at three o'clock. There were seventeen members present. In the absence of the president and vice-president, Professor R. S. Woodward occupied the chair. Reports were presented by the secretary and treasurer. The secretary stated that the membership of the Society was 251. The average attendance at the ordinary meetings during the year had been 16, the attendance at the last annual meeting 24, and that at the summer meeting 22. The number of members who had attended at least one meeting was 60. An auditing committee was appointed to examine the treasurer's accounts.

The annual election being then in order, the chair appointed Dr. Blake and Dr. Stabler tellers. Upon examining the ballots cast in person and by mail, they announced that the following ticket had been elected :

*President*: Dr. GEORGE W. HILL.  
*Vice-President*: Professor HUBERT A. NEWTON.  
*Secretary*: Professor THOMAS S. FISKE.  
*Treasurer*: Professor R. S. WOODWARD.  
*Librarian*: Dr. EDWARD L. STABLER.

*Committee of Publication*: { Professor THOMAS S. FISKE,  
 Professor ALEXANDER ZIWET,  
 Professor FRANK MORLEY.

*Other Members of the Council*:

Professor THOMAS CRAIG, Dr. EMORY McCLINTOCK, Professor MANSFIELD MERRIMAN.	}	To serve until Decem- ber, 1895.
Professor HENRY B. FINE, Professor E. HASTINGS MOORE, Professor ORMOND STONE.		To serve until Decem- ber, 1896.
Professor SIMON NEWCOMB, Professor CHARLOTTE ANGAS SCOTT, Professor HENRY S. WHITE.	}	To serve until Decem- ber, 1897.

In the absence, through illness, of the retiring president, Dr. Emory McClintock, the address which he had been invited by the Council to deliver to the Society was read by Dr. Charlton T. Lewis. It was entitled "The Past and Future of the Society," and is printed in the present number of the BULLETIN, page 85. At the close of the address the following resolution was offered and unanimously adopted: "*Resolved*, That the AMERICAN MATHEMATICAL SOCIETY, on the occasion of the retirement from the presidency of Dr. EMORY McCLINTOCK, expresses its appreciation of the great services rendered by him while presiding officer of the Society, and its recognition of the fact that to his initiative were due the broadening of organization and extension of membership which have made the Society properly representative of the mathematical interests of America."

The following papers were read:

- (1) "On a certain class of canonical forms," by Mr. RALPH A. ROBERTS.
- (2) "A new definition of hyperbolic functions," by Professor M. W. HASKELL.

REPORT OF THE TREASURER FOR THE YEAR 1894.

The report which I have the honor to submit exhibits the receipts and disbursements for the year ending December 27, 1894.

In the receipts are included: 1st, the amounts received for dues and initiation fees for the year 1894; 2d, the amounts received for dues of previous years; 3d, the amounts received for dues for the year 1895; 4th, the amounts received from subscriptions to and sales of the Bulletin of the Society; and 5th, the amounts received from subscriptions to fund

for publication of papers presented at the Mathematical Congress of the Columbian Exposition of 1893.

The receipts of the Society for the past year, as shown by the following itemized statement, amount to \$1624.31. The disbursements for the same period amount to \$1049.39.

The Society's present cash assets, on deposit in the Fifth Avenue Bank of New York, are \$1116.67.

R. S. WOODWARD, *Treasurer.*

NEW YORK, *December 27, 1894.*

*The Treasurer in Account with the American Mathematical Society.*

<i>Dr.</i>		<i>Cr.</i>	
1894.		1894.	
Dec. 27.		Dec. 27.	
To balance on hand Dec. 27, 1893.....	\$541.75	By cash paid Macmillan & Co. for publication of Bulletin, extra copies thereof, and authors' separates.....	\$682.00
To cash received from dues and initiation fees during the year ending Dec. 27, 1894.....	1357.91	By cash paid Wm. R. Jenkins for printing 500 copies of list of members of the Society; for printing membership, subscription, and receipt blanks; for printing programmes for summer meeting; and for stationery.....	141.95
To cash received from subscriptions to and sales of the Bulletin of the Society.....	106.40	By cash paid Sabiston, Murray & Co. for stamped envelopes, for printing notices of monthly meetings, and for stationery.....	62.04
To cash received from subscriptions to fund for publication of papers presented at the Mathematical Congress of the Columbian Exposition of 1893.....	160.00	By cash paid for postage	45.00
		By cash paid for clerical assistance .. . . .	36.40
		By cash paid for miscellaneous expenses of Secretary.....	5.89
		By cash paid Prof. O. Bolza as rebate from payment to publication fund.....	25.00
		By cash paid as contribution of New York Mathematical Society to the New York Alliance of Scientific Societies for the years 1893 and 1894	50.85
		By discount on foreign draft.....	0.26
		By balance on deposit in Fifth Avenue Bank of New York .....	1116.67
	\$2166.06		\$2166.06

## REPORT OF AUDITING COMMITTEE.

The undersigned, a committee appointed at the annual meeting of the American Mathematical Society, December 28, 1894, for the purpose of auditing the accounts of the Treasurer, respectfully report as follows:

We have examined the account of receipts, including dues, initiation fees, and sales of Bulletin, and find the same to be correct and satisfactory. We have examined the statement of disbursements, compared it with the vouchers, and find that they agree. We have examined the returned checks, which agree with the vouchers and with the bank-book, the balance reported by the Fifth Avenue Bank December 27, 1894, corresponding with the Treasurer's report.

EDW. L. STABLER.  
E. M. BLAKE.

NEW YORK, *December 28, 1894.*

WE learn with regret of the death, on December 8th last, P. L. Tchébichef, member of the St. Petersburg Academy of Sciences.

AN edition of Dr. Halsted's translation of Bolyai has been published in Japan. This is a sequel to the beautiful edition printed at Tokyo of Dr. Halsted's Lobachevsky.

## NEW PUBLICATIONS.

## I. HIGHER MATHEMATICS.

- BERGER (A.). Sur l'évaluation approchée des intégrales définies simples. Upsal, 1893. 4to. 52 pp. Mk. 3.00
- BOLZA (O.). On the first and second logarithmic derivatives of hyper-elliptic  $\sigma$ -functions. 4to. 26 pp. [*American Journal of Mathematics*, Vol. 17, No. 1, pp. 11-36.]
- CLEBSCH (A.). Sur les courbes planes dont les coordonnées sont fonctions rationnelles d'un paramètre. Traduit par Durand. Paris, Hermann, 1894. 4to. (Lithogr.) Fr. 3.00
- DICKSTEIN (S.) i WAWRYKIEWICZ (E.). Bibliografia matematyczna polska XIXgo stulecia. Zeszyt próbny. (Specimen of a bibliography of the Polish mathematics of the 19th century.) Kraków, 1894. 8vo. 32 pp.
- EDWARDS (J.). Integral calculus for beginners. With an introduction to the study of differential equations. London and New York, Macmillan, 1894. 12mo. 8 and 308 pp. \$1.10
- ENGELMANN (T. W.). Gedächtnisrede auf Hermann von Helmholtz. Leipzig, 1894. 8vo. Mk. 0.60
- GEORGIUS DE HUNGARIA. Arithmetice summa tripartita, 1499. Ediderunt cum introductione (Hungarice conscr.) K. Szily et A. Heller. Budapestini, 1894. 8vo. 11 and 24 pp. Mk. 0.60