vincing the procureur impérial ; all the notes which had been
seized and in which figured complexes, orthogonal systems,
and names of geometers, bore in no way upon the national
defenses.   Lie was released ; his high and generous spirit
bore no grudge against our country.   Not only did he
return voluntarily to visit it but he received with great
kindness French students, scholars of our École Normale
who would go to Leipzig to follow his lectures.   It is to the
École Normale that he dedicated his great work on the theory
of transformation groups.   A number of our theses at the
Sorbonne have been inspired by his teaching and dedicated
to him.
   The admirable works of Sophus Lie enjoy the distinc-
tion, to-day quite rare, of commanding the common admira-
tion of geometers as well as analysts.   He has discovered
fundamental propositions which will preserve his name
from oblivion, he has created methods and theories which,
for a long time to come, will exercise their fruitful influence
on the development of mathematics.   The land where he
was born and which has known how to honor him can place
with pride the name of Lie beside that of Abel, of whom
he was a worthy rival and whose approaching centenary he
would have been so happy in celebrating.

NOTES.

   THE sixth summer meeting of the AMERICAN MATHE-
MATICAL SOCIETY will be held at the State University of
Ohio, Columbus, Ohio, on Friday and Saturday, August
25–26.   The meeting will thus immediately follow that of
the American Association for the Advancement of Science.
A circular giving more definite information will shortly be
issued by the committee in charge.

   A NEW List of Members of the AMERICAN MATHEMATICAL
SOCIETY, including the constitution, by-laws, and the re-
ports of the Treasurer and Librarian, has recently been
published and distributed to the members of the Society.
Copies of the List may be obtained from the Secretary.

   AT the regular meeting of the London mathematical so-
ciety of February 9th the following papers were presented :
—" Note on a case of divisibility of a function of two vari-

ables by another function," by Mr. A. BERRY ; " Scatter-
ing of electric waves by an insulating sphere," by Professor
A. E. H. LOVE ; " On groups of order p^3q," by Mr. A. E.
WESTERN ; " The group of linear substitutions on mq vari-
ables which is defined by a certain invariant," by Dr. L.
E. DICKSON ; " On the irreducible concomitants of any
number of binary quartics," by Mr. A. YOUNG ; " On a cer-
tain minimal surface and on a solution of $\nabla^2 U = 0$," by
Mr. T. J. BROMWICH ; " On the complete system of covari-
ants of a single Pfaffian expression, and of a set of Pfaffian
expressions," by Mr. J. BRILL ; " On the figure of Jacobi
with respect to a linear system of hyperquadrics," by Pro-
fessor P. H. SCHOUTE.

A MEETING of the Edinburgh mathematical society was
held February 10th, at which papers were read by Dr.
SPRAGUE " On the eight queens' problem," and by Profes-
sor J. E. A. STEGGALL " On a problem of Lewis Carroll's."

THE Annuario for 1898 of the Circolo matematico di
Palermo shows that society to be in a flourishing condition
with one hundred and seventy-four members of whom thirty-
one are not residents of Italy.   Professor F. CALDERARA is
president, and Professors F. GERBALDI and G. B. GUCCIA
are secretaries for the years 1898–99.   Professor Guccia
represents the council of the society as directing editor of
the *Rendiconti*, of which the current volume is the thirteenth.

DR. GUSTAF ENESTRÖM, editor of the *Bibliotheca mathe-
matica* has issued an elaborate index of the first ten volumes
(1887–96) of the second series of that historical journal.
The index occupies eighty-five octavo pages and is subdivided
into four parts : an alphabetical list of authors, a systematic
table of the original notes, a list of the reviews, and an al-
phabetical name and subject index.   A unique feature of
the index is the short biographical notes placed under the
names in the list of authors ; forty-three of these notices
are accompanied by small well-executed photo-engravings
of the authors.

THE concluding number has just been received of the
first volume of the *Bolletino di bibliografia e historia delle scienze
matematiche*, a quarterly review edited by Professor GINO
LORIA, of the University of Genoa, and published by Carlo
Clausen, of Turin.   Each number is to consist of at least
thirty-two octavo pages and the subscription price for the
annual volume of four numbers is seven and a half francs
for countries in the postal union.   The first volume consists

of one hundred and sixty pages accompanied by a table of contents and an index of names; it contains two articles, one by the editor on the history of the strophoid, and the other an appreciative article in French on the scientific work and life of Tchébychef by A. VASSILIEF.   In addition to these the volume contains a large number of reviews of recent mathematical tracts and treatises, together with announcements of university programmes, necrological notices, and general notes.

THE subject of the Adams prize of the University of Cambridge for 1901 is "Electric waves."   The competition is open to all graduates of the university and the prize is two hundred and twenty-five pounds sterling.

THE prize problem of the Belgian academy of sciences for the current year calls for an important contribution to the geometry of the straight line without specifying what the general nature of the contribution is to be.   The prize is six hundred francs.   Memoirs should be written in French or Dutch and presented anonymously to the secretary of the academy before August 1st, 1899.

THE Madrid academy of sciences offers three prizes for a treatise on circular, hyperbolic, spherical, and spheroidal trigonometry.   The first prize consists of fifteen hundred pesetas and a gold medal; the second, of a medal; and the third, of an honorable mention.   Competing works should be written in Spanish or Latin and presented anonymously before December 31st, 1899.

THE Spring announcements of the Cambridge University press include the second volumes of the collected mathematical papers of Professor P. G. TAIT and of the scientific papers of the late Professor J. C. ADAMS; scientific papers by Lord RAYLEIGH, the late Dr. HOPKINSON, and Professor O. REYNOLDS; "A treatise on geometrical optics," by Mr. R. A. HERMAN; "On the kinetic theory of gases," by Mr. S. H. BURBURY.

UNIVERSITY OF PARIS.   The following courses in mathematical subjects are announced by the faculty of sciences for the second semester beginning March 1st, 1899, each course consisting of two lectures per week :—By Professor PICARD : Differential equations from the point of view of mathematical physics.—By Professor GOURSAT : Analytical functions and differential equations.—By Professor APPELL : The general laws of the motion of systems, analytical me-

chanics, hydrostatics, and hydrodynamics.—By Professor
POINCARÉ : The figures of the heavenly bodies and their
motion about their centers of gravity.—By Professor WOLF :
The subjects comprised in the programme for the certificate
in astronomy.—By Professor BOUSSINESQ : The propagation
of motion in an elastic medium of infinite dimensions.—
By Professor G. KOENIGS : The study of machines.—By
Professor LIPPMANN : Acoustics and optics.—By M. RAFFY :
Differential equations and their applications to mechanics
and physics.—Conferences will be conducted by Messrs.
RAFFY, HADAMARD, PUISEUX, ANDOYER, and BLUTEL.

PROFESSOR G. FLOQUET has been made professor of math-
ematical analysis, and Dr. J. MOLK, professor of mechanics,
at the University of Nancy.   Dr. W. NATANSON, of Vienna,
has been appointed assistant professor of mathematics in
the University of Cracow.

DR. OTTO WIENER, of Giessen, has been called to a full
professorship of physics at the University of Leipzig, and
Dr. OTTO WIEDEBURG has been promoted to an assistant
professorship of physics in the same institution.   Professor
W. WIEN, of Aachen, has been called to Giessen as Pro-
fessor Wiener's successor.   Professor WALTER KÖNIG, of
Frankfort, has been made professor of theoretical physics
at the University of Heidelberg.

PROFESSOR F. SCHILLING, of Karlsruhe, has accepted a
call to Göttingen, to succeed Professor A. Schoenfliess who
has gone to Königsberg.

THE deaths are announced of Professors W. HANKEL and
G. WIEDEMANN of the University of Leipzig and of Dr.
RUPERT BÖCK, professor of mechanics in the technical high
school of Vienna.

AT Cambridge University, Mr. G. W. WALKER, of Trin-
ity College, has been elected to the Isaac Newton student-
ship in astronomy and physical optics.

PROFESSOR L. CREMONA, of Rome, has been elected an
associate of the Belgian academy of sciences.