



THE MINNESOTA GEOLOGIST

OFFICIAL BULLETIN
OF
THE GEOLOGICAL SOCIETY OF MINNESOTA

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EDWARD PARRIS BURCH

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HISTORY OF THE GREAT LAKES

GEOLOGICAL SOCIETY OF MINNESOTA

831 SECOND AVENUE 60.
MINNEAPOLIS 2, MINN.

THE GEOLOGICAL SOCIETY OF MINNESOTA is devoted to the study of GEOLOGY and MINERALOGY for their cultural value.

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MEETINGS: From October to May inclusive our Society meets every MONDAY evening, not a holiday, in the large auditorium on the 4th floor of the Public Library at Hennepin Avenue and 10th Street, Minneapolis, Minnesota, at 7:30 o'clock P.M. From June until September, inclusive, we have a program of field trips. Visitors are very welcome, always.

DUES: For residents of Hennepin and Ramsey Counties \$3.00 annually, plus \$1.00 additional for your wife, husband, or dependent family members; for those residing elsewhere, \$1.00 per person.

THIS ISSUE

IS DEDICATED TO THE MEMORY

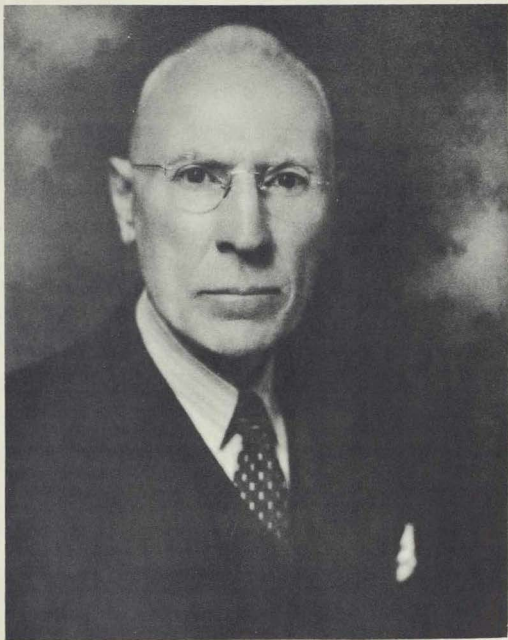
of

Edward Parris Burch

FOUNDER

of

THIS SOCIETY



EDWARD PARRIS BURCH

1870 - 1945

Edward Parris Burch was born in Menomonie, Wisconsin, in 1870. During his early school days, he took part in his father's business, and even at that time displayed a love of order and system, in the manner in which he kept the books. He also showed a fondness for mathematics, subsequently he entered the University of Minnesota and was graduated as an electrical engineer in 1892. While pursuing his studies at the University, he took many subjects not usually available to electrical students, and in these, he has stated, he found great help and assistance through the years of his professional work.

Following graduation from the University, he entered the employ of the Twin City Rapid Transit Company, which at that time, was rapidly expanding its lines and power plants. He had charge of the installation of the power plant at St. Anthony Falls which generates ten thousand horsepower of electrical energy. This work was successfully and satisfactorily completed under great engineering difficulties due to abnormally high water. It was under his supervision also that the first underground high tension electric transportation system in the United States was installed in Minneapolis, for the same company.

In 1900 he opened an office as consulting electrical engineer, still retaining however, his connection with the Street Railway Company. In the same year he completed one of his first major projects by installing the electric utility in Stillwater, Minnesota. He also served as consulting engineer for the Detroit, Michigan, Electric Railway Company. While serving in that capacity, he gathered material for two books which he later published, the first on "Electric Traction for Railway Trains" and the second on "Telephone Rates in Detroit in 1916". His writings included also a professional paper upon the subject "Railway Problems of the Twin Cities", in which he proposed satisfactory solutions of many complicated engineering problems. His professional work took him into every state of the Union, and everywhere he left a record of successful accomplishment, marked with honesty and integrity.

He became a member of the Engineering Club of Minneapolis in 1900, and was shortly thereafter elected its secretary. This Society is authority for the statement that his minutes during his term of office are a testimony to his wholehearted interest in the success of that Society. He became president of the Society in 1905 and lived to see its membership exceed 1,000. He was the first to propose that their meetings include dinner with one or two professional papers read afterwards, which materially increased the attendance and influence of the Society.

WHEN THE BUSINESS DEPRESSION FASTENED ITSELF UPON THE COUNTRY IN 1932, HE RETIRED FROM ACTIVE BUSINESS WORK AND DEVOTED THE REMAINDER OF HIS LIFE TO TRAVEL AND CULTURE. HE WAS NOT A PERSON TO MISS OR TO PASS BY THE WONDERS OF NATURE UNNOTICED, AS HE WAS ESSENTIALLY A STUDENT. HE DEVOTED THE GREATER PART OF HIS REMAINING YEARS TO THE STUDY OF GEOLOGY PURELY AS A MATTER OF CHOICE. HE AGAIN ENTERED AS A STUDENT AT THE UNIVERSITY OF MINNESOTA AND SPENT THREE YEARS IN THE STUDY OF GEOLOGY. THIS WAS FOLLOWED BY POST-GRADUATE WORK AT THE UNIVERSITY OF ARIZONA. HIS OWN STORY OF WHY AND HOW HE CAME TO BE INTERESTED IN THIS SUBJECT WAS RELATED IN A CHARMING MANNER IN "THE MINNESOTA GEOLOGIST" OFFICIAL BULLETIN OF THE GEOLOGICAL SOCIETY OF MINNESOTA, FOR JUNE 1943. IN 1936 HE READ A PROFESSIONAL PAPER BEFORE THE ENGINEERS SOCIETY ON "ENGINEERING GEOLOGY OF THE TWIN CITIES". THIS SUBJECT WAS THEN OF PARAMOUNT INTEREST BECAUSE OF THE CONSTRUCTION OF THE TWIN CITY SEWAGE DRAINAGE PROJECT.

HE FOUNDED THE GEOLOGICAL SOCIETY OF MINNESOTA IN 1938, AND INCORPORATED IT IN 1939. THIS SOCIETY NOW HAS 191 MEMBERS, AND LAST YEAR HAD AN AVERAGE ATTENDANCE OF 87 AT ITS WEEKLY MEETINGS.

HIS TRAVELS HAVE TAKEN HIM FAR AND WIDE, AND THIS PART OF HIS WORK HE ENJOYED, ESPECIALLY AFTER HE WAS FREED FROM THE RESPONSIBILITIES OF HIS BUSINESS LIFE. HE TAUGHT GEOLOGY FOR PLEASURE AND THE SHEER ENJOYMENT OF IT. HE HAS MADE SEVERAL VALUABLE COLLECTIONS OF ROCK SPECIMENS, SHELLS AND FOSSILS. SOME OF THESE HE GAVE TO THE UNIVERSITY OF MINNESOTA AND SOME TO THE MINNEAPOLIS SCIENCE MUSEUM. HE HAD A GREAT ENTHUSIASM FOR HIS WORK AND FOR THE SUBJECT OF GEOLOGY AND HAD THE FACULTY OF IMPARTING IT TO OTHERS.

HE DEVELOPED AN ORIGINAL METHOD OF MAKING LANDSCAPE MODELS, ACCORDING TO SCALE, USING CELOTEX BOARD, COMMON PINS AND CASEIN. HE MADE MANY OF THESE MODELS AND THEY WILL BE OF GREAT PERMANENT VALUE TO THOSE DESIRING TO STUDY THEM.

HE MARRIED HARRIET JACKSON OF MINNEAPOLIS IN 1896. THEY HAVE ONE DAUGHTER, MRS. IMOGENE WOLCOTT OF EAST SANDWICH, MASSACHUSETTS AND NEW YORK CITY. ALSO SURVIVING, IN ADDITION TO HIS WIFE AND DAUGHTER, ARE A BROTHER, DR. FRANK E. BURCH OF SAINT PAUL, TWO SISTERS, MRS. H. E. MCWETHY OF SAINT PAUL, AND MRS. E. B. HILL OF YPSILANTI, MICHIGAN, AND A GRANDSON, ROGER WOLCOTT, WHO HAS JUST BEEN RELEASED FROM A GERMAN PRISON CAMP.

THIS MEMORIAL IS MADE AS A PERMANENT RECORD OF OUR RESPECT AND REGARD FOR MR. BURCH, OF OUR OBLIGATION TO HIM AS FOUNDER OF THIS SOCIETY, AND OF HIS UNUSUAL AND FAITHFUL DEVOTION TO ITS OBJECTIVES AND GENERAL WELFARE, AS WELL AS HIS LOVE OF THE SUBJECT OF GEOLOGY FOR ITS CULTURAL VALUE.

"VIRTUS JUNXIT MORS NON SEPARABIT"

ARS

EULOGY

"NO OTHER MAN HAS INFLUENCED MY LIFE FOR THE PAST SEVEN YEARS, DIRECTLY OR INDIRECTLY, SO MUCH AS HAS MR. BURCH. HIS SERIES OF LECTURES DURING THE AUTUMN OF 1938 WHEN THE GEOLOGICAL SOCIETY OF MINNESOTA WAS BEING FORMED, INSPIRED ME TO A NEW OUTLOOK ON LIFE, A NEW APPRECIATION OF THE WORLD IN WHICH WE LIVE. THE ADDITIONS TO MY PRIVATE LIBRARY REFLECTS THE CHANGE IN MY READING INTEREST.....I OWE MUCH TO MR. BURCH."

CHARLES PRESTON

"I WAS ASSOCIATED WITH MR. BURCH CONSTANTLY FOR THREE YEARS. HE WORKED CONSTANTLY, NEVER RESTING, ALWAYS WITH NEW IDEAS FOR TRIPS, FOR LECTURES, FOR GETTING NEW MEMBERS AND FOR RAISING MONEY. IN HIS WORK HE INSISTED ON ACCURACY. IN SPEECH HE INSISTED ON BRIEFNESS.....HE WAS A GENIUS.....A GREAT TEACHER AND A FINE FRIEND."

JUNIOR F. HAYDEN

"MR. BURCH WAS A FRIEND WITH CLEAR CUT OBSERVATION AND FAR REACHING INTEREST IN ALL THINGS, LENDING A HELPING HAND TO ALL. AS WE JOURNEY OVER OUR STATE HE WILL ALWAYS BE WITH US."

ELSIE HINCHLEY

"BECAUSE OF MR. BURCH'S PATIENT INTEREST IN AMATEUR GEOLOGISTS, I NOW ENJOY A MOST INTERESTING HOBBY."

MARGARET PASCHKE

"EDWARD P. BURCH WILL BE MISSED IN OUR SOCIETY. WE HAVE SUSTAINED THE LOSS OF A TRUE FRIEND AND LEADER, ONE WITH WHOM A CASUAL ACQUAINTANCE MADE LIFE AND THE WORLD SEEM BETTER.....I CAN ONLY EXPRESS MY REGRET AT HAVING MADE OUR LAST TRIP TOGETHER AND HOPE TO MEET HIM WHERE PARTING SHALL BE NO MORE."

ELMER H. BROWN

"THE BEST MONUMENT WHICH THE GEOLOGICAL SOCIETY CAN ERECT TO MR. BURCH IS THE PERPETUATION OF THE SOCIETY ITSELF WITH HIS MOTTO "THOSE WHO REFUSE TO WORK MUST EXPECT TO BE SORED.".....HIS ABSENCE WILL INCREASE IN THE MEMBERS OF THE SOCIETY THE OBLIGATION TO SHARE WITH OTHERS THE INTEREST WHICH HIS VIGOROUS AND UNSELFISH NATURE BROUGHT TO THEM."

JOSEPHINE M. KING

"OUR SOCIETY WAS FORTUNATE IN HAVING MR. BURCH AS ITS FOUNDER. FORTUNATELY ALSO HE WAS ABLE TO GIVE SO MUCH OF HIS TIME AND UNBOUNDED ENERGY TO THE SOCIETY DURING ITS FORMATIVE PERIOD. IT WILL BE EXTREMELY DIFFICULT TO REPLACE HIM, THOUGH HIS INSPIRATION WILL CONTINUE TO BE OF GREAT INFLUENCE."

GANA RYDER

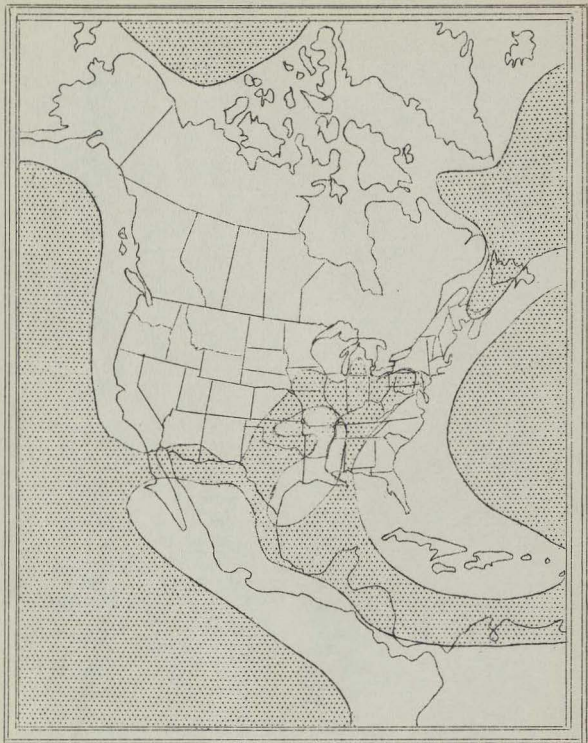
THE FOLLOWING PARAGRAPH WILL BE REPEATED WITH EACH SET OF PALEO GEOGRAPHIC MAPS. THESE MAPS, EXCEPT THOSE OF EUROPE, WERE COPIED FROM SCHUCHERT, AS MODIFIED BY MILLER AND OTHER AUTHORS, AND ILLUSTRATE VARIOUS INVASIONS OF THE SEA UPON THE CONTINENT. IN PAST AGES, RESPONSIVE TO GREAT FORCES, THE SURFACE OF THE CONTINENTS ROSE, AND FELL AGAIN, MANY TIMES. WHEN THE SURFACE SANK BELOW SEA LEVEL, THE SEA COVERED GREAT AREAS OF THE LAND. THE PROCESSES OF EROSION CONTINUED TO WEAR DOWN THE LAND REMAINING ABOVE SEA LEVEL, AND THE RESULTING MATERIAL WAS DEPOSITED IN THE SEA, TO BECOME SEDIMENTARY ROCK. THUS, LARGE AREAS OF THE CONTINENT HAVE COME, IN TIME, TO BE COVERED WITH GREAT LAYERS OF LIMESTONE, SHALE AND SANDSTONE. BY A STUDY OF THE AREA COVERED BY THESE ROCKS, GEOLOGISTS HAVE BEEN ABLE TO OUTLINE, IN A GENERAL WAY, THE LIMITS OF THE VARIOUS INVASIONS BY THE SEA. THESE SEAS ARE KNOWN AS "EPEIRIC" AND "EPI-CONTINENTAL" SEAS. THAT IS, THEY WERE SEAS UPON THE CONTINENT, AS DISTINGUISHED FROM THE ABYSSAL DEPTHS OF THE OCEAN. THEY WERE NEVER VERY DEEP, PROBABLY NOT MUCH OVER 600 FEET, YET MANY THOUSANDS OF VERTICAL FEET OF MATERIAL WAS COLLECTED IN MANY PLACES IN THESE SEAS, BECAUSE THE WEIGHT OF THE ACCUMULATED MATERIAL CAUSED THE FLOOR OF THE SEA TO GRADUALLY SINK, AS NEW MATERIAL WAS ADDED. FORTY TO FIFTY THOUSAND FEET OF MATERIAL WAS NOT UNCOMMON, IN THE GREAT SEA TROUGHS.

THE PENNSYLVANIAN PERIOD

FOR MANY MILLIONS OF YEARS PRIOR TO THE CARBONIFEROUS PERIOD THE LAND SURFACE, ALTHO GOING THROUGH A LONG SERIES OF RISING AND FALLING, WAS PRACTICALLY FREE OF ANY GREAT TECTONIC DISTURBANCES. THE LAND WAS OF COMPARATIVELY LOW RELIEF. THE CLOSE OF THE MISSISSIPPIAN PERIOD HOWEVER, SHOWED THE EFFECTS OF GREAT OROGENIC MOVEMENTS, WHICH WERE TO CONTINUE FOR A LONG TIME. THE COLORADO PLATEAU BEGAN TO RISE SOMEWHAT AND THE ANCESTRAL ROCKIES APPEARED. THESE MOVEMENTS CONTINUED INTO PENNSYLVANIAN TIME. IN AMERICA GREAT CRUSTAL MOVEMENTS BEGAN TO CHANGE THE GEOGRAPHY. IN EUROPE A GREAT CHAIN OF MOUNTAINS WAS FOLDED AND THEIR FOLDS AND GRANITE STUMPS ARE VISIBLE TODAY IN GERMANY, FRANCE, BELGIUM, ENGLAND AND WALES. THERE WERE UPLIFTS ALSO IN AUSTRALIA, AFRICA, AND SOUTH AMERICA. THE DEPOSITION OF PENNSYLVANIAN ROCKS COVERS A WIDE AREA AND IN PLACES REACHED GREAT THICKNESS. PRACTICALLY ALL THE CENTRAL PLAINS REGION IS UNDERLAIN WITH PENNSYLVANIAN ROCKS.

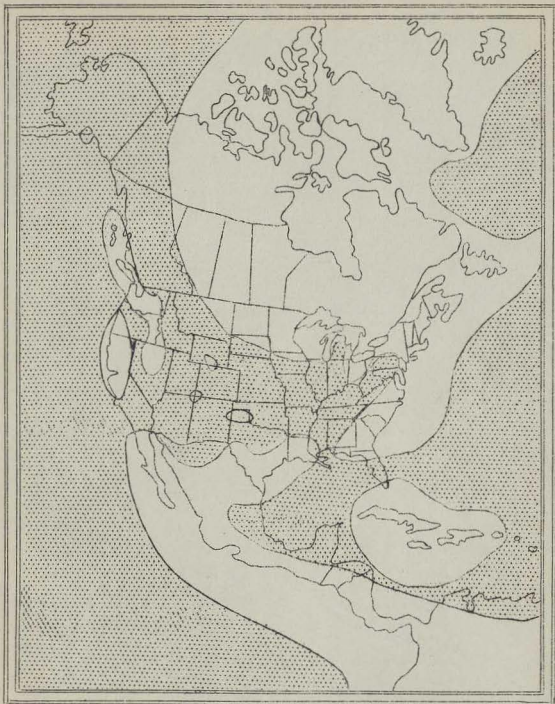
THE CHARACTERISTIC FEATURE OF GREATEST NOTE HOWEVER, IS THE FORMATION OF THE GREAT COAL MEASURES. PLANT LIFE BY THIS TIME WAS VERY LUXURIANT. IN EASTERN AND CENTRAL UNITED STATES THE SURFACE WAS FLAT AND POORLY DRAINED SO THAT TREMENDOUS AREAS OF LOW FRESH WATER SWAMP LANDS WERE CREATED. VEGETATION DECAYED IN THESE SWAMPS, AND SLOWLY BUT GRADUALLY RESULTED IN THE FORMATION OF COAL. THE GREAT APPALACHIAN FIELD EXTENDS 850 MILES FROM NORTHERN PENNSYLVANIA TO ALABAMA. THE MID-CONTINENT FIELD COVERS ANOTHER 800 MILES. IT IS ESTIMATED THAT THERE IS AVAILABLE IN THE UNITED STATES 3,500,000,000,000 TONS OF COAL.

THE PLANT LIFE NOW BECAME COMMON AND ABUNDANT. AN EQUABLE CLIMATE AND EASY MIGRATION LED TO AN EXTENSIVE SIMILARITY IN PLANT AND ANIMAL LIFE THROUGHOUT THE WORLD. THEIR DISTRIBUTION WAS FACILITATED BY THE FACT THAT MOST PLANTS HAD SPORES, OR MICROSCOPIC REPRODUCTIVE GERMS WHICH COULD BE WIDELY FLOWN OR CARRIED BY AIR CURRENTS. INSECTS GREW TO ENORMOUS SIZE. A DRAGON FLY 29 INCHES ACROSS THE WINGS HAS BEEN FOUND IN BELGIUM. THE PERIOD IS SOMETIMES REFERRED TO AS THE AGE OF COCK-ROACHES, SINCE MORE THAN 800 KINDS HAVE BEEN FOUND, SOME 3 AND 4 INCHES LONG. IN-VERTEBRATE LIFE WAS PROLIFIC AND VARIED. BRACHIOPODS WERE MOST COMMON. CEPHALOPODS, WITH SHELLS, FORECAST THEIR GREAT DEVELOPMENT IN THE SUCCEEDING PERMIAN PERIOD. OF THE AMPHIBIA 88 SPECIES ARE KNOWN. SKELETAL REMAINS OF SOME REPTILIA, THE NEXT HIGHER CLASS, WHICH WERE TO DOMINATE THE LAND IN THE NEXT, PERMIAN, PERIOD ARE FOUND IN THE UPPER PENNSYLVANIAN ROCKS, BUT THEY ARE EXCEEDINGLY RARE. THEIR DEVELOPMENT CAME IN THE NEXT PERIOD AND THEY WERE DESTINED TO RULE THE WORLD FOR MANY MILLIONS OF YEARS.



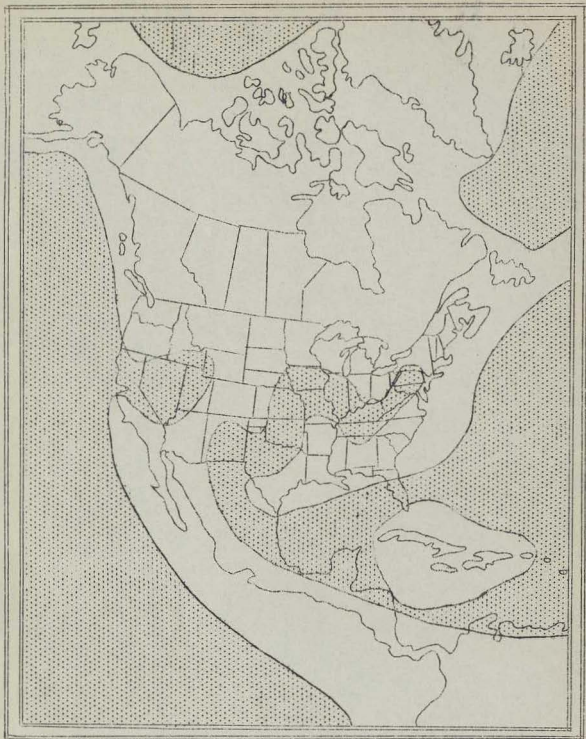
(21) PENNSYLVANIAN- EARLY

(SCHUCHERT, MODIFIED; STIPPLED AREA IS SEA)



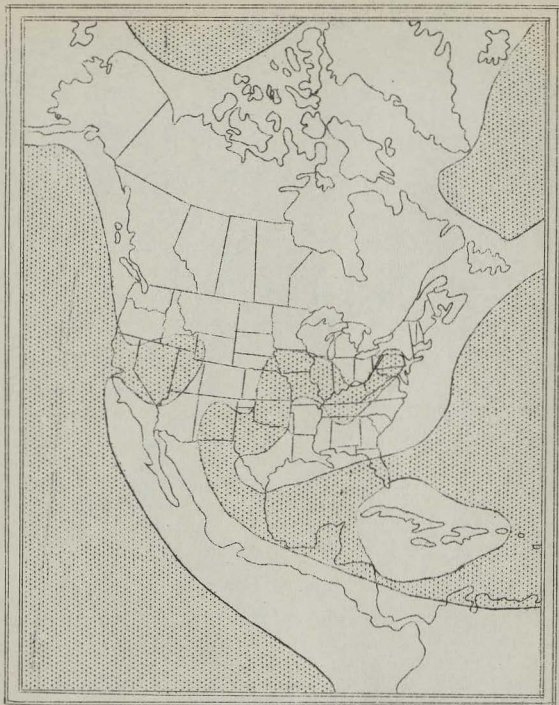
(22) PENNSYLVANIAN—MIDDLE

(SCHUCHERT, MODIFIED; STIPPLED AREA IS SEA)



(23) PENNSYLVANIAN, LATE

(SCHUCHERT, MODIFIED; STIPPLED AREA IS SEA)



(23) PENNSYLVANIAN, LATE

(SCHUCHERT, MODIFIED; STIPPLED AREA IS SEA)



(24) EUROPEAN-PENNSYLVANIAN (MILLER-F.X.SCHAFFER)

"OUT-OF-TOWN" MEMBERSHIP

IF YOU RESIDE OUTSIDE OF RAMSEY AND HENNEPIN COUNTIES, MINNESOTA, YOU MAY BECOME A MEMBER OF OUR SOCIETY BY PAYMENT OF THE ANNUAL MEMBERSHIP FEE OF \$1.00.

YOU WILL RECEIVE A MEMBERSHIP CARD, ALL NOTICES OF OUR ACTIVITIES, INCLUDING MEETINGS, LECTURES, FIELD TRIPS, ETC., AND THE BULLETIN OF OUR SOCIETY, THE MINNESOTA GEOLOGIST WHICH IS PUBLISHED EIGHT TIMES DURING THE YEAR.

MAIL THE FOLLOWING APPLICATION TO THE SOCIETY'S OFFICE WITH CHECK OR CURRENCY FOR \$1.00.

"OUT-OF-TOWN" MEMBERSHIP APPLICATION
GEOLOGICAL SOCIETY OF MINNESOTA
831 SECOND AVE. SOUTH,
MINNEAPOLIS 2, MINNESOTA

I ENCLOSE HERewith \$1.00 AND APPLY FOR MEMBERSHIP IN YOUR SOCIETY;

NAME _____ RESIDENCE _____ PHONE _____
(PRINT) (PRINT)

BUSINESS _____ BUSINESS ADDRESS _____ PHONE _____

SIGNATURE

ADDRESS



THIS IS THE LAST OF THIS SERIES ON THE HISTORY OF THE GREAT LAKES. WE HOPE THAT YOU HAVE ENJOYED IT AND THAT IT HAS BEEN INFORMATIVE.

A GLANCE AT THE ABOVE MAP WILL SHOW THAT THE ICE HAS NOW RETREATED ENTIRELY FROM THE LAKE BASIN. THE DRAINAGE OUTLETS ARE NOW THE NORMAL ONES, EXCEPT THAT THE VALLEYS OF THE HUDSON AND THE ST. LAWRENCE ARE STILL DROWNED, AND IN EFFECT ARE STILL SEA-WAYS. LATER, AS THE LAND ROSE IN RESPONSE TO THE LIFTING OF THE WEIGHT OF THE ICE BECAUSE OF THE MELTING THE DRAINAGE OF THE HUDSON TO THE SOUTH WAS RESUMED AND THAT OF THE ST. LAWRENCE TO THE NORTHEAST WAS ALSO RESUMED. THERE HAS BEEN NO SIGNIFICANT CHANGE SINCE THE RETREAT OF THE ICE, EXCEPT A GENERAL RISE IN THE LAND LEVEL NORTH OF THE GREAT LAKES. THIS RISE IS STILL IN PROGRESS.

MUCH OF THE DATA FOR DETERMINING THE OUT-LINES OF THE VARIOUS STAGES OF THE LEVELS OF THE SEVERAL LAKES HAS BEEN SECURED BY PATIENTLY SEARCHING OUT THE OLD BEACHES MADE BY WAVE ACTION OF THE LAKE WATERS AT THEIR VARIOUS LEVELS. THIS MUST HAVE BEEN A RATHER DIFFICULT TASK, BUT PATIENCE AND HARD WORK HAVE GIVEN US A PRETTY GOOD PICTURE OF WHAT HAPPENED AND WHERE.

WE SUGGEST THAT YOU PRESERVE THE MAPS OF THIS SERIES. YOU MAY WISH TO REFER TO IT FROM TIME TO TIME IN THE FUTURE AND YOU MAY FIND IT HELPFUL. WE WOULD APPRECIATE YOUR COMMENT.

THE BULLETIN BOARD

FOLLOWING IS THE FIELD TRIPS SCHEDULE FOR THIS SUMMER. THE TRIPS FOR JUNE HAVE ALREADY BEEN ANNOUNCED. THE TRIPS FOR JULY, AUGUST AND SEPTEMBER ARE TENTATIVE, SO WATCH FOR ANNOUNCEMENT AT THE BEGINNING OF EACH MONTH FOR CHANGES IN SCHEDULE AND DETAILS OF EACH TRIP.

- SUNDAY JUNE 10, 1945: MENDOTA: Time 2 P.M.
LEADER, JOE W. ZALUSKY; PURPOSE, TO STUDY VALLEY AND CONFLUENCE OF RIVER WARREN WITH MISSISSIPPI RIVER, THE GLACIAL DRIFT, AND SECTIONS OF ORODOVICIAN ROCKS EXPOSED IN THE GORGE.
- SUNDAY JUNE 24, 1945: STILLWATER: Time 10:30 A.M.
LEADER, ELMER H. BROWN; PURPOSE, TO STUDY THE GEOLOGY AND PHYSIOGRAPHY OF THE STILLWATER AREA, TO FIND TRILOBITES.
- SUNDAY JULY 8, 1945: JOHNSON STREET QUARRY (MINNEAPOLIS)
Time 2:00 P.M., LEADER, GEO. A. RICKERT; PURPOSE, TO STUDY PLATTEVILLE LIMESTONE, AND TO FIND FOSSILS.
- SUNDAY JULY 22, 1945: MISS NOERENBERG'S LAKE MINNETONKA HOME
AT WAYZATA; Time 11:00 A.M., LEADER, ARN. RICKMIRE; PURPOSE, GENERAL GET-TO-GETHER, LECTURE SUBJECT, "PRECESSION OF THE EQUINOXES."
- SUNDAY AUGUST 5, 1945: SHEELY GRAVEL PIT: Time 2:00 P.M.
LEADER, MISS HELENE M. BECKER; PURPOSE, TO STUDY GLACIAL DRIFT AND ROCKS AND MINERALS FOUND THEREIN.
- SUNDAY AUGUST 18, 19, 1945 JAY COOKE PARK, DULUTH, PURPOSE, TO STUDY THOMSON SLATES & RELATED ROCKS; LEADER, POSSIBLY DR. GEO. M. SCHWARTZ.
- SUNDAY SEPTEMBER 2, 1945: TAYLOR FALLS, LEADER, MISS ELSIE HINCHLEY; PURPOSE, TO STUDY THE POT HOLES, KEWEENAWAN LAVA FLOWS AND CAMBRIAN CONGLOMERATE.
- SUNDAY SEPTEMBER 16, 1945: LAKE MINNETONKA HOME OF CHAS. H. PRESTON;
AND MINNETONKA MILLS GRAVEL PIT, LEADER, MR. PRESTON; SUBJECT: "MEXICO" AND RELATED SUBJECTS.
- SUNDAY SEPTEMBER 30, 1945: NOT DETERMINED.



ALMA BORCHARD
2105 BRYANT AVE. SO.
MINNEAPOLIS, MINN.5