

10:00 a.m. **Plant Pathology Section.**

Room 322. **C. W. Hungerford**, Chairman.

Joint session with the Inland Empire Section, Pacific Division, American Phytopathological Society.

1. Experiments with Inoculated Sulphur for the Control of Potato Scab.  
J. M. Raeder.
2. The Present Status of White Pine Blister Rust in the Pacific Northwest.  
S. N. Wyckoff and  
C. R. Stillinger.
3. The Relation of the White Pine Blister Rust to Idaho Forestry.  
Henry Schmitz.
4. The Silver Leaf Disease of the Apple (Illustrated).  
F. D. Heald.

10:00 a.m. **Geology and Geography Section.**

Room 317. **C. H. Clapp**, Chairman.

1. Clastic Dikes in Southeastern Washington (Illustrated).  
O. P. Jenkins.
2. A Winter in Geyserland.  
Beulah Brown.
3. Drainage Changes in the Columbia Basin Since the Coming of the Columbia Basalts (Illustrated)  
Thomas Large.

Northwest Scientific Association

# Program

of the

## First Annual Meeting

Lewis and Clark High School  
Spokane, Washington

April 11 and 12

1924

### Registration Headquarters

Room 122  
Lewis and Clark High School

#### Officers

M. F. Angell, President  
O. C. Pratt, Vice-President  
F. D. Heald, Secretary  
E. B. Harris, Treasurer

#### Councilors

M. T. Elrod                      A. L. Melander  
H. S. Brode

#### Local Committee

E. B. Harris                      Thomas Large  
O. C. Pratt

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## Transportation

A one and one-half fare for the round trip has been granted for the meetings of the Inland Empire Teachers Association by all the railroads in Oregon, Washington, Idaho and Montana. Tickets may be bought April 5-11 and return tickets will be honored to and including April 9-15.

Members of the Northwest Scientific Association may avail themselves of the special rate by buying one-way tickets to Spokane and depositing the receipt from the local agent with the Registration Clerk of the Inland Empire Teachers Association at the Dav-enport Hotel. The properly vouchered receipt will entitle the holder to return trip ticket at one-half fare.

## Registration

Members should register and pay their dues to the Treasurer at the Registration Headquarters, Room 122, Lewis and Clark High School, or dues may be mailed to Prof. E. B. Harris, Spokane University, Route 8, Spokane, Washington.

## New Members

The following are articles from the Constitution of the Northwest Scientific Association:

Article II. "The object shall be the Promotion of Scientific Research and the Diffusion of Scientific Knowledge."

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Article III. "Membership shall include anyone interested in the purpose of the Association on the annual payment of one dollar."

Anyone paying the annual fee of one dollar to the Treasurer will be enrolled as a member of the Association.

## Other Scientific Societies

The following Societies will meet with the proper sections of the Association:

Eastern Washington Branch, Society American Bacteriologists, Victor Burke, President.  
Northern Inter-Mountain Section, American Chemical Society, C. C. Todd, President.  
Inland Empire Section, Pacific Division, American Phytopathological Society, F. D. Heald, President.

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# PROGRAM

Friday, April 11

9:00 a.m. **General Session, Room 107.**

1. Opening address.  
Pres. M. F. Angell.
2. Science and Invention in the Van.  
G. F. Clukey.
3. The Agricultural Experimentation System in the United States.  
E. C. Johnson.

10:00 a.m. **Education Section.**

Room 314. **A. A. Cleveland, Chairman.**

1. The Relation of Science Teaching to Research in Science.  
J. H. Holst.
2. Individuality in High School Students  
I. T. Johnsrud.
3. The Determination of a Scale of Distinguishable Hues with Special Reference to Purple.  
Franklin O. Smith.
4. Notes on the Status of Bird Study in Normal Schools.  
J. W. Hungate.
5. The True-False Form of Examination in College and High School.  
C. W. Stone.

10:00 a.m. **Botany and Zoology Section.**

Room 317. **Melvin A. Brannon, Chairman.**

1. The Pacific Element in the Rocky Mountain Flora.  
J. E. Kirkwood.
2. Osmotic Pressure of Cell Sap and Other Physical Factors as Related to Evergreens.  
F. W. Gail.
3. Preliminary Report on the Liverworts of Moscow Mountains and Adjacent Country.  
Lois Clark.

4. Abandoned Acres.  
H. R. Flint.
5. The Biochemistry of Fertilization.  
E. A. Franks.
6. Multinuclear Germ Cells in the Columbian Ground Squirrel.  
J. E. Wodsdalek.
7. Relative Abundance of Varieties of Birds in the Spokane Country.  
J. L. Slonaker.

10:00 a.m. **Medicine and Bacteriology Section**  
Room 322. **Victor Burke, Chairman.**

Joint session with the Eastern Washington Branch Society of American Bacteriologists.

1. Treatment of Hay Fever Patients with Pollen Extracts from Local Plants.  
Robert Stier.
2. Preliminary Botanical Survey of Hay Fever Plants of the Inland Empire (Illustrated).  
T. A. Bonser.
3. The Prevention of Deafness in Children.  
O. M. Rott.
4. Studies in the Antiseptic Powers of Dyes.  
Victor Burke.
5. Studies in Acidosis: I. Acidosis as Indicated by the Components of Urine  
A. W. Barton.

2:00 p.m. **General Session.**

Room 314. **M. F. Angell, Chairman.**

1. An Interpretation of Mutation.  
E. B. Harris.
2. The Flowers and Insects of Mt. Rainier (Illustrated).  
A. L. Melander.

3:00 p.m. **Chemistry and Physics Section.**

Room 314. Joint session with the Northern Inter-Mountain Section of the American Chemical Society. **C. C. Todd, Chairman.**

1. Dimorphic Forms of Schiff's Bases.  
C. M. Brewster.
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2. Autolysis in Seeds.  
A. W. Barton.
3. Oxygen and Anodic Passivity in Metals.  
A. M. Shaffer.
4. Arc and Spark Spectra of Aluminum, Zinc and Carbon in the Extreme Ultra-Violet.  
R. O. Hutchinson.
5. The Electrometric Titration of Mercury with a Titanous Salt.  
R. P. Cope.

3:00 p.m. **Plant Pathology Section.**

Room 322. **F. D. Heald**, Chairman.

Joint session with the Inland Empire Section, Pacific Division, American Phytopathological Society.

1. Foot-Rot of Wheat Caused by a Species of Helminthosporium.  
C. W. Hungerford.
2. The Inheritance of Disease Resistance (Illustrated).  
E. F. Gaines.
3. The Witches' Broom Disease of Potatoes (Illustrated).  
B. F. Dana and  
C. W. Hungerford.
4. Spot-Rot of Apples.  
Roderick Sprague.
5. Round Table Presentation of Plant Disease Notes.

3:00 p.m. **Medicine and Bacteriology Section.**

Room 329. **Victor Burke**, Chairman.

Joint session with the Washington-Idaho Branch of the Society of American Bacteriologists.

1. The Effect of Sewage on the Water of the Spokane River.  
A. D. Butler.
2. Dormancy in Bacteria.  
Mrs. G. S. Burke.
3. Pin-point Colonies in Cultures from Milk.  
Orlena Hammond &  
Frieda Daum.

4. Growing of Algae in Pure Cultures for Nitrogen Determination.  
Lloyd Burkey.
5. The Replacement of Absorbed Soil Potassium.  
S. C. Vandecaveye.

3:00 p.m. **Geology and Geography Section.**

Room 317. **C. H. Clapp**, Chairman.

1. The Oil Possibilities of Southern Idaho.  
V. R. D. Kirkham.
2. The Grinnell Glacier.  
M. J. Elrod.
3. The Origin of the Palouse Soil.  
J. D. McMacken.

8:00 p.m. **General Session.**

Lewis and Clark Auditorium.

Public Lecture—The Native Peoples of the Belgian Congo. Lantern Illustrations.  
Dr. Frederick Starr.

**Saturday, April 12**

9:00 a.m. **Business Session.**

10:00 a.m. **Chemistry and Physics Section.**

Room 314. **C. C. Todd**, Chairman.

Joint session with the Northern Inter-Mountain Section of the American Chemical Society.

1. Research in Nutrition.  
Martha Koehne.
2. The Effect of Chemicals upon the Loss of Carbon and Nitrogen from Decomposing Wheat Straw.  
J. R. Neller.
3. Thermal Conductivities of a Few Insulators at Various Temperatures.  
G. W. Hammar.
4. Thermal Conductivity of Metals at High Temperature.  
M. F. Angell.
5. The Free Energy Dilution of Aqueous Solution of Barium Chloride.  
R. W. Gelbach.

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