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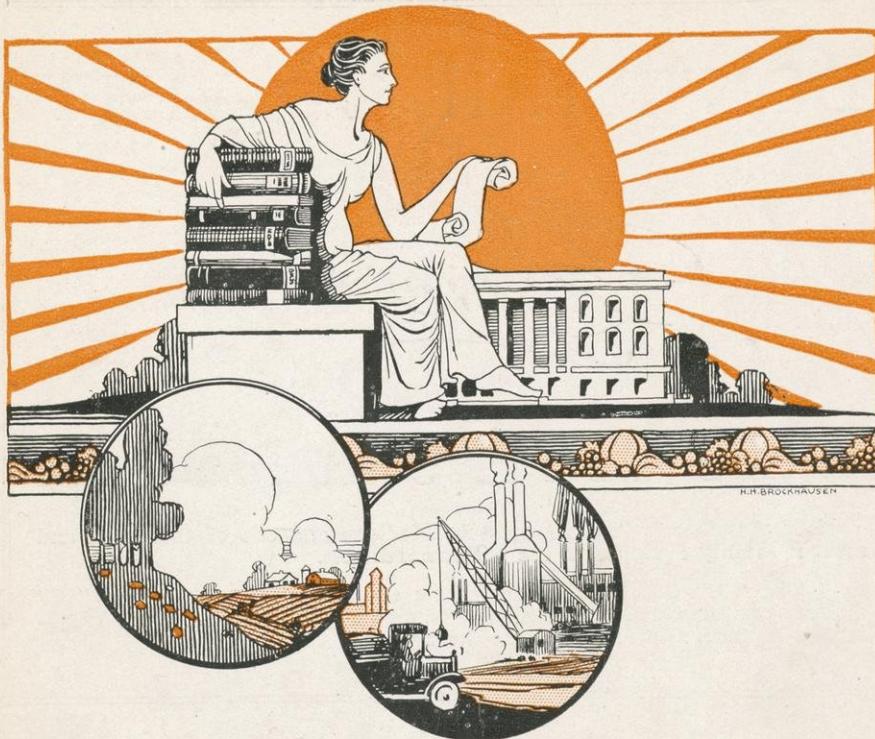
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F9029
U58
1921



U of W
EXPOSITION
THE ARMORY
APRIL 21, 22, 23
MADISON, WISCONSIN



PRICE
10 CENTS



F9029
U58
1921

DON'T FAIL TO VISIT

*The "4C"
Cafeteria*

While You Are in Madison

This Cafeteria is the largest in Madison and one of the finest and most modernly equipped in the entire northwest.

The "4C" Cafeteria is located on the first floor of the new "4C" College of Commerce building, next to city Y. M. C. A., on West Washington Avenue. One block from the Square.

You will find an unusual assortment of the latest and most attractive Gift Novelties now at

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Unique Shop*

130 State St.

THE
UNIVERSITY
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640 State St.

Drop in and see for yourself why our fountain is so popular.



Welcome
Stranger
to Madison
Burdick & Murray Co.

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U. of W. PICTORIAL HISTORY

See it in the Exposition Lounging Room
Wisconsin Life in Picture Form
1884 to 1921

6,000 pictures showing the U in all its phases. Your father's or mother's, or grandparents' picture may be inside its six volumes. Your club, your fraternity your sorority is represented.

This is our contribution to Wisconsin.



Wm J. MEUER PRESIDENT

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The K K Shop

The Kamera Kraft Shop

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Unordinary
Gifts

Distinctive
Stationery and Die Stamping

The University of Wisconsin

Presents its Third

All-University Exposition

at the

Armory

April 21, 22 and 23

Madison, Wisconsin

“Watch Wisconsin Work”

For Your Entertainment
The Haresfoot Club
presents
“Miss
Quita”

its twenty-third annual production

Friday and Saturday
April 22 and 23

Matinee Saturday

FULLER THEATRE

Seat Sale Now

Prices \$2.00 and \$1.50

Save a Night for Haresfoot!

The Program of Entertainment

THURSDAY—MADISON DAY

1:00 P.M. Parade leaves lower campus.
1:55 Salute to the Governor, U. W. Cadet Corps Battery—lower campus.
2:00 Official Opening University Exposition—Address by Gov. John J. Blaine—front of University Gym.
2:30- 4:00 Music by Thompson's Orchestra.
3:30- 4:40 Snowflake Lecture by Prof. B. W. Snow. Physics Auditorium.
4:15 "The Faun". Dance by Miss Julia Hanks and Miss Eleanor Riley.
4:45- 5:15 Saxaphone Sextet.
8:00 Women's Glee Club.
8:30 "Roman Ladders" Varsity and Freshman Gymnastic Teams.
9:00-11:00 Novelty Dance Orchestra.
9:30 Feature—"Doc" Dorward.
10:00 Radio Phone—Special feature—Physics Department.
12:00 Taps.

FRIDAY—UNIVERSITY DAY

1:30 P.M. Doors Open. Salute—4 guns, U. W. Cadet Corps Battery.
2:00- 2:45 Thompson's Orchestra.
2:30 Demonstration of Small Arms Firing—U. W. Cadet Corps, Lake shore, rear of Gymnasium.
2:50 "Roman Ladders" Varsity and Freshman Gymnastic Teams.
3:15- 4:00 Thompson's Orchestra.
3:30- 4:30 Snowflake Lecture by Prof. B. W. Snow. Physics Auditorium.
4:15 "The Faun" dance by Miss Julia Hanks and Miss Eleanor Riley.
4:45- 5:15 Saxaphone Sextet.
8:00-11:30 Thompson's Orchestra.
10:00 Radio Phone—Special feature—Physics Department.
12:00 Taps.

(Continued on next page)

SATURDAY—STATE DAY

9:00 A.M. Doors Open—Salute—4 Guns U. W. Cadet Corps Battery.

10:00-12:00 Thompson's Orchestra.

2:00- 2:30 Saxaphone Sextet.

3:00- 4:30 Concert—First Regimental Band.

5:00 "The Faun" dance by Miss Julia Hanks and Miss Eleanor Riley.

7:30 Glee Club Quartette.

8:00 "Roman Ladders"—Varsity and Freshman Gymnastic Teams.

8:30 Feature—"Doc" Dorward

9:00- 9:30 Men's Glee Club.

9:30-12:00 Thompson's Orchestra.

10:00 Radio Phone—Special feature—Physics Department.

12:00 Taps—University Exposition Closes.

Tours of the Campus

In order that the visitors to the Exposition may see many phases of University work which cannot be included in the exhibits in the gymnasium, personally conducted tours through the buildings and ground of the University will be held.

These tours will start at two, three and four o'clock every afternoon from the information tent between the Y. M. C. A. and the gymnasium. From the information tent the visitors will be taken to the state historical library and from there to the Electrical Engineering building where a number of interesting experiments in electricity will be performed. From here the tour will go to the Home Economics building and then to the Dairy building. Here the visitors can obtain a glass of fresh buttermilk. From the Dairy building the visitors will be taken to Agriculture hall where moving pictures of the work in the agricultural school will be shown. From there the tour will go to the Agronomy building and then back to the gymnasium.

Two other special tours will conduct visitors to Prof. Benjamin Snow's lecture, "Snowflakes", which will be given Thursday and Friday afternoons in the Physics Economics auditorium at three-thirty. These tours will leave the gymnasium at three-fifteen both afternoons.

The information tent between the Y. M. C. A. and the gymnasium will handle rooming lists, train schedules, lost and found articles and any information about the University that visitors may wish. Other booths at each station and the Park Hotel will furnish any information asked.

The University of Wisconsin Exposition Program

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What Does It Mean To You?

THE University Exposition means to us an opportunity to show you what we of Wisconsin are doing here at Madison. What does it mean to you?

Does it bring to you in vivid cross-sections of activity the life and work of the university? Does it mean that you can feel and see Wisconsin work? Do you catch the inter-relation between the training for service demonstrated here and the value of that service to your state?

If you have caught something of that spirit, if you feel, in your heart, just a little warmer towards the center of your state's educational forces, then our bit of work is not in vain, and we're glad that we've had this opportunity.

Some of you come from a long way off and we don't get to see you as often as we would like to do. We wish you could drop in on us every once in a while. But this is impossible, and so we've planned this big affair that you may see all that is the day's work at Wisconsin within the small space at our disposal. Here, too, you see this work as a link in the chain of the state's activities in every field. You see an enormous potential energy producer storing up day by day more power; and you see how this power may be loosed in varied fields to the everlasting glory of the state and its citizens.

We've worked hard to give you this opportunity because of what a splendid ideal we hold before us. Does it mean anything to you?

W. M. S.

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Agriculture

AGRICULTURAL BACTERIOLOGY

Those who have never seen living bacteria will find things in store for them at the Agricultural Bacteriology exhibit. Bacteria causing typhoid and many other diseases can be examined by the public.

A miniature outfit for vinegar making is used to show how bacteria aid in this work. Milk curds formed by bacteria are also shown.

Farmers growing alfalfa, clover, soy beans and other legumes will be interested in seeing the bacteria which help this family of plants in their growth, and how without them the growth, and therefore the crop, is greatly reduced.

AGRICULTURAL ECONOMICS

A farm-to-consumer exhibit, showing the changes of form and the number of hands an agricultural product goes through before it finally reaches the consumer is the exhibit of the agricultural economics department. Book-keeping for farmers is also demonstrated, and a model farm office is shown. A chart of marketing centers is of interest to the farmer.

AGRICULTURAL EDUCATION

No longer do the three R's dominate the curriculum of the rural school. By means of a comprehensive array of charts, graphs, and maps, the booth on agricultural education represents the spread of the teaching of agriculture in country schools, high schools, and state colleges in the past twenty years. A model school room adapted to the teaching of this subject is shown together with lists of reference books, bulletins, and pamphlets for those interested in teaching.

AGRICULTURAL ENGINEERING

A motion picture machine running continuously in a truly rural setting, namely, a miniature of a modern barn, shows units of the agricultural engineering department conducting work in land clearing, drainage, and other branches.

AGRICULTURAL EXTENSION; BOYS' AND GIRLS' CLUBS

The Agricultural Extension department, working through the medium of county agents, home demonstrations, and boys and girls clubs, will offer a booth showing the results of their work.

The achievements of the county agents are shown by means of a little electric railroad system in which the train stops at the stations "Better Homes", "Better Farms", and "Better Children". The home demonstration department shows how it conducts a milk campaign, and the benefits which are derived from it.

Actual demonstrations characterize the exhibit of the boys' and girls' clubs in which Madison children will take part. Little girls prove their prowess as cooks and milliners, and boys exhibit samples of crops grown by club members throughout the state. A display of pictures and charts will show the distribution of the clubs and the extent of their growth.

AGRICULTURAL JOURNALISM

To aid in making the storehouse of information at the College of Agriculture available to farmers and other citizens of the state is the main function of the department of agricultural journalism.

Bulletins containing new information in a popular form are sent to a huge mailing list of farmers. These bulletins are supplemented by circulars, leaflets to cover subjects that are of sudden or seasonal interest, regular contributions to a group of weeklies of the state, a daily news service, and feature story service to agricultural papers.

AGRONOMY

Wisconsin leads the world in the production of pedigree seeds. It has attained its high rank through the untiring experimental work conducted through this department. An unique idea representing the production of seeds in this state, and the extent of their distribution throughout the world, features the exhibit of the Agronomy department.

New crops that are gaining in favor in Wisconsin are soy beans, alfalfa, Sudan grass, and hemp. An interesting array of seeds, growing plants, mature plants, and products of these crops is exhibited.

ANIMAL HUSBANDRY

Exactly the types of animals and breeds that will be the most productive of either beef, milk, or other commodity is explained in the booth devoted to animal husbandry. Here one can see baby beefes of several breeds, milk cows, and other animals. Charts explaining the amount of increased production possible with some breeds over other breeds are shown. In addition, there are sheep, as well as a mare and a foal fitted for the show ring.

COW TESTERS ASSOCIATION

This exhibit shows charts of the work done by the university cow testers association among the farmers and dairymen of the state in providing information concerning the rank and grade of the cattle.

The value in dollars to the individual herdsman of the service of this department is demonstrated by maps and statistics.

DAIRY

Seven dairy tests invented by Wisconsin men which have been recognized of great value in the dairying business are to be seen. The famous Babcock butter fat test, the Wisconsin curd test, the alkali tablet test for the acidity of milk and cream, the sediment test for visible dirt in the milk, the butter moisture test, the ice cream Oberon test, and the Hart casein test for casein content in all dairy products are displayed and explained.

ECONOMIC ENTOMOLOGY

Why beekeeping has risen to the rank of tenth among the industries of the state of Wisconsin is demonstrated in the exhibit of the Economic Entomology department. Wisconsin honey is nationally known for its superiority. Just what progress in organization and bee school work has been done through this department among the beekeepers of the state is shown. Improved methods of controlling bees at swarming time and their application provides another interesting feature.

Spraying preparations for the control of insect enemies of fruits and plants vary in composition and in desirability and effect. The result of extensive experimental work in this field forms another phase of the exhibit.

GENETICS

What causes the appearance of "red Holsteins" in a herd of "black and white," has given rise to the advancement of

many theories. This phase of genetics explained on a pedigree basis by means of living animals and charts.

“Sex lineage” or “criss-cross inheritance”, referring to the resemblance which exists between fathers and daughters, and between mothers and sons, is explained in detail.

Recent developments in this little known science, which bear directly on the farmers and breeders’ problems is demonstrated with charts, and living animals and plants.

HOME ECONOMICS

A model cottage with a tea-room and a rest room in the form of a model living room constitutes the exhibit of the department of home economics.

Tea is served afternoons and evenings in the tea room. Its purpose is to show the application of the principles of interior decorating. The dresses worn by the girls in charge are costumes from the designing class.

The project of the family budget and clothing made by students are on display in the demonstration room.

The main idea of the college of Agriculture is to show production, transportation, and utilization in their relations to one another. The home economics exhibit shows utilization—the economic use of Wisconsin products in the home.

HORTICULTURE

A miniature small-fruit and vegetable farm, with a miniature farmstead, orchards, vegetable gardens, greenhouses, an overhead irrigation system in operation, and demonstrating sound ideas in landscape gardening, shows in part the extent of this department’s scope of operation.

MANUFACTURED PRODUCTS

Charts, photographs and samples of the finished product will show the work of Wisconsin as a manufacturing state. Surprising facts concerning Wisconsin as the leading state in the making of butter and cheese and the process of making it will be graphically shown.

How peas are canned, how grass from the marshes throughout Wisconsin is turned into matting, the process of tanning hides and how hemp and sorghum-products are grown are but a few of the other exhibits.

Other charts and photographs will show the increase of the manufacturing industry in the state and will explain how Wisconsin is complete in herself as a manufacturing and agricultural state.

PLANT PATHOLOGY

Spraying, selection of disease-resistant varieties, treatment of seeds before planting to kill disease, and the use of disease-free seeds as definite means of controlling plant disease are shown. Charts and growing plants show the results of these methods.

POULTRY

The practibility of the electric incubator is evinced at the poultry booth when a brood of little chickens will be hatched there. The advance in brooders is shown by representative white Leghorn chickens, both good and bad. For novelty's sake a three-legged rooster is to be seen. The hen in the role of a factory wherein the feed is the raw material and the egg the finished product comprises part of the exhibition.

SOILS

The value of lime and phosphate in all farm production is shown in the soils booth, as well as a soils survey of the state of Wisconsin. Potted samples of staple crops grown in various sorts of soil are to be seen. The soils of each locality in the state are on exhibit also.

VETERINARY SCIENCE

How veterinary science is instructing farmers as to the best methods for keeping their animals healthy by diagnosing diseases, preparing hog cholera serum, and such invaluable aid is the exhibit of the veterinary science department. Preserved specimens showing the diseased parts of animals and how to best prevent and fight these diseases is also shown.



Engineering

CHEMICAL ENGINEERING

An electric furnace, operating under 40 K. W. of power and at a temperature of over 2700° Fahrenheit melts steel which will be cast in molds at this booth. The watch fobs stamped from sheet copper by the mechanical engineers will be placed in a special bath, and nickel-plated by the use of electricity. When completed, these fobs will be given away as souvenirs of the Exposition.

Under the microscopes, the peculiar and characteristic crystalline structure of the different kinds of steel and other metals may be seen. Plates illustrating the analysis of metals by this means will be shown.

A large steam still will operate, making grain alcohol by the ordinary commercial method. Articles manufactured by chemical engineering students in their various courses are on display.

CITY PLANNING

Modern methods of laying out streets and planning gardens and parks for model cities will be demonstrated in this booth by means of charts and miniatures. Poor housing conditions will be compared with pictures of the most improved tenements.

CIVIL ENGINEERING

The exhibits of the Civil Engineering department are divided among three booths; one dealing with roads and pavements, the second with topography and surveying, and the third with a combination of hydraulic, railroad, and structural features.

Roads and Pavements

In the roads and pavements booth one of the features is a model of an old road poorly located, and a relocation of the road to meet the demands of modern traffic. Models of three kinds of pavements, cement concrete, asphaltic concrete, and sheet asphalt, show the various layers and the methods of construction of such roads. Besides this there are exhibits of various raw materials used in making different kinds of roads, models of road machinery, and maps and surveys of roads under construction.

Surveying

At the surveying booth is a demonstration of the use of some of the surveying instruments, such as the current meter to find the velocity and volume of water flow in rivers and apparatus for the measurement of angles. A demonstration survey of the Annex will be made. In addition there are computations of various problems, statistics dealing with the work of the department, and an exhibit of sample field notes and reports.

Hydraulics, Structures, and Railways

In the third booth one large model serves several purposes. A stream is dammed to furnish power for an actual power house equipped with model turbines. Below, the dam part of the stream is diverted to an irrigation project; the rest flows through a model sewage disposal plant. Around the whole, over bridges and through tunnels, runs a complete electric railroad. Among the other exhibits are: an airlift pump, such as is used to raise the water for Madison; a demonstration of water softening; and models of machinery, bridges, and structures.

ELECTRICAL ENGINEERING

A flasher system used for the illumination of booths in the Engineering Department will be demonstrated in the booth. Contrary to the usual use of automatic switching machinery, the lights are made to be alternately dim and bright by the difference in phase of the voltage between the wires of the circuit, thus eliminating a complicated wiring scheme to connect up a flasher switch. Along the same line, methods of illumination, ranging from the inefficient kerosene lamps, the gas flame, the gas mantle, and electric lamps of many kinds and of highest efficiency have been set up.

Photometric measurements of the intensity of light given off by various sources and the color effect of lamps by means of a ribbon which changes color as it is lighted by various lamps will be shown. The display of the construction of lamps, shows the several parts and how they are put together to form the completed structure ready for exhaustion.

The first Edison dynamo ever built, and one of fifteen used at Menlo Park, N. J., for the first exhibition of incandescent lighting is shown in this booth exhibited in connection with several old type arc lights, which it operates. It was built in 1880.

To show how the currents in a telephone circuit vary as the voice waves are spoken to a transmitter, an oscillograph has been arranged. The principle of both the alternating current and the direct current motor is shown by models illustrating the effects of the currents. There is a demonstration of the heating effects of electricity by means of heating appliances of several kinds.

A meter display designed to give an idea of how the ordinary house meter works, will remove the false impression that people have of this useful instrument. Watermeters, watthour meters, and other types of meters are also shown.

A skeleton telephone equipment which gives an idea of the operation gone through in connecting one subscriber's set with another at the central office is exhibited. Telegraph instruments are shown, and there is also a duplex set whereby two messages are carried over the same pair of wires.

Among the more mysterious stunts which tax the knowledge of the spectators, is a lamp mounted on glass and lighted without apparent contact with a source of current. A submarine lamp, ordinarily submerged, comes to the surface of the tank of water and is lighted without visible electrical connections.

FOREST PRODUCTS

Grain alcohol produced from sawdust by a machine recently developed for that purpose, one of the achievements of the Forest Products Laboratory, is a feature of the exhibit.

A huge Olson machine weighing fifteen tons performs tests to determine the tensile strength of ply-wood and in a rack to one side are samples of the wood showing the various stages it undergoes in the manufacture of airplane propellers.

Cases showing the various woods necessary in the manufacture of sporting goods and a model of a box drum operating with small boxes complete the exhibit.

MECHANICAL ENGINEERING

The divisions of the Mechanical Engineering exhibit are five in number and cover the subjects of shop work, steam and gas, machine design, mechanics and drawing.

Drawing

Silhouette post cards in profile may be secured as souvenirs at the drawing booth. The subjects will be placed before a screen, and by means of a strong light and a pantograph, their features will be transmitted to a smaller screen where drawing students sketch the outlines in.

Freak drawings, of all descriptions, demonstrate the importance of accurate work. The best plates made by students in the last year, the display of drawing apparatus and materials, and labor saving devices completes the exhibit.

Machine Design

An electric flasher in its operation will illustrate the principle of the electric street signs in the machine design booth. At one side is a very unusual and complex machine which writes the word "Wisconsin". A punch press designed and built by the mechanical class of 1921 is shown.

Numerous models demonstrate the workings of automobile differential gears, valve gears, gear trains and cams. The best plates made in the sophomore courses are on display and a universal drafting machine, used to facilitate the making of drawings will be demonstrated.

Mechanics

A 50,000 pound Riehle testing machine operates to show the maximum loads that specimens of steel, wood and concrete can stand in both tension and compression in the mechanics booth. A special machine, designed by Professor Commers, formerly of the University, will demonstrate the weakening of materials under continual shock. The hardness of many metals is tested by the Brinnell hardness machine.

Concrete blocks are made and tested for quality and strength. The suitability of other materials for various purposes is determined by a study of their fractures.

A demonstration of the importance of hardness tests on automobile crank shafts, and a display of various structural materials complete the exhibit.

Shops

The Shops exhibit is designed to illustrate modern machine shop and foundry methods as they are taught to the local engineering students. A model foundry will be in operation, showing the various processes by which iron and steel are carried from the crude bar to the finished casting. The metal is here melted in the furnace (known as the cupola) by the use of electricity and cast in sand molds. The process of sand molding is illustrated, and the various kinds of patterns and molding equipment shown.

A punch press will stamp watch fobs out of copper plate. These fobs will be available as souvenirs at the chemical engineering booth.

Steam and Gas

The application of steam and gases to practical use is shown in a model of one of the Allis-Chalmers Corliss engines run by steam from a pipe line. Engines similar to this model furnish the power for many modern factories.

The Eriesson hot air engine practical only for special designed work is operated through the generation of hot air by a gas flame. A St. Marys semi-diesel motor is run on crude oil as a fuel.

A model of a sleeve valve gas engine, and an ignition machine illustrate the admission of the fuel gas and its explosion by a spark from a magneto. The process of refrigerating is carried on by the compression of ammonia in a Lipman machine. There are also models of a steam boiler, and a DeLaval turbine.

MINING ENGINEERING

A large diagrammatic representation of a blast furnace, used in the preparation of iron from the ore, so arranged as to show actual samples of the raw materials put into the furnace, and similar samples of the various products of the operation are shown in this booth. In the same fashion a by-product coke oven plant will be demonstrated. A third chart will demonstrate the process of milling ores as carried out in south-western Wisconsin. An exhibition of mining machinery will be given at the mining laboratory and details of this machinery are available at the booth.



Letters and Science

BOTANY

The distinction between the mushroom and the poisonous toadstool is one of the many interesting things to be learned at the Botany exhibit. Experiments demonstrate the physiology of plants, and living or preserved specimens show the amazing extent and importance of the plant kingdom.

All botanical groups are represented, including a number of strange and unusual plants and ferns. Food plants and plants of commercial importance are emphasized. Features which add interest are samples of chlorophyl, the green coloring-matter of leaves, and microscopes showing bacteria and tiny plants.

CHEMISTRY

The exhibit of the chemistry department demonstrates the utility of that science in peace and war.

The manner of meeting our physical wants is presented in the organic chemistry exhibit where the part that chemistry plays in the production of our foods, clothes, and fuels and our soaps, drugs and perfumes is shown.

The chemistry of metals, glass, fertilizers, and other objects not vitally connected with living organisms is demonstrated in the inorganic chemistry group.

Numerous phenomena of practical life are explained in the theoretical and physical chemistry exhibit. Physico-chemical apparatus makes visible particles in solution; the composition of a star a million light years away in space is seen by means of a spectroscope.

The chemical warfare exhibit offers displays of explosives, gases, and flames. The observer may pass through a chamber of tear gas protected by the latest type of gas mask. The various types of masks used by all nations during the recent war may be examined. Motion pictures are shown of gas offensives and of gas and flame tests.

CLASSICS

The Declaration of Independence is accepted as a sample of the American language, and the importance to us of the classics is shown by the number of words of Latin derivation in that document. In the classics exhibited a monster placard contains a paragraph from the Declaration, and the Latin derivations are illuminated in red.

It also shows that there is a tendency to neglect classical education in the zeal for technical training, and our debt to Greece and Rome is often not realized. Particularly in our speech are we dependent upon them, as language charts show. The Classics exhibit points out the value and importance of classical education, and its practical application to modern life.

ECONOMICS

Charts show the department's growth, its work in placing teachers and professors of economics in other schools, the influence of the economic department throughout the state and nation, and the number of departmental members on state commissions.

A community service including Red Cross and social service work features represents the sociology department.

Practical economics is treated graphically showing the distribution of wealth in the United States and the forces entering into an economic training. A budget of the income and expenditure of a family of five is worked out on a chart. Books written by members of the department are displayed. Among them is a sample of one of the books printed with raised letters for the blind.

Charts from the public utilities and transportation department complete the exhibit.

EDUCATION

Moving charts and stereoptican slides illustrate each phase of work offered in the department of education, — history of education, educational psychology, technique of teaching, and administration and supervision.

Methods and results of recent studies concerning problems of retardation and measurements are set forth. School financing and subject matter are discussed.

The work of the department through the extension division in regard to placing teachers and certification of teachers is explained.

ENGLISH

A miniature Elizabethan stage on which will be presented the pantomime scenes from Romeo and Juliet, such as the scene of the lovers in the balcony, and the street fight scene, is the exhibit of the English department. Student members of the dramatic clubs give the interpretations and shifts of actors and actresses will be made twice in the afternoon and twice in the evening. The stage will be open for spectators between presentations.

The purpose of the exhibit is to show the Elizabethan stage at the time of Shakespear and its use during that period.

GEOLOGY and GEOGRAPHY

The Latin quarter in pre-glacial times, when sorority alley was infested with strange monsters scarcely less formidable to Man than the present inhabitants, is made real by the models and stereopticon slides of the Geology and Geography exhibit.

Rock is cut and polished to a paper-like wafer by means of a diamond saw, and the projection of this upon the screen, magnified greatly, shows the texture of the stone. An interesting demonstration shows that the hardest rocks will flow as though liquid if sufficient pressure is applied, and models show the warping and folding of the earth's crust.

Many other features equal in interest to these, and a map showing the location of alumni who have become prominent in the field of Geology after leaving Wisconsin, testify to the broad scope of the work done in this department.

GERMAN

True German life is represented by the typical old-fashioned German room which constitutes the exhibit of the German department. The room is furnished in antiques, with a table in the center, and pictures and wood-cuts hang on the walls.

The display represents a "Kaffee Stuben" or German coffee room. Kaffee Kuchen and Kaffee will be served at a small fee.

HISTORY

World maps showing the new boundaries throughout the world, the territory lost by the late enemy powers, and a map showing the seats of present war or serious political disturbances in every continent except Australia are on display in the department. A chart shows the war service of faculty members at the Peace conference and maps locate every history department in the United States and history students' former schools.

A history book in the making, showing the sources from which the author derived his information, notes, manuscript, galley proof, and the finished book may be seen along with exhibitions of work done by faculty members and undergraduates in the history department.

Original Babylonian and Assyrian clay tablets dating from 2450 to 525 B. C., letters, tax lists, inventories, Creto-Mycenean art objects, including vases, swords, bits of fresco, the originals of which date from 2000 to 1000 B. C., are on display.

Four minute lecturettes explaining the items will be given with one minute intermissions.

JOINT INDUSTRIAL RELATIONS

A miniature industrial employment office in which the visitors take the part of job seekers going through tests applied by efficient modern establishments is the exhibit of the Joint Industrial committee. Preliminary interviews with job seekers are given, application forms are filled out, and a model employment office actually operates before trade, psychological, and intelligence tests are taken.

The extension division gives examples of its service to industry; the State Industrial commission shows the application and enforcement of the state laws on safety, sanitation, wages, and hours while another exhibit shows the methods of the government in handling radicalism.

There are plans for industrial housing and plant "housekeeping". The exhibit is prepared by students specializing in industrial relations, and all the resources of the university applicable to the industrial field in meeting the many problems of labor management have been assembled.

MANUAL ARTS

The operation of a potter's wheel and a jeweler's enamel furnace are among other interesting processes demonstrated in the Manual Arts exhibit. A wood-turning lathe and a band saw are two of the machines used by the woodworking department; in art metal work the manufacture of jewelry, table silver and copper articles is shown.

Elementary handwork adapted to the grades includes book-binding, block printing, and leather tooling. A study in color is shown on a miniature stage, various scenic effects being obtained by the use of colored lights. Products of all classes are exhibited, as well as the actual processes involved, and placards made in the department explain the work going on at all times.

MATHEMATICS

Charts, together with working models, show the relation between the various historical stages in the development of our present day mathematics.

The connecting links between our present celestial mechanics and physical sciences in general and the theories worked out by ancient Greek mathematicians in their endeavor to work out a theory of conic sections and at the same time develop the human mind, are clearly shown.

PHARMACY

The mysteries of the prescription counter and the Latin abbreviations on the druggist's bottles will be explained by the Pharmacy exhibit. Students will prepare oils, tinctures and extracts from plants, and the various forms of the finished product will be shown.

The familiar drugs belladonna, digitalis, and quinine will show the methods of extraction from leaves, roots, and bark. Seedlings, crude material, and flowering plants grown on the experimental farm are exhibited, showing the scope of the practical work done by the Pharmacy school.

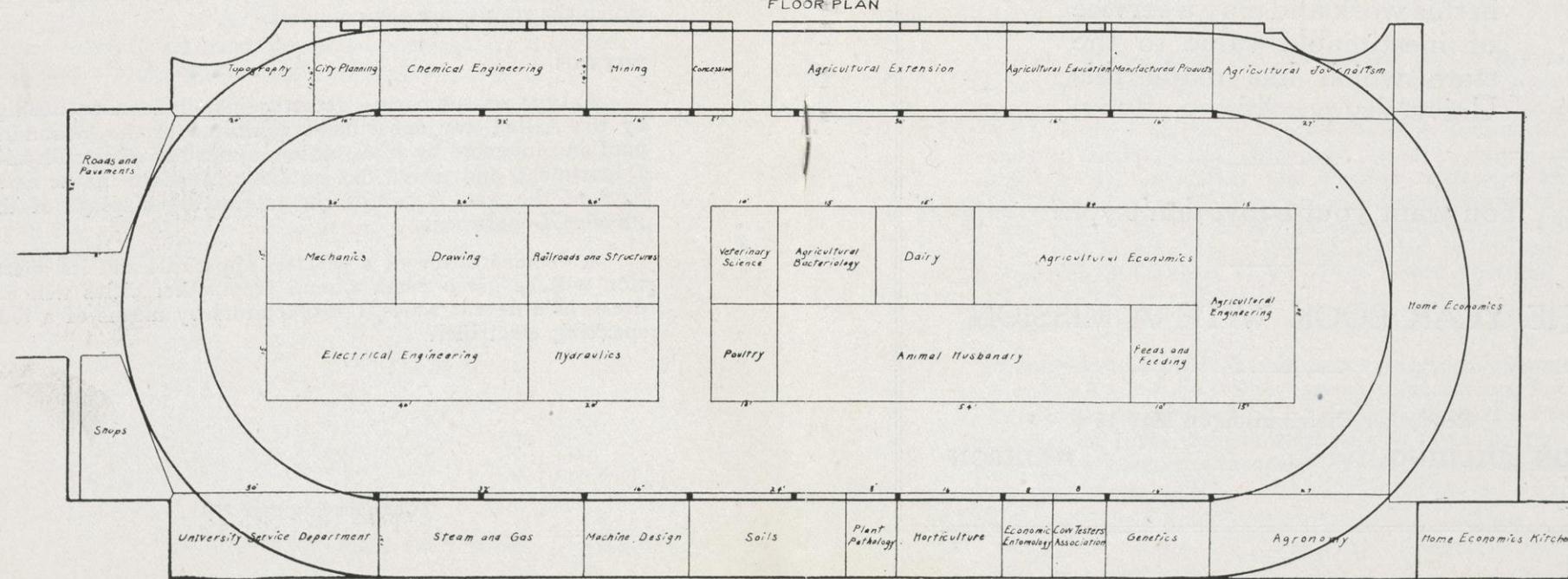
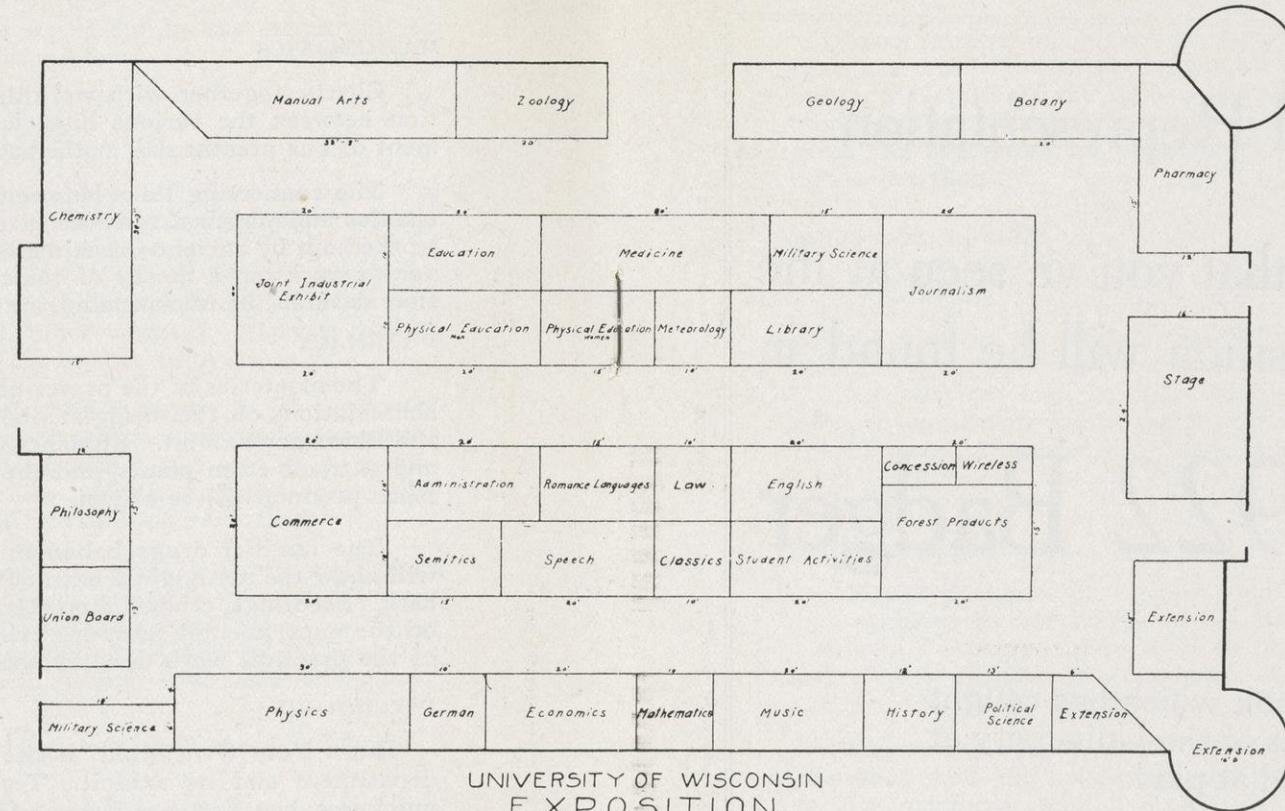
PSYCHOLOGY

"Know Your Own Mind" is the slogan of the psychology department and its exhibit. Test for nerves, imaginative quickness, how fast one learns and forgets, age intelligence, and judgments are given and measured by means of charts and plans. The spectators themselves make the scores from which the results are compounded.

PHYSICS

A type of submarine detector installed on battleships by the Allied war department exhibited in the swimming pool and invented by Max Mason, a member of the Physics Department, and tested out on Lake Mendota in the early days of the war, is one of the interesting displays of the Physics Department.

A demonstration of a wireless apparatus and its operation will be given when alumni from other cities will address, at different times, the spectators by means of a loud speaking electrifier.



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Exposition will be found in

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the spirit of the University at
work and at play.

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state which has made this
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UNION BUILDING

MADISON

Many interesting pieces of apparatus with demonstrations are shown, including moving pictures apparatus, x-ray machines, liquid air and its uses, powerful magnets, a gyroscope, and an electrical music box. A large double mirror gives the spectators an opportunity to see themselves as others see them.

POLITICAL SCIENCE

A machine for calculating the tax rate of the United States, as well as other of the more complicated mechanical devices used in the administration of the government, is seen in the exhibit of the Political Science department. All of these devices may be operated by the spectators. Important public documents, including the League of Nations covenant, and other details of city, state and federal government are shown.

ROMANCE LANGUAGE

Native costumes of various countries are worn by native students at the booth of the Romance Language department. Posters and pictures of plays given by students and faculty members are exhibited, and French newspapers and periodicals are displayed.

Charts and graphs of the different branches of the department show the increase in the number of students and faculty members and the growth of the department since the last exposition.

SEMITIC LANGUAGES

When in Rome, eat Roman candles, is the key-note to the Semitic Language exhibit. In the study of a foreign language, consistency requires some attention to the people of that country, and hence this exhibit is dominated by a number of antiques and objects of art of Oriental origin. There are Hebrew, Greek and Persian tapestries, and articles loaned by the Chinese and Hindoo students. Several ancient books and Bibles are of great interest. The development of the languages is explained by wall charts, and stereoptican slides show views of the Semitic nations.

SPEECH

Phonograph records on which are recorded stammering, stuttering, lisping, and other speech impediments form the feature of the speech exhibit. Detailed instructions for the correction of these impediments will be given by means of charts and phonograph records. Work in public speaking is given on a model stage.

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ZOOLOGY

Where have all the snakes been since the first of July, 1919? The zoology exhibit accounts for one of them—a big Congo snake—and for many other survivors of the Great Drought. Among the other interesting things to be seen is the heart of a turtle, recently removed and still beating. The circulation of blood in a frog's foot is plainly revealed by a powerful microscope. Aquatic insects are used in the study of the development of animals. A projection lantern shows living animals on the screen. Natural history is an important part of the exhibit, added by fossil remains of extinct animals.



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Special Schools

ADMINISTRATION

Charts graphically illustrating the plan of the organization of the University, the geographical distribution of the student body, and the work of some of the specialized departments, to give a bird's eye view of the University and for the special interest of the visiting high school pupils and citizens, feature the exhibit of this department.

Other charts show the reason why new buildings are needed and where the taxpayer's money and the student's money goes. Members of the committee in charge of the booth answer any questions relative to such phases of administrative activity such as registration, advanced standing, war credits, soldier bonus, rooming facilities, loans and scholarships, and student employment.

A special feature of the exhibit is the Hollerith tabulating machine, by means of which a wide range of statistics regarding the student body are quickly secured.

COMMERCE

The great advantage and importance of a commercial research bureau for the state of Wisconsin to carry on the investigation and analysis of commercial problems is the feature of the Commerce exhibit. Advanced methods of organizing and charting control are exhibited; and the whole is illustrated by charts showing results obtained in actual experimentation. Modern accounting, showing stock forms and ready-made systems, is to be seen. Machine accounting and regular accounting systems are compared to show the advantages of each. Experts in finance and investments explain market systems. In the advertising field one can see actual work produced by booklets, forms, and mail advertising.

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This store has become the leading supply for this class of specialties for University and private parties. Every successful social affair requires some sort of decoration or novelty. You too, should know us at the best in this line in the city. Ask to see what we have to offer you.

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EXTENSION DIVISION

A miniature Wisconsin community with its city hall, schools, business houses, etc., fitted with a clever device which shows the ways in which the Extension Division serves its various interests, is the feature of the exhibit.

A large map of Wisconsin is arranged to flash electrically in such a manner as to show the many types of service which this department of the University has rendered to all the communities of the state during the past two years.

Package libraries show the service which this department renders in the public discussion of current questions. The work of the Correspondence-study Department, which has an enrollment of nearly 20,000 students is also shown.

A special University Extension leaflet, descriptive of the many ways in which the people of the state are served through this department, is being distributed.

JOURNALISM

By printing in its booth the Exposition Newspaper, which is being distributed among the visitors, the Journalism Department is showing clearly the various steps through which a piece of copy goes from the time it leaves the hands of the copy reader until it emerges in the form of a newspaper.

The work of the compositors, photo-engravers, stereotypers, and pressmen is represented. Wherever possible the actual mechanism is shown, such as type cases, pages of set up type, zinc etchings and halftones, matrices, and semi-cylindrical stereotypes. There are pictures of every type of machine used in the printing of a modern newspaper, including linotype machines, stereotype machines, and the monster presses now used to print the world's greatest newspapers.

A list of the graduates of the Course of Journalism is posted and attached to it are the records of those who have entered the journalistic field. The Journalism Department is also conducting a contest between the high school publications throughout the state. These publications are judged as to written material, art work, arrangement, and printing. A medal of honor is to be awarded to the school winning first place.

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LAW SCHOOL

Tracing the history of law-making from the early Roman and Assyrian laws, through the English common law and Magna Charta, through the American constitution, down to the present day complicated system of constitutional and common law is shown by old volumes and charts in the law exhibit. In addition, law courses will be explained and planned for those interested in taking up a law course. There will also be photographs of famous barristers who have graduated from the Wisconsin Law school.

LIBRARY SCHOOL

An up-to-date library in miniature where books will be displayed for every department of the University and where borrowers will be registered, books lent, and questions answered is exhibited in this booth.

The process of cataloging and the skilled art of repairing worn out books will be shown. At stated intervals there will be story telling by the members of the Library School. All the work done in the school will be demonstrated.

MEDICAL SCHOOL

Apparatus of the latest development is being used by the department of physiology, to make x-ray pictures of visitors in the medical booth.

How to tell age on a punctimeter, how the tobacco test is made, and how poisons are detected in patent medicines are also shown. Unique exhibits demonstrate the action of a frog's muscle isolated from the body, the heart beats of a mud-turtle, and the pulse waves traced on a smoked drum.

The complete development of the human brain, and a comparison of the brain with that of various animals is shown by the histology and bacteriology departments. Microscopic specimens of the many stages of life of bacteria and cultures of disease producing germs are also shown.

The department of anatomy is showing anatomical specimens, charts and x-rays, and wax models of the development of the human embryo. Every hour moving pictures of the work done at the Bradley Memorial Hospital are shown.

MILITARY SCIENCE

Sections of shells and bullets, the different weapons carried by the infantry man and his other accoutrements are exhibited by the infantry and ordnance sections.

In conjunction with the physics department the signal corps is demonstrating the wireless telegraph, telephone, and other signal devices used by the corps in the field.

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On the lower campus the larger machines of war, the artillery trucks and tractors are displayed and on the lake front, behind the armory, a practical demonstration of the automatic rifle, machine guns, and the rifle grenade is given.

Besides the exhibits the military department started the Exposition with a salvo and the president's guard escorted President E. A. Birge and Governor J. J. Blaine to the Exposition.

MUSIC SCHOOL

Curious antique instruments and the more unusual modern musical instruments are the features of the Music booth. A phonograph furnishes selections of the curious and beautiful in music.

Posters and charts show the influence that the School of Music exerts over the university, the city of Madison and the surrounding country. Others show the course taken by the university to develop leaders in every conceivable branch of musical activity.

PHYSICAL EDUCATION

The history of athletics shown by charts and photographs to illustrate the growth of specific forms of athletics within the University and the distribution of the students in the various forms of athletic endeavor are features of the exhibit.

Photographs show the methods of physical development in the regular gymnasium work, in corrective exercises and in athletic participation. Stress is laid upon the policy of the department to furnish to all students some form of healthful and enjoyable developmental exercise.

The trophy room, in the main office of the department, will be opened for inspection of the trophies won by the various athletic teams of the University in the past.

SERVICE DEPARTMENT

Proposed plans for extensive improvements of the buildings, grounds, and outlying farms of the University, together with charts and maps showing the development of the campus in the past ten years are on exhibition in the service department booth.

Samples of the cabinet and paint work of the department and displays of the inlaid airbrush and gold leaf work, the kind that won the medal given to Wisconsin at the Pan American Exposition, are also on exhibit. The work of the tin shop is shown by samples of hammered copper work, sheet metal patterns and joints.

The electrical shop has an exhibition of their equipment for construction and repairs of the various electrical systems about the University. The evolution of the bubbling fountain is also demonstrated by means of models.

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