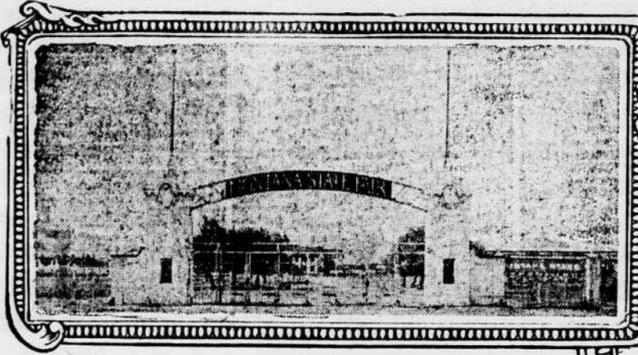
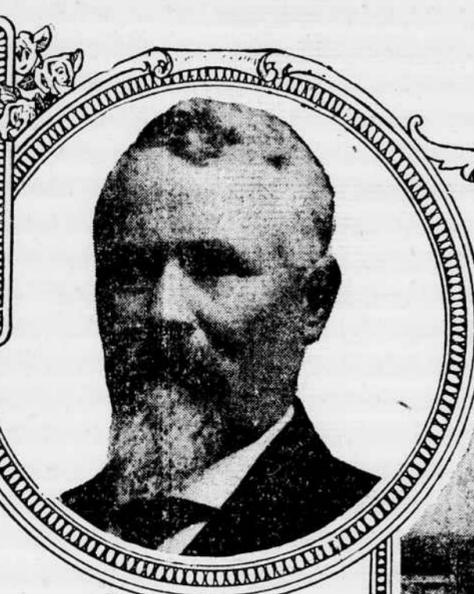


GREAT FALLS, MONTANA, SUNDAY MORNING, SEPTEMBER 7, 1919

# Gates to Swing Open Tomorrow Upon Montana's Seventeenth Annual Agricultural Exhibition



Main Entrance



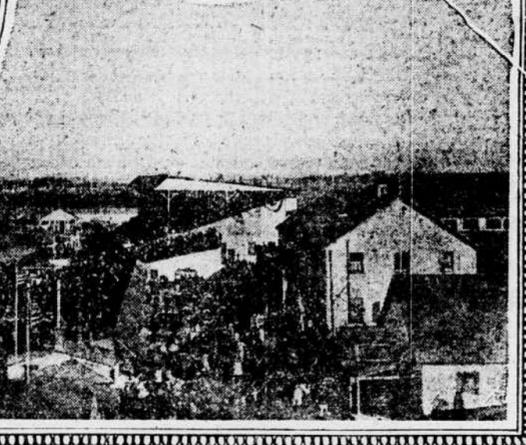
Pat Carney, Waterloo  
PRESIDENT



Sid J. Coffee,  
Missoula  
DIRECTOR



J.E. Choisser,  
Forsyth  
DIRECTOR



O.S. Warden, Typical crowd  
Great Falls  
VICE-PRESIDENT at Montana State Fair



Horace S. Ensign,  
Helena  
SECRETARY



W.M. Biggs,  
Helena  
DIRECTOR

Helena, Sept. 6.—All is in readiness for the opening of the Seventeenth annual Montana state fair and the gates will be thrown open to visitors from all sections of the state Monday morning. At this critical period in the state's agricultural history, Montanans may well be proud of the record of production made under adverse conditions during the season now coming to a close. At the fair they will see the results of

hard and energetic work on the part of those farmers and stock raisers whose indomitable spirit has bested the drought throughout the width and breadth of the Treasure state.

In order to stimulate a showing of the very best of Montana's products the premium list this year carries nearly \$20,000 in cash prizes. In addition many special premiums have been offered by livestock breeders organizations and

other institutions interested in the welfare of the state and its industry. The departments which share in the distribution of these premiums comprise exhibits of horses, cattle, both beef and dairy, swine, sheep, poultry, dairy products, fine arts, women's work and school exhibits in addition to the very comprehensive county collective displays of farm and field products of the soil.

### From Twenty Counties.

Both irrigated and non-irrigated products will be shown in abundance representing the selected products of twenty different counties in the collective competition. Notwithstanding the obstacles encountered by the growers through lack of moisture the agricultural exhibits throughout will measure well up to the high standard established by previous exhibitions.

The combined exhibits of several United States government departments, which will be on display at the Montana state fair will be a victory show. They will display many of the tools used by the army and navy in the war, and a large number of trophies captured on French battlefields by our soldiers. Then they will demonstrate the methods of better farming by which American farmers produced the enormous crops that weighed powerfully against the Germans, and by which American farmers now are shattering all past production records. Other phases of government work will be death with in the exhibits.

### Has Joint Committee.

The departments co-operating in the exhibits are agriculture, war, navy, commerce, treasury, interior and labor. The administrative work is handled by the joint committee on government exhibits, the chairman of which is Professor F. Lamson-Scribner, of the de-

partment of agriculture. The exhibits, made up in five sets, each practically a duplicate of the others, will be shown during the fair season on five circuits made up of the larger fairs and expositions. Each exhibit requires approximately 8,000 square feet for its proper installation.

The exhibit material from the department of agriculture will include photographs, enlarged pictures, charts and diagrams, all of which will be installed upon specially constructed panels; miscellaneous samples and objects of various kinds installed in cabinets; and models, illustrating various activities of the department, placed on tables. These three types of installation will be used throughout the agricultural display, giving it a new and entirely distinct appearance.

### What They Show.

Among the topics to be treated in the agricultural display are forest fire prevention, recreation in the national forests, woodland improvement, good and bad methods of lumbering, windbreaks, destructive insects and how to fight them, production of corn and other cereals, forage crops, fruit growing, prevention of plant dust explosions, farm treatment of hides, enforcement of food and drug act, destruction of adulterated foods, flour substitutes, drying vegetables, composition of soft drinks, agricultural extension work with men, women, boys and girls, home economics work, beneficial and destructive birds, fur farming, destruction rodents, picturesque American highways, road building, farm drainage, farm buildings, marketing by parcels post, city marketing and storage of fruits and vegetables, poultry raising, government meat inspection, eradication of animal diseases, dairying, sheep raising, silo construction, soils of the United States and crops to

which they are best adapted, fertilizers, weather forecasting and lightning rod installation.

### Display War Trophies.

War trophies from the battlefields of France, to be in the war department exhibits, include a large number of German military articles, of which the following are typical: Light and heavy machine guns, anti-tank guns, grenadewerfers, trench mortars, hand grenades, spiked helmets, trench periscopes, smoke pots, gas alarm devices, field telephones and switchboards, shell cartridges, rifles, sabers and personal equipment.

The war department will also exhibit American field guns, trench mortars, machine guns, aircraft guns, trench helmets, sawed-off shotguns, complete sets of infantry equipment, aircraft bombs, figures clothed in various uniforms, rank and service insignia, national and regimental colors, wireless telephone apparatus, enlarged photographs taken from airplanes in France, live carrier pigeons in cages, enlarged photographs of engineer work in France, and various other equipment of the engineer corps, air service, medical department and other branches of the army.

### In Naval Display.

Included in the navy department exhibits will be complete exhibition models of fighting ships of the navy, with smaller models showing the application of camouflage. Other navy displays will be torpedoes and torpedo trucks, machine guns, rifles, pistols, Y-guns for launching depth charges, projectiles of various sizes, winter and submarine uniforms, radio telephones, photographs showing the big naval batteries operating on land in France, and other naval equipment. The marine corps will occupy a large

part of the navy section, displaying various equipment used by the "fighters on land and sea."

The department of commerce will exhibit lanterns, sirens and other equipment used by its lighthouse service, leather made from fish skins, manufacture of pearl buttons, and fish breeding.

Other diversified features which will attract wide spread interest in the state fair this year are the automobile show which will be given prominence in a newly appointed exhibit hall to be devoted to the motor car exhibition as an annual state wide event and the truck and tractor show in which the manufacturers and dealers are co-operating to make it a big show in itself.

### Horse Races Daily.

Among the attractions the daily horse races composed of running events, the men's and girls' relay races and pony express races will furnish thrills for the crowds. There will be a goodly number of blooded horses, many of them Montana bred will compete for valuable purses amounting in all to over \$6,000 for the week. There will be no dearth of musical

entertainment, the Salt Lake Opera Quintette of which Secretary Horace S. Ensign is a member will sing every afternoon and will appear in concert with the Anaconda Copper Mine band of Butte. The Provost Military band of Anaconda and the Capital City band of Helena will also be in attendance during the week.

A musical novelty and the White Hussars will play in various departments at the fair grounds during the morning and afternoon of the big exhibition.

In the building up and progress of the Montana State Fair the excellent leadership of President Pat Carney, Waterloo; Vice President O. S. Warden, of Great Falls; Directors Sid J. Coffee, Missoula; William M. Biggs, Helena and J. E. Choisser, Forsyth and Secretary Horace S. Ensign, all of whom have been doing their utmost in making the state fair this year a greater and better institution, has shown their praiseworthy traits and its assured success is certain to confer credit on their management.

### Week's Program

- Monday—Helena Day.
- Tuesday—Northern Montana Day. Western Montana Day.
- Wednesday—World's War Veterans' Day. Anaconda Day.
- Thursday—President Wilson Day. Governor's Day. Butte and Great Falls Day.
- Friday—Eastern Montana Day. Southern Montana Day.
- Saturday—All Montana Day.

## Future Trains May Run on Skids Instead of Wheels

Railway trains that do not have wheels, but which glide along over a film of water by means of hydraulic shoes, or skids, may play an important part in transportation in the future says the Electrical Experimenter. It will be possible for such trains, which probably will run on a single track, to attain speeds not dreamed of in present day construction.

The gliding railway principle was first invented by L. D. Girard, a French engineer, who, in 1854, while working on a way to propel ordinary trains by hydraulic means, conceived the idea of doing away with wheels entirely and using skids on which the cars could skate along the track. He interposed between the skids and the track a film of water under pressure, thereby eliminating friction almost entirely, as no part of the moving cars came in direct contact with the rails.

### Railway Actually Built.

On his property near Paris he actually constructed such a wheelless railroad, which had no locomotive, a train itself being propelled by a sort of turbine arrangement whereby a jet of water was hurled against vanes mounted under the cars. The train operated so easily a 6-year-old child could move a standard railway car rapidly over the track was demonstrated by M. Girard. By actual experiment it was shown the cars could be moved with a weight one-two-thousandth the weight of the car, only a few pounds of energy being necessary to propel a train weighing several tons at a high rate of speed.

That such a train would run easily can readily be demonstrated. If we take two pieces of glass and dip them both in water it will be seen that when one is placed on top of the other it will slide around with astonishing ease, as they do not touch, the top one being supported by a thin water film. As the top plate is moved back and forth over the lower it will be found that little by little the water is being squeezed out and soon the plates will touch and free movement will come to a stop. But if we should drill a hole in the top piece of glass and attach a tube which continually forced water between the plates

the movement could be kept up indefinitely, as the film of water would be maintained.

This is exactly the principle of the gliding railway. The water film would be only about the thickness of six sheets of paper, but that is enough to insure smooth running. Inasmuch as no wheels are used and the hydraulic shoes have no tractive effort entirely new means must be provided for propelling such a train. A railway constructed at one time in Paris used a geared arrangement to drive the train, whereby a revolving pinion engaged an independent rail which extended the entire distance of the main track.

### Trains Easily Stopped.

It was found that enormous speeds could be obtained, with safety by such construction as the trains could be stopped almost instantly by simply cutting off the water pressure. This brings the hydraulic shoe in direct contact with the track and great friction at once sets in. No brakes are needed as the train is its own brake. On a train of this kind there is nothing to roll and the moment the water pressure is cut off the cars will stop at even the worst incline. Inversely, if the right traction method be provided, it will run up almost impossible inclines at angles no regular railroad would think of attaining. Furthermore the cars do not have to be such great weight. They can be constructed of aluminum alloy and could weigh one-quarter of the weight of an ordinary car and still be safe.

A means of propulsion which seems to be better than the French method has been suggested in a recent article in the Electrical Experimenter by Mr. H. Gernsback. In this article Mr. Gernsback proposes that only one track be used, the cars being held upright by an electrically driven gyroscope.

He suggests that electro-magnets be placed at intervals of about six inches along the entire track which will pull the train along wholly by electrical means. Contact shoes would be arranged to energize only the magnets just in front of the hydraulic skids thereby causing a continuous pulling force on the train. Terrific speeds can be obtained by this means, Mr. Gernsback says.

## Tunis Thrives as a French Protectorate

Tunis, the capital of Tunisia, situated on the coast of Northern Africa, is about the latitude of Norfolk, Va., is considered one of the most beautiful cities of the Orient. It has a mixed population of more than 275,000—Arabs, Jews, French, Italians, Sicilians, Greeks and Maltese.

Tunisia was an absolute monarchy until 1881, when the "Treaty of the Bardo" made it a French protectorate. It is governed by an Arab bey, who is advised by a resident general from France. The latter is in reality chief executive.

Tunis is called by the Arabs "The White Burnous of the Prophet." Its house are all flat roofed and creamy white in color. Minarets point heavenward from every square, and from their tops may be heard the "call to prayer" of the faithful five times a day. "Allah is Allah. There is no God but Allah; Mohammed is his prophet."

Tunis has changed greatly since 1881. A large and attractive French town has sprung outside the walls of the native city. Broad boulevards, with rows of palms and various shade trees; large shops, with tempting displays; modern hotels, with every comfort and luxury; restaurants, cafes and garages for the motoring that come in great numbers every season. Trolleys run in all directions, and Carthage can be reached in twenty-five minutes.

of her feet. These wealthy women are usually followed by several female attendants.

A tiny donkey with paniers filled with oranges shoves you up against the walls of the narrow street as he passes, and we wonder what the vender is crying. It sounds weird, but, translated, means only "Oranges sweeter than honey."

Entering the souks, or bazars, steaming Turkish coffee is brought in tiny cups, while Oriental rugs, silks, jewels and antique weapons are shown.

At the slaughter house there are three separate divisions—one for the Europeans, one for the Jews and a third for the Mohammedans, where the animal to be killed has to face toward Mecca. In the days of Rome, Northern Africa (Tunisia) was called the "granary of the world," for the Roman system of irrigation was marvelous and the soil fertile wherever water was to be had, and it was to be found in abundance in the mountains. The aqueduct, built under Hadrian, about 123 A. D., supplied Carthage with 32 million liters (8 million gallons) of water a day. Today Tunisia has 10 million olive trees under cultivation, and they cover an area of about 1/2 million acres.—National Geographic Society Bulletin.

Perhaps the first idea of the Hawaiian shredded skirt was conceived by some lady who had just got back her dress from the first washing at the laundry.

Personally we hate to go on our vacation because the man who does our job for us while we are gone always writes a note to the boss and suggests there is not much work to it.

We suppose that the reason "because" is a woman's answer is because a man's answer would be the same if he had to live in the house with half a dozen curious children all day.



Government war exhibit to be shown at the Montana state fair. The large gun to the right is a captured German trench mortar, as is also the smaller one in the background. In the middle is a 37 mm gun and the two on the left are machine guns.