

THE DAILY MISSOULIAN
Published Every Day in the Year.
MISSOULIAN PUBLISHING CO.
123 and 131 West Main Street, Missoula, Montana.

Entered at the postoffice at Missoula, Montana, as second-class mail matter.

SUBSCRIPTION RATES.
(Daily, one month \$0.75
Daily, three months 2.25
Daily, six months 4.00
Daily, one year 8.00
Weekly, one year 1.50
Postage added for foreign countries.

TELEPHONE NUMBER
Business Office 110 Editorial Rooms

Washington Office,
Munsey Building
Ernest Hezen Pullman, correspondent.
Hamilton Office,
Main street, near Second.

SUBSCRIBERS' PAPERS.
The Missoulian is anxious to give the best carrier service; therefore subscribers are requested to report faulty delivery at once. In ordering paper changed to new address please give old address also. Money orders and checks should be made payable to The Missoulian Publishing Company.

SUNDAY, NOVEMBER 14, 1909.
PASSING EVENTS

There were many important happenings during the week—all of local interest. If you were to ask over at the big brick buildings at the foot of Mount Sentinel, which event was the most important, there is not much doubt that the answer would be that there was but one event during the seven days, and that one resulted in a score of 24 to 0 in favor of the university. The average Montana booster who is well next to his job, when asked the same question, would be prompt with the reply that about the best thing that ever happened was the backing-up of Secretary Ballinger, in the matter of the conservation of water power. Down at Plains and Thompson they will tell you that any man with half an eye should know that the all-transcending event was the action of the Northern Pacific in improving the train service on the Idaho division. Mayor Logan is pretty well convinced that the progress made in the sewer-construction plans was by all odds the important event of the second week of the eleventh month. The forces which are working for the moral improvement of the city will be rather positive in their belief that the invitation to Billy Sunday to come here in 1911 was at the head of the list of the week's happenings. Chief of Police Vealey knows that he is best satisfied with the movement of the socialists in centering their attentions upon Spokane. It was a week with a varied program and there was something in it to suit everybody; there was a lot of good news, which, as usual, The Missoulian gave first to the people of western Montana.

FOOTBALL—Two events in football during the week concerned Missoula greatly. Friday's game on Montana field raised the state championship pennant over the state university; the deciding game was one which showed the school of mines players to be as great in defeat as true sports always are; it was well played and its result left no doubt anywhere as to the superiority of the varsity play and players. The victors were magnanimous and the losers were the right sort. The game was honestly won and there is no taint upon the championship this season. Another football incident concerned the eleven of the Missoula high school; the Livingston eleven violated its agreement to come to Missoula to play a return game with the home youngsters; this action is in strong contrast to the spirit of clean sport which has characterized the interscholastic games; it is a disappointment to the Missoula lads and it puts the Livingston team out of the reckoning for the high school championship. There are some of the schools of the state which need shaking up in their position on athletics.

A FAR STEP—Monday night's discussion of the sewer question brought Missoula a good deal nearer to the construction of an adequate drainage system than she had ever been. The mayor and the councilmen, as well as the business men who had been invited to participate in the meeting at the city hall, were deeply interested in the outline of the plan presented by Expert Swearingen and were fully impressed with the importance of getting the work under way as soon as possible. The decision of the attorney general seems to have cleared the way of the technicalities which had been interposed by the state board of health and there is no serious obstacle ahead. The perfection of the sewer plans and their reasonable cost make it probable that there will be no hesitancy whatever in the council in getting the pro-

posed—disposed of as soon as the state board of health has formally decided that Missoula has the right to use the river for the disposition of the sewage. And the most encouraging part of the situation is that Engineer Swearingen says that the entire system, on both sides of the river, can be built next season if there is an early start. By all means, let us have an early start.

A CITY HALL—In his talk to the council last Monday night, Engineer Swearingen emphasized the necessity for a systematic preparation of city engineering records and their careful preservation. There is not in the city's system any record of the old sewer system; there is no means of knowing where to make a connection with any of the old sewers; there is but an imperfect record of grades; what few records there are, are lying around unprotected and not filed. Mr. Swearingen asserted the necessity which exists for a suitable office for the city engineer with a vault for the safe filing of records and with a room where draughting can be done to advantage. Mayor Logan spent a considerable portion of the week in the endeavor to find quarters for the city engineer, as there is a lot of important work ahead in his department. Before the week was half gone, the mayor had concluded that the best thing to do is to build a new city hall. We are now renting quarters for the police department and for the police judge; now it is necessary to provide for the engineering department; the city is growing rapidly and the fire department needs all of the old city building. It looks as if the mayor's conclusion is a wise one.

WHEN SUNDAY COMES—While the mayor and the aldermen were working for the improvement of the sanitary conditions of the city and for the protection of the physical health of the citizens, the ministers and some of the laymen of the churches were formulating plans for the betterment of moral conditions in town. Almost coincident with the adoption of the plans for the sewer system came the decision to invite Billy Sunday to come to Missoula for a series of evangelistic meetings. Engineer Swearingen says the sewer system can be completed in 1910 and Billy Sunday says he can come to the city in 1911. There is a splendid field in Montana for the work of the great evangelist and with cleanliness and godliness moving hand in hand, the advancement of conditions in the city of Missoula will be general and effective. The prospect is welcomed by all real friends of the city.

WOMEN IN JAIL—The county commissioners last week took action that receives general endorsement when they ordered that no more women be placed in the men's quarters in the county jail. Two or three weeks ago, Judge Small raised the point that he could not, under the law, send women to the county jail, as they were kept there in the same quarters with the male prisoners, although separated from them by bars of steel. In this conclusion the commissioners have concurred and there will be no more of the disgraceful conditions under which women have been subjected to imprisonment with men; no matter how depraved the woman may be, she is entitled to some recognition of her sex, and the com-

Latest Sport for Women



LADIES GLIDING INTO THE WATER.
London, Nov. 12.—A sport which is sure to invade the United States next year is "gliding." It has already popularized itself in England. The apparatus is simple and the sport su-

missioners have acted wisely in enforcing the law governing this point.

HAPPY PEOPLE—There is rejoicing in the towns of western Montana which are on the Idaho division of the Northern Pacific. Plains and Thompson have received assurance that the railway people will remedy to a great extent the conditions which have made the operation of the new time card so uncomfortable to the folks on the west end and that there will be added stops made by trains that have been waiving through Sanders county in the endeavor to see how fast they could run by Plains and Thompson. The readiness with which the protests of the Sanders county people were considered by the Northern Pacific's men higher up, indicates that there is a desire to make the service of the road the most convenient possible for the people of the district through which the trains pass. There was merit in the requests of Plains and Thompson for a better service and that merit was recognized immediately as soon as the defects in the service were brought to the attention of the higher officers of the company. And western Montana is much obliged.

NEW MAIL ROUTE—There is another section of western Montana that is happy these days; the district along the line of the Milwaukee is to have a mail service at last and the people who have been cut off from communication except by express are rejoicing. There are lots of reasons for being thankful this November and they are not limited to any particular section of western Montana; we have everything coming our way these days and the thing to do is to keep them coming that way right along. The boosters have a lot of work cut out for them this winter and it should be kept going. Better train service and better mail service will help the publicity work and make the booster's job that much easier.

TOWN LOT SALES—Uncle Sam will get into the town lot business in good shape this week with Missoula as his headquarters. He has to dispose of the lots in the towns of the reservation and he is going at it in a business-like way; there will be a fair show given, however, to the folks who have been living on these lots and who have spent their money in improvements thereon; but for the unoccupied lots there will be an equal chance for everybody. The town lots in the northern part of the reservation sold at figures that made Uncle Sam's real estate operations look prosperous and profitable. There is reason to believe that the towns on this end of the reserve will have as many admirers as their neighbors and a lively sale is looked for in Missoula when the auctioneer begins his work Tuesday. There will be a novelty about the sale that will attract attention and there will be a good audience.

CONSERVATION—There have been many expressions of approval of the switch which Secretary Ballinger has taken in the consideration of the conservation of water power sites. Yesterday morning's news was a surprise to those who have been following the contests between the chief forester and the secretary over the methods and plans of the conservation work; the withdrawal of these power site lands

by the secretary... that either he, himself, or somebody who has influence with him has read public sentiment aright. There has never been any question as to the sentiment of the public in regard to this conservation of resources; there has been an attempt to misrepresent the motive which prompted the withdrawal of these sites by the preceding administration, but it has not succeeded. It is not the purpose of the conservationists to deprive the public of the benefits of the development of power by placing a barrier against the adaptation of these lands to the purpose for which they were manifestly created, but it has been the purpose to hold them against monopoly, at the same time, encouraging their development, but retaining the government ownership; the power sites were to be leased to developing companies for long terms and the proceeds of the rentals were to go to the states in which the lands were situated—such was, briefly, the outline of the plan under which the Garfield administration of the interior department had hoped to operate. There was no motive behind it, but the earnest desire to preserve to the public the rights and resources which belong to the people. Perhaps Mr. Ballinger was mistaken in his interpretation of the plans; perhaps he didn't understand how the people felt. Whatever was his position at the outset, he has seen a new light.

IN SPOKANE—This is the week of the big apple show in Spokane and Missoula and the Bitter Root will be represented there in good and appropriate style. Missoula has been sending a good deal to Spokane lately, in one line or another. She sent that fellow Brown out of town and he hiked for Spokane; he was shipped from here by the police and he is now with the police in Spokane. Then there are the socialists—they dropped Missoula and are stalling in Spokane. Missoula is not proud of either Brown or the socialists and she hopes Spokane will hold no grudge against us for the change of base of these folks. But Missoula is proud of the apples and of the people who are going over with them this week; perhaps Spokane will forgive earlier shipments when she sees these later ones.

The state capitol wings are to be finished in 1911. Billy Sunday is coming at the same time. The year will be locally noteworthy.

Much of the public domain has been dissipated, there should be increasing vigilance to guard what is left of the people's property.

San Francisco claims to be the most sanitary city in the United States, but Missoula has a sewer system coming up.

The coal man, the deer hunter and the clothing dealer have no fault to find with the cooler weather.

The Missoulian's advertisers offer timely suggestions as to preparation for winter. Read them.

If you want real estate bargains, it is not necessary to wait for reservation town-lot sales.

Conservation of natural resources is also a financial benefit to the public and to the state.

The flurry came exactly a month later than it did last year. That is some coal saved.

Our newest battleship, the North Dakota, is in a class by herself and it is the first class.

The banful who tackles a Bitter Root farmer, tackles a proposition that is hard to down.

Six inches of snow in Colorado and Wyoming makes our weather seem pretty fine.

Butte's mail messengers should adopt the old style of sawed-off shotguns for sidearms.

Governor Deussen's prompt action in suppressing mob violence is a credit to Illinois.

The new municipal administration in New York has some stiff work cut out for it.

The preservation of water-power sites is the right sort of conservation.

Missoula county coal in briquettes will help solve the fuel question.

There is no flaw in the title of varsity to the championship.

The stores which are crowded are the stores which advertise.

How would the coal man live if he didn't have cooler weather?

HALLEY'S COMET
by Frederic Campbell, Sc.D.
PRESIDENT of the DEPARTMENT of ASTRONOMY, BROOKLYN INSTITUTE.

Back Through the Centuries—Halley's "Lucky Guess"—When the Comet Came to Stay—Halley's Prediction of Its Return—How a Farmer Became a Dr. Cook to Eighteenth Century Pearys—The Comet 240 Years Before Christ—Unbroken Dates Since 1056 A. D.—The Comet's Part in the Extinction of 1056 and 1456—The Comet's Church Bells Still Ringing.

(Copyright, 1909, by Frederic Campbell.)
Halley's comet spends a very small fraction of its time within human view. If it be one of the triumphs of modern astronomy that it has accurately traced its course throughout its complete round of 75 years, it is little less of an achievement to follow it back through the centuries to the times before the Christian era. It must not be thought, from the name that it bears, that Sir Edmund Halley was the first ever to see this stupendous object, much less that it came into being or first visited this part of the universe in his day. Halley saw the comet in 1682, and he died in 1742, sixty years later, and 16 years before the comet's next appearance. But the comet was an old affair when he looked upon it; and when he successfully solved the problem of its identity with a number of historical comets, and the periodical character of its return to our sky, it had been making its round of space for ages.



Saturn, "One of the Planets Affecting the Comet."

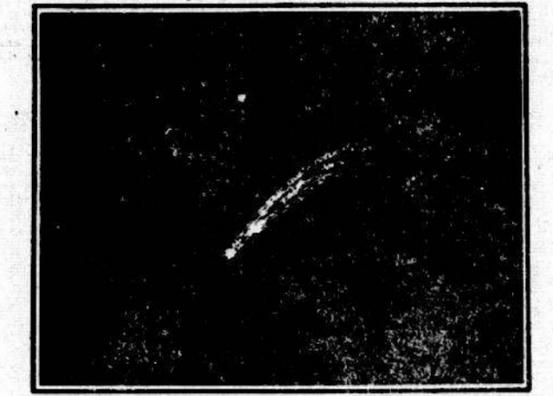
ages before. All we know is that the comet, like the moon, is here, and that it has been here for a long time. Some of the greatest discoveries have grown out of what are called "lucky guesses." Halley had a strong suspicion that the great comet of 1682 was no stranger. He was familiar with the fact that remarkable comets had been seen in 1337 and 1697; and here were two intervals of so nearly 75 years each that he wondered whether these three were not one and the same comet returning with a certain regularity. His suspicion was converted to conviction, when he examined the courses of these three and found them to fit into each other so nicely that it was impossible any longer to believe that they were three; they were really one and the same. It is strange that he did not go back still further to 1456, whose comet so shook Europe with terror and dismay, for here was the same interval, and he could not be ignorant of that fact. The gaps are not all filled in the earlier dates; but this is doubtless due to the want of records in an unscientific age. Beginning, however, with A. D. 1066, not a date is missing, although, owing to the distrustful in-



SIR EDMUND HALLEY. Whose Discovery of the Periodicity of Comets, at the Early Age of 26, Revolutionized this Branch of Astronomy.

Europe were watching for the return of the comet, when a Saxony farmer, George Paltsch by name, having a love of the stars and a small telescope, became the Dr. Cook to steal the prize from the toiling Pearys of his day, and sighted the monster on his return trip. It was on Christmas night of the year 1758, and henceforth this was Halley's comet; for he had made himself and the visitant famous by a first successful prediction of the return of a periodical comet. We have mentioned the fact that Halley strangely overlooked other dates that he might have included in his series, and that the comet has been traced back to the times before Christ. The gaps are not all filled in the earlier dates; but this is doubtless due to the want of records in an unscientific age. Beginning, however, with A. D. 1066, not a date is missing, although, owing to the distrustful in-

broken series, beginning with 1066, the date of the Norman invasion of England and 1456. It probably never produced such consternation as in the latter year. No one imagined that this was merely the return of an old visitor, absolutely no more strange than the return of a new moon each month or the planet Mars to opposition every two years. The popular mind was already in a ferment. The Turks had taken Constantinople and were threatening to overrun Europe, and everything seemed ripe for destruction, when the comet put in an appearance, confirming all fears, and seemingly depriving men of what little wit they had left. It was then that, according to tradition, Pope Callixtus issued his famous bull against the Turk, the devil and the comet. He at least ordered special prayers to be said and the church bells to be rung at noon, which practice continues until this day. Terrified by the nightly apparition which endured for months, the people poured their wealth at the feet of the church, imploring petitions that heaven might save the world from its doom. In 1337 the comet, almost forgotten, was again on exhibition. Following that it was seen in the years 1607 and 1682, when Halley viewed it; 1758, when it returned, according to Halley's prediction, and 1835, when it was last seen, and by some few who survive and are about straining their eyes to see it again. Now, in this year 1909, it has just been freshly sighted, and, before the year expires, we shall all hope to see it with the naked eye. But the months of its glory and splendor will be the year 1910, now close at hand. Such is the history of this famous comet. We may say that it will next appear about 1985, and some few children who see it now will again see it in that year. So far as we know, at intervals of about 75 years, Halley's comet will continue to be the wonder of earthly spectators until time shall be no more.



Halley's Comet As It Will Soon Appear.

NOTES OF SCIENCE

Soaking silver tableware in sour milk over night will restore the brilliance of the metal.
Women are now allowed admission to full matriculation in all German universities except that at Rostbrock.
The United States imports about 125,000 tons of unmanufactured chalk a year, mainly from England and Germany.
A new miniature automobile for children is propelled by a spring wound from the back by a multiple gear and crank.
A Chicago man has patented an electric lawn mower, supplied with current from any convenient source by a cable.
The mileage of the railroads of the world totals more than 17 times the circumference of the world at the equator.
British Columbia's mines yielded nearly \$6,000,000 worth of gold, and more than \$1,300,000 worth of silver last year.
A reservoir which the city of New York is building in the Catskill mountains will have a capacity of 121,000,000 gallons of water, and will supply 250,000,000 gallons a day.
From a deposit of diamonds discovered in Pike county, Arkansas, in August, 1906, more than 700 have been taken to date.
A new mayonnaise mixer is equipped with a funnel by which oil may be dropped into it with regularity and a dasher turned with a crank.
The French Women's Aerial league has offered a scholarship of about \$250 a year to any student who will take up aviation as a profession.
A composition of pitch and wax is used instead of glue on pianos shipped to tropical countries, the latter being loosened in damp climates.
At least two automobile tire manufacturers have perfected machines with which one man may make from 40 to 50 tires a day, against five or six by hand.
A new sample case for traveling salesman contains a number of display trays for small articles, mounted on lazy tongues for extension over wide space.
Nearly every European country buys old black stockings which have been discarded by American wearers for conversion into shoddy.
Natural abrasive materials, valued

at \$1,574,000 were produced in the United States last year, while the output of artificial abrasives was worth \$628,340.
A new Swedish aerial torpedo which is said to be capable of destroying a fortification or the largest battleship afloat weighs but 22 pounds.
Fungus growths are the chief enemies of hard wood forest trees. Some destroy the leaves, others rot the roots, and still others girdle the bark.
Recent excavations in the Forum disclosed marks on buildings which warrant the belief that the ancient Romans used elevators in their homes.
An eye shield, to keep dust from dogs' eyes while motoring, similar to those worn by human automobilists, has appeared in the market.
Small clamps, fastened by thumb screws, to squeeze the finger ends into symmetrical shapes, are coming into use by European seekers after beauty.
A subscription has been started in Switzerland to publish the writings of Euler, the savant whose name is connected with many mathematical formulas.