East Oregonian

MONDAY, SEPTEMBER 17, 1900.

NATIONAL DEMOCRATIC TICKET

FOR PRESIDENT,
William J. Bryan.
OF NEBRASKA.

FOR VICE PRESIDENT,
Adlai E. Stevenson.
OF ILLINOIS.

FOR PRESIDENTIAL ELECTORS,
W. M. PIERCE, of Umatilla.
DELL STUART, of Multnomah.
J. WHITTAKER, of Benton.
E. KRONER, of Multnomah.

Newton, Conn., is threatened with extinction by the closing of its only industry, the support of 350 operatives and their families. The rubber trust runs the plant and finds it of advantage to concentrate the business at its other points. This will empty 350 dinner-pails.

The Baker City Herald shows considerable improvement under its new management. H. F. Cassidy is now its proprietor. The Herald was formerly the Epigram, a people's party paper. Mr. Cassidy changed its name as well as its politics. It is now a republican paper—at least it supports McKinley and Roosevelt. In spite of its "political leanings" the East Oregonian hopes it will succeed.

Russia has already borrowed a large amount of American money and now Germany is to be accommodated with $25,000,000. In some quarters it is asserted that these loans are being made with the view of bringing about a tight money market so that the money ring can exert its crushing power in the event that Bryan's chances grow brighter or that he should be elected. The Standard Oil syndicate furnished most of the money for both loans.

In 1896 republican mayors presided over most of the larger cities of New York state. Both Tammany and the Hill democracy gave weak support to Bryan. With the influence of these democratic mayors and the democratic machinery in line for Bryan this year there will be surely a falling off in the republican vote in the Empire State in the November election. And it is quite probable that Bryan will carry the state.

With Collis P. Huntington in the ground there will be some chance for the Nicaragua canal bill in congress, particularly so if the next congress is democratic, as it is thought it will be. For years the Huntington interests maintained at the capital a lobby whose most influential members were senators and representatives and former members of congress. It is asserted that Huntington's successor will not continue the practice of capitalizing scoundrelism and rewarding rascality. In consequence, Washington "grafters" sincerely mourn Huntington's demise.

On October 16, 1864, at Peoria, Ill., Abraham Lincoln gave utterance to the following words: "Let us re-adopt the Declaration of Independence, and with it the practices and policy which harmonize with it. Let North and South—let all Americans—let all lovers of liberty everywhere join in the great and good work. If we do this, we shall not only save the union, but we shall have so saved it as to make and keep it forever worthy of the saving. We shall have so saved it that the succeeding millions of free, happy people, the world over, shall rise up and call us blessed to the latest generations." This exhortation applies with as great force today as in 1864. The spirit and letter of the Declaration of Independence is being violated and the interests of the plain people being neglected.

The republican national committee has issued a campaign document which shows that the United States have spent upward of $2,612,000,000 through the pension department since the civil war; that since Mr. McKinley became president there has been distributed upward of $421,000,000 to more than 900,000 civil war pensioners; that the list of pensioners has increased 2000 in the past year; that while the Cleveland administration allowed only 31½ per cent of all new claims, the McKinley administration has allowed 52 per cent; and finally, that 437,000 claims are pending. After this pleasing statement the document goes on to militarism and shows that France and Germany are each spending about 22 per cent of their total revenues for war and preparations for war. The total revenue receipts of the government at Washington for 1900 is placed at $568,988,948. The total disbursements for pensions for the same time was $138,462,172, or 24 per cent of the total receipts. The total expenditures for the war and the navy department during the same time was, $190,743,980, or 33 1-3 per cent of the receipts. In other words, the republican managers admit and show by calculations that under the present republican administration one-fourth of our enormous tax burden is for pensions and the amount is increasing, and that in time of peace we are now spending one-third of our taxes upon war—a grand total of 57 1-3 per cent of our revenues for war burdens. The democrats should see that this document reaches every voter in the United States. It is a vote maker for the democratic cause.

BIRDS AS FLYING MACHINES.

The mystery concerning the flight of birds is a question which affords endless discussion. In these days of development of rapid transit when steam has made way for electricity and the pneumatic tube; when the great possibilities of liquid air are opening before us, steel rails and paved boulevards are too narrow and with anxious eyes commerce looks for highways in the unrestricted regions of the upper air.

With this in view Frederic A. Lucas, in the Popular Science Monthly for September, has given a careful and exhaustive treatise on "Birds as FlyingM achines."

Forgetting Noah and his dove he says: "From the day of Solomon onward the way of a bird in the air has been a subject of general interest, and the attention given to the problem of aerial navigation of late years has caused the flight of birds to be carefully studied in the hope that it might throw some light on the subject."

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There have been many conceptions, not to say misconceptions, regarding the flight of birds; it has been assumed that their muscles exerted a power quite beyond that of other animals; that the air sacs of some birds and the hollow bones of others gave them a degree of lightness quite unattainable by the use of ordinary materials. Some have even gone so far as to suggest the presence of a mysterious power, something like Stockton's negative gravity, whereby birds could set at naught the law of gravitation and rise at will like a balloon.

The strength of a bird's muscles is not to be underrated; a hawk will plant its talons in a bird of nearly its own size and weight and bear the victim bodily away, and an osprey will carry a fish a long distance. On the other hand, some of the petrels, birds which can pass a day or so on the wing with ease, cannot rise from the water after a hearty meal and the humming bird, unsurpassed in aerial evolutions, may be trapped in a spider's web.

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Turning to the question of the part played by the air sacs it may be said that their value is not proved; some of the fastest birds get along without them, while birds of the most labored flight are sometimes well provided. The hollow bones of birds are frequently cited as beautiful instances of providential mechanics in building the strongest and largest possible limb with the least expenditure of material, and this is largely true.

And yet birds like ducks, which cleave the air with the speed of an express train, have the long bones filled with marrow or saturated with fat, while the lumbering hornbill that fairly hurtles over the tree tops has one of the most completely pneumatic skeletons imaginable permeated with air to the very toe tips; and the ungainly pelican is nearly as well off.

Still it is but fair to say that the frigate bird and turkey buzzard, creatures which are most at ease when on the wing, have extremely light and hollow bones, but comparing one bird with another the paramount importance of a pneumatic skeleton to a bird is not as evident as that of a pneumatic tire to a bicycle.

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It is decided that builders of air ships have nothing to learn from birds in the way of building an engine. The next question is that of speed. So far the lesson taught by the bird is that a machine of low power may attain a very considerable speed, and it remains to be seen if there is anything to be learned concerning methods of flight.

The author treats the three distinct modes of flight—flapping, soaring and a combined movement—in a scientific manner. The humming bird represents the perfection of one method, that of flapping, and the frigate bird the highest type of soaring flight. The albatross stands next. "It has that type of wing which best fulfills the conditions necessary for an aeroplane, being long and narrow, so that while a fully grown albatross may spread from ten to twelve feet from tip to tip, this wing is not more than nine inches wide."

If any bird knows how to utilize every breath of wind to the utmost that bird is the albatross, and it is equally a delight and a marvel to see this bird apparently setting at naught all natural laws as he sails with outstretched pinions alomst into the eye of the wind or hangs just off the lee quarter of a ship reeling off ten or twelve knots an hour.

It has long been evident that if man is to navigate the air it must be done after the method of the albatross rather than that of the humming bird—by the aeroplane, and not by any device to imitate the strokes of bird's wings. Not only do the largest birds and those of the longest flight for the most part sail or soar, but it is apparent that the limit of size in a vibrating wing must soon be reached, since in a strong wind, with its varying eddies, it would be quite out of the question to manipulate such a piece of mechanism.

Neither birds nor any creatures that live or have lived afford any criterion as to the limit of size that must be placed in an aeroplane. The largest of whales is weak and insignificant beside an ocean liner, and the condor and albatross, with their spread of ten or twelve feet and weight of ten or twenty pounds, tell us nothing of what may be the possibilities of size and weight of an air ship.

The mode of propulsion may be, undoubtedly will be, as entirely different from a wing as the propeller is unlike the tail of a fish, and as the study of fish has thrown little or no light on the problems of the proper form or best motor for a ship, it is doubtful if the study of birds will do more for the aerodome.

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Nor does it seem likely that a study of the bird will suggest any new devices in the way of joints, braces or rudders, for what must be discouraging to those engaged in solving the problems of flight is the utter inadequacy of the bird's wings, from a mechanical standpoint, for the work it is called upon to do. In all its articulations there is a freedom of movement, and amount of play, that would be inadmissible in any machine.

Subtract the element of life from the wing of a bird and it becomes at once limp and useless. And here is the key to the bird's success as a flying machine: it has life, and while the wing may reveal certain principles of balancing, it cannot teach all the art, for it is done instinctively.

In conclusion Mr. Lucas sums up what has been gained by scientific study of the structure and flight of birds. Briefly stated: First, the proper method of constructing the wings of an aeroplane, so as to insure stability and utilize the power of the wind to the best advantage, and, second, some hints regarding balancing and steering.