

LINCOLN COUNTY LEADER.

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TOLEDO.....OREGON.

Sagasta is dead. But Weyler is still obnoxiously robust.

About the only kind of business that didn't increase last year was business failures.

"How for wireless telephony," says a lady exchange, "and a voice from Spain declaring that the ether is busy."

The tobacco trust has opened headquarters in Germany, thus adding a little more cement to the friendly relations.

A woman generally has to have a long time to make up her mind, but lightning is slow in comparison when she changes it.

The prices of the base-ball stars range from \$7,000 to \$10,000 a year. The theological and educational markets continue sluggish.

Bret Harte left an estate valued at \$1,800—almost as much as a captain of industry can earn in twenty minutes when conditions are ordinarily favorable.

The man who is ashamed to give a little because it is all he can afford would probably not give much if he could for fear people would think he tried to show off.

Failing to make pupils in public schools better spellers the Illinois teachers are in favor of reforming the spelling itself. Probably they consider this the line of least resistance.

The army of Morocco is commanded by a Scotchman of the name of MacLean. The fact that he seems to be rather timid indicates that he doesn't belong to Mary's branch of the family.

Emperor William is said to have declared that unless existing governments can stop the growth of socialism they must go to the wall. Perhaps he has just heard what the socialists are organized for.

It is now pretty generally agreed that laziness, scientifically known as "ankylostoma," is a disease. It is also pretty generally agreed that oil of birch, mixed with a few drops of extract of hustle, is good for it.

Oklahoma has a larger population today than any State now in the Union had at the time of its admission and a population larger than any except Virginia of the original thirteen when they came together to form "a more perfect union."

Among other things the coeds of a well-known university have sworn off sliding down the banisters. They will also fold their napkins and not come down to breakfast in their stocking feet. Why wipe out all the distinguishing features of coeducation at one fell swoop? Surely, one such reform a year would be enough.

Sentiment is a powerful force, but when it is confronted with a million and a quarter in ready money it sometimes gives way. That is what has happened in Boston, where the famous Park Street Church, in which "America" was first sung, is to be sold for that amount. The meeting-house, with its many historic associations, will be torn down to give way to a large office-building, and the religious society, endowed with more than a million dollars, is to carry on its work in a different part of the city.

The spirit of speculation has infected the country; farm lands in the West have been bid up by purchasers with borrowed money; too many town lots and new sky scrapers everywhere held at high prices are mortgaged by nominal owners looking for continued prosperity advancing values to "win out" and too many persons are living beyond their means in the expectation that their income will catch up later. In short, there has been too much borrowing and credit is so seriously inflated that a shock of any kind which would cause a sudden demand for the redemption of these credits might have unfortunate consequences.

The eleventh census reveals some facts interesting not only to the economist and sociologist, but to the business man. In classifying the causes for which mortgages have been made, it is shown that 95 per cent of them indicated prosperity rather than adversity. That is to say, 95 per cent of the mortgages were made in order to raise money for the purchase of additional holdings, for larger business operations, etc. Only 5 per cent were given because of adversity—failure in business operations. And it must be said that upon the sequel depends the decision as to whether the increased mortgages—placed with whatever motive—shall be

considered exponents of good fortune or misfortune. Some day these mortgages must be paid. Over-speculation has its legitimate pains and penalties.

American youth are not the only ones who have grit enough to overcome all the obstacles in the way of getting an education. The daily newspapers have lately been telling how a Macedonian earned his way through a large Eastern university and through a post-graduate course of three years by waiting on table in a boarding-house, taking care of a furnace, and acting as conductor on a street-car. He studied and attended lectures and recitations in the intervals between these occupations. He received the degree of Master of Arts, and is now in Germany, where he intends to spend two years more studying political law. Then he thinks he will be prepared to serve his native country in her political tribulations. There are not many young men of any race who would undergo such privations for the sake of qualifying themselves for any service, whether public or private, secular or religious.

In its annual review of the statistics of suicides in the United States, the Chicago Tribune finds that they are increasing much more rapidly than the gain in population warrants. The figures for the last few years are as follows:

	Suicides.
1899	5,340
1900	6,755
1901	7,245
1902	8,291

While the increase last year over 1901 is 14 per cent, that for the three years yields the startling percentage of 55, or more than half as many more. Another remarkable fact is noted in the larger proportion of women among the suicides. Previous to 1902 the ratio among suicides was five men to one woman. But last year there were three times as many women as for the year before, making the ratio five men to three women. Among the known causes for suicide despondency ranks first, about one-tenth are traced to domestic infelicity, 433 to ill-health, and 375 to "disappointed love." Fully one-third left no clue to the cause for self-murder, while "liquor" accounts for 136 and "business losses" for 67. Persons remain the favorite means of dispatch to the unknown, but more than one-third of the suicides shot themselves. Of more interest, however, than the details is the central fact that year by year the number of those who commit suicide is increasing out of proportion to the increase in population. It probably means that the stress of life is more severe in the United States now than it has ever been previously.

Twenty-five years ago any one who had ventured to predict that the young women in coeducational colleges would come to outnumber the young men would have been regarded as a poor prophet; yet that condition promises soon to be realized in many universities; for the number of women students increases faster than that of the men. The changed conditions have led in some cases to repressive measures. College presidents find that the young men are not attracted to an institution in which the women are equal or superior in numbers to themselves. Athletics, no doubt, has something to do with this, but there are other reasons. It has been found that in some colleges the girls show a tendency to monopolize certain groups of studies, notably English literature, and the boys come to look upon that part of the curriculum as "girls' studies," and to avoid it, which is unfortunate for both sexes. The social relations of the young men and the young women, and particularly the housing, are also a problem which becomes more difficult as the number of students increases. A successful solution involves large expense, and few of the State universities, in which coeducation is most prominent, have great financial resources. The discussion has led to a number of experiments. In the University of Chicago "segregation" has been adopted. Women are still admitted as freely as men, and will receive the same education, but under the conditions which render them students of what is almost a separate institution. In Leland Stanford University the number of women is limited to thirty-five per cent of the whole number of students. Whatever may be the outcome of the discussion, the young women need not fear that the doors of the temple of learning will be closed to them. They have shown too plainly that they want education, and have demonstrated too unmistakably their ability to get it on equal terms with their brothers. Conditions may be changed, but their opportunities will not be lessened.

His Charitable Act.

"I did one charitable act to-day," remarked the bald-headed druggist as he sat down to dinner. "I'm glad to hear it, dear," rejoined his wife. "Tell me about it." "Oh, there isn't much to tell," replied the pill compiler. "One of my clerks wanted an increase in salary so he could get married and I refused to give it to him."—Baltimore Sun.



Mexico buys 58 per cent of all her imports from the United States, and sells 50 per cent of all her exports to the United States.

In Liverpool alone there are four shops that sell American boots and shoes exclusively, and half a dozen others that make a specialty of them.

Bricks in Cape Town cost \$20 a thousand for a quality so poor that they have to be covered with plaster to keep them from being disintegrated by the weather.

A violin without a sounding-box has been invented by Mr. Stroh, an eminent scientist, of London, a diaphragm and trumpet being used to give volume to the sound.

The soil of Ecuador is so friable and rich that rice is planted in holes made with a machete, there being no previous preparation nor subsequent cultivation of the ground.

Completed interurban electrical roads in the States of Ohio and Indiana are now averaging \$4,975 per mile per annum. The cost of operating them is stated as 55 per cent of the gross receipts.

The most surprising property of aluminum is its newly discovered power of giving a fine, razor-like edge to steel cutlery. Magnified a thousand times, the knife edge produced on the ordinary whetstone appears rough and jagged, while that yielded by the aluminum sharpener is straight and smooth.

A remarkable magnetic focus in the Hebrides, at the entrance of Loch Roag, Lewis, has been surveyed by Captain A. M. Field. The area of disturbance is small, and the maximum deviation of the compass needle is eleven degrees west, over one hundred feet of water. Contrary to what is usually true in northern latitudes, however, the north point of the needle is repelled from the apparent magnetic line instead of being attracted towards it.

Following out the suggestion offered by the friction wheels of coin and paper-making machines, Ludwig Maurer has, after many years of effort, successfully applied the friction principle in the transference of power in automobiles. The vehicles, manufactured in old toy-making Nuremberg, in which Maurer's invention is used, can be run with unchanging speed on a level or up a hill by merely manipulating a friction wheel, sliding upon a shaft, which presses against the face of the fly-wheel supplying the power. The motor being run at uniform speed, the speed of the vehicle is governed by shifting the position of the friction wheel.

For twenty years the assertion of Dr. Aitken, based on a series of beautiful experiments, that clouds cannot form in the air without dust particles to serve as nuclei for condensation, has been accepted, but now Dr. Aitken himself has made a little sensation by disproving his own previous statement. He has found that certain gases, such as hydrogen peroxide, sulphureted hydrogen and chlorine, when present in the atmosphere, are converted by the action of sunlight into nuclei, upon which cloudy condensation can take place. Accordingly, although dust is ordinarily necessary for cloud formation, yet clouds may form in dustless air miles above the earth. It should be added that when his original conclusion was published Dr. Aitken admitted the possibility that sunshine might create gaseous nuclei, but he has only recently established the fact that it does.

THOMAS JEFFERSON.

Man Who Wrote Declaration of Independence Was Persistent Worker.

Thomas Jefferson, who wrote the first draft of the Declaration of Independence, and who was one of the earliest and most conspicuous leaders of our democracy, formed, when he was a student, habits of order and method to which he kept all his life, says Kate Stevens, in the New York Press. He was a persistent worker, and this methodizing allowed him much he would otherwise have been unable to accomplish. His energy and foresight are remarkable.

He found it useful to keep books with exact entries, and these entries remain to this day as witnesses to his industry and thrift. No one ever made so minute records, which afterward became so important. From our point of view it seems as if he must have lived with a pen and entry book in hand.

After Jefferson left college he took up the business of farmer, having inherited lands from his father, who was a Virginia planter. It was in the details of his lands and crops that we best see his systematic mind and his minute painstaking.

He not only kept a farm book and a garden book, but also a weather book, a receipt book, a pocket-expenditure book, and, when he began to practice law, a fee book. He wrote in each one in the neat hand we see

in his draft of our famous Declaration of Independence.

In his garden book, as examples of his entries, we find:

"March 30—Sowed a patch of later peas."

"March 31—Grafted five French chestnuts into two stocks of common chestnuts."

"July 15—Planted one celery."

"July 22—Had the last dish of our spring peas."

These interests in garden and kitchen—the close relation of the two—show the true horticulturist, and tell us that Jefferson was an experimenter and searcher after new products, as well as a cultivator of established vegetables and fruits.

Jefferson's weather book shows us that he did what is now done by weather bureaus established by the government—took careful meteorological observations. This book he ruled in ten columns, and in such records as the following he makes evident the precision of his observance and entry: "March 24, at 6:30 a. m.—Ther., 27 degrees; barom., 25 degrees; wind, N. W.; weather, clear after rain. Blue Ridge and higher parts of S. W. mountain covered with snow. No snow here, but much ice; black frost."

Still again there was his pocket expenditure book, which preserves more of his habits and evinces the care and scrupulous exactness with which he spent money. The law student, the gentleman farmer, the leader of public improvement in his neighborhood, the great reader of his books and lover of his violin, the coming President of the United States found it profitable and expedient to enter such items as these: "Put into the church box 1d.," "Paid a barber 11d.," "Paid for pins 4s.," "Paid for whetting penknife 4d.," "Paid my part for an express to Williamsburg 10s.," "Paid Bell for books 35s.," "Paid postage 8s. 3d."

Jefferson kept such books and made such entries not mainly for accounting to himself at the moment of writing, but with settled plans in mind. He used the records later, reviewing them, comparing them and taking from them every lesson they could bring. The habit, as we said, began in his student days.

"Hall Marked."

No manufacturer of gold and silver plate in England is permitted to sell, and no member would even attempt to purchase a piece of silver or gold plate, that had not received the "hall-mark," says Scientific American. This symbol is stamped upon every section of plate, and is an absolute guarantee of the purity of the metal. "Hall-marking" is protected by the legislature. Fraudulent hall-marking is so heavily punishable an offense, that attempts to deceive the public by means of spurious hall-marks are practically unknown. Probably few articles can be so easily adulterated as silver and gold, and were there no such protection as hall-marking in vogue, the public would be extensively defrauded, as the purity of the metals cannot be determined by cursory examination, but only by elaborate testing. For gold articles, the standard marks are a crown and the carat number for the two highest carat standards—twenty-two and eighteen carats respectively—this number being followed by decimals representing the proportion of gold in the alloy for the fifteen, twelve and nine-carat quantities. The number is followed by the symbol or mark of the assaying office, which in the case of Birmingham is an anchor, while the year in which the assay was made is represented by a letter. At last come the manufacturer's initials. Every article submitted to the Assay Office is returned marked. If it does not correspond to the manufacturer's statement of the carat value, it is smashed to pieces, and returned to the manufacturer, in fragments to be remade.

No Place Like Home.

A native of Prince Edward Island had gone forth to see the world. When he reached Boston he engaged a room at a modest hotel, intending to remain there while he hunted for work.

"Will you register?" asked the clerk, handing him a pen.

"Register?" said the traveler. "What is that?"

"Write your name."

"What for?"

"We are required to keep a record of all our guests."

The man wrote his name, and was about to lay down the pen when the clerk added:

"Now the place, if you please."

"What place?"

"The place you come from. Where do you live?"

"I live on the island."

"Well, but what island?"

The other man looked at him in amazement. Then he said with an emphasis that left no doubt of his feelings, "Prince Edward Island, man. What other island is there?"

His Closeness Explained.

"They tell me your son is a close student."

"By gum, he has to be! I don't allow him but a dollar a month spending money."—Cleveland Plain Dealer.

Nobody loves you enough to burn your foolish letters.

THERMOMETER MAKING.

How Boiling and Freezing Points Are Found and Degrees Marked.

The making of a thermometer may be either a delicate scientific operation or one of the simplest tasks of the skilled mechanic, according to the sort of thermometer made. With the extremely sensitive and minutely accurate instruments designed for scientific uses great care is taken and they are kept in stock for months, sometimes years, to be compared with instruments that are known to be trustworthy. But so much time cannot be spent over the comparatively cheap thermometer in common use, and these are made rapidly, though always carefully.

Mercury is generally used for scientific instruments, but most makers prefer alcohol because it is cheaper. The alcohol is colored red with aniline dye, which does not fade. The thermometer maker buys his glass tubes in long strips from the glass factories. The glass blower on the premises cuts these tubes to the proper lengths, and with his gas jet and blowpipe makes the bulb on the lower end. The bulbs are then filled with colored alcohol and the tubes stand for twenty-four hours. On the following day another workman holds each bulb in turn over a gas jet until the colored fluid by its expansion entirely fills the tube. It then goes back into the hands of the glass blower. He closes the upper end and turns the tip backward to make a little hook which will help keep the tube in place to the frame.

The tubes rest until some hundreds of them, perhaps thousands, are ready. Then the process of gauging begins. There are no marks on the tube and the first guide-mark to be made is the freezing point, 32 degrees Fahrenheit. This is found by plunging the bulb into melting snow. No other thermometer is needed for a guide, for melting snow gives invariably the exact freezing point. This is an unerring test for any thermometer when accuracy may be suspected. But melting snow is not always to be had and a little machine resembling a sausage grinder is brought into use. This machine shaves a block of ice into particles, which answer the purpose as well as snow. When the bulbs have been long enough in the melting snow a workman takes them one by one from their bath, seizing each so that his thumb nail marks the exact spot to which the fluid has fallen. Here he makes a scarcely perceptible mark upon the glass with a fine file, and goes on to the next.

The tubes, with the freezing point marked on each, now go into the hands of another workman, who plunges the bulb into a vessel filled with water kept constantly at 96 degrees. This is marked like the others, and the tube is now supplied with these guide-marks, each 32 degrees from the next.

With its individuality thus established, the tube goes into the hands of a marker, who fits its bulb and hook into the frame it is to occupy and makes slight scratches on the frame corresponding to the 32 degrees, 64 degrees and 96 degrees marks on the tube.

The frame, whether it be wood, tin or brass, goes to the gauging room, where it is laid upon a steeply sloping table marked exactly in the position for a thermometer of that size.

A long, straight bar of wood or metal extends diagonally across the table from the lower right-hand corner to the upper left-hand corner. On the right this rests upon a pivot and on the left it rests in a ratchet, which lets it ascend or descend only one notch at a time. Each notch marks the exact distance of two degrees.—London Express.

Windows as Fire-Spreaders.

In a paper read at St. James' Hall before the Society of Architects, Ellis Marsland, honorary secretary of the British Fire Prevention Committee, stated that unshuttered windows are the main cause of the spread of a conflagration. Lantern slides of the Barbican fire emphasized his conclusions, and showed that if, as recommended, all such openings were closed every night by iron, hardwood or asbestos blinds, though the spread of a fire might not be entirely prevented, its progress would be retarded. As it is, immediately the hose plays on the heated and unprotected glass it smashes and the flames fly inward and onward. He suggested that the insurance companies might well encourage this form of protection by reducing fees to clients who introduced it, or there might be legislation making it compulsory.—London Express.

Grave Irreverence.

At Alzen, in Hesse, the other day a prominent tradesman was sentenced to twenty-four hours' imprisonment for the "grave irreverence" of reading a newspaper in court while a case was under trial.

Wise Man.

"What's become of that struggling author friend of yours, Cums?" asked Cawker.

"Oh, he's given up the struggle and gone to work."—Detroit Free Press.

How the girls like to look (a bride's clothes!