

# Industrial and Commercial Review

Prosperity Tide—Keeping Step with Progress—The Various Business Concerns Appearing in this Review Edition Respectfully Solicit Your Patronage When in Eugene.

## Moore and Moore, Ladies and Gents Tailors.

DeLux Tailoring for Men and Women—Popular Prices—Located at 42 6th Ave. W., Eugene—One of the foremost establishments to be found in this section—They Enjoy a Wide Patronage from a Wide Territory.

In these days when prices are so high it denotes every man to see what he is getting the greatest return for his money when he invests in a new suit. The modern tailor is inquisitive to any community. That is why we are glad to refer you to this well known tailoring concern, which makes a great interest in every suit it makes and stands behind the garments to the limit.

stock and service than that placed at your disposal by this establishment. The stock includes all kinds of repairs and parts for motorcycles and bicycles and everything else that you would expect to find in a modern and up-to-date establishment. They make a specialty of repairing everything in the way of small machinery.

But their activity is not limited to the repair and accessory field. They handle justly famous Indian motorcycles and National bicycles, and the new models are now on display. These are of international reputation and have triumphed in many contests both for speed and endurance. The management joins the manufacturer in challenging the trade to produce machines which will equal them.

## Eugene Auto Top Co.

An Up-to-Date Establishment in Every Respect. Located at 742 Charleston St., Eugene. Where They Specialize in Seat Covering and Auto Top Building.

It is a fact beyond question that a modern establishment of this kind is a great asset to a community such as Eugene they are experts when it comes to seat covering and top making and there you can get it done when you want it and when they tell you they will have it done for you.

If you want any special kind of covering or any original ideas carried out for you this is the place to go for anything there is to do in this line they can do. And the materials used are the best on the market.

In their auto top department they have won well merited commendation through their modern methods and the excellent work turned out. There is nothing that mars the looks of a motor car to such an extent as a shabby and worn out top. The top wears out more quickly than any other part of your car and after a year or two of service it is necessary to replace it with a new one.

When you drive away in your car after they have equipped it with a new top or repaired it you will feel like you have a new car. You will also have a feeling of satisfaction that the materials and workmanship are the very best and that the prices are most reasonable.

Messrs. B. H. Will and W. H. Ehlen, the proprietors, and their assistants are men who take an interest in the city and the surrounding territory and are at all times connected with propositions that will add to the growth and expansion of this part of Oregon.

Therefore we are pleased to compliment them in this review and advise all our readers to call on them when in need of anything in this line.

## The Smith-McKern Cycle Co.

Conducts at 9th and Oak Sts. Eugene. One of the Leading Bicycle and Motorcycle Establishments of This Part of Oregon, and is the Sales Agent for the Famous Indian Motorcycle—Has a Large Patronage Over the County.

One of the things that make any city a desirable place to live in is the location in its midst of complete and up-to-date stores and shops. The fact that one can get anything and everything in the motorcycle, bicycle or general accessory line at the above institution adds to the commercial efficiency of this county.

From a modest beginning, they have enlarged this establishment until it is now as complete as any in this section. There is no city many times the size of its home that offers its citizens a better or more complete



Elizabeth A. Bergner, Radio Instructor in Lane Technical High School, Chicago, and Her Class.

# RADIO

## PROGRESS OF RADIO THROUGH THE YEARS

### Wireless Research Began Long Ago, But Development Has Been Swift Lately.

Wireless research started many years ago, as far back even as 1827. Even the radio telephone is not a recent perfection; rather it is that introduction to the layman of the human voice and music has suddenly popularized something that wireless men had thought a pastime or amusement. Here is the chronological record of wireless:

1827—It was found that the magnetic discharge from a Leyden jar would magnetize a steel needle.

1831—Electro-magnetic induction was discovered between two entirely separate circuits by Michael Faraday.

1837—Cooke and Wheatstone of London, England, and Morse of the United States take out first patent for electric telegraph.

1838—K. A. Steinheil of Munich suggested that a system of wireless telegraphy could be established after his discovery of the use of the earth return.

1840—Joseph Henry (U. S. A.) produced the first high-frequency electric oscillations, and stated that the condenser discharge is oscillatory.

1842—Wireless experiments were made by S. F. B. Morse by electric conduction through water across Washington canal and across wide rivers.

1843—A wireless system for transatlantic communication was suggested. 1845—Water was used as a conducting medium in wireless experiments across a wide river.

1849—Intelligible signals were actually sent across a river 4,500 feet wide in India, but the cost was found prohibitive for commercial use.

1867—The electric waves that are now utilized in wireless telegraphy and telephony were predicted in an address before the Royal Society in London, England.

1868—The sending of an electric current through earth was systematically studied by John Trowbridge of Harvard. It was found that signaling might be carried on over large distances between places not connected by wires.

1868—It was found that telephonic speech could be conveyed by induction over a space of quarter mile. This experiment took place in England.

1869—Electric waves were suggested as being particularly suitable for the sending of signals through fog.

1892—An instrument for the detection of electro-magnetic waves was discovered which was given the name of a "coherer."

1894—A scientist of Berlin signaled through three miles of water.

1895—High frequency waves excite curiosity of Senator Marconi.

1896—First patent for practical wireless transmitting system is taken out in London by Marconi. Afterward, successful signaling was carried out over distances as great as one and one-quarter miles. Sir William Preece of the British postoffice system interested his cohorts in Marconi's wireless experiments.

1897—Marconi establishes communication between points four miles distant. Balloons were used to suspend antenna.

Marconi demonstrates his wireless system before the king of Italy, communicating with two Italian warships nine miles distant.

The first Marconi station is erected on the Isle of Wight and experiments conducted over a distance of 14 miles.

Near the end of the year the first floating wireless station was successfully operated.

1898—The first paid messagegram was sent from the Isle of Wight station.

1899—Reports made on lighthouse accident by radio. First French gunboat is fitted with radio apparatus. In Vienna communication between two balloons is established. New York Herald receives radio report of international yacht races. The British war office introduces Marconi apparatus into the South African battlefield.

1900—German vessel communicates a distance of 60 miles by radio signals.

1901—Radio communication started with five islands in the Hawaiian group. The first British ship is fitted with the wireless telegraph.

1902—Radiograph signals received aboard vessels at sea at 1,500 statute miles. Signals received from a distance of 2,000 miles.

1903—King Edward receives a radio message from President Roosevelt. High-power stations were ordered by the Italian government. First transatlantic radio message sent. Telegraphic news service for ships at sea is started. Marconi knighted in Russia.

1904—The first press message was sent across the sea.

1905—Patent suit started in New York between the Marconi and De Forest company.

Patent for horizontal directional aerial is taken out. This was a great step forward in long-distance work.

1906—International conference is held in Berlin, at which most of the countries of the world are represented.

1907—The use of steel disks for producing notes were successfully tested.

Radio stations in Ireland and Nova Scotia were opened for limited public service.

1908—Radio stations opened for unlimited public service between Great Britain and Canada.

1909—Steamship in collision with another off the coast of Florida succeeds in calling assistance by radio.

1910—Marconi receives messages 6,700 miles while on board ship going to South America.

Spanish radio company formed. 1911—Canadian government leased radio stations for 20 years.

1912—Radio distress signals from the Titanic bring assistance and save lives of 700 passengers.

1913—Tests were made between the Eiffel tower in France and the station at Washington. During the trip into Central Asia an explorer received his longitude and time signals from a distant radio station.

1914—Marconi and radio officials start test of wireless telephone between vessels of the Italian fleet. The test was continued between vessels on the high seas and voices were heard with clarity at a distance of 44 miles. One day radio telephone communication was kept up constantly for 12 hours. Great Britain declared war upon Germany August 4 and all private radio telegraphy and telephony suspended.

1915—Radio communication between America and Japan is completed. The stations were located at San Francisco and Tokyo with a relay station at Honolulu.

The American Telephone and Telegraph company succeeded in radio telephoning from Arlington station at Washington to Hawaii, a distance of nearly 5,000 miles.

Secretary Daniels of the United States navy transmitted telephonic messages from Washington to the Brooklyn navy yards.

1916—President Wilson and the Mikado of Japan exchange messages over the new transpacific radio service, which is formally opened.

1917—Senator Marconi visits the United States and aids greatly in recruiting for radio operators for the United States army.

1918—Wireless telephony progressed rapidly, being used to a great extent in the equipment of airplanes.

Several new long range stations were erected in the United States, it being claimed for one built at Annapolis, Md., that it was capable of communication at 4,000 miles. The United States government also opened a high-power station at Bordeaux.

In September of this year radio signals sent from a point 12,000 miles away were received in Sydney, Australia.

1919—With the exception of the three transatlantic flights—that of the U. S. NC-4, and the British flights of Alcock and Brown and the dirigible R-34, in which radio communication played an important part in keeping the ships of the air on their courses—no very great progress was made in radio telegraphy, although radio telephony was being pushed along quietly.

Restrictions upon amateur receiving and sending were lifted by the American government.

1920—This was the year of the radio telephone, more attention probably being paid to this branch of radio than to its older brother, telegraphy. Several broadcasting stations were opened.

1921—This year was another radio telephonic year. It was marked by the opening of numerous broadcasting stations.

## DEFINING THE PICTURE SPORT

Pen Portrait That May or May Not Be So Very Much Overdrawn or Caricatured.

"Do you know the picture sport?" asked a girl who was wearing Norfolk tweeds, flat sport heels and a tweed hat.

"Any kin to the tin horn?" asked her man companion.

"No—no—I'd say not. Because this kind is not objectionable except as she is inconsistent and that may be her prerogative. Who knows? She is the girl who fills up her wardrobe with the most fragile of so-called sport clothes, silk skirts, embroidered ribbon hats to match, silk hose, dainty ties or pumps, sweaters in the most perishable of colors and fabrics, bathing suits that won't wet and rubber picture hats that would make you drown if they were caught by a wave. That's the picture sport."

"She never plays golf in her golf togs; she never swims in her water suit; she never rides or hikes in her breeches; she never plays tennis in her becoming tennis skirt. Oh, no, but she sails in to tea with the rest of us after the games are all over and we are hot and red and covered with perspiration and sits down to the table as fresh as paint, giving us the once over for being so blown and blowsy looking. She fans herself and makes up with her vanity case wide open—she's the picture sport! Watch her!"—Chicago Journal.

## SECTION WHERE DEEDS COUNT

Irvine Bachelier Pays Glowing Tribute to His Home, the "Glorious Sun-Kissed West."

I took a trip across the continent, stopping off in Indiana to see my old friends. It was like a bath for my soul. Brains count out West. Anybody who tries to show off is snubbed. Irvine Bachelier writes in the Delimitator.

You must do something to be anything in the Middle West; just to have something doesn't count. You don't list your ancestors as you must in Virginia or the Carolinas, but to feel self-respecting you must do something.

The Far West still keeps the American inheritance of open-hearted hospitality and its provincialism. The West has inherited some of the finest virtues of our country, and if it is not bitten by Back Bay, Philadelphia, Virginia or Charleston, it will grow up into its mother's finest child.

"No church west of Chicago, no God west of Denver," we used to hear when I was a child. But today the churches are part of the community and even men go. People in the West do not seem to go to church merely out of respect for the devil and a conscience complex, but because they like to. Churches and schools are important places in the West.

## THE REAL PLEASURE



"Would you be glad if I said I loved you?" "Yes, because it would annoy Isabelle."—From Song of Nisse, Stockholm.

## "FOSSILS" VERY MUCH ALIVE

Once in a year or two there meets in New York for a banquet an organization known as "the Fossils," made up of "amateur journalists of the past," men who, as boys back in the seventies and eighties played with printers' ink. Thomas A. Edison is one of them, as is Gov. William C. Sproul of Pennsylvania and Josephus Daniels, who used to be secretary of the navy. James M. Beck, solicitor general of the United States; Senator George H. Moses and Cyrus H. K. Curtis are "Fossils." All of which may indicate that putting one's thoughts in print while he is yet young is a thing that may breed that straight thinking that leads along the road to accomplishment.

## WORLD'S FLAX PRODUCTION

Of the yearly total of 500,000 tons of flax produced for manufacturing purposes, Russia in prewar days raised 400,000 tons, France and Belgium, 50,000; Ireland, 10,000; Netherlands, 10,000, and Germany and Austria, 30,000. The Irish linen industry, which is chiefly centered in the north of Ireland, is dependent on foreign sources for its supply of raw material, only about one-eighth of its consumption of raw flax being produced at home.

## COLD RADIATORS

"What's going on here?" "A fire drill," said the school janitor, who was sunning himself on the curb. "This here edifice is 'posed to be a blazin'!" "Oh, I see."

"But, of course, it ain't, an' if anybody wants to ask me about it I can tell 'em that there ain't even a fire in th' basement."—Birmingham Age-Herald.

The Dominican Republic plans to become one of the beet-sugar producing regions in the world by irrigating about 180,000 acres of a river valley.

## BETTER THAN NO EXCUSE



"Do you know, dear, it is nearly two years since you called on us?" "I know, but think of the wretched weather we've been having!"

## HYDRAULIC HORSEPOWER

The combined hydraulic horsepower of the United States and Canada is 50,000,000, or slightly more than that of Europe. The power developed both in the United States and Canada, again, is slightly greater than the grand total for all of Europe. The percentage of power developed is, then, about the same in North America and Europe. The British empire, apart from Canada, cuts a poor figure in these totals. Leaving out Canada, the power utilized by Great Britain in proportion to her resources is far below that of other countries.

The possibilities of future wealth in the United States in this respect are amazing. In a single month the total output of water power for the country was 1,276,770,000 kilowatt hours. Incidentally, California produces twice the hydraulic power of New York. By developing such natural resources, this wealth, it is encouraging to remember, may be increased more than 500 per cent.

## A CAREFUL ESTIMATE

The recruit was anxious to get a noncom's billet in the Tenth artillery, and the first sergeant was giving him a preliminary examination. "How many pieces will a 12-pound shell burst into?" asked the sergeant.

The recruit did some rapid-fire thinking. He rubbed his chin—drew an imaginary line on the floor with the toe of his shoe—scratched his head, and finally drawled out: "Well, sergeant, I should judge not less than two."

## USE LAMPS TO STUDY PLANTS

Large electric lamps, 1,000 watt capacity, are being used in an intensive study of the rate of respiration and the process of photosynthesis in plants at the University of Wisconsin. The plants are allowed to grow under these powerful lamps in a room cooled to about 65 degrees Fahrenheit.

"You never won't hab no trouble gettin' work, son," said Uncle Eben. "If you coahed foh a job as hard as you does foh seven in a crap game."

# Elect IKE PATTERSON

REPUBLICAN NOMINEE FOR

# GOVERNOR

at the primaries Friday, May 19.



He is a man of rare personality and proved executive ability. Here, briefly, is his story: Isaac Lee Patterson was born in Benton County, Oregon, in 1859. Attended country schools and worked his way through Christian College, Monmouth. Became a successful merchant in Salem. In 1894 was elected State Senator from Marion County. In 1898 was appointed Collector of Customs at Portland, by President McKinley; re-appointed by President Roosevelt in 1902.

## A Record of Achievement

WHILE he was collector, the business of Mr. Patterson's office practically doubled yet he reduced the cost of running his office by \$6,380 a year. Since 1906 has been a successful farmer at Eola, Polk County. In 1919 and 1921 served as State Senator from Polk County. As chairman of Senate Finance Committee led the fight against wholesale salary increase bills and defeated most of them. In 1921 voted against increasing Governor's salary.

## Vote for Patterson and Stop this Waste!

Since 1913 State taxes have increased 748.7 per cent! This gross extravagance must be stopped! Mr. Patterson has pledged that when elected he will make a substantial decrease in year state taxes by efficient and economical administration. A vote for Senator Patterson is a vote for clean, economical business-like government.

PATTERSON CAMPAIGN COMMITTEE

591 Imperial Hotel

Portland, Oregon

Paid Ad.