

SCIENCE OUSTS "WASTE MATTER"

Changing Raw Materials, Waste Substances Into Corporation Earnings.

NEW YORK, (AP)—Chemical science and mechanical ingenuity, twin facts of American industrial prosperity, have chalked up a series of astounding victories over time and matter during the past year.

Alchemy, the heavy handed medieval parent of present day experimentation, had a double purpose: to transmute base metals into gold and to find a panacea whereby human life could be prolonged.

Today the experimenters are changing raw materials and waste substances into the gold of corporation earnings and prolonging human life, if not life, by the perfection of powerful mechanical workmen.

The twelfth exposition of chemical industries in New York contained exhibits by 400 leading manufacturers. Thousands of miniature machinery, samples of improved metals, electrical devices, inventions in progress and the varied products of chemical laboratories were assembled to show the net progress of science in industry during the last twelve months.

American inventive genius continues to direct its principal efforts toward the elimination of the words "waste materials" from the vocabulary of industry.

The vertical fluid circulation evaporator exhibited in model by the Buffalo Foundry & Machine company is an example.

In the manufacture of paper the "black liquor" residue from the action of caustic soda on wood contains 11 per cent of solids, consisting of resin and caustic soda.

The circulation evaporator raises this percentage to 50 per cent after which it goes to a high concentrator and is turned into a thick liquid of 70 per cent solids.

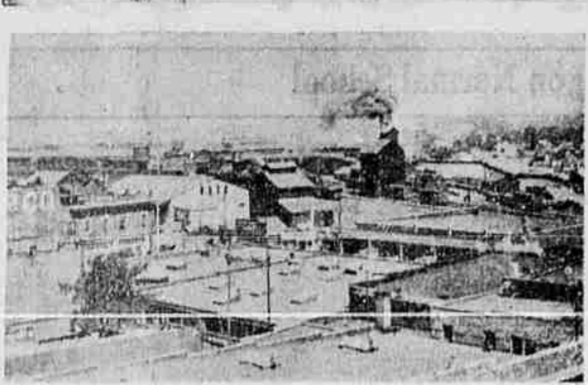
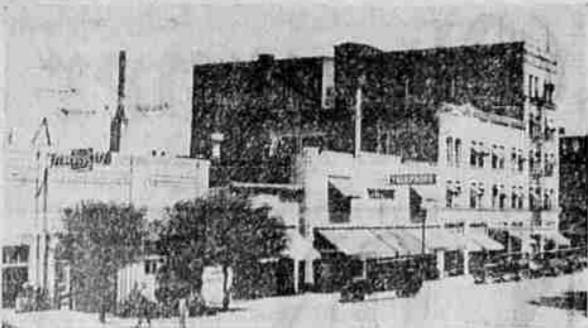
At this point the resin becomes combustible and is used for fuel. The caustic soda, being inflammable, remains and is sent back to be used, over and over again, in the wood reduction process. The slurry yards get nothing.

The American chemical industry has grown from a negligible economic factor at the beginning of the century to a point where it is exporting annually chemical products valued at almost \$20,000,000. The United Kingdom is the chief buyer of these products abroad and Germany second.

But it is not the chemical industry that has carried production, consumption and general prosperity to new high levels.

Minnesota plans a public game preserve of about 1,250,000 acres adjacent to the Canadian border.

HERE AND THERE IN LA GRANDE



Above—Here is an excellent picture of a block in the business section, on Adams avenue between Fourth and Chestnut streets. The five-story New Foley building is at the end of the block. Lower—This picture shows the second division shops of the O-W, R. R. & N. company, located near the business section of La Grande and responsible for a large amount of the city's annual payroll.

New Steamship Record Likely On Bremen Run

BREMEN, Germany (AP)—A record run of six days from Bremen is expected of the Europe's sister ship, the new four-masted transatlantic liner, the Bremen, now ready for her maiden trip to New York June 16.

Her giant size has compelled the North German Lloyd to reorganize completely its docking facilities in New York and move from Manhattan to a Brooklyn pier, the largest in the harbor. The vessel measures 310 feet in length, with a 97.5-foot beam.

It is the big vessel's funnels more than any other factor that give her characteristic appearance, markedly differing from that of other great liners. Their unusual shortness, in the first place, lend her an air of lying very deep in the water. The funnels are only two in number, moreover, the unnecessary third and fourth, ordinarily faked for appearances' sake, having been omitted.

Both funnels, built with the ordinary rounded surface in front but tapering to a V-shaped point behind, are constructed according to

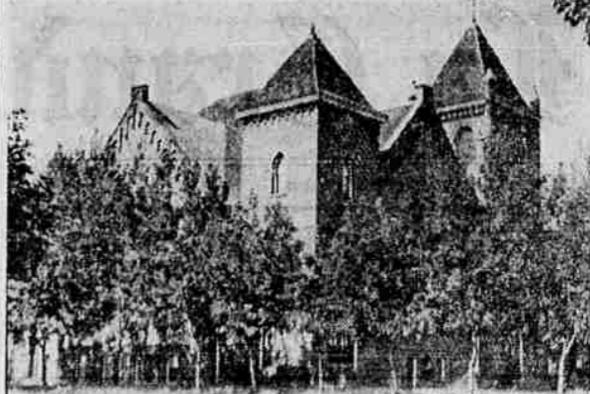
a principle familiar to the physics laboratory but altogether new in shipbuilding. By use of this principle, company officials believe, the great vessel's wind resistance will be cut down, thus enabling her to maintain a high speed in spite of the bulk which provides roomy, spacious quarters for her 2000 passengers.

The second wholly new feature of the vessel, the tremendous sweep of open space in its social rooms, running almost the full length of all deck without interrupting partitions, also is due to the construction of the funnels, or rather of the smoke conductors or pipes carrying the smoke from the engines up to the funnels.

Instead of passing directly up through the center of the vessel, as in the usual method, these big pipes are constructed so that they bend to pass up the sides of the ship and then back into the funnels above, thus obviating the necessity of covering them with partitions on every deck through the body of the ship.

A total of 600 first class passengers can be carried by the Bremen, or up to 800 if all the extra extension or "pullman" berths are used. Another 500 can go second class, 300 tourist class, and 600 third class, making a grand total of normally 2000 or a maximum of 2200. If occasion arises, and the new

THE L. D. S. TABERNACLE



Here is a picture of one of the 14 church buildings in La Grande—the Latter Day Saints tabernacle at the corner of Fourth street and O avenue.

tourist class proves especially popular, it may be expanded to take care of 500 by adapting a part of the normally second class space.

Cracks in slate, soapstone, or cement laundry tubs can be made water-tight with litharge and gly-

cerin mixed to form a heavy paste free from lumps. The cracks should be cleaned out to remove all grease and dirt and the paste worked in with a case knife. A paste made of Portland cement and water, or of white of eggs and fresh lump lime, can be used.

WINTER-KILLING DUE TO LACK OF POTASH

HOWARD CITY, Mich., (AP)—Winter-killing of alfalfa on light soils may be the result of too weak a solution of potash in the humus, experiments on the Pennsylvania railroad's sand land demonstration farm indicate.

Plots receiving liberal applications of potash in combination with superphosphate came through the winter in perfect condition, whereas other plots treated with 16 and 20 per cent superphosphate and with complete fertilizers were badly thinned by winter. Some plots receiving complete fertilizers of low potash content were thinned almost as badly as the stands on unfertilized tracts.

Alfalfa receiving potash with superphosphate was the first to show green this spring and promises to cut twice as much hay per acre as many of the other plots. Best results were obtained from applications of 300 pounds of potash to the acre.

"MILLIONAIRE" HENS
JEFFERSON CITY, Mo., (AP)—Missouri hens are cackling in millionaire circles. They produced 178,922,900 dozen eggs in 1928, valued at \$44,877,670. Egg-laying population of the state for that year is estimated at 27,254,000.

Educational Conference Stirs Geneva To Prepare For 5000

LAWRENCE, Kan., (AP)—The possibility of charting accurate rainfall forecasts for years in advance has led Dr. Edmund Alter, professor of astronomy at the University of Kansas, to plan a year's study of British rainfall records.

Several of his test predictions, computed mathematically from statistical reports, have correlated so exactly with actual rainfall that he believes further data will expedite the making of serious long-time forecasts.

With data from six places on the British Isles, covering years from 1834 to 1924, Dr. Alter has computed a periodogram with a dozen or more peaks. When the four principal peaks were applied to actual data, the resulting chart of departure from normal rainfall was found to follow closely the actual charted departures.

Dr. Alter's test predictions up to 1926 have been published by the United States weather bureau. He has written several papers on periodicity in rainfall, basing his studies on records from the Pacific coast of North America, Chile, Siberia, Australia, Jamaica, Madag-

ascar and the British in India. By using data over longer periods, and seven or eight factors instead of the four in his test forecasts, and by using quarter-year rather than half-year units, he hopes to arrive at correlations sufficiently high to justify serious forecasts for years ahead.

Excess rainfall in England for 1928 was predicted by Dr. Alter a year before, and actually occurred to a greater extent than predicted. His forecast deficiency for this year was borne out by reports showing an actual deficiency of 20 per cent for the first three months.

He will sail this summer for his research in England, under provisions of a Guggenheim fellowship.

PARIS (AP)—As a bid for popularity with the American public, a French maker of a reducing lotion which is supposed to remove unwanted flesh puts his products up in hip flasks.



A NEW Industry for La Grande

A new plant, a new product. The new Eastern Oregon Normal School is dedicated today for the most important task to be undertaken in the Eastern Oregon country—providing higher education for the young men and young women of this section and turning out teachers who are trained in their art. No industry in the state is more significant to the development and welfare of Oregon. Its location here brings the opportunity of education within reach of hundreds of young citizens who might otherwise be denied it. We extend our congratulations and predict an immediate popularity and rapid growth for this institution.

Eastern Oregon Light & Power Company

La Grande's Famous Eat and Drink Station

Normal School students will find the Tiffin the place to go for the noon lunch, evening dinner or refreshing drinks.

The new interior decorations, the improved arrangement of serving facilities and the attractive new front will appeal to those who like to drink and eat under unusually pleasing surroundings.

The Tiffin
Ray Price, Prop.

