

WOODEN TIES LAST LONGER IN SOUTH AMERICA THAN METAL TIES WHICH RUST

THOROUGH TESTS MADE BY ROADS IN SOUTHERN LANDS

Metal Sleepers Cost More and Are Found to Corrode Except in the More Arid Districts.

CONSUL ROBERTSON REPORTS

All Contracts for Supplies for British Railway in South America Are Made Through London.

Metal ties which have been used quite extensively in Argentina are not giving as good service as wooden ties, according to Consul General W. H. Robertson of Buenos Aires. The steel sleepers have been found to corrode quickly and cause much more trouble than the wooden ties.

There is an Argentine law known as the "Mitre law" which provides that ties used on all railroads in the republic shall be hardwood cut in the country, but a good many metal ties are also in use.

The general manager of the Argentine Central railway, one of the leading lines of the country, states that out of a total of 5383 kilometers of running line, 793 are laid on steel sleepers, 4235 on wooden ties and 223 on cast-iron pots.

Any future market for metal railroads must depend largely upon a change in the government restrictions and on comparative prices of the ties from other countries.

It is expected that the state railways have never made use of steel railway ties, since the government always has been inclined to favor the native quebracho colorado sleeper.

High Cost Disadvantage
The disadvantages of metal sleepers are higher cost, corrosion resulting in shorter life, susceptibility to damage from derailed stock, fixity of gauge which prevents the easing of gauges on curves, and with most types it takes longer to lay them. This does not apply to certain 100 pound types.

WAR WORKS CHANGE IN SELLING PAPERS AMONG HOLLANDERS

Dailies Are Now Sold on Streets; In Greece Minimum Price Is Fixed.

Before the war newspapers were not sold on the streets of Amsterdam, but only at news stands and publication offices. The war has produced street sales—not by newboys but by men and women. They are not numerous, as in the United States and England, however, for as a rule the Dutch people are regular subscribers to the journals that they read.

The advance is made by the publishers because of the increasing cost of paper and other items. The price to regular subscribers, advanced 10 per cent in 1914, is now 25 per cent higher. It ranges from \$1.35 to \$1.75 per quarter, according to the newspaper. This subscription price covers a morning and an evening edition every day except Sunday and Monday, which have one edition each, and except on several holidays in the course of the year, when one or two editions are omitted.

OREGON IS PROVED FINE GRAIN GROWING COUNTRY



Picture shows I. C. McDonald on his Washington county farm, where corn stands 12 feet high. Other crops in neighborhood were equally excellent.

ers must not exceed 2.04 square meters (22 square feet). Semi-weekly papers may not exceed 72 by 114 centimeters each issue (28 1/2 by 45 inches).

Italy Shipping Lemons
During the September quarter 67,307 boxes of lemons were invoiced at the Catania, Italy, consulate for export to the United States. This, reports Vice Consul Robert F. Fernald, brings the total shipment of lemons from that Sicilian city to the United States during the first nine months of 1917 up to 201,482 boxes, 23,702 boxes having gone forward in the first quarter and 100,523 boxes in the second.

German sugar manufacturers have offered substantial cash prizes for improvements in harvesting and unloading sugar beets, one that amounts to \$2880 being for the best apparatus and process for drying their leaves and tops.

HONG KONG SETTLES DOWN TO USE OF THE ASPHALT PAVEMENT

Decision is of Importance, Owing to Difficulties Caused by Great Rainfall.

After a good many years of experimentation the government of Hongkong has settled down to the general use of asphalt and tar in its road and pavement work. The decision is of considerable significance, for few places in the world offer more of a problem in pavement work, since in few places is there a more serious difficulty growing out of excessive rainfall on steep inclines and great summer heat followed by long seasons of dry weather.

Up to about five years ago almost no asphalt was used on Hongkong roads. Macadam finished with a mixture of clay, cement concrete, and macadam on hills was considered the most economical roadway. Experiments were carried on from time to time with asphalt, and in 1911 some portions of the pavement on downtown streets, as well as a considerable stretch of one of the roads on the Peak, were laid in tarred macadam.

In 1912 the area of tar macadam in the city proper was considerably extended and the plan was also adopted of painting the surface of many concrete roads with tar and sanding the surface.

BRAZILIAN COFFEE CROP TO BE LARGER THAN EVER BEFORE

Condition Looked on With Dismay by Traders in View of Narrowed Markets.

According to the forecasts of those who have the longest technical experience in the business, there is every likelihood that Brazil's coffee crop this year will exceed anything that has ever before been witnessed here. A crop so plentiful as to exceed any former calculation, and, thrown unexpectedly upon a market that is being limited to its narrow-

est purchasing capacity by war conditions, is something that few coffee men look forward to with anything like optimism. It is expected that the state of Rio de Janeiro alone, which ought normally to average 2,750,000 bags, will, according to present receipts, send in a total of 4,000,000 to 5,000,000 bags for the year. The state of Espirito Santo, which has always kept near the 750,000 mark, will local coffee exports may easily reach the 1,000,000 bag total. As for the state of Sao Paulo, 15,000,000 bags seem to be expected of it, according to present indications.

Transfers to 20th Engineers Are Made

Under special authorization of the war department, men qualified for mill and woods operations who have been or will be drafted into the national army are made eligible for transfer to the Twentieth engineers (forest) regiment, now being organized for service in France.

CANADIAN WHEAT AND FLOUR IMPORTS ARE GREATLY INCREASED

Reason is by Removing Her Tariff, United States Tariff Is Automatically Abolished.

Since April of this year wheat and wheat flour have been imported in greatly increased quantities from Canada. This is attributed principally to the fact that on April 16 Canada removed the duty on wheat imported into that country. The Dominion's action automatically admitted Canadian wheat free of duty into the United States under the provisions of the tariff law of 1913.

SECOND CUBAN WAR LOAN NEARLY DOUBLED BY OVERSUBSCRIPTION

Even Parties Looked Upon as Pro-German Contribute to Fund of \$1,633,550.

The subscriptions for the second Liberty loan totaled \$1,633,550, although it was estimated that Cuba would raise only \$1,000,000. All nationalities contributed, even those suspected of being strongly pro-German. This sum, however, cannot be taken as Cuba's actual subscription, as a great number of bonds were bought through American banks and, therefore, do not appear as a credit on the local campaign.

This is a wonderful record for Cuba and especially so when one realizes that a great number of the contributions were made by alien citizens and subjects who are making heavy contributions to their own governments. Cubans, for instance, have yet to raise \$18,000,000 to take up half of their own war loan, which by the way, cannot be furnished by the United States government.

COMPANY ONLY THREE YEARS OLD MAKES REMARKABLE SHOWING IN BUSINESS

MANUFACTURERS' DIRECTORY
(Continued)
Portland Rubber Mills, everything in rubber, rubber heels, soles, 848 E. 9th St.
Portland Bell Co., bells, 309 13th St. N.
Rasmussen & Co., paints, varnishes, 24 and Taylor st.
Roe, W. F. & Co., mfg. Jewelers, Alaska gold, Sweden's gold, 848 E. 9th St.
Shelley, P. M. Co., Fish brand home col. lar, 63 Union ave.
Sells Auto Works, 2d and Madison st., auto bodies, truck bodies, bus bodies, auto starters.
Thayer, Shaver & Gullay, auto truck build. ing, machinery, 193 East Water st.
United Tire Co., non-puncture auto tires, 461-443 Hawthorne ave.
United Mattress & Pad Co., mattresses, renovation, 427 Hancock st.
Vaughan Motor Works and Foundry, 671 2d East Main street.
Winnertling, M., Kasha Powder, 401 E. 6th St.
Williams Gas Engines & Machine works, gas engines, auto repairs, garage, 861 E. Burnside.

Rasmussen & Co.
Makers of
Paints and Varnish
N. E. Cor. 2d and Taylor,
Portland, Oregon

PUMP COMPANY HAS \$100,000 IN ORDERS UNFILLED ON BOOKS

workshops covering a full half block of ground. The Valveless Pump & Foundry Co., Inc., the name the institution will hereafter be known by, has procured an entirely new plant which fills every inch of space occupied by the stove works, and now is doing all its own casting and machine work.

The capacity of the plant is greater, however, than will be required for its own purposes, so the corporation has already branched out into the commercial field, doing a line of casting and machine work for shippers and other clients, pricing itself in prompt delivery of all its orders. Its chief concern, however, will be the manufacture of its valveless pump, an invention which has literally taken mining and irrigation interests by storm. It is so superior in its field that it is expected that the day is approaching when it will have this western territory, in which mining and irrigation go so prominently hand in hand, as its own.

runs at low speed, will pump cold or boiling water, has record of vertical suction lift of 22.5 feet, and under ordinary conditions will handle 25 to 30 feet vertical lift. It is so simple that anyone without possibility of error, and will run in either direction with equal facility. It is not a centrifugal, but positive displacement pump. It does not "thrash" water as a centrifugal often does, which fact in a measure accounts for its great pumping record. It will pump at speed 150 to 400 revolutions per minute, and is efficient at either or any of them. We have users who declare it saves as much as 50 per cent in power. Examination of over 100 installations, carefully and scientifically made by us, has indicated a saving of from 10 to 25 per cent.

The life of the pump is practically indefinite. Two or three insignificant parts will in time wear out, but their replacement will cost but a trifle, and the pump will run without wear the shell as in most makes of pumps. It has tremendous advantages over the centrifugal pumps, among them the fact that it requires no priming and foot valve, its slow speed, its parts replaceable, low power consumption, adaptability to any condition, will pump at 20-foot or 40-foot head without change of speed, but by changing will pump 100 or 300 gallons per minute as desired. But it is not a "cheap" pump, as cheapness is commonly understood. Its great capacity and lasting qualities, however, makes it low priced, especially when its convenience and special economics of operation are considered. It is, however, the "best" pump and the best is always the cheapest."

Officers of the corporation are: M. L. Jones, president; A. M. Cannon, referee in bankruptcy, vice president; A. F. Polye, treasurer; T. H. Beverly, secretary; W. R. Leach, secretary in charge; Orton E. Goodwin, sales manager. Mr. Jones is president of the state fair board.

Value of Pitch
Several woodcutters inquire the value of pitch obtained from fir trees. The price for clean pitch delivered in Portland is 50 cents per pound. The pitch includes gum found on the bark of the trees. The pitch is used in the manufacture of medicines.

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Closing its third year of life, but first of actual, intensive business, the Valveless Pump company of the Pacific coast has received orders on its books which it had been unable to fill. Its work had been done on contracts with foundrymen and machine shops and the work conditions had so deluged these with orders, mostly for the government, that private individuals and concerns were forced to wait until such times as it would be convenient to serve them.

Invested in Spokane
These valveless pumps were invented by a genius in Spokane, Wash., three or four years ago, and all parts are produced by letters patent. Several years time were consumed in perfecting the pump, and this accomplishment was purchased by Portland parties, and the enterprise is now on a most substantial foundation. With abundance of capital and energetic officials, its territory which now compasses all our western and southern states, Canada and Mexico, will be expanded to the Atlantic and foreign countries. Within a few weeks more than 14,000,000 bushels of wheat and 27,519 bushels of flour; Michigan, with 138,581 bushels of wheat and 1539 barrels of flour; Ohio with 114,098 bushels of wheat; Minnesota with 12,146 bushels of wheat; and New York, Rochester, Vermont, Dakota, Montana and Washington with varying amounts. There is also a noticeable movement of Canadian flour to the west coast.

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Sawmill Machinery

Coopey Says: It is a lamentable fact that Portland had to wait for this lamentable war to come and force ship building plants to close upon the security of establishing industries creating big pay-rolls. I say forced upon her, for Portland isn't to blame for having these industries. I do not believe any words have harmed them. If not as necessary today as ships, will be in the near future. I wonder if we can get the government to compel us to establish these additional industries as it has, that of building ships!

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