

While no startling success has yet been met with in the way of converting the energy of the sun's rays into useful work, yet it is well to remember that every perfecting of low-pressure steam engines brings the possibilities of that goal nearer. There have been advances in that line of late years, and it is of consequent interest to hear of a company which started construction in 1812 in Egypt of a 100 horse-power pumping plant to be operated by boilers obtaining fuel from the sun's rays. The history of the plant as given lately in London, England, by an official of the company is that on completion of the plant and after three days' successful running the specially designed zinc boilers, which acted satisfactorily in the United States, were unable at Cairo to stand the heat. They leaked, and had to be discarded, and the plant was at a standstill pending the delivery of cast-iron boilers  $\frac{1}{4}$  inch thick. He hoped these would be fitted and the plant start running afresh on June 1st next. They had selected cast-iron boilers in order to obtain quicker delivery. In future they would use dished steel-plate boilers, for the manufacture of which it would be necessary to procure beforehand the required sets of dies. The first cost naturally was a heavy one, being probably twice that of a steam plant of equal capacity. As to operating, it might be stated that when coal was at the price of \$2.50 per ton, the sun-power plant could compete with it; when coal cost more, then the sun-power plant made a profit. Starting the plant at 6 a.m., they had steam at 6.15. Starting at noon, with cold water, they had steam in three minutes. The low-pressure engine used was a special type of engine, and Prof. C. V. Boys, their consulting engineer, while feeling satisfied the boilers would substantiate in practice what had been advanced in regard to them, believed it was on the utilization of their steam that they were bound to concentrate their attention.

The report does not sound encouraging, but when we consider what the successful operation of such principles of design would mean to Egypt and other tropical countries in the way of irrigation and pumping possibilities, we cannot help wishing the enterprise all kinds of success.

Wireless and other modern inventions help one to believe that modern ingenuity will in some way find means to economically capture and convert into more useful energy the sun's heat of the tropics.

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### THE PACIFIC HIGHWAY.

The agitation and propaganda for good roads carried on by Highway Associations throughout the Dominion have invariably had for their primary and chief argument (and an immediately pressing argument) the mutual benefit to be derived by settlers and farmers and nearby residents in cities and towns through increased and easier trade facilities. Increased land values for farms, due to increased accessibility, have had prominence, and the importance of automobile and pleasure trips has been secondary—and rightly so—in all highway promotion. The exception to the above that might be said to prove the rule, is the case of "The Pacific Highway" in the Rocky Mountains. The proposed route of this highway is from Hazelton, in Northern British Columbia, to Yuma, Arizona, and ultimately on to Mexico. The British Columbia and California legislatures are in favor of the scheme, Washington is inclined to be favorable, and, provided the Oregon and Washington legislatures signify their willingness, the building

of a splendid international highway, three thousand miles long extending from Hazelton southwards will soon be a certainty. In the meantime it is partly under construction in many parts already.

Considering the physical difficulties and expense of road building in the mountains, the slight population along great parts of the route, the certainty that fertile spots will only be found intermittently and that the major portion of the road must always run through uncultivable mountain region, one might expect difficulties and discouragement in persuading legislatures to vote money for such a task. It is in the fact that the association which is stimulating constructions on the Pacific Highway bases in great part its arguments for the prompt construction of same on benefits to be derived from tourist travel that it differs from most highway organization. The vice-president of the association, Mr. Todd, in a recent address in British Columbia dwelt strongly on these benefits. Tourists from North America spent in Europe annually more than thirty times the amount of the expenditure of the Provincial Government for last year. Motorists from America and from England went regularly to Europe for motoring trips, and the amount which was thus spent out of the country—which might be spent in it—could be easily ascertained as an enormous sum. The Pacific Highway would tempt all these and many foreigners more to tour on the Pacific slope. In Mr. Todd's opinion 1916 will see not less than ten thousand foreign motor cars touring on British Columbia roads, and that these will do the Province a thousand times more good than any damage they may incidentally do the roads. Every one of these tourists will be a possible investor, and, presuming that these ten thousand cars average four passengers apiece and stay an average of thirty days at an expenditure of \$10 a day for each person, \$15,000,000 are at once in sight as a revenue which tourists must pay here for bare necessities.

Those who have ever been through the mountain districts of Europe or spent any time in the Canadian Rockies realize and will agree with him in what a tremendous asset British Columbia's scenery is, once they have accommodation and means to make travel in the remoter parts comfortable. The British Columbia legislature for years has spent more annually on trails and road-making than any other province in the Dominion. The work has been well done, and it has been rather a heart-breaking and long fight, contesting with nature as seen in British Columbia.

The people and province will reap the benefit in the end, and the present support of the Pacific Highway is only another laurel in British Columbia's crown for energetic and unswerving progress towards better means of communication throughout the Province.

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The mail and passenger steamer "Lintrose," which has been constructed to the order of the Reid Newfoundland Company, of St. John's, Newfoundland, by Swan, Hunter & Wigham Richardson, Limited, at Newcastle-on Tyne, has successfully completed her trial trips, and is on the point of sailing for St. John's to take up her service of carrying passengers and mails between Newfoundland and the mainland.

The steamer is exceptionally strongly constructed for running through the ice which she will frequently find on her route, and is very finely modelled. She has accommodation for 180 first-class and 150 second-class passengers.