

The Solar Motor.

Below will be found extracts from an article which recently appeared in the Imperial Farmer of Los Angeles, Cal., describing the Solar Motor now in use near Pasadena in that state.



FRONT VIEW OF SOLAR MOTOR.

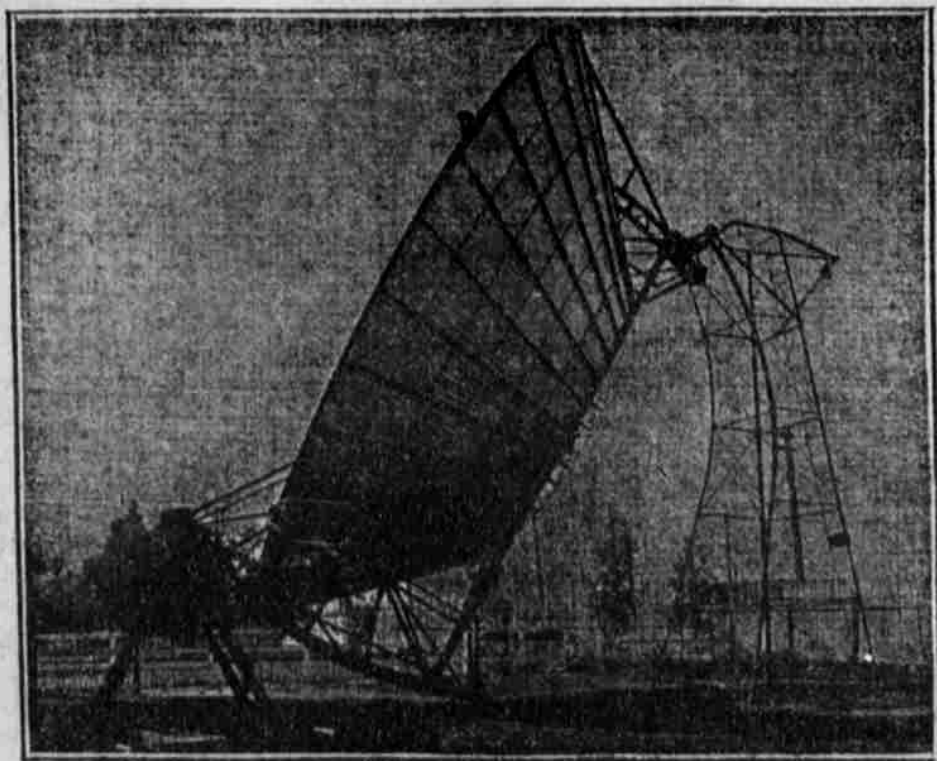
The cuts illustrating it were kindly loaned to The Commoner by that paper. It says:

The editor of the Imperial Farmer has seen many very wonderful things in Southern California in the space of a generation. He has seen Riverside translated from the most barren and hopeless of deserts into one of the

of industry and society, humbly planted in the heart of the San Bernardino valley, wax beautiful and prosperous and blossom into Ontarios and Pomonas. He has seen the rising tide of development not only submerge the vacant valleys, but creep up along

the foothills; and even upon the stern tops of the mountains he has seen the energy and genius of man plant railroads and hotels.

The editor of the Farmer has seen so much accomplished that he has cultivated the habit of not being surprised at anything. He was not surprised when he found that the irri-



SIDE VIEW OF SOLAR MOTOR.

most famous orchards and gardens in the world. He has seen a dry slope of wheat-stubble become, in the Redlands of today, the winter home of wealth and fashion. He has seen seeds

gated area of Southern California had practically been doubled by water development as the result of the drouth. He was not surprised when it was suggested that the great Colorado desert

be moistened by the river of the same name and that a district of something like a million acres was to be wrested from the hand of aridity. Nor was he surprised when an old friend recently invited him to visit the Ostrich Farm at South Pasadena and behold how inventive genius had succeeded at last in hitching an engine to the sun.

The Solar Motor is a success. It operates a compound engine and centrifugal pump by means of steam, and that steam is created with no other fuel than the heat of the sun concentrated upon a boiler, which is the focal point in the center of a large reflector lined with many small mirrors. We have no idea that this device, which thus eliminates all cost of fuel at a single stroke, has reached the limit of its possibilities. But already it has recorded the following performance: developed a steam pressure of 210 pounds; evaporated 192 pounds of water per hour under 150 pounds of steam pressure; driven a ten-horse power engine and centrifugal pump; elevated 1,400 gallons of water per minute (equal to a flow of 155 miners' inches) twelve feet from an underground tank.

We do not know why, if this can be done with a single reflector, ten times as much cannot be done when several reflectors are grouped about a central engine, since it is patent that the efficiency of steam increases with the size of the engine. Nor do we see any reason why steam power generated by solar heat will not serve all other industrial uses as readily as it will pump water. Apparently there are no insuperable obstacles to the storage of this power so that it can be used nights and cloudy days, though this would necessitate the generation of electricity and use of storage batteries until other and cheaper methods shall have been devised. It is easy to spin a web of possibilities to come from this new invention, and if there are doubters they need only be reminded of the fate of all the other pessimists who have been run over by the swift wheels of events in the west.

The prohibitive cost of fuel has greatly retarded the growth of mining districts in many places, compelled communities of considerable size to do without ice-plants, and deprived small towns of domestic water and of electric lighting systems. But most important of all, the cost of pumping has kept millions of acres barren which could not well be irrigated from reservoirs or streams. If the Solar Motor can be constructed cheaply enough to meet these conditions there is certainly a wide field for it, and it may be one of the most potent influences in the development of the west during the new century.

The accompanying illustrations will give the reader a very fair idea of the appearance and construction of this device. But the pictures should be supplemented by a few facts touching dimensions and materials.

The reflector measures 33 feet, 6 inches across the top, and 15 feet across the bottom. It is lined with 1,788 mirrors, each measuring 14x3 1/2 inches, made of common commercial glass. The familiar principle of the burning glass, known to every boy who

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