## "The Fifty Ton Crane of the Lerouville Quarries" in France

In Scientific American Supplement, Vol. XXXVI, No. 919 August 12, 1893, pp. 14681



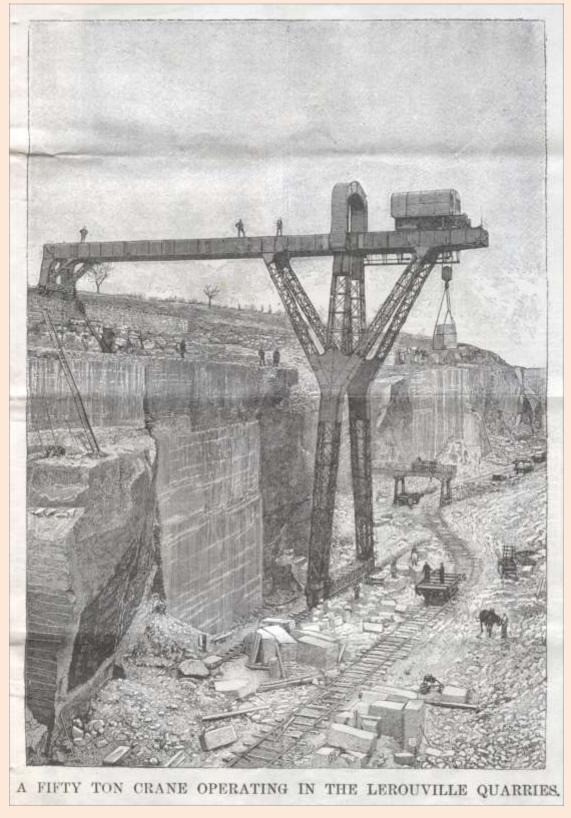
This article, which begins on the next page, is presented on the Stone Quarries and Beyond web site.

<a href="http://quarriesandbeyond.org/">http://quarriesandbeyond.org/</a>

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## "The Fifty Ton Crane of the Lerouville Quarries"

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"A Fifty Ton Crane Operating in the Lerouville Quarries."

"We live no longer in the time in which King Cheops was obliged to employ 30,000 men for the 30 years to erect the great pyramids of Egypt. The progress of mechanics, more and more improved, puts into the forces and permit him to play, more and more, the elevated role to which he is logically called, that is to say, to regulate these forces and direct them by his intelligence, instead of exhausting himself in muscular efforts that lead to the desired result only with extreme slowness.

"In current work, one horse steam power easily accomplishes in the engine in which it is developed the work of ten men. That is a fine enough result; but here comes electricity to permit of transporting the power produced to great distances, by means of a simple wire conductor. This new agent permits of executing work before which human forces formerly remained powerless.

"The role of machines is particularly remarkable in the new processes of extraction of the products of the soil – stones, coal, and ores. In mines, they are the powerful rock drills that excavate the galleries and win coal, the great blowers that aerate the works, and huge extraction machines that lift the products or the subterranean water.

"In quarries, which are the object of a more and more active exploitation, the primitive processes of extraction have given way to mechanical processes more thoroughly efficacious and more economical. Thus, in the splendid quarries of Lerouville, which furnish our architects with renowned materials, it has been possible to reach a depth of from 35 to 40 meters. Blocks of stone weighing from 5,000 to 8,000 kilogrammes have to be let down from such a height in order to be placed upon cars and carried away. The idea of throwing them down or sliding them down interminable inclined planes could not be thought of. So it was decided to employ the gigantic metallic crane of 50 tons power and weighing 120,000 kilogrammes, that we illustrate herewith. It is a play for this apparatus, truly imposing by its power and boldness, to delicately take blocks of the largest size and deposit them upon the cars. The huge crane shifts itself in measure as the work advances. A movable steam engine, mounted upon its platform, communicates motion to it and at the same time serves for maneuvering the blocks. – *L'Illustration*.

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The image presented on the link below shows the Lerouville limestone:

**Image of Lerouville Limestone** in France (brown limestone), presented on the Stone Contact web site.

http://www.stonecontact.com/stone-lerouville-limestone