

“Slate-Making in Pennsylvania”

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“The Chapmansville quarries, in Northampton county, Pa., were opened in 1850, the first one being worked on a small scale in 1864. Here are located the Chapman and New York Slate Manufacturing Company, the Fischer Slate Company, and the Edelman Quarry. The quarry of the Chapman Company is a hole over 1,000 feet long, 300 feet wide and 225 feet deep. It is called a flat rock quarry – the split of the slate inclining to the south at an angle of about 10°. The removal of the top is an item of considerable expense, varying with the location. When the top has been taken away, a natural joint in the slate is sought, and if not readily found a hole is drilled and a blast made. The slate rock is split into blocks, which are hoisted by means of derricks to the surface, when they are landed on trucks and moved along a track to the shanties where they are split.

“The splitter, with his mallet and broad steel chisels, sits on a block, and, taking a slab of slate between his legs, drives in his chisel a little way at one end. He moves it a little with a firm, gentle pressure, and one can see the split begin to start as straight as a die. He repeats the operation at the other end. Then he drives his chisel in the middle and easily pries the slab in halves. The split pieces are split and split again until they are of the required thickness. As fast as they are split a man who stands by the splitter takes the slates and runs them through the dressing machine. This is a cast-iron form set on five legs, with a steel extension piece or arm about 4 feet long, with a steel extension piece or arm about 4 feet long. Suspended over this is a steel knife which is attached to a spiral steel spring and worked by the foot of the dresser. A gauge board guides his eye, and he puts his slate against it, presses his foot on the treadle, and down comes the knife, cutting the edge clean and straight. He makes the four edges straight, and lays the slates in piles according to size. Just as fast as his foot can work, a good dresser keeps his machine going. The splitter and dresser work together, and are paid according to the quantity they turn out.

“Diamond saws having a reciprocating motion and making 140 strokes per minute are also used. They cut only one way, being lifted by a cam for the return stroke. A constant stream of water clears the teeth of slate dust. The planers are similar to those used for planing iron, the polishing bed being of cast iron, 14 feet in diameter, and making 30 revolutions per minute.

“A curious feature about the place is that the factory, engine house, smoke stack, and many of the houses, are built of slate blocks.

“There is a great demand for all kinds of labor in the whole region. Ordinary day laborers earn from \$1 to \$1.35 per day, and often more, according to the exigencies of the occasion. Carpenters earn \$2.25 to \$3.25. Bricklayers find work, but most new buildings are frame. Machinists are sought after daily, and make good terms, because practical men to work at the opening of new quarries and the erection of machinery are scarce. Slaters (splitters and dressers) can earn from \$2.50 to \$4 and \$4.50 per day by the piece. Quarrymen can always find employment.”

(See next page for some related online links.)

For information on slate making in Pennsylvania, visit these online links:

“History of the Slate Industry,” excerpt from *Hower’s Lightning Slate Reckoner on 33 Practical Sizes Roofing Slate*, by F. M. Hower, Proprietor of the Peach Hill Slate Quarry and President of the Eagle Slate Company, Cherryville, Pennsylvania, 1884. (Below are links to the “History of the Slate Industry” and the *Hower’s Lightning Slate Reckoner*, published in 1884, which are available on our web site, *Stone Quarries and Beyond*.)

<http://quarriesandbeyond.org/pdf/History%20of%20the%20Slate%20Industry%20fr%20Howers%201884.pdf>

<http://quarriesandbeyond.org/pdf/Howers%20Lightning%20Slate%20Reckoner%201888%20-%201904.pdf>

“In Pursuit of the Quarry: Pennsylvania’s Slat Belt,” by Alyssa Miller, Spring 2010.

<http://pabook.libraries.psu.edu/palitmap/SlateBelt.html>

The Technology of Slate, Bulletin 218, by Oliver Bowles, A thesis submitted to the faculty of George Washington University in part fulfillment of the requirement for the degree of Doctor of Philosophy, Department of the Interior, Bureau of Mines, 1922

<http://digicoll.manoa.hawaii.edu/techreports/PDF/USBM-218.pdf>

“North American Roofing Slate,” by the National Slate Association

<http://slateassociation.org/about-roofing-slates/>