

**STRAIGHTENING A CHIMNEY STACK.**

Mr. W. B. Seamans, superintendent of the Concrete Manufacturing Company, of Earnest, Pa., recently accomplished a job of straightening a chimney stack in a novel and ingenious way. The height of the stack is 122 feet, and it is 11 feet square at the base. It weighs 400 pounds and is slightly tapering at the top, the walls being 36 inches thick. The top was found to be leaning 45 inches from a vertical line. To sink the side 4 1/2 inches, 10 1/2 inches of brickwork was removed from the foundation on three sides. As the bricks were removed square blocks of wood were inserted, one after the other, until three sides of the stack rested on the blocks. Between the blocks, supporting the stack temporarily, substantial brick piers 6 inches high were built, leaving a space 4 1/2 inches between the top of the piers and the bottom of the undermined brickwork. The blocks were then set on fire and all were kept burning briskly. If one burned faster than the others the fire on that particular block was checked, so that all were made to burn uniformly, and as the blocks were being reduced to ashes the stack slowly righted. As the top gradually swung back through the 45 inch arc small fissures appeared near the base. Into every crevice a steel wedge was driven, maintaining the solidity of the walls.

It took one full day to complete the work and one hour was consumed in reducing the wooden blocks to ashes.

**USEFUL HINTS.**

Iron that is to be buried in the earth may be painted with a mixture of 100 parts of resin, 25 parts gutta percha, and 50 parts paraffin, to which 20 parts of magnesia and some mineral oil have been added.

**CEMENTING COPPER AND GLASS.**—Copper and glass may be united by a cement, of which the composition is given in a recently published German formula, as follows: In 5 ounces of water boil 1 ounce of caustic soda and 3 ounces of

resin. With this mix half the quantity of plaster-of-Paris. The cement is hard in half an hour or three-quarters of an hour. Neither water, heat, nor petroleum affects it. If zinc white, white lead, or slaked lime is used in place of plaster-of-Paris, the setting proceeds more slowly.

Messrs. R. H. Buchanan & Co., of Montreal, have put in the river St. Lawrence at Prescott, an intake pipe 550 feet long into 15 feet of water for supplying clear water to Messrs. J. P. Wiser & Sons' distillery. To the shore end three

powerful steam pumps are connected. At a test recently the three pumps drafted the water in a very satisfactory manner.

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