

**MOVING A TALL STEEL STACK.**

The smokestack of the Meriden Curtainixture Company's factory at Meriden, Conn., is a riveted steel cylinder 4 feet in diameter,  $\frac{3}{8}$  of an inch thick, 100 feet high, and weighs about 22,000 pounds. It was thrown out of plumb nearly a foot by the settlement of its base, and with the operation of bringing it back to a vertical position it was moved horizontally about 15 feet. The base plate is of thin cast iron  $5\frac{1}{2}$  feet square, with a circular flange 2 inches high inside the stack. The rest of the plate inside the stack is cut away, leaving the base weak. The stack stood about 16 feet above the ground, on a pair of 72-inch horizontal boilers with an 8-inch wall between them under its center. The leaning of the stack was due to a settlement of one of the boilers.

The removal of the chimney was placed in charge of Mr. Frank W. Stiles, 112 Hanover Street, Meriden, a building mover. Ten braces were first riveted to the base plate, and the stack and the boiler, which had settled, was blocked on four jack screws. Two pairs of steel girders 28 feet long were placed underneath the base plate, and the stack was brought to a vertical position by jacks under each end of the girders. The girders extended from a wall about 2 feet outside of the boilers to a new brick foundation  $5\frac{1}{2}$  feet square and 16 feet high, the intermediate distance being filled in with falsework to prevent springing while the stack was passing. Two yellow pine shoes  $5\frac{1}{2}$  feet long were inserted between them and the base plate of the stack. The top of each shoe was beveled at the ends in a peculiar manner. At one side of each end the bevel began 18 inches from the end and on the other side 24 inches, so that when the two shoes were properly arranged they could take bearing only under the edge of the stack, and strains on the thin outer edges of the base plate were thus avoided. Iron brackets were clamped to the tops of the girders to serve as reaction pieces, and jack screws were set horizontally between them and the ends of the wooden shoes and base plate to push the stack along on the girders, which were lubricated with oil and soft soap. Each jack was worked by two men, who advanced the stack an eighth of an inch at every stroke and moved it to the new position in three hours. The guys that were already attached to the stack were considered too weak to be relied on, and no use was made of them in the moving, the base being kept so level that the stack was never more than 6 inches out of plumb. Much of the success of the work is attributed by Mr. Stiles to the peculiar form of the shoes he used. The girders were set, the stack moved, and the girders taken away by five men in two days.

**HINTS FOR PAPERHANGERS.**

Don't use long patterned wall paper in small rooms nor, a deep border with low ceilings.

After a room has been newly papered there should be ample opportunity given the paper to dry upon the walls before a fire is built in the apartment.

A paperhanger never ought to be without a screw-driver and hammer. All fittings—bell, gas, &c.—should be unscrewed and taken off temporarily, and not cut round.

When papering a small room it is well to remember that blue in all light shades makes a room look larger. Dark colours or papers with large patterns have the opposite effect.

Paper that is to be sized and varnished requires a very careful hanging, as the slightest defects show up. When applying the paper it is well to go to the trouble of using a roller, to make sure that the paper adheres to the wall in every part.

If a paper is a bad "matcher," take care that the best portion of the match is at eye level. Before cutting up paper for a room see if the pieces are all one tint; if not, use all one tint together on one side of the room and the other on the opposite side.

It is worthy of note that there has been a very decided change in public taste in wall decorations. Dados have practically "gone out," especially in halls and on staircases. The tendency at present is to use wide friezes, often of pronounced coloring, with a conventional filling in subdued tones. It must be said that the result of such combination is most satisfactory.

When papering and varnishing a kitchen do not forget that a very light paper on the ceiling, properly varnished, will greatly add to the good appearance as

well as to the sanitary completeness of the room.

Never paper a wall over old paper and paste. Always scrape down thoroughly. Old paper can be got off by dampening with saleratus and water. Then go over all the cracks of the wall with plaster of Paris, and finally put on a wash of a weak solution of carbolic acid.

**DIAMONDS FOR CUTTING STONE.**

The use of the diamond saw for cutting stone is facilitating the erection of the buildings for the exhibition of 1900 at Paris. This new circular saw is due to M. Felix Fromholt, a Parisian engineer. The diamonds which form the cutting teeth of the saw are common crystals, worth about 10s. a carat, and they are fixed in a steel disc over 6 feet in diameter, which is mounted on a spindle and revolved by steam power, like an ordinary circular saw. For sawing hard stones there are 200 diamonds in the cutting edge, and the speed is 300 turns a minute. It advances into the stone about a foot in that time. For soft stones the teeth are of steel, with diamonds at intervals of every five teeth, and at a speed of twelve turns a minute the saw advances about a yard in that time. The new saw has been at work in the workshops of the Champs Elysées for several months, and has given every satisfaction. It cuts and dresses the stone on all sides, and gives it sharp outlines. Moreover, it does so at one-eighth to one-tenth the cost of hand labor. A saw of this kind, with an alternative movement, sawing stones 4 feet to 6 feet high, is to be set up.

Matthew J. Barr and J. G. Anderson have registered a partnership as plumbers at Vancouver, B. C., under the name of Barr & Anderson.

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