CANADIAN CONTRACT RECORD.

HINTS ON MEASURING PAINTERS' WORK.

Last month I mentioned the desirability of the painter making himself acquainted with architects' drawings. The subject is one that is somewhat difficult to certain people; on the other hand it often happens that some can comprehend the mysteries of "plans, elevations and sections" at a glance. However the painter may be situated in this respect, he should certainly not neglect to make himself fully acquainted at least with the elementary principles of the art of measuring from architects' drawings. He will probably be unable to put in a tender that will be accepted for new work if he is deficient in this respect. To be a good business man, or to be thoroughly acquainted with the trade, will not alone be sufficient.

When estimating on work to be executed "on the job," that is, on work where one has an opportunity of judging at sight the actual amount of labor to be performed, the best plan is to take a walk throughout the house to be dealt with, so as to gain an approximately accurate idea of what is to be done. It must not be expected that measurement will give all the information desired, because after all the cost of the actual number of feet to be painted will depend wholly upon the price fixed for each individual foot. Of course the value of painters' work depends very much upon the quality of the materials employed; in fact, to so great an extent is this the case that painters have no real methods of comparing prices, unless they also compare their materials, which, of course, would be a very unusual proceeding.

From what has been said, it will be known that after all it is a very difficult matter indeed to attempt to lay down any hard and fast rules for the measurement of painters' work. A few items of interest, however, may be added with advantage, e. g., a gallon of paint used with 6 pints raw linseed oil, 1 pint of boiled oil, 1 pint of turpentine, and 12 lbs. to 14 lbs. of dry paint will make about a gallon of ordinary paint, which will, when spread on stone or brick, cover from 25 to 30 superficial yards, and on wood from 50 to 78 yards. On compo. it will cover from 40 to 50 yards, while on a well-painted surface, such as iron, it will cover as much as 80 superficial yards.

Literature on the measurement of painters' work is very meagre. The Association of Master House Painters and Decorators, of the United States of America, prepared at considerable labour and cost some time since a book of measurements which is of the greatest value to all contracting pointers. It was prepared as a labour of love by several members of the Association, but it is very comprehensive in character and might well form the basis of a similar guide to the English trade. Of course, painting "on the other side" differs materially from that carried on here, because the construction of the buildings is different; yet the work in question is quite valuable to English readers.—Arthur S. Jennings, in Plumber and Decorator.

A MACHINE FOR SAWING OUT A TUNNEL.

An enterprising inventor in Calaveras is having built a machine by which he proposes to revolutionize the present methods of tunneling, the capacity of the device for "sawing out a tunnel," as claimed, being at the rate of twenty three feet a day. The apparatus is described as being twelve feet long, four feet wide, and six feet high, and, with the 14-horse power engine which runs it, weighs some 6300 pounds; the principle is that of a circular saw. Sixty drill points attached to each of two wheels, four feet in diameter and eight inches wide, make 600 revolutions per minute. The points are one-half an inch apart, every revolution feeding one-eighth of an inch, and the enthusiastic inventor declares that it will cut twenty feet of a six-by-eight tunnel in a day in the hardest rock. The latter, being crushed as fine as wheat grains, is carried to the rear and dumped in a car. The drill points weigh one-fourth of a pound each, last four days, and are kept cool by means of a steady stream of water. Three men are required to run the machine.

ENDURANCE OF WIRE ROPE.—A rope of Graddock's improved crucible steel, an inch in diameter, after fourteen years constant use, during which it was never repaired, though it has hauled 1,500,000tons, has been taken out of a Nottingham colliery; another steel rope, 3,400 yards long and $2\frac{1}{2}$ inches circumference, was used continually in a Sheffield colliery for eleven years and eight months; a third rope, 392 yards long and 5 inches round, was used on the under side of a drum, near Barnsley, for three years and ten months. If you tender on a job in which the paint work is principally to be in parti tints, remember that you may lose over it should the owner of the house or the architect be very particular as to the tints required. The writer has known jobs where a foreman painter has been at work for a whole day endeavouring to find a suitable combination of colours for a single room, and often, after one has been decided upon, a change was ordered. The best plan is to have the colours that are required decided upon before the contract is signed, although this is not always practicable.

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