### PUBLICATIONS.

We have received from the publishers, the S. E. Hendricks Co., 61 Beekman street, New York, a copy of the 1894 issue of their Architects' and Builders' Guide and Contractors' Directory of America The book has apparently been compiled and classified in a careful manner. Price \$5.00.

Canadians will find the August number of the American Review of Reviews of more than ordinary interest. The articles by Mr. William B. Wallace on the Hon. Wilfrid Laurier, by Attorney-General Longley on "Canada's Political Condition," and by Dr. Albert Shaw on "Toronto as a Municipal Object Lesson," form the most important contribution to an understanding of Dominion interests and policies that has recently appeared in periodical literature.

There has just appeared from the press of Wm. T. Comstock, New York, a new Directory of the Architects of the United States and Canada. Architects who are members of any of the various architectural

societies are indicated by figures placed after their names. While the publisher does not undertake to say that this directory is absolutely correct, he states that every effort has been made to ensure its accuracy. It is the publisher's intention to issue the Directory annually. The price has been fixed at the low figure of \$1.00 per copy.

Mr. John Day, architect, of Guelph, who was confined to the hospital for some time as the result of an accident, is, we are pleased to learn, on the road to recovery.

Mr. Henry Yates, a widely-known and respected engineer and contractor, of Brantford, died at his residence in that city on the 22nd of July. The late Mr. Yates was for many years chief engineer of the Grand Trunk Railway, and supervised the carrying out of several large railway contracts.

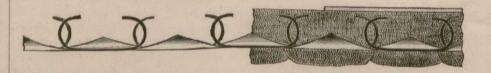
### EXPANSION OF CHIMNEYS.

It does not often happen that facilities are afforded for exact measurements to be made of the expansion and contruction of made of the expansion and contruction of a factory chimney. It is generally admit-ted that boiler chimney shafts should not be attached to the walls of any important building on account of the risk of crack-ing the walls by the expansion of the heated brickwork; but it is not very easy to obtain reliable information respecting heated brickwork; but it is not very easy to obtain reliable information respecting the amount of such expansion, and some persons have doubts whether brickwork really expands or contracts when heated. An unusual opportunity of making measurements on this point has recently occurred at Newcastle-upon-Tyne. The boiler chimney of the college was erected five years ago, and has been in constant use during the interval. As originally constructed it stood alone, 6oft. from the college building, 99ft. high from the concrete foundation, and 9oft. from the ground level. To the height of 33ft. from the ground an interval firebrick flue was constructed, with an air space of 3in. between it and the shaft. The upper 57ft. of the shaft was built of stock brick only, and had a uniform diameter of 6ft. 2in. externally, while the internal flue increased from 3ft. 11in. to 4ft. 8in. in diameter, the strictly cylindrical character of the exterior giving the chimney the appearance, when looked at from a distance of fifty yards or more, of being trumpet shaped, and larger at the top than at the bottom. During the last few months a casing of ornamental brickwork has been erected around the chimney, but independently of it, so that the casing of the shaft forms one of four octogonal turrets surrounding the Royal Jubilee Exhibition Tower, and guarding the principal entrance to the college quadrangle. The near completion of the brickwork surrounding the chimney afforded the opportunity of observing from the top of the casing any movement of expansion or contraction of the chimney afforded the opportunity of observing from the top of the casing any movement of expansion or contraction of the chimney. from the top of the casing any movement of expansion or contraction of the chimney itself. As the boiler fires are generally drawn or allowed to die out on Saturally ally drawn or allowed to die out on Satur-dry-afternoon and relighted on Monday morning, the chimney has an opportunity of cooling down during about forty hours and observations made from the top of the casing wall showed a contraction of the chimney of five millimètres, or 2in., during that time. As the surrounding wall was still about 6ft. below the top of the chimney when the measurements wall was still about 6ft. below the top of the chimney when the measurements were made, and as the first 33ft. of the shaft remained practically cold on account of the air space between it and the centre flue, it may be taken that the length of brickwork in which the expansion took place was about 50 feet. According to this a shaft 100ft. high should expand 4in. when in use. The measurement was only of a preliminary character made for the purpose of determining whether it would be safe to allow the decorative work at the top of the turret to rest partly on the outer casing and partly on the internal flue, and the result showed conclusively the desirability of keeping the chimney shaft entirely independent of any other structure.

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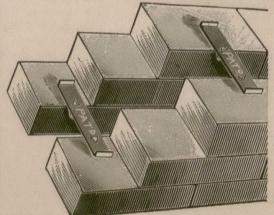
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