Building & Architecture.

The Architectural Editor will be glad to receive suggestions or matter from those interested in this section. Address: Architectural Editor, Progress, Progress Buildings, Cuba Street, Wellington.

The additions to Professor Haslam's bungalow near Rangiora are in hand. Architects, S. & A Luttrell.

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A ten-roomed residence at Kaituna valley is in course of erection for S. Nutt, Esq. Architects, S & A. Luttrell; contractors, Rickards & Rose.

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The new Mission School in connection with St Michael's Church, Lower Riccarton, is in course of erection. This building will seat 200 scholars. Architects, S. & A. Luttrell; contractor. W. Jacques.

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The freehold of premises in High street, Christchurch, occupied by Fail's restaurant, has been purchased by Messrs. Wallace and Co. The premises are being remodelled and made an up-to-date chemist's shop. Architects, S & A. Luttrell

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Our New Plymouth correspondent advises that there are no new buildings of any importance being commenced in the district, though as a whole the building trade is fairly active, owing to the work in connection with the large buildings of Messrs. Macky, Logan & Co., L. D. Nathan & Co, and E. Griffiths & Co., which are vigorously being proceeded with, the second stories now being up The new Technical School and Post Office are practically completed Considerable activity has been shown in the last month in the erection of cottages, and also in the building of oil derricks for the various companies about to start boring

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The objection is often taken to the sky scraping architecture of the Americans—that it is ugly and uninteresting to a high degree. As that style of building is getting near to this country, the opinion of a distinguished architect on the subject is of special interest. Sir Aston Webb, who was over in the "Empire City" lately said without hesitation that he was delighted with what he had seen "There seems," he said, "to be so much life and energy infused into architecture by the profession. Its many-sided activities are evident, and its prospects among the sister arts in America are of the brightest. The public buildings in course of erection are most interesting"

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A remarkable statement was made the other day by Canon Horseley, to the effect that the east end of London was a district in which nobody was ever known to take a bath. This statement has been statistically if partially corroborated to a certain extent. Speaking of the Peabody buildings a contemporary, *Daily Mirror*, remarks that they are certainly not a model to be followed by present-day builders. Here, for instance, is one matter showing, according to modern standards, a lamentable deficiency. At the Blackfriars-road buildings, there is accommodation for 367 families, the actual population being about 1,200. These people reside in nineteen blocks, and there is only one bath provided in each block. The use of each bath is, therefore, divided among sixty-three people

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On the subject which the legislature of this country took a great deal of interest in last session of Parliament, the all important subject of scaffolding, the remarks published in a recent issue of the *Carpenter and Builder*, deserve attention.

Scaffolding is one of the subjects least known by general foremen. They engage a man especially to do the work of this nature and often beyond telling them "where "and "when" they want it they leave the "how" to the scaffolders. But it is very necessary that foremen should know this particular part of their business, and the responsibility being theirs, they are advised most strongly to look more thoroughly to this subject. A good scaffold, erected by good men, gives a good appearance to a building and is a credit to the foreman and builder. It also leads to an increased quantity of work being executed in the same space of time, for the reason that a good scaffold can more easily be served with materials than a poor one, and possibly those working on it do so with a much better will, too.

"The Matron *versus* the Architect" is the heading of a note in the *Nursing Times* lamenting the disregard of architects to little practical considerations affecting the comfort of sisters and nurses. It is suggested that when new structural improvements or new hospitals are to be built the matrons should be consulted. We quite agree, but we think it will generally be found that, when the arrangements of a new hospital are defective the committee of the institution, rather than the architect, are to blame. The right sort of architect is not—as many suppose—primarily concerned with producing an imposing elevation, his first and chief concern is to meet in the best possible way the reasonable requirements of those who will occupy the building. Mr. Norman Shaw once said that what gave him most satisfaction about Scotland Yard (one of the most artistically successful of modern buildings) was that there was not a smoky chimney in the place. The architect would readily meet the hospital matron's requirements as to the disposition of rooms, &c, if these were reported to him

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In one respect the earthquake at Kingston seems to have been a blessing in disguise. One gathers as much from an unsavoury letter addressed by Sir J. C Browne to *The Times* Here is the picture he drew of the slummier parts of the big Jamaican city —

"The wretched shanties tenanted by negroes of the poorest class were in the most dilapidated state, and looked as if they might topple over at any moment without the assistance of an earthquake. They were, moreover, unsavoury and filthy to an indescribable degree Many of them were without sanitary conveniences of any kind, and from some of them the water had been cut off for non-payment of rates, a terrible deprivation in a hot climate. Under such circumstances cleanliness was impossible, and the poor people had to borrow water from their neighbours, which I saw them doing in cups and small pitcherfulls; or to steal it, and I heard of prosecutions and penalties for the theft of this primary necessity of existence."

To cut off water in a city peculiarly liable to diseases of the worst tropical kind is a thing unthinkable Apparently the only thing able to make it endurable is a damaging earthquake warranted to recur at stated intervals not too long

The Cement Trade.

A REVIVING INDUSTRY.

Writing in the *Financial Times* Mr. W. R. Lawson gives an encouraging account of the present position and prospects of the cement industry.

A characteristic feature of the present industrial boom (he says) is the enormous demand for all sorts of raw materials and the lucrative prices they command Coal, iron, copper, and tin have all been making new records in the upward direction. Till lately there was one conspicuous exception to the general advance. Cement had got hopelessly left behind and the year 1905 was one of the worst in its history While production steadily increased consumption fell off and glutted markets were the inevitable result.

THE RECENT DEPRESSION

This painful experience was not confined to one of the many producing countries, or even to two or three It was common to England, France, Germany, Belgium, and in a lesser degree to the United States. Even the tremendous outburst of American railroad building, house building, and other forms of construction only alleviated the depression slightly, and at one time it was acute. But the greatest sufferers were the English and German manufacturers. In Germany there are 320 cement mills, with an aggregate capacity of about 28,000,000 barrels per annum In 1902 the sales fell below fifty per cent of the producing capacity Cement was sometimes sold then in Berlin at a profit of less than 6d per barrel to the manufacturer. Foreign markets had to be found for the surplus output, consequently there was universal "dumping" and undercutting.

"COMBINES" AND AGREEMENTS.

But those dark days are over, and now the German cement makers have their "cartel" the same as the iron masters, the steel rail makers, and the wire mills. There are, moreover, rumours of an international syndicate, which is to embrace England, France, Germany and Belgium. The idea of it is to preserve to each producing country its own home market and to divide up the foreign markets as evenly as may be. Negotiations towards that end have been in progress for nearly two years. Their first result was a "combine" between the German and Belgian makers in the spring of 1905 for a geographical division of the Dutch market Soon after (April, 1905) the English and French producers arrived at a similar agreement, and not a long step farther would be needed to bring England, France and Germany into one fold. The "combines" themselves would not be very significant, apart from the great improvement that has taken place of late in the conditions under which they can now operate. When first mooted their object was to prevent the bottom falling out of the market. Now conditions have become so much more favourable that prices can not only be maintained, but advanced.

EFFECT OF THE EARTHQUAKE.

The earthquake at San Francisco gets credit for having started the boom in cement. It did so in a psychological sense, though it was far from being the real cause. Had the revival not been already in progress the San Francisco earthquake could not have started it. The quantity of cement likely to be needed for re-building the city will not be so enormous as was imagined at first, and its consumption will be spread over several years. A hundred times as much will be wanted for the Panama Canal, and, at least, twenty times as much is being used now in railroad construction west of the Missouri River.

The real effect of the San Francisco earthquake was to sound the alarm to cement users that the days of low prices were past. It accentuated the growing demand which was already in progress, and encouraged cement makers to make a firm stand for higher prices. The American position was simpler than our own, in so far as it suffered chiefly from over production. Consumption was active and growing, only it did not keep pace with the output, which was not surprising in view of the fact that the latter was estimated in 1904 at 3,000,000 tons per annum. The German total for the same year, as nearly as could be ascertained, was 2,500,000 tons; the English, 1,500,000; Belgian, 685,000; French, 555,000; Russian, 500,000; and miscellaneous, 500 tons.

NEW USES FOR CEMENT.

Little wonder that all the markets broke down under these heavy outputs. But it was only a temporary collapse. The use of cement, like that of iron and steel, was extending so rapidly that it was bound soon to overtake production. New adaptations of it are continually being tried, and with invariable success. Every now and then some new form or combination of it is heard of among constructive engineers. Until a few years ago the cement mills were chiefly dependent on the building trade. They are so still in many countries, and even in England more than they should be. But that is likely to become a secondary factor by-and-by. Civil and Military engineers will soon be the chief users of concrete. Already it has been employed very successfully on harbour works, military forts, and railway construction.

Thousands of yards of concrete were used in the extension of the Naval Dockyard at Chatham. Not only the foundations but the walls, roofs, and arches were thus formed Concrete blocks, properly finished, were found to be stronger and cheaper than the old style of brick wall with concrete backing. The latest type of modern fort consists of lines and cross lines of concrete blocks, forming a solid uniform structure. Sea walls and retaining walls of all kinds are no longer made of anything but concrete, plain or reinforced with steel The steel may be anything from ¼in rod up to a heavy girder.

FERRO-CONCRETE SLEEPERS

The very latest novelty in "ferro-concrete," as it is sometimes called, is a railway sleeper that is being experimented with on one or two American roads, amongst others the Lake Shore. It is of the usual shape of a sleeper, but thicker and much heavier. A length of old rail is imbedded in the concrete and the whole weighs about 400lb. Should it answer, it will be practically everlasting, and it ought to be, considering its first cost. Our own railway engineers have not yet got as far as ferro concrete sleepers but they are building concrete bridges, viaducts, and even tunnels. Many new lines lately constructed or now under construction, such as the Axminster and Lyme Regis and the Fort William and Fort Augustus, have been rendered practicable only by the economical use of concrete in place of stone or brick. Not only is the material itself cheaper, but