

which were supplied a large portion of the machinery for the armory of the British government at Sarfield, England, and the whole of that for the Russian government armory at Tula. The inventor of the time-lock for banks, and the original tumbler of Yale lock, now so generally used, was Linus Yale Jr., who passed the early years of life in his father's shop. The elder Yale was also an inventor and locksmith. Both are now passed from the scene but the world enjoys the advantages of their inventions. James B Eads' genius created the St. Louis bridge and the New Orleans jetties. Joseph Francis was inventor of the life-saving boat used in the government coast service, Congress voted him a medal of pure gold, which was the largest and finest ever given by the United States government to an individual. It is now on exhibition in the National Museum. It is worth \$6000 being two-thirds of an inch thick and as large as a tea plate. Together with it is shown his original life-car which saved 201 lives from the wreck of the Ayrshire, on the coast of New Jersey, in 1847. G W N Yost is identified with and responsible for the great progress made in typewriter inventions since the first crude writing-machine came into being. He was a pioneer in this field. Dr Francis, who first conceived the typewriter, never perfected or made practicable his invention, but shortly after it was first exhibited Mr. Yost joined in the work. He first worked out the older machines like the Remington Nos 2 and 4 and afterwards the Caligraph which were great achievements thirty years ago. Elisha G Otis the pioneer inventor of elevator machinery for buildings produced the original Otis Safety Elevator in 1852/53, while superintendent in charge of the construction of a new factory in Yonkers N Y. Mr. Otis commenced life as a farmer but at the age of nineteen showed a marked preference and aptitude in building operations which soon engaged his attention. His genius and versatility are evident in the great number of inventions which he brought out. His two sons C R and N P Otis succeeded to the business which he established in the manufacture of elevators and have brought it to its present perfection and immense proportions.

Saving Ships by "Wireless."

Nor long ago a large freighter became disabled in the Gulf of Mexico. She was equipped with wireless telegraphy apparatus, so instead of hoisting distress signals to flap idly in the old way the captain began to send out wireless messages in all directions. "We are disabled and need help" he said, giving the location of the ship. Soon there was a sputtering among the receiving instruments of the disabled vessel. Word was received from a distant vessel that the appeal had been heard and help was coming.

Wireless has come to the aid of the mariner to a remarkable degree. Take the case of the whale-back steamer *City of Everett* towing a barge of oil from Sabine Bar, Texas, to New York. The steel door of a forward turret was torn off by the sea, a compartment was flooded, and the ship became unmanageable. She was then about 150 miles from Port Arthur, Texas. From the wireless chart showing the routes of the Gulf vessels the captain saw that the ships *Col. E L Drake* and *Maverick* were about due at Port Arthur. He sought to locate them by wireless. The message, however, was answered by the *Captain H F Lucas* which was fifty miles distant. The *Everett* communicated her position, the *Lucas* did likewise and they kept in communication until sighted. The disabled ship was then towed to the shelter of Ship Shoal where she was repaired and enabled to proceed with her tow.

One day the Atlantic De Forest wireless operator at Manhattan Beach was advised that the steamer *Winifred* was ashore somewhere off Marcus Rock on the Central Atlantic Coast. The operator learned from his charts that the steamer *Larmer* was near that point, so he sent the captain this message: "Steamer *Winifred* ashore somewhere off Marcus Rock. See if you can give her a pull. Tugboat and lighter will be there at high water. Answer." In four hours he had a reply from the captain, saying that he was trying to pull off the stranded ship.

Maurice Chaulin, a French inventor, has perfected a clever apparatus for killing mosquitoes. It consists of a small lamp—electric or oil—hung between two rings, the rings being connected with tiny vertical and parallel chains. These chains are charged with a current of electricity, sufficiently strong to kill instantly a mosquito which touches any two of them at the same time. The light in the lamp, which is entirely surrounded by these chains, attracts these insects to their death.

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.

A contract has been let at Fairdon, near Napier, for a substantial up-to-date residence for Mr R L Paterson. Architect C Tilleard Natusch.

The new Post Office at New Plymouth has just been completed and is to be opened early this month.

A seven-roomed residence is in course of erection on the Cashmere hills for Mr R Forbes. Architects S & A Luttrell, contractor, M Wharton.

Additions are in course of erection to the Pier hotel, Kaapoi, and will cost £1000. Architects, S & A Luttrell, contractor, F Pearce jun.

Additions to the tea rooms on Riccarton race-course also to stewards' stand are in course of erection. Architects S & A Luttrell.

In the past fortnight the New Plymouth borough engineer has issued permits for buildings to the value of £3333.

A bungalow residence of five rooms is being erected at Sumner for Mr L Forbes. Architects S & A Luttrell.

A quaint house of ten rooms is in course of erection for Mr Wood in Colombo street, Christchurch. Architects S & A Luttrell, contractor, M McCleave.

The new buildings for Messrs L Griffiths & Co and Messrs Macky Logan & Co, New Plymouth, have the foundations nearly finished and the new Technical School is approaching completion.

Thirteen tenders were received for the erection of a residence in Millward street, Wellington, and the contract has been signed by H E Card. Contract price about £500. Architect, John S Swan.

A fine new residence is being erected in Wicksteed street, Wanganui, for Mr Wm Rankin. The building is nicely designed and when completed will present a very striking appearance.

The new Crown hotel, Geraldine, is now approaching completion. It is a two-story brick building and is lighted with acetylene gas. Architects, Clarkson & Ballantyne, contractor, Wm Waters.

A contract has been let for brick additions to a house in Kent terrace, Wellington, consisting of a shop and eight rooms replete with modern conveniences. Architect, C Tilleard Natusch.

The conversion of a house into a shop with a brick concrete and iron dairy at back has just been completed in Kent terrace, Wellington. Architect, C Tilleard Natusch, contractors, W H Edwards & Son.

Messrs Saigood Son & Ewen's new brick warehouse at Wanganui is approaching completion, and will be out of the builders' hands this month. Architect, John S Swan, contractors, Davis and Brown.

A two-story residence of ten rooms and all conveniences is in course of erection at Little Akaloa for Mr A Waghorn. The total cost of house is £1400. Architects S & A Luttrell, contractor, Wm Maher.

A picturesque residence is being erected for Mr A. Hutchins at Purakau Bay. This building which contains ten rooms is built in the bungalow style. Architects, S & A Luttrell, contractor, Mr Roxburgh.

Messrs Wood Brothers' three-story premises, Cashel street, Christchurch, are nearing completion. The buildings are of brick with front elevation in bold Renaissance style. Architect, F J Barlow, F.R.I.B.A.

The Rangiora Town Council are building new Council Chambers in brick and cement. The building is divided into public offices, town clerk's office, mayor's room and large council chamber with domed ceiling. Architect, F J Barlow, F.R.I.B.A.

Designs are in hand for a new Convent of Mercy in Colombo street, Christchurch. This building will be of three stories and built in brick and stone. The frontage will be 80 feet and the depth 100 feet. Architects S & A Luttrell.

A large new building has been added to the Wanganui Meat Freezing Co's works at Castlecliff. The new addition is a substantial building, and is being used by the company as meat preserving works. Architect, G L MacLachlan, contractor, N Meuli.

The printing-works, warehouse and factory for Messrs H J Weeks, Ltd, at the corner of Tuam and Madras streets, Christchurch, are almost completed. The buildings are two stories in height and cover half an acre of ground. These buildings are costing some £10,000. Architects, Clarkson and Ballantyne, contractors, D Scott & Son.

One of the late building improvements in Gisborne is a block of shops with warehouse over them, and having a frontage of 165 ft to Peel street, and 66 ft to Gladstone road. The warehouse is occupied by Messrs Archibald Clark & Co. The block is erected in concrete steel and brick. Another sample of Georgian work is Mr J C Field's house at Whataupoko. Architect, C Tilleard Natusch.

A three-story building at corner of High and Tuam streets, Christchurch, is in course of erection for Messrs A J White & Co. The materials used in this structure are brick and Oamaru stone while the roof is of Marseilles tiles. There are two oval bays on each street on first floor and over the first-floor windows a band of dispersed flintwork has been introduced with good effect. The corner (an acute angle) is surmounted by a battlemented turret in rock-faced Oamaru stone. Architects, Clarkson & Ballantyne, contractors, Rennie & Pearce.

Tenders for the erection of a five-floor shop and office building to be erected in High street, Christchurch, closed at noon on Tuesday the 15th ult. Architect, John S Swan.

The rebuilding of "Longwood" Featherston has been completed and the house is a good addition to the domestic architecture of the Wairarapa. The building contains seventeen living-rooms, together with bath-rooms and all conveniences. The outside walls and the bulk of the partitions are of brick while the style is late Gothic modified to suit modern requirements. Contract price about £7000. Architect, John S Swan.

Mr Frank Messenger of New Plymouth, is the successful designer of the plan selected by the New Plymouth Borough Council for the new Carnegie Library under the soubriquet of "Egmont." The other architects in the competition were "Prism," Mr. Tong, "T Square," Mr J Sanderson, "L'Inconnu," Messrs. Rigby and Warren. The successful architect has submitted a plan of a modest, neat and solid-looking building, without over-ornamentation yet not severe in its outline. The front is of red brick, relieved by facing stones. There is a pillared portico with steps leading up to it and the exterior of the building is further enhanced by the fine balustraded pediment which runs along the whole of the top front, the semi-elliptical windows of the first floor and the circular windows on the ground floor. The front of the building does not conform to the street front but will be about parallel with the front of the present Town Hall, and an ornamental iron railing will front the building. On the ground floor on the Egmont-street side, is the public reading-room, 35 feet x 22 feet, running the full depth (35 feet) of the building, and on the other