

led to this lever. Water is supplied through an automatic valve which takes the place of the spring plunger, N. The operation of this valve is as follows:

Supposing the car was travelling either up or down, and the clutch was disengaged for any reason whatever, the spring, K, would force the armature back against the plunger, N, which would, in the case in view, be the stem of a piston valve, this valve being held closed by a light spring. This would in its turn, open the water valve and let water into the cylinder before mentioned, which would turn the shaft round until the hole, M, was opposite the plunger, N, which is in the stop position. The plunger would then immediately fall into the hole, M, and automatically cut off the water. This valve, we may say, is a two-way valve, which when not admitting water allows the water to go back through the same pipes down to a return, the syphon effect draining the cylinder, thus allowing the car to be operated in the usual manner.

Two lock nuts, II, are fitted on to the end of the shaft, so as to allow of the armature being adjusted. The collar, L, is to prevent the pulley from moving forward. The power necessary to operate this is very small, being from one to one and one-half amperes at 12 volts, say about 20 watts, so that where a direct current supply is not available, it is quite practicable to put in a small battery of accumulators.

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CANADIAN VAULT CONTRACT JUST COMPLETED IN SHANGHAI, CHINA .:

IN OUR OCTOBER NUMBER of 1908 we referred to the success of a prominent Canadian safe manufacturer in having secured the contract, in competition with the world's largest manufacturers, for a large treasury vault, with modern fireproof and burglar-proof doors provided with time locks, for the China Inland Mutual Insurance Company at Shanghai, China. This was surely a victory for Canadian industrial enterprise and it serves as a death blow to the antiquated, unpatriotic contention that our banks and trust companies must go to the United States or England for the safest, best and most economical vault and vault doors for the many banking and business buildings now being erected all over Canada. If this firm can secure a contract for such an important piece of vault work in China, in open competition with the world, we would ask, why should our own Canadian institutions find it necessary or expedient to purchase the products of foreign manufacturers? This is the first piece of work of this kind, as far as is known here, that has ever gone into China—that is vault work constructed on modern western lines. That J. & J. Taylor, of Toronto (the firm here referred to) had to compete against others is naturally to be expected, but the order was secured on their own methods of construction, without attempting to follow the English specifications that were furnished. This last mentioned condition should render the honor bestowed upon this firm in being declared the successful tenderers, especially gratifying.

It will be of interest to add that it took about two and a half months for the work to go from Toronto to Shanghai and that J. & J. Taylor had to send one of their best workmen to superintend the installation. It took him just about a month's straight travelling, so that the work went about as far away from Toronto as it was possible. The senior member of this firm also went to Shanghai, partly on account of this work and partly on pleasure, and will continue his proposed trip around the globe.

A brief description of this noteworthy piece of vault work will undoubtedly prove of exceptional interest to our readers.

The vault and vault doors represent a class of vault

work such as is in use by head offices of the chartered banks and trust and deposit companies, etc.

It is equipped with all modern features, such as having two best quality bank combination locks, giving over fifty million changes of numbers in each and is secured with the latest pattern of time lock as well as combinations. The door jamb is fitted with two rubber packings, the object of which is to prevent the introduction of explosives and the door is forced up against these rubber packings by two eccentric pressure bars, which are operated with a hand wheel, turning worms and gears. The spindles which operate the locks and the bolt work are built into the doors with enlarged centres, and, as well, are ground in as a further preventative against the introduction of explosives. The lock work is of the heavy revolving type, locking on all four edges of the door. The door swings on ball bearings at the bottom and rollers at the top. The door and frames have a polished machine finish. Underneath the lock work is jiggered brass and over the lock work is a plate glass frame to exclude dust and dirt. In addition to the work above described, which is illustrated in the advertisement of the above mentioned company on page 33 of this issue of CONSTRUCTION several lighter fire and burglar vault doors and fireproof doors were installed in the same building.

J. & J. Taylor is one of the oldest, most widely known and progressive manufacturing institutions in Canada, and they have not only been successful in establishing in Canada a most enviable reputation for their products but have invaded markets on every portion of the globe. It will be surprising to most of us to learn that Taylor safes, a Canadian product, are in use in India, South Africa, Australia, New Zealand, South America, Mexico, Cuba, the West Indies and China.

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TWO INTERIOR WOODWORK CONTRACTS.

THE CANADIAN OFFICE and School Furniture Company, Preston, have recently been awarded the contract, by Mr. W. F. Brock, manager of the Royal Bank, King street, Toronto, for the equipment of their new branch office, at the corner of Dovercourt and Bloor street, which will be opened as soon as the fittings are completed, probably about the first of August. These offices will be finished in quarter-cut oak, fumed finish.

This firm has also been awarded the contract for the equipment of the offices of Robert Ward & Company, in the new Winch Building, now under construction in Vancouver. We understand this will constitute one of the handsomest suite of offices in Canada. The material employed is Mexican mahogany, and the design gives a large panel effect, much on the line of the Board room of the new Royal Bank, Montreal, which is considered by far the finest piece of interior woodwork of its kind in the Dominion.

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PATENT GRANTED FOR MAGNESITE FLOORING .: .: .: .:

A DOMINION OF CANADA PATENT has just been granted to the Terrano Flooring Company of Canada, Limited, which will have a very important bearing on the Magnesite flooring business. This patent, No. 118,744, gives the Terrano Flooring Company of Canada, Limited, the exclusive right to lay a Magnesite flooring in combination with any class of expanded metal or wire netting on a wood foundation. The Terrano Company were the first to introduce this method of laying, which method is now being generally used by the companies engaged in the Magnesite flooring business.