the entire front of the car being arranged to open, and the carrying of an extra load being provided for.

These elevators are equipped with an electric signal device, which was found to be the most serviceable for intelligent operators.

The cars are large enough to carry twenty people, but the rule of the building requires that not more than twelve shall be allowed in one car at a time. The operation of the elevators is directed by a man who stands in the entrance hall and starts each car at its proper time, thus preventing all of the cars being in one place at any time, arranging so that there will always be some of the cars in the upper part of the building and some in the lower part

Enclosures for these elevators are of a very handsome design of wrought iron, finished in an antique bronze, and corresponding with the main staircase.

The staircase from the ground to the fourth floor is entirely of iron, with white marble treads and risers, the top member of the railing being of polished brass. The staircase from the fourth floor to the sixteenth floor, and continuing up to the roof, is entirely of iron, with heavy black slate treads This staircase continues around a well about five feet by ten feet in size. In looking down this well one gets the best idea of the immense size of the structure. The halls and corridors are finished in green and white marble, supplied by the Hoidge Marble Company, Toronto, which impart a charming effect.

The building contains an extensive power plant, which includes three water tube boilers, 150 horse-power each. which were made in England expressly for this building, and two 150 horse-power high pressure vertical engines, with two direct connected 150 kilowatt dynamos. This plant is placed in such a way that there can be no possibility of vibration in the building, and is placed in a handsome engine room at the south side of the building, the walls and floors of which are of a light colored tile.

These, with the elaborate pumping plant for the elevators, the 9,000 gallon elevator pressure tanks and equipment for house pumps, etc., pretty well fill the basement with machinery.

The banking rooms, the principal motive of the building, and the quarters of the head office, as well as the Toronto branch of the Traders Bank of Canada, include the whole of the first and second floors of the building.

These rooms are approached from the street by a broad flight of white marble steps, protected by a very handsome balustrade of Istrian marble, highly polished. The floors of the public portion of the premises are of selected marbles in white, grey and dull red colors, in handsome geometrical patterns.

The supporting pillars, of which there are twelve, are of Ionic design, made to represent highly polished Breche Voilette marble, with heavy polished bronze bases and caps. These columns are about twenty-three feet in height and support a heavily coffered and enriched ceiling with elaborate cornices. The pilasters opposite these columns on the walls are of the same marble. The walls of the rooms are lined throughout with Pavanazzo marble.

Between these twelve columns extend the handsome antique bronze counter fronts and grilles, having marble panels below and plate glass, neatly framed in ornamental bronze work, above. The counter tops are of polished plate glass. The Toronto manager's office is at the southwest corner, and the space occupied by his staff extends along the south side of the building.

A gallery extends around back of the large columns, providing a space for the head office.

On this floor, also, is the board room, where the Board of Directors hold their meetings, and the incinerator for destroying old notes.

Among the most important features of the bank are the vaults, of which there are three, viz.: The treasury vault and two large book vaults.

The treasury vault is lined with chrome steel three inches thick, and has an outside door of chrome steel nine inches thick, and two inner doors of one and a half inch steel.

The outer door is fitted with a very elaborate series of time locks and is a very handsome piece of workmanship, indeed, so accurate are the joints in this piece of work that the thinnest piece of paper inserted in the jambs prevents the door closing.

A handsome polished steel grille gate is used during business hours in the place of the large outer door, which stands open.

VARIETIES OF DAMP COURSES AND THEIR TREATMENT.

By W. M. Brown, C.E.

(Article written specially for The Canadian Architect and Builder.)

The question of damp courses in building operations is of great importance, especially in localities where the climate is wet and variable. When damp arising from the soil is absorbed into the brick or stone wall of a building it ascends gradually until it penetrates the inner surface, affecting the timber and plaster work, and consequently causing a moist atmosphere in the interior. It may also arise from imperfect joints at window lintels and sills, from unfilled and unpointed joints on the face of the wall, from moisture forced into the walls during heavy rainstorms, and from several other causes.

All building materials with very few exceptions are porous and capable of absorbing and transmitting moisture in large quantity. The two main purposes for which damp preventing devices are adopted in connection with buildings are to prevent the moisture from getting into the walls, and, if any be within the walls, not to hinder its extrusion. The former is accomplished by an absolutely waterproof covering, such as asphalt or tar, or the complete isolation of the wall from any sources of dampness (exceptions, of course, being made here to the moisture which is put into the walls in buildings, and which should be allowed a proper opportunity to dry out). The latter will eventually be accomplished by the perfect ventilation of the walls on all sides.

There are several methods for preventing moisture from entering the cellar walls, which may be divided into, first, applications to the outside of the walls, and, second, constructive devices. The efficiency of the former depends greatly on the care and thoroughness with which they are applied. Of this class we have rock asphalt, tar and cements. The first and second are applied to the wall with a large brush, and should be boiling hot. The coating must be not less than three-eighths of an inch thick, covering every joint, and be carried down to the bottom of the foot-