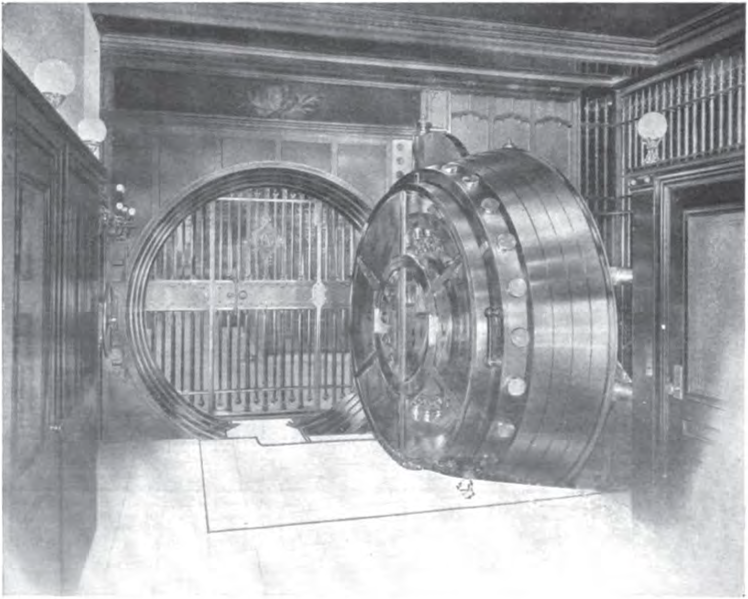
SAFE DEPOSIT VAULTS THAT ARE ABSOLUTELY UNIQUE IN SIZE, DESIGN AND CONSTRUCTION.

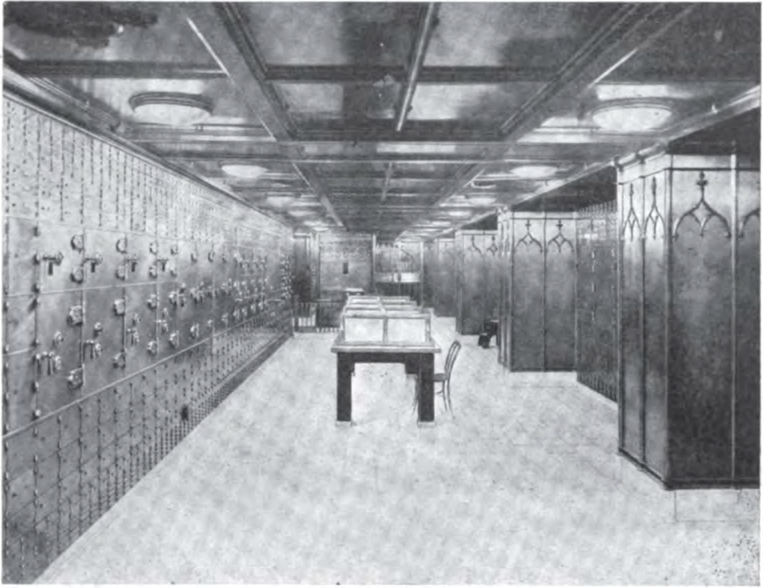
By Victor B. Johnson.

THE extraordinary development of the safe deposit business in downtown New York is evidenced by the fact that the Carnegie Safe Deposit Company has been compelled, within eighteen months of the day that it first opened for business, to install 10,000 additional boxes, which are now being placed in the service of the renters. But with all this additional equipment the Carnegie Vaults will have utilized

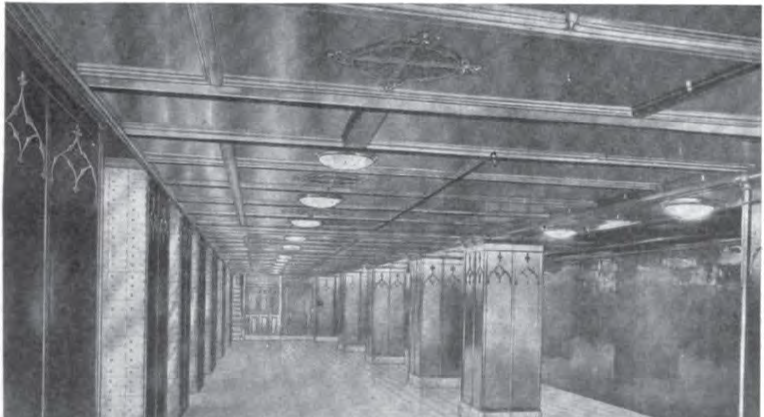


ONE OF THE 25-TON DOORS

Open at 8 A. M. and closed at 6 P. M. each business day



Upper Vault



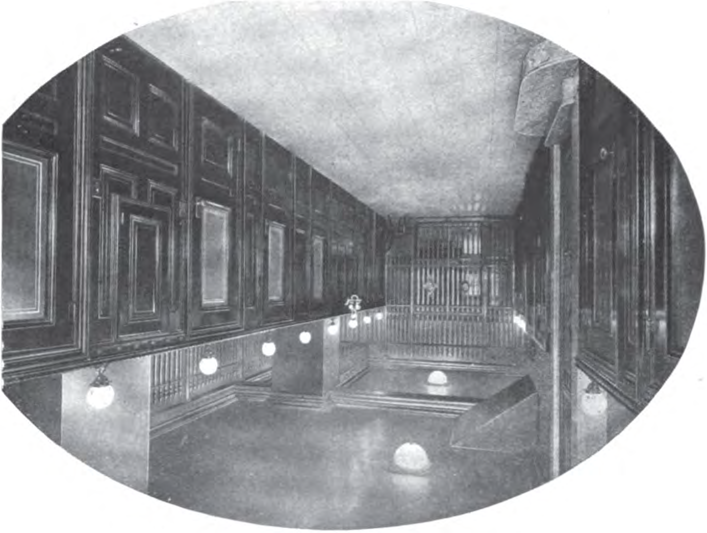
Lower Vault

somewhat less than half of their available space.

This development of business is the more striking by reason of the fact that when the plans for the Carnegie Vaults first became known, the experienced men in the safe deposit business shook their heads and said that a vault adding 30,000 to the number of safe deposit boxes offered in lower Manhattan would never be filled, and that an equipment representing an outlay of over $500,000 was absolutely unwarranted in that line of business.

Built Without Rivets or Bolts.

The component parts of this structure were solid plates of Harveyized nickled steel, forged by the Bethlehem Steel Company. There was no plate weighing less than five tons and some weighed thirty tons, with measurements as great as twenty-two feet by ten feet six inches. The method of fastening this immense structure together is novel, doing away with bolts or rivets. The plates were forged with wedge ends and channels and fastened to-



Coupon Rooms

WORLD'S LARGEST VAULTS.

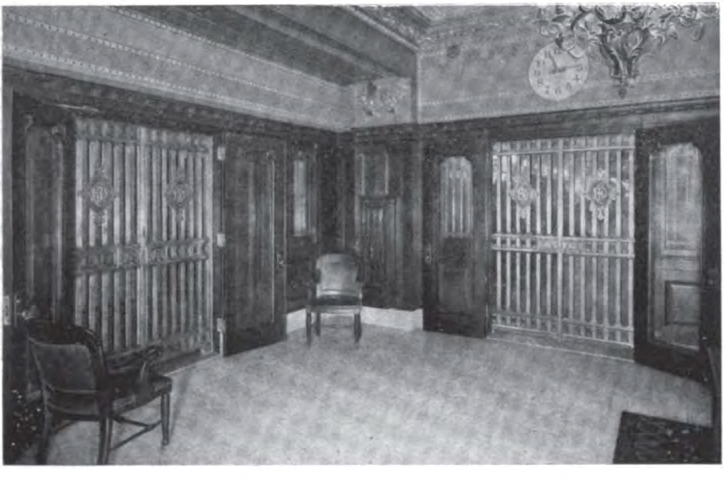
The idea of building the largest, strongest and finest safe deposit vaults in the world originated with Mr. Charles C. Dickinson, the organizer of the Carnegie Trust Company, and was in his mind at the time he arranged for the lease of the ground floor, basement and sub-basement of the United States Realty Building at 115 Broadway, then in course of construction. He enlisted the services of William H. Hollar, of the Hollar Company, as designer and engineer of the vaults.

The basement space contracted for allowed the building of a vault one hundred and eight feet in extreme length, thirty feet in extreme width and twenty feet high, divided into two floors. In other words, a structure larger than the average two-story house, inside of a modern office building.

gether by a system of interlocking wedges on the inside of the vault. The result is to give an integral structure so staunch that no force of explosive, or even earthquake can rend it, or disturb its contour. Convincing tests have proved that the best drill goes to pieces against the face of the armor plate.

MONSTER FORGINGS.

It is interesting to note, by the way, that the two end plates, weighing thirty tons each, are the largest pieces of armor plate ever forged for any purpose. The big doors, one at the Broadway end, and the other facing Cedar street, each weighing twenty-five tons, are pieces which make a strong appeal to the eye by their massiveness. Twenty tons of this weight are in one solid mass of material, eight feet three inches in diameter, while the remaining five tons are accounted for in the bolt work mechanism. There are twenty-four bolts in each of the doors each weighing ninety-seven pounds.



Reception Room

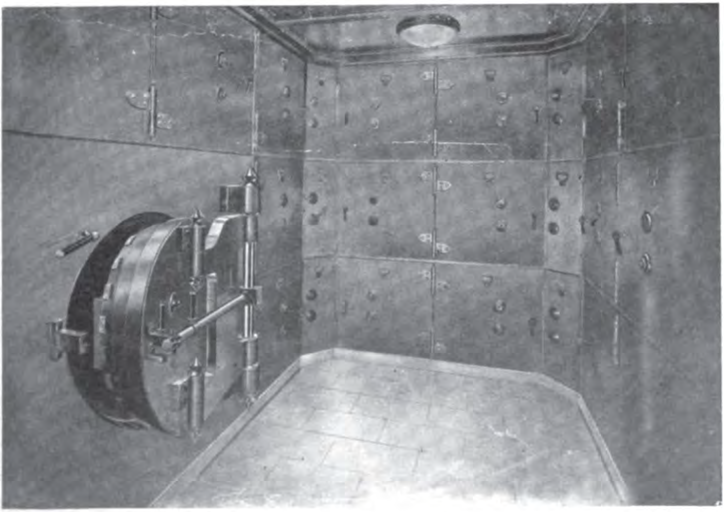
ate the mechanism. There is also an emergency door which is provided with four clocks operating a time lock.

VAULT ARCHITECTURE.

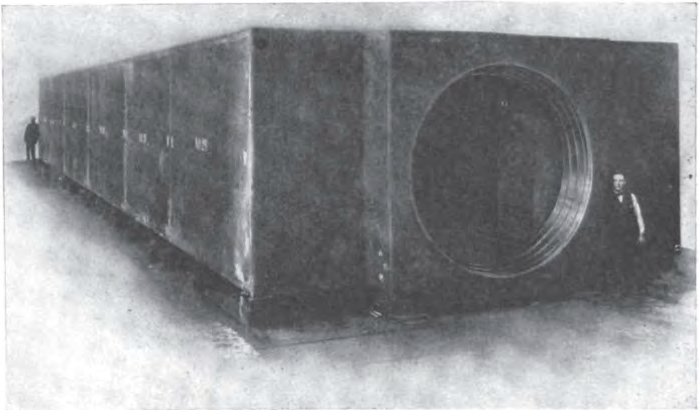
LOCKING MECHANISM.

In order to ward against failure of the time clock, there are four clocks on each door, any one of which will suffice to oper-

In seeking to combine attractiveness with this immense strength, the builders worked upon designs for the decoration of the vaults, using marble, bronze and polished



Private Vault

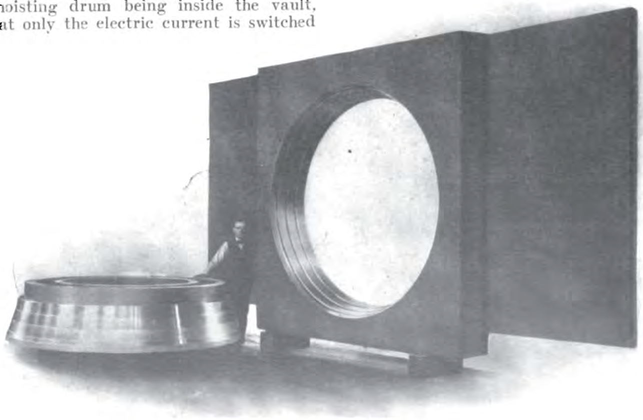


Shop Set-up of Upper Vault

steel for their tones. The general style is an adaptation of the Gothic design used so effectively in the architecture of the Trinity Buildings by the architect, Francis H. Kimball. The bronze ceilings and columns, with marble floors, and the lighting of the vaults from above through opalescent panels, remove altogether the feeling of being in a dungeon.

The boxes are installed on two levels, in all sizes from $5 to $500 rental a year. Access to the lower level is given by an elevator running entirely inside the vault, the hoisting drum being inside the vault, so that only the electric current is switched on from the outside in the day time and shut off at night.

In addition to the individual boxes, space was provided in the lower level for the renting of large sections, in which line this company has attracted an unusual amount of business. For corporations and individuals requiring a large amount of space, the plan has been adopted of fitting up these private sections to suit the renter, in-



A Shop View of the 30-ton Front Plate and 25-ton Door

closing behind bronze grilles adequate floor space for clerical work directly at the safes. These private spaces are equipped with telephone and push button systems. The largest individual space ever fitted up in any vault is one of these sections in the Carnegie Vaults commanding a rental of $12,000 a year.

There is an ample number of coupon rooms, in each of which is a telephone, directly connected with local and long distance switchboard. There is also a directors' room capable of accommodating twenty-five to thirty persons, which is available for the use of customers who need such a convenience.

Perfect Ventilation.

The system of ventilation worked out by the vault engineers and Griggs & Holbrook, ventilating engineers, gives a direct supply of washed, dried and filtered air, raised or lowered to any temperature, and distributed throughout both the upper and lower vaults. A complete change of air is effected every five minutes while the vaults are open. The connection for this service is made entirely through the emergency door where there is a detachable section of duct that is removed at the hour of closing.

Convenient Opening and Closing Hours.

In the matter of hours the Carnegie Vaults made an innovation for the downtown district. They are open from 8 A. M. until 6 P. M., and from 8 until 2 o'clock on Saturday; in other words, giving customers access to their boxes throughout the business hours.