



OPEN LETTERS

Foundations of Lofty Buildings in Chicago

IN the article in the March CENTURY, "Foundations of Lofty Buildings," by Frank W. Skinner, an erroneous impression is given as to the general method of constructing foundations in Chicago. The so-called "floating foundation" was used from fifteen to twenty years ago, but in these modern days nothing of the sort is even considered, and it would have added to the value of the article mentioned if the writer had been more exact and up-to-date in his statements. As president of a company now erecting a twenty-story hotel in Chicago, which will rise nearly three hundred feet from basement to roof, I wish to say that my board of directors did not for one moment contemplate constructing our foundation as this article states. Instead, we planned, from the very first, that our steel superstructure should rest upon caisson columns of solid concrete, extending down 100 feet to bedrock, the solid bed of limestone underlying the whole of the city of Chicago. These caissons were thirty-four in number, varying in diameter from eight to eleven feet, and were dug by three or four men each, the loam, clay, gumbo, hard pan, and quicksand being hauled up by windlass and bucket. Every four feet down the holes were encased with lagging two inches thick, and held in place by iron rings twenty-four inches apart. When bedrock was struck, it was cleaned off carefully, and three feet of concrete tamped on top, to make a close joint. Concrete was then dumped in, care being taken that each barrow load should drop in a mass, and every four feet a man was lowered to remove the rings and to even off the top of the column. The wooden lagging was left in. When the columns had risen to the required height, they were smoothed with cement, grillage beams grouted in on the top, and then the cantilever girders and column bases were put in place, bolted, and also concreted. There were nine immense cantilever girders, weighing from thirty-two to forty-two tons each.

This form of construction makes sinking and settling an impossibility, and I am certain there will not be a variation of one quarter of an inch in level in our hotel during the life of it. Our steel is very heavy for our square foot area, 80 x 173 feet, and weighs over 5000 tons. A considerable portion of it is wind-bracing, which will make the building very rigid, and with our foundations

built upon the rock, we can feel absolutely assured that neither floods can undermine us, nor winds shake us at all.

This is now the approved method of constructing foundations in Chicago.

Chicago, April 5, 1909. *Tracy C. Drake.*

THE "FLOATING FOUNDATION" NEARLY OBSOLETE

FOUNDATIONS such as Mr. Skinner described as typical to Chicago belong to a period long since past as far as it refers to buildings of considerable height. There may be isolated cases where foundations of this description are constructed, but the so-called "floating foundation" for all important buildings in Chicago was discarded twelve or fourteen years ago. Most foundations of lofty buildings go to bedrock, although some stop on the hard clay overlaying the rock, and, in order to reduce the pressure on the soil, they are given one or more conical projections at or near the lower end of the pier.

For less important buildings, such as warehouses and factories, pile foundations are often used, and spread foundations, resting directly on the clay a short distance from the surface, are used only in very light and unimportant buildings.

Joachim G. Givner,
Structural Engineer

Chicago, May 1, 1909.

William J. Whittemore

(THE CENTURY'S AMERICAN ARTISTS SERIES)

THE painter of the "Portrait of a Young Girl," which appears as the frontispiece of the present number, was born in New York City, where as a lad he spent a winter in the studio of William Hart, under his instruction. Later he studied at the schools of the Academy of Design and the Art Students League, after which he went to Paris and entered the Académie Julian.

Mr. Whittemore has exhibited widely in America, and a picture of his in the French Exposition of 1889 won a silver medal. He is an associate of the National Academy of Design, and a member of the American Water-Color Society, the American Society of Miniature Painters, and the New York Water-Color Club. His contributions to the annual exhibitions testify to his continued delight in the free handling of water-color. Children have been the subjects of many of

his portraits, which are usually treated in a pictorial way without sacrifice of likeness or character.

Pierre Mignard

TIMOTHY COLE'S ENGRAVINGS OF
FRENCH MASTERS

PIERRE MIGNARD was born in 1610, at Troyes, France, and flourished till 1695, the date of his death. For his early teacher he had Jean Boucher (not related to the great François Boucher, who came later by nearly a hundred years), and afterward he studied at the Italian school of Fontainebleau, finally entering the studio of Simon Vouet, in Paris. It was not until after a long residence at Rome,—1636–57,—studying Italian art, that his style was finally matured. His contemporaries were such men as Charles Lebrun, to whom he was an implacable rival, and Largillière. At Rome he doubtless met Poussin and Claude Lorraine, and his name will always be associated in the history of art with that of his intimate and lifelong friend, Charles Dufresnoy, whose poem, "De Arte Graphica," translated by Dryden, and commented upon by Sir Joshua Reynolds, is worthy of the perusal of every artist.

Mignard gained an immense reputation on his return to France, where he painted the portrait of Louis XIV with such success that to sit to him became the fashion which no one of distinction could omit. He decorated private mansions and public edifices with frescos, but his success was perhaps best exemplified in portraiture. Although he lacked originality, and had a proneness to affectation, and a sweetness borrowed from such Italians as Carlo Dolci and Sassoferrato, he yet had the redeeming quality of a certain propriety and elegance of composition, a dignity—indeed, almost nobility—of style, with considerable charm of harmonious coloring.

Louis XIV sat to him ten times, and the ready answer of the artist to the monarch on one of these occasions is worthy of being quoted. The king, very old, had asked the painter if he did not see him much changed. "I see," replied Mignard, "a few more victories on Your Majesty's forehead."

Among Mignard's chief works, and by some cited as his chef-d'œuvre, is the portrait on page 393, which is given in earlier catalogues as that of the Duchesse du Maine, wife of the Duc du Maine, second son of Louis XIV. Modern researches, however, give it as Françoise-Marie de Bourbon, an obscure member of the royal family. The original is life-size, and hangs in the Palace of Versailles, in the "Attique du Nord."

T. Cole.

Mr. Knight's Leopards

(SEE PAGE 420)

PROUDLY, with head upraised and tail erect, the male leopard of my picture trots lightly into the arena of dry grasses, carrying in his mouth a dead flamingo, the fruit of his successful stalk. The female, lying at her ease surrounded by her offspring, surveys her lord and master with evident satisfaction. One cub, more curious than the rest, has come forward to see what strange thing it is that dangles so heavily from the powerful jaws of its parent. In the original water-color, the brilliant salmon-pink feathers of the bird stand out in strong contrast against the rich yellow and black fur, enhancing, if possible, the wondrous pattern of spots and rings.

Agile and graceful to a degree, the leopard is perhaps the most beautiful of all the larger cats. The maze of spots, which at first glance seem scattered haphazard over the body, reveals, on closer inspection, a decided symmetry of line and pattern. Running at right angles to one another, and diagonally across the body, they produce a confused effect; while at the same time the color is so delicately graded from dark on the back to light below that the creature seems to flatten against the background.

One beautiful female which I have had an opportunity of studying displays at times a most charming personality. The large cage in which she is confined is also occupied by an old and somewhat decrepit male, whose temper is not of the sweetest.

A tree in the center of the inclosure gives her an opportunity to display great agility, as she bounds lightly from branch to branch. From this elevated perch she surveys the landscape for an instant, and then leaps to the ground. Standing stiffly, with her tail raised high over the back, she assumes a somewhat foolish expression, and then, suddenly, with head bent forward, grasps both hind legs with her two front paws, and turns a complete forward somersault. In the same breath she leaps to her feet, scurries madly around the cage once or twice, and rushing at the old male, who lies snarling in the doorway, deals him one or two quick blows before jumping lightly away.

Charming as is this particular specimen, no creature has a more savage disposition, when fully aroused, than the leopard. At such times the cold yellow eyes and the distended throat impart an almost reptilian expression, while the great agility and determination of the beast render it a most formidable foe.

Charles R. Knight.