

Fearful Catastrophe If Mile-High Edifice Is Built

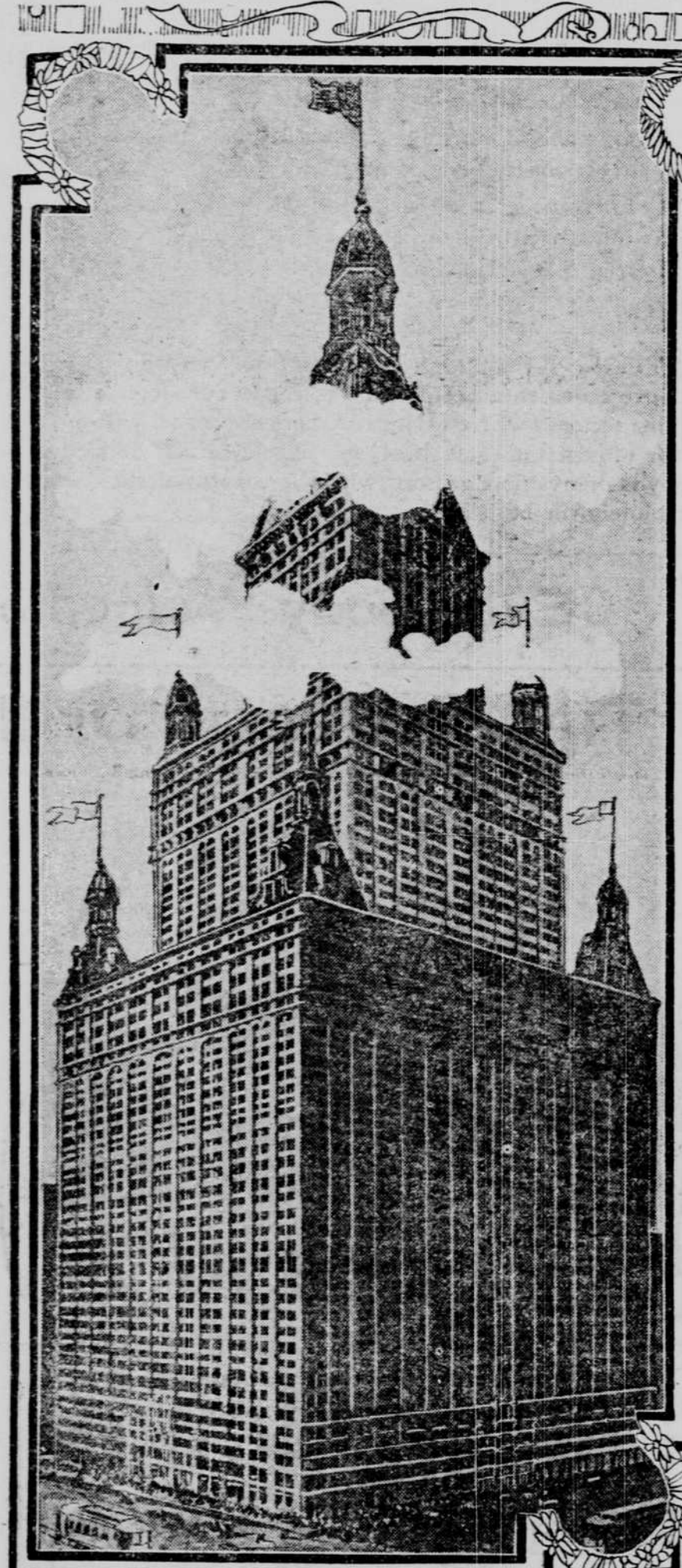
By DANIEL P. WILES
(Noted American Architect)

Famous Expert Tells Why Magnates Must Not Construct Dizzy Skyscrapers.

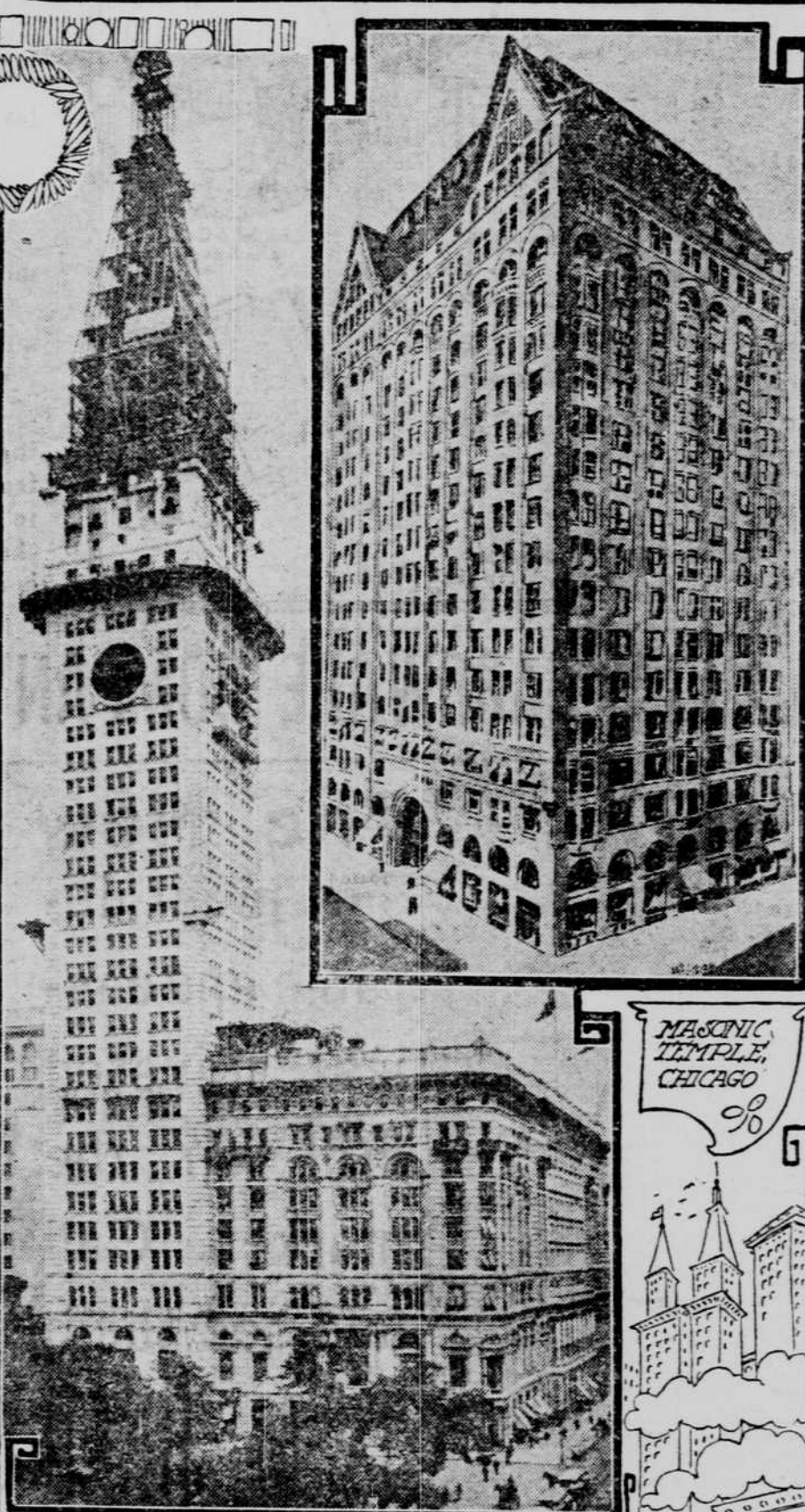
He Warns Them Against Hitherto Untold Perils—Gives Scientific Reasons for Assertions and Relates Actual Incidents to Bear Out His Statements on Especially Timely Topic.

BUILDING a mile high! That was the recent prediction of New York contractors when figuring out possibilities for the resumption of building operations next spring. But our geologist friends say no. They declare that if such a structure should be raised over the fragile strata of rock upon which the city is built the whole would give way to the strain and an awful catastrophe would result. Therefore measures have been taken

are both architectural and geological. History gives us no other instance where man has been able to test the weight-carrying capacity of Mother Earth, but to-day so far have the ideas of civilization reached that even the globe is under a strain to hold the weight which man has dug out of its bowels and placed upon its face. New York, like the city of Chicago, is not upon a firm base. Of course, there is the usual strata of thick rock, which in some places is far more substantial than in others, but beyond a weight of 516,000 tons it is impossible



OFFICE BUILDING SIXTY-TWO STORIES OR NEARLY A QUARTER OF A MILE HIGH.



METROPOLITAN LIFE BUILDING, NEW YORK

which will prevent any such ideas being made of practical use. Desire for their own safety caused Gotham city fathers to squelch the plan and it is considered probable that the tallest building which New York will ever see will not be more than 2,000 feet in height, and perhaps a limit of 1,000 feet may be put upon the height of these gigantic monuments to modern industry. When you stop to consider the whole proposition the truth begins to dawn. An edifice of 2,000 feet possesses weight of 516,000 tons, and therefore a structure a mile tall would weigh 4,200,000 tons, and under this terrible strain Manhattan would collapse, scientists tell us. There have been no architectural plans which will so shift the weight of any building that the strain upon the strata when erected to the height of one mile will allow it to stand in the first-conceived position without shifting. Therefore the reasons for not having a one-mile-high structure

to rest additional weight upon the foundations of the city, for that is what the strata is—a foundation. In the crowded portions of Greater New York the largest lot is about 200 feet square, that being probably the biggest plot of precious ground obtainable in the downtown district of Gotham. Placing a building 2,000 feet high upon this piece of Mother Earth, the cost would be in the neighborhood of \$60,000,000. It would weigh 516,000 tons, according to estimates which have been furnished the New York board of aldermen by some of the greatest engineering experts in the world. The tonnage of the American navy is about 250,000 tons. Hence you might place two navies the size of the one possessed by America on top of a 200-foot plot of ground and the weight would be the same as that of a 200-foot building. The strain on the earth's crust is a terrible one, and in time it is declared the crust would give way under the fearful pres-

sure. For that reason the aldermen clamped the ban on buildings a mile high. Then the wind pressure upon large buildings must be taken into consideration by the corps of experts engaged in operations in New York. On a building 2,000 feet high the wind pressure on each wall is 6,000 tons, which on four walls adds 24,000 tons, and including the roof pressure there is 30,000 tons added weight, which increases the total number of tons on the whole structure to 546,000 tons. This is an enormous weight, and far out of the conception of the ordinary human mind which does not have to deal with such monstrous proportions. The monstrosity of the entire proposition is made almost impossible by the physical limitations of the earth, strata and general texture of the country in the neighborhood of New York. For that reason experts have figured by complicated processes that the biggest building which New York will construct in the future will not be over 1,000 feet in height. The work of devising engineering schemes which will lessen the fearful weight exerted upon the earth's crust is now the object of the biggest workers in this line, and millions of dollars would be paid the man or firm that could bring forth some contrivance or new material to lessen the strain. What is most needed is some sort of material which is of less weight

than plain steel, brick and mortar, but which possesses the same strength, or perhaps more strength than these conventional articles for constructing skyscrapers. That the foundations of a large city are elastic after a fashion was proven by a notable instance which came to the attention of the Chicago building commission and the police a few years ago. A salvage company was engaged in tearing down a structure adjacent to the Women's Temple. Suddenly one morning when most of the debris from the wrecked structure had been carted away the occupants of offices in the Women's Temple felt the edifice sag to the south—in the direction of the site of the wrecked building. The entire structure on the south side wrinkled in spots. Cracks, some of them two inches wide, opened, causing the belief that a disaster was imminent. Such was not the case, however, and when a massive stone edifice was erected on the site of the old building the Women's Temple resumed its natural posture. Experts who were put to work upon the incident in the interest of science determined that the stratum of bedrock, being elastic, had recoiled from the strain which the wrecked building put upon it, therefore causing a movement of the foundations of the Temple. When the newly erected building's weight was put upon the site of the old structure normal conditions were resumed once more.

HANDLING OUT THE LEMONS

STATUS OF A GROWING INDUSTRY



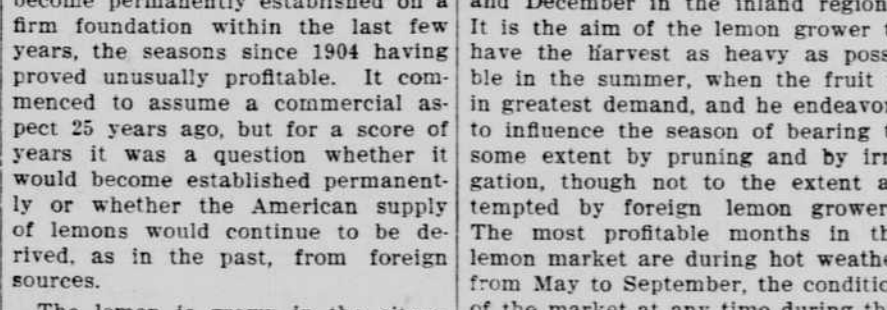
A LEMON WASHING MACHINE AND CITRUS SORTING TABLE



A LEMON TREE SHOWING FORMER OF STACKING BOXES



A LISBON LEMON TREE NINE YEARS OLD



A LEMON STORAGE HOUSE

The American lemon industry has become permanently established on a firm foundation within the last few years, the seasons since 1904 having proved unusually profitable. It commenced to assume a commercial aspect 25 years ago, but for a score of years it was a question whether it would become established permanently or whether the American supply of lemons would continue to be derived, as in the past, from foreign sources. The lemon is grown in the citrus-fruit belt of California, where at the present time the annual production is from 3,000 to 4,000 carloads, which represents approximately 100,000,000 pounds, or from one-third to two-fifths of the total quantity used in the United States. There are imported annually into the United States about 150,000,000 pounds of lemons, mostly from the island of Sicily. If this amount of fruit were expressed in terms of the California method of packing and shipping it would represent more than 1,750,000 boxes, or about 6,000 carloads. In the early days of the industry there were no precedents to follow that were applicable to the handling of the lemon in California. The pioneer growers made many mistakes. Each step forward in the culture of the groves and in the handling and shipment of the fruit was gained by costly experience. Groves were located in unsuitable places, on frosty areas, on ungenial soils, in localities dependent upon an inadequate supply of irrigation water, or on soil that was overcharged with alkali. The growers had to learn about the handling of the soil, the irrigation and fertilizing of the crop, and the maintenance of soil fertility by cover crops and other sources of humus. The methods of pruning have only recently begun to emerge from a chaotic condition. The losses from decay until recently were so large and so universally expected that the California lemon was generally supposed to have poor keeping qualities, and dealers were cautious about handling the fruit. The American lemon industry is located principally in southern California, which includes the counties south of the Sierra Madre mountains. The most important region north of these mountains is in Tulare county. The lemons imported into the United States are grown principally in Italy, the fruit coming mainly from May to September from the island of Sicily, with a small quantity from the vicinity of Naples. A few lemons are imported from Spain, Mexico and the West Indies. The industry is being developed to a limited extent in Cuba and Porto Rico. The lemon is shipped from California every month of the year. The distribution is regulated somewhat by holding the fruit picked in winter and spring in common storage for several weeks or months before shipment. The lemon tree when handled properly is ever bearing, a tree containing at any time fruit in all stages of development from the blossom to the ripe lemon. The fruit ripens most abundantly during the late fall, winter and spring, the heaviest harvest occurring from February to June in the coast

THE SAFE WAY TO BUY PAINT.

Property owners will save a deal of trouble and expense in keeping their buildings properly painted, if they know how to protect themselves against misrepresentation and adulteration in paint materials. There's one sure and safe guide to a pure and thoroughly dependable White Lead—that's the "Dutch Boy Painter" trade mark which the National Lead Company, the largest makers of genuine White Lead, place on every package of their product. This company sends a simple and sure little outfit for testing white lead, and a valuable paint book, free, to all who write for it. Their address is Woodbridge Bldg., New York City.

IN THE OLD MILITIA DAYS.



"Captain, you will appear on the parade ground with your company at ten o'clock for inspection." "Sorry, colonel, but you'll have to postpone it till to-morrow! I promised my wife that she could use the cannon to-day for a churn!"

TEN YEARS OF BACKACHE.

Thousands of Women Suffer in the Same Way.

Mrs. Thos. Dunn, 153 Vine St., Columbus, Ohio, says: "For more than ten years I was in misery with backache. The simplest household completely exhausted me. I had no strength or ambition, was nervous and suffered headache and dizzy spells. After these years of pain I was despairing of ever being cured when Doan's Kidney Pills came to my notice and their use brought quick relief and a permanent cure. I am very grateful." Sold by all dealers. 50 cents a box. Foster-Milburn Co., Buffalo, N. Y.

So Much Alike.

A curious story went the rounds some little time ago about a lovely foreigner, one of whose verbal slips gave King Edward occasion for a hearty laugh. A very lively personage, with a delightful accent, she made such a favorable impression upon the king that he asked her to be his partner at bridge. "But, sir," she said, "I really don't know how to play." The king would take no denial, however, and she became rather embarrassed. "I assure you, sir," she said, "I don't know the difference between a king and a knave." There was an awkward silence, and then she realized what she had said, and was covered with confusion. The king, of course, laughed it off, and now tells the story with gusto.

Marine Insurance.

Marine insurance is the oldest kind of modern insurance. Its principles were first employed in the fourteenth century by the merchants of Barcelona, in Spain, when that city was the capital of the kingdom of Catalonia and when its hardy mariners were second to none in the world. About the same time, and also at Barcelona, the famous code of maritime laws known as the "consulado del mar" was promulgated, which is the foundation of the present shipping laws of every country.

It Came Off.

The fair bather was in the greatest danger when the heroic rescuer seized her by the hair. It came off. Puffs and coils and waves and rats it strewed the shuddering sea. For a moment the rescuer was dazed. Then he grasped the tiny knob of real hair that remained on the lady's head and drew her into shallow water. Did she thank him for saving her life? She didn't.—Cleveland Plain Dealer.

"THE PALE GIRL."

Did Not Know Coffee Was the Cause.

In cold weather some people think a cup of hot coffee good to help keep warm. So it is—for a short time but the drug—caffeine—acts on the heart to weaken the circulation and the reaction is to cause more chilliness. There is a hot wholesome drink which a Dak. girl found after a time, makes the blood warm and the heart strong. She says: "Having lived for five years in N. Dak., I have used considerable coffee during the cold climate. As a result I had a dull headache regularly, suffered from indigestion, and had no life in me. "I was known as 'the pale girl,' and people thought I was just weakly. After a time I had heart trouble and became very nervous, never knew what it was to be real well. Took medicine but it never seemed to do any good. "Since being married my husband and I both have thought coffee was harming us and we would quit, only to begin again, although we felt it was the same as poison to us. "Then we got some Postum. Well, the effect was really wonderful. My complexion is clear now, headache gone, and I have a great deal of energy I had never known while drinking coffee. "I haven't been troubled with indigestion since using Postum, am not nervous, and need no medicine. We have a little girl and boy who both love Postum and thrive on it and Grape-Nuts." "There's a Reason." Name given by Postum Co., Battle Creek, Mich. Read, "The Road to Wellville," in pkgs. Ever read the above letter? A new one appears from time to time. They are genuine, true, and full of human interest.

ABOVE ALL AFFAIRS OF STATE.
Small Caller Absorbed Interest of Grover Cleveland.

There are many stories told of our late ex-president, Grover Cleveland, to illustrate his dual nature, as a man of iron or of velvet, as the case seemed to demand, but one instance, related by a man of affairs in private often, has never until now appeared in print. He had called on the president at a

late hour in the day and had discussed with him weighty matters of policy and statesmanship, and was just about to conclude the interview and take leave, when an almost imperceptible knock was heard upon the door of the private office, the most interesting object in which is the handsome desk made from the timbers of Sir John Franklin's ship Resolute and presented to the United States by Queen Victoria personally. Mr. Cleveland called: "Come in," but the soft rapping still kept up, un-

til he arose and went himself to the door to investigate. As it opened the White House baby, then "Miss Esther Cleveland," in the arms of her nurse, stood revealed, and her wet fist, in the hand of her nurse, revealed the source of the knocks. In a moment there was a transfer; and Mr. Cleveland came back to his desk, introduced his small daughter, and, opening a lower drawer on the left side of the historic desk, took from it a handful of toys for the baby to play with. The friend who made

the visit said that the scene was only paralleled in his mind by the well-known portrait of Abraham Lincoln and his son Tad, long a classic in the field of domestic art. **Love Is Hysteria?** A South Norwalk, Conn., dominie is quoted as declaring that "love is hysteria." Of course, it is, but why does the clergyman object to it on that account? It is not only hysteria, but it is a high fever, a cold chill, nervous prostration and acute neuralgia, al-

ternately. There's what makes it interesting, and in any event, desirable. —New York Morning Telegraph. **The Terror of the Meter.** With a family of half-grown children it is often difficult to keep the gas bills within reasonable limits. We hit upon the plan of sending each child to look at the meter while the gas was burning. The steady tick-tick-tick as the indicator moved around the dial impressed upon their minds the idea that burning gas is burning money.

and a decided improvement has been shown.—Harper's Bazar. **Monument to Paupers.** Ernesto Nathan, the Syndic of Rome, says the Frankfurter Zeitung, recently had erected at his own expense a marble shaft in the potter's field of the Roman cemetery. The inscription states that the city, mindful of its obligation to the industry of the lowly, remembers those whose toll being over have fallen into nameless graves.