

THE CAT'S USEFUL WHISKERS.

We are apt to think that the cat's ability to see in the dark is due entirely to its eyes, but competent authority assures us that the feline's power in this respect is due almost as much to its "whiskers." These delicate hairs that project from the muzzle of the cat family are wonderful mechanisms, says Harper's Weekly. Each one grows from a follicle or gland, nerved to the utmost sensibility. Its slightest contact with any obstacle is instantly felt by the animal though the hair itself may be tough and insensible. The exaggerated whiskers on the muzzle often project to such a distance that from point to point they indicate the exact width of the body of the beast. Consider the lion stealing through the jungle at night in search of prey, when the faint stir of a twig gives alarm. The lion's whiskers indicate through the densest thicket where the rustling leaves and boughs would betray his presence. Wherever his head may be thrust without a warning from the vibrations there his body may pass noiselessly. It is the aid given him by his whiskers, in conjunction with the soft cushions of his feet, that enables him to proceed as silently as the snake.

The hour of dining has advanced with the centuries. Froissart mentions waiting on the duke of Lancaster at five in the afternoon after he had supped and was about to go to bed, and the preface of the Heptameron shows that the queen of Navarre dined at ten o'clock in the morning. From the Northumberland Household Book, dated 1512, we learn that the ducal family rose at six, breakfasted at seven, dined at eight, supped at four, and retired for the night at nine, says the London Chronicle. Louis XIV. did not dine till 12, while his contemporaries, Cromwell and Charles II., took the meal at one. In 1700 the hour was advanced to two; in 1751 we find the duchess of Somerset dining at three, and in 1760 Cowper speaks of four o'clock as the fashionable time. After the battle of Waterloo the dinner hour was altered to six, from which time it has advanced by half-hour stages to eight. So that in 400 years the dinner hour had gradually moved through at least ten hours of the day.

American habits and customs, especially American clothes, are apparently becoming fashionable among Germany's young men. Young Germany no longer contents itself with the sartorial products of the Fatherland, says the London Answers. The exaggerated university suits of American cut and manufacture please them better, and most of them are never more genuinely flattered than when they are mistaken for "Amerikaner." German clothiers have, in consequence, been obliged to lay in large stocks of American clothing to meet the growing demand.

England's new torpedo boat destroyers will be given names from Shakespeare and Scott. So, in the near future, we may expect to see "The Merry Wives of Windsor" engaging in battle, accompanied by "The Two Gentlemen of Verona," "The Lady of the Lake," and "The Antiquary." The war correspondent of the future probably will be chosen from among the book reviewers.

The advice to substitute beans for meat will receive a setback through the explosion of some boiling beans in a Colorado town. The beans tore the stove to pieces and threw the owner of the house out of the kitchen door. With the militant spirit abroad as it is, the adoption of beans as the principal article of diet had best be postponed.

A Chicago girl while playing the piano was struck by lightning although not seriously hurt. But whether the casualty is to be viewed as accident or retribution is a question the neighbors are discussing—that is, of course, if the girl was the average performer and the neighbors average neighbors.

A Texas girl announces her willingness to marry any man who will consent to have the ceremony performed in a cage of lions. And all we have to say is that the man who takes the offer will deserve anything that happens to him during the ceremony and afterward.

It is now announced that a disgruntled employe destroyed Mona Lisa's inscrutable smiles with sulphuric acid. Which settles the inscrutability of the smile for all time, as the pleasure of no mystery can survive a sulphuric acid bath.

The automobile, says a St. Paul preacher, has done more for sin than any other one thing. Let us not be discouraged. Somebody is almost sure to discover a method of keeping tires from being punctured.

Although that New York broker who lost his money and went on the stage is utterly unable to act, he need not let such a trifle disturb his histrionic ambitions. Some of our most successful players are in the same boat.

A French stowaway, given the freedom of the ship after his discovery, was clapped into a dungeon cell because he insisted on flirting with all the females aboard. At sea in his love affairs, maybe.

GUADALAJARA'S DOOM is NEAR



GUADALAJARA

BECAUSE the crater of a boiling, seething volcano is directly beneath this city of 150,000 souls, in all probability Guadalajara, which is the state capital of Jalisco, will be moved to a point some distance from what scientists say is to be one of the most active volcanoes on the entire American continent. The subterranean volcano has caused 340 earthquakes in the last three months. Twice, once in July and once in August, the shocks became so heavy that they practically depopulated the city for nearly a week on each occasion. Seven scientists headed by Prof. Ramon Leon of the seismographic branch of the National Observatory have just finished a report on the quakes and their causes. They declare that Guadalajara, with its 150,000 inhabitants, is built in the crater of a giant volcano which was active about 1,800 years ago. Below the city, they add, is the center of this crater, in which a new crater has formed, likely to break out at any time.

They warn the residents of Guadalajara that beneath them is an enormous caldron of molten stone and burning coal and sulphur combined with gases which come from still further down in the bowels of the earth. The report urges that the city be moved, or that at least the inhabitants abandon it immediately. The center of the crater is located a trifle west of the main plaza and practically under the state palace or capitol of the state of Jalisco.

Scientific measurements, soundings with a diamond drill and experiments with the gases which have been pouring through cracks in the earth in the city are given, with detailed results of the study. Professor Leon and his associates deduce that as surely as science can forecast the city will be destroyed by this buried crater, which they say is enormous, though they admit that they cannot with accuracy foretell when the volcano will burst forth.

They infer that the destruction will come within a year, for they say that the volcano, whose caldron is placed 300 feet below the surface of the earth, is what is known as ripe for the explosion. The report goes on to say that this is the first instance in the history of the world in which a city has been located over the crater of a volcano and that the heat from the buried bowl of fire accounts for the warm climate of Guadalajara, which, while 5,000 feet above the sea, has the temperature all the year round of a coastal resort, with practically no change between summer and winter.

Increasing heat noticed in this part of Jalisco for the past year and recorded by the local branch of the government weather bureau first gave Professor Leon the idea that subterranean fires were responsible for the climate. Then came the earthquakes, the opening of fissures in the main streets of the capital of the state, and the escape of large volumes of sulphur laden gases from these fissures.

Fuller publicity is being given to the report here, and government officials are seriously considering the removal of the capital to Juanacatlan on the Santiago river.

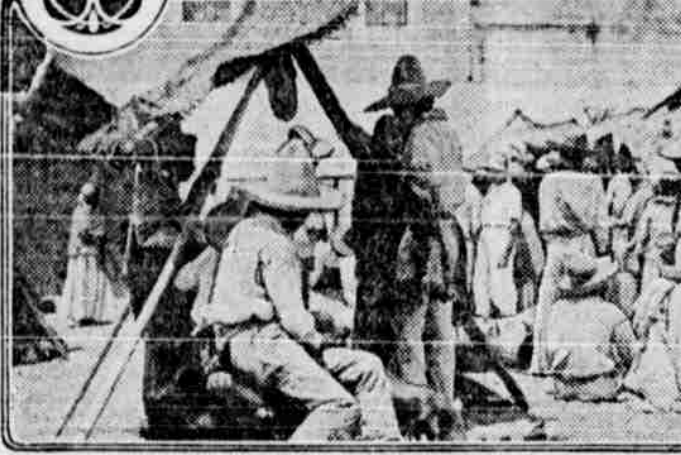
The removal will follow the taking away of all the government papers, which have been transferred to Mexico City already. The state palace or capitol in Guadalajara is one of the largest and most beautiful of all the buildings of its kind in Mexico and cost approximately 7,000,000 pesos. It fronts on the main plaza or public square and occupies one entire end, being nearly three hundred yards in length.

Guadalajara is the second city in population, ranking next to Mexico City in population and above it in wealth, being second only to Merida, Yucatan, in this respect. It is the market place of two of the richest states in Mexico, Jalisco and Michoacan, and is commonly called "The Pearl of the Occident," while the surrounding territory is known as the granary of Mexico.

For these reasons the people who live here are loath to leave the city. The Catholic church will be especially hard hit if the removal idea is carried out. The cathedral, which is one of the finest in Mexico, contains more gold and silver ornaments than any other church save the cathedral of Puebla, and has in addition the distinction of having been completed in 1618 and of having been almost destroyed by an earthquake in 1760. It was severely shaken in 1818, and cracked in three places by the first series of the 340 quakes of the past three months. In June, 1912, The towers are 200 feet high, Byzantine in construction and the structure occupies one of the most valuable pieces of land in Guadalajara.

The most precious art possession of the entire republic is contained in the sacristy of the cathedral. It is Murillo's painting of the "Assumption of the Virgin," and it hangs directly above the entrance. In point of color and freshness this painting is better than any Murillo now known to the art world of Europe or America, while the

from the EAST



MARKET SCENE

work is one of the best examples of the famous master.

The beauty of this canvas has attracted thousands, and not a few offers have been made to purchase it, one of \$250,000 coming from a New York financier. Seven times thieves have attempted to cut it from its frame, but each time they were foiled by the vigilance of the priests. Four of the would-be robbers were captured and are now serving terms or have died in the prisons of Jalisco.

In June, 1818, when the cathedral was nearly destroyed, the section of wall on which this painting is fastened stood through all the quake. In June, 1912, when a crack more than a foot wide was opened in the top of the wall above this painting the crack ran downward almost to the end of the mahogany frame and then divided into two cracks or fissures, encircling the canvas, but never touching it. The Indians believe, and the priests aid them in this belief, that nothing can harm "la santissima Virgen de Guadalajara," and so far the terrific tremblers have failed to injure it in the least.

The canvas was given to the Guadalajara diocese by the king of Spain shortly after the Peninsular war as a mark of gratitude for the large sums of money turned over to the crown by this branch of the church in Mexico and it was hidden ten years in a niche in the cathedral to keep it from the French at the time of the occupation of Mexico.

"The top of the bowl of the crater beneath Guadalajara," said Professor Garcia while here, "is approximately 1,500 feet in diameter, but the actual bowl is much wider. I should say it is a quarter of a mile in width, and how deep no man can say."

The composition of the escaping gases indicates that they are coming from burning coal and sulphur in a molten state, precisely the combination which causes the eruptions of Mount Colima, the only active volcano on the North American continent, about 90 miles due south of Guadalajara. Undoubtedly Colima, which blows off in a regular eruption about the middle of every September, is connected in some unknown manner with the hot springs, miniature geysers and many dead volcanoes which cover the territory reaching from the southern end of the Sierra Nayarit, about 60 miles north of Guadalajara, to the sea at Manzanillo.

"I would not care to prophesy, but I believe that the annual fall eruption of Colima will see some sort of disturbance here, though it may be only heavy earthquakes and not the breaking out of the volcano. We ran diamond drills so deep into the earth in the center of Guadalajara that they came back almost red hot, no matter how slowly we operated them. We lowered the best and they recorded heat beyond the melting point of lead."

"We analyzed the gases coming from the fissures in various parts of the city and we found that they were not surface gases, coming from pockets in the earth and released by the earthquakes, but that they exhibited all the characteristics of gases which have been taken from the vents of Colima and Popocatepetl volcanoes."

"Lastly we traced the scores of earthquake shocks which were felt here during the ten days of our stay and we found that every one was volcanic in its origin and not caused by the slipping of faults in the earth, as are some of the coastal quakes of this country and the United States. All were trepidatory, that is to say, up and down quakes, usually local in character and not oscillatory, as are most earthquakes which extend over a large section of the world's surface."

"This was our first hint that the quakes were volcanic—the confined area over which the tremors were felt. Then the seismograph, which was brought here from Mexico City and set up, indicated with its needle finger that the source of the shocks were almost beneath the city. 'We knew the quakes were volcanic and con-



STREET SCENE

lined to an area not more than 100 miles in diameter. Neither Colima nor any other volcano in Mexico was in eruption. We had to look closer to Guadalajara for the cause. We made a trip through the surrounding country and discovered that the city lies in the center of what was once a volcano.

"The walls of this ancient crater are fully 15 miles on all sides from the city. From the character of the stone composing these walls, their evidences of fire and the condition of the lava fragments which litter the bowl of the crater, I should say it was last active from 1,800 to 2,000 years ago.

"The mountain range which surrounds the city on all sides is the wall of this ancient crater. On the north and east, you know, the plateau of Mexico slopes downward to these ranges; on the west and south the ancient volcano wall slopes away 5,000 feet downward through some 70 or 80 miles to the Pacific ocean. This was an ideal location for a volcano, and precisely similar to the location of Colima, still active, and Orizaba, which, while still smoking, has not been active for 400 years.

"Now, in the center of this ancient crater, which must have been larger than any volcano of which we have knowledge at the present day, was the blow hole, or vent. Over this blow hole the Spaniards who conquered Mexico set up the city of Guadalajara, little thinking that they were selecting a veritable death trap for their settlement. Slowly through the eighteen or twenty centuries since it was last active this central melting pot of the old volcano has been forming a new and equally powerful mass of molten material, which sooner or later will blow Guadalajara off the face of the earth.

"An earthquake, landslides, cloudbursts or other elemental disturbances filled the opening of this ancient crater with a cap 300 feet in thickness. This cap, much thicker than that which any other volcano has had to blow off, is the only thing that has saved Guadalajara from destruction year ago. How long it will protect the city now is a question no man can answer and prove the answer. It may be years; to my mind it is a matter of months; in any event, I believe that the only way to save the capital is to move it bodily and move it while there is time to do so."

Aside from its scientific interest, and from the unique situation of a city built on a volcano, there remains the very practical problem which confronts Guadalajara—the job of moving a city of 150,000 souls to a new location. So far, Juanacatlan is the most likely candidate for the honor of being the capital of Jalisco, but there are a number of other towns out of range of the buried crater, all of which will be considered before the change is made.

All sorts of wild propositions to tap the crater and draw off the menacing fires have been made to the authorities of Guadalajara, but the men of science say there is no way to curb the demon of fire caged by nature below and that the city must be removed or it will be destroyed. One man proposed to turn the waters of the Santiago river into a huge tunnel, driven to the heart of the crater, but the earthquake specialists quickly informed the city officials that this merely would cause an immediate and more terrible explosion than if the crater were left to itself.

Another man offered to tunnel into the crater from a point five miles outside the city, and on the slightly lower or western side, and let the contents of the crater flow out. He was disappointed when informed that his tunnel would have to be about 500 feet in diameter and that the heat would be so great a hundred feet from the inner end of the tunnel that human beings could not endure it.

Thus it appears that unless a "surgeon for earthquakes" appears, and that very shortly, Guadalajara will have to pick up her houses and move to a new location. The result to real estate owners and men who have bought or built some of the fine blocks which mark the main streets of the Jalisco capital will be financial ruin. Some of these men profess to doubt the word of the scientists and to believe that the city is safe. They will throw their influence and their votes against moving the city unless they can be convinced that there is a very real personal danger for themselves and their families.

PATERNAL WISDOM.

"Son, are you really determined to get married?"
"Yes, father."
"And you feel that you can support a wife?"
"Oh, yes."
"Well, just remember that the dictionary says 'to support' also means 'to endure.'"

A PROFESSIONAL TRICK.

The Young Lawyer—How do you expect to prove that your client is mentally irresponsible?
The Old Lawyer—Easy enough. His wife has preserved all his old love letters and I'm going to read 'em to the jury.

Should Be Removed.

"You say he is useless in his present position?"
"Yes."
"How useless?"
"Oh, about as useless as a lemon seed in a glass of iced tea."

Had to Keep It Closed.

Physician—You shouldn't sleep with your mouth open.
Patient—My dear sir, your advice is entirely unnecessary, as I live in a flat and I sleep at home.

IDEAS FOR HOME BUILDERS

BY WM. A. RADFORD.

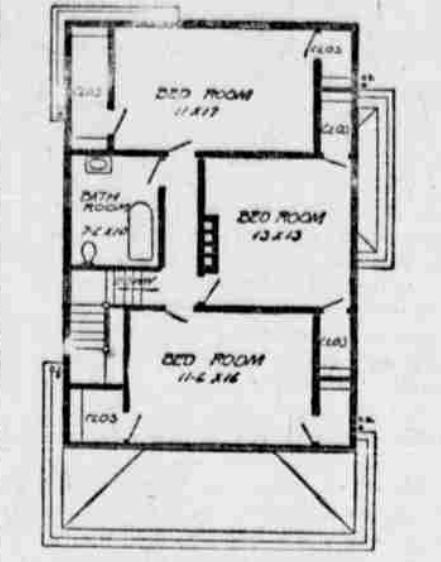
Mr. William A. Radford will answer questions and give advice FREE OF COST on all subjects pertaining to the subject of building, for the readers of this paper. On account of his wide experience as Editor, Author and Manufacturer, he is, without doubt, the highest authority on all these subjects. Address all inquiries to William A. Radford, No. 178 West Jackson boulevard, Chicago, Ill., and only enclose two-cent stamp for reply.

This is one of the best low-cost houses ever built. It is medium in size as well as in cost—a sort of compromise between the large house, large rooms, and high ceilings of twenty or thirty years ago and the little, narrow, contracted, close-communion affairs that are being built in order to save expense because of the high price of all building materials. The size on the ground is 26 1/2 feet in width by 44 1/2 feet long, which is six or eight feet longer than most new city houses that are built on this general plan.

There are fashions in houses the same as in other things. Some of the fashions are all right, but some are nothing but silly fads. One of these late fashions is the dining-room extension, which is built something after the fashion of a bay window, but is very much wider and has square corners. Sometimes these extensions have windows in the ends, but in such cases they have the appearance of being overdone. Such an addition to a dining room is intended to let in an abundance of light, as well as to add to the appearance of the room, and is one of the most commendable new building features.

In some of these extensions the windows are placed high up; but there is an advantage in the deep window, especially if you want to use the space for a window seat. When the windows come low down, a wide seat may be built just a little below the window stools, which, if carefully upholstered, makes a very pleasant lounging place both in winter and in summer. These extensions must be very carefully built and thoroughly papered, and the paper must be very carefully put on so as not to leave any cracks for the wind to blow through. Where you have so much glass surface, the radiation of heat goes on very rapidly. For comfort in using such a window seat a little careful

attention, and one for each grate; and these grate flues are ventilators of the very best possible type. They are at work night and day, carrying out the foul air that is so objectionable. Ventilation will receive more attention as the scientific treatment of tuberculosis and pneumonia becomes better understood. These diseases are caused or aggravated by lack of fresh air; and they are cured, if cured at all, only when the patients are able to breathe abundantly air that comes directly from outdoors. Sometimes

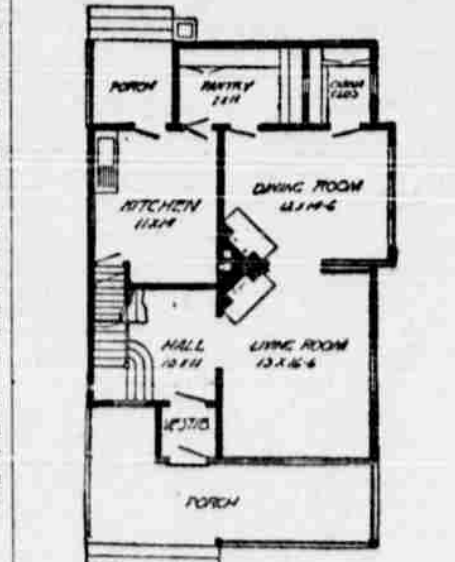


Second Floor Plan.

severe cases have been cured by leaving the window in the sleeping room open day and night. When people get to understand the value of fresh air we shall have better ventilated houses. In the meantime, if we can smuggle in a couple of extra flues like this, we may be able to save some lives without anybody knowing it. The front hall is no larger than necessary. It is shut off from outdoors by a vestibule with double doors, so that it may be kept warm. Each bedroom has two clothes closets—something that is unusual, but an improvement that will be appreciated. Another splendid feature is the size of the bathroom. For a hundred years people have been learning to pay more attention to bathrooms. There was a time when Americans actually felt



systematic attention when building is especially valuable. You would hunt a long time before finding another such a dining room in a low-cost house. The room is 12 by 13 1/2 feet, but is larger than the size indicates, because of the large china closet and the extra large pantry, where a great many things that are commonly kept in the dining room will find more convenient places. In fact, it is not absolutely necessary to have a sideboard in this dining room.



First Floor Plan.

Of course, a sideboard looks well in any dining room; and, if you want it, there is room between the two doors or on the side against the kitchen. The use of a dining room in a house like this depends very much on how the living room is furnished. Living rooms are used for general purposes more than ever before; so much so that the world "parlor" has almost gone out of use in some sections of the country. But there are women yet who want a parlor or a living room so elaborately furnished that no one feels comfortable in it. It is in just such houses that the more ordinary dining room comes in for a great deal of solid family enjoyment, and this is one reason why a good, comfortable window seat in this dining room projection would be appreciated. The fireplace, being opposite the big window, makes a combination that for convenience and luxurious comfort is hard to beat.

One great advantage in this house is the large central chimney. A chimney like this is worth a great deal of a dwelling. There are four flues—one for the furnace; one for the kitchen

ashamed of having a bathroom in the house. It was generally a little affair just big enough to get into; and it was placed in the most inconvenient part of the house, and, if it had a window at all, it was a little nine-inch affair set up almost out of reach. However, as people become better educated they are appreciating more and more the advantages of a bathroom for health and comfort. One important consideration in arranging a bathroom is to have it over or near the kitchen, so that the same pipes that supply water to the tub and washstand will supply the kitchen sink; and the same rule works in regard to the waste-pipes. It not only effects a saving in first cost, but it is better for several other reasons. The shorter the pipes are, the better they will work; and the more condensed the space, the more easily they are kept from freezing in the winter time.

The kitchen is large enough, and it is both light and airy because of the windows on the side and the door in the end. This door opens onto a very comfortable back porch that can easily be screened from flies and mosquitoes. It is estimated that this house can be built where conditions are all favorable, for about \$2,000, without heater, plumbing, mantel or lighting fixtures.

Innocence of Kittens.

An English naturalist has raised the question whether kittens are born with a propensity to eat mice. Three Manx kittens kept in a cage for six weeks with a mouse, which was introduced when they were five months old, made no attempt to injure it, although they were hungry, until the mother cat was introduced and showed how mice should be treated. More than one observer has noted the disposition of kittens to attack mice, but the question whether mouse-killing is instinctive or educational with them can hardly be said to have been settled.

His Proud Boast.

"Ah!" interestingly ejaculated the city visitor, "and that is your oldest inhabitant? A venerable figure, truly. I fancy he looks back on a life as full of useful achievement as it has been long?" "Well, not to hurt, exactly," a trifle pessimistically replied the landlord of the Skeedes tavern. "About all he's ever done that I know of is to brag that he had a second cousin a good many years ago who got arrested on suspicion of being Jesse James."—Kansas City Star.

Vending Devices in Germany

Automatic devices of every description have supplanted small tradesmen and little shops to a great extent in Germany. Germany might almost be called the "land of the automat." Furthermore, these devices are popular. At all postoffices, stamps and post cards are sold by automatic machines; at the railway stations, platform tickets and suburban tickets are sold by automats; automat restaurants, where one can secure a glass of beer, wine, or liquor, a sandwich, square meal, cup of coffee, chocolate, etc., by dropping a coin in the slot, abound everywhere. Every city of 15,000 or 20,000 population and over has from one to several hundred such restaurants. At railway stations automats sell chocolate, candy, picture post cards, and even a little kit of "first aid to the injured," containing a few drops of

pain killer, bandages, needle, thread, etc. Ten pennings in a slot opens the doors of toilet compartments, delivering a towel or piece of soap. A coin in a slot obtains a cigar, a tune from a mechanical music box, a pair of shoestrings, a collar button, a visiting card, name plate for suitcase, tells one's fortune or weight, etc. I could never draw the line between meanness and dishonesty. What is mean always grades into dishonesty. —G. MacDonald.